Credit Suisse

Prime Services Thought Leadership

The Road to 2020: What Lies Ahead for Hedge Funds

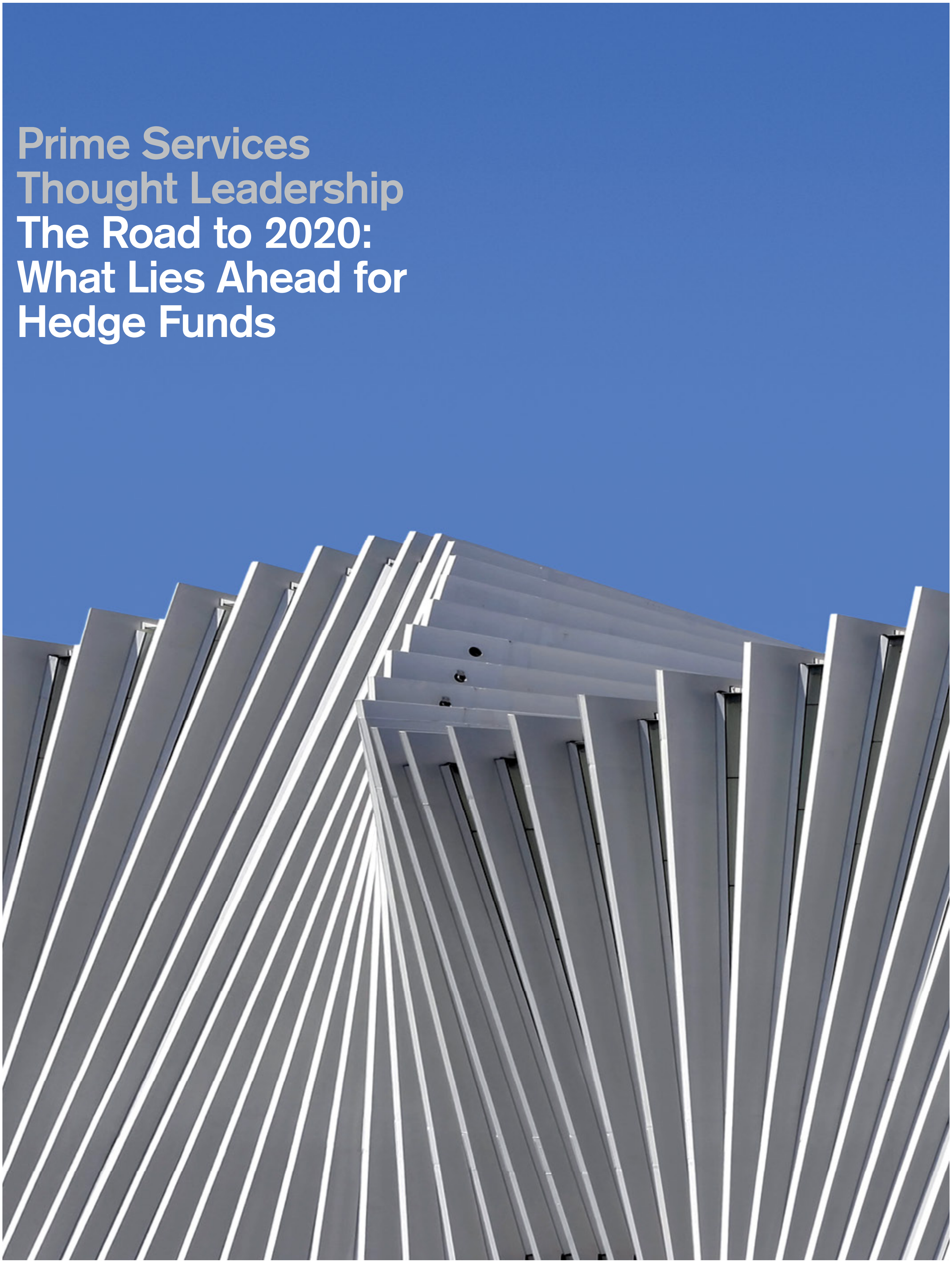


Table of contents

With Brexit, a notable U.S. Presidential election, and a challenging market backdrop, 2016 may be remembered for the persistent political and market tumult across the globe.

But given numerous headlines around perceived performance challenges, questions about fee models, and the rise of passive investing and index products—might 2016 also be remembered as a turning point for hedge funds?

Change is inevitable, and adaptation is the lifeblood of financial services. Business models and investment theses emerge to capitalize on market opportunities → those business models take hold, succeed and proliferate → capital markets and regulatory landscape evolves, and competition among these models grow → requiring original models/theses to evolve.

We've seen this as "junk bonds" became "high yield" credit and LBOs gave way to today's private equity. Hedge funds may be moving along a similar evolutionary path such that by 2020, they could be thought of as something else entirely.

This piece examines the potential road ahead for the hedge fund industry, given shifts in performance, allocations, market structure, and regulation. Since trends in their early stages often seem obvious or inevitable with hindsight, we explore how the hedge fund game may, in fact, be "changing," and what those changes could mean for managers, their investors, and counterparties in the coming years.

We have identified four themes that may characterize what lies ahead for hedge funds:

1. **Industry Polarization**
   Some managers consolidate—and either diversify offerings or focus on niche strategies
2. **Data Diffusion**
   Use of big data and technology across every business and investment vertical
3. **Transparency and Communication**
   Greater transparency and communication among funds, their LPs and counterparties
4. **Regulatory Adaptation**
   Continued adjustment to cross jurisdictional regulatory change

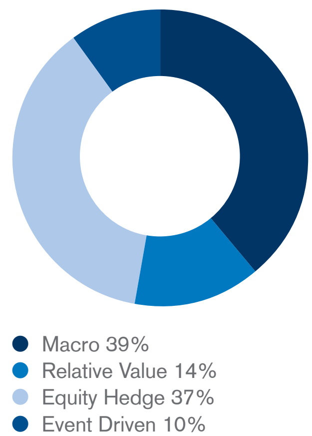
How did we get here?

Decades after getting their start as investment pools for rich individuals, less constrained by regulations concerning leverage and perceived as earning outsized returns, hedge funds have evolved considerably.

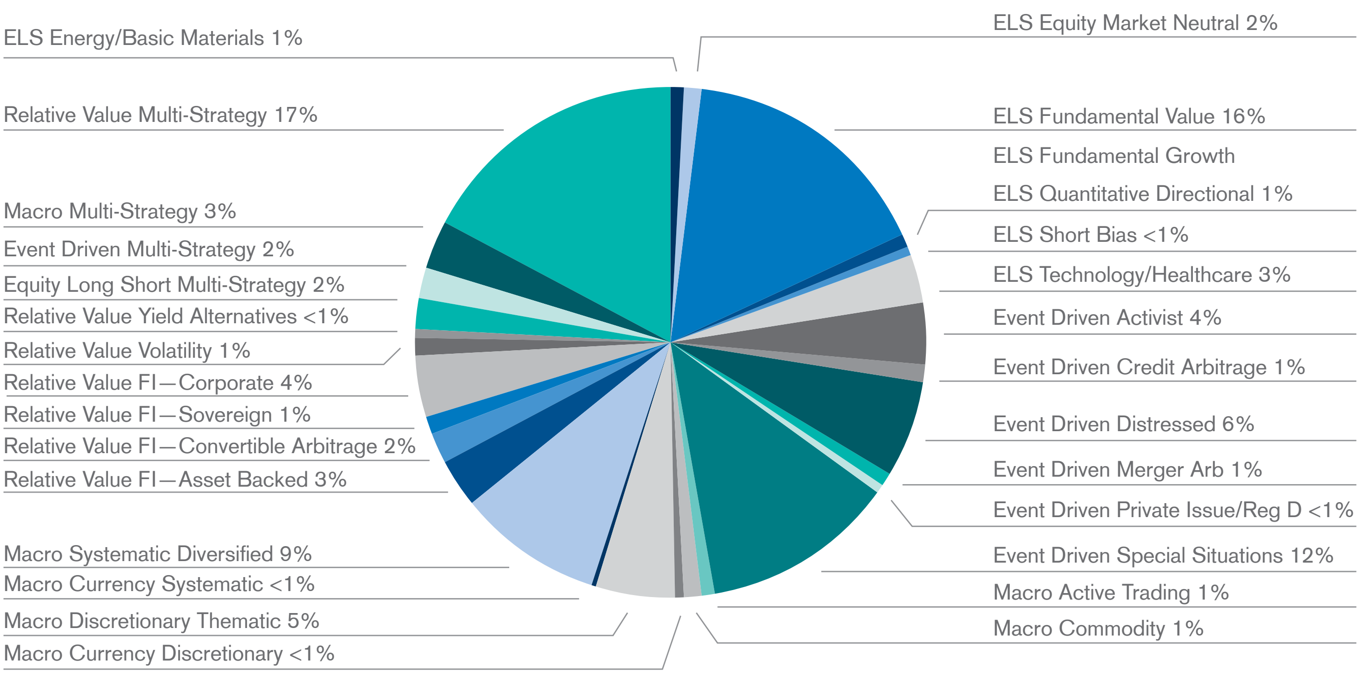
In 1990, a few hundred funds managed about $40 billion, with about 75% of industry assets managed in Equity Hedge or Macro strategies.[1] Today, nearly 9,000 funds oversee about $3.0 trillion across dozens of strategies—from funds that specialize in Private Issue/Reg D investing to sector focused funds or global multi-office, multi-region, multi-product multistrats.[2] About 85% of industry assets are currently managed by firms overseeing $1bn or more, and more than half of industry capital is managed by funds over $5bn.[3]

Liquid alternative mutual funds ("Liquid Alts" or "40 Act Funds"), which claim to deliver the risk and return characteristics of alternative investments with daily liquidity, have grown to $255 billion in AuM.[4] These funds garnered much attention in recent years, as many wondered if the improved liquidity terms would serve as attractive to investors. But growth has stagnated, and in fact, slightly declined, after more than doubling from nearly $107 billion to over $260 billion at the end of 2014.[5]

Hedge Fund Industry Assets by Strategy, 1990



Hedge Fund Industry Assets by Strategy, 2016



Charts 1.1 and 1.2: Evolution of Hedge Fund Industry Assets by Strategy, 1990 and 2016.
Source: Hedge Fund Research 2Q2016 Global Industry Report

1. HFR Hedge Fund Industry Research Report Q2 2016
2. Ibid
3. Investhedge, Global Billion Dollar Club September 2016
4. Morningstar Direct November 2016
5. Morningstar Direct Q4 2015

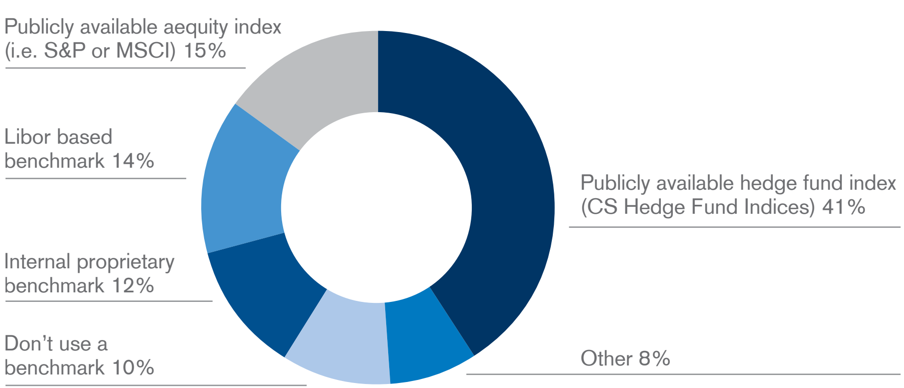
How did we get here? (Continued)

This diversification in strategies and products facilitated explosive industry growth and occurred as the hedge fund investor base institutionalized—more than two-thirds of current hedge fund assets have been allocated by institutional investors like endowments, foundations or pension funds.[6] The drivers of these allocations vary; the 2016 Credit Suisse Mid-Year Investor Survey reported some of the top drivers for hedge fund allocations are: returns (after fees), non-correlation or diversification from other investments, or the ability to lower volatility across overall portfolio.[7]

This diversity matters. While headlines can oversimplify hedge fund allocations or redemptions as related solely to fund performance relative to a broad based equity index like the S&P 500 or the MSCI, **fewer than 15% of respondents to the 2016 Credit Suisse Mid-Year Investor Survey report using a publicly available index as a benchmark.[8] In fact, about 10% reported using no benchmarks in measuring fund performance.[9]**

We need to be more precise in what we mean when we discuss "performance"—given investors' diverse allocation drivers, performance should not be reduced to simply comparing return numbers against a broad based equity index. If a manager that invests in sovereign debt successfully diversifies an investor's portfolio, smooths broader volatility or protects on the downside in a time of acute equity market stress, many investors would consider such an allocation as performing well.

Chart 1.3 – Benchmark Utilization by Hedge Fund Investors



Source: Credit Suisse 2016 Mid-Year Investor Survey

6. Preqin, HFR
7. Credit Suisse 2016 Mid-Year Investor Survey
8. Credit Suisse 2016 Mid-Year Investor Survey
9. Ibid

How did we get here? (Continued)

The diversity in allocation drivers may help explain—at least in part—the continued dedication of institutional investors to the space. In fact, despite headlines that claim investors are "fleeing" the asset class—**the number of pensions investing in hedge funds increased year over year from May 2015 to 2016.[10]** Pension funds now invest more than $800bn in hedge funds, and Preqin reports that more than half of private sector pensions are increasing their exposure to the industry – not retreating from it.[11]

Measured Industry Asset Growth

As of 3Q2016, despite headlines about fee pressure, allocations and performance, **hedge fund industry assets have continued their upward march and are currently at all-time highs.** We anticipate a continued moderate positive expansion for industry assets in the coming years. If we use 5% as a conservative general assumption of average industry returns in the coming years (5% is also the average expected return for hedge funds by Credit Suisse Investor Survey respondents in 2016), industry assets may continue to grow at a measured pace—with the potential to top $3.7 trillion by end of 2020—even without additional flows.

Even if flows moderate—as they did during the first and second quarters of 2016—those numbers may in part be driven by: i) managers returning capital and converting to family offices, ii) brand name fund closures, or iii) investors reallocating, rather than pulling money wholesale from the hedge fund industry. In fact, **over 90% of respondents to the Credit Suisse 2016 Mid-year Investors Survey reported their intention to reallocate withdrawn funds to other hedge funds or were unsure of where to allocate the recycled capital.[12]**

These distinctions matter because investors who are more likely to **reallocate rather than withdraw capital means continued expansion of the industry** (even if modestly), rather than a potential contraction as some have predicted. Together, these three drivers point less to loss of confidence in the industry, and more to idiosyncratic/single manager dissatisfaction.

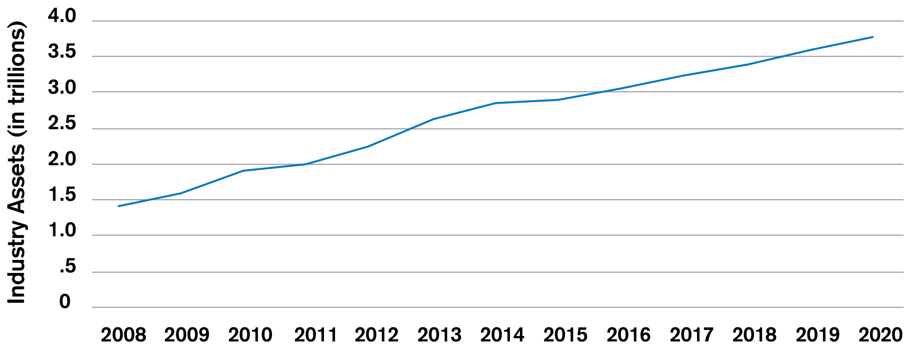
Moody's recently reported the U.S. state public pensions were collectively facing $1.75 trillion in unfunded liabilities by 2017.[13] Growing liabilities mean a wider gap to close, and persistent low rates have challenged many pensions even further. Preqin reports that more than a quarter of industry assets are currently allocated by pensions, and the 2016 Credit Suisse Mid-Year Investor Survey found pensions were less likely than other institutional investors to redeem from hedge funds.[14] A third of pensions reported no redemptions for the first half of 2016, vs. 16% of other types of investors.[15] Many pension investors recognize alternative assets will continue to serve as an integral part of their portfolios in the coming years. Select hedge fund investments may improve risk-adjusted returns and reduce other potential funded status drawdowns—but manager selection remains critical.

---

10. "Pension Schemes Stay Loyal to Hedge Funds," The Financial Times. July 24, 2016
11. Ibid
12. Credit Suisse 2016 Mid-Year Investor Survey
13. Moody's Investor Services, "States -- US: Medians - Low Returns, Weak Contributions Drive Continued Growth of State Pension Liabilities." October 2016
14. Credit Suisse 2016 Mid-Year Investor Survey
15. Ibid

How did we get here? (Continued)

Chart 1.4 – Potential hedge fund industry growth through 2020



Although we anticipate continued industry growth, uniform expansion across strategies and firms seems unlikely—and this uneven growth will have different implications for managers, investors and counterparties. We have identified four themes that may shape industry expansion and evolution:

i) Industry Polarization
Some managers consolidate and either diversify offerings—or focus on niche strategies

ii) Data Diffusion
Use of big data and technology across every business and investment vertical

iii) Transparency and Communication
Greater transparency and communication among funds, their LPs and counterparties

iv) Regulatory Adaptation
Continued adjustment to cross jurisdictional regulatory change

1. Industry Polarisation

Potential manager consolidation within strategies—as firms increasingly serve as solutions providers or deliver niche products.

Hedge funds serve multiple functions—they provide access to securities many investors can't access, or don't have the expertise to service or invest in, like distressed debt or exotic derivatives. They increasingly offer factor driven or smart beta solutions. They may protect on the downside or in times of acute market stress, smooth volatility of overall portfolio, or provided additional diversification.

But a diverse set of factors may be converging to drive consolidation in some corners of the industry. All funds have to contest with the rising cost of systems, infrastructure and institutionalization. **A 2011 Credit Suisse hedge fund infrastructure survey found average manager OpEx was 62 bps; by 2015, the average had grown to 76.5 bps – a more than 20% increase in just four years.[16]** And those figures do not take into consideration items like paying deferred compensation or benefits across challenging business cycles, or additional one-time fixed costs like systems upgrades or builds.

There are increased regulatory reporting or compliance requirements (like Form PF), a growing need for robust cyber defense programs (which can cost well into the six figures), and a general demand to keep pace with the evolution towards more institutional infrastructure. **The heightened overall cost of doing business comes at a time when some managers struggle to post consistent performance, and alongside an explosion of lower cost alternatives that claim to provide easier routes to access certain asset classes.**

Equities focused strategies have some of the greatest chance of consolidation; they represent 47% of industry funds, but 28% of industry assets, so a greater number of smaller funds bearing the same increasing institutional costs, relative to other strategies.[17] They're also the most vulnerable to threats from lower cost alternatives like ETFs, actively managed mutual funds or smart beta products that claim to offer cheaper access to similar asset classes.

In these cases, consolidation may take the form of growth of platform models, fewer launches due to increasingly high cost barriers to entry, or managers returning outside capital and converting to family offices.

Managers pursuing distressed investing or activist/event driven strategies may be less vulnerable to consolidation. While they face the same challenges as other managers in terms of rising infrastructure costs and heightened performance scrutiny—these strategies require specialized expertise or access to asset classes simply less available to non-institutional investors.

16. Credit Suisse CORE Infrastructure studies, 2011 and 2015, respectively, and does not necessarily reflect exhaustive operating expense list
17. HFR Global Hedge Fund Industry Report Source Data, 2Q2016

1. Industry Polarisation (Continued)

Chart 1.5 – Potential drivers of industry consolidation by strategy[18]

	Equity L/S	Macro	Relative Value	Event Driven
Infrastructure costs	↑	↑	↑	↑
Lower cost alternatives (ETFs, etc.)	Multiple available (ETFs, actively managed mutual funds, smart beta)	Moderately available	Less available	Less available
Accessibility of asset class / strategy	More accessible	Moderately accessible	Moderately accessible	Less accessible
Current % of industry assets	28%	19%	27%	25%
Current % of industry assets by # of funds	47%	21%	20%	12%
Potential consolidation outcome	• Continued growth of platform models • Return outside capital to turn into 'private hedge fund' • Fewer launches	• Return outside capital to turn into 'private hedge fund' • Potentially fewer launches	Less known but potentially fewer launches	Less known but potentially fewer launches
Potential for consolidation	Higher	Moderate	Moderate	Lower

And as certain firms grow, diversification within those firms becomes a greater possibility—whether via strategies, asset classes or vehicle tenor. Doing so may increase uncorrelated fee streams, or diversify the firm's liquidity profile and investor base, which can improve capital stability. Creating bespoke solutions or vehicles that can more precisely meet investors' individual risk/return profiles can also solidify or deepen pre-existing relationships.

As these bespoke solutions become more common, offered alongside "core" products, **the industry may become more identified with delivering tailored tools to fit investors' portfolios, rather than consistently be lumped together in an "alternative" investments category.** Bespoke solutions that happen to be provided by a firm that also has a hedged product doesn't necessarily mean the vehicle belongs in an alternative bucket in their portfolio.

On the other end of the spectrum will be managers of niche strategies; many of whom may offer exposure to distinctive asset classes or strategies. Those requests from institutional investors continue to grow; a review of the 2016 Credit Suisse Capital Services investor conversations indicates a year over year increase in investors seeking unique or niche strategies.[19]

18. All statistics in this chart as % of industry assets or number of funds come from HFR Global Industry Report
19. Credit Suisse Capital Services

2. Data Permeation
When Big Data Just Becomes Your Data

Technology and "big data" are already deeply embedded across some hedge fund verticals. They have transformed the way PMs and analysts invest, and increasingly, they help inform policy and decision making for trade execution or compliance. At some firms, predictive analytics now cross most —if not all—business functions, and they are ramping up hiring data scientists or artificial intelligence specialists.

The desire to dissect growing bodies of data "exhaust"—secondary fact sets generated by business transactions or human behavior—has meant selling different data sets is now lucrative and creates new fee streams. Many have commented the recent spate of Exchange M&A activity is at least in part driven by the imperative to migrate from a legacy 'toll-booth' business model to higher margin, more customized data solutions for clients.

Data sought from third party providers ranges from the mundane (number of fried chicken orders placed via third party delivery firms) to order management, reporting or compliance data, risk management, pricing/reference/valuation data, or data underpinning various equity indices, among others.

And **firms are increasingly using technology to reimagine and optimize each vertical of their organization.** Whether risk professionals leverage solutions like Tableau or R programming language to systematically identify unintended bets, or IR/marketing professionals use historical data and statistical probabilities to improve client relationship management, more data is being mined ever more deeply.

Like electronic trading revolutionized investing in the 1980s and 90s, pattern recognition, data mining, machine learning and other forms of artificial intelligence will likely have a considerable hand in shaping the hedge fund industry's next decade. It has become an arms race of knowledge, and the winners will be defined by most efficiently and effectively leverage, interpret and ground decisions in the wealth of data increasingly available.

This is happening as regulators also increasingly leverage big data solutions to ferret out bad actors, improve market transparency and try to bolster industry safety and soundness. The Securities and Exchange Commission continues to progress towards completing a Consolidated Audit Trail, a huge database that will amass trading information from across U.S. exchanges and dark pools, and allow regulators to analyze market volatility and ferret out potential wrongdoing. The SEC has also used solutions to uncover potential instances of "cherry-picking," insider trading or other forms of market malfeasance that then result in formal individual charges or fines.

2. Data Permeation

When Big Data Just Becomes Your Data (Continued)

Chart 1.6 –
2016: Hedge Fund Verticals Currently Embracing and Embedding Big Data Solutions

Business Unit	Currently Leveraging Big Data	Potential for Further Utilization
Investment professionals	• Gather and digest raw data from multiple sources to inform investment theses (machine learning, artificial intelligence, data mining)	Nearly unlimited; as long as new forms of data exist, they will be mined for new insights
Compliance	• Behavioral analytics to detect and minimize potential internal bad actors	Moderate
Trading/Execution	• Enhanced price discovery and best execution • Direct market access (DMA), low latency, algorithmic trading	Considerable
Risk	• Machine learning, data visualization, etc. to better understand positioning, portfolio data, performance attribution and decomposition or to identify "unintended bets"	Considerable

2020: Future Potential for Big Data Usage Across Hedge Fund Verticals

Business Unit	Currently Leveraging Big Data	Potential for Further Utilization
Treasury	• Relationship and position aggregator to inform allocations or decision making across counterparties • More sophisticated analysis and optimization of margin, positioning and assets	Considerable
Operations	• Collate and process data from multiple regulatory regimes or jurisdictions for transaction and position reporting	Moderate
IR/Marketing	• Tracking conversations, changes in LP portfolio or position composition, or personnel turnover to improve relationship management and optimize capital base	Moderate
Data Security	• SEIM capture to log all actions that occur in a cyber environment including access attempts to machines, folders, files, networks, password attempts • Behavior analysis for data loss prevention across ecosystem	Considerable

Other examples of leveraging these types of solutions include Credit Suisse's joint venture with Palantir to "focus on detecting unauthorized trading" or more recently, IBM's purchase of artificial intelligence firm Promontory Financial, to help financial institutions understand the shifting regulatory landscape, understand their obligations and address compliance requirements more rapidly.

Some feel the forward success of any financial services firm, whether an investment bank, wealth manager or alternative investment fund, will largely depend on the effective incorporation and utilization of technology and data. **The rise of this data creates new responsibilities and opportunities,** including: how to best communicate trends, efficiencies or risks—and—in the age of growing cyber threats—protect it?

3. Transparency and Enhanced Communication
Among funds, their LPs and counterparties

As managers, regulators, investors and counterparties work to digest the explosion of information now available, there is an increased expectation of improved communication among stakeholders. Investors expect heightened transparency not just on investment and risk processes, but around issues involving governance, operations, infrastructure and business continuity. Many counterparties have begun seeking more frequent engagement with partner clients to mutually share strategic initiatives, discuss performance or earnings numbers, and review the relationship holistically in light of changing regulatory and business environments.

Regulators now expect, and in many cases require, heightened visibility and reporting on everything from assets under management and leverage, to specific holdings or real time transaction data. The Securities and Exchange Commission, for its part, has announced an ever growing number of enforcement actions—868 enforcement cases in fiscal 2016, versus 807 in 2015. This growing number may in part be facilitated by the expanded use of big data or algorithmic programs.

The mystique that surrounded hedge funds in their early days may have outlived its usefulness. The landscape has changed. While intellectual property, investor information and other sensitive data will likely stay proprietary, registration and reporting is now routine, and the desire for greater transparency from counterparties, investors and regulators means the trajectory likely moves in one direction.

Investors

Managers are working to meet and exceed these expectations by improving the granularity and frequency of reporting, and they're spending more time tailoring these messages to specific audiences. Sending identical investor letters to all LPs is starting to give way to more tailored, frequent communication. Managers are working to identify individual drivers of allocation, and may more closely focus their communication to address investors' needs, concerns and forward portfolio planning.

In particular, as some hedge funds become better known as specific solutions providers, rather than lumped together as a monolithic asset class, managers' ability to articulate a more precise, evidenced argument for the value delivered across their products is increasingly important. What do decomposed performance numbers look like across various time periods? Investors' return profiles and long term needs don't always line up with a January 1 calendar year. Clear, concise value arguments in turn assist LPs at their own investment committee meetings.

The underlying analysis of managers' own value propositions is changing. The following chart reflects some of the shifts that may reflect the future in reporting approaches.

3. Transparency and Enhanced Communication

Among funds, their LPs and counterparties (Continued)

Chart 1.7 – Bilateral Trends in Communication and Transparency

Managers	Investors	Counterparties
• Decomposing performance and **tailoring reporting** to **align** with **investors' specific** allocation drivers • Holding regular broker votes with **counterparties** to capture and holistically measure **pricing, trading and value-add services** • **Document compliance, training and cybersecurity efforts** in the event requested by regulator or investor	• Regularly revisit portfolio needs to **better communicate allocation drivers** to managers across platform • **Understand regulatory changes** that impact financial services • Regularly engage with providers like Prime Brokers, Administrators, Cyber defense professionals to **understand the full risk ecosystem** of hedge funds	• Utilize **more specific metrics to analyse** services, financing or product delivery for partner clients • **Conduct regular broker reviews** with clients or service provider reviews • **Increased engagement with Investors/LPs** to stay current with your clients' clients needs and changing portfolios

Chart 1.8 – Shift in Engagement and Communication Between Managers and LPs

	Common in 2011	Important in 2020
Differentiation	Description of investment process; decomposing return streams	• Decomposing return streams beyond alpha, beta and volatility in light of specific allocation drivers • Specifying where you fit in each investor's portfolio and identifying the value you deliver, whether smoothing volatility, non-correlation/diversification with other investments, or outperformance vs. a benchmark, across time and market cycles for that investor
Institutionalization	Risk Management, Compliance, Infrastructure	• Address evolution of business practices separate from portfolio changes • Highlighting development of robust cyberdefense or business continuity programs, or building stand-alone Treasury engines
Team	Pedigree, Track Record	• Articulating philosophy of alignment of interests across business conduct, not just investing philosophy and behavior • Engagement with individuals across the firm; regular updates on organizational initiatives, personnel turnover or forward strategic planning from IT to IR or Operations
Alignment of Interests	Fee structure and creating bespoke vehicles	• Getting more granular on fee models—clearly articulating fee splits between manager and investor • Explaining increase in recurring op-ex across time (i.e. building a robust cybersecurity program, upgrading trading systems, building Treasury systems)

3. Transparency and Enhanced Communication

Among funds, their LPs and counterparties (Continued)

Counterparties

Hedge funds are also bringing a heightened focus to the detail and communication with counterparties to elevate strategic firm-to-firm dialogue. Credit Suisse conducted a proprietary study of counterparty relationship management in 2015, and found that broker reviews, formerly the provenance of only the largest, most well-resourced clients, are becoming more common across the spectrum.[20]

Slightly more than half of Credit Suisse key accounts in the Americas now conduct broker reviews (whether in the form of broker votes, scorecards, etc.)—an increase since 2011. Less than a quarter of key account clients currently have headcount focused on counterparty relationship management, but a growing number of clients indicate a desire to hire in that capacity.[21] Recent regulatory changes have meant not all business is valued equally by all counterparties, meaning where revenue used to be a main driver of measured client activity, firms now must look at returns per dollar, across time and product mixes.

As such, hedge funds are looking beyond quality of pricing, execution and research to increasingly include any bespoke data feeds, access to senior advisors (who may be former statesmen, public servants or thought leaders), or various consulting or other advisory services to measure all value delivered.

	Sell Side	Buy Side
Past	• Less metric driven • More siloe'd measurement, typically bilaterally across trading relationships rather than firm to firm • Supermarket model of product/business delivery ("more is more") • Revenue driven measurement model	• Less metric driven • Bilateral measurement of service/execution, rather than centralized • Ad hoc measurement of bespoke data fees, advisory or consulting "value add" services • Few, if any, dedicated headcount to focus on counterparty relationship management
Present	• More metric driven, and increasingly centralized across products, business lines, regions and groups to accurately capture firm resource utilization • Share firm updates; earnings commentary, updates on strategic direction • Ongoing communication with counterparty relationship managers at clients (if relevant)	• Move towards centralized trade execution and counterparty measurement • Increased use of broker reviews, continue to develop and build out scorecards to accurately measure service across access, financing and advisory services • Add in focus on balance sheet usage, operations or documentation issues or general coverage
The Road Ahead	• Continued integrated/holistic measurement of client relationship across products and regions • Central measurement of client activity, including capture of data feeds, access to firm advisors and bespoke advisory or consulting services • Regularly share firm strategic direction or commentary on earnings, wallet rankings, shifts in business due to regulatory changes	• Increased hiring of dedicating "Relationship Managers" or focusing senior personnel to serve as centralized point to manage financing counterparty relationships • Regularly share firm-wide AuM, performance, turnover, strategic initiatives

20. Credit Suisse Key Account Management Client Relationship Management Survey, March 2016
21. Ibid

3. Transparency and Enhanced Communication

Among funds, their LPs and counterparties (Continued)

Regulators from multiple jurisdictions are also requiring more information from hedge funds and other market participants, via increased reporting and registration requirements—and even likely real time transaction reporting, as proposed in the current MIFID II rules. Investors added to this push—seeking better disclosures from funds on issues ranging from governance to cyber defense and business continuity or staff turnover. And finally, an evolving regulatory and business landscape has further prompted funds and their counterparties (typically financing) to share information more freely, in a metric driven way, via central point of contacts.

Multiple drivers have pushed for enhanced transparency and communication—a trend that will only continue to develop, and be impacted by the ever changing regulatory landscape.

4. Ongoing Regulatory Adaptation

Post crisis regulation has prompted considerable change across the financial services landscape. Hedge funds have been directly impacted—via registration, heightened reporting requirements, the move to clearing and rules like AIFMD or FATCA that touch the investor side. Funds have also been indirectly impacted via counterparties that provide financing, access and other advisory services as a result of heightened capital requirements.

The **outcome of these regulations has been mixed; some see a safer market, albeit with higher costs and additional complexities. Others aren't as convinced that new capital regulations mean we're safer, and see potential unintended consequences of regulations as simply shifting the center of gravity**—so that systemic risk lingers outside of the institutions that were directly involved in the 2008 crisis.

While many of these regulations—like the Basel capital requirements or the move to OTC clearing—have been mostly incorporated, Brexit and the 2016 U.S. Presidential election could have far reaching consequences to many others that remain outstanding. It is also possible that some of the regulations we've come to regard as driving our new normal could be amended or overturned entirely. Political risk and regulatory uncertainty have moved to the top of the list of risks as managers plan for 2017 and beyond.

Chart 1.9 – Regulatory impact across hedge fund business verticals in the post crisis era

Marketing	AIFMD	JOBS Act	FATCA
Execution	MIFID	Basel III	OTC Clearing
Reporting	Form PF	OPERA	Registration
Counterparties	Basel III	OTC Clearing	AIFMD
LPs	FATCA	AIFMD	KYC

4. Ongoing Regulatory Adaptation (Continued)

This uncertainty can considerably challenge forward business planning, and increased cross jurisdictional connectivity means even smaller regulatory bodies can reach far beyond their borders. The long dated uncertainty introduced in 2016 could continue through the 2017 European elections and beyond.

While much of this will be resolved by 2020, the long term lingering effects of issues like Brexit and having to consider other "unknown unknowns," most likely results in increased operational costs from continued engagement with legal counsel, to potential systems builds or friction caused by increased costs for trading or marketing in other jurisdictions. Other potential developing regulations which may impact hedge funds' business in the coming years:

Regulation	Potential Impact
Federal Reserve Board on Single Counterparty Credit Limit (SCCL)	May significantly discourage any Covered Company from having exposure to any one counterparty in excess of the 5% threshold because of the significant due diligence that would be required for that credit exposure.
Market Abuse Regulation (MAR)	Staff will likely need to be made aware of new rules through training and be monitored
Financial Stability Oversight Council ("FSOC") Update on Review of Asset Management Products & Activities	May impact the leverage clients can obtain and securities lending activities
European Supervisory Authorities (ESA) – Final Draft Rules on Margin Requirements for Uncleared Swaps	May increase cost of doing uncleared swaps
HIRE/JOBS Act	Long swaps will now be subject to withholding beginning 2017; non-U.S. clients will assess the benefits of continuing to buy swaps on U.S. equity.
U.S. Department of Labor New Definition of Fiduciary	Managers of plan asset funds and accounts may need additional documentation from existing investors in order to make the additional representations that may be requested by counterparties
Securities Financing Transactions Regulation (SFTR)	All UCITS and alternative investment fund managers will need to comply, as those that engage in collateral reuse
MIFID II	Clients may need to update their own reporting capacity to report on their behalf for trades executed on a EU regulated market. Additional unknown impact of full unbundling of research and execution fees (i.e. 'bespoke' research paid for out of portfolio managers own P&L).

Regulatory adaptation has been one of the strongest drivers of the post-crisis financial landscape. From how financing counterparties function and how much capital they hold—to how much hedge funds now have to report on a regular basis to regulatory bodies or their investors—to how they market, and who they market to, regulatory change now spans the hedge fund complex.

That regulatory evolution will continue to impact how hedge funds conduct business or report their investing is clear; what is less obvious is how. And unfortunately such uncertainty can create considerable productivity drags on forward planning.

The Road Ahead

Hedge funds may have hit an inflection point in their evolutionary cycle. With rising competition from passive investing strategies, questions about fee structures and performance, and shifts in asset management in general —the pressures to demonstrate an enduring business model are considerable.

Perhaps the most dogged headline regarding hedge fund business models pits it against the growth of passive investing. It is unlikely that active management will disappear or even materially contract; many passive funds by definition are backward looking, based on historically predictive factors. Some argue the massive inflows to passive funds are increasing correlation, and may serve as the epicenter for a future dislocation. Others claim these lower priced alternatives will ensure better competition among actively managed funds—asserting only those who are posting frequent outperformance or clearly deliver on their value proposition will continue to earn fees.

It seems increasingly likely we will see a "hollowing out" of the middle of the hedge fund industry—with large firms continuing to grow and diversify offerings on one end of the spectrum, and managers offering niche strategies on the other. It's incumbent on all firms to succinctly and clearly communicate their specific value proposition across their investor base. **As managers collaborate with their partner investors to create bespoke solutions, like longer dated co-investments that help further diversify portfolios, or smart beta products driven by a specific set of factors, hedge funds may be even less viewed as a monolithic "asset class" and more as a general solutions provider.** Such a transition would follow the move of junk bonds towards high yield or LBOs giving way to today's private equity. By 2020, could hedge funds follow a similar evolutionary path, emerging with different branding entirely?

The Road Ahead (Continued)

Considerations for managers as they prepare for the industry's next chapter:

I. Polarization and potential consolidation

- Have we conducted "stress tests" for our own business in the event of performance downturns, investor redemptions or other business continuity issues, to understand long term working capital needs
- Does our long term horizon include diversifying strategies or asset classes, and are our people and systems sufficiently flexible to adapt to new investments

II. Data Permeation

- Have we explored potential technology solutions across our business – including IR/marketing, execution or compliance
- Even if upgrades or additional systems aren't necessary at this point, is it worth conducting an exploratory exercise to be aware of different offerings in the market

III. Transparency and Communication

- Have we reviewed our communications and outreach effort to LPs, updating and targeting our message across business cycles?
- Do we accurately reflect our philosophy around fees and expenses, and communicate that in a transparent, timely manner to our investors?
- Are there other non-investment issues like governance or cyber defense and business continuity that warrant specific outreach
- Should we consider adapting our messaging or delivery to ensure we are being clear, concise and transparent

IV. Regulatory Adaptation

- Have we reviewed pending regulations that could considerably affect our normal course of business (i.e. – MIFID II, the U.S. Department of Labor's 2016 Fiduciary Rule, or the Market Abuse Regulation, for example) and mapped out what the potential spectrum of impacts may be

We welcome the opportunity to connect with clients on any of the above topics. Our Capital Services and Consulting teams focus on engaging with clients to conduct front-to-back reviews of strategic issues ranging from investor engagement to holistic operational processes.

Credit Suisse AG
P.O. Box 000
CH-0000 Zurich
credit-suisse.com

IMPORTANT NOTICE—PLEASE READ

These materials do not constitute an offer or a solicitation of an offer to buy or sell investment products or securities. These materials are provided for information purposes only and do not contain all of the information that is material to an investor and are intended solely for your information and may not be disclosed or distributed to any other person, or otherwise replicated in any form without the prior written consent of Credit Suisse. Nothing in this document constitutes investment, legal, accounting or tax advice or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. These materials do not constitute investment research or investment advice and should not be viewed as a personal recommendation, invitation or offer to subscribe for or purchase any of the products or services mentioned or to make any investment decisions or adopt any investment strategy described in this material or otherwise.

This material has been prepared by us based on assumptions and parameters determined by us in good faith. We make no representation as to the completeness or accuracy of the information. We do not accept any liability for any direct, indirect or consequential loss or damage arising from reliance on this information.

This material does not purport to contain all of the information that an interested party may desire and, in fact, provides only a limited view of a particular market, which may be based solely on activity observed at CS. CS will not treat recipients of this document as its customers by virtue of receiving a copy.

Past performance should not be taken as an indication or guarantee of future performance.

Credit Suisse Securities Europe Limited (“CSSEL”) and Credit Suisse International (“CSI”) are authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority (“FCA”) and the Prudential Regulation Authority. CSSEL and CSI do not hold an Australian Financial Services Licence (“AFSL”) and are exempt from the requirement to hold an AFSL under the Corporations Act (Cth) 2001 (“Corporations Act”) under Class Order 03/1099 published by the Australian Securities and Investments Commission (“ASIC”), in respect of the financial services provided to Australian wholesale clients (within the meaning of section 761G of the Corporations Act). This material is not for distribution to retail clients and is directed exclusively at Credit Suisse’s professional clients and eligible counterparties as defined by the FCA, and wholesale clients as defined under section 761G of the Corporations Act. Credit Suisse (Hong Kong) Limited (“CSHK”) is licensed and regulated by the Securities and Futures Commission of Hong Kong under the laws of Hong Kong, which differ from Australian laws. These materials are provided solely to professional investors. CSHKL does not hold an AFSL and is exempt from the requirement to hold an AFSL under the Corporations Act under Class Order 03/1103 published by the ASIC in respect of financial services provided to Australian wholesale clients (within the meaning of section 761G of the Corporations Act).

Credit Suisse Equities (Australia) Limited (ABN 35 068 232 708 AFSL 237237) (“CSEAL”) CSEAL is an AFSL holder in Australia (AFSL 237237). In Australia, this material may only be distributed to Wholesale investors as defined in the Corporations Act. CSEAL is not an authorized deposit taking institution and products described herein do not represent deposits or other liabilities of Credit Suisse AG, Sydney Branch. Credit Suisse AG, Sydney Branch does not guarantee any particular rate of return on, or the performance of any products described.

Investment banking services in the United States are provided by Credit Suisse Securities (USA) LLC, an affiliate of Credit Suisse Group. These materials are provided solely to Institutional Investors.

Additional information is available from us upon request.