

Aon Investment Research and Insights

Big Data

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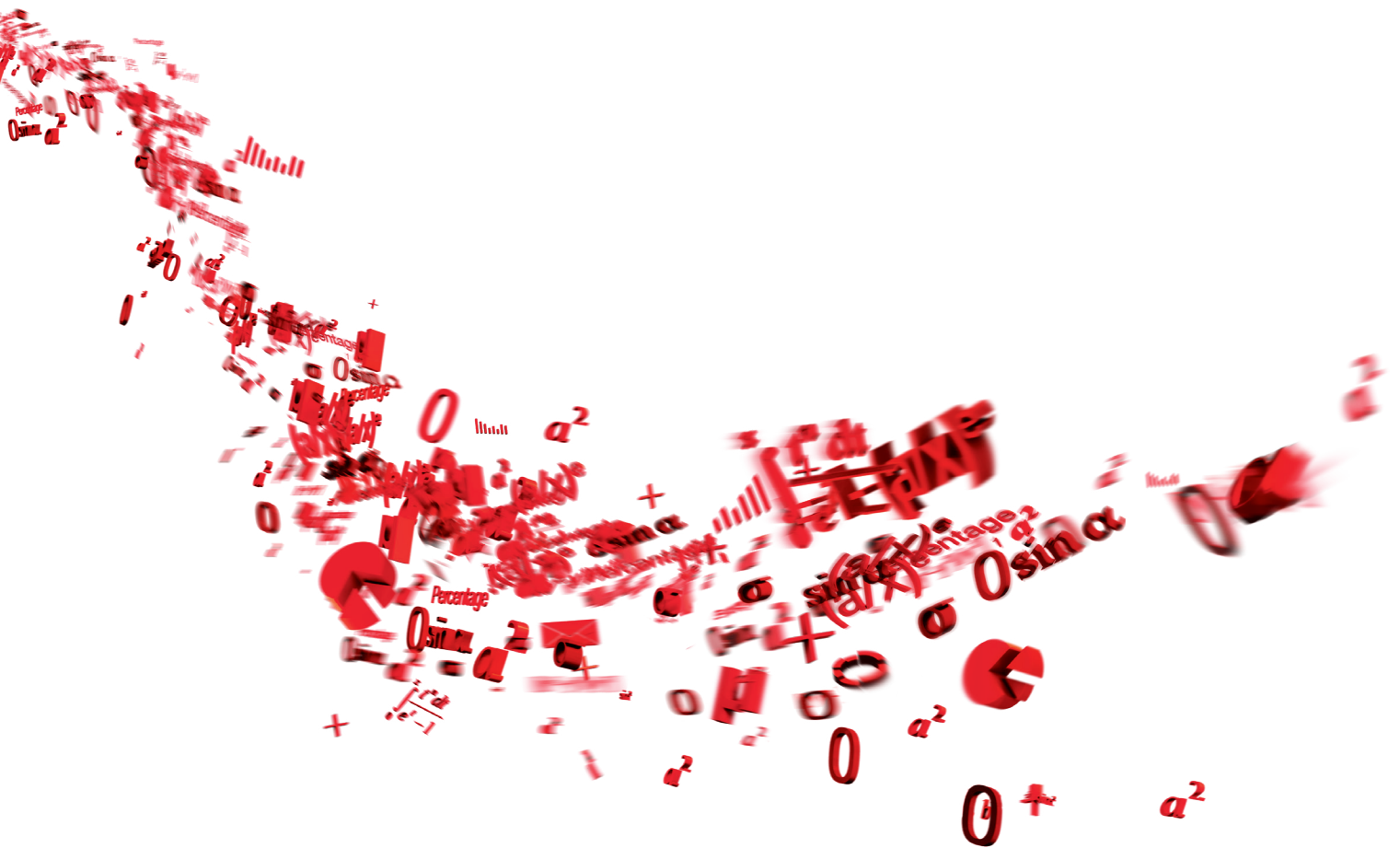
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Executive summary

The exponential rise of technology over the last 10 years has led to an explosion in the volume of data – from social media posts to location tracking apps on smart phones, data has now become a commodity in its own right.

This paper looks at how big data is playing an increasingly important role within the asset management industry.

No action is proposed, but it is important that investors are kept informed. Our global research team continue to monitor developments across the industry.



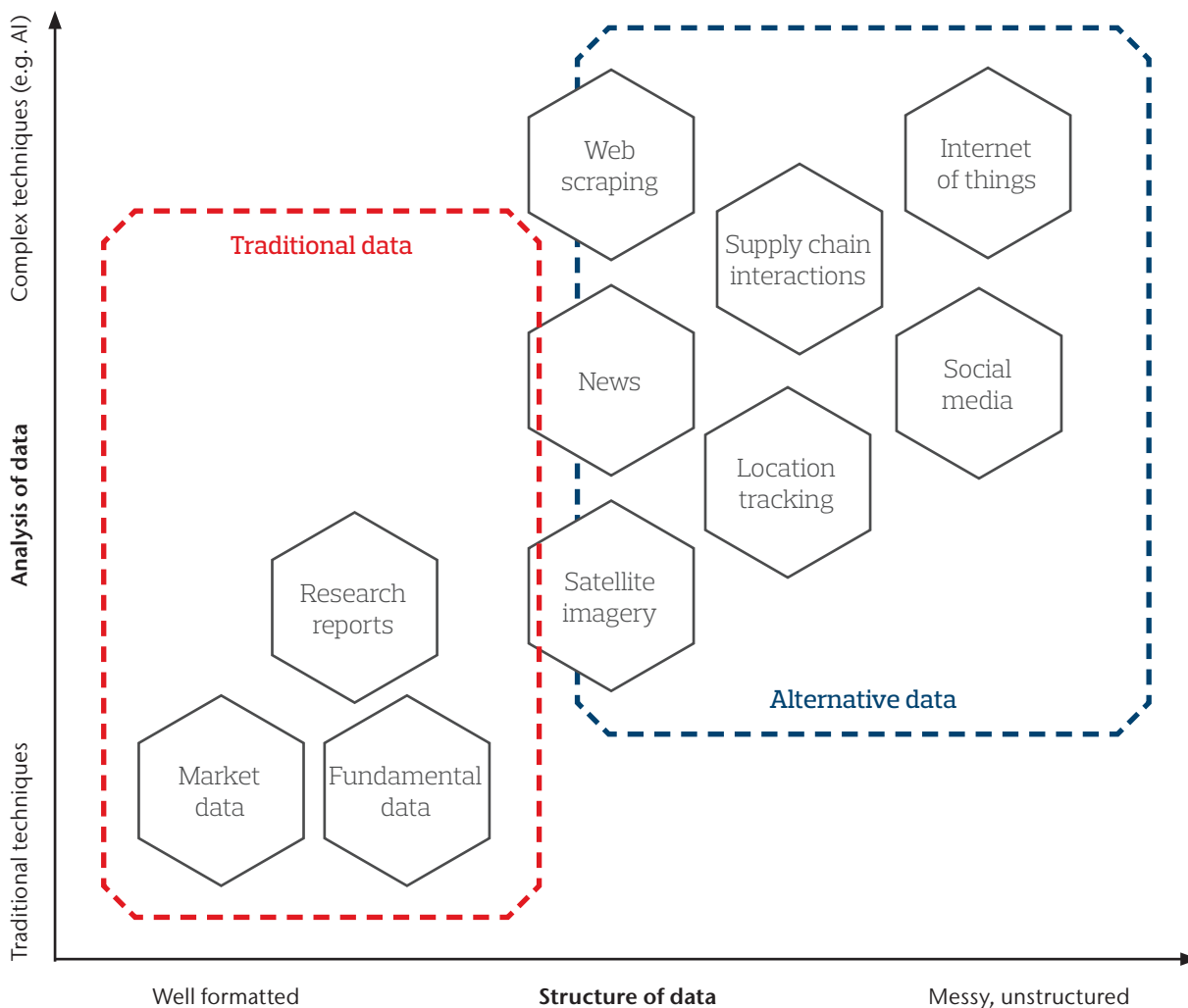
What is big data?

Big data is defined as “extremely large data sets that may be analysed computationally to reveal patterns, trends and associations”.

Big data is characterised by the enormous volumes of data that are often unfiltered and cannot easily be analysed using traditional methods. The evolution of big data has exploded at an exponential rate - thanks to the digital revolution. It is estimated that over 90% of available data was created in the last two years¹.

Investment managers have long relied on fundamental data such as company accounts to form a basis of their investment decision making process, supported by management meetings, newsflow, quantitative data and analyst reports. However, in the growing world of big data, asset managers are now going beyond traditional sources of information.

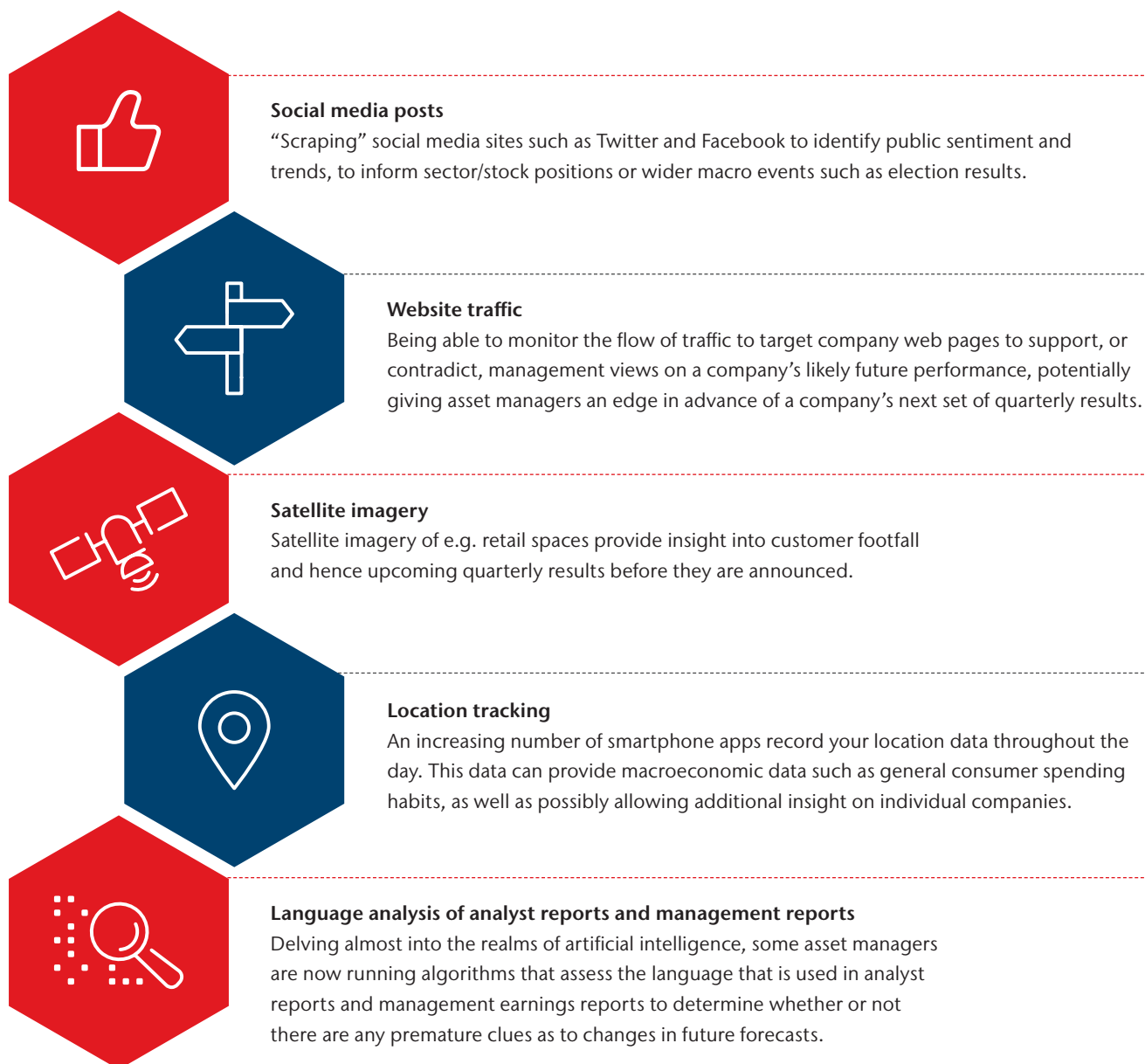
Increasingly, there are now alternative sources of data that managers are using. Such data takes on a new form – instead of being a small sample of well-structured data relying on statistical analysis from which to extrapolate conclusions, big data looks at more “messy”, less structured data in huge quantities.



For illustrative purposes only.

¹Source: 10 Key Marketing Trends for 2017, IBM

A few examples of the new, alternative sources of data include:



How is the industry evolving?

- Technological advances have already brought changes to the asset management industry; from algorithmic trading strategies through to factor investing. The latest developments in big data, however, are leading even traditional discretionary managers to change the way they use data in their investment process.
- With the boom in the amount of data available has come a consequential increase in the number of specialist data firms – firms that have expertise in sourcing and filtering large data sets and then sell such data on to third parties.
- Taking it one step further, some data firms are now developing their own trading strategies using their data collection expertise – sometimes even removing company analysis from the process altogether and instead relying on big data to guide macroeconomic views of commodities, FX and futures markets.
- Research from S&P in 2017 suggests 80% of investment firms are increasing their investment in big data.

Is big data adding value? The jury's out...

There is still some debate whether the use of alternative sources of data can truly add value for an active manager. Indeed, it is difficult to accurately determine the impact that such sources of data can have on stock selection and whether or not this additional level of information is generating excess returns.

With such large quantities of data now available, the key to alpha generation now rests in how such data is “cleaned” and analysed, and how then this is incorporated into the investment process. As with all forms of data analysis, investment managers need to ensure that the results implied by the data are meaningful and there is a plausible explanation for the observed correlations. Only then can the results lead to extrapolations and predictions about future outcomes.

What are the risks?

- Recent headlines around data mining highlight some of the key privacy risks involved with the collection, distribution and analysis of big data sets. Increasingly, there is mounting pressure from both the public and governments alike for firms to increase the protection of consumers' data (take GDPR for instance), although it is not yet clear how these developments may have an impact.
- As with all data analytics, identifying a pattern or trend does not necessarily mean identifying causality. A discretionary overview of the output of big data analytics is still required in order to find justifiable signals for investing. Even with this, there remains the risk that such data is misleading and outperformance is, as ever, not guaranteed – take last year's UK election for example. Despite the huge amount of data available, many analysts still predicted the wrong result.

Conclusion

We are yet to see evidence that big data analytics can consistently add value in an investment strategy; however, we are supportive of managers that are always looking to adapt to changing technology.

Whilst we recommend no action at this time, our global investment manager research team continue to monitor developments in this space.

The world of data analytics is evolving at speed. The increasing prevalence of available data now has the potential to create more of an information mismatch between investors, with those investors that can successfully harness such data potentially gaining an edge over the markets.

The traditional asset management industry as a whole has been slower to react to the big data revolution. Whilst some hedge fund managers have been incorporating big data into their process for a number of years, others are still yet to invest significantly in this area.

This being said, investment in big data analytics looks set to increase across the industry. Managers are increasingly waking up to the potential that big data has to generate alpha.



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