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Prime Finance Business Advisory Services

Planning for Change:

Understanding the Hedge Fund Maturity Model

Citi Prime Finance

Synopsis:

As the Alternatives industry prepares for increased capital flows, Investors and Regulators look increasingly at hedge funds' organizational and infrastructure maturity

As 2011 approaches, Hedge Funds are poised for a new dialogue which will probe underneath the often well guarded covers of a manager's organizational, operational and technology makeup. Both end Investors and Regulators, including the rapidly growing SEC Asset Management Unit, are refining their understanding and perspective on what constitutes "best practice" in a corner of the Asset Management industry that has grown up rapidly, and experienced and survived the lows of the credit crisis period.

Global hedge fund industry AUM is currently near the $2 Trillion mark again. New managers are emerging from proprietary desk 'spin outs', a revitalized start-up market and private equity expansion into asset management. This together with ever growing due diligence on existing funds is increasing the entire industry's focus on how a manager is structured. Managers able to demonstrate a robust organizational, operational and technology infrastructure are able to cite this as a differentiator in terms of securing new mandates and growing capital.

How should a hedge fund be organized? What should the major functions & roles within a manager be? Which departments are required as a Fund grows balances? How does globalization affect the operating model and controls? What systems architecture is required to adequately support Investment Management and trading, and when do the sunk infrastructure costs start to impact the viability of the manager? What level of corporate governance is required to ensure succession and growth?

These questions, the surrounding debates and other concerns are being discussed and analyzed within hedge funds and by consultants, investors and regulators, but there are no official guidelines. Moreover, the answer to key questions change based on the size of the manager and their assets. Since the demise of Lehman in 2008, all sides of the industry have been in a reactionary state of survival and stabilization, with key players needing to stop and reflect on the evolving direction of "Hedge Funds".

This **"Hedge Fund Maturity Model"** whitepaper takes a best practices approach and lays out a framework and taxonomy for discussing hedge fund evolution. This work is based on detailed analysis and benchmarking of the different types of funds that exist in the new landscape. It attempts to highlight the key organizational, operational and technology transitions that take place at different stages of a firm's development and provides a template for understanding the inner workings of a manager as AUM grows and as the firm's scale of operations advances.

Citi Prime Finance's Business Advisory team has based this model on a comprehensive profiling exercise. This maturity model will become the foundation for our new full range of business advisory services covering management consulting, operational consulting, start-up services, and technology consulting.

For more information on our services, please contact prime.advisory@citi.com

Positioned with a view across funds of all size and maturity, Citi Prime Finance Business Advisory group has leveraged more than 75 in-depth hedge fund interviews over the past 3 years to postulate and confirm a model that describes the major organizational, operational and technology changes that occur as hedge funds mature and accumulate assets under management.

The goal of this paper is to lay out for the chief operating officer and others within the hedge fund community the phases of our model so that they can evaluate their own organization against the major milestones achieved in each maturity step. With this foundation they will be better positioned to understand the transition challenges that may prompt a fund to consider initiating changes to advance to the next stage.

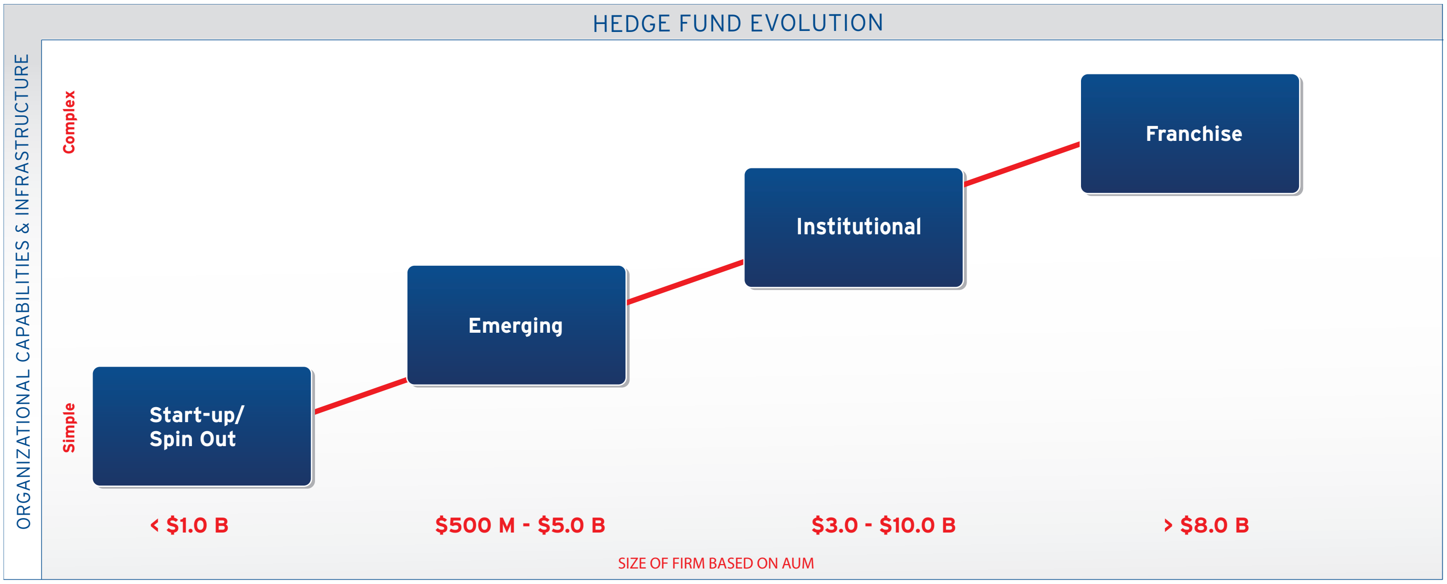
Our purpose in providing this view is to lay a foundation for dialogue between our existing and prospective hedge fund clients and our business advisory team, so that we can help funds address the challenges that occur throughout their evolution. Our goal is to be a strong strategic partner to our hedge fund clients for the duration of our relationship and the intention of this research is to act as a guide for managers reflecting on and planning for changes within their firm.

Most organizations will not fit cleanly into one "model" and will have characteristics of multiple stages of development and evolution. Therefore, the document is not intended to be "prescriptive" and should be considered a framework for discussion and debate. Also, although we identified broad AUM bands as being linked to the different stages of a firm's development, we found that the parameters can vary widely and should just therefore be used as indicative ranges.

One of our major observations across our set of interviews is that prime broker consulting teams offer a lot of input and guidance in the first 1-2 years of the hedge fund's existence and then provide little support as the fund matures. Our objective is to use this paper as an introduction to showcase our understanding and ability to address challenges that occur not only during the launch and preliminary build stage of a fund, but across its entire lifespan as it evolves its franchise.

As will be discussed, we have identified four distinct stages of hedge fund maturity. These are presented in Chart 1. The organizational, operational and technology hallmarks and challenges of each stage will be discussed in the coming sections.

Chart 1:
Hedge Fund Evolution



Maturity Model #1: Understanding the Start-Up or Spin Out Hedge Fund

"Start-up" has become a somewhat misleading term in recent years. Rather than conjuring the image of the lone trader and a business partner, it is far more likely that today's start-up funds are spin outs from established hedge funds or from proprietary sell-side trading desks, launching their fund sometimes with as much as $500 million to $1.0 billion in capital.

Regardless of the size of launch assets, most start-up funds share a common philosophy. Their organization is set up to achieve speed to market. This attribute and other descriptors of the start-up or spin out fund are highlighted in Chart 2.

The chief investment officer or portfolio manager at a start-up/spin out looks to begin investing as soon as possible and for the early period of the fund, the entire team is focused on facilitating establishment of the fund's track record. The desire to "look institutional" to investors but get up and running as quickly as possible is a complicated balance that requires a precise strategy and a detailed understanding of roles and functions.

Organization

Chart 2:
Start-Up & Spin Out Manager Characteristics

INVESTMENT

- Primary focus is supporting the Chief Investment Officer / Portfolio Manager & establishing fund performance track record
- Smaller start-ups begin with a single asset class which is typically handled solely via Prime Brokerage relationships
- Proprietary desk "spin outs" may trade a broader portfolio and middle-office outsourcing is often considered in addition to the prime broker

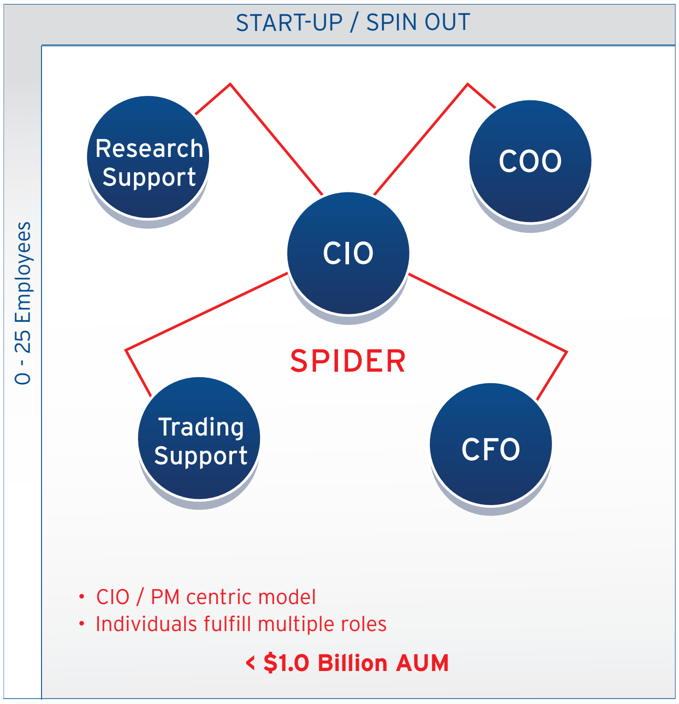
CAPITAL RAISING

- With the emphasis on initial capital raising the Chief Investment Officer / Portfolio Manager is required to directly handle most investor meetings

FINANCING & LEVERAGE

- Financing is often concentrated with one main prime broker although since 2008 most new funds are starting with two or more relationships
- Leverage is limited to traditional leverage techniques provided by the Prime Broker relationship

Chart 3:
Illustrative Organizational Model for a Start-Up or Spin Out Hedge Fund



In today's environment, there are more partners helping the portfolio manager from the outset. Increased industry focus on due diligence and prospects for enhanced regulatory scrutiny are requiring even start-up or spin out hedge funds to focus on how they will be performing their financial and operational oversight from day one.

Chart 3 illustrates the start-up hedge fund organizational model. As shown, this initial model is similar to a "spider" with the chief investment officer (CIO) or portfolio manager (PM) at the center of the web. Around the CIO are several key individuals who facilitate the day-to-day operations of the firm. For most start-up funds, these truly are a collection of individuals. One fact about start-up hedge funds that has not changed is that there is a tremendous overlap of responsibilities that each founding member must be prepared to support.

Operations

In order to develop the organizational design into a common operating framework, our research has defined five focus areas that all hedge funds must consider as part of their ongoing operations. These areas are "oversight," "capital raising," "investment performance," "capital effectiveness" and "foundation."

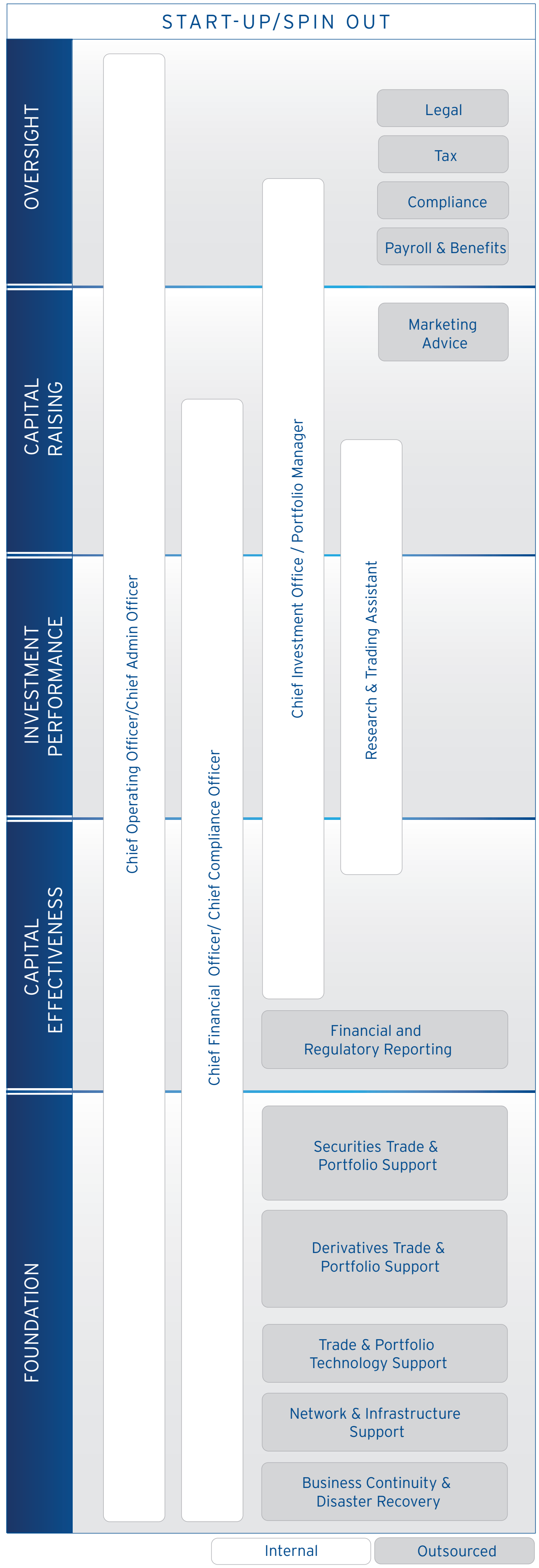
- **Oversight** refers to the effective day-to-day management of the fund and questions regarding legal, tax, audit and compliance.
- **Capital raising** encompasses both marketing efforts to attract investors and relationship management to retain those investors through the fund's ups and downs.
- **Investment performance** includes the idea generation, asset selection and trade execution to increase the fund's capital and deliver returns.
- **Capital effectivenes**s covers risk management and financial oversight of the firm's investments, and optimizing use of the fund's capital, both in short-term and long-term financing structures across different types of funding counterparties
- **Foundation** incorporates the operational support and technology infrastructure required to support the fund's investment and trading strategy as well as maintain its business continuity.

As shown in Chart 4, all major functional roles within a Start-Up or Spin-Out hedge fund span more than one of these five key focus areas. Moreover, functions not within the mandate of a specific individual tend to be outsourced to speed access to that function.

The chief operating officer at a start-up or spin out hedge fund is one of the most critical roles spanning all aspects of the investment life cycle. Oftentimes, this individual has a personal relationship as a trusted advisor to the CIO or PM. This individual tends to focus on all of the non-investment aspects of the fund leaving the CIO to handle the investment related items.

The chief operating officer must consider all five aspects of the fund's operations. They are a key liaison to lawyers and tax advisors looking to structure the fund and its investor terms. They coordinate the establishment of key services such as payroll, benefits, compliance and facilities. They help shape the fund's marketing message to attract and retain investors. They work with the CIO and their trading/research assistants to understand the unique edge that individual brings to the fund and makes sure that the support infrastructure is put into place to handle the fund's trade and portfolio management. They also work with the chief financial officer (CFO) to establish the required oversight on risk and financing to optimally address investor due diligence concerns.

Chart 4:
Start-up / Spin Out Operating Model



The CIO/PM is primarily responsible for the start-up or spin out fund's investment performance, but at this stage of growth this individual is also the key capital raiser, as most investors want to speak directly to the portfolio manager in smaller hedge funds. The portfolio manager must also consider some oversight issues such as the structure and tax implications of the fund and some capital effectiveness concerns such as the best use of the fund's collateral and their risk/leverage profile.

The trading and research assistant supporting the portfolio manager must also support idea generation and execution of the fund's strategy, but in a start-up or spin out, this individual is often asked to support capital raising calls as an additional facet of their job and consider the risk and leverage profile of the fund as a third aspect. If the Fund is focused on a quantitative modeling strategy this function would reside with the research team.

The CFO is focused primarily on capital effectiveness, the fund's risk profile, and financial / regulatory reporting. This individual must also be able to understand and speak to the investment approach and support key considerations such as the selection of the hedge fund's prime broker(s) and fund administrator and the effectiveness of their platforms. For larger start-ups and spin outs, the CFO may also make a decision to contract with their fund administrator or another third-party for middle office outsourcing services to get into place an interim staff to handle expected trade and portfolio activity as quickly as possible. Middle-office outsourcing can be considered for securities, derivatives or both product sets. This allows the fund time to find the right individuals to build its permanent operational staff.

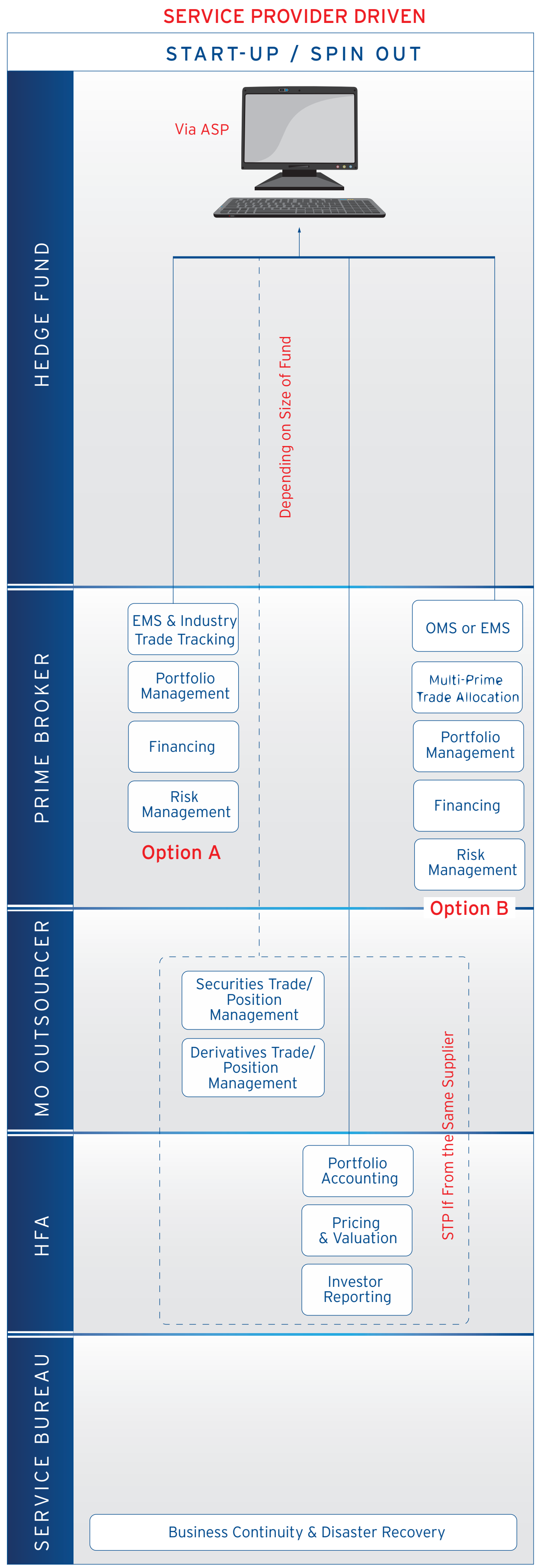
Technology

*As shown in Chart 5, **internal** infrastructure is not a key consideration at a start-up hedge fund. Most start-up hedge funds rely on their prime broker for the provision of key technology, with an eye toward always maintaining the oversight directly within their own organization.*

Our research team identified two models for the types of technology support offered by prime brokers to today's start-up or spin out funds.

The first, more traditional offering has the prime broker providing a stand-alone trading platform to the start-up or spin out fund. This trading platform meets the key requirement for speed-to-market and allows the portfolio manager to be up and running within weeks. Essential reports are generated around this trading platform, but much of the fund's activities are still managed via spreadsheets or offline tools. These platforms allow the manager to connect into the prime broker's financing and risk management tools, but this connection is typically point-to-point between the single prime and the client.

Chart 5:
Start-up / Spin Out Technology Model



The second model for start-up or spin out fund infrastructure support is also provided by the prime broker, but rather than just being focused on the trade aspects of the fund, these platforms look to offer a broader set of functions that allow the start-up to achieve a diversification of counterparts from the outset of their operations.

Prior to the 2008 Liquidity Crisis, start-up hedge funds typically only had one prime broker but this has shifted into a multi-prime model subsequently. For more information about changes that occurred post-2008, please request a copy of our white paper, *The Liquidity Crisis and Its Impact on Hedge Funds.*

Beyond its day-to-day trading activity, the start-up firm's size and the composition of its investment portfolio helps to determine the manner in which it will obtain its middle office and fund administration services.

Most start-up funds or spin outs will rely on their prime broker for trade and portfolio oversight, but if they are larger and/or heavily involved in OTC derivatives, they will often look for a middle-office outsourcing partner to face-off to their primes. In such instances, they will typically seek a fund administrator who is affiliated with that middle-office outsourcing partner in order to achieve straight-through processing of positions and enhanced reporting.

In situations where the start-up fund does not anticipate the need for an outsourced set of middle-office services, they will typically engage with their hedge fund administrator on a more limited basis—looking for bare bones month-end reports and valuations.

Chart 6:
Start-Up or Spin Out Fund Maturity Characteristics

ORGANIZATION

- Key functions all relate directly to the Chief Investment Officer / Portfolio Manager – "Investment-centric model"
- Portfolio manager typically brings on CAO or COO with personal connection or referral to handle fund's non-investment related functions
- Overall size of firm small with individuals fulfilling multi-disciplinary roles
- A CFO and Compliance Officer is added as the fund track record builds with all U.S. funds >$150m AUM required to register with SEC as part of the Dodd-Frank reforms

OPERATIONS

- Foundational services provided by outside partners
- Daily oversight performed by CFO/COO function using externally provided platforms
- For spin outs using a middle office outsourcing arrangement the fund administration is often provided by same firm for improved efficiency

TECHNOLOGY

- Trading & operational platform provided or funded by the primary prime broker partner for speed to market
- Internal infrastructure is limited to just basic real-estate and network connectivity with few if any dedicated IT resource

Chart 7:
Start-Up or Spin Out Fund Transition Signals

INVESTMENT

- Track record established & fund is seeking additional capital
- Fund strategy is now adding more complex derivatives & a broader asset class mix to the portfolio
- Fund is reaching a size where they can handle multiple counterparty relationships and are seeking broader execution options

CAPITAL RAISING

- Although track record and fund size is attracting interest from investors, the operational and risk management infrastructure is constraining growth
- Potential investors are asking to see more robust operational controls and assurances on key oversight functions before committing capital

FINANCING & LEVERAGE

- Fund is developing a more sophisticated approach to leverage as the breadth of the portfolio increases and the financing options expand
- Fund is negotiating short term funding with more than one prime broker counterparty and price comparison is becoming a key function

What is important to note, is that in the start-up or spin out phase, there is little need for dedicated IT resources. At this point in time, even basic system administration and disaster recovery is likely to be contracted with a service bureau or vendor rather than handled internally.

Summary

Chart 6 summarizes the organizational, operational and technology characteristics of start-up or spin out hedge funds. Managers in start-up mode, including spin-outs from investment banks or newly seeded from established managers, face a broad array of infrastructure decisions from the onset that are influenced by time to market and an urgency to begin a track record of performance. Firms and their owners recognize the need to build control and structure from the beginning. With higher returns often delivered by the newer funds, investors are on the hunt for the perfect mix of agile youth and institutional control.

As start-ups or spin outs begin to have sufficient track records to push their performance, the firms need to make specific improvements in order to meet investment and investor goals. Certain 'transition signals' become apparent and a part of the daily discussion on next steps. For hedge funds at this point in their development, a common set of concerns can be cited to signal the need to transition to the next stage as shown in Chart 7.

As start-up or spin out funds begin to establish their track record and grow their assets, they address many of the transition challenges highlighted in chart 7. As the hedge fund "emerges," there are several changes that take place around their investments, capital raising and financing/leverage.

From an investments perspective, managers frequently shift and re-balance the functions within their organization. No longer is the CIO or PM the centerpiece, but instead the firm begins to place an increased emphasis on building out investment oversight and operational support.

With a developing track record and increasing external interest from investors, the management team begins to focus on increasing direct control over their investment-related activities. They achieve this by bringing certain functions in-house and moving away from their reliance on service provider and vendor support models.

Capital raising, still underneath the daily guidance of the CIO, begins to delineate into more focused sales & marketing (new investors) and investor relations (retaining current clients) functions, separate and apart from the investment management group.

Financing and leverage have, at this stage, become more complex as prime brokerage relationships diversify and funding venues become more expansive. The firm has a proven record and can demonstrate its credit worthiness to a wider array of firms, but in order to handle this diversification the organization and operation must adjust and evolve.

These characteristics of the Emerging hedge fund are summarized in Chart 8.

Chart 8:
Emerging Hedge Fund Manager Characteristics

INVESTMENT

- Balance achieved between the "Investment Triangle" of investment management, investment oversight, and investment support
- The financial oversight of the portfolio is brought in-house as the complexity of position and trade management increases.

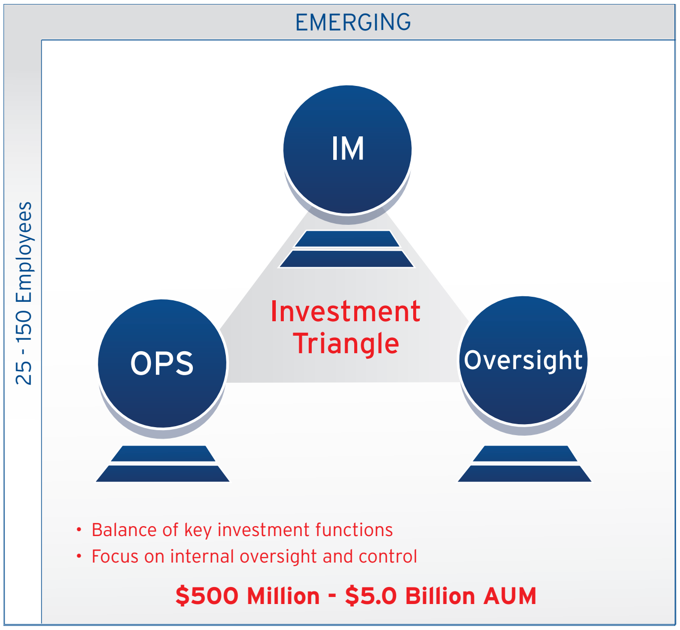
CAPITAL RAISING

- Sales & Marketing and Investor Relations teams become delineated as capital needs to be retained and sought in parallel but function remains aligned to the CIO
- Calls start coming directly into the manager

FINANCING & LEVERAGE

- A diversified set of counter parties requires allocation across different prime brokers but function remains
- Managing margin levels efficiently becomes more critical with collateral spread across different counterparties
- Collateral management emerges as a key daily function

Chart 9:
Emerging Hedge Fund Organizational Mode



Organization

The investment triangle pursued by most emerging hedge funds looks to create equal weight between the three main investment-focused activities—management, oversight and support.

Within the investment management function, rather than the CIO himself being at the center of the organization, a formal team exists to assist with the day-to-day business of managing the fund's capital and with more strategic thinking around the macro direction of the fund's investments. This team will also include research expertise, more junior portfolio managers, traders and oftentimes quantitative modeling skill-sets that all complement the core idea generation of the investment strategy.

The CIO will also now build-out more dedicated capital-raising teams focused on selling to new investors and retaining current clients. With a proven track record, calls may also begin coming in to the firm and the disciplines of sales, marketing and relationship management all develop in order to sustain the growth in AUM.

Chart 9 shows that organizationally, the emerging hedge fund shifts from a "spider" set-up with the CIO at the center of all activities to this more balanced "investment triangle."

Operations

Role specialization which begins in the emerging hedge fund model becomes ever more evident as funds mature further. In its beginning form, role specialization refers to two shifts that manifest in the emerging hedge fund model.

The first shift refers to when the main individuals who made up the core of the start-up hedge fund begin to narrow their activities and operate in a more concentrated manner within their primary focus area. The second aspect of specialization that occurs is that once these key individuals are focused on their primary area, they quickly begin to build out teams that roll up to them.

Whereas the chief operating officer (COO) role had stretched across the whole of the focus framework in Chart 4, that role is now firmly entrenched within the oversight space. Since the fund has been up and running long enough to establish a track record, most of the key day-to-day activities are in place. Within their oversight space, the COO is likely to have begun shifting from an outsourced model for key services such as legal, tax and compliance advice and instead be looking to bring those functions in-house for the fund.

The next big change in the emerging hedge fund model refers to changes that have taken place within the investment performance area. Here the CIO has been able to narrow his attention and focus on core investment strategy and execution. At any single manager fund, the portfolio manager will always have some overlap into the capital raising function but, for the most part, he has been able to focus optimally on managing the firm's assets. In support of this goal, the portfolio manager will typically build out two main teams within investment management. The first, a formal research team, is typically either founded around fundamental market analysis and idea generation or in more quantitatively focused firms, on modeling. The second team is a trading function charged with looking at optimizing the firm's exposure, timing, coverage and use of leverage across key counterparts.

Within the capital effectiveness space, the CFO function is likely to have either expanded their role additionally to be the chief risk officer (CRO) or they are apt to bring on a separate individual for that function. Two new teams are established within oversight. The first is a team of middle-office analysts charged with creating ad hoc views of the firm's exposures, collateral and liquidity. This team will assess whether the fund is becoming overly concentrated with any given counterpart and examine whether the fund can be better utilizing the terms of their prime brokerage agreements to obtain better financing options.

This is the first example of how having specialized teams outside the investment management function focused on analysis can begin to impact on the hedge fund's alpha generation. The other team likely to be built out within capital effectiveness under the auspices of the CFO is the financial and regulatory reporting team. This team will produce reports summarizing the firm's activities and use of leverage, using internal data to create the holistic view that crosses prime brokerage relationships. They will also work with the fund's administrator to confirm pricing and NAV.

Chart 10:
Emerging Hedge Fund Operating Model

Within the foundation discipline, emerging hedge funds are likely to bring in a head of operations whose main goal will be to build out a trade support and portfolio management function. In many instances, these capabilities are initially built around straight-forward securities and foreign exchange transactions, and derivative-processing capabilities are added over time. If the fund had been relying on a middle-office outsourcer previously, the handling of these transactions may be in-sourced at this point or there may be a blended model with the outsourcer where the fund itself handles some trades and the outsourcer continues to handle more complex derivatives and structured products.

The build out of teams within investment management, capital effectiveness and foundation mirror the organizational shift toward the investment triangle. These teams provide the checks and balances that create confidence in the fund's controls.

This investment management function is now monitored and reconciled by an investment support team that is headed by either the COO or a new head of investment operations who is looking to internalize management of the firm's positions and portfolio.

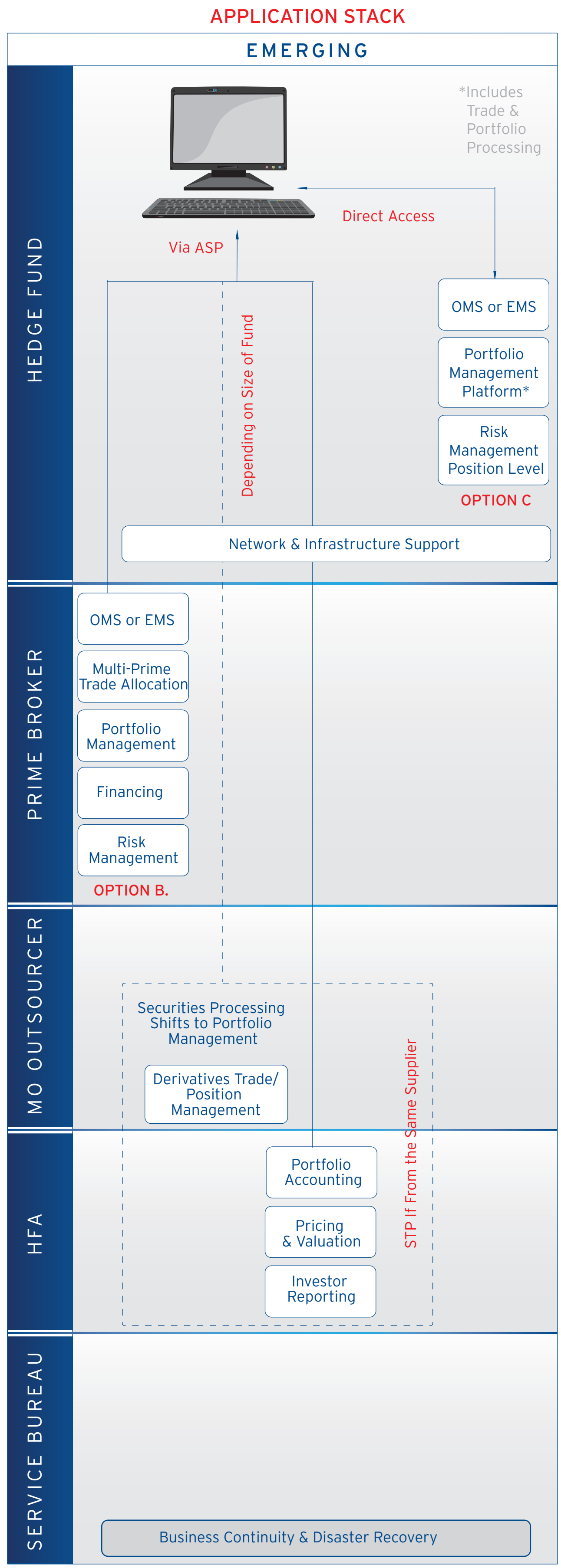
Additionally, both the investment management and support team work with the investment oversight group where the chief financial officer has begun to build out formalized risk management processes, middle-office analysis and regulatory/financial reporting functions.

The benefit of shifting from the PM-centric start-up model to the investment triangle lies in the fund's ability to establish its own internal set of controls that can differentiate the organization as investors demand a deeper level of due diligence around operational and trade best practices.

This means that they are looking for the fund to have more of its own processes, checks and balances in place. In order to have this framework, the fund must be able to track, monitor, assess and affirm activities inside the fund. Relying on external service providers as a primary support model becomes less viable, and many hedge funds instead use their growing internal view of activities to shadow key service providers and ensure that they are accurately capturing and supporting the fund's portfolio.

As this organizational shift occurs, there is a foundational change in the operating model and set-up of the fund as shown in Chart 10. Whereas in the start-up or spin out model, there was significant role overlap across the five main focus areas required to operate a hedge fund (oversight, capital raising, investment performance, capital effectiveness and foundation), in the emerging hedge fund model there is a far higher degree of specialization within each of these thematic streams.

Chart 11:
Emerging Hedge Fund IT Model



Technology

Whereas start-up or spin out hedge funds relied almost wholly on service providers for their technology platform, the emerging hedge fund has made a decision to invest in its own infrastructure, in-sourcing responsibility for its own multi-prime technology platform by either directly taking over the contract if their prime broker had been providing a third-party platform or by beginning to build out a system stack of their own discrete investment focused applications. If the manager goes this latter route, for the most part, the emerging hedge fund will begin their build out with an order or execution management system and a portfolio management platform.

This allows them to internalize their order and trade tracking and to perform their own reconciliations and services on their portfolio to mirror the reports they are receiving from their main prime brokerage and fund administrator service partners. Basic connectivity to these service partners is still being obtained either via ASP-enabled web access or via direct file delivery. Workflow tools are being used in-house to capture and compare incoming data and highlight exceptions.

Depending on the manager, many emerging hedge funds may also invest in their own set of risk tools at this point. Risk tools being provided by some prime brokers can aggregate trades across split counter parties, but the wide variance in the risk regimes and terms used by the banks may make service provider-offered aggregation tools less than effective.

What is most critical to take away from this discussion on emerging hedge fund technology, however, is that there is now a need for internal resources to create and maintain the fund's infrastructure. While this team may be no more than a system administrator and programmer at this point in time, there is at least some core IT function now as a permanent role within the fund. This core IT function is at the heart of supporting the investment triangle and ensuring that the required systems are in place for teams to obtain their data.

Unlike network and infrastructure support that may move internally, however, throughout a hedge fund's life cycle, responsibility for disaster recovery and business continuity facility support should remain outsourced to a service bureau or vendor to ensure adequate safeguards for the fund's operations.

Chart 12:
Emerging Hedge Fund Manager Maturity Characteristics

ORGANIZATION

- Shift from PM-centric to "investment triangle" with equal consideration given to fund's ability to invest, control & operationally support portfolios
- Sales & Marketing and Investor Relations functions separate into teams focusing on raising new funds & retaining current investors, but still overseen by CIO.
- Fewer multi-disciplinary roles with more focus on principal area of responsibility
- Roles and functions mature as the organization becomes more professional and specialized backgrounds are required to manage daily operations
- The CFO role advances and becomes more technical & specialized, and a Chief Risk Officer is often added

OPERATIONS

- Optimization of financing across prime brokers requires collateral management team to be developed
- Securities & trade portfolio management capabilities are internalized and middle-office outsourcing arrangements for securities and possibly derivatives brought in-house
- Enhanced risk-management tools and controls

TECHNOLOGY

- Trading & operational platform managed internally by fund, not prime broker
- Addition of permanent IT resources for system & infrastructure support

Summary

In summary, emerging managers have now developed into a well balanced and tightly controlled investment organization and are now operating at a level that attracts external interest and requires role specialization and a wider array of skill-sets. The majority of work done at this point is focused internally within the hedge fund. This begins to change as attention now shifts to 'what's next'.

By the time the emerging hedge fund is mature, investors and owners are beginning to look to new avenues for delivering returns and to launch new funds to explore different opportunities. The firm is now developing and retaining talent and beginning to discuss aspects of corporate culture that are more typically found in larger financial institutions. This begins to present new challenges. The management teams have proven their worth in getting to this stage but recognize that to develop further they need to expand their roles and engage more directly with their clients.

Chart 13: **Emerging Hedge Fund Manager Transition Signals**

INVESTMENT

- Investors are seeking more capacity & diversity in the strategies being traded
- Expanding the investment product set is becoming challenging as new markets are explored
- Trading across global time-zones is presenting new challenges and regional solutions are being entertained

CAPITAL RAISING & RETENTION

- Requirements for raising and retaining assets are getting more challenging and time consuming
- Fund is looking to expand and diversify the capital base to sustain growth

FINANCING & LEVERAGE

- Financing is dispersed across a number of counter-parties and consolidation of data is becoming necessary
- More sophisticated margin finance arrangements are being sought as the diversity of collateral increases

With a robust internal set of controls in place, the emerging hedge fund is now positioned to make several important changes that transition it to be a fully institutional fund rather than "institutional-like".

First, the manager is ready to up its level of transparency and expose more of its internal data to the investor community. There is a decision to become more transparent and actively service investors by creating customized reports and by enhancing the investor-relations function.

Second, there is a move to leverage the solid investment foundation built in the emerging hedge fund stage and use the data being produced by each individual team more effectively across the organization. Internalization of data production and the distribution of that data through dashboards and reports across teams is another important enhancement that occurs at this evolutionary step. This requires a large technology investment as spending to improve the fund's infrastructure accelerates.

Third, as the set of portfolio managers expands and trading is occurring in more regions, a greater level of sophistication in the support model is required across all the key investment related functions. This often means that new types of control reports that combine data from multiple teams are created to be able to monitor intra-day happenings within the fund in a more nuanced manner. For example, an individual portfolio manager's current performance may be examined relative to their historic risk pattern, daily P&L fluctuations and outstanding trade settlement issues in order to evaluate how effectively they are using the firm's capital.

Finally, the scale of operations may require the introduction of new treasury services to consider the firm's funding stature.

All these characteristics of the Institutional fund are highlighted in Chart 14

Organization

There are several organizational changes that take place at this juncture in the fund's development.

First, just as the investment-focused areas were built out during the emerging hedge fund stage, the capital-raising function is built out during the institutional phase. A formal investment relations lead is brought into the fund and this lead begins to build out teams within the capital-raising space, just as the leads in the other thematic areas built out teams earlier in the emerging hedge fund stage. This head of Investor Relations is a peer to the CIO, which shifts the dynamic between managing the fund's investments and promoting the fund's strategy and returns. This shift creates a "four-pillar foundation" for the fund composed of investor relations, investment management, investment oversight and investment support. *This is highlighted in Chart 15.*

Chart 14:
Institutional Hedge Fund Manager Characteristics

INVESTMENT

- Multiple layers of portfolio managers and greater diversity of investment strategies are evident, from senior PM's to junior assistants
- Global market access is supported by the full range of asset classes and investment techniques and the manager is physically in multiple geographies
- The investment process is fully established and internal data is fully utilized to manage across funds in order to refine decision-making & maximize alpha

CAPITAL RAISING

- Head of Investor Relations is added to focus entirely on capital raising & retention
- There are now multiple sources for capital raising– SMA structures, 3rd parties, Cap Intro firms, and direct marketers
- Payment structures for capital flows diversify and become more burdensome to manage
- Investor relations function focuses on investor types (pensions, sovereign wealth funds, high net worth, etc.)– refocusing of marketing efforts

FINANCING & LEVERAGE

- Financing is both regional and global and an overall Treasury function is introduced to focus on funding
- Term funding arrangements are developed that optimize balance sheet and increase stability provided by the Prime Broker relationship

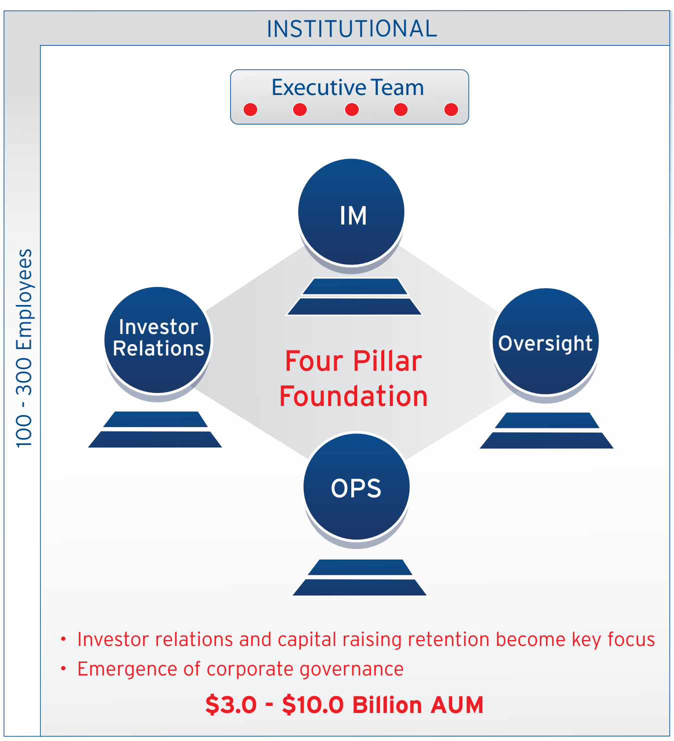
Secondly, there is a formalization of the "executive team" concept and related "corporate governance" behavior that introduces new management challenges. By this point, the hedge fund has grown sufficiently large that the day-to-day management of activities is being handled by team leads, and the heads of each area are taking on broader oversight responsibilities.

This frees senior leaders up to be "ambassadors" from their areas to the investor and regulatory community. With investors and regulators more interested in each aspect of the fund's operations, these executives are available to support the investor-relations lead and showcase the fund's controls to prospective and existing investors (typically through their operational due diligence (ODD) investigative teams).

The final change is the formalization of the IT function with the appointment of a chief technology officer (CTO) and the build out of the hedge fund's own technology organization. This team provides the supporting infrastructure for the four-pillar foundation and will typically align to the COO, although reporting lines can differ across similar managers. The CTO is, however, usually included in the executive management group and is part of the corporate governance hierarchy.

Chart 15 illustrates all four of these changes.

Chart 15:
Institutional Hedge Fund Organizational Model



Operations

Operationally, the fund is beginning to reach a size where there needs to be a dedicated focus on managing the business within the oversight space. By the time most hedge funds are around the $3.0 billion - $5.0 billion AUM mark, they are nearing or have surpassed the 150-person "tipping point," well documented and explored in organizational development theory.

This level has important psychological implications for a business, regardless of whether it is a hedge fund, as once there are more than 150 people within a company it becomes difficult for everyone to know each other. There are typically new people coming in and people leaving at a fairly steady rate, developing a competitive culture with career progression paths highlighted or implied. Formal training and people management becomes required and talent management functions begin to develop under the guidance of the COO.

In addition, the rate of expense accumulation tends to grow exponentially and a dedicated focus is required to manage the business metrics of the fund. A dedicated chief administration officer (CAO) is typically carved out of the chief operating officer's role and charged with monitoring and managing this aspect of the fund's operations. The CAO oversees the business management function, whose responsibility is to drill into the fund's costs and returns, and model out likely scenarios for profit and loss based on varying investment returns and infrastructure costs. *The CAO and talent management functions are added to the oversight space as highlighted in Chart 16.*

Chart 16:
Institutional Hedge Fund Operating Model

Since the focus for institutional hedge funds is retaining and developing new investors, the capital-raising function also evolves dramatically at this point. A new "professionalization" emerges in that an experienced individual with existing contacts comes into the hedge fund. The new head of investor relations takes over from the CIO as the primary marketer of the fund to the investor. Access to the CIO and PM's tends to become more restricted and investors typically go through several meetings set up by the investment relations lead with other executive team members of the hedge fund before time with the portfolio managers is arranged.

The investor relations lead will establish the marketing function as a team within their space—supplementing that group with a formalized investor reporting team. Tools that track the potential pipeline of investors, current subscriptions, redemptions, anticipated cash requirements and model potential investor related movements based on various market scenarios, are implemented as the process develops and matures. Depending on the size of the fund and the number of investors it supports, there may also be a dedicated investor relationship management team set up within the group, with specific individuals focused on investors either individually or by type (pension fund vs. sovereign wealth fund, etc.).

Another dramatic shift that may occur when funds reach the institutional phase is that within the investment performance space, the original CIO is often joined by additional experienced fund managers coming in to run their own portfolios. These new managers could be bringing a new type of strategy expertise to the hedge fund, a new geographic focus or they could be the more senior traders who have been with the fund and feel ready to establish their own track records. As the set of portfolio managers expand, the research, trading and modeling teams that support them tend to expand alongside as additional teams. This can make for a highly layered investment management organization.

Specialization also increases within the investment oversight space. In the emerging hedge fund model the role of chief risk officer was overseeing a set of middle-office analysts charged with looking at how well the fund was optimizing their use of capital and collateral across its set of counter parties. In the institutional hedge fund model, it is common to split out a funding function into a Treasury role that oversees all aspects of capital optimization and financing. Again, this is an area where professionals from the sell-side are often sought to bring in a new expertise.

The CRO will maintain control of the core risk management function and develop teams to focus on pricing and valuation, while maintaining ownership of financial and regulatory reporting. The CFO role now encompasses the CRO function and the Treasury function and both roles form a key part of the management team. As the manager adds new funds and continues to diversify investment strategy and asset class exposure, these two groups become critical in maintaining control and maximizing alpha.

Foundational functions also expand. In the investment-focused space, the head of operations typically adds a new service provider relationship management function. Most prime brokers are now having quarterly meetings with larger clients to review their activity and use of the bank's services. The service provider relationship management team can face off to these operationally focused teams and help craft a bi-lateral agenda on how to optimize the effectiveness of the prime brokerage relationship. More and more hedge funds are also beginning this same type of review with their fund administrator as well.

As the number of investment instruments begins to expand geographically as well as by asset class, there may also be some build out of the product control function to ensure data and pricing consistency throughout the organization and across portfolios. Product control will look at reconciliation breaks between internal and external systems, and investigate integrity issues with pricing, rate and corporate action or dividend data that is negatively impacting the fund's true position. The control function is well developed in larger asset managers and on the sell-side, so skills are often imported from firms outside of the hedge fund world.

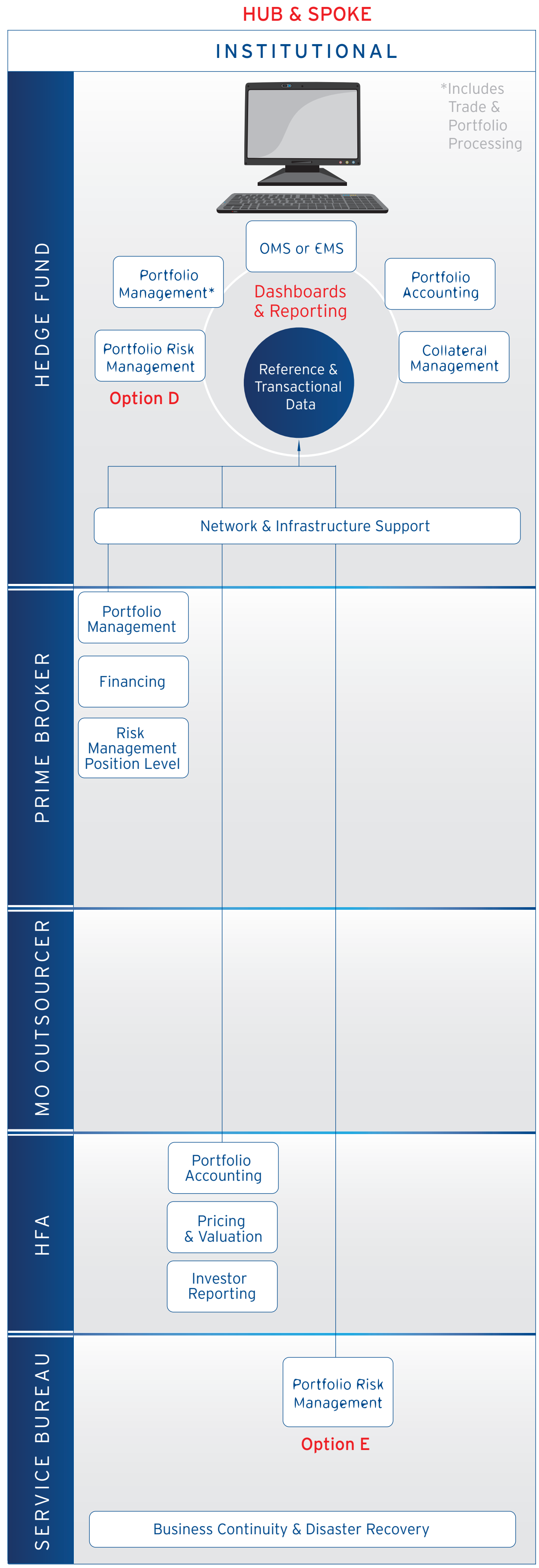
Infrastructure support also expands. Whereas, in the emerging hedge fund model, this support may have been as little as a sole systems administrator and a programmer, that level of support is inadequate for the internalized data approach that lies at the core of the institutional hedge fund. At this point in their evolution, most hedge funds bring in a dedicated chief technology officer (CTO). This individual becomes part of the executive team and, at the same time, builds out a series of teams in their own area—network specialists, database administrators and software developers. As noted earlier, however, disaster recovery and business continuity facilities support should remain outsourced to a service bureau or vendor to ensure the fund's safeguards.

A substantial IT team is required because the most fundamental shift yet will now occur within the institutional hedge fund to support their commitment to providing transparency into the organization.

Technology

In order for the institutional hedge fund to create their desired level of transparency, they need to be able to first capture all the data elements that may be required. These data sets are extensive. The fund will want to capture all their operational reference data (prices, CUSIPS, ISINs, holidays, FX rates, etc.) and their legal agreement terms data (ISDA terms, prime broker terms, investor terms, outsourcer terms, etc.). In addition to this reference data, the fund also needs to capture all of their transaction-related data—the details and operational status of each trade, the impact of each portfolio action, all risk measurements, all liquidity measurements, all the information on collateral being used and its disposition, etc.

Chart 17:
Institutional Hedge Fund IT Model



All of this data must be staged within a data warehouse or "reference data layer." The technology infrastructure put into place to facilitate this model is often referred to as a hub-and-spoke model. The data warehouse and reporting engines become the hub for the hedge fund and the applications that the manager has been building out as their stack (OMS/EMS, portfolio management platform, risk platform, etc.) become the spokes that connect into and receive data out of that hub.

While it is an extensive exercise to create this level of internalization, its payoffs are many. Simple workflow tools and dashboards can now be used broadly across the organization, bringing together disparate data elements that would normally have not been viewable in a contiguous setting. For example, a risk manager can look at the exposure and assets of the portfolio side-by-side with the P&L of the fund manager, aging position breaks and the current disposition and location of all pledged collateral. This allows for a more nuanced decision-making environment and marks a point where the technology capabilities of the fund can also begin to add alpha to its overall performance.

Most importantly, the fund can produce reports targeted at their investors, which help involve them in the story of the fund's activities and allows them to gauge not only the performance of the fund but the management of their capital in an unprecedented manner. As the partnership between investors and hedge funds expands, this becomes an invaluable relationship tool. As discussed in our earlier Liquidity paper, there are examples after examples of how this enhanced level of communication between the investor and the hedge fund not only helped salvage but actually strengthened the relationship, and made for a better long-term partnership post the 2008 credit crisis.

The maturity characteristics of the Institutional hedge fund are summarized in Chart 18.

Chart 18:
Institutional Hedge Fund Maturity Characteristics

ORGANIZATION

- Investment "triangle" expands as investor relations is now major focus of organization – creating a "four-pillar" foundation
- CEO team spends less time on day-to-day operations and corporate governance hierarchy is now in place
- Corporate culture and succession planning become central disciplines to the managers' continue expansion
- Ownership model becomes more dynamic and more mature incentive plans are introduced
- Senior resources added to supplement day-to-day talent & business management

OPERATIONS

- Able to now trade, control & support complex multi-asset, multi-currency portfolios with global exposure
- Capable of producing pricing, valuation & reporting internally rather than relying on service providers
- Distribution of position & portfolio information occurring intraday to facilitate better modeling of exposures, collateral use & financing options
- Deeper operational controls added if fund expands into SMA / other structures

TECHNOLOGY

- Substantial technology investment in "hub-and-spoke" infrastructure with a formal CTO role & full IT organization within the company
- Application architecture primarily "in-house" with less reliance on outsourced software. Data architecture is integral to application "stack" enabling the build out of internal dashboards, reporting & analytics

Summary

In summary, an "institutional" hedge fund manager has built scale and stability, has transitioned into a corporate governance structure that provides structured oversight for investment activities, has internalized their key data, and is able to demonstrate externally that returns are accurate and sustainable. The managers in this category of the model in the past were often on the verge of or were already using public equity as a capital-raising source and, as market conditions stabilize, this may re-emerge as a trend. These managers have become the "brand names" of the industry. Investors across the spectrum recognize these traits and are more comfortable with increasing allocations and diversifying across the different strategies offered.

The boundary between this stage and becoming a full "franchise" firm is a softer line that highlights global expansion, increased specialization of roles and departments, and an overall focus on cost management as the infrastructure extends into new locations and time zones. These are the firms that are exploring new business models and challenging the boundaries of "hedge fund" to expand their asset management offering beyond traditional strategies.

Chart 19:
Institutional Hedge Fund Manager Transition Signals

INVESTMENT

- Manager is now looking to optimize growth and build capacity
- Manager is forced to grow number of portfolio managers & diversify investment strategies, or risk losing key PM talent
- Replicating trading and support structures in regional locations is becoming key to executing a global Investment strategy
- New offices and locales are being discussed

CAPITAL RAISING

- Fund is seeking to balance the mix of Investors and is now attracting global inflows from different sources (Sovereign Wealth, Pensions, Family Offices..)
- Multiple fund structures and liquidity profiles are needed to satisfy the more diverse set of Investor needs

FINANCING & LEVERAGE

- Treasury is focused on diversifying the capital structure and funding profile of each fund and region
- Leverage options are diverse & can be adjusted to the individual portfolio
- Term-financing partnerships are being introduced and tri-party funding is becoming a key tool

Expansion begun by institutional hedge funds, in terms of adding managers, spanning geographies and increasing the number of funds or share classes, accelerates by the time a fund enters the franchise stage. Rather than just having an ability to invest in a given region, the franchise fund has established local presence across key regions and must balance the demands of a local and global presence.

By this point, the firm has neared or surpassed $8 billion – $10 billion AUM. They have a robust set of internal controls. They have a broad set of investor-focused capabilities and can service their investor in their local currency of choice. They are likely running 24/7 trading books around the globe and have devised support models that allow the book to "follow the sun" in terms of being passed from market-to-market seamlessly. Their infrastructure has been built out extensively and they have internalized their data collection to the point that they can support their own report generation and are fully parallel to their service providers in creating these views.

The size of these organizations has grown dramatically. In most instances, these firms have neared the 250 to 500 employee mark and some of the largest may be surpassing the 1,000-employee mark. This growth represents the ongoing specialization of functions within the hedge fund, the need for an ever-expanding set of middle managers to coordinate across teams and the establishment of regional centers for the firm. In some instances, these regional centers may be to create a local market presence and expand trading options. In other instances, the regional centers may be chosen for cost reasons or to provide resources in a certain time zone to help sustain servicing of the portfolio.

Characteristics of the Franchise hedge fund are summarized in Chart 20.

Chart 20:
Franchise Hedge Fund Manager Characteristics

INVESTMENT
- Fully global investment business with multiple regional offices
- Manager now has multiple funds with different portfolio managers covering a variety of investment strategies
- Able to handle & pass a multi-strategy trading book in "follow-the-sun" model
- Trading desks are split by product & regionalized for 24/7 support

CAPITAL RAISING & RETENTION
- Investor relations & robust marketing organization focus on raising & retaining capital by region & client type
- Global mix of investors becomes more institutional to provide stability

FINANCING & LEVERAGE
- Treasury functions provide for short-term & long-term funding
- Set of prime brokers and funding counterparties are expanded to ensure adequate global financing coverage in regional centers

Organization

From an organizational perspective, the franchise model is illustrated in Chart 21. What is most notable is that the "four-pillar" foundation established in the institutional phase has replicated out across multiple geographies.

Rather than just being able to access a regional market, the franchise hedge fund has determined that there is benefit to having local presence. To ensure maximum exposure to investors in that region and to assure their global set of investors about their controls, the manager must ensure that investor relations, investment management, oversight and support are all functional in each regional center and that there is a global management team in place to coordinate effectively across those silos.

The executive team has expanded to include regional market heads and new roles dedicated to assessing the firm's overall strategy and direction, which enables the firm to more readily respond to a set of global investors and to address many strategic questions about its future. In most instances the firm will have appointed or hired a global head of strategic development and this role becomes central to coordination on business model and build-out plans.

Because of their size, these firms are also now starting to resemble an actual broker-dealer in terms of capabilities. This allows them to consider multiple avenues of potential growth around treasury services, funding and collateral services. Many firms having reached this size also begin to consider expansion across the investment landscape and look to affiliate with beta-focused managers or create passive investment vehicles to offer investors an end-to-end set of internal managers for their entire portfolio—not just their alternative investments.

Below the executive team, an entire global set of middle managers has emerged, charged with facilitating the fund's cross-regional activities. These "global" managers are focused on coordination, standardization of processes and ensuring the right distribution of capabilities and support. The global managers face off to a set of regional team leads, who in turn have their own teams in each region rolling up to them.

Each regional team has face-offs either in another key region and/or in a "center of excellence" for a specific function. The emphasis is on ensuring that there is a smooth transition between geographies and that information is moving where and when it needs to move.

Operationally, there is another leap in complexity between the institutional and the franchise hedge fund model. This is shown in Chart 22.

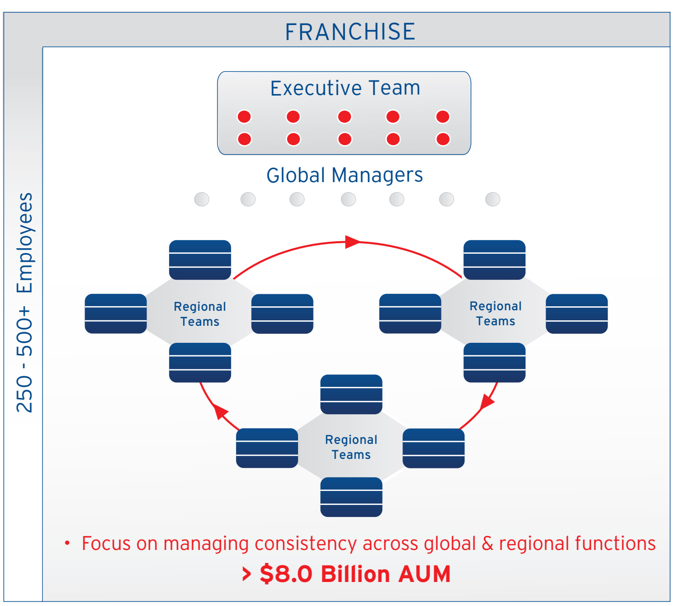
Operations

Oversight has become an increasingly specialized set of functions, many of which now again begin to be outsourced. Just as they did in its start-up phase, the franchise hedge fund has come full circle in terms of a desire to identify low value and "commodity" services, off-load those services to external entities and reduce costs. Firms at this size often look to monetize their own infrastructure by offering either spare capacity or licensed versions of the platform to third parties.

To accomplish this aim, certain functions split. People management divides out into talent management, which is an internal role focused on identifying and growing the fund's human resources, but benefits administration splits out and becomes an outsourced function. Tax and compliance splits into advisory and reporting with the advisory functions being kept in-house and the reporting functions being outsourced. Other functions split into component parts. For example, business management, under the CAO, splits into P&L production, expense management, budget planning and fee management, often with regional groups feeding back to the corporate headquarters.

Within the capital-raising space, the investor-relations lead maintains global ownership of the function, but has now built out regional teams of marketers. Investor relationship

Chart 21: Franchise Hedge Fund Organizational Model



management has divided out into a segment focus—pension relationship management; sovereign wealth relationship management, fund of fund relationship management etc. all rolling up to regional investor relationship management leads. Investor reporting has split into components—one focused on subscriptions and redemptions, and one focused on portfolio and risk reporting. Many franchise firms also expand their capital-raising groups to include a new funds design and launch team who are constantly looking for opportunities to extend the number and types of funds being offered.

The investment management teams continue to expand. Trading functions in particular begin to replicate across regions and divide by product type. Regional equities, bonds, foreign exchange, synthetics, futures and OTC derivative teams emerge and come to mimic to a large extent the "desks" structure used by the major broker-dealers. Research is a function that divides. Idea generation and modeling teams continue to be internally focused, but fundamental market analysis is often outsourced to specialized research firms in low-cost centers.

The investment oversight function also shows signs of specialization. Treasury continues to develop covering regional aspects of cash management and funding, global liquidity management, negotiations on term-financing arrangements, and overall collateral optimization. The head of Treasury's role on the executive team becomes more important as this individual becomes a key decision maker in regards to managing exposure and providing stable funding options in the highly complex global-local matrix of requirements.

The chief risk officer role continues to specialize and develop with the implementation of a global risk management framework that allows for decision-making and reporting at all levels of exposure. Pricing and valuation may split, with model-based valuation remaining an in-house function but more generic pricing being outsourced to lower-cost providers or to the fund's administrator. Financial and regulatory reporting also split. Financial reporting remains an in-house function closely linked to the P&L team in the oversight function. Regulatory reporting is often outsourced to the same compliance reporting function touched upon earlier.

Finally, the foundational functions also begin to expand with a blend of internal and outsourced providers.

In investment support operations, although trade management became an internalized function for emerging and institutional hedge funds, the franchise firm may reconsider middle-office outsourcing and look at the business case for wholesale replacement of their trade and portfolio processing capabilities to a large-scale, global provider. This model has worked for some large firms, whereas others continue to view keeping this function internally as a value-add. Much of the decision-making comes down to how complex the product mix is within the hedge fund, how well data from the outsourcer can be incorporated into internal analysis tools and whether the provider has already sunk investment costs into any centers of excellence for processing.

Service provider and vendor relationship management splits as many new outsourcing partners are brought into the hedge fund's portfolio and require dedicated relationship focus. Such relationship focus extends from verifying the operational

Chart 22:
Franchise Hedge Fund Operational Model

controls of such vendors, to ensuring the privacy and security of the fund's data to managing the contract and licensing terms.

There are also new functions that are outsourced to other providers but managed through support. Facilities management, travel and expense management and administrative support/supply management are a few examples.

Finally, the technology organization also becomes more specialized and split in terms of its delivery focus. In addition to disaster recovery and business continuity facility support, network and data center support may also be outsourced. Even software development is likely to be split into a near-sourced and outsourced model, based on the need to have resources contingent with the decision-makers in the investment management and oversight functions.

The types of IT resources sought by the fund are also likely to expand. Front-end engineers, designers and user-experience resources are likely to increase as a result of a foundational shift in the type of technology infrastructure employed by larger firms.

Technology

Upon reaching the franchise stage, the hedge fund is likely to rethink the entire approach to their architecture. Rather than cloning their hub-and-spoke infrastructure and launching multiple versions of their key trade management, oversight and portfolio management tools to handle global demands, hedge funds are likely to shift from a systems-based approach to a services-based approach. This mirrors what many of the largest broker-dealers have done internally.

Technology has advanced dramatically in the past 10 years. Historically, programmers would write a set of business rules within a specific application. These rules were unique and distinct and relied on data elements housed exclusively within the application. As a result, it became very hard to integrate processes across applications. Even when workflow tools were brought into facilitate integration, only limited progress could be made as each application's rules and data had to be taken into account and this could only be normalized to a certain extent.

Organizations with new service-oriented architectures can decompose the key functions of their applications and create a directory of their capabilities. This allows for "loose coupling" of functions whereby the organization can mix and match their functions across processes regardless of the application from which that function may have originated. This is also true of the vendors providing outsourced support to the organization. If they can deliver their capabilities via a web service, the hedge fund can query that vendor's directory and pull that information directly into their own architecture and deliver it via their own front-end without having to build out direct connectivity.

Shifting to a "web services" approach allows firms to skip doing a lot of the data normalization that they would need to do to build out a full data warehouse. This is particularly helpful as new data is coming into the organization from the expanded set of vendors now providing outsourced services. GUIs used with new service-oriented architectures are smarter and able to do more of the data normalization on the fly at the user-interface

Chart 23:
Franchise Hedge Fund Technology Model

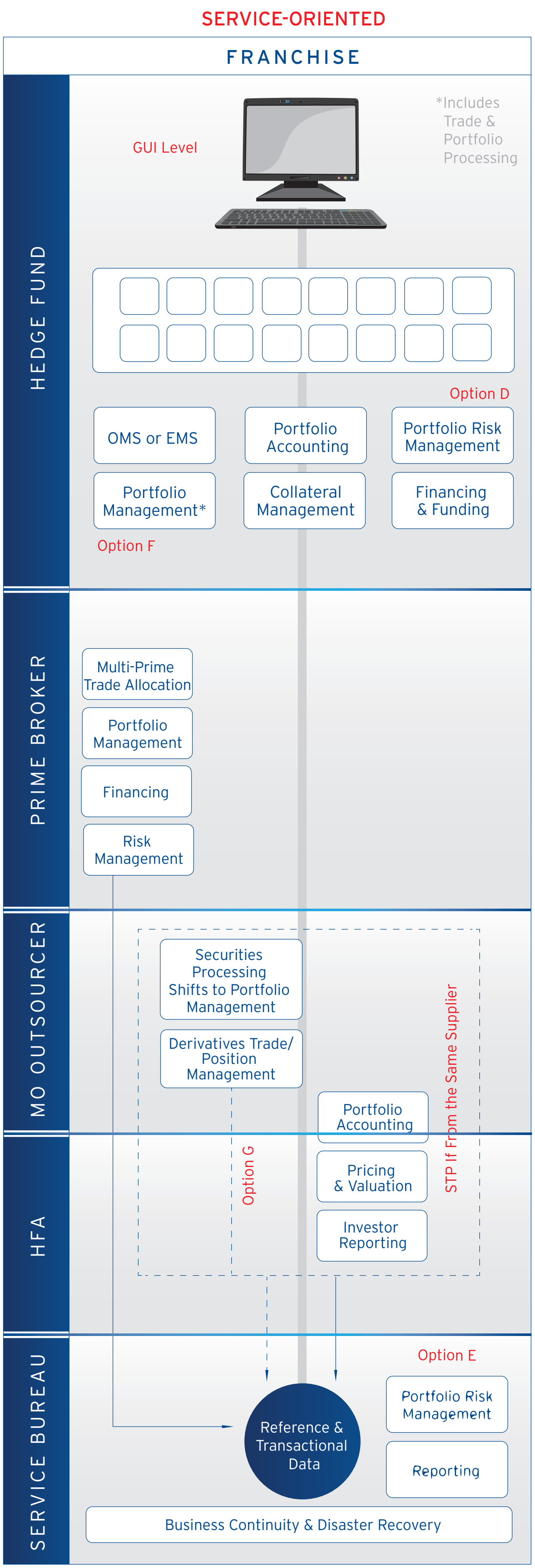


Chart 24:
Franchise Hedge Fund Evolutionary Challenges

INVESTMENT

- Decision is required about whether to simplify organization and continue as hedge fund or expand and become broader "asset manager"
- Expanding into beta and/or private equity investments being considered
- Capabilities are starting to mimic "broker-dealer" organizations and 'self-clear' models are being discussed
- Develop an internal Fund of Funds structure organically or acquire another manager
- Monetize infrastructure with other fund investors

CAPITAL RAISING & RETENTION

- Investor base for "non-alpha" products is forcing a more dynamic set of pricing and fee structures
- Looking to compete with "active" Long Only managers for capital allocations and sales pitch is evolving

FINANCING & LEVERAGE

- Overall capital structure of the Manager resembles a public company (or is actually public) and Treasury is being challenged to provide a stable funding environment

level. This means that there does not have to be as much data preparation and maintenance performed within the organization.

Many franchise firms have rebuilt their architectures to be service-oriented. Some have even commercialized their platforms and offered them out to other investment management firms. As the scale and the scope of operations increases, these platforms offer an advantage in terms of real-time capabilities, reduced maintenance and licensing costs, better data management and flexibility in incorporating the complex web of in-sourced, near-sourced and outsourced functions the hedge fund is looking to sustain.

Summary

In summary, firms at the franchise level mark the step-off point on the maturity curve that has developed over the past 30 years, but most rapidly since the early '90s, and also mark the blurring of boundaries between alternative investment and traditional asset management and market making. The firms at this stage are now significant counter parties and represent a true force in the industry, with the ability to influence market growth and affect how regulators govern the capital markets.

At the franchise level an Alternative manager is confronted by an ongoing set of choices around how to develop the firm and/or return the firm to its original "roots." With an established brand, established performance record, robust infrastructure and developed organization, the firm has a platform to compete with the major firms in the global capital markets, and the choices that the executive team make will reflect the future intent of the entity. *Many business models can be discussed and a selection of those questions being debated within the industry are listed in Chart 24.*

Summary

In summary, throughout this profiling and in our extensive interaction with clients of all sizes and structures, we have observed an overall theme of "maturity" or "institutionalization" that has been invoked by two natural forces in the post credit-crisis world—investors and regulators.

The goal of this paper was to lay out our understanding of how these forces prompt a hedge fund to evolve as it grows assets under management and as the size of its organization increases. Having this insight about hedge fund maturity positions Citi's Business Advisory services to be an ideal partner to our clients in helping them think through and address challenges that they face from their launch, and through their evolution.

Competition for investor capital and prospects for increased hedge fund regulations from the Dodd-Frank Act in the U.S. and the European AMFD legislation, both point toward managers' needing to be more transparent about their size, scope, management expertise and internal controls, as they continue to trade in public markets with increasing inflows of "public" money in the form of pension and institutional money.

We hope that the Hedge Fund Maturity Model becomes a tool to aid this three-way dialogue between prime brokers, investors and fund managers, who own the responsibility of delivering a stable and developed investment system that allows for innovation and new products while protecting the overall market.

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