

PFA Solutions

Private Fund Data and Analytics

Industry challenges and best practices for implementing fund analytics solutions

By Ryan Burger, PFA Solutions

Private equity and other private capital firms – including private debt, venture capital, real estate, infrastructure, and hedge funds – are actively evolving their technology and data models to improve business operations. Some firms are in the nascent phase of implementing core accounting and CRM solutions to replace spreadsheets, while others are exploring machine learning, big data, and robotic process automations. In the middle of the pack are firms deploying solutions to easily aggregate data, conduct forecasting and quickly produce analytics for internal reporting and externally to investors. These firms aim to better organise their data on investors, portfolio companies, and prospective investments, all of which are typically siloed across various sources. Deploying analytical solutions allow individuals across the organisation to access data quickly and reduce reliance on spreadsheets and various other teams across their organisation.

This article discusses the various data and analytical solutions available to solve challenges related to data access for analysis, forecasting, and internal and external investor reporting. Additionally, it outlines considerations when improving a data framework and deploying an analytics solution.

Exhibit 1: Key areas of focus for analytics

Analytical solutions shed insight on existing data. Some key areas of interest to firms include existing and pipeline investors (and associated attributes), existing and pipeline investments (and associated attributes), cash balances and credit lines, market data, and internal carry and compensation details.

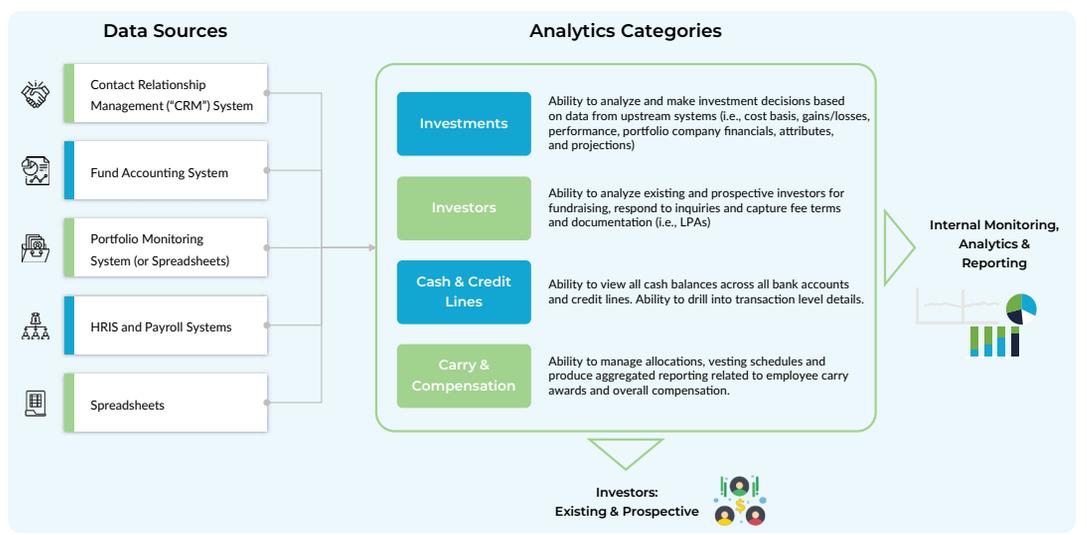


Exhibit 2: This example illustrates a private equity firm that heavily relies on Excel spreadsheets across processes.

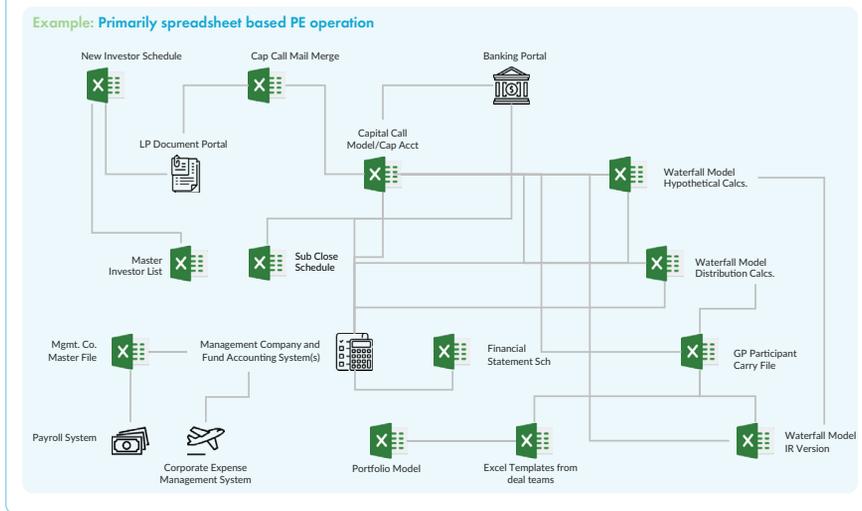
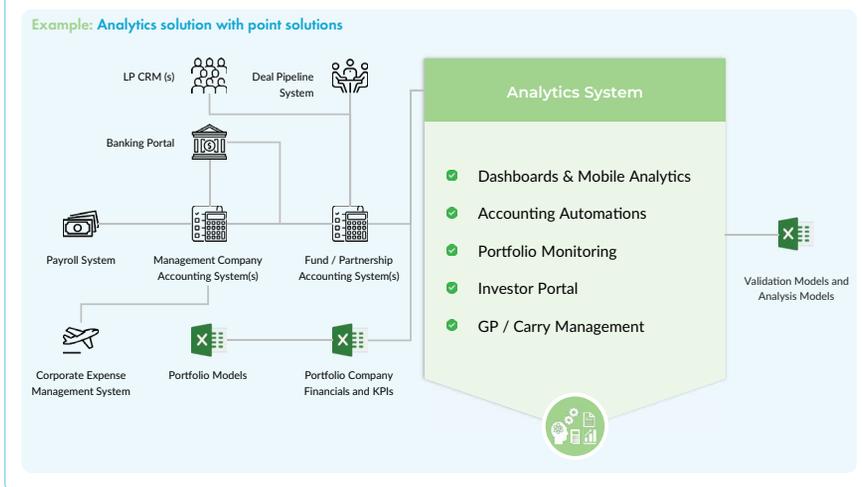


Exhibit 3: This example illustrates a private equity firm that leverages fit-for-purpose systems and an analytics system to quickly access data and conduct analysis and forecasting. This example still has some spreadsheet use, however it's limited and used for validation and analysis.



Problem: Disparate systems and constricted access

Given the complexities and uniqueness of each firm in the alternative investment industry, there are typically disparate systems used for various functions within a private capital firm. This is for good reason since it is important to use the best application available for each department or process. Some firms have over 100 separate systems across third-party vendors and proprietary tools. Given the common practice of data housed in various locations, individuals that need certain information may not have direct access without other teams' help. For example, fund accounting systems include all capital balances¹ on investors, investment transaction data, as well as valuation and the data used for performance calculations (such as IRR, TVPI, DPI, and RVPI). Investor relations, investment professionals, and tax team members often rely on the accounting staff (internal or external) who own these systems and can provide information upon request. Alternative investment firms that have acted on resolving this issue have begun implementing aggregator and analytics solutions as outlined throughout this article.

Solution: Centralised data portal with built-in analytics

Deploying a centralised data portal allows firms to better organise their data across key areas of their business, including details on prospective and existing investors, cash balances, credit lines, portfolio companies, and prospective investments which are typically siloed across various sources. Additionally, firms intend to utilise available market data to produce better assessments on the operating metrics of their investments. There is also a trend to improve internal reporting to employees related to their carried interest, co-investment (personal capital contributions), and other forms of compensation. Deploying analytical solutions allow individuals across the organisation to access data more quickly and reduce reliance on spreadsheets.

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¹ Capital balances include commitments, contributions, distributions, underlying details on income and expenses, etc.

Exhibit 4: Solution options

Aggregator and analytics solutions help organisations gather and interpret their data to gain insights and make constructive business decisions. These could be in the form of dashboards, graphs, charts, or data lists to extract and analyse data. There are a handful of available tools, each with their own advantages and disadvantages.

Analytical solution option	Description	Advantage	Disadvantage
Custom data warehouse with out-of-the-box business intelligence tools	A custom data warehouse is a separate tool outside of one’s core system that aggregates fund, investor, investment, and market data. Common examples include SQL, Snowflake, and Oracle that are used alongside visualisation tools like PowerBI, Tableau, or Qlic.	<ul style="list-style-type: none"> • Full flexibility and can be built to specifications 	<ul style="list-style-type: none"> • Lengthy implementation • High labor cost for definition of requirements, data architecture, and business intelligence reporting
Custom data warehouse with front-end web platform	This is similar to the above option, however it uses custom web-based and mobile platforms for the front-end instead of out-of-the-box visualisation tools. Modern software development frameworks are used.	<ul style="list-style-type: none"> • Full flexibility and can be built to specifications 	<ul style="list-style-type: none"> • Significant effort to build leading to lengthy implementation and high software development costs
Vendor analytical solution	Platforms such as PFA’s FirmView Performance Module or similar vendor provider.	<ul style="list-style-type: none"> • Existing platform • Low cost • Quick implementation 	<ul style="list-style-type: none"> • Reliant on 3rd party provider
Manual/Excel	Create macros or manual processes to aggregate data from various sources.	<ul style="list-style-type: none"> • Flexible • User familiarity 	<ul style="list-style-type: none"> • Functionality gaps • Not easily accessible • Prone to human error

Exhibit 5: Pros and cons of implementing analytics solutions

When implementing a new analytical solution, it is important to understand the common benefits and potential drawbacks.

PROS	CONS
A single source of truth to aggregate data across systems and sources, i.e., accounting, portfolio monitoring, CRM data, market data, etc.	Transition requires time and resources.
24/7 independent access to information.	Existing method via Excel and third parties work, although cumbersome.
More automation and fewer errors from manual entry.	Users may require training post implementation.
Ability to grant limited access to investors/ limited partners.	As the business evolves, maintenance and enhancements will be required (i.e., new reporting).

Considerations when deploying analytics solutions

Outlined below are considerations when improving a data framework and deploying analytical solutions:

1. Build a solid foundation

To generate quality analytics and retrieve meaningful raw data, information must be well organised through normalisation data practices. Examples include:

- a. **Unique keys:** Create a standard naming convention across systems

(e.g., unique IDs for investors and investments). Many firms have the same information across systems but naming conventions vary, causing mismatches and breaks.

- b. **Lookup fields:** Use drop-down fields as opposed to free text to tag/label when possible. Examples include investment referential data (e.g., standard sectors, industries, and strategy classifications) and investor referential data (investor type, family, and class)
- c. **Data management and configuration:** Restrict configuration

abilities to certain individuals who control certain types of data (i.e., look-up values, new user defined fields, and mapping between systems). Ensure business users can request updates and the individuals responsible for updating system configurations understand the business needs and any downstream impacts on reporting.

- d. **Data categorisation:** Well-defined transaction mapping and grouping mechanisms are critical when migrating granular transactional data, say for example, from accounting systems to a data warehouse. Additionally, once the dashboarding or data portal layer is implemented, it is crucial to focus on the data model and persisted data versus calculated data to get accurate and meaningful results.

2. Continually invest time and resources

Success is only feasible if the proper resources are allocated to build the foundation and properly manage firm details. Anecdotally, firms that have built masterful data management modules have dedicated adequate internal resources to the integration or have partnered with third-party

administrators and technology services providers. Many have done both.

3. **Use the right tool for your business**

For large, and complex operations with sufficient staffing, it may be appropriate to develop a solution in-house.

However, this will require significant investment to establish the data model and then to maintain the data and reporting layers on an ongoing basis. Many firms have been successful in developing a data warehouse and creating Tableau or Microsoft PowerBI reporting, however there are other external solutions that provide an interactive, digital experience through web browsers and mobile devices. In both cases, specialised reporting may need to be developed to retrieve the analytics required. It is important to consider all available options when undertaking a data and analytics effort.

4. **Embrace an iterative process to an ideal solution**

Establishing the ideal solution is an iterative process. It may take years to perfect or may never be complete due to competing priorities. To document

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progress from the onset, it is helpful to compose a roadmap listing small to moderate goals. The private capital industry is complex, and strategies are constantly evolving, which can result in delaying initiatives and chasing moving targets. It is important to be aware of these risks while moving forward on the path to improvement.

Summary

The alternative asset industry is complex, and teams are lean so continued reliance on spreadsheets and manual processes is expected. However, a strong data model with quick and easy access to information for both internal and external parties via a

user-friendly platform is within reach. The industry is evolving to transition from spreadsheets as the key data storage mechanism towards a data analytics tool used in conjunction with fit-for-purpose applications. The migration allows for easier access to data and forecasts, and improved tear sheet reporting. Existing solutions including custom built tools, data warehouses with business intelligence capabilities, and specialist vendors such as PFA Solutions, each with their own pros and cons. Whichever solution is selected, the foundational elements of the data model are critical for the long-term success of a highly usable platform. At PFA, we look forward to being a part of the evolution as a trusted partner with our clients and those who launch on data and analytics initiatives.



Ryan Burger, Product Strategy and Solution Delivery, PFA Solutions

Ryan is responsible for Product Strategy and Solution Delivery at PFA Solutions. Ryan has extensive experience working on strategic operating model change initiatives and software implementations for a variety of organizations. His clients have included major private equity firms, multi-strategy asset managers, institutional investors, and fund administrators. Prior to PFA, Ryan was a Senior Manager in EY’s consulting practice serving the alternative investment industry along with having had roles at SunGard Investran (now FIS) and Accenture. Ryan holds a B.S. in Accounting and Information Systems and a minor in Global Business from Virginia Tech.



PFA/FirmView

PFA Solutions is a specialist technology firm serving the alternative investment industry, primarily private capital funds and fund administrators. The cloud-based platform, FirmView includes two modules. The Performance module provides a 360° view of the firm across funds, investors, and investments. It is driven by data from accounting systems and augmented with portfolio company financials and KPIs. The portal is used by finance, investor relations and investment team members. The Carry and Compensation module is a sophisticated solution to manage GP carry participant allocations and vesting schedules, generate distribution notices and forecasts, and enable 24/7 independent employee access to their data and documents via a participant portal.

To learn more or schedule a demo, email info@pfasolutions.com.

