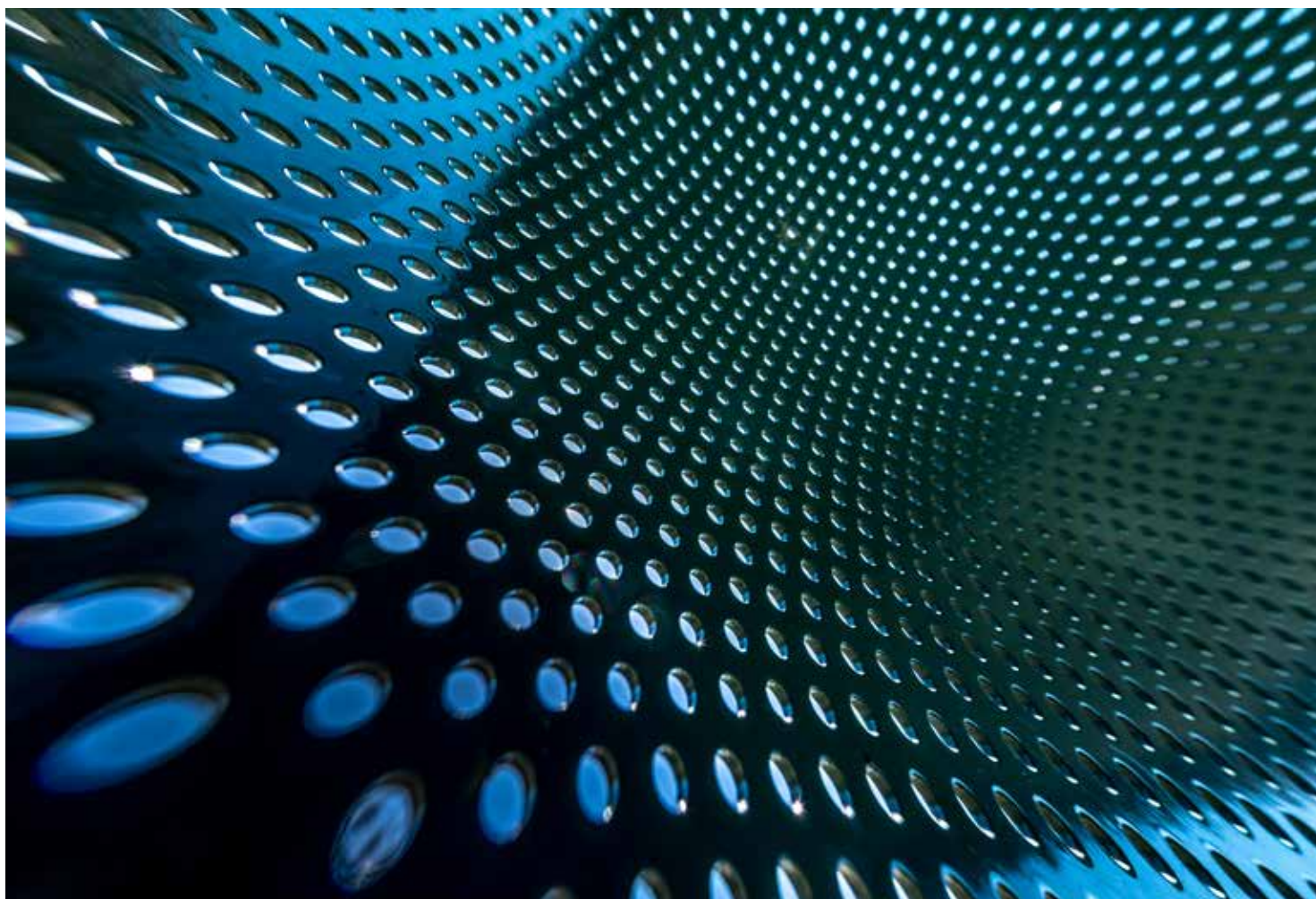


Coalition Greenwich

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Q3 2024

Advanced Technology Use Gives Market Data a Boost

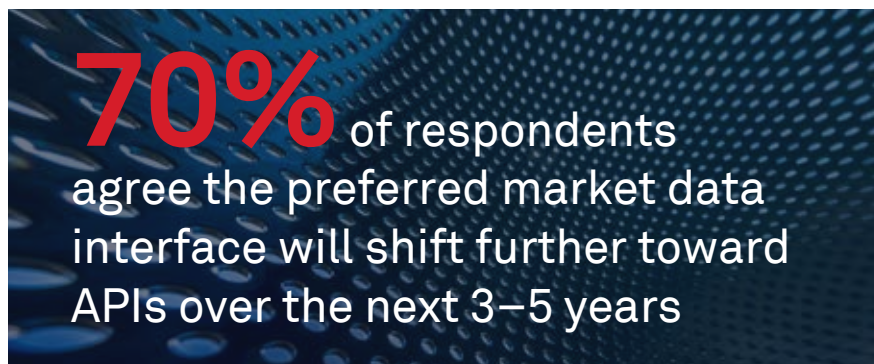


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Executive Summary

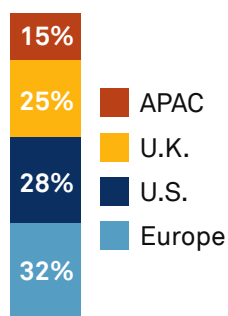
In a recent study, Coalition Greenwich, in collaboration with SIX, interviewed 67 global buy-side and sell-side firms to discover and analyze the drivers of market data consumption and distribution and emerging technology adoption.

This report focuses on the types and frequency of data being consumed, including real-time and historical tick data. There is further emphasis on the role of emerging technologies such as artificial intelligence and machine learning (AI/ML), including generative AI and large language models (LLMs). The use of application programming interfaces (APIs) and the role of cloud for the delivery of market data are also explored.

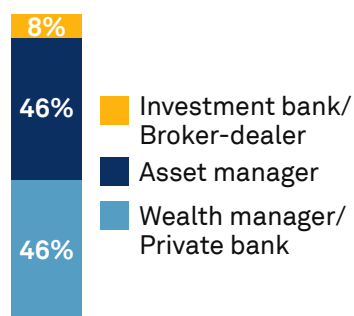
METHODOLOGY

This study is the second in a series designed to better understand the trends in and challenges of market data consumption by asset managers, wealth managers and broker-dealers in the United States, the United Kingdom, Europe, and Asia. Between April and July 2024, Coalition Greenwich employed a questionnaire to gather responses from 67 buy- and sell-side firms. The majority of insights stem from professionals in front-office roles, including portfolio management, trading and research at buy-side firms. To get a full range of views, other roles in the sample include the middle- or back-office market data functions.

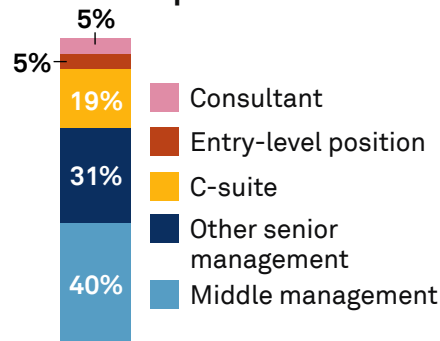
Primary market



Organization type



Current position



Note: Based on 67 respondents.
Source: Coalition Greenwich 2024 Market Data Study

Key Takeaways

Study participants, for the second year running, continue to value data quality, accuracy and reliability over all other considerations when choosing market data types, frequency and vendors. They are also disposed to consume data using advanced technologies such as cloud and APIs. Use of AI/ML is growing in importance as new applications for data analysis are developed.

- **Spending on market data is projected to rise—again.** Participants in our study expect market data spending to grow solidly over the next 12 months. This echoes our 2023 results as nearly 60% of participants anticipate an increase in spending of 1% to 5%. In some cases, this increase is expected to be larger, particularly with spending associated with equities trading and investing.
- **The expansion of investment and trading strategies across regions and products is influencing how respondents select market data sources and providers.** Data selection now sits squarely within business units or teams, rather than being made in primary regions, as seen in the past.
- **Consumption of real-time data is becoming a competitive differentiator and is growing well beyond trading.** Although the majority of respondents rely on multiple frequencies of data, including real-time, delayed, historical, end-of-day, etc., the consumption and use of real-time information is attracting a higher percentage of spending and supports the further adoption of APIs.
- **Historical tick data is being used for a variety of analytics by nearly all participants.** Mission-critical use cases for this data are aligned with solving for regulatory needs, such as market abuse, MiFID II trade reporting and market conformity. Tick data is also well-positioned for use cases that align with the development and testing of trading strategies and measuring trading cost.
- **How data is being delivered and received is changing.** Although more respondents continue to receive market data over internet connectivity via on-premise infrastructure, adoption of the cloud has increased significantly since our 2023 study. Presently, 50% of participants receive data using internet connectivity from the public cloud versus only 30% a year ago.
- **Respondents expect to demand more efficient methods of data delivery over the next 3–5 years.** Our data indicates that APIs will rise in importance, while desktop solutions, file transfer protocol/secure file transfer protocol (FTP/SFTP) and other types of legacy file transfer will decline due to inefficiency, risk and the need for manual interventions.
- **Emerging technologies are set to enhance market data delivery—at some future point.** Three-quarters of respondents feel AI/ML will contribute the most to enhancing market data delivery and consumption—an acknowledgement of the power of generative AI.
- **Generating better investment decisions is the top consideration for employing AI/ML applications, like generative AI and LLMs, coupled with human decision-making.** It will be very interesting to see which future use cases are adopted first and how AI/ML becomes a dominant application in some areas versus others.

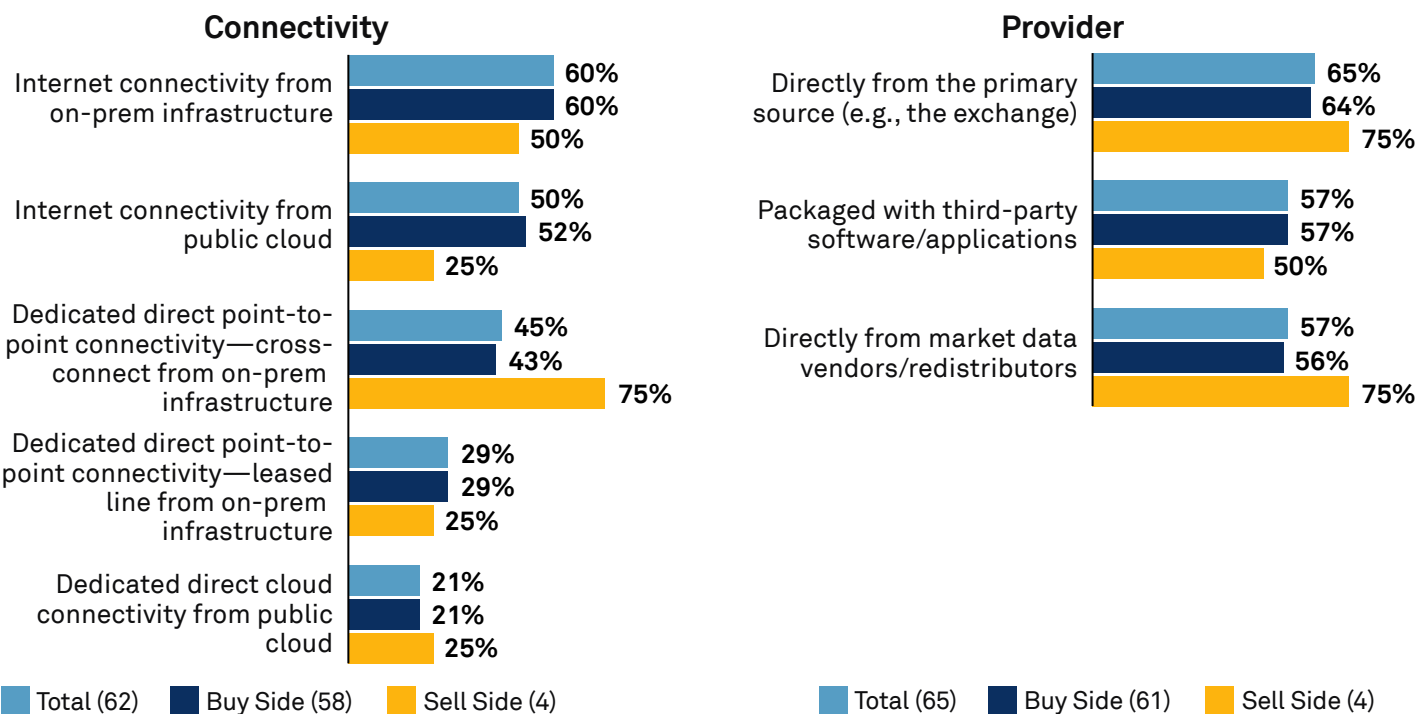
Market Data Delivery Is Shifting

The cloud is becoming a more prevalent channel for receiving market data as half of respondents report receiving data using internet connectivity from the public cloud. At the highest level, there is a split in preferences between on-premise installations and third-party infrastructure-as-a-service providers. Legacy technology users are still more common, but use of the cloud is catching up. In [our 2023 study](#),¹ the use of cloud providers stood at only 30%.

Interestingly, while the internet is still prevalent, dedicated connectivity is nearly as popular. Roughly 1 in 5 respondents use a dedicated connection from the public cloud. This development likely signals a preference for more-efficient technology for tasks that go beyond non-critical, low-volume or low-latency services.

Looking through the lens of data providers, market data is primarily received from both trading software solutions and primary sources such as exchanges. This is not surprising given their historical role. (Data vendors that redistribute data also play important parts in the trade life cycle with roughly half of study participants.)

Methods of Receiving Market Data by Type

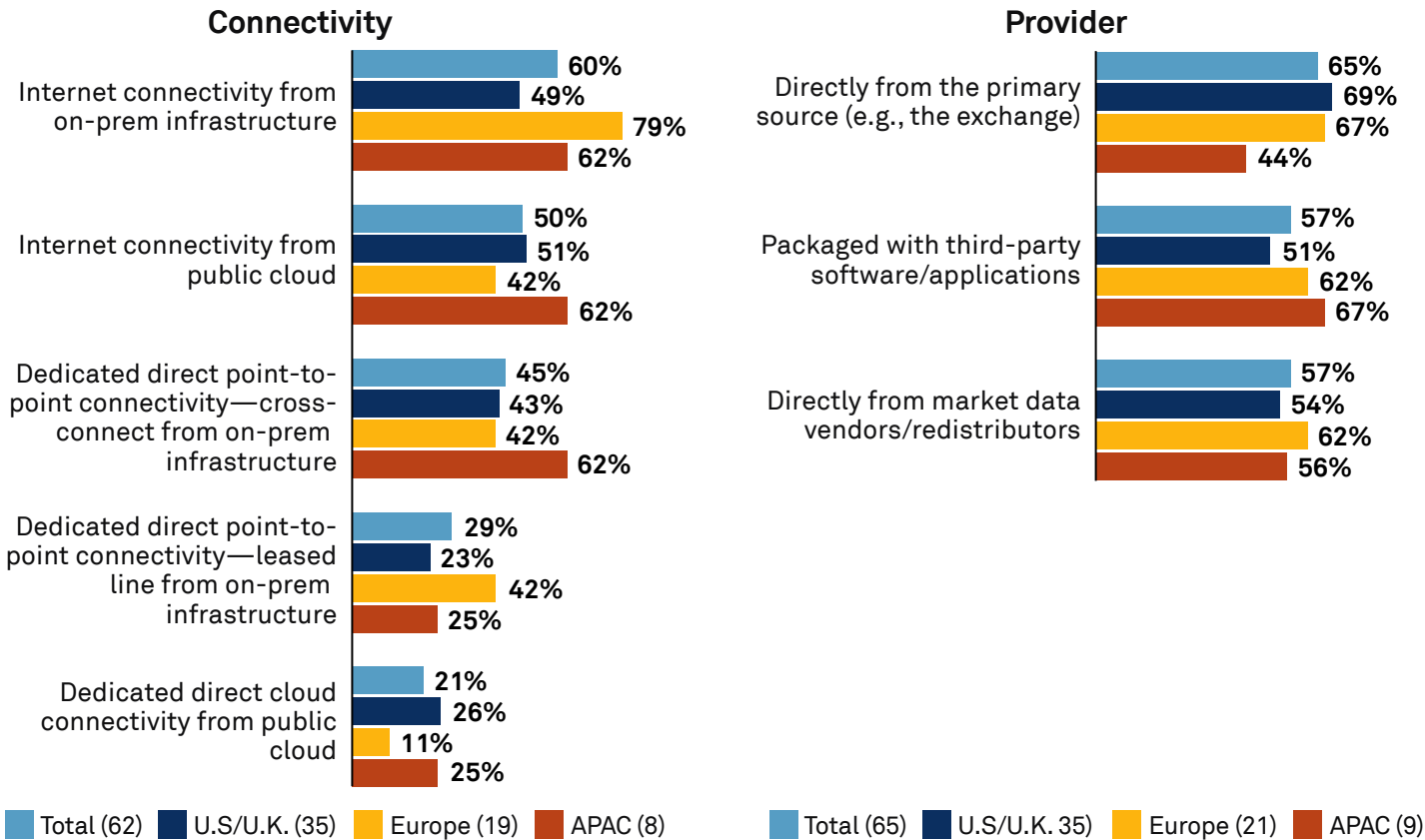


Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

1 Coalition Greenwich, [Market Data: Quality Over Cost](#); June 2023

While most providers rely on two to three market data providers, larger firms will often turn to five or more depending on the complexity of their investment and trading strategies. The growth in strategies to incorporate more regions and products is encouraging investment firms and their counterparties to seek out new data sources and alternative information.

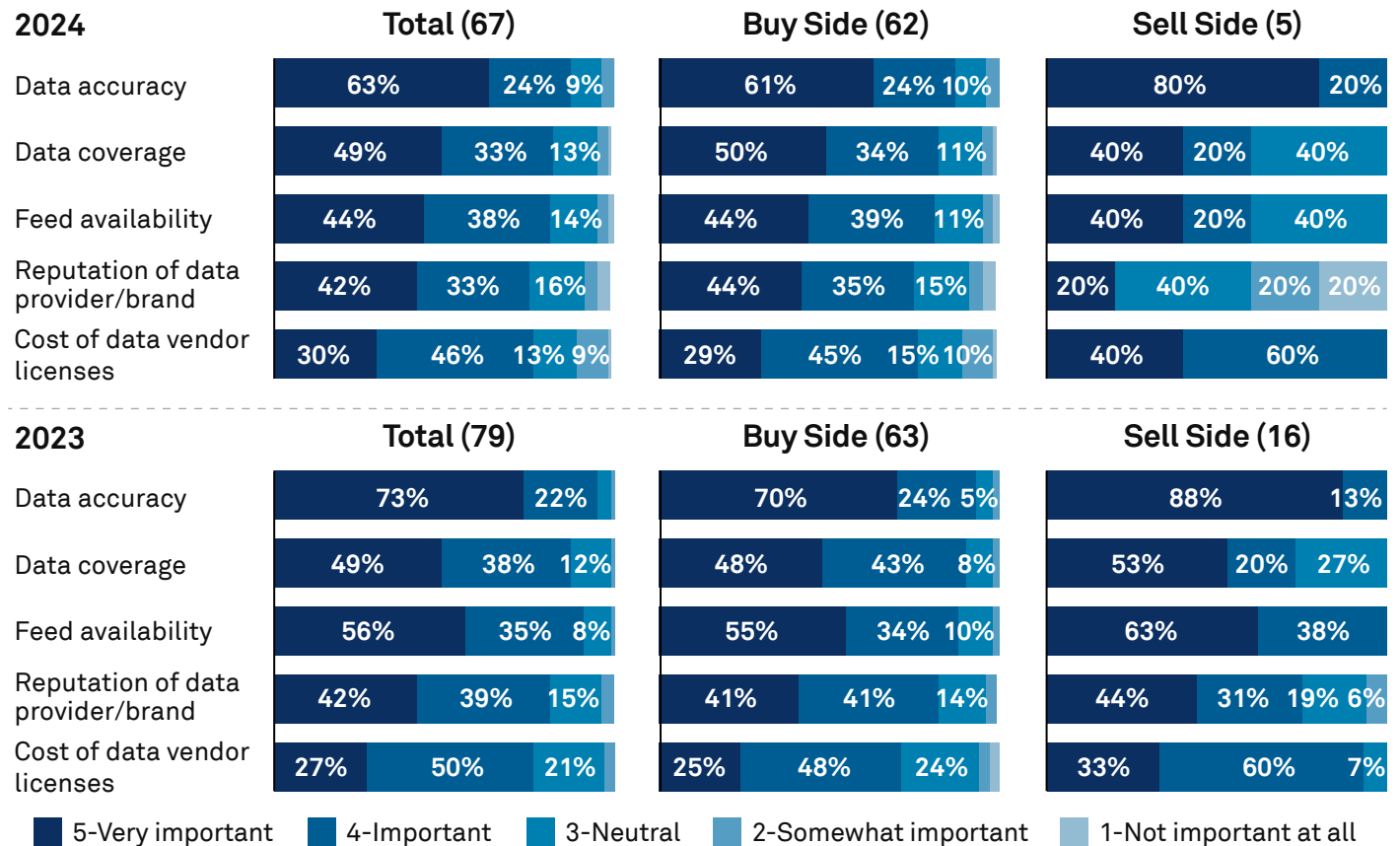
Methods of Receiving Market Data by Region



Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

As before, professionals hailing from both buy- and sell-side firms continue to prioritize data quality, breadth of coverage and reliability over other factors influencing the choice of market data providers. Although the majority of participants choose market data providers based on these characteristics, the role of vendor reputation and cost are still top-of-mind, albeit to a slightly lesser degree.

Importance in Choosing General Market Data Providers



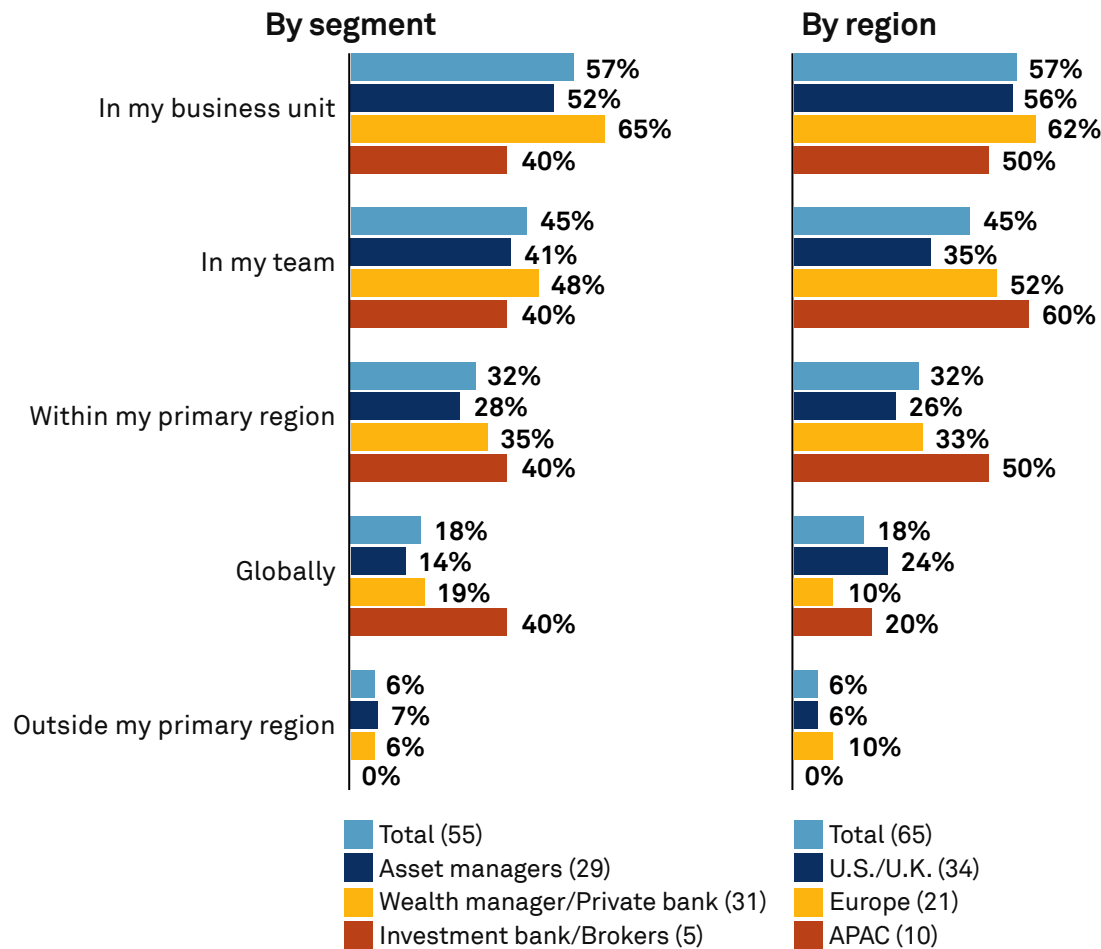
Note: Numbers in parentheses represent number of respondents. Numbers may not total 100% due to rounding. Segments with values <5% are not labeled.

Source: Coalition Greenwich 2024 Market Data Study

The cost of data is secondary to its quality for all respondents, according to our findings. However, some participants have stronger opinions here than others. For instance, while this is true for sell-side participants, cost is more of a focus and impacts decision-making to a greater degree. This inherently makes sense as much of the regulatory push has impacted these firms and consumes more budget. Should the regulatory focus shift to impact more buy-side firms, the market-data cost factor could be elevated in their decision-making process.

In a fascinating twist since last year, decisions concerning market data vendor selection are becoming more localized and tend to reside in participants' business unit or team. (In 2023, our data showed decisions were most often being made in respondents' primary regions.) Although some regional differences exist, this trend is fairly consistent across geographies. One explanation could be tied to the use of data for various strategies and products that may be more team- or business-unit-specific. As these strategies expand, choice of market data and providers may become more specific and tailored.

Purchasing and Licensing Decisions



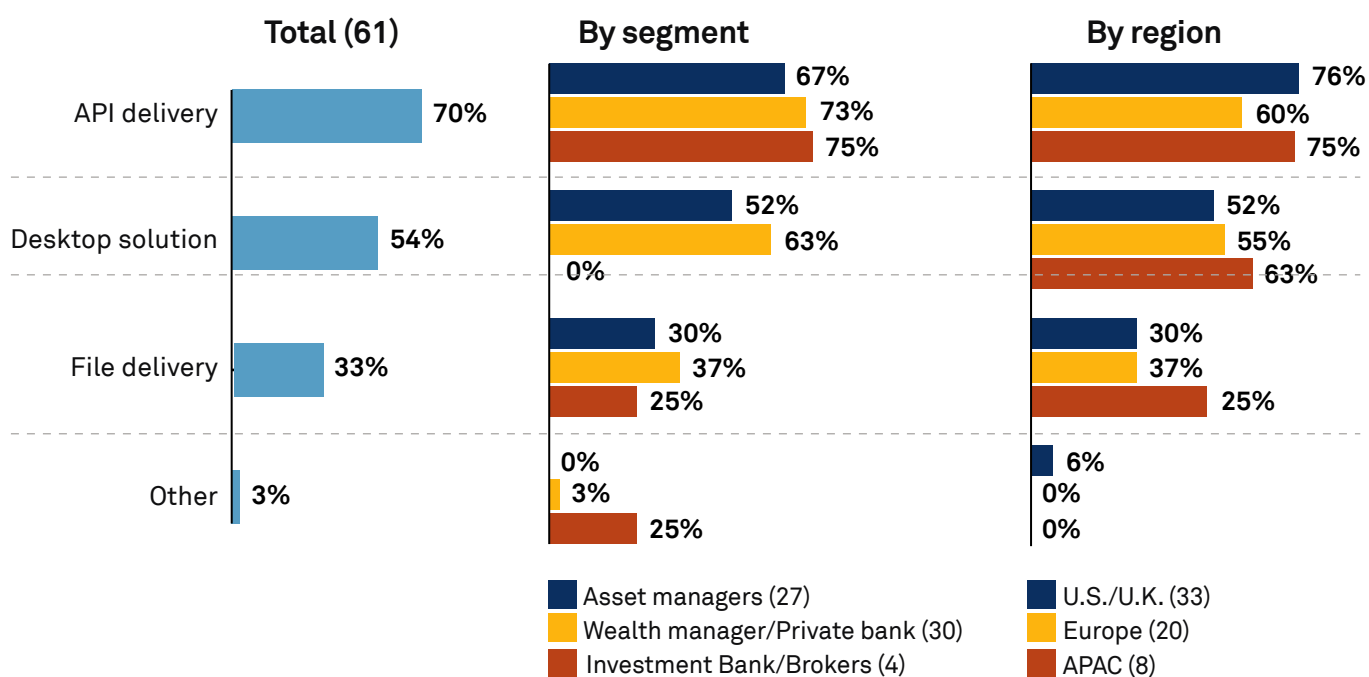
Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

Preferences for Data Delivery Are also Changing

Over the next three to five years, the preferred market data interface will shift more toward APIs.

Respondents are demanding more-efficient methods of data delivery—likely the result of today’s fast-moving market dynamics. While desktop solutions will remain in use, FTP/SFTP and other types of file transfer are expected to decline due to the inefficiency, risk and the need for manual interventions associated with legacy technology.

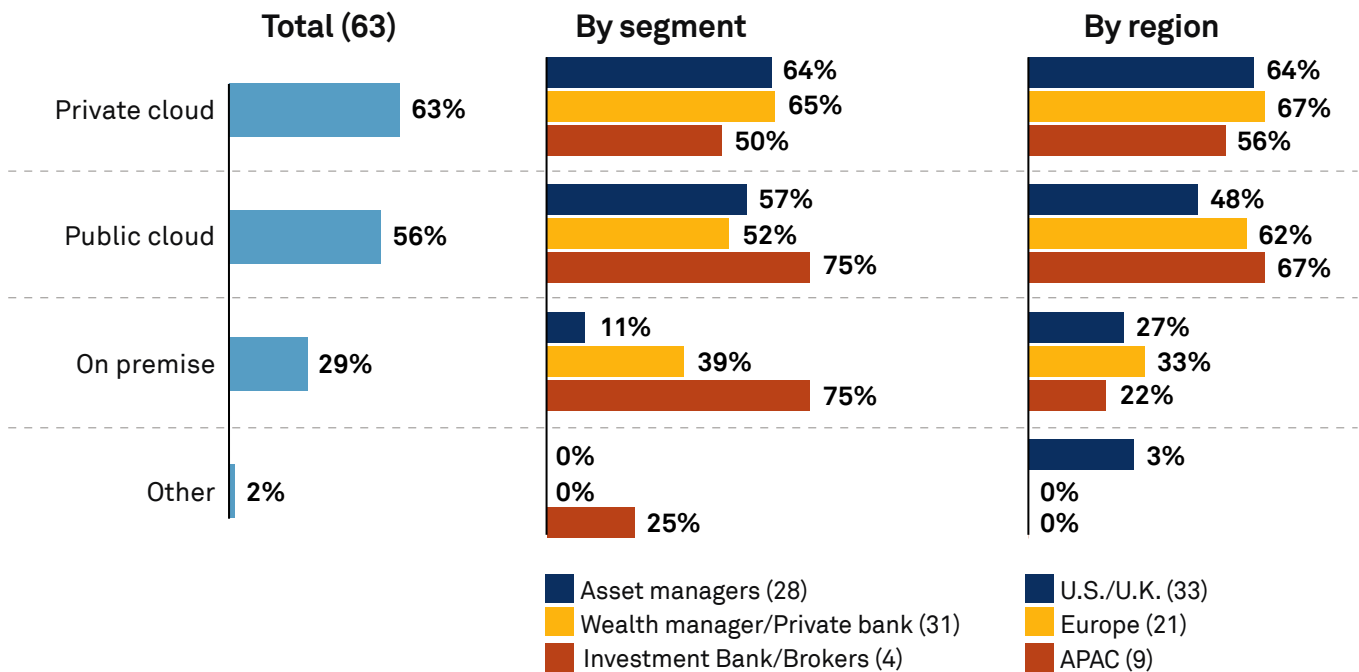
Preferred Market Data Delivery Interface



Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

Preferences toward the use of private and public clouds are also changing. In the future, respondents believe private cloud use will be the most dominant technology for hosting applications related to consuming market data. However, use of the public cloud is also growing as comfort with providers continues to increase. Participants expect on-premise applications will fall more out of favor as a result of this shift.

Expectation for Hosting Applications for Consuming Market Data

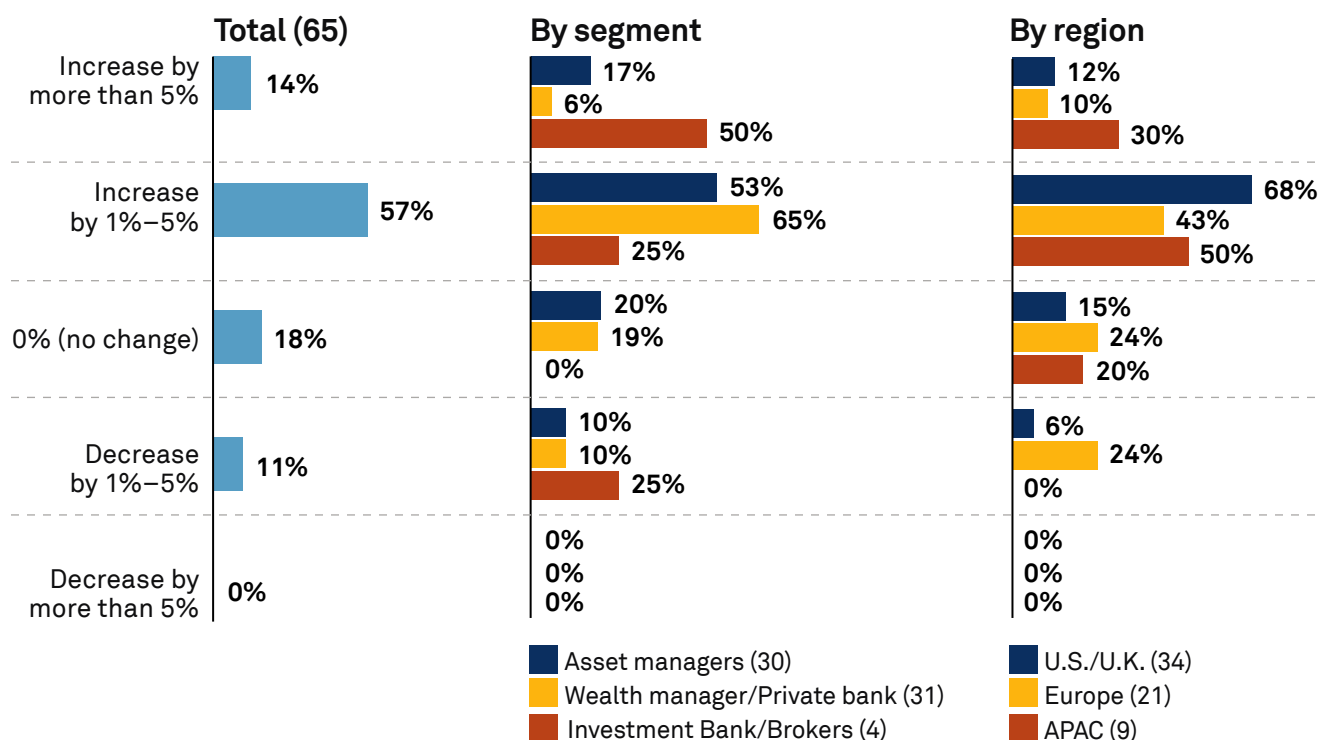


Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

Market Data Spending to Grow Again

Most respondents expect market data spend to grow over the next 12 months. This finding is consistent with our 2023 results as nearly 60% of participants expect an increase in spend of 1% to 5%.

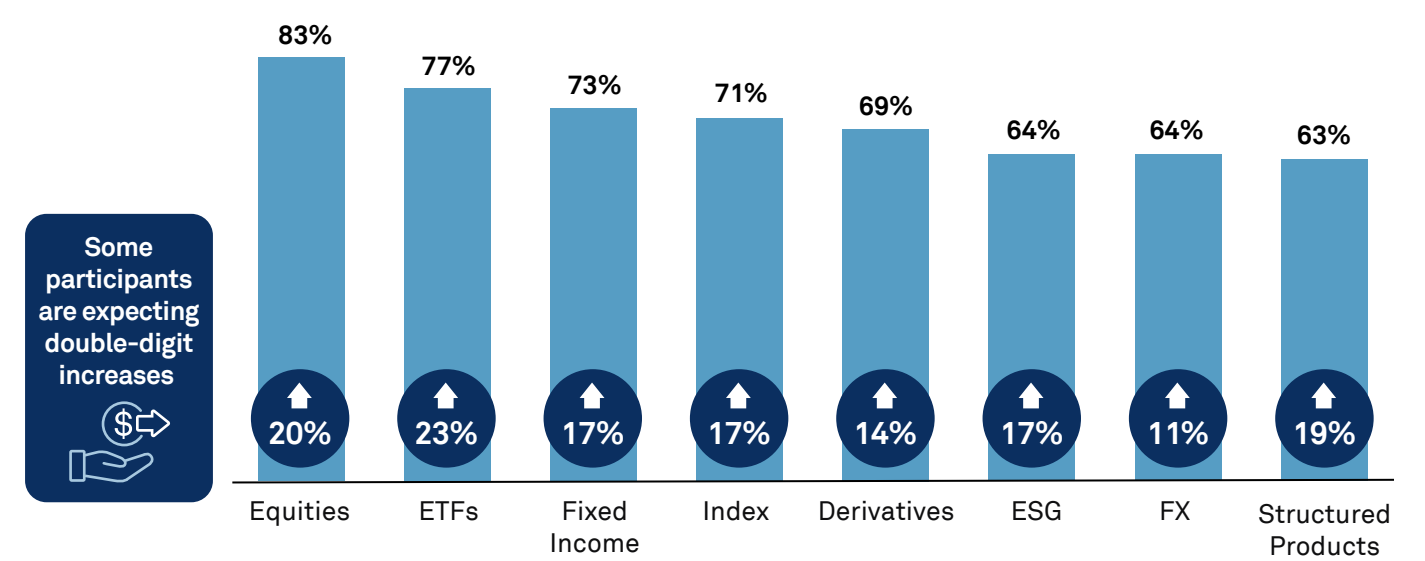
Trends in Market Data Spend



Note: Numbers in parentheses represent number of respondents.
 Source: Coalition Greenwich 2024 Market Data Study

Once again, higher spending on equities data is anticipated over the next 12 months. Likewise, index, fixed-income and ESG data is also attracting more budget, which, for certain participants, may increase 16% or more. Even areas where participants were less inclined to dedicate spend in 2023—like FX—are likely to see more investment into market data.

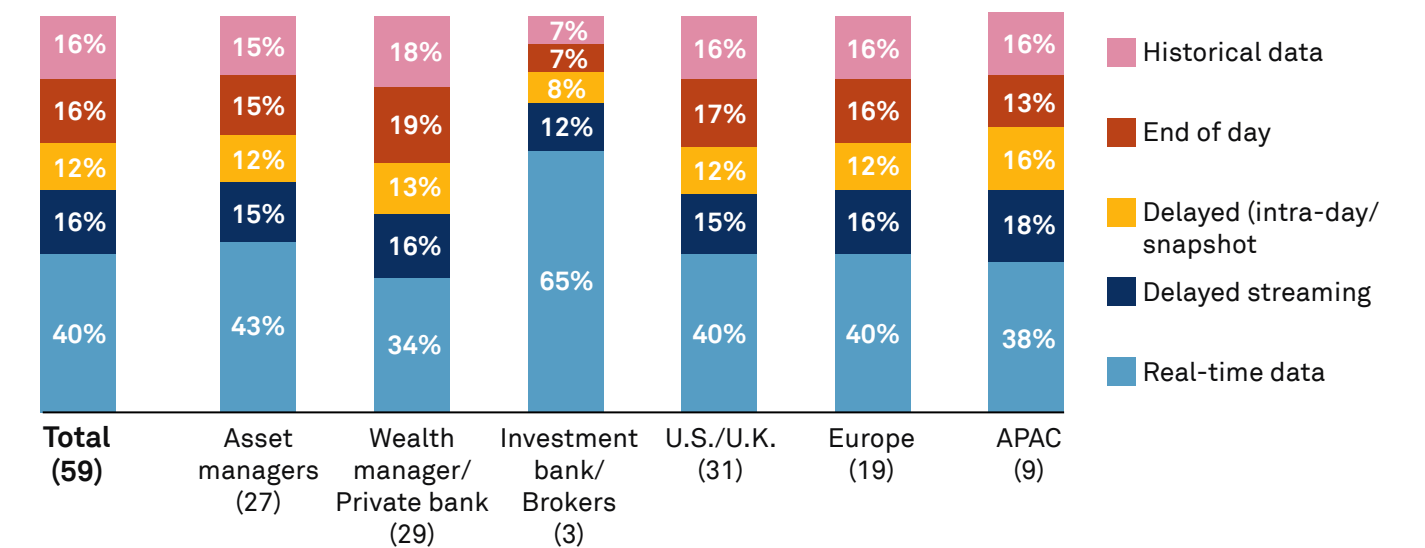
Higher Spending on Data Across Asset Classes Is Expected Over the Next 12 Months



Source: Coalition Greenwich 2024 Market Data Study

End users rely on several different frequencies of data, including real-time, delayed, historical, end-of-day, etc. Many respondents attribute changes in spending to the desire for more and better real-time data that is consumed throughout the day. The consumption and use of up-to-date information is becoming a differentiator for firms, thereby attracting more investment, particularly in listed markets (although this trend is also popping up in some over-the-counter markets such as fixed income).

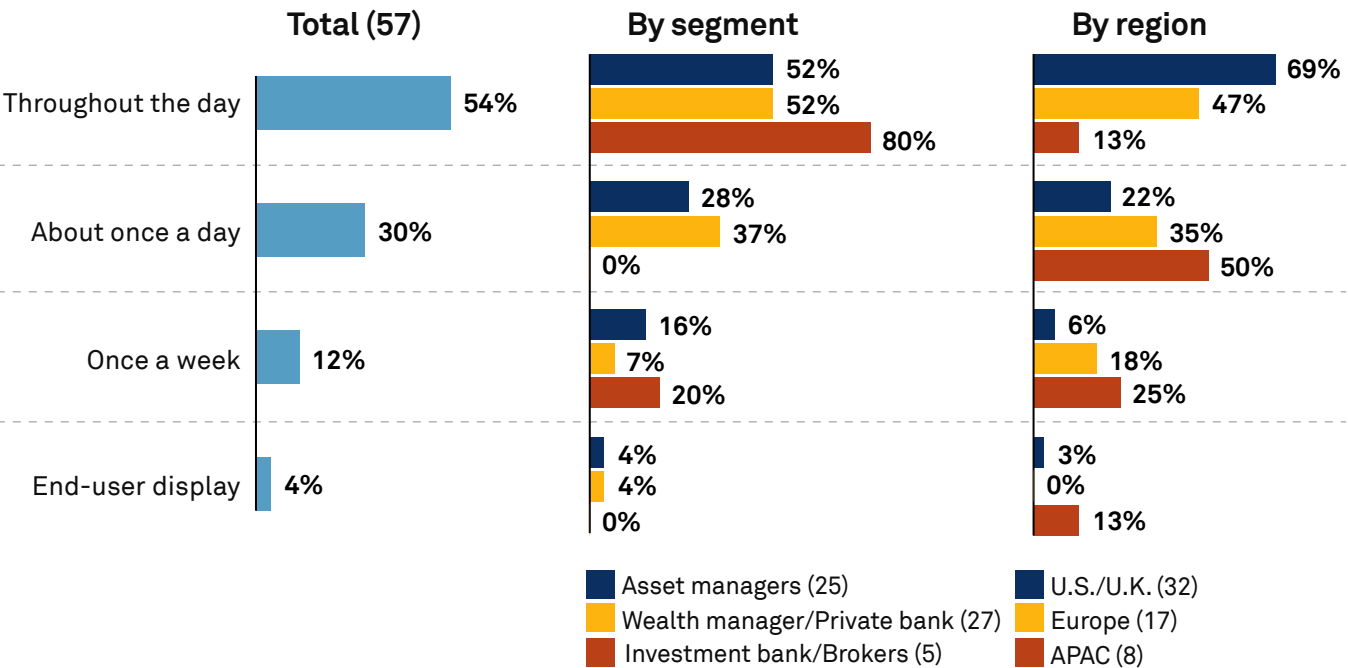
Allocation of Market Data Budget



Note: Numbers in parentheses represent number of respondents. Numbers may not total 100% due to rounding.
Source: Coalition Greenwich 2024 Market Data Study

Findings also reveal that spend on historical tick data is greater than end-of-day feeds or snapshots of data. This follows user desires to consume a full tick-history service for analysis, investment and trading.

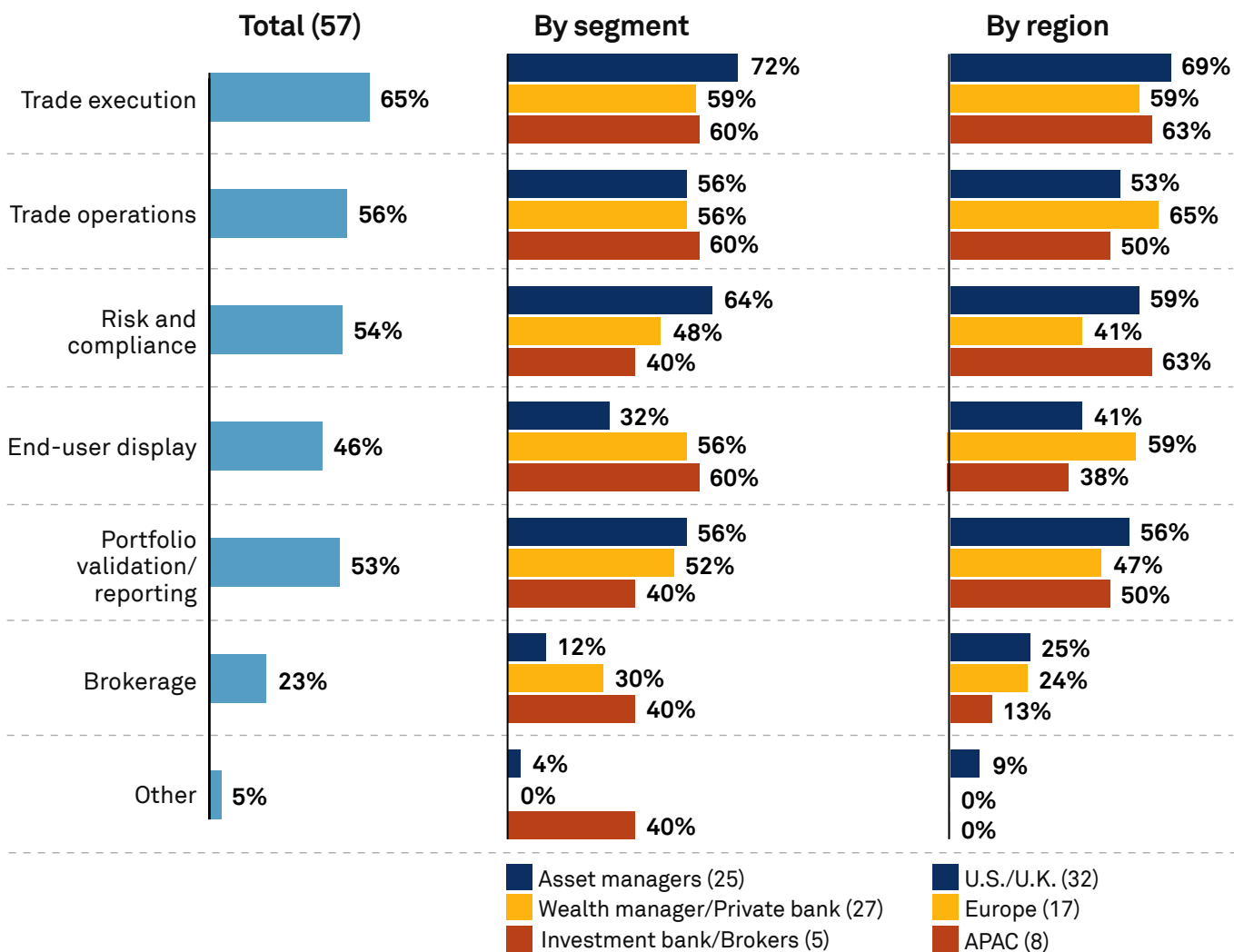
Frequency of Using Real-Time Data



Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

Although real-time data is often associated with trading, use cases have become broader, resulting in more adoption. More than half of respondents point to its use for portfolio validation, trade operations and risk and compliance functions as well. Moreover, the increasing use of APIs supports the growing list of use cases for real-time data. This is an important development as high-speed trading grows and the market environment remains unpredictable and volatile. Controlling risk and position management must align with the speed of trading, and the intake of market data has to be fast enough to make this happen.

Use Cases for Real-Time Data

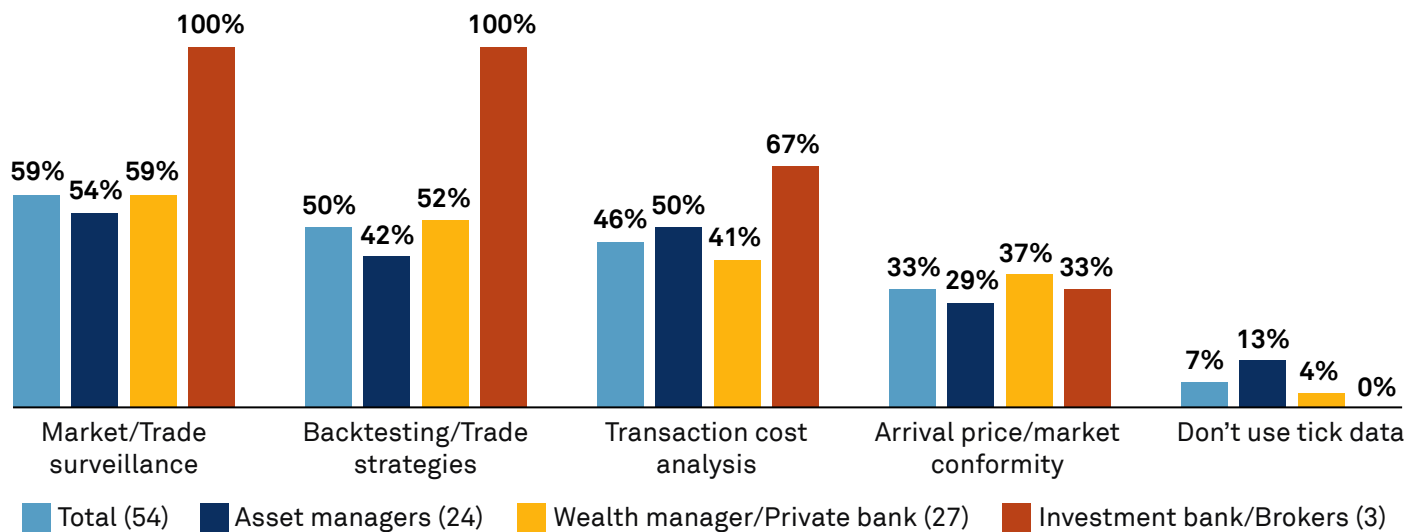


Note: Numbers in parentheses represent number of respondents.

Source: Coalition Greenwich 2024 Market Data Study

Findings reveal that nearly all market data users leverage historical tick data for a variety of regulatory and analytics use cases. Market abuse, trade surveillance, MiFID II reporting, and market conformity are key areas for analysis utilizing this type of market data across all segments. Tick data is also well-positioned for purposes that align with the development and testing of trading strategies and measuring trading cost.

Usage of Historical Tick Data



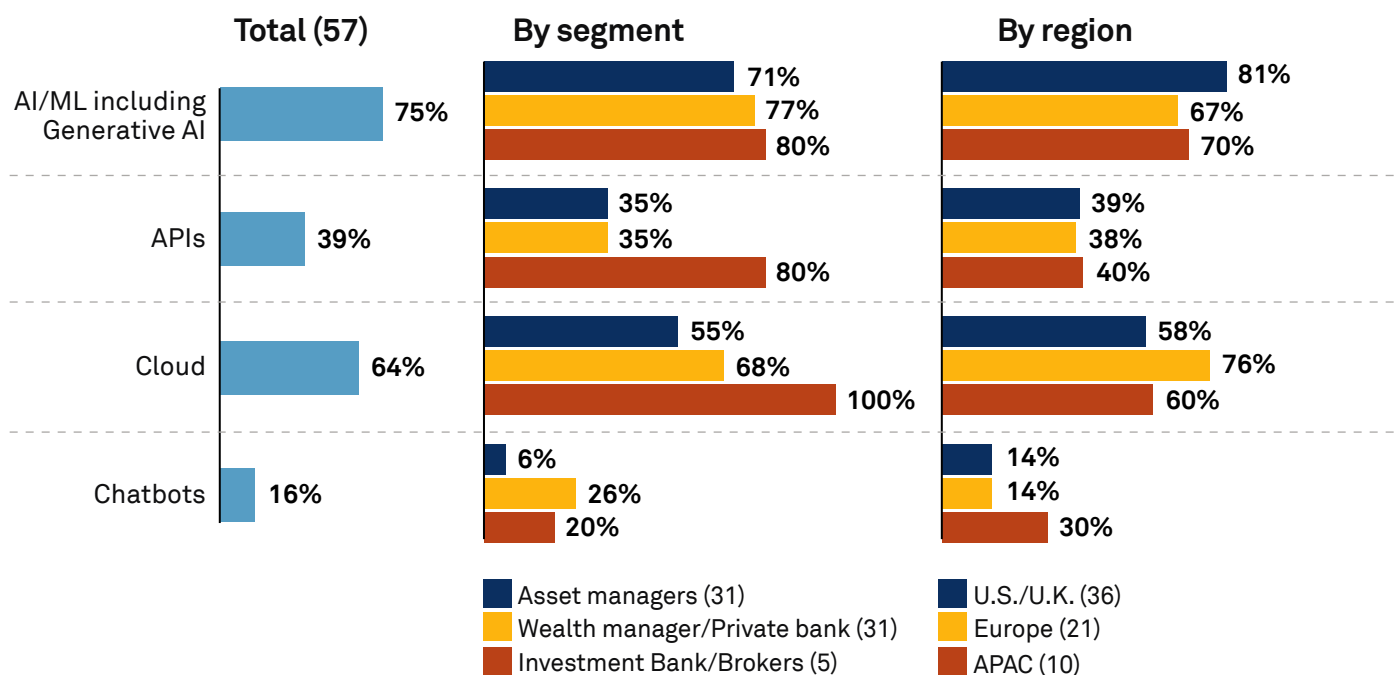
Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

Emerging Technologies Are Making Their Mark

In a major theme of this year’s report, participants believe emerging technologies are set to enhance market data delivery in the next two to three years. For instance, 75% of respondents feel AI/ML will contribute the most to enhancing market data delivery and consumption over other technologies. This is an amazing development, considering generative AI wasn’t really in the conversation a mere two years ago.

Further, all participants from all segments and geographies agree AI/ML will have a considerable impact. Likewise, the continued use of the cloud will also be important moving forward. Although APIs play a significant role, enthusiasm for other advanced technologies is stronger despite the early stages of AI/ML use at this time.

Importance of Emerging Technologies to Enhance Future Market Data Delivery and Consumption

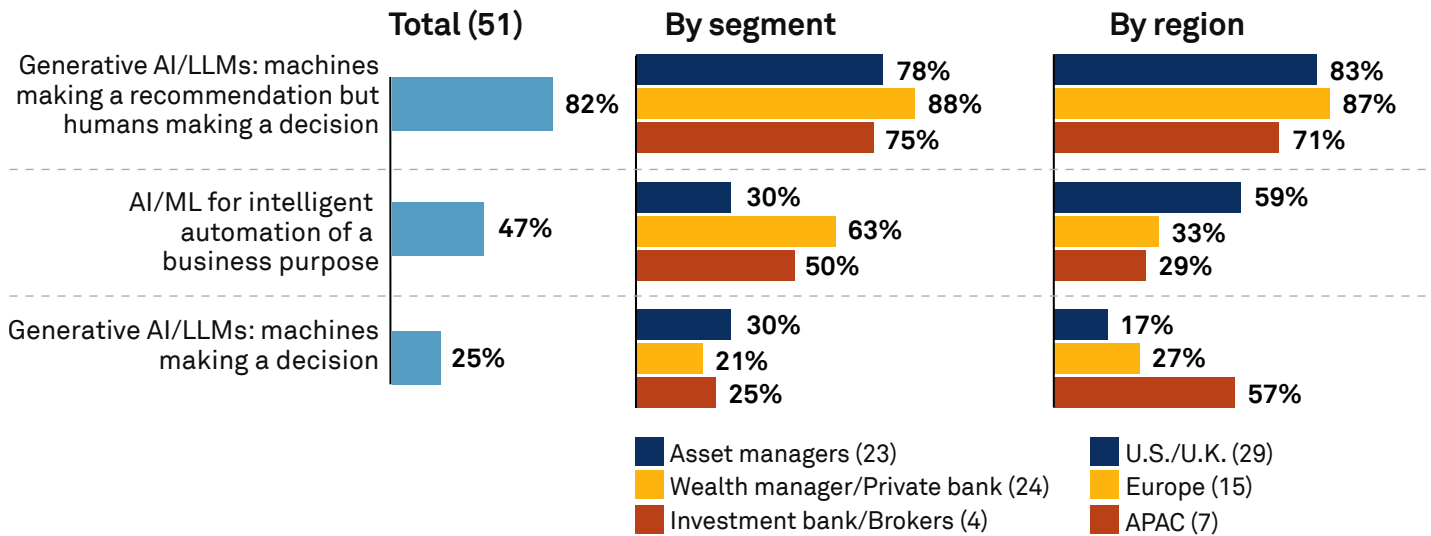


Note: Numbers in parentheses represent number of respondents.
 Source: Coalition Greenwich 2024 Market Data Study

Market professionals are split on the application of AI/ML even though they believe the return on investment (ROI) connected to these activities is quite good. Generating better investment decisions stands out as the top consideration for employing AI/ML. However, more than half of respondents believe other areas will also be enhanced by its use. In time, it will be very interesting to see which use cases are adopted first and where AI/ML becomes a dominant application.

Going into detail reveals that participants value generative AI/LLMs the most when developing investment ideas. However, these will likely be coupled with human decision-making rather than being completely “black box” despite some preferences for this type of use case. In addition, nearly half of participants agree AI/ML will be used for intelligent automation of business processes at some point. However, the most exciting application remains better recommendations.

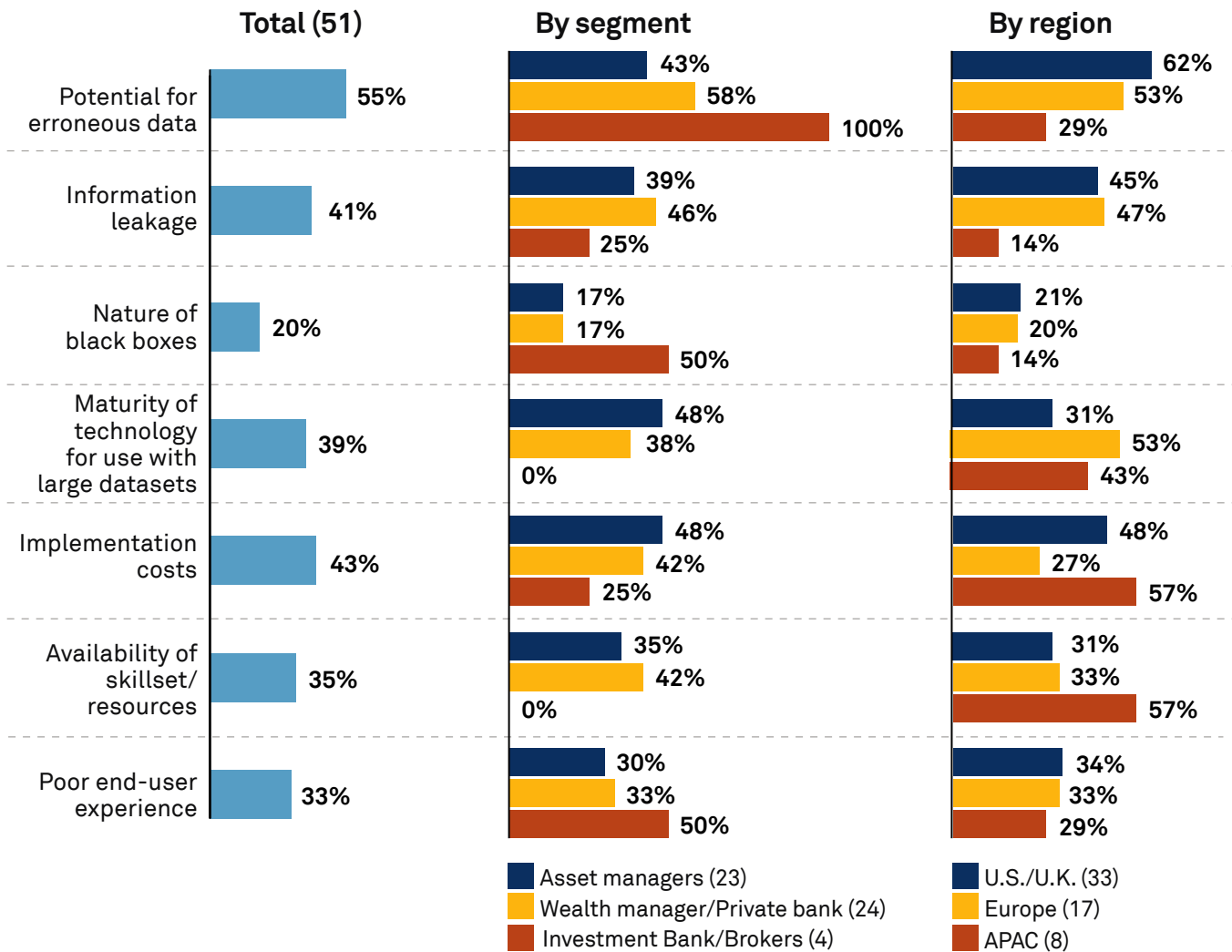
AI/ML Adoption and Use Cases



Note: Numbers in parentheses represent number of respondents.
Source: Coalition Greenwich 2024 Market Data Study

High-quality data is paramount to any type of data use, no matter how transformative it is. Advanced technology development can be accompanied with related risks. For example, the potential for erroneous data and implementation costs may limit use for certain applications. Information leakage is also a key concern that will need to be addressed as AI/ML use continues to develop and grow.

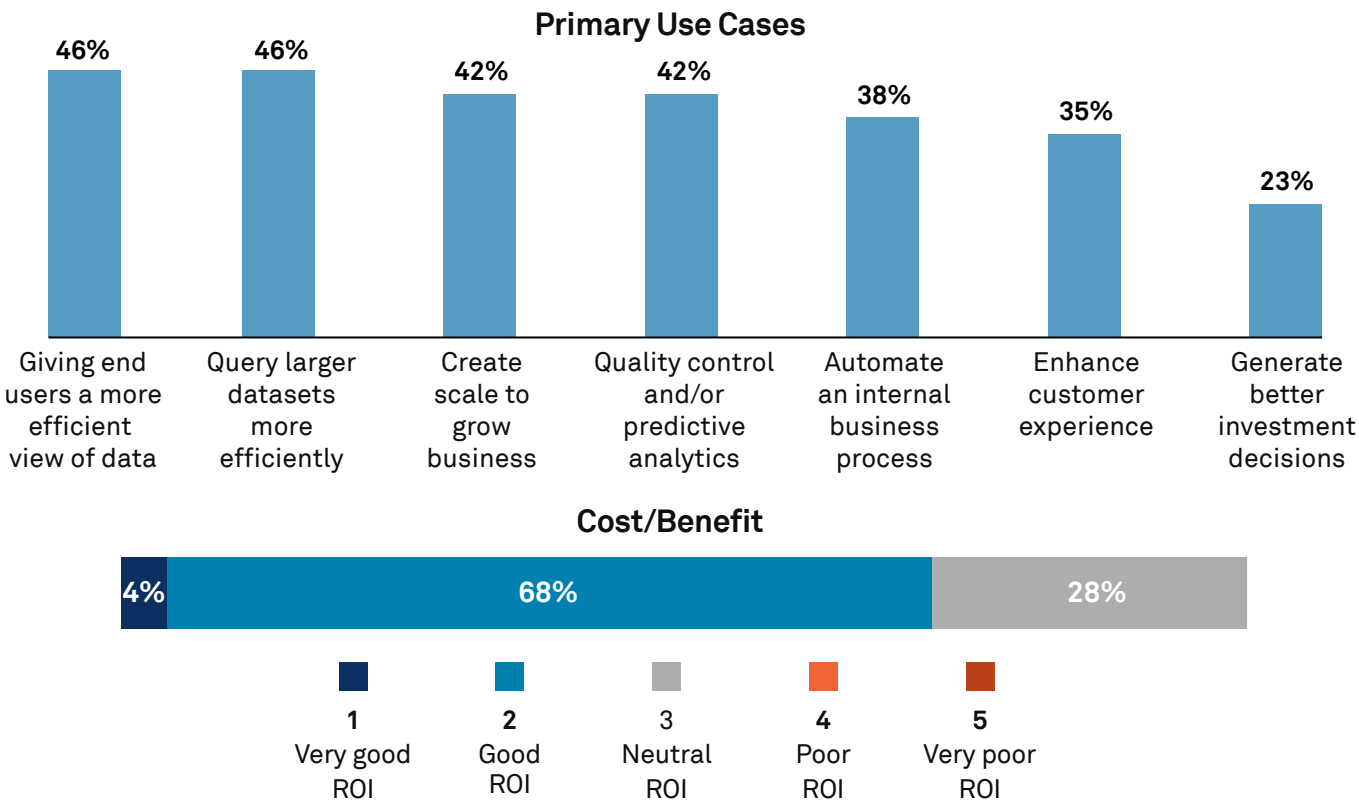
AI/ML Risks



Note: Numbers in parentheses represent number of respondents.
 Source: Coalition Greenwich 2024 Market Data Study

Many firms are currently using APIs, making them less “future state” than AI/ML applications. Although a lower percentage of respondents feel APIs will be used in various ways, they acknowledge that the ROI linked to these investments is actually quite high. Contrary to AI/ML, APIs are lower ranked for generating investment ideas and decisions. However, they clearly give users more efficient views of data and the ability to query very large datasets.

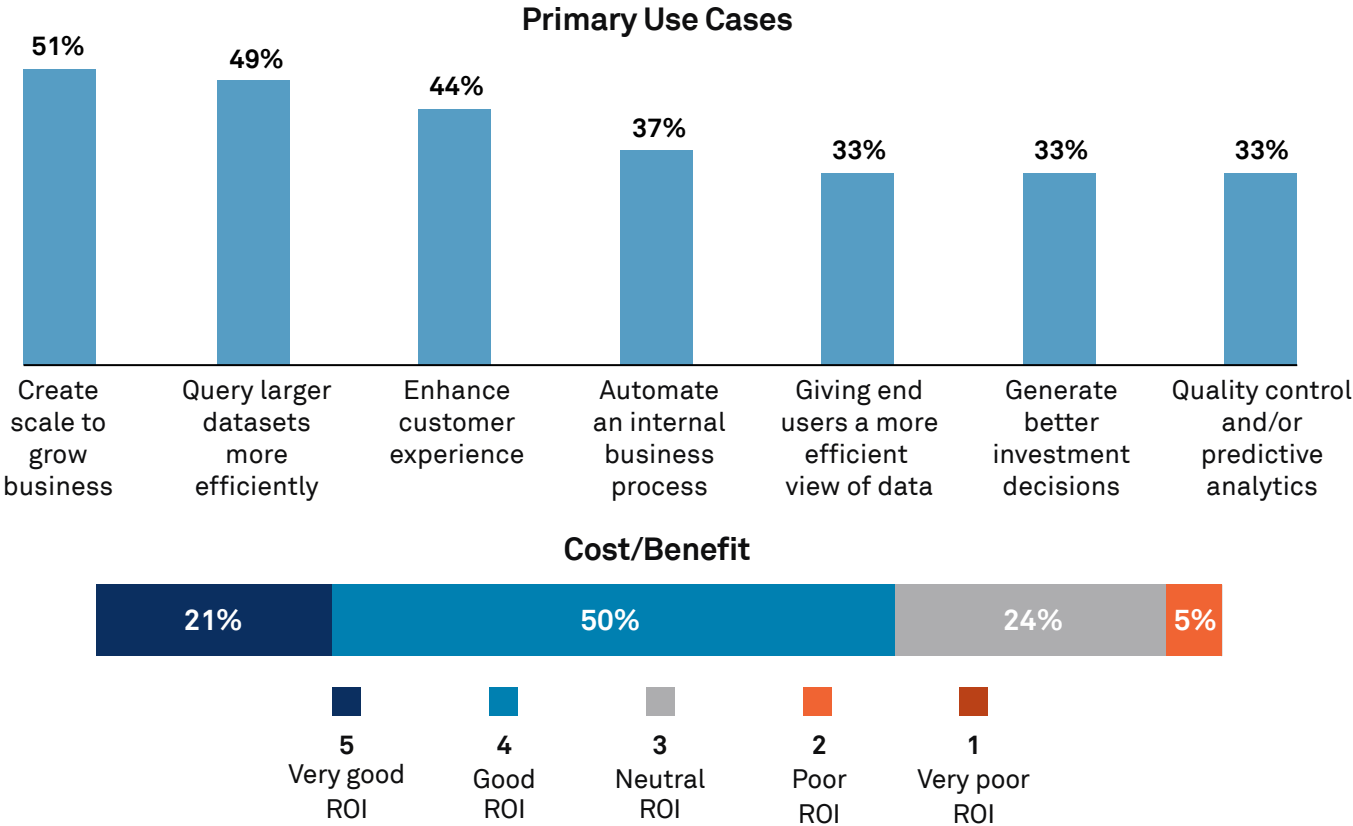
Primary Use Cases and ROI for APIs



Note: Based on 26 respondents.
Source: Coalition Greenwich 2024 Market Data Study

Lastly, respondents believe investment of cloud technology will also garner very good ROI, particularly when it comes to creating scale to grow their business and the ability to query larger datasets more efficiently. Again, the percentage of respondents that believe the generation of investment ideas will be impacted by cloud adoption over the next two to three years is lower (like API use), perhaps because of the anticipated impact of AI/ML on other technology use.

Primary Use Cases and ROI for Cloud Technology



Note: Based on 43 respondents.
Source: Coalition Greenwich 2024 Market Data Study

Conclusion

As in the previous year, market data users continue to value quality, accuracy and reliability over all other features and are using this foundation to create new opportunities by leveraging advanced technology and varied types of data as a competitive differentiator. Compared to 2023, there is a growing preference toward using real-time data throughout the day. Also, reliance on tick data for many use cases, including strategy and trading, is a core finding.

Additionally, data delivery and access methods are shifting. There is more reliance on both public and private clouds, and it is evident that market data users are moving away from on-premise installations. The uptake of dedicated connectivity is becoming more popular. Further, the use of APIs is increasing and becoming critical. Taken in tandem, these developments influence the choice of market data providers, as consumers of information weigh the type, frequency and preferred delivery method to best support their business.

Finally, the introduction of generative AI use cases among users of market data is emerging—especially for creating and supporting investment decisions. This development is underscored by the shift toward higher frequencies of data and more efficient data delivery and consumption methods.

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