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I want one of those! What's next for portfolio construction systems?

Internal and external drivers have led to investment management firms to evolve their front office systems from simple spreadsheets to a 'best of breed' suite of systems for a range of functions. However, portfolio managers are now faced with too many systems with different user interfaces and a drain on resources through training requirements. Portfolio managers need to use a number of systems to cover their regular daily work on company research, analysis of existing portfolio performance, risk modelling, and order generation. Inevitably they do not use the full functionality of the systems simply because they cannot remember where the functionality is hidden. The result is a waste of money spent on IT, and a risk that portfolio performance is lost needlessly while managers 'alt-tab' around different software windows to assemble all the information.

So, what is the next evolutionary step for front office systems to tackle this issue? The big dream has always been a single 'dashboard' solution that brings together all the functionality in one user interface that is tailored to suit portfolio managers' investment styles.

Front office systems – a brief history

The mainstream commercial front office systems come from an order management background. These systems started their commercial life in the mid-90's – before then firms had to write the code in-house, which could only be done by the larger companies. Back then, the majority of portfolio managers received printouts of their portfolios every Monday, which they updated with new trades by hand during the week. The purpose of the original systems was to improve the management of orders, and to present the managers with an updated 'as-ordered' view of their portfolios which was accurate, reliable, and repriced every morning. It also had the side benefit of allowing the managers to run more individual portfolios against a proliferation of specialist benchmarks. Five years ago, over 50% of investment management firms saw avoiding breaches and being compliant as the main driver behind investment in front office systems[1].

This process did not suit the development of more complex investment processes looking at an increasing number of market factors. Portfolio managers wanted better systems support and saw that front office systems should be able to help improve investment performance and provide a more structured management of funds. Investment consultants and clients wanted to see stronger systems support for the investment process, clearer evidence that the process is being followed – and clearer explanations when it is not. There has been an explosion in the development of business applications in the front office, as internally built solutions, from the market data vendors, and from specialist suppliers.

What do portfolio managers currently use?

Investment management firms have spent a lot of time and money putting in place best of breed solutions to support different parts of their investment activity. These systems normally include, but perhaps are not limited to, daily performance systems, portfolio and model comparison systems, analyst research systems, risk modelling and risk analysis systems and fund style analysis systems. The functionality may all exist within the company, but it is very fragmented. Despite the time and money spent on systems, many investment managers still do not have anything that sits at the heart of how portfolio managers work.

Using systems with different user interfaces can also be complicated, especially when portfolio managers may need to use a number of systems to check relatively simple things, such as the performance of an investment strategy that contains a number of holdings. Portfolio managers, quite rightly, want to spend their

[1] Investit Intelligence Front Office Systems and E-trading research paper.

time managing money. Their systems should be able to give them the information they need at their fingertips to make astute investment decisions, and to be able to answer searching questions from investment consultants and clients. They should not have to remember how to use five totally different systems. And if they are not using the systems properly, they might introduce unintended risks into portfolios – unexpected tracking error, style biases, or internal research conflicts.

Ahead of the curve

Front office systems overall are rich in functionality – generically it is hard to see any major evolution, except for the vital one of presenting the key pieces of functionality to the fund managers in a single consistent way which matches their investment approach. Many firms have tried to build them in-house, with varying degrees of success, but there are now a few such systems available commercially. These are specialist systems which support the way that equity or fixed income managers work and have been developed by people who really understand how the process of investing work. Unsurprisingly, the portfolio managers love them.

So, how do dashboards work? There is not much detail, because they provide a simple solution. This is a desktop solution which brings together all the data from an investment management firm's current, fragmented portfolio of front office systems into one simple user interface – with no multiple system training burden. For example, they may take input from market data systems, risk analysis systems and order management systems to provide a full picture of each individual investment strategy. They also need to be strongly tailored to reflect portfolio managers' different investment styles, making it easier to view portfolios from a specific valuation measure, research criteria and so on. Different systems may be needed for a risk-centric fixed income manager and for a research-centric equity manager.

What's the catch?

There is a catch – and it is a big one. These systems require a large amount of data, and they need the data to be consistent. Portfolio holdings, company research, risk analyses and performance figures need to be consistent with each other so that they can be linked together meaningfully. Now is the time when that central data warehouse that cost so much to build in 2004 will really start to pay off.

Conclusion

Front office systems have evolved and provide all the functionality to support portfolio manager's investment approaches. However, the number of different systems used, and the level of training each requires, is not a perfect solution from a portfolio manager's perspective. If these systems do not give portfolio managers the information they need, they could allow unintended risk into portfolios. Dashboard solutions are the next evolutionary step – and a welcome one. They are being sold by stealth, as managers recommend these systems to each other. Prepare for some pester power from your portfolio managers.

What do you need to know?

CIO

- Dashboard systems can bring risk awareness to the heart of the investment process without forcing fund managers into extensive extra training courses.

COO

- The data behind these systems must be consistent. Many firms are setting up data management functions to take ownership of data across the company.

CTO

- A strong data architecture is vital to get these systems working fast and accurately. Once that is in place, these systems can tie all the information together. A pilot implementation will quickly show whether you have the right level of data available. Then stand by to wait for your fund managers to demand to have the system!

About the author

Catherine Doherty heads up the Intelligence services at Investit, and specialises in helping fund managers to use technology effectively.

She has spent the last two years developing and launching the Intelligence service, which takes a COO's-eye view of the problems behind the scenes in investment management companies. She has worked on the Derivatives, Hedge Fund and Outsourcing Performance papers, as well as giving overall editorial control to the service. Between the papers she has worked on specialist system selections in areas such as Private Equity, hedge funds and CDOs, and has continued to work in her core areas of systems strategy and planning. She has also worked on hedge fund administrator selections.

Catherine has worked in investment management IT for over 17 years. Prior to joining Investit she was Head of Investment Systems at Gartmore. Her previous employers include GAM and BZW, including various projects with BZW Investment Management.

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