The Tale of Two Forecasts: Integrating Liquidity-Based and Capital Budget Forecasting

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Presented To

Presented By

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Partner
Cash (Liquidity) Forecasting – Defined

**Cash forecasting**: the modeling of a company or entity's future financial liquidity over a specific time frame.
Cash Forecasting – Overview

• Cash forecasting is an extremely important tool for public and private sector organizations.

• A majority of organizations have ineffective cash forecasting processes.

• Many organizations face the same kinds of forecasting challenges:
  – Insufficient resources
  – Poor information access/exchange
  – Ineffective forecast methodology
  – Poor internal knowledge of cash flows
Cash Forecasting – Why?

Cash forecasting supports key Treasury activities:

- Funding operations
- Short-term investment and borrowing
- Cash concentration/balance transfer scheduling
- Non-discretionary payments planning
  - P&I repayments
  - Taxes
  - Acquisitions
Optimal Cash Forecasting Process

1. Data Collection
   - Business Units (Scheduled events)
   - Financial Units (Scheduled events)
   - Systems (e.g., Oracle, FXpress)
   - Bank Data (Historical data)

2. Methodology

3. Variance Analysis & Analytics

4. Execution

5. Reporting

6. Investments

Forecast Refinement Process

1. Centralized Collection Tool
2. Forecasting Model
3. Variance Analysis
4. Process Feedback
5. Fine-tuning
6. Output Reports to User

Data Inputs
Forecasting Techniques

• Balance sheet method

• Receipts and disbursements method

• Statistical methods
Sources of Data: Liquidity-Oriented Forecasts

- Bank Transactions and Balances  
  (Bank Portals)
- A/R System  
  (ERP & A/R Department)
- Investment & Debt Maturities  
  (ERP & Treasury)
- FX & Derivative Settlements  
  (ERP & Treasury)
- Sales Forecast  
  (Sales Department)
- Accounts Payable System  
  (ERP & A/P Department)
- Interest Flows  
  (ERP & Treasury)
- Repetitive Payments  
  (Various Sources: Tax, Payroll, Insurance, Accounting, Finance)
- Capital Expenditures  
  (Business Planning)
Effective Cash Forecasting

**Distinction** between forecast precision and forecast effectiveness and accuracy:

Forecast precision is less vital than forecast effectiveness for funding beyond today.
Supporting Liquidity Decisions

12 Month Investment Horizon - Projected Interest Rates and Cash Position

Blue line = Yield Curve
Red Line = Liquidity Forecast

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Integration & Leverage of Liquidity Forecasting and the Capital Budgeting Process
Capital Budget-Oriented Cash Forecasts

Typical building blocks for capital budget-oriented forecasts include:

5-year P&L developed through annual strategic review (Prepared by FP&A)
  • Collaborative effort throughout entire company
  • Iterative process
  • Serves as cornerstone of all long-range planning

5-year Balance Sheet (BS) and Statement of Cash Flows (SCF)
  • **Built from:**
    – Historical financial relationships between BS and P&L
    – Tax planning
    – Supply chain planning
    – Usually includes much input from Treasury
Sources of Data: Capital Budgeting Forecast

- Accounting (Pro-Forma Financial Statements)
- Tax (Tax Projection, Credits, Tax Accruals)
- Treasury (Cash Balances, Investment & Debt Schedules)
- FP&A (Scenario Analysis)
- Sales Department (Revenue Forecasts)
- Operating Units (P&L Forecasts)
- International BUs (GlobalProjections)
- Capital Planning (Business and Capital Improvement Initiatives)
What are the similarities and differences between forecasts?

<table>
<thead>
<tr>
<th>Unique to Liquidity Forecasting</th>
<th>Unique to Budget Forecasting</th>
<th>Common to Both Forecast Processes</th>
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<tbody>
<tr>
<td>• Intra-month view</td>
<td>• Period-end cash view</td>
<td>• Forecast Period Cash</td>
</tr>
<tr>
<td>• Quantitative modeling</td>
<td>• Driven by internal data</td>
<td>• Utilize historical data</td>
</tr>
<tr>
<td>• Can utilize external data</td>
<td>• Book cash perspective</td>
<td>• Utilize data from ERP</td>
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<tr>
<td>• Can be tech-driven</td>
<td>• Financial reporting view</td>
<td>• Internal (dept.) inputs</td>
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<tr>
<td>• Flexible views/time frames</td>
<td>• Accounting/GAAP SME</td>
<td>• Variance analysis</td>
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<tr>
<td>• Can decompose cash</td>
<td></td>
<td>• Knowledge of company</td>
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<tr>
<td>• Bank cash perspective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Treasury &amp; Quant SME</td>
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Integration & Leverage: Benefits result from bridging processes
Benefits of bridging the processes

- Streamlines data request demands, internally
- Adds efficiency in both Treasury and FP&A
- Provides congruency relating to projected cash levels
- Applies best practices across both areas
- Leverages common tools and technology
- Improves standardization
Integration & Leverage:

How do you bridge the two processes?
Integration & Leverage: Mapping Both Processes

- Develop mapping to define key steps and timing in each process
- Look for commonalities and differences
  - Data collection
  - Data verification/validation
  - Projections/smoothing/seasonal adjustment
  - Tools/methodologies
  - Reporting
- Examine and identify ways to integrate practices and processes
Creating common policies and procedures serves to guide both processes in the same direction:

- Providing guidance on commonalities associated with data, technology and resources
- Establishing the communication channels
  - Explaining common processes and templates in a Policy and Procedures document so employees understand how their data is being used and their role in providing it

Policy and procedures must be communicated and accessible to Treasury, FP&A and other groups involved in the liquidity forecast and capital budgeting processes.
Integration & Leverage: Communication Is Key

- Each method of forecasting relies on communications with parties outside the process to gather data.
- Look for ways to share/combine data collection steps.
• Using common templates to gather data promotes standardization and commonality of data elements
Integration & Leverage: Tools and Internal Systems

Consider ways to use the same tools and processes where appropriate
• Adds efficiency and standardization
• Leads to better, more accurate data gathering

Common data gathering tools/systems may include:
• Spreadsheets
• ERP system
• Treasury Management System
• Online banking platforms
Both liquidity forecasts and budgets are based upon estimates and projections.

- Using standard calculations and formulas whenever possible will improve the efficiency of both processes and produce identical line item results.

- Building synchronized tools to verify assumptions, projections and calculations will ensure that appropriate logic and accuracy apply across both processes.
Integration & Leverage: Variance Analysis

Liquidity forecasting requires analysis on a periodic basis (usually monthly) to review variances between actual activity and forecasted activity.

- Variance analysis serves to fine tune and maintain the accuracy of the forecasting model.

Communicating variance analysis results to the FP&A group will support its efforts in calibrating the capital budget for adjustments and changes in patterns within the organization.

- The capital budget is updated less frequently than the liquidity forecast and therefore is not as “nimble” at detecting changes in sales patterns, disbursements, etc.
Integration & Leverage: Historical Data

Historical cash data can be used for capital budgeting.

- Using a common point of reference can bridge the gap between the two processes.

### Company A

**Treasury's Cash Forecast**

| Projected Cash Balance       | January Month End | $345,000 | February Month End | $325,000 | March Month End | $450,000 |

### Company A

**Capital Budget - Balance Sheet Forecast**

<table>
<thead>
<tr>
<th>Projected Balance Sheet</th>
<th>January</th>
<th>February</th>
<th>March</th>
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</thead>
<tbody>
<tr>
<td>Assets</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Cash</td>
<td>$345,000</td>
<td>$325,000</td>
<td>$450,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>30,000</td>
<td>75,000</td>
<td>67,000</td>
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<tr>
<td>AR</td>
<td>130,000</td>
<td>345,000</td>
<td>56,700</td>
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<tr>
<td>Total</td>
<td>$505,000</td>
<td>$745,000</td>
<td>$573,700</td>
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Integration & Leverage: Common Processes & Procedures

• Operating units will forecast sales for budget. Treasury can convert those sales to cash inflows by factoring in collection period (i.e., January “sales” are February “collections”).

• A similar process is used for converting budgeted expenses to liquidity disbursements.

• For the current month, base the forecast collections and disbursements on the actual production data that is in your ERP’s Payables and Receivables modules.
To Summarize…

- Liquidity and capital budgeting forecasts may have different objectives, but can benefit through common practices.

- Through proper integration, you can add efficiency and utilize best practices in each method of forecasting.

- There are avenues to bridge the gap between liquidity forecasting and the capital budgeting process.

- The process of integrating takes some time, but pays large dividends when done properly.
Questions
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