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# How to be a Data-Driven Investor in a Big Data World

***By Farris Qunibi***

*"The most valuable commodity I know of is information."*

*– Gordon Gekko, Wall Street*

Imagine you're the CIO of a pension or large investment firm on the day Greece defaults on its debt. How important is it for you to answer a simple question: ***what is my exposure to Greece?*** How critical is it for your team to be able to communicate exact exposure numbers in aggregate and even drill down to the manager level to understand which allocations make up your exposure to Greece? For most investors today, answering this question requires a team of analysts to manually collect data from risk reports, compile spreadsheets, and in most cases, call individual managers. This approach is too costly, time-consuming, and painful.

Investors can no longer operate without the right infrastructure, tools, and technology needed to make critical investment decisions. They need to be able to measure – in real time – exactly where their risk exposures exist at the portfolio and manager level. The top institutions are leveraging data and transparency to make better investment decisions. This guide will show you how you can also be a data-driven investor and answer any question about your portfolio in seconds, rather than days or weeks.

To begin, the three core fundamentals needed to have granular access to your data and the ability to analyze risk, attribution, and other key metrics across your portfolio are:

***1. Data Foundation*** *– an infrastructure that effortlessly collects, stores, aggregates, and normalizes all of your data sources automatically.*

***2. Analytics Engine*** *– an intelligent analytics engine that allows you to pull, combine, screen, and analyze all your data in various ways.*

***3. Technology*** *– the technology necessary to extract insight from your data and analytics by simply logging into a system.*

## The Data Foundation

The only way to achieve your full potential as an investor is to make better, data-driven decisions. While trusting your gut as an investor is important, having more information and data will enhance your ability to make better investment decisions.

The first step is creating an infrastructure that allows you to leverage your data—this involves getting all of your manger data organized and within a single database. By storing all of your manager data [Risk Reports, Performance Reports, Positions, etc.] in a single, secure database, you will have the foundation needed to analyze and monitor your portfolio to maximize your performance potential.

Once all of your data is in one place—organized, aggregated, and verified—you can tap into your database at any time to analyze and measure all of the important metrics on your portfolio.

When word of Greek insolvency hits the newswires and alarms are going off from your investors or your board, all you have to do is to tap into your organized database, and within seconds, you can answer your constituents' concerns intelligently and confidently. This type of sophisticated data infrastructure gives you the ability to look at exposures across asset classes, sectors, geographies and more at both the portfolio and manager levels. In addition to high level stats, you can also drill down to the manager level and analyze how each manager contributes to your portfolio's risk or performance in order to measure the exact value they provide.

You might say this is impossible due to poor transparency and poor technology, but this excuse no longer holds up. The reality is that there is more transparency today than ever before in the hedge fund industry. But using the same outdated tools like Microsoft Excel to manage, store, analyze, and report critical portfolio metrics is not the best use of that transparency. And the truth is, better technologies are already being leveraged by the world's most sophisticated investors.

## The Analytics Engine

Having all the data in the world is useless if you don't have the technology to access and analyze it. This is why the data problem is not triggered by a lack of transparency or manager data, but instead, the lack of an infrastructure to access and analyze this data. When major market events like the Greece example occur, most investors already have access to the data needed to investigate their exposures. These critical data points are all included within the PDF monthly risk reports you receive from your managers. The reason it's been difficult to make use of this data is because it's all stored individually and not aggregated or maintained within a singular database. In addition to storing exposure data from your risk reports, you then need an intelligent analytics layer that can pull whatever data you request.

*"Experts often possess more data than judgment. – Colin Powell"*

Microsoft Excel is a great example of this—the 1st version of the program was released in 1985, and although it was a major breakthrough at the time, the program didn't have the ability to analyze data the way we do now—it was missing an analytics engine. Eight years later, Microsoft released a major upgrade, Microsoft Excel 5.0, which included multi-sheet workbooks and support for VBA—a macro programming language that allowed users to manipulate spreadsheets for various tasks, including data organization, calculation, and more.

Similarly, today, we've outgrown MS Excel and need an upgrade to our analytics infrastructure. With more data available than ever before, it's difficult to store information in traditional desktop spread-sheet programs like Excel. Although it might be possible to do so, using Excel to support your analytics is not a good solution and there are more powerful technologies available.

## The Technology

The final component to solving the data and analytics dilemma for institutional investors is simply about access—bringing everything together. A smart analytics engine will pull the data, run calculations, and analyze it in any way you choose. Bridging these two together however requires the right technology, and although they vary in many ways, what you should look for is a system or solution that includes a robust data management offering. There are two reasons why this is essential. The first is that managing your own data isn't efficient, and is likely to fail, leading to poor or delayed access to analytics. As I mentioned in the Greece example, investors need to get away from manually entering or processing manager transparency. It's not what investors are hired to do. The second reason is that most managers are not technologically equipped to handle various transparency types with countless methodologies across a portfolio of managers. One manager may classify geography exposure to Slovenia as 'Europe,' while another manager may classify it as 'European Union,' while some may bucket it as 'Emerging Markets.' The only way to have true aggregation is to implement a standard methodology across all of your managers and automate it across each source of transparency.

For example, take a look at table on the next page. The four key types of transparency that investors have access to on their managers have different sources, formats, and frequencies. This doesn't even take into account the actual content that's reported by each source, what methodologies or taxonomies are used, and so on.

Let's say you're invested in 15 managers. Assuming that you receive two forms of transparency for each manager every month, this would mean that your team would need to collect and manually enter, organize, and aggregate 30 unstructured reports that use various methodologies depending on the managers' preference and internal reporting standards.

So why then do some investors still rely on internal teams to process their data? By now, we must realize that this approach is too costly and doesn't solve the core problem, which is quick access to key portfolio metrics when you need them. While some institutions may be able to handle the data entry, they lack an analytics engine and the technology needed to access their data. We believe this problem exists because C-level investment professionals such as CIO's and other key decision makers are detached from their internal data processes and separated by multiple reporting layers. They don't recognize the level of effort and time it takes to run a data operation internally. What we know for sure however, is that this outdated process is fundamentally broken, and that investors must turn to better, more intelligent solutions.

A growing number of institutions have already made the switch to third parties to improve their infrastructure and portfolio analytics. At Novus, we work with hundreds of institutional investors to automate the entire process of collecting, aggregating, and normalizing their manager data. In addition, we give them access to an intelligent analytics engine that supports a wide range of portfolio and manager level analytics in seconds. It's a completely different investment experience that we and our clients believe is the new standard for the industry.

*"The goal is to turn data into information, and information into insight. – Carly Fiorina, Former CEO of HP"*

### The Novus Data Experience

Imagine a world where, as an investor, you can log into a single system to access anything and everything important about your portfolio. Not just the raw data or documents, which are also collected, tracked, organized, and entered automatically. But in addition to collecting the original data files, your data is normalized across different category methodologies and made available through an analytics engine that helps you make sense of it all. If you operated on a data infrastructure like this, how much more insight could you get out of your portfolio analytics? Would you be able to select better managers? Fundamentally, how much more alpha could you generate?

From the day an investor on boards with Novus, our team of data specialists begin automating the entire data process for you. Manager transparency reports are automatically collected, normalized, and transformed into a dynamic database that

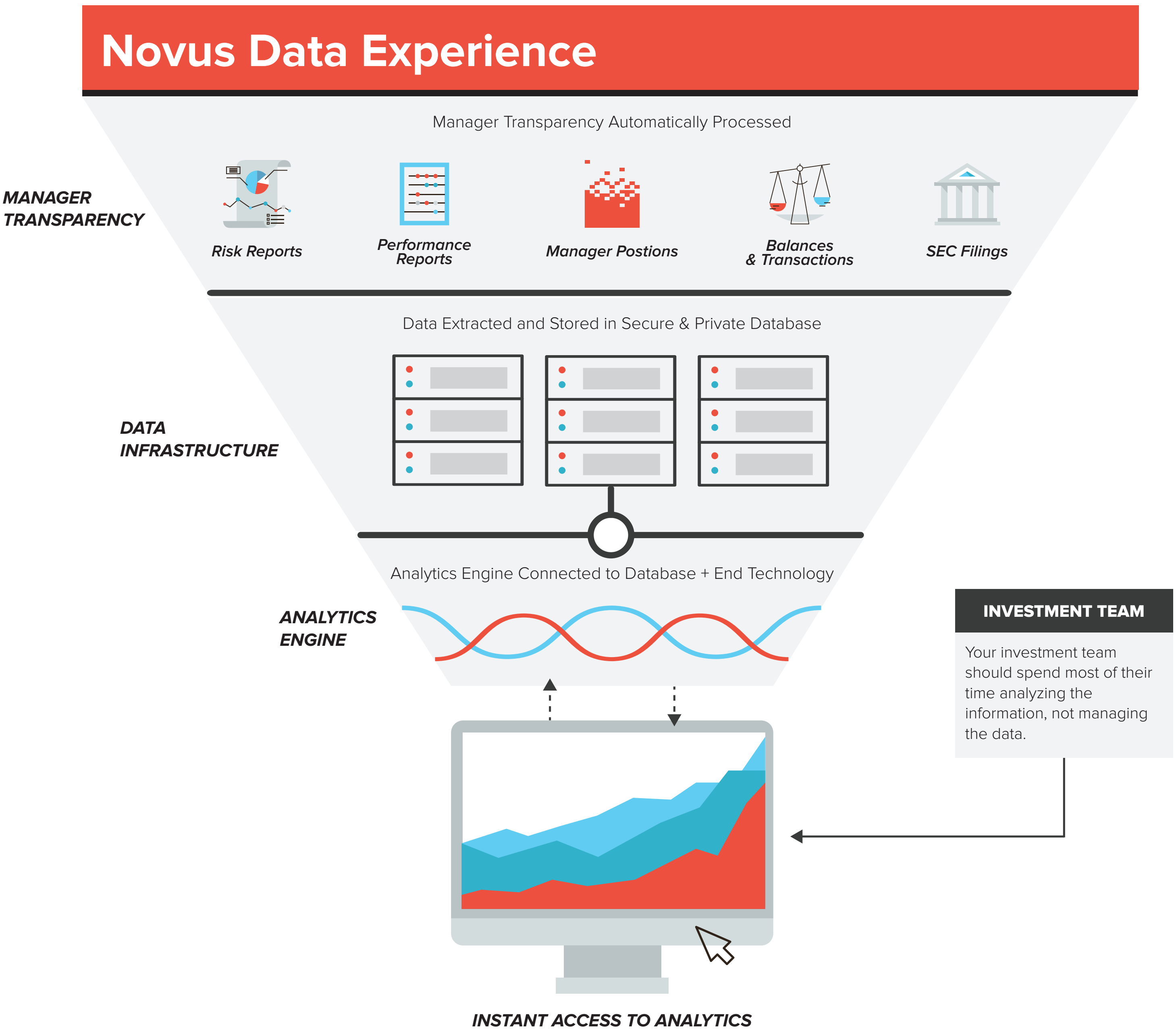
## Sources of Transparency

| TYPE OF REPORT | DESCRIPTION | SOURCE | FREQUENCY | FORMAT |
|---|---|---|---|---|
| Risk/Exposure Report | Detailed fund report that typically includes top-level fund exposures, category exposures, performance stats, and AUM. | Directly from Investment Manager | Monthly or Quarterly | PDF, MS Excel |
| Performance Report | Fund performance report that may include attribution by category. | Directly from Investment Manager | Monthly or Quarterly | PDF, MS Excel |
| Manager Positions | Position file extract provided by the manager either directly or through an administrator. | Directly from Investment Manager | Daily, Monthly, Quarterly | PDF, MS Excel |
| Regulatory Data | 13F positions collected from the SEC on a quarterly basis, and with a 45-day lag. | SEC | Quarterly | HTML, XML |

sits on top of a powerful analytics engine—a CIO's dream come true. The following diagram illustrates how effortless Novus' data solution is.

With this infrastructure, you have full visibility into what's happening within each of your allocations, and across your entire portfolio in aggregate. Everything important about your managers and your investments with them is collected, maintained, organized, tagged, aggregated, and normalized in a single, private database. All you have to do from there is login through a web-based platform, and within seconds, you can access endless manger and portfolio insights.

Portfolio-level analytics are fully aggregated across categories and type, (Performance/Attribution, Exposure/Risk, etc.) and are accessible to you and your investment team instantly. If you want to know exactly what your portfolio exposure is to structured credit or Greece debt, and how that has changed over time, you can have your



answer in a few clicks. With a few more clicks, you can identify exactly which of your managers account for that exposure. This is a game-changing way for institutional investors to measure and analyze their portfolios.

Manager-level research and analytics are just as powerful when a proper data operation and infrastructure is in place. Whether you're receiving monthly risk reports or position files from your hedge fund managers, your database should automatically support the integration of various transparency levels while empowering you to view the entire portfolio in aggregate.

The final point here is that institutional investors have a fundamental duty to improve their infrastructures and catch up with today's technologies. This is no longer a luxury, but a necessity in today's modern investment world. Implementation is easy enough, but more importantly, the value that such a data-driven infrastructure delivers is worth the cost and effort. Whether you're managing a portfolio of $100 million or $100 billion, the ability to make better investment decisions, avoid poor allocation mistakes, and simply gain more transparency into your portfolio will all improve substantially with a data-driven solution like Novus.

To learn more about Novus' solutions or our clients, please contact **sales@novus.com**.

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