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Spreadsheets Can Stunt a Hedge Fund Manager's Growth

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Prime broker and technology provider Merlin Securities recently published a white paper entitled "The Importance of Business Process Maturity and Automation in Running a Hedge Fund." Broadly, the white paper does four things. First, it identifies business process automation as fundamental to various aspects of the hedge fund management business, including growth (in assets, strategies, personnel, etc.), marketing and avoidance of major mistakes. Second, it provides a framework for determining a manager's level of business process automation. Third, it offers a method for assessing whether a manager's level of business process automation is too much, too little or just right in light of where the manager is in its lifecycle. And fourth, for managers with too little or too much automation in light of their stage of growth, the white paper examines the three primary strategies for getting to what it terms the "automation sweet spot."

The fundamental insights of the white paper are that the hedge fund management business is becoming more "institutional," and that business process automation is an important element of institutionalization. It is hard to say whether managers are becoming more institutional because more assets are coming from institutional investors (as opposed to, for example, high net worth individuals), or whether institutional investors are becoming more open to investments in hedge funds because managers are becoming more institutional. The answer is probably a bit of both, but for practical purposes, the answer is moot: managers that seek assets from major institutional investors have to "act institutional." What this Merlin white paper adds to the discussion is a way of thinking about what it means to act institutional from a business process perspective.

This white paper is the latest in a series of white papers from Merlin Securities, and we at the Hedge Fund Law Report have reported on prior Merlin white papers. See, e.g., "Eight Refinements of the Traditional '2 and 20' Hedge Fund Fee Structure That Can Powerfully Impact Manager Compensation and Investor Returns," Hedge Fund Law Report, Vol. 4, No. 17 (May 20, 2011) (discussing, among other things, the Merlin white paper entitled "The Business of Running a Hedge Fund: Best Practices for Getting to the 'Green Zone'"); "Prime Broker Merlin Securities Develops Spectrum of Hedge Fund Investors; Event Hosted by Accounting Firm Marcum LLP Examines Marketing Implications of the Merlin Spectrum," Hedge Fund Law Report, Vol. 3, No. 39 (Oct. 8. 2010) (discussing, among other things, the Merlin white paper entitled "The Spectrum of Hedge Fund Investors and a Roadmap to Effective Marketing").

Risks of Inadequate Attention to Business Process Automation

The Merlin white paper starts by observing that in the traditional sequence of events, a hedge fund manager starts small and simple and evolves as asset and strategy growth warrant. For example, startup managers have traditionally used spreadsheets to track positions, manage investor relationships, calculate performance and attribute risk. As discussed below, the growing viability of outsourcing has brought automation within reach of even startup managers, but starting with spreadsheets remains the default paradigm. However, the white paper identifies a wide variety of risks inherent in manual processes versus automation. Those risks include: lack of scalability, lack of security, vulnerability to inputting errors, inefficiency, difficulty of collaboration, lack of version control, lack of auditability, lack of timeliness, compounding of errors, negative investor perception, difficulty of manually building workflows and rules, unreliability and ungovernability of technology and the absence of third-party validation.

The white paper also observes – as it were, in "dicta," since the point is not central to the white paper's argument – that the so-called "key-man risk" at a hedge fund manager is particularly pronounced in cases where one person holds all or many of the senior positions. See "Key Person Provisions in Hedge Fund Documents: Structure, Consequences and Demand from Institutional Investors," Hedge Fund Law Report, Vol. 2, No. 37 (Sep. 17, 2009). This observation is borne out by the considerable number of SEC enforcement actions alleging fraud and related claims in cases where one person held many senior roles at a hedge fund management company. See, e.g., "How Can Hedge Fund Managers Avoid Criminal Securities Fraud Charges When Allocating Trades Among Multiple Funds and Accounts?," Hedge Fund Law Report, Vol. 4, No. 19 (Jun. 8, 2011); "Fourteen Due Diligence Lessons to Be Derived from the SEC's Recent Action against a Serial Practitioner of Hedge Fund Fraud," Hedge Fund Law Report, Vol. 4, No. 25 (Jul. 27, 2011). This observation is also borne out by logic and the old Smithian concept of comparative advantage: nobody is good at everything, and even if someone is good everything, there are only so many hours in the day. A robust hedge fund management company needs a team of smart people performing different tasks, held together by a culture of excellence, candor, probing and compliance. On the elements of a "culture of compliance," see "To Whom Should the Chief Compliance Officer of a Hedge Fund Manager Report?," Hedge Fund Law Report, Vol. 4, No. 22 (Jul. 1, 2011); "Can Hedge Fund Managers Use Whistleblower Hotlines to Help Create and Demonstrate a Culture of Compliance?," Hedge Fund Law Report, Vol. 3, No. 29 (Jul. 23, 2010).

Measuring Business Process Automation

After highlighting the various downsides of the absence of business process automation, the white paper goes on to offer a method for quantifying the hedge fund manager's relative level of automation. Merlin calls this method the Process Automation Score Sheet, or PASS. The PASS is a list of ten processes typically undertaken by hedge fund managers, grouped into three top-level categories. The three top-level categories are: trading; reporting; and operations and middle office. The three processes within the trading category are: pretrade analytics and compliance; order and execution management; and post-trade allocations and reporting. The four processes within the reporting category are: portfolio management; risk management; performance and attribution; and investor reporting. And the three processes within the operations and middle office category are: reconciliation and aggregation; portfolio accounting; and compliance.

Merlin recommends that managers assign a "score" from 1 to 10 to each of the 10 processes, as follows:

- 1 to 2 = Manual processes. Most tasks are performed by an individual manually or using spreadsheets. There are generally no formal controls, little automation and processes are highly dependent on a specific individual.
- 3 to 5 = Basic process structure. Processes are controlled, clearly defined with basic data flows in place and some automation. Controls and rules are generally still manual decisions.
- 6 to 8 = Mostly automated. Processes are based upon data that is sourced electronically and most rules and controls are driven by automation. Dependency on spreadsheets is very low.
- 9 to 10 = Fully automated processes. No aspect of data flow, validation or reconciliation is manual. Clearly documented processes and automated systems. Processes are not dependent on any individual or spreadsheet.

The white paper then provides a method of interpreting various PASS score ranges. A PASS score on the low end – from 10 to 40 – is typical of a small or startup manager with primarily friends and family investors that do not require the manager to complete a due diligence questionnaire. A PASS score on the high end – from 80 to 100 – is typical of a large manager with a mature organization that is targeting large institutional investors. PASS scores between those two poles, not surprisingly, are typical of managers of various stages of development.

The Business Process Automation "Sweet Spot"

Next, the white paper includes a chart intended to enable managers to determine whether they have too much, too little or the right amount of automation in light of their stage of development. On the Y axis of the chart is the PASS score, from 0 at the origin to 100 at the top of the Y axis. On the X axis are four stages of hedge fund manager development, from Stage 1 closest to the origin to Stage 4 at the right-most end of the X axis. Those stages are:

- Stage 1: Launch and initial fundraising;
- Stage 2: Getting beyond retail;
- Stage 3: The institutional threshold; and
- Stage 4: Major institutional fundraising.

These four stages of development incorporate the 10 categories of institutional investors identified in Merlin's prior white paper entitled "The Spectrum of Hedge Fund Investors and a Roadmap to Effective Marketing." For example, Stage 1 includes friends, family, angels and high net worth individuals; and Stage 4 includes sovereign wealth funds, public and corporate pension funds, foundations and endowments. See "Prime Broker Merlin Securities Develops Spectrum of Hedge Fund Investors; Event Hosted by Accounting Firm Marcum LLP Examines Marketing Implications of the Merlin Spectrum," Hedge Fund Law Report, Vol. 3, No. 39 (Oct. 8. 2010).

If a manager's PASS score is too high in light of its stage of development, its systems and processes are more robust than necessary. On the other hand, if a manager's PASS score is too low in light of its stage of development, it is in what Merlin dramatically calls "death valley," where processes have not kept up with investors' requirements. In the middle is the automation sweet spot, where systems and processes match the sophistication of the manager's next investor target.

The white paper notes that a manager can use its PASS score and location on the "sweet spot" chart to "map expenditures to the achievement of specific fund milestones such as asset growth or number of strategies," and to "avoid investing in unnecessary processes." Presumably, investors can also require managers to determine their PASS scores and location on the chart as an element of operational due diligence. In either case, the utility of the PASS depends on candid and accurate scoring by the manager.

Getting to the Sweet Spot

Explicitly for managers with processes in "death valley," and implicitly for managers with too much in the way of automation, the white paper concludes with a brief discussion of how to get to the sweet spot. In short, the white paper identifies three basic methods: building new systems in-house; buying prepackaged solutions and integrating and customizing them to meet specific needs; and outsourcing to a third-party technology provider. Here, too, the white paper provides a chart to assist managers in making the build, buy or outsource decision. The Y axis of the chart lists the requirements profile (e.g., degree of specialization, competitive differentiation and size of user base), factors (e.g., flexibility, maintainability, operational cost and cost), net advantages and net disadvantages. The X axis lists the three potential routes: build, buy and outsource.

A discussion following the chart makes some important contextual points, including the following:

- Most managers will have a general bias towards one of the three options.
- Most managers will use a mix of the three options, especially over time, but even simultaneously.
- The most cost effective way for small and midsized managers to implement mature processes on day one or early is typically through outsourcing.
- Larger managers may be best served by building their own processes, but even larger managers may consider third-party solutions because third-party solutions: represent a variable rather than a fixed cost; can scale in capacity as needed without additional servers and data center space; can lower even a larger manager's overall technology spend; and can leverage the scale, experience and technology development expertise achieved by selling solutions to a broad marketplace of clients.

Any manager considering a buy, build or outsource decision is also encouraged to read an important article we recently published on the general topic: "Hedge Fund-Specific Issues in Portfolio Management Software Agreements and Other Vendor Agreements," Hedge Fund Law Report, Vol. 4, No. 26 (Aug. 4, 2011).

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