



Cash Forecasting—A Primer

Cash forecasting is an important part of treasury management and a task many treasury practitioners admit can be challenging to do well. The good news is that several steps can help turn cash forecasting from a difficult chore to an efficient and essential tool for treasury and the entire enterprise. This paper will cover key elements in developing a forecasting process from scratch or to improving current cash forecasting procedures.

Axioms of Cash Forecasting

Three axioms come to mind when considering cash forecasting:

- 1.** There is no absolutely correct approach to cash forecasting. It's not a process that lends itself to plug and play solutions. More often than not, the most effective solution is one that uses a blend of approaches including statistics, intuition and collaboration.
- 2.** A cash forecast does not have to be 100% correct to be of value to the firm. Reasonable accuracy delivered consistently over time can be of tremendous value.
- 3.** Forecasting cash is about process, discipline and attention to detail. These details are important and need to be coupled with hard work and sound institutional knowledge.



Cash Forecasting Objectives

Cash forecasting begins with the development of consensus on the primary objectives that need to be met. The following list of objectives is not exhaustive, but does reflect many of the reasons companies develop a cash forecasting process:

- Minimize idle cash, short term debt and overdrafts
- Optimize short term borrowing and lending decisions
- Provide liquidity for all currency needs
- Monitor FX exposures and risks
- Manage key transactions
- Support private equity debt requirements
- Provide a current view of business and financial health
- Monitor the cash generation of the firm
- Support cash deployment decisions such as cash buffers, capital spending and stock buy-backs
- Validate other forecasts such as P&L's and B/S forecasts by finance and operations

It may not be practical to adopt all of these objectives, and some may not be applicable to your firm. The choices are dependent upon such factors as the company's global reach, currencies involved, supply chain initiatives, liquidity profile, the degree of centralization of the treasury function, and the role that private equity ownership may have in the firm.

Why Bother With Cash Forecasting?

A good way to illustrate the importance of cash forecasting is to identify and assess what happens if a process is not in place. The following table illustrates potential impacts in terms of explicit costs, opportunity cost and risks:

	Situation	Impact
Hard Costs	Overdrafts, unnecessary credit line drawdowns	Interest expense, bank fees
	Cash in the wrong place/currency/time	Vendor late fees, bank charges, FX transaction costs
Opportunity Costs	Idle cash balances	Loss of interest income; missed purchase, investment or acquisition opportunities
	Cash diverted from other parts of business	Inefficient supply chain cycle
Risks	Lack of visibility, unforeseen currency exposures	P/L impact of FX loss
	Lack of reliability in understanding upcoming cash movements	Excessive time/resource diversion; reduction in credit lines; potential loss of suppliers

The message across all categories is clear—there are adverse consequences should a firm choose not to forecast cash or have a poorly executed process.



Cash Forecasting Basics

There are many challenges associated with forecasting cash, and most involve decisions that are required to support the established forecast objectives. These include:

1. Defining scope—decisions as to whether to include all or selected sectors of the organization need to be made. This applies to geography, business groups/product lines, legal and organizational segments. Are there differences that would make an across the board forecasting approach impractical?
2. Pinpointing the time horizons—daily, weekly, rolling monthly? What length of time is sufficient—quarterly, six months, a year? Also decisions also need to be made about the frequency of updates.
3. Selecting and implementing a methodology—will be driven by the process used, data required and data sources, and the degree of granularity needed. Methodology also needs to incorporate ownership and accountability. It's essential to reach agreement about the specific roles of businesses in the process; optimally they should be held accountable for timely and accurate inputs into the process.
4. Understanding the liquidity situation—cash excess or deficit—where and by currency. This helps to confirm the firm's cash flow priorities and ensure alignment with the cash forecasting objectives that were chosen.
5. Obtaining support from top management—which may involve negotiating political and cultural barriers.

These decisions need to incorporate an understanding of data sources, leveraging technology, and having a forward looking plan for the future.

Data Sources

Once these areas have been addressed and decisions made, the next immediate step is to identify the data sources for the two primary forecast approaches—direct and secondary. Direct sources and their role in forecasting cash include:

- Receipts, including:
 - Accounts Receivable
 - Asset sales
 - Loan draw-downs
- Payments, including:
 - Trade Payables
 - Payroll and other
 - Capex
 - Taxes
- Receipts less payments = net cash in/out flow

Secondary sources and their role in forecasting cash include:

- Operating Profit plus/minus:
 - Non-cash items
 - Change in receivables
 - Change in payables
 - Change in inventory
 - Taxes paid
 - Capex
 - Dispositions
- Equals net cash in/out flow



It's important to note that direct sources of data fit well in any scheme dealing with short-term time horizons. Treasury is a primary source for insights about both bank account architecture and individual bank account data, as well as the expertise required to drive a collaborative, bottoms-up, granular approach to forecasting cash.

The secondary sources are P&L and balance sheet oriented, better for use in the medium or longer-term horizons. Using these sources requires that cash balances be imputed, based upon changes in data as the key inputs. Finance functions may be in the best position to drive these forecast horizons, but treasury still needs to be involved.

The different sources of data highlight part of the difficulty in forecasting cash balances—unique sets of knowledge and language are associated with these two categories of data, forcing the need for understanding and communication among all the parties involved. Treasury is particularly well positioned to champion these communication efforts.

Variance Analysis, Errors and Incorporating Technology

As with many processes, errors can provide valuable insight to improve future forecasts. By identifying and analyzing forecast variances, cash forecasters are able to make adjustments to future forecasts and enhance the process as necessary.

Forecast variances are triggered for many reasons, including items such as changes in business strategies that generate new sources of revenue, or difficulty in obtaining payment approvals that then cause delayed payments, or surprises from events that weren't forecasted. The insights gained from variance analysis need to be factored into future forecasts, and should be used to model efforts to perform sensitivity analyses for new forecasts. This variance analysis capability is also a good justification for a TMS or more sophisticated technology.

Over time, variance analysis will identify chronic sources of forecast error, such as inaccurate sales forecasts, invoice errors and disputes, lack of systems integration, poor communication, input errors and the like. These will often justify interventions, such as the need for training, the expansion of networks, the re-engineering of business processes, or the need for new technology solutions.



Technology is a powerful tool in the forecasting process. Many firms start with a simple forecast driven by a template set up as a spreadsheet in Excel and use data from bank portals to help initiate the process. This approach works well for many companies.

As companies expand their global reach, grow their revenues and increase the number of currencies being used, many find that a TMS, customized applications, or even sophisticated bolt-on applications can be justified in order to deliver efficiencies and effectiveness, and increase reliability. The justification to invest in technology solutions usually includes quicker access to data, better and more sophisticated reporting and enhanced internal control.

Looking Forward

The final basic element in cash forecasting requires that the process be continuously refreshed and enriched over time. This is a step beyond the efforts to incorporate learnings from variance analysis into future forecasts or the plans for adjusting business processes. This value added step is about building institutional knowledge that can successfully validate forecast outcomes and calibrate the range of possible outcomes associated with the forecast. In order to accomplish this, it takes a concerted effort to work with and analyze data trends and relationships, establish rules of thumb, and assess the likelihood and impact of alternative scenarios. By achieving this, cash forecasting will become an essential process for the entire organization—and it will be driven by treasury.



Cash Forecasting Principles

What does it take to develop a robust cash forecasting process that generates forecasts that provide value? There are five principles to keep in mind:

- 1. Do Your Homework**—If confidence in cash forecasts is lacking or if more is expected from the cash forecasting process itself, then a company should consider dedicating the time and energy necessary to thoroughly examine the current situation. Start by mapping out the entire process, examining its logic and flow, and assessing the accuracy of past forecasts. The aim is to identify what is being done well and where pain is being experienced. Understanding the strengths and weaknesses of the current state has considerable value, and helps to provide the insights necessary to ensure there is firm-wide consensus on what is expected from the cash forecasting process, including the required accuracy and the resources needed to achieve this.
- 2. Define the Data Collection Process**—To build upon the homework already completed, there is great value in outlining in detail the key steps of the data collection process to ensure that three key aspects of structure are present:
 - a.** Disciplined reporting procedures that collect data in a standardized format from the right sources in a timely fashion, while also providing meaningful feedback.
 - b.** A forecast template designed to capture the key categories of cash flow data which reflects the appropriate materiality and simplification criteria selected, and
 - c.** A centralization process for aggregating forecasted cash flows that effectively uses technology to deliver efficiencies.
- 3. Include Business Drivers**—Not only do business strategies need to be understood, the drivers of business results need to be incorporated into the cash forecast methodology and design. Here is where the treasurer needs to cash in on his ability to be invited to meetings where these factors are discussed. Many other aspects of the company materially impact cash flows and need to be incorporated into the methodology and design of the cash forecasting process. This includes periodic cash peaks and troughs, seasonality and sporadic big-ticket items.



4. **Maintain Networks and Connectivity**—To ensure that business drivers are appropriately reflected in the cash forecasting process, treasury organizations need to work hard to maintain connectivity with the businesses and other functions through the use of networks and on-going relationships. Treasury is a relationship business, and the cash forecasting process is no exception. The payoff from coupling strong relationships with a reliable cash forecasting process can be huge, and will open up opportunities for treasurers to add value to the enterprise, often beyond traditional treasury boundaries.

5. **Leverage Treasury's Perspective**—The treasury function as a whole sits in a unique position within the firm, possessing valuable overarching perspectives and unique skill sets that should be leveraged. Two perspectives are particularly useful when it comes to cash forecasting. First, the treasury function is uniquely qualified to be a multi-functional coordinator, adept at speaking many functional languages, in this case, tax, legal, accounting and treasury. Given this and the expertise that accompanies it, the second perspective to be leveraged is that treasury is particularly well positioned to be a key driver of enterprise wide efforts to add value by helping to transform companies by establishing cash cultures in the businesses.



Summary

Cash forecasting is a complex activity that involves people, a focused strategy, and technology. Most companies would like to have a better approach. There are five words that describe the attributes of an excellent cash forecasting processes:

1. Simplicity—KISS (keep it simple stupid). Or for a more polite definition—keep it significantly simple.
2. Cooperation—Build strong relationships and networks.
3. Communication—Know that clarity leads to understanding.
4. Structure—Make it defined and reliable.
5. Technology—Use it to streamline the process and ease the burden.

Weave these five attributes together and you are well on your way to an effective cash forecast.

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