Managed Funds Association

AIMA

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7 January, 2021

**AIMA and MFA Response: "Accessing and using wholesale data - Call for Input"**

The Alternative Investment Management Association (AIMA)[1] and Managed Funds Association (MFA)[2] are grateful for the opportunity to provide input on behalf of our members on the crucial topic of market data. AIMA and MFA members invest on behalf of pension plans, university endowments, charitable organizations, family offices, and qualified individuals, among other entities. In service to their investors, our members engage in a range of investment strategies for which access to market data is essential. Fundamental changes to the regulatory framework for market data is essential if alternative investment managers are to meet their regulatory obligations, provide the best investment services possible to investors, and continue to innovate. We have included graphs throughout our response; those in the market data section are derived from a survey of 20 of our member firms, and those in the alternative data section from a wider survey of our membership.

Greater access to market data and information plays an important role in expanding market liquidity, narrowing bid-ask spreads, and promoting competition amongst investment managers. However, our members are concerned that the current regulatory framework has led to a situation in which market data vendors and trading venues are charging unreasonable prices for market data. Without intervention, the current trajectory of access to market data could lead to a situation that impairs market liquidity and competition.

Specifically, we would note:

- Market data prices have increased significantly in recent years. The London Stock Exchange Group's (LSE's) revenue from market data, for instance, was estimated to have increased by 7% net of inflation

[1] The Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with more than 1,900 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than $2 trillion in hedge fund and private credit assets.
[2] MFA represents the global alternative investment industry and its investors by advocating for public policies that foster efficient, transparent, fair capital markets, and competitive tax and regulatory structures. MFA supports member business strategy and growth via proprietary access to subject matter experts, peer-to-peer networking, and best practices. MFA's more than 140 member firms collectively manage nearly $1.6 trillion across a diverse group of investment strategies. Member firms help pension plans, university endowments, charitable foundations, and other institutional investors to diversify their investments, manage risk, and generate attractive returns over time. MFA has a global presence and is active in Washington, London, Brussels, and Asia, supporting a global policy environment that fosters growth in the alternative investment industry.

in 2017 alone.[3] In a more extreme example, in June 2018, ESMA reported seeing evidence of market data prices increasing by up to 400% from January of that same year.[4]

- Our members purchase market data out of regulatory obligation, and thus feel compelled to pay the fees charged by venues and data providers.
- Our members are increasingly obligated to purchase new products, often made by unbundling existing data offerings and/or bundling new products, in order to continue receiving the same level of data.
- Market data prices have become increasingly complex: the number of fees charged for market data by the LSE doubled in the decade leading to 2018. For instance, our members are required to pay "connectivity" fees simply to access the data for which they have already paid.
- Our members are increasingly subjected to invasive 'data usage' audits to ensure their compliance with the highly complex fee schedules dictated by data vendors and venues. The need to comply with these schedules, and to prepare for such audits, leads to serious costs for our members.

The market impact of increased costs, the purchase of bundled products, and audit preparation, are particularly punitive for our smaller members. Market data costs is becoming a barrier to entry for new investment managers, thus harming a leading UK industry and leading to fewer options for investors.

Our members are also increasingly availing themselves of new types of market data and advanced analytics. 'Alternative data' are becoming important information sources for investment decisions and risk management.

- A recent AIMA survey of our membership found that slightly over half of the respondents were already using some form of alternative data.
- The majority of respondents used alternative data to enhance their investment decisions.
- While competition concerns are valid, at present the use of alternative data does not seem to be leading to any barriers to competition; it may actually be removing some of the existing barriers, as alternative data sets can be used by emerging investment managers to create new strategies and challenge established market participants.

*Accessing market data*

The importance of market data to our members is impossible to overstate. Trading data is necessary for our members to decide which trades to make, and when to execute them. Furthermore, access to market data is necessary for managers to fulfil their best execution obligations under MiFID II. For many alternative investment managers, the importance of market data is akin to the importance of access to power and water for the manufacturing industry. Without something as simple as the Stock Exchange Daily Official List (SEDOL), our members would be unable to effectively perform their duties.

There are limited sources for market data under the current structure—especially real-time data. Investment managers either directly obtain raw market data from the trading venues capturing it (by virtue of the trading activities of those investment managers and other market participants), or indirectly from data vendors. This gives venues the ability to dictate how data can be accessed and how much it will cost, whilst also creating significant reliance on the intermediation services of data providers.

[3] https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf

[4] https://www.esma.europa.eu/sites/default/files/library/esma70-156-427_mifid_ii_implementation_-_achievements_and_current_priorities_steven_maijoor_fese_convention_2018_vienna_21_june_1.pdf

Furthermore, the data vendor market is highly concentrated, giving vendors significant power to set prices and dictate terms. The most recent research available estimated the market share of Bloomberg, the largest market data provider, at 32.7%.[5] For reference, the market share of the largest electricity provider in the UK was estimated at 18.4%.[6]

Trading venues are required to provide market data on a Reasonable Commercial Basis (RCB) pursuant to the requirements of MiFID II. However, the definition of "reasonable" is contentious and trading venues (typically for-profit institutions) have an interest in generating the highest sustainable profits possible. It is inarguable venues have both the means and the incentives to explore or exceed the upper limits of what constitutes a "reasonable" price, whilst providing clients with poor – indeed meaningless – disclosures about how they meet the RCB requirement. This is also in the context of an oligopolistic (and at times monopolistic) market structure, which has already attracted the attention of competition authorities at European level.

In practice, this means market data prices have significantly increased. In 2018, following the implementation of MiFID II, the Chair of ESMA Steven Maijoor noted, the Authority was "made aware of substantial increases in the costs of market data, reaching at times up to 400% compared to prices charged prior to 3 January 2018."[7] The price for Level 1 equity market data charged by the London Stock Exchange Group ("LSE"), Nasdaq Nordic, Euronext, and Deutsche Börse was estimated to have increase by 11% net of inflation between 2004-2006 and 2018.[8] In the UK, the LSE's revenues from market data were estimated to have increased by 7% net of inflation between 2017 and 2018 alone.[9]

We recognise there are factors that naturally increase the cost of some market data. For instance, data with lower latency is naturally more expensive; and increasing demand for such data could, theoretically, lead to an increase in the overall average price of market data. However, there are factors that seemingly push the price down. Given that market data is a biproduct of trading activity, the breakeven cost of raw market data should logically be a product of the cost of its dissemination. As a research note, however, that cost is largely one of establishing the necessary infrastructure; the marginal cost of distributing to more parties should be small.[10] This would further suggest that any increase in the price of disseminating market data should be incremental.[11] Further, internet transit prices—the price of sending data over the internet—have collapsed in the developed world over the past decade.[12]

Building on the issue of cost, many of our members report needing to purchase unnecessary products, often created by venues and data providers either by unbundling existing products or bundling different data together. This forces our members to buy new products to access the same data they were already using. In addition, the numerous fees attached to accessing data, have grown increasingly complex. The number of different fees charged by the LSE, for instance, doubled in the decade leading to 2018.[13] Our

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[5] https://markets.businessinsider.com/news/stocks/global-spend-on-financial-market-data-totals-a-record-32-0-billion-in-2019-rising-5-6-on-demand-for-pricing-reference-and-portfolio-management-data-new-burton-taylor-report-1029094073#

[6] https://www.ofgem.gov.uk/data-portal/electricity-supply-market-shares-company-domestic-gb

[7] https://www.esma.europa.eu/sites/default/files/library/esma70-156-427_mifid_ii_implementation_-_achievements_and_current_priorities_steven_maijoor_fese_convention_2018_vienna_21_june_1.pdf

[8] https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf

[9] Ibid.

[10] Ibid., https://www.oxera.com/wp-content/uploads/2014/02/Pricing-of-market-data-services-3.pdf

[11] Ibid., Oxera

[12] https://blog.telegeography.com/global-ip-transit-prices-decline-pandemic-covid19

[13] https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf

members are charged access fees, site fees, distribution fees, connectivity fees, display fees, delayed data fees, non-display fees, fees for creating and storing derived data/work, and more.

The complexity of those fees has led to our members spending more resources on ensuring that the data they use is as strictly controlled internally as possible. Our members also report having to submit to regular, invasive "data usage" audits performed by venues and data providers, in which the burden of proof is on our members to prove that they have acted in accordance with their usage agreements (rather than on the venues and data providers to prove they have not). The sheer complexity of the costs and the attention needed to implement rigorous internal protocols, means that investment managers would be paying more for access to market data even if the average cost of market data had not significantly increased. We also note our members often have no choice but to purchase market data from several trading venues and market data vendors, thus increasing their costs and the requirements by which they abide exponentially. To further complicate matters, individual venues and data providers often have their own interpretation of common terms in data usage agreements, drastically increasing the difficulty of complying with those agreements for our members.

Overall, the evidence indicates trading venues and data vendors are availing themselves of investment managers' need for market data in order to generate additional profit from the sale thereof. While there is nothing wrong with this *per se*, it does have the potential to undercut market efficiency, particularly as competition between data providers is severely constrained due to the concentration of the market. In order for markets to function efficiently and effectively, participants need as much data as possible. Price discovery, for instance, is highly dependent on the dissemination of market data. Should market data become more difficult to obtain, it seems reasonable to conclude that market efficiency will suffer. Further, if market data costs continue to increase, it will increasingly fall on investors. Investment managers will need to pass some of the costs along to their investors in order to remain solvent, which means that investor returns will suffer, cutting into the pension savings of workers and endowments of charities. This is particularly the case for smaller investment firms and funds, which have fewer investors with whom to share the monthly data costs.[14]

There is little doubt that UK investment industry could be harmed if market data prices continue to increase. If electricity providers, for instance, increased their prices by 7% in real terms a year, doubled their fee schedules every ten years, and required customers to buy bundled products, the Government would clearly intervene.

For this reason, as we previously advocated,[15] the RCB framework in respect of data provision should be strengthened as a matter of priority to include:

- Greater emphasis on enforcing the existing framework, which already limits what trading venues can charge for data relative to the cost of compiling and publishing that data (Article 85 of CDR 2017/565 and Article 7 of CDR 2017/567), albeit without setting explicit limits.
- More stringent requirements on the form and content of RCB disclosures, given the lack of comparability in approach at present.
- Much stronger provisions on reporting of costs to ESMA and NCAs, with explicit oversight and intervention powers for NCAs where charges are not commercially reasonable relative to costs.

[14] The high monthly data costs make it challenging for new fund market entrants as they must reach a certain order of magnitude before they can become commercially viable.
[15] AIMA and MFA response to European Commission MiFID consultation, May 2020.

Lastly, we encourage the FCA to consider the possibility of adopting its ruleset after the end of the transition period, regardless of the outcome of European legislative change in this area. This will help solidify the UK's competitive position as providing strong investor protection that promotes greater competition and increases market efficiency.

*Alternative data*

As crucial as conventional market data is to alternative investment managers, it is not the only data our members use. They increasingly depend on what the FCA describes as "new data and advanced analytics," but which tends to be described loosely as "alternative data" by industry participants. Alternative data is generally defined as data and analytics that are not part of 'traditional' financial information. Satellite imaging, weather information, and social media analysis are all examples of alternative data.

The importance of data continues to increase for the investment management industry, and particularly alternative investment management firms. Given the ubiquity of traditional market data, alternative investment managers are looking to alternative data in order to help them deliver superior performance and risk management for their investors. A recent AIMA survey of 100 hedge fund firms found that slightly over half were already using alternative data, with an additional 14 trialing the use of such data.[16] A majority of those using it reported deploying alternative data in order to improve their investment decisions. For instance, before investing in a retail company an alternative investment manager may parse the online reviews left for that company by its customers: should those reviews be poor, the alternative investment manager could avoid investing in the company (even if its fundamentals seemed strong).

Perhaps the most important form of alternative data, however, is so-called environmental, social, and governance (ESG) data. This data is crucial for the implementation of responsible investment (also known as sustainable finance). Information about a manufacturing company's carbon emissions, for instance, would not typically be thought of as a traditional form of financial data. This is significant for determining whether to invest long-term and judging the possible risks involved. The same can be said of the social impacts of that company, and its governance structure. Employing such alternative data in the investment decision can help alternative investment managers ensure that their investments contain as little unwanted risk as possible.

The FCA is justified in asking whether the use of alternative data could potentially affect market competition, but such fears are likely unnecessary for the time being. The market for alternative data is far less consolidated than that for traditional market data. Further, there is no equivalent of trading venues in the case of alternative data: no single entity controls a flow of alternative data. As such, there seems to be a healthy degree of competition between alternative data vendors, with smaller data providers pioneering new approaches and competing with the established players.[17]

The same dynamics apply to the use of alternative data by alternative investment managers. Unlike traditional market data, investment managers are not required to use alternative data, so there are naturally fewer concerns when it comes to competition. Indeed, the innovative use of a new form of data,

[16] https://www.aima.org/educate/aima-research/casting-the-net.html
[17] Of course, the risk that larger providers increase their market share through mergers and acquisitions should not be discounted; this process seems to already be occurring in the market for ESG data, for instance. We would encourage the FCA to be vigilant in this area.

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or the use of a new form of analytics, might even allow a smaller investment manager to break into the market, and to compete against the entrenched players.

Respectfully submitted,

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| /s/ Adam Jacobs-Dean | /s/ Jennifer W. Han |
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**Annex 1**

**Q3.1: What type of trading data do you use/obtain directly from trading venues and APAs, and how do you use trading data?**

In order to execute their day-to-day investment activities, most of our managers need access to bid and ask prices, trading volumes, and even information as basic as a security's ticker symbol from trading venues. This data is integral to the investment process, as they allow our members to identify both the assets to invest in and how best to execute trades. For instance, market data can be used to inform the size and timing of trades, in order to ensure those trades do not unduly affect the price of the asset being traded.

Market data is not, however, only used in the investment process. Since the passage of MiFID, various regulatory requirements have effectively required firms to increase their consumption of data and ability to process that data, including: requirements relating to monitoring of execution quality; regulatory reporting requirements; rules on inducements; asset valuation requirements; and data security, risk management and business continuity requirements (such as maintenance of redundant feeds and archives).

In short, our members often have no choice but to purchase market data.

**Q3.2: Are you content with the price, quality, provision, coverage, speed and depth of trading data (or other data sold by trading venues or APAs)? If you are not satisfied with any of these elements, please explain why not and the impact this has on your business.**

Our members have serious reservations about the provision of market data. The greatest concern is price. As detailed above, market prices have drastically increased since the passage of MiFID. The price for Level 1 equity market data charged by five of the largest trading venues in Europe was estimated to have increased by 11% net of inflation between 2004-2006 and 2018.[18] ESMA has reported instances of market data prices increasing by up to 400% in the space of six months following the implementation of MiFID II. These increases come at a time when data transfer costs (the main input cost for the provision of market data) continue to decrease.

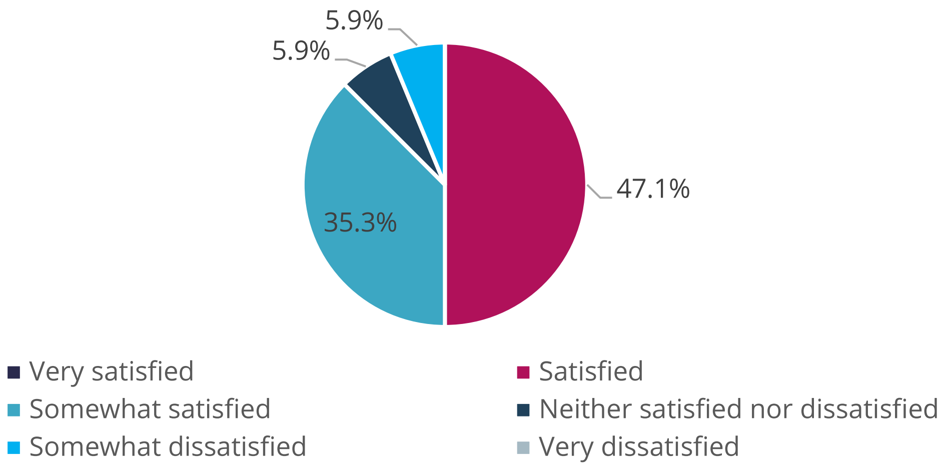
Price increases have a deleterious effect on investment management in general. Investment managers have no choice but to purchase market data (often from a variety of trading venues and data providers). As the price for data increases, the greater the risk it will cut into investment returns—meaning that the price may ultimately be borne by end investors. Rather than invest in new technology or risk management infrastructure, investment managers are compelled to spend increasing amounts of money on market data that has not materially changed or improved.

We note that the stability of any marketplace is preserved by the presence of a diverse group of direct market participants, making their trading decisions independently of each other. We are, therefore, concerned that trading venues, through dominant market power are pricing out many market participants. This dynamic also constitutes a barrier to entry for investment managers and has the potential to limit choice for end investors. We are aware of member firms that have decided not to seek

[18] https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf

exposure to additional markets due to additional costs. Those considering a new hedge fund launch might also be dissuaded by the setup costs associated with market data access which do not scale by assets under management.

**How satisfied are you with the quality, provision, coverage, speed and depth of market data sold by trading venues or APAs?**




*Source: AIMA Research*

Finally, as we have noted in our submissions to ESMA, our members have expressed concerns that trading venues and data providers are still not complying with the spirit of MiFID II's requirement that post-trade data should be provided free of charge after 15 minutes. Our members report having to create one-off user accounts to access such data, the terms of which require onerous legal review; the data they access is sometimes incomplete, or presented in a format that cannot be read by machines. For some non-equity assets, our members report that delayed data is missing entirely. We strongly urge the FCA to investigate these reports, and to make them an enforcement priority.

**Q3.3: Do you consider any trading venues or APAs set of trading data a 'must have' for your business purposes? If so, please explain why. For example, is it linked to a liquidity threshold in the relevant financial instrument and/or to best execution requirements considerations?**

As detailed in our response to Q1.1, market data is generally essential for our members for both investment and regulatory reasons. Our members need certain market data from the trading venues they use—trading venues which hold natural monopolies over the market data they produce. For instance, if a security is only listed on the LSE, a member would have no choice but to use market data from the LSE (purchased either directly from the LSE or through a data provider) in order to execute their trades. Once those trades are completed, the member would need LSE market data to fulfill its duty to monitor best execution, as well as other regulatory requirements. Further, LSE is the only provider that can provide data with the least amount of latency.

Note that our members will often need to trade across different venues, meaning that they will have multiple "must-have" trading venues, and thus multiple "must-have" sets of market data. This further increases the cost burden attached to such data.

The broker community's services to some extent mitigate these challenges, particularly on the execution side, through the supply of off-the-shelf execution algorithms. This is, however, suboptimal as a solution, given it could heighten systemic risk concerns if large numbers of market participants use identical algorithms to execute orders. For this reason, our members need regulatory intervention to address the costs associated with data itself.

**Q3.4: For each data set you use, how have the trading fees, trading data costs and quality evolved over the last 5 years? What impact has this had on your business and your clients?**

As detailed above, market data prices have drastically increased over the past five, and even ten, years. Please see our response to Q3.2. This is in the context of the recognition by policymakers tens years ago that prices were already too high.[19]

**Q3.5: How easy are trading data pricing/licensing terms to understand and comply with? What, if any, do you find to be complex or restrictive and what impact does this have on your business?**

Our members are concerned over the increasing complexity of data pricing and licensing terms. As detailed above, the number of fees charged by the LSE for market data doubled in the decade leading up to 2018. Fees attached to market data include access fees, site fees, redistribution fees, display fees, delayed data fees, non-display fees, and fees for creating and storing derived data. Non-display fees charged by the LSE increased by an estimated 3.8% in 2018 alone.[20]

Many of our members report needing to purchase unnecessary products, often created by venues and data providers either by unbundling existing products and/or bundling different data together. This forces our members to buy new products to access the same data they were already using. The additional products are then subject to their own array of fees and usage agreements.[21]

At the same time, our members have reported an increase in "data usage" audits performed by trading venues. Such audits are conducted to ensure that members are strictly adhering to the complex terms attached to the market data they purchase. For instance, one member reported venue requirements stating no employees other than those specifically designated could view certain market data displayed on their colleagues' screens—even if it was accidental. Audits are also used by some trading venues to support their interpretation of "reasonable commercial basis" (RCB). Some trading venues interpret Article 86(2) of CDR 2017/565, which permits trading venues to charge different fees to different categories of customers based on how customers use the data, to mean that they charge based on the profits investment managers derive from their data. This interpretation justifies venues' highly invasive data usage audits, but is highly dubious given the reality that market data is itself generated by the trading activities of investment managers and other market participants.

[19] ESMA notes in its "Consultation Paper: MiFID II/MiFIR review report on the development in prices for pre- and post-trade data and on the consolidated tape for equity instruments" that "[a]lready back in 2010, when consulting on the review of MiFID I, the EC stressed that prices for trading data were considered as being too high" (CP; p.10).

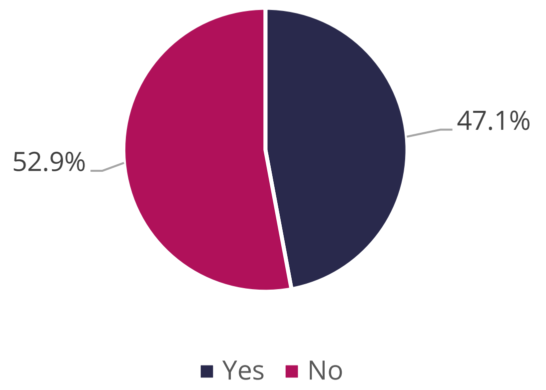
[20] https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf

[21] While MiFID II includes provisions on data disaggregation, they have not in the experience of our members resulted in lower costs for market data. Unfortunately, it seems that well-meaning regulatory provisions have actually strengthened the commercial dominance of trading venues and enabled them to redefine their data offerings in a way that is designed to extract additional revenue from the user community. Indeed, members report that some venues have used this provision as the basis for increasing data fees, arguing that the dissemination of disaggregated data brings additional costs.

This results in our members spending an increasing amount of money not just on acquiring market data, but on abiding by the strictures that come with it. Our members are forced to dedicate increasing numbers of resources to parsing fee schedules, ensuring access to data is strictly controlled, and responding to invasive data usage audits. Many of our members are forced to hire full time staff or consultants specifically to deal with the intricacies of their data usage agreements; the agreements are often so complex that they require specialised and rare—and thus expensive—knowledge to interpret them. Our members are also often compelled to purchase new software specifically to deal with their market data, in order to abide by the strictures of their data usage agreements. Again, such software is highly expensive.

We are particularly concerned the effect these costs may have on our smaller members. Such alternative investment managers are the future of the industry and are crucial to ensuring adequate market competition. They tend not to have the legal and compliance teams larger managers have—nor do they have the same amounts of capital available to spend on market data. Unless something is done, increasingly complex fees and usage agreements may become a serious barrier to competition in the investment management industry as a whole.

**Have you ever needed to purchase data or services from trading venues or APAs on a standalone basis, but were compelled to purchase them as part of a bundle?**




*Source: AIMA Research*

Finally, as we have noted in our submissions to ESMA, our members have expressed concerns that trading venues and data providers are still not complying with the spirit of MiFID II's requirement that post-trade data should be provided free of charge after 15 minutes. Our members report having to create one-off user accounts to access such data, the terms of which require onerous legal review; the data they access is sometimes incomplete, or presented in a format that cannot be read by machines. For some non-equity assets, our members report that delayed data is missing entirely. We strongly urge the FCA to investigate these reports, and to make them an enforcement priority.

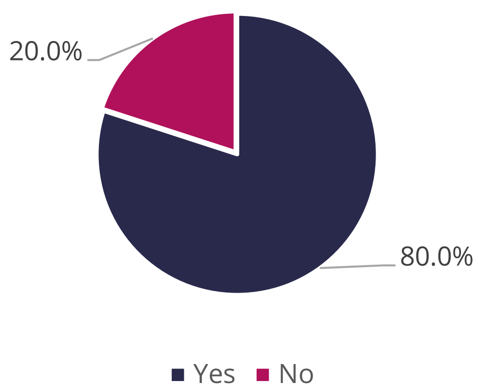
**Q3.6: Are you aware of trading venues or APAs charging different amounts to different customers for similar services? Please give specific examples and explain how these practices affect your ability to compete in the markets you operate in.**

Our members have experienced these practices. Indeed, such arrangements are written into regulation. Here we would quote the entirety of Article 86(2) of CDR 2017/565:

> "1. APAs and CTPs shall make market data available at the same price and on the same terms and conditions to all customers falling within the same category in accordance with published objective criteria.
>
> 2. Any differentials in prices charged to different categories of customers shall be proportionate to the value which the market data represent to those customers, taking into account:
>
> (a) the scope and scale of the market data including the number of financial instruments covered and trading volume;
>
> (b) the use made by the customer of the market data, including whether it is used for the customer's own trading activities, for resale or for data aggregation."[22]

As mentioned above, these provisions have clearly been interpreted by some trading venues as justification to base market data fees on the profit investment managers derive from their use. We are concerned that even beyond this, Article 86(2), particularly subclause *b*, is vague enough to justify a wide range of differential pricing among customers. We believe there should be no consideration of the value of the data to the user in the regulatory framework. Such a situation can lead to overly generous assumptions on the part of venues and data providers on the value of their data. Further, our members do not always derive a profit from market data to begin with; it is often used for risk management purposes and compliance with regulations.

**Are you aware of market data vendors charging different amounts or imposing different contract terms on different customers for similar services?**




*Source: AIMA Research*

**Q3.7: Please explain when you are charged for the use of delayed data.**

N/A

[22] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0565&from=EN

**Q3.8: To what extent do you think ESMA's suggested improvements to the RCB requirement will adequately constrain trading data pricing (see 3.23)? Are there other ways to ensure trading data prices are competitive?**

In our response to ESMA and the European Commission regarding the RCB framework, we have focused on changes that can be delivered most quickly through changes to delegated acts and supervisory practices, with a view to ensuring that change can be implemented rapidly.

As such, we have called for:

- Greater emphasis on enforcing the existing framework, which already limits what trading venues can charge for data relative to the cost of compiling and publishing that data (Article 85 of CDR 2017/565 and Article 7 of CDR 2017/567), albeit without setting explicit limits.
- More stringent requirements on the form and content of RCB disclosures, given the lack of comparability in approach at present.
- Much stronger provisions on reporting of costs to ESMA and NCAs, with explicit oversight and intervention powers for NCAs where charges are not commercially reasonable relative to costs.

In particular, we think it would be helpful to regulators for trading venues to provide data costs in a standardized way. This would better enable regulators to understand the level of profit from market data and assess whether data and associated costs are offered on an RCB.

If, however, quicker-to-deliver reforms do not prompt meaningful change in practice, then we would support further consideration of a long-run incremental cost-plus (LRIC+) framework for the sale of market data, something that the UK may be better able to implement in a timely manner once it is not bound by EU-level requirements.

**Q3.14: Which type of benchmarks do you use in your business? How many benchmarks do you use, and how many administrators have you had agreements with, over the last 5 years?**

N/A

**Q3.15: Are you content with the price and quality of the benchmarks you use? If you are not satisfied with any of these elements, please explain why not and the impact this has on your business.**

N/A

**Q3.16: Do you consider any benchmarks a 'must have' for your business purposes? What factors do you consider in this assessment?**

N/A

**Q3.17: How have prices and quality evolved over the last 5 years across the types of benchmarks you use? What impact has this had on your use of benchmarks, on your business and your clients?**

N/A

**Q3.18: Are benchmark administrators' pricing/licensing terms established by benchmark administrators easy to understand and comply with? What terms, if any, do you find to be overly complex or restrictive and what impact does this have on your business?**

N/A

**Q3.19: Are you aware of benchmark administrators charging different amounts or imposing different contract terms, to different customers for similar services? Please give specific examples and explain the impact on your ability to compete in the markets you operate in.**

N/A

**Q3.20: How easy is it to compare and switch between benchmark providers? Please provide details on the benchmarks considered when choosing and possible hurdles affecting your ability to compare, choose and switch.**

N/A

**Q3.28: Which market data vendor services do you use in your business and how has this evolved over the last 5 years?**

N/A

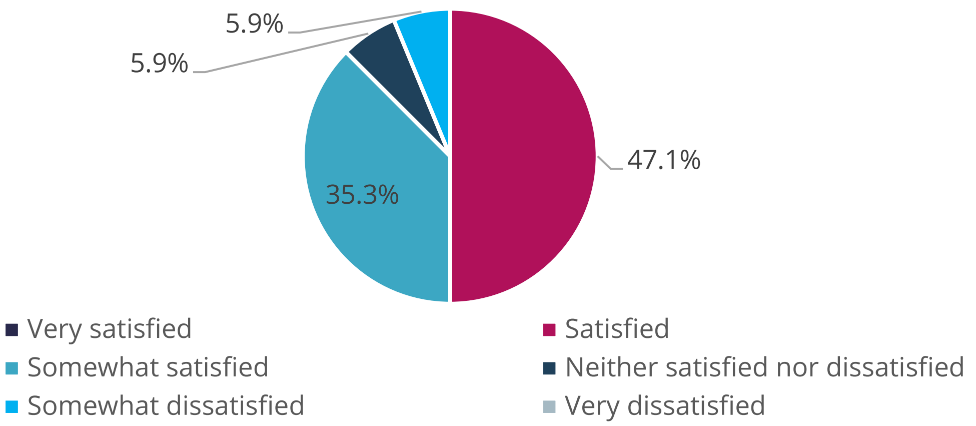
**Q3.29: Are you satisfied with the price, quality and level of innovation of market data vendors' offerings? If you are not satisfied with any of these elements, please explain why not and the impact this has on your business.**

Our members face many of the same challenges with market data vendors as they do with trading venues. Market data providers are dependent on trading venues for the data they vend, and as such are exposed to the same dynamics as investment managers attempting to purchase data directly from trading venues. Until the issue of market data costs is dealt with at the level of the trading venues, we are doubtful that any progress can be made at the level of market data providers.

We would note, however, that increased consolidation amongst market data providers is cause for concern. At the time of writing, the three largest market data providers in the world hold an estimate 60% of the market.[23] While market data vendors do not, clearly, enjoy the natural monopoly position of trading venues, further consolidation in the vendor industry could harm competition and lead to further increases in prices charged by such vendors.

[23] https://markets.businessinsider.com/news/stocks/global-spend-on-financial-market-data-totals-a-record-32-0-billion-in-2019-rising-5-6-on-demand-for-pricing-reference-and-portfolio-management-data-new-burton-taylor-report-1029094073#

**How satisfied are you with the quality, provision, coverage, speed and depth of market data sold by trading venues or APAs?**

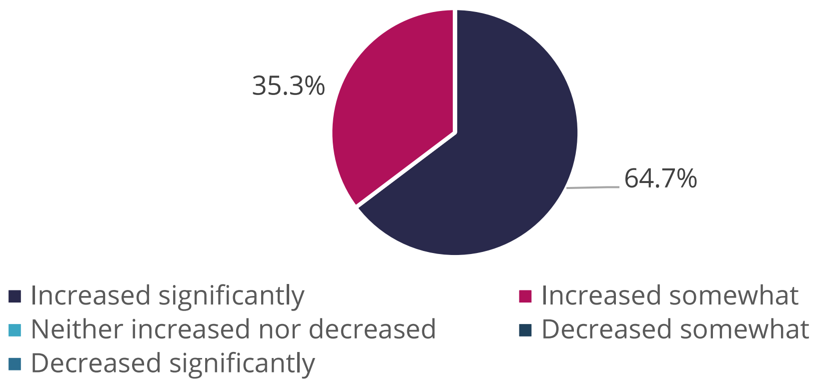



*Source: AIMA Research*

**Q3.30: How have prices and quality evolved over the last 5 years across the types of market data vendor services you use? What impact has this had on your use of data, on your business and your clients?**

As discussed above, the fees charged by market data vendors will ultimately be a function of the fees charged by trading venues. The same issues arising from increased trading venue fees—including concerns about the effect on competition—pertain to the increased fees charged by market data vendors.

**How have the prices charged by market data vendors evolved over the past 5 years?**




*Source: AIMA Research*

**Q3.31: Are you aware of market data vendors charging different amounts or imposing different contract terms on different customers for similar services? As a user are you, or have you been, at a competitive disadvantage as a result?**

Our members have reported such practices. We would urge the FCA to investigate data usage audit settlements.

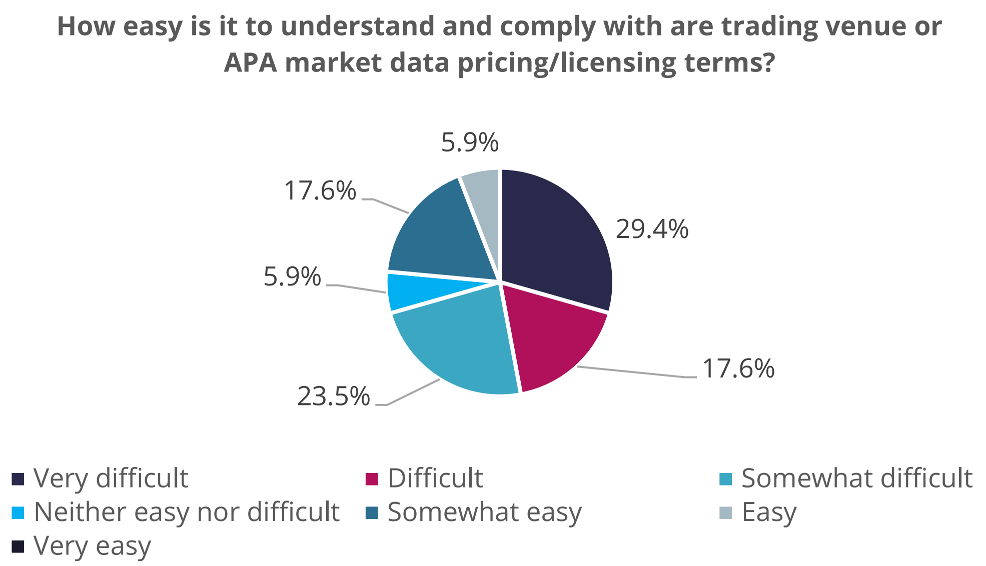
**Q3.32: Are there any products and/or services that you needed/ tried to purchase from market data vendors on a standalone basis, but were not able to? What impact does purchasing a bundle have on your business?**

Our members report having to purchase bundled products from market data vendors, as with trading venues. Bundling is, first and foremost, a waste of capital for our members. Rather than invest in enhancing their capabilities—or even lowering their management fees—our members are forced to allocate capital to products they do not want. This further increases the complexity of fee schedules and usage agreements (detailed above in relation to trading venues), resulting in our members spending even more resources on ensuring they comply with usage agreements for the bundled products they do not want.

In short, bundled products lead to wastage in both capital and manpower. We also note that the obligation to provide data on a disaggregated basis per MiFID II operates at the asset class level (rather than instrument level). We believe there would be greater demand for disaggregated data if it could be obtained at the product/instrument level, given that an entity that is active in either the equities or fixed income space will very likely trade only a subset of the instruments in the relevant market.

We would note, however, there are clear profit incentives for exchanges to unbundle services previously purchased together and increase the complexity of product offerings and to group (for public and regulatory reporting purposes) profit and loss for multiple exchange functions such as trading, surveillance and other technology-based services.

**Q3.33: How do you choose market data vendors? Do you use more than one, and if so why? How easy is it to compare the content and price of alterative packages before choosing which data package to use? How easy is it to switch providers?**




*Source: AIMA Research*

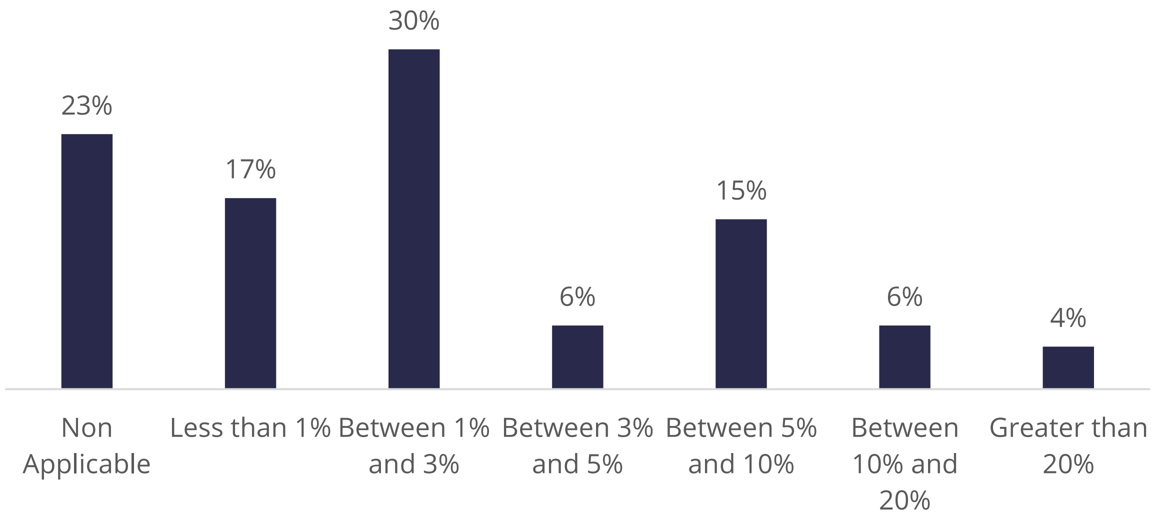
**Q4.1: How are firms operating in wholesale markets using alternative data and advanced analytics, and for which particular activities or markets? How might this change in the future?**

Our members are increasingly using alternative data in order to enhance their investment and risk management processes. Alternative data is employed across asset types and markets, public and private. A recent AIMA survey found that firms surveyed were most likely to use alternative data "as a research tool to help better improve investment decisions."[24] For instance, an alternative investment manager might gather data on a manufacturer's environmental practices before making an investment decision: access to such information could help the manager avoid any unwanted environmental risks attached to the manufacturer. Indeed, the risk management aspect of alternative data may become more important in the coming years.

**Q4.2: How much has your firm allocated to investments in data and advanced analytics over the next three years?**

The recent AIMA survey found that those respondents using alternative data were spending, collectively, roughly $250 million a year on it. Those respondents collectively managed roughly $382 billion in assets, meaning that their alternative data spending represented 0.1% of their assets under management. More pertinently, it would represent 4.4% of the revenues generated by a management fee of 1.5% on their collective assets under management.

**What percentage of your firm's total expenses (not including salaries) is currently set aside for sourcing alternative data?**




*Source: AIMA Research*

**Q4.3: What are the potential benefits for firms and investors of the development of data and advanced analytics, now and in the future, and for which particular activities or markets? Please provide examples and where possible explain how the benefits are passed on to investors. How do you assess these benefits against the potential risks associated with the use of data and advanced analytics?**

As mentioned above, the greatest benefits of alternative data come from their contribution to investment decisions and risk management processes. Using alternative data allows our members to gain a fuller

[24] https://www.aima.org/uploads/assets/8778b1e4-75c3-44e4-b35dc38e1495001e/Casting-The-Net-v10.pdf

picture of the investments they are considering, and—perhaps even more importantly—the risks attached to those potential investments. Alternative data should thus allow our members to limit their exposure to unwanted risks.

The potential benefits for investors are clear. Enhanced performance driven by alternative data will be passed on to our members' investors; enhanced risk management will help safeguard their investments. Ultimately, the benefits of alternative data will be felt by investors such as pension schemes, university endowments, and charities.

**Q4.4: How have business models changed in light of developments in the use and value of data, and how might they change in the future? What affect might this in turn have on different financial markets?**

The increasing importance of data has changed the alternative investment management industry. Our members spend more on IT infrastructure, and many hire an increasing number of employees with quantitative—and not necessarily financial—backgrounds. We anticipate the trend of hiring quantitative professionals to continue.

**Q4.5: What barriers make it difficult for firms to access data or access the technology necessary for analysing data, and how might this change in the future?**

A recent AIMA survey found the greatest challenge to using alternative data was the need to create an appropriate infrastructure. Like many other industries, the investment industry is going through a digital transformation—taking traditional business processes and using digital technologies to enhance efficiency and efficacy. As a general matter, the industry is hiring more quantitative professionals to analyze alternative data and spending on data infrastructure.

Firms either hire data professionals to develop proprietary data analysis tools or use tools by third-party providers. Costs in this space are likely to decrease over time as technology and computing costs decrease, provided that regulators do not mandate the use of any particular data.

**Q4.6: With reference to paragraph 4.25, do you agree there are situations where the use of data could lead to unfair advantages in wholesale markets which could: pose potential barriers to competition (working?) well; or harm market integrity.**

We have seen no evidence of the use of alternative data harming market competition. In theory it might be possible for a single market participant to enter into an exclusive agreement with a data provider. However, alternative data as a category is quite different from trading venue market data and is less likely to raise the same concerns, assuming that regulators do not impose regulatory requirements or mandate the use of any specific data by investors.

Investment managers engage in diverse strategies and there are reasons to believe the use of alternative data may actually increase competition among investment managers. This will remain the case if the differentiating factor among managers is not whether they can afford or access alternative data, but what they do with it—*i.e.*, a firm's proprietary analysis and use of the data. Significant amounts of alternative data is publicly available for investment managers that choose to incorporate it into their investment strategy.

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**Q4.7: What factors do you consider are relevant in assessing whether the use of data may create unfair advantages in wholesale markets? For example, if the data are only available to one or a handful of firms or if some market participants are not able to secure sufficient financing to access data.**

Theoretically, the point at which using certain alternative data creates truly unfair advantages would be the point at which the data ceases to be "alternative," and instead, shares the characteristics of traditional market data. First, it would need to be *essential to the investment process*, either for practical or regulatory reasons. Second, it would have to be *created by a monopoly (natural or otherwise) or oligopoly*. Even then, the use of such data would only be unfair if it was, third, *priced in such a way as to make it available to only a small subset of those markets actors that could plausibly make use of it*.

To use a concrete example of what this might look like, we can imagine a scenario in which investment managers are required to monitor and report on a certain metric for every asset in which they invest. In this scenario, such data would not be reported publicly by issuers, but rather reported directly to a third-party data vendor. That data vendor, in turn, would have a dominant market position that allowed it to set the price for accessing the data; rather than charge on a cost-plus basis, the data vendor chooses to charge increasingly high fees, which only a handful of managers could afford.

At present, however, we see no risk of such a situation arising. The alternative data market is vibrant enough for such consolidation to be unlikely.

**Q4.8: How concentrated is the supply of data, or technology required to analyse data, to wholesale market participants? Please explain how this differs by data type and technology type and the impact on your business.**

At present, the market for alternative data seems to be characterised by robust competition. Estimates indicate that the number of alternative data providers has increased exponentially over the past decade.[25] Market consolidation could, of course, potentially negatively impact our members, and we urge the FCA to be vigilant in this respect. Until any form of alternative data begins to demonstrate the characteristics enumerated in our response to Q4.7, however, we do not see any serious concerns with regards to market competition.

**Q4.9: Do you consider that the wider use of algorithmic solutions in wholesale markets could give risk to new types of market abuse or collusive behaviour? If you currently use these solutions, do you have any processes in place to manage these potential risks?**

We are not aware of any evidence supporting the notion that the wider use of algorithmic trading would create greater market risks or abuse. Indeed, by limiting the 'human' factor, algorithmic trading limits the possibilities for market abuse and collusive behaviour. Further, our members take their fiduciary, investment and regulatory responsibilities seriously, and algorithmic trading strategies are required to be vetted by development, risk and compliance teams before being deployed, given the detailed provisions on automated trading associated with MiFID II and the related ESMA guidelines that the framework superseded. As investors in their own funds, our members are incentivized to ensure the integrity of their own strategies, and alongside other market participants, they depend on market integrity by all market participants for fair and efficient markets.

[25] https://alternativedata.org/alternative-data/

**Q4.10: Are there any potential control or governance issues associated with these data that you currently use or think will be used in the future? Please provide examples and explain your reasoning.**

The use of algorithmic trading is well established, in fact, many of our members have used this trading technique for decades. As such, controls and governance around algorithmic trading are highly developed.

**Q4.11: For wholesale market participants that make use of advanced analytics, how does senior management ensure that it has sufficient understanding of how these algorithms, as an example of one tool, work in order to ensure that they are complying?**

Our members take their regulatory and ethical obligations very seriously. Senior members of a compliance team will assess any new analytics deployed by a firm, working with their technology and portfolio management teams to ensure they have a robust understanding of the relevant regulatory and ethical issues. As fiduciaries to their investors, asset managers have detailed controls and processes in place to ensure sound decision-making and oversight of best execution, and to safeguard investor assets. At every stage of the investment process, our members implement controls and oversight before signing off on algorithmic trading tools that impact their investment processes.

Like any tool that an investment firm/asset manager uses, regulators should not get bogged down on the complexities of the tool but focus on the overall control and supervisory framework in place at a firm which would be expected to flag problematic or questionable determinations of a program.

Current regulatory frameworks, such as the U.S. and EU, already require asset managers to implement risk management, compliance and supervisory programs with respect to their activities as an asset manager. In addition, regulations imposed on intermediaries or market participants with market access require those firms to have robust controls in place to prevent against disruptive orders from being sent to markets. For example, the European Union Markets in Financial Instruments Directive requires investment firms to have an appropriate governance structure, clear development and testing standards, controlled deployment of algorithms, effective systems and risk controls to ensure the system is resilient and has capacity, pre- and post-trade controls, and real-time monitoring systems, among others. These regulations continue to be adequate to ensure appropriate oversight of the investment process.

**Q4.12a: Are there any potential ethical implications as a result of the use of new forms of data and advanced analytics in wholesale markets? Please give specific examples.**

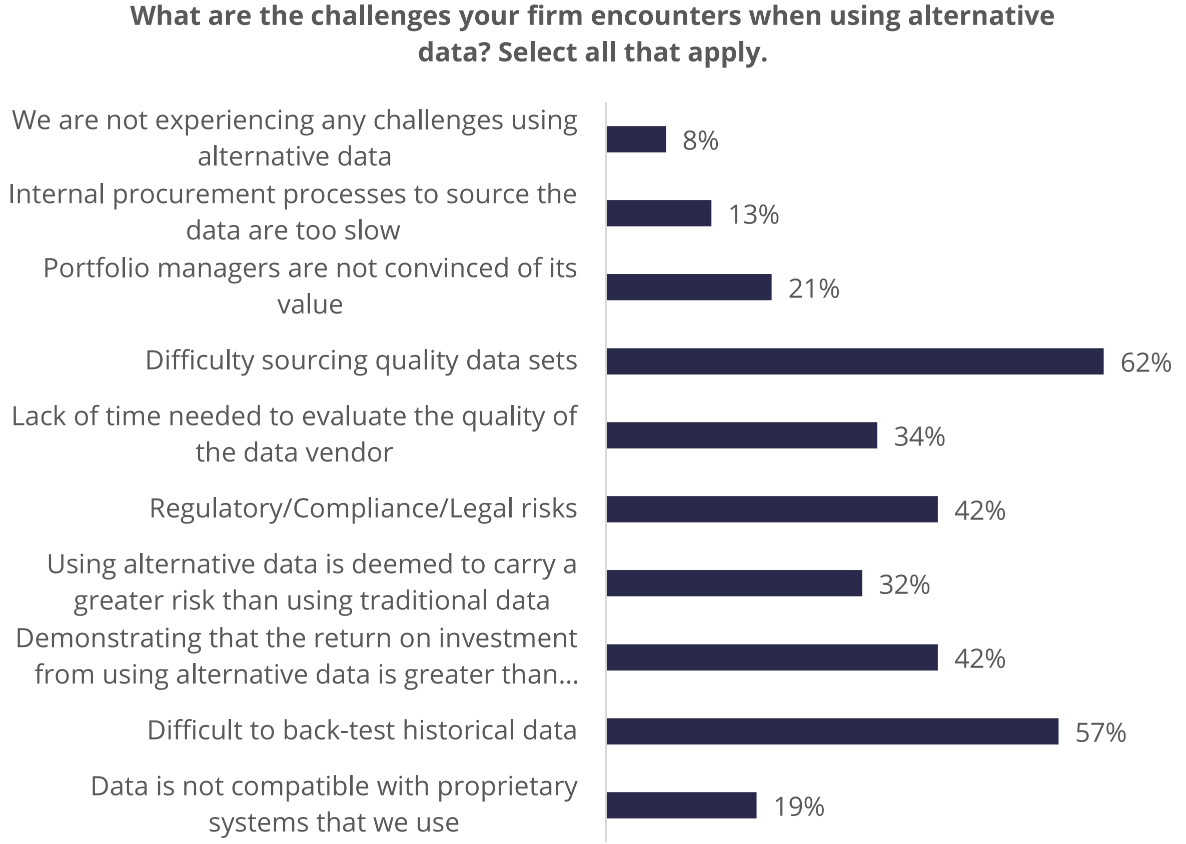
When using alternative data our members ensure that they abide not just by the letter of the regulation, but also by a strict code of ethics. Some alternative data, for instance, could raise privacy concerns—for instance, image recognition technology, or user location information. Our members take steps to ensure that any data they use is sufficiently anonymized, and that its use does not give them any unfair advantages.

**Q4.12b: What steps do you take to make sure that the data you use have been sourced legally and ethically?**

See our response to Q4.11.

**Q4.13: What challenges or risks (for example, in relation to market stability) are associated with the increased use of technology by wholesale market participants? For example, could this lead to the increased risk of herding like behaviours or excessive risk taking?**

Our members do not, at present, see any risks in the increased use of alternative data, so long as it is used in a responsible manner. The use of alternative data is, ultimately, only one part of the investment process, and should not be used as the sole investment signal.




*Source: AIMA Research*

**Q4.14: What specific aspects of the regulatory regime unduly limit the way firms can use data and advanced analytics? How do these limit the benefits of data being realised by firms or consumers?**

The regulatory regime around the use of alternative data is still unsettled. This uncertainty has led to some of our members declining to use such data, for fear of not fully understanding the relevant regulatory strictures. However, legal and regulatory jurisprudence is developing in this area. As we note in our research paper on alternative data, "courts as well as regulators will need to balance the need for ownership rights, consumer and privacy protection with the need to maintain a competitive and innovative digital economy."