Alternative data use in asset management and its implications for Japan

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Executive Summary

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Use of alternative data in investment decision-making is growing rapidly, mainly in Europe and the US. Alternative data use is most prevalent in the quant hedge fund community, but even some traditional asset managers are using alternative data in the aim of qualitatively improving human investment decisions. Japanese asset managers must step up investment in alternative data utilization to remain competitive.

Rapidly growing alternative data market

Alternative data never before used in the asset management industry are increasingly being used to help make investment decisions. This new trend is gaining attention amid a growing recognition that data utilization will be a key source of competitive advantage going forward.

The concept of alternative data is defined in contradistinction to data traditionally used by investors, such as economic statistics, corporate financial statement information, stock prices and newsfeeds. Alternative data are used by portfolio managers to gain insights needed to make investment decisions. They are distinguished from traditional data by a tendency to be more granular and closer to real-time or to offer types of insights unavailable from conventional data sources. They are consequently conducive to faster, more accurate investment decisions.

In forecasting a food maker's earnings, for example, analysts typically analyze the company's financial statements and information collected through such means as interviews with management. If they had access to retailers' daily POS data, however, they could analyze sales trends on a SKU-by-SKU basis before the company publicly reports its earnings.

To gain such an informational advantage, leading-edge asset management firms, mainly in Europe and the US, are using alternative data to make investment decisions. The alternative data market is growing in tandem with such utilization. Opimas is forecasting that the global alternative data market will grow to $9 billion by 2020 from an estimated $4.3 billion as of 2017.

The key drivers of the market's expansion include dramatic growth in the volume and types of electronically stored data, increases in computers' computing power and data storage capacity and development of techniques for analyzing voluminous, complex data, such as machine learning.

In addition to hedge funds, even traditional asset managers are using alternative data

The asset managers that appear to be investing most heavily in alternative data utilization are quant hedge funds that invest mainly in stocks. For funds that earn profits by frequently trading large positions, both long and short, in hundreds if not thousands of stocks, it makes sense to use near-real-time alternative data streams to obtain earlier buy and sell signals.

In addition to providing timelier signals, use of alternative data is also an important means of differentiation within the quant fund space. The so-called quant quake[1] of August 2007 was precipitated by quant funds herding into similar positions. Such herding was apparently attributable to widespread use of similar information and investment decision-making criteria. In response, use of alternative data, mainly unstructured data in particular, has come to be seen as one effective way to make investment decisions differently than other funds.

Some leading quant funds spend as much as $100 million annually on alternative data utilization. They directly make use of the insights they glean from alternative data in their investment strategies. Many use raw data to differentiate themselves. A few reportedly have over 100 data scientists on staff.

In addition to quant funds that use computers to make mainly short-term trading decisions with models, some traditional asset managers have started to utilize alternative data to improve the quality of longer-term investment decisions made by humans. For example, the UK asset manager Schroders launched a Data Insights Unit (DIU) in 2014[2]. With a 30-strong staff of data scientists who analyze a variety of alternative data, the DIU helps portfolio management teams make medium- to long-term investment decisions.

One specific example of alternative data analyzed by the DIU is companies' patents. Using natural language processing, the DIU classified by technological field all patents applied for by major companies in the automotive space over the

NOTE

1) In the week of August 6, 2007, quant hedge funds' equity arbitrage strategies that had previously been performing well ceased working. Many quant funds ended up suffering steep drawdowns in what came to be called the "quant quake." The consensus explanation places blame on a negative feedback loop that occurred when certain funds unwound positions to meet large redemption requests while many other funds were holding similar positions, resulting in deterioration in the other funds' performance and, in turn, further forced liquidation of positions across the entire universe of investment strategies.

2) Source: "Ex-F1 strategist in driving seat at Schroders data unit," Risk. net, March 7, 2018.

past 10 years to identify which companies are innovators in each field. With a dataset comprising 10,000 patents, the job was too big for portfolio management teams to cost-effectively undertake manually.

While the Schroders example involves in-house processing of raw data by specialized staff, there are also many data vendors that collect and process data. In Europe and the US, alternative data ecosystems encompassing not only asset managers but also data owners and vendors are taking shape. Notable alternative data vendors include Orbital Insights, which estimates crude oil inventories using satellite imagery, and Prattle, which quantitatively analyzes sentiment with respect to major countries' monetary policies based on textual data.

Implications for Japan

In contrast to what leading hedge funds and major asset managers are doing in Europe and the US, not much is happening in Japan on the alternative data front. While some Japanese asset managers are collaborating on research with overseas data vendors or have set up specialized organizational units to deploy AI and/or Big Data analytics in investment decision-making, such initiatives are still in their infancy and confined to a subset of the largest asset managers.

The Japanese asset management industry needs to further expand and develop alternative data initiatives to raise its game qualitatively. Alternative data utilization promises to become increasingly important not only to beef up automation amid competition based on the speed and quantity of short-term trading decisions as mentioned above but also to improve the quality of medium/long-term investment decision-making, a realm in which humans putatively have an advantage over machines.

That said, practical utilization of alternative data poses a number of challenges in terms of collecting the data and applying them to analyses and the investment process, as well as from a legal and compliance standpoint. The toughest challenges include unstructured data analysis/processing and data collection/cleansing in particular. Hiring and retaining personnel with the requisite expertise are likely to also entail considerable difficulty.

Keeping everything in-house is not necessarily the most sensible approach. Even in Japan, asset managers should focus on areas in which they can differentiate

themselves while openly collaborating with external data owners and vendors.

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