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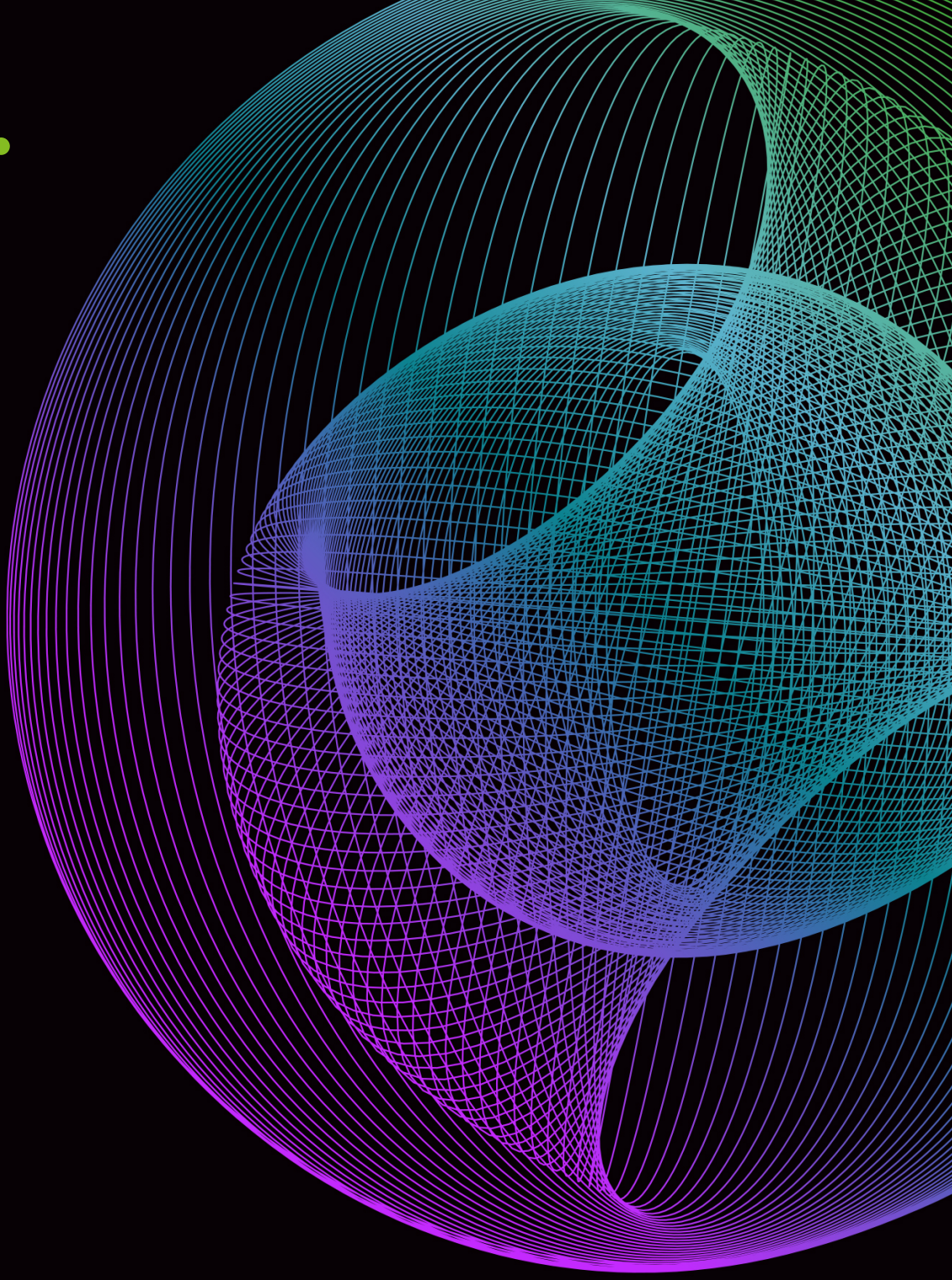


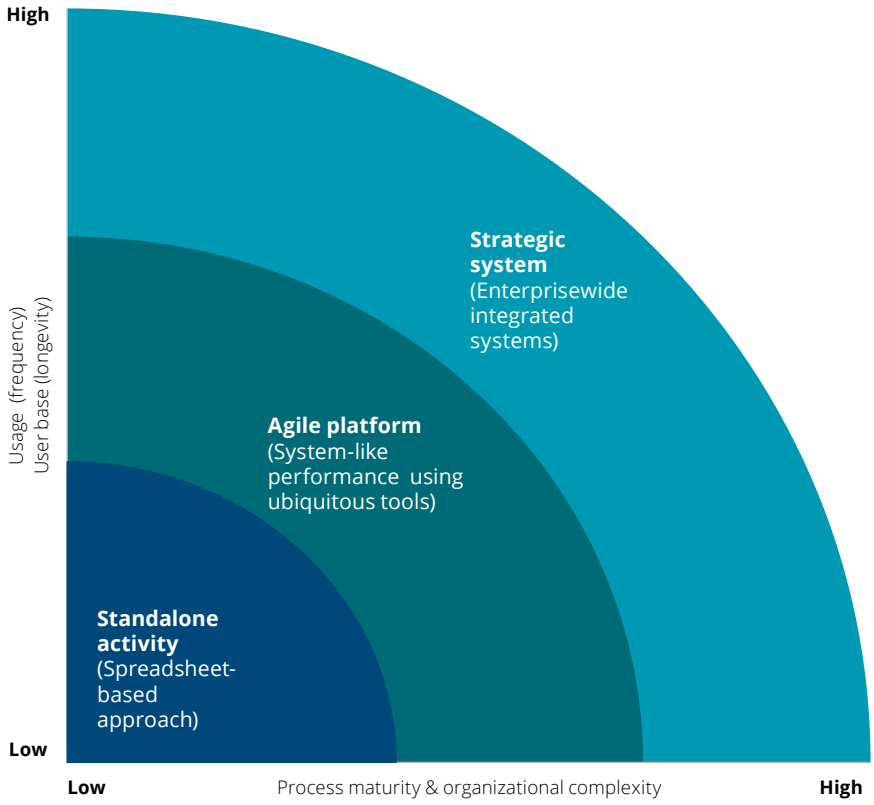
Liquidity management during economic uncertainty: **Choosing a forecasting solution**

Active liquidity management remains a strategic business need for finance leaders who seek to leverage the transparency, measurement, and operational management of their cash flow to gain competitive advantages through effective capital allocation, understanding of liquidity opportunities and risks, and building resilience in the face of sticky inflation, economic contraction, rising interest rates, supply chain issues, and unpredictable demand. That journey requires a myriad of considerations including foundational governance and process maturity as discussed in a **previous piece** emphasizing the building blocks required prior to implementing a tool that activates the measurement and management of cash flow.

Fit-for-purpose tools | When one size does not fit all

While foundational governance is the cornerstone of active liquidity management, the forecasting tool used to project weekly liquidity is the centerpiece that translates a process into a tool that enhances visibility, identification of root-cause issues (both internal and external), and predictability of cash flow further into the future. Companies that embrace leading practices in active liquidity management not only build the governance foundation first, but also undertake a critical assessment of factors such as organization size, number of business units, enterprise resource planning (ERP) and subsystem infrastructure, sophistication and capabilities of internal data teams, timeframe for implementation, and overall forecasting process maturity prior to selecting a forecasting solution. These forecasting solutions, as seen in figure 1, range from traditional spreadsheet modeling to enterprisewide strategic system Software-as-a-Service (SaaS) platforms that can be fully integrated into other planning systems.

Figure 1: Cash Flow Forecasting—Organizational needs, complexity, and process maturity



A few of the common pitfalls of choosing the wrong forecasting solution as depicted in figure 2 can leave organizations with issues that become endemic to the point where forecasting becomes a time-consuming, unsustainable process where most of the time is spent compiling the forecast (as an example) instead of where the true value in active liquidity management lies, which is analyzing how to calibrate the forecast to increase its predictive capabilities. Additionally, a tool that is too complex creates similar challenges in the amount of time, effort and resources it takes to adjust inputs, re-calculate assumptions or create add-on's to support changes to the business (i.e., the onboarding of acquisitions for integrated forecasting).

Figure 2: Pitfalls of choosing the wrong forecasting solution

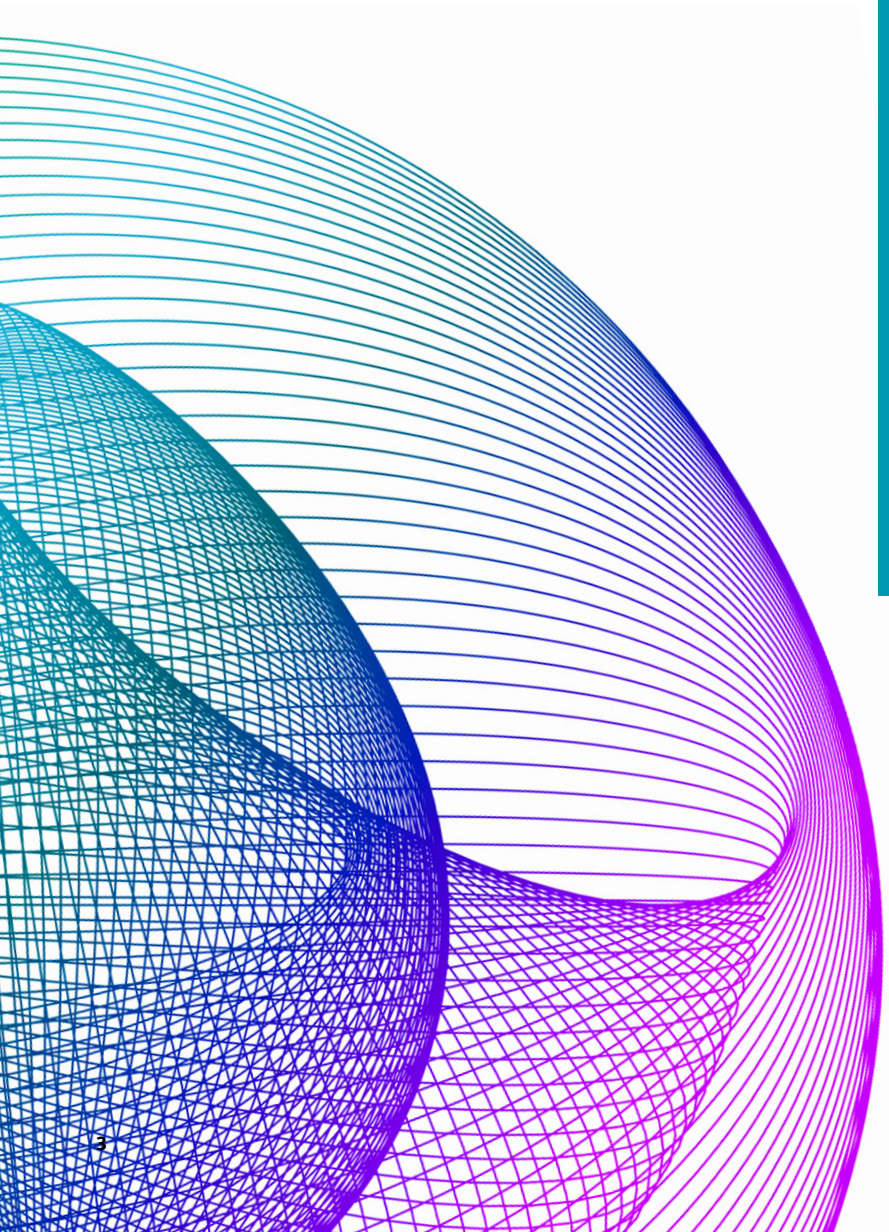
Issue	Description
	**Implementation can be long and painful when the implementation road map requirements are complex:** • Dedicated team to help support data feeds is tied up on other initiatives • Inability to identify the key data feeds required to create an operational forecast (i.e., demand planning, sales, etc.) • Significant back-end coding required to manage a user-friendly interface and update key assumptions
	**A solution that is too simplistic may be easy to implement but is very inefficient resulting in time being spent on least value-add components:** • Compiling the weekly forecast is so burdensome that the quality of the forecast suffers • Any change is process or methodology takes forever to implement due to the number of spreadsheets floating around • Version control and data integrity make the solution unsustainable
	**Solutions may look great in a 'demo environment' but lacks the functionality to produce the actionable insights that active liquidity management strives to achieve:** • Amount of effort put into design far outweighs thought put into use case and utility as a decision-making tool • Does not accurately reflect how cash moves between the businesses and how it rolls up into the organization • Lacks key functionality such as the ability to scenario plan based on making changes to key operational assumptions, and does not enable efficient analyses such as 'budget-to-actual' variances to understand how the organization is performing against forecast and the specific areas where the organization is underperforming

Defining business objectives | The tools and systems utilized by a business to manage cash flow, perform working capital analytics, and understand liquidity should meet a defined set of objectives.

When defining the objectives, the organization should consider a range of factors: How quickly is the information required; what data input sources are available; what outputs and analytics are needed; what is the usage time and frequency; what process, governance, and team structures are in place to support the tools and systems; and how likely and how often are any of these factors expected to change? If full consideration is not given to these options, the organization risks not getting the information it needs in a timely manner for both prudent yet efficient decision-making. For example, purchasing off-the-shelf financial forecasting software that does not properly integrate with existing processes, or doesn't have the governance and team structures to manage it effectively once implemented, can often result in the tool falling short of requirements and limiting its use.

Cash flow forecasting cannot simply be solved with software. While new external solutions and platforms to facilitate a centralized and sustainable forecasting process provide plenty of external options, companies should first look internally to understand what is most appropriate for their needs. They should also look for a balance that takes into consideration the **complexity of implementation (timing), ongoing resource needs to support and update the platform, and which options can support desired functionality (use cases).**

For others, a multi-user, data-intensive SaaS-based solution may be a more appropriate choice. Ultimately, leading practices in implementing cash flow forecasting solutions involve clearly defined needs paired with fit-for-purpose tools.



Organizational behavior | Organizational behavior as a potential driver of use case

As seen in figure 3, cash flow forecasting solutions should consider specific aspects of how an organization intends to behave both presently and in anticipation of future state organizational changes. For example, a highly acquisitive organization will need to account for the processes required to onboard new companies into its forecasting process.

In a transactional or situation-based scenario such as a mergers and acquisitions (M&A) or restructuring process, time is often limited, and a quick and adaptable forecasting tool with a focused output is needed to meet a specific and defined objective. In contrast, for an established mature-stage organization with stable and predictable processes that is seeking to improve insights, develop financial planning and analysis tools and embed direct cash flow forecasting into business strategy; an enterprise-level system may be a better fit.

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Figure 3: : Use case based on organizational behavior

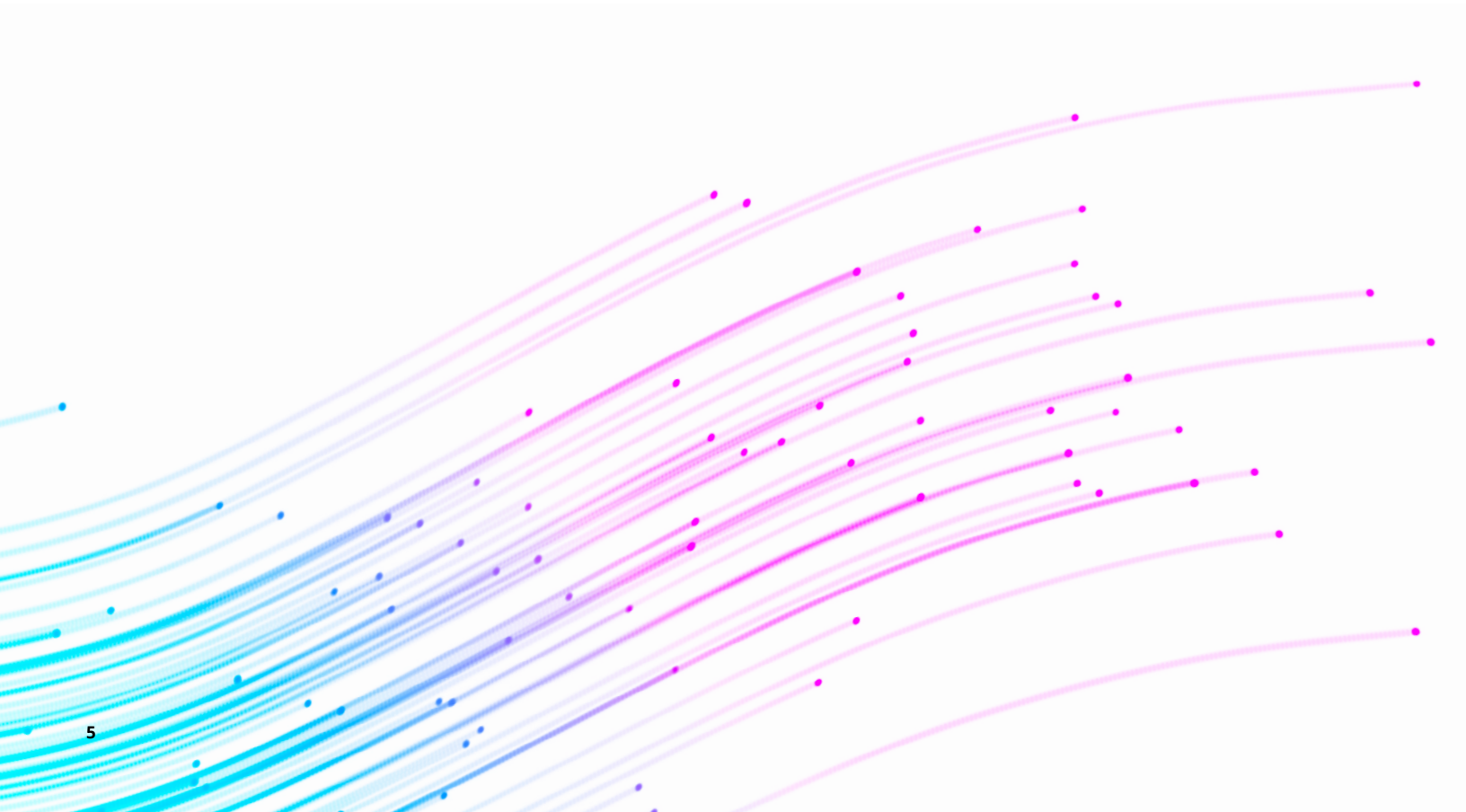
Tool	Transactional	Restructuring	High-growth	Mature and steady-state
Characteristics	• Cash flow forecast for a specific event such as supporting an M&A, equity or debt raise process. • Likely to be driven by short time frame. • Tailored for a specific purpose.	• Typically driven by a requirement to rapidly understand liquidity. • Requirements likely to be more basic in nature with increased focus on critical payments and receipts and identifying funding needs.	• Focus on developing efficient processes and tools that can be scaled while retaining ability to flex and adapt as business strategy and operations develop. • Ability to handle changing data flows.	• Established processes and data flows. • Longer and more strategic development and implementation process. • Ability to handle more complex business needs and operating structures.

Stand-alone activity | Low data volume x low usage frequency

Modeling a direct cash flow, or another form of financial forecast, for a stand-alone activity (e.g., M&A, special projects, debt raise, restructuring) with a limited scope and low volume dataset is typically best handled using a tool that offers flexibility, and ease of use, and doesn't require an extensive implementation process. A time-tested tool of choice that has these attributes is the *traditional spreadsheet.*

- **Training and cost:** Most businesses already use spreadsheets for financial planning and analysis, and therefore there is no additional implementation cost to use this solution. Team members may already possess knowledge and skills to both develop and understand spreadsheet-based models.
- **Flexibility:** Where flexibility is concerned, spreadsheets do a great job of allowing the user to define their own data structures, create forecasting methodologies and customize outputs. Models can be as simple or complex as needed to suit the purpose, as well as being built and implemented in short timeframes.
- **Third-party use:** In transactional situations, third-party advisers or financial institutions are likely to require access to financial models and the globally accepted format is a spreadsheet. In this context, spreadsheets saves time versus having to export financial models from different systems, and it provides a "common language" for dealing with third parties.

There are inherent limitations to using spreadsheets—they are highly reliant on a user's ability to structure and develop a model that is fit-for-purpose, avoids the unnecessary risk of error, and is understandable for other users. There is a balance to achieve between robustness versus simplicity and automation versus flexibility. If there is only one person who understands how the model works, then the business is at risk of losing the ability to use that model should that person be unavailable or leave the organization. A potential option to mitigate this risk would be to seek support from a third-party professional adviser when structuring and building a cash flow forecasting tool. A professional adviser and modeling team also provide the benefits of experience from similar projects, a set of standardized methodologies and model formats, accelerated development tools, and training and handover procedures that are designed to equip business users and support integration into a new or the existing process.



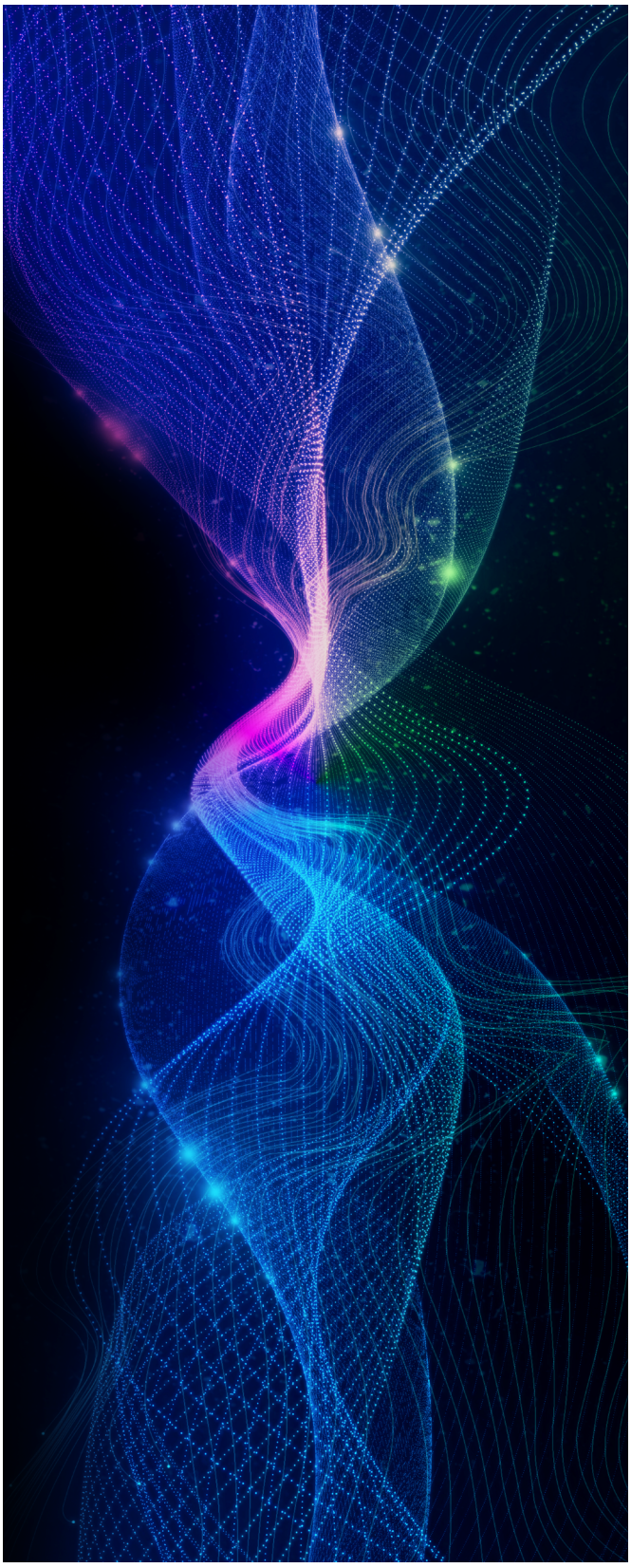
Agile Modeling Platform | Moderate data volume x moderate usage frequency

When strategic cash flow forecasting objectives require a toolset that can maintain a significant level of flexibility while incorporating larger and more complex data inputs and simple integration with established finance systems and operational processes, management should begin to consider whether they need to complete a full enterprise system implementation. Part of this decision is understanding what could be achieved through a combination of a *spreadsheet* and fit-for-purpose data analytics tools such as Azure SQL Database, Power BI or Tableau. A platform formed from integrating these more ubiquitous tools can provide organizations with significant capabilities while avoiding the time and cost of a full enterprise system implementation. These capabilities include:

- **Data handling:** Structuring large datasets and converting them into meaningful insights using spreadsheets alone can be a challenge. Utilizing tools that are designed for structuring and maintaining larger and more complex dynamic data, such as a SQL database, allows you to build models that scale at the pace of your business.
- **Integration:** Leveraging toolsets and databases built on the same platform tend to be better integrated and facilitate both efficiency, compatibility and ease-of-use.
- **Big data analytics:** Power BI and Tableau, among other tools, can be used to visualize large data in different styles and provide dynamic graphical insights across multiple business areas, including working capital optimization and direct cash flow forecasting.

Other off-the-shelf tools are under development and in early release stages in the direct cash flow forecasting space, some with the added promise of machine learning and artificial intelligence (AI) to forecast future receipt and payment profiles based on historical data and trends. Such tools may, over time, become a strong option for those seeking a solution that integrates with financial data feeds (e.g., ERP systems, bank accounts) and enables semi-automation of the actualization and forecast building process.

When a requirement for flexibility meets an existing level of complexity, consideration should be given to each of the potential agile platform solutions noted above to assess the strengths and merits for each against the needs of the organization. An agile platform should be built on strong existing foundations but with the ability to grow and adapt as the organization's structure and needs change over time.



Strategic System | Large data volume x large usage frequency

An organization-wide strategic system that is capable of handling complex business needs while recording and maintaining large volumes of financial data from many users will typically be best achieved through an ERP package. This will require a more significant upfront investment in both capital and time than other solutions mentioned above. It would also be suited to larger-scale organizations with more mature processes and resources. Potential choices in this space would include platforms from major ERP and accounting software providers–many of which offer different packages but typically include full cloud accounting software and customizable product plans that range from forecasting to HR to supply chain and more.

- **Data centralization:** Packages such as those listed above, offer the opportunity to combine multiple financial systems and datasets into one place. This can simplify matters when building out direct cash flow forecasting models as the data is already housed where you need it to be and exporting or linking it to another piece of software can save time and reduce risk of error.
- **Management:** Managing one enterprise system can simplify maintenance and control over the system and the data it houses. Access to data is simplified without having to span across multiple platforms, therefore making report processes for critical management information potentially easier.
- **Customization:** While potentially not as flexible as some of the agile modeling platforms noted above, these larger-scale systems can be customized over time to meet each organization's needs, including a wider range of applications in addition to financial management, accounting and forecasting tools.

Solution type

Consideration	Spreadsheet (Excel)	Hybrid/agile solution	Enterprise software
Data storage	• Local storage • Decentralized • Single user • Potential to implement to centralizing through shared network drives	• Hybrid between cloud centralized and decentralized • Potential for direct links to data source • Potential for multi-user	• Cloud based • Centralized within system • Integrated platforms and data sources • Multi-user
Data volumes	• Low to moderate	• Moderate to high	• High
Speed to implement[1]	• 4-6 weeks	• 3-6 months	• 12 months
Back-end resource support	• Limited support • Often down to original creator of the model • Additional support may be available from third-party advisers	• Potential to access to product support teams • Third party adviser / consultant support	• Product support and customer advice teams • Standardized product documentation and support guides • Potential to access accredited consultants and advisors
Current process state	• Minimal requirement as tools can be built around processes • Flexibility to adapt	• Need for refined processes and data sources to streamline integration • Ability to continue to adjust as processes change	• Mature processes required • Process redesign possible as part of integration
Reporting and analysis	• Limited reporting and analytics • Focused outputs	• Ability to conduct deeper analysis on larger datasets • Flexibility to adjust analysis and built out additional reports	• Customizable outputs linked to wider organizational financials • Access to large datasets to perform reporting and analysis

[1]Speed to implement varies for every use case and exact organization requirements – values provided are high level indicative estimates.

Develop a cash-focused, forecast-driven organization measured through reliable and timely data

As macroeconomic pressures increase, including rising interest rates and record inflation levels, organizations should reevaluate existing forecasting tools, processes and governance structures, and consider what else is needed to meet the current and future needs of the business. Cash flow forecasting should play a critical role in analyzing and benchmarking business performance.

Implementing the right tools and systems now sets the foundations for strong cash and liquidity management. Creating a cash-focused business will not only enable the organization to better navigate volatility in a rapidly changing landscape but will also create awareness and opportunities to pursue strategic investment initiatives. This is best achieved through strong foundational governance and the selection of a forecasting tool that will provide the right balance of organizational needs with the least amount of friction to get the process up and running for both near-term utility and long-term sustainability.

Authors

Matt Lew
Managing Director
Deloitte Transactions
and Business Analytics LLP
mattlew@deloitte.com

Donald Wallace
Senior Manager
Deloitte Transactions
and Business Analytics LLP
dowallace@deloitte.com

Jordan Moore
Senior Manager
Deloitte Transactions
and Business Analytics LLP
jordamoore@deloitte.com

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