# Peer Perspective on Treasury Management

CalPERS

# Overview

Beacon conducted a survey and interviews with CalPERS public pension peers during Q3-Q4 2014. The finding are identified in this report in two sections; key findings and additional findings.

In addition, Beacon has provided commentary to provide perspective and best practices for each area of the results.

Lastly Beacon has provided a “Treasury Management Maturity Matrix”. This matrix highlights key attributes that form the high level foundation of treasury management at each level of maturity. Based on the survey and interview results, peers have been allocated into each maturity level. This gives a high level consolidated view of the percentage of peers at each level.

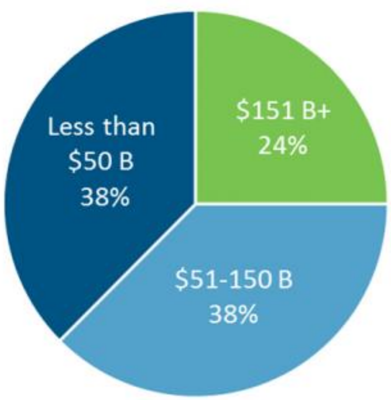
# Key Findings:

- ✓ Multiple factors influence cash allocation target selection
- ✓ Use of committees is prevalent, especially with larger pension plans
- ✓ Cash flow forecasting accuracy is challenging, particularly private investments
- ✓ Automation drives confidence in information
- ✓ Many peers are comfortable selling assets to meet obligations

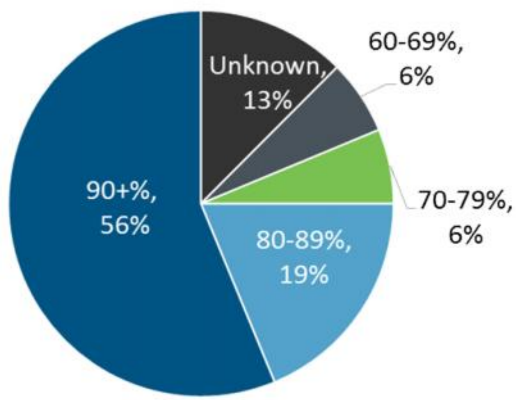
## Peer Profile

- ✓ Surveys and interviews received strong support from CalPERS' peers
- ✓ Majority of participants have a primarily internally managed, diversified investment book; including equity, fixed income and private investments
- ✓ Majority of the participants have a funding status over 80%
- ✓ Approximately half of the firms have a cash allocation target between 1.00 to 1.99%

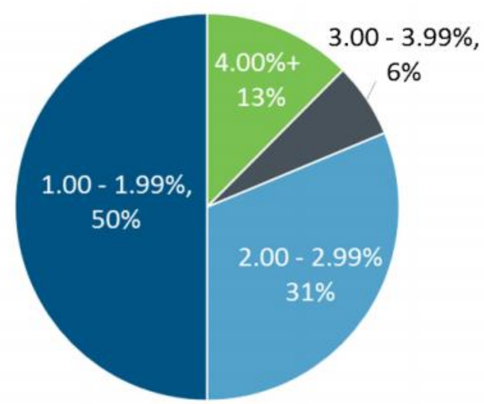
Size of AUM




Funding Status




Cash Allocation Target

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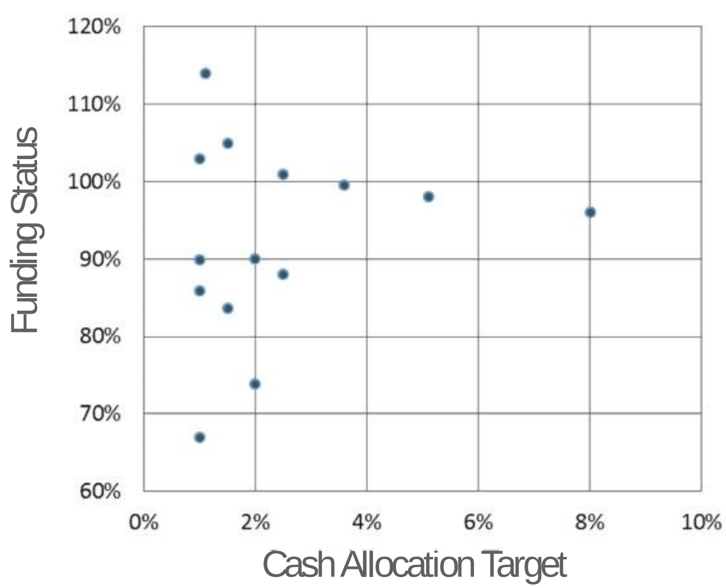
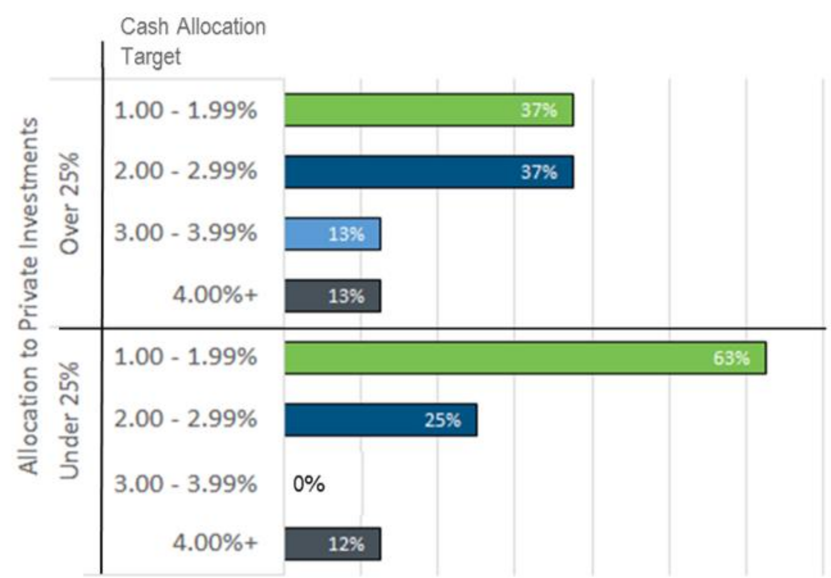
# Is there a correlation between funding status, allocation to private investments and cash allocation target?

**<u>Survey and Interview Results:</u>**

- Each firm determines cash allocation target based on multiple factors.
- Wide range of cash targets with high majority between 1.00 to 3.00%.

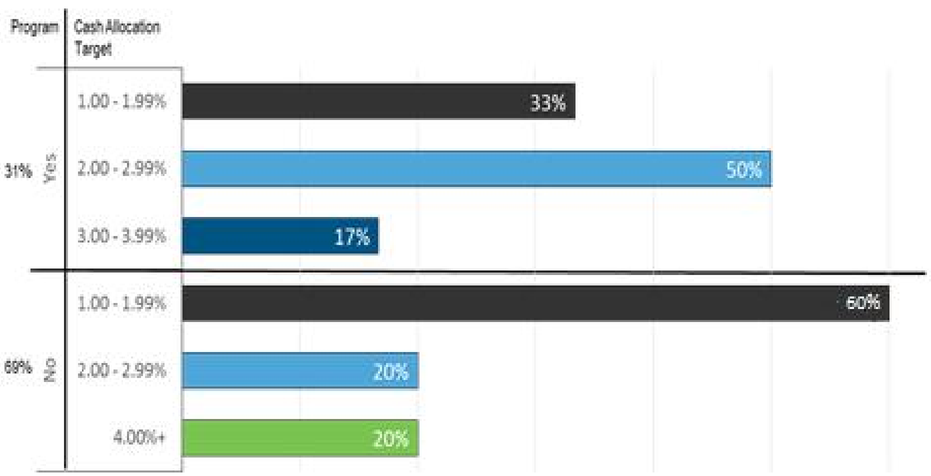


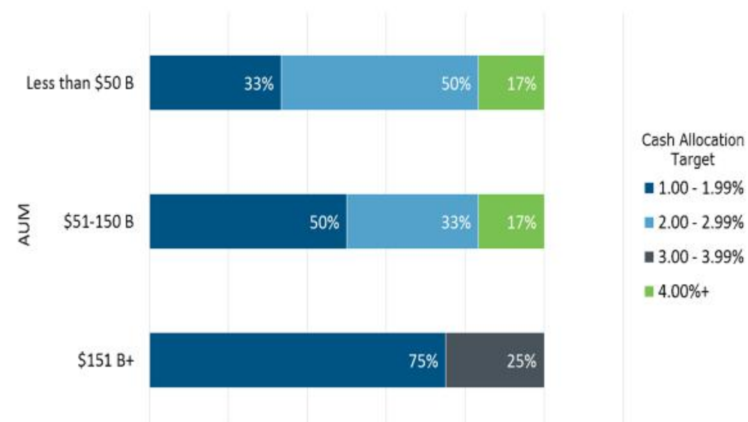



# Is there a correlation between having a program in place to raise short term cash (LOC, CP, Repo), size of AUM and cash allocation target?

**<u>Survey and Interview Results:</u>**

- Each firm determines cash allocation target based on multiple factors.
- Larger firms tended to hold less cash as a % of AUM compared to smaller firms.



## Perspective/Best Practices:

*A number of factors, both qualitative and quantitative, are taken into consideration when determining cash allocation targets.*

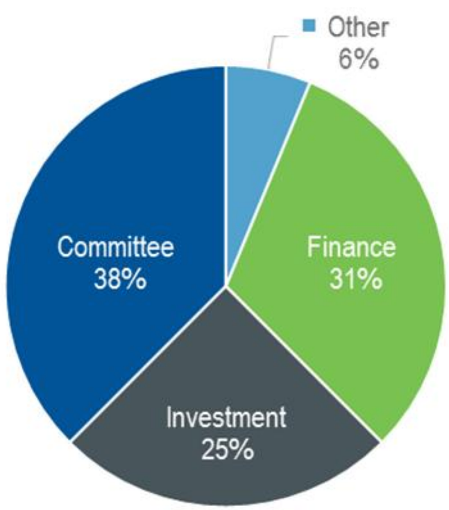
- Accuracy, timeliness and availability of cash flow forecasts and related information
- The liquidity profile of assets available to sell to meet obligations
- The readiness and depth of alternative funding sources
- Policies regarding leverage
- Policies regarding use of derivatives
- Risk culture of enterprise

# Who is responsible for enterprise cash management and liquidity?

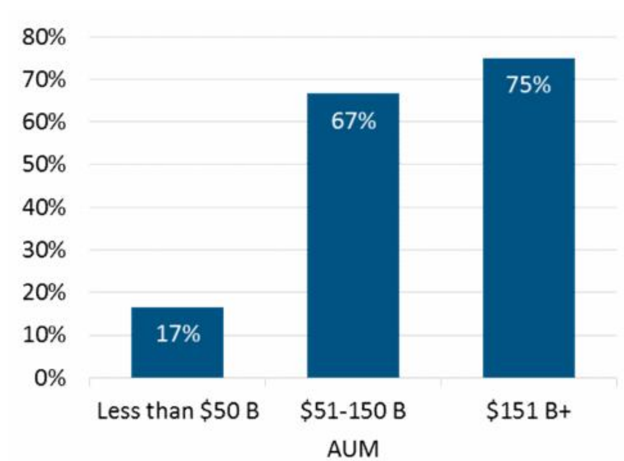
**<u>Survey and Interview Results:</u>**

- Generally, under the control of an established committee and/or finance area.
- As AUM increases, the percentage of participants utilizing a committee approach increases.

Who's responsible?




Utilization of committees



## Perspective/Best Practices:

*Cash and liquidity management is most successful as a coordinated effort involving finance, investment management and senior management/board.*

- Finance is responsible for execution
  - Consolidation of cash flow forecasts, scenario tests and generation of key performance indicators (KPIs)
  - Cash movement and control
  - Financing arrangements (lines of credit, borrowing programs)

- Investment management advises on risk and short term cash investing
  - Short term cash investment management
  - Investment risk assessment
  - Investment related cash flow forecasting

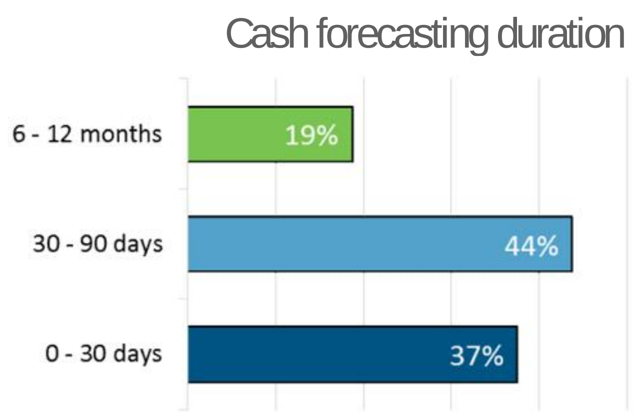
- Senior Management/Board governs and sets liquidity policy
  - KPIs
  - Liquidity ratios

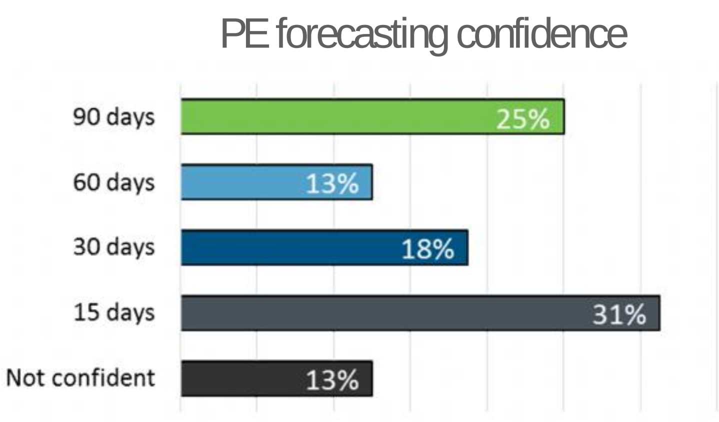
# In your cash forecasting process for investment needs, how far into the future do you project?

# Over what time period are you confident in projecting cash flows from private equity transactions such as capital calls?

**Survey and Interview Results:**

- 81% of forecasts only go out three months.
- Only 38% of respondents are confident in projecting cash flows from private equity transactions beyond 30 days.



## Perspective/Best Practices:

*Mature liquidity management utilizes cash flow forecasts up to 12 months out. Beyond this period, actuarial assumptions and forecasts come into play.*

Increasing cash flow forecast accuracy and duration:

- Potentially reduces size of liquidity buffer
- Supports maximization of cash investments
- Improves asset to liability matching in the short term

Capital call forecasting is an industry wide challenge. Forecasting approach and methodologies should include:

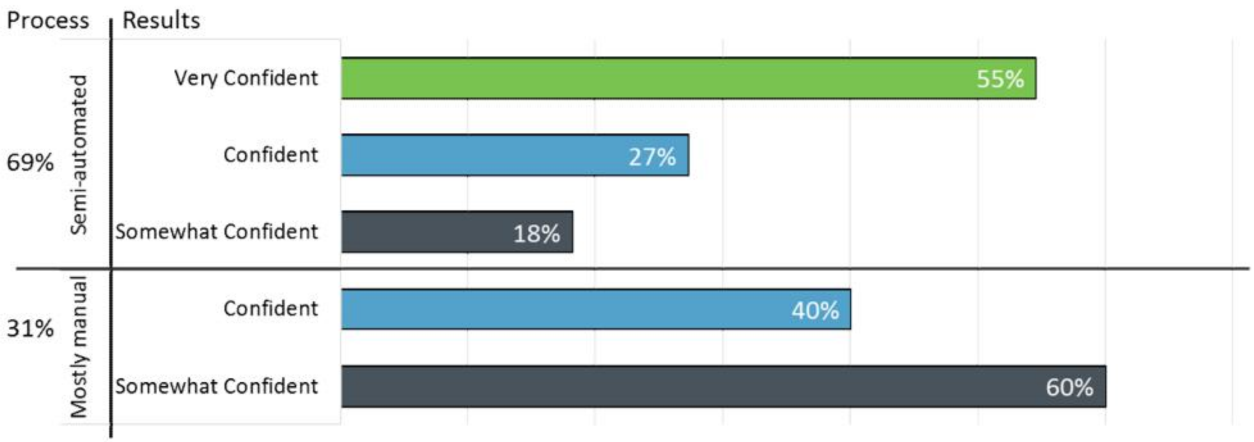
- Pacing models
- Maximum exposure calculations
- Vintage year information
- Historical back testing
- Clear communication with investment managers and administrators

## How would you describe [the level of automation in] the process for monitoring and reporting enterprise liquidity?

## What is your confidence level in the results of your liquidity reporting?

**Survey and Interview Results:**

- No participants reported being fully automated. Those that are semi-automated enjoy a confidence in the results of their reporting.
- The firms that have achieved semi-automation are generally larger.
- A mostly manual environment presents confidence challenges.



## Perspective/Best Practices:

*Many asset owners are struggling with automation of treasury management and output quality. Before the full benefits of automation are realized, data quality and information integrity issues should be addressed.*

Automation and confidence considerations:

- Accurate, timely and "fit for purpose" information is the basis of a successful treasury management program
- Cash flow forecasting accuracy is a key driver to optimizing liquidity
- Technology is a facilitator and must be paired with an effective operating model

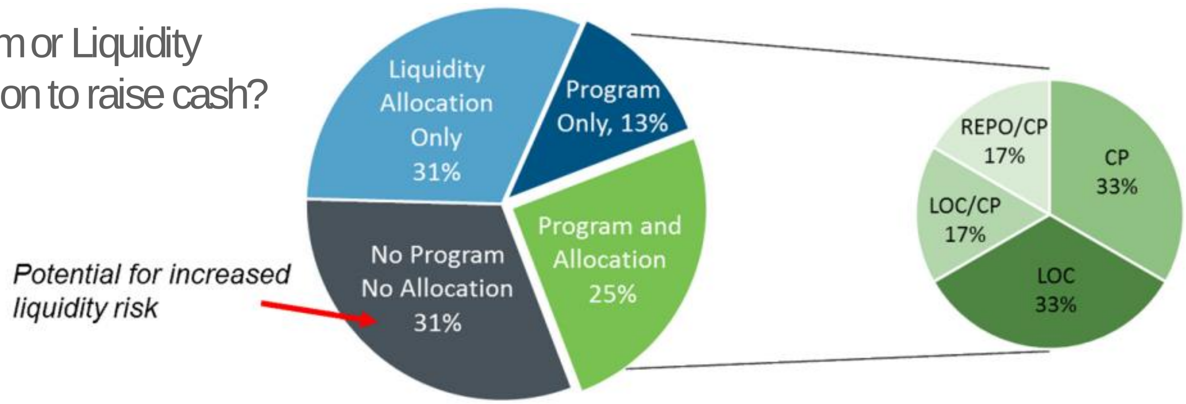
Does your organization have a program in place to raise short term cash if needed (i.e., a line of credit, commercial paper program)?

Does your firm maintain a dedicated allocation of liquid assets for use in the event of an extreme market event or fiscal contribution disruption?

**Survey and Interview Results:**

- 31% have no program and no liquidity allocation; rely on asset sales to meet obligations.
- 69% of respondents have a program, liquidity allocation or both.
- Firms that have a program in place to raise short-term cash utilize a blend of credit lines, repo and commercial paper.

Program or Liquidity Allocation to raise cash?



## Perspective/Best Practices:

*A mature treasury management program identifies how to raise cash under various scenarios. Key elements may include:*

- Asset liquidation hierarchy
- Clearly defined authorized parties and escalation points
- Alternative options if primary methods are not available or not optimal
- Use of financing facilities (commercial paper, etc.)
- Analysis of cost of cash under various arrangements

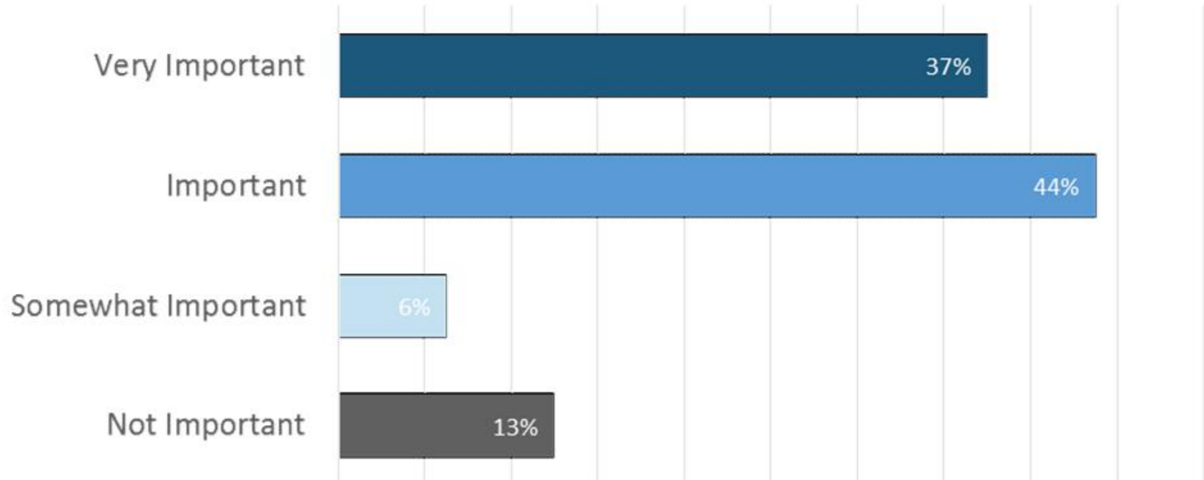
# Additional Findings

# How important is treasury management to investment performance, enterprise risk management, and meeting the overall obligations of your organization?

Survey and Interview Results:

- A high majority of respondents believe Treasury Management is "important" or "very important."
- Notable that 13% stated it was not important.

## Importance of Treasury Management



## Perspective/Best Practices:

*Treasury Management is an important element. Each program should be tailored to meet the needs of the enterprise.*

Drivers for a Treasury Management Program:

- Opportunity to reduce performance drag due to cash holdings
  - Reduce cash holdings
  - Optimize use of alternative cash sources (borrowing)

- Potential to reduce risk of liquidity shocks
  - Detailed scenario analysis and plan of action
  - Risks can be identified early and mitigated

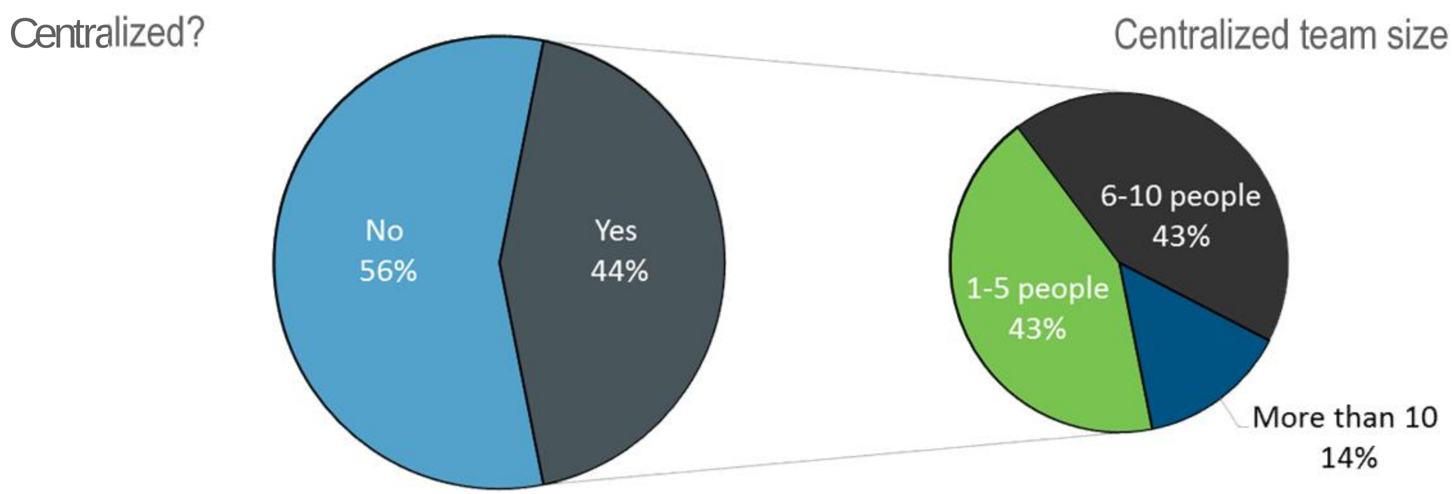
- Supports efficient use of cash
  - Match near term liabilities with short term maturities

## Are the cash management and liquidity practices of the entire organization centralized within a formal Treasury Management function?

## If centralized, how many staff members are dedicated to the Treasury Management function?

**Survey and Interview Results:**

- Mix of centralized and distributed operating models.
- Predominately small teams (<10) when operations are centralized.



## Perspective/Best Practices:

*A centralized functional operating model can have advantages.*

- Potential for increased scale and efficiency
- Develops deep functional expertise
- Better positioned for future challenges

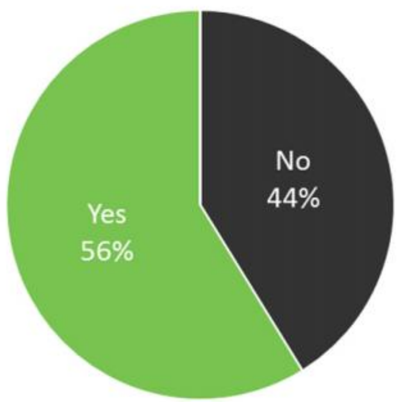
*Regardless of approach, the following key elements are critical to success:*

- Clearly defined roles and responsibilities
- Common objectives and definitions
- Escalation policies integrated into operating model
- Adequate staff sizes with appropriate skill sets

# In addition to working capital supporting daily investment operations, does your firm maintain a dedicated allocation to liquid assets for use in the event of an extreme market event or fiscal contribution disruption?

**Survey and Interview Results:**

- Over half of the respondents reported a dedicated allocation to liquid assets for use in market events or fiscal contribution disruptions. Less than half of those firms have a policy for managing liquidity during exceptional market events.
- Those respondents with a dedicated liquidity allocation are generally following some form of asset to liability matching methodology.




Sample responses describing how an allocation is calculated:

- Fixed amount
- Liability to asset ratios / KPIs
- Cash required to meet liabilities for a period of time
- Mix of percentage of AUM and forecasted near term obligations

## **Perspective/Best Practices:**

*For investment programs that are seeking to maximize performance, holding cash creates a drag on returns. A liquidity program that accurately forecasts the cash needs of the enterprise and is supported by alternative financing sources may reduce the need for large cash buffers.*

When determining allocations to liquidity pools consider:

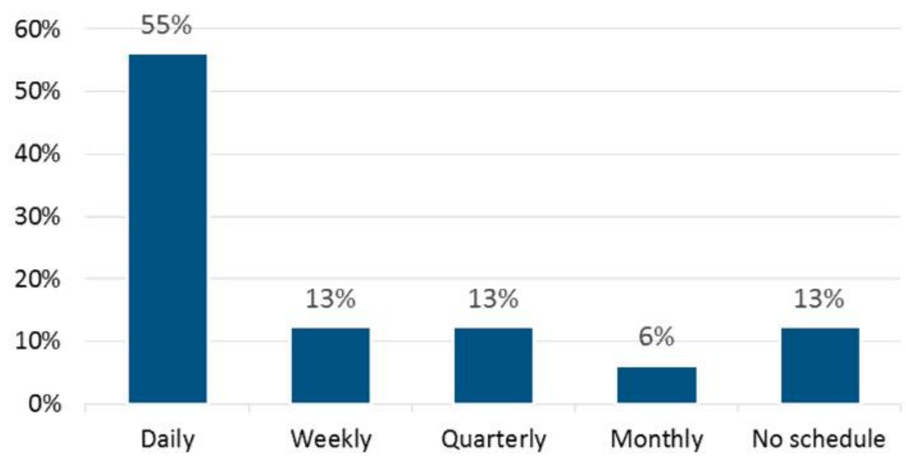
- Risk policies
- Exposure to liquidity and cash flow shocks
- The accuracy of cash flow forecasts
- The current enterprise liquidity position
- Depth of alternative financing options and other liquidity sources

# How often does your organization report and review its enterprise liquidity levels?

**Survey and Interview Results:**

- Most respondents monitor enterprise liquidity at least quarterly, with 68% reviewing daily or weekly.
- Several "no schedule" responses also ranked treasury management as low importance and had a high cash allocation, suggesting that high cash balances mitigate the need to closely monitor liquidity for these respondents.

Reporting frequency



## Perspective/Best Practices:

*Reporting frequency should be appropriate for the liquidity risk profile of the enterprise. Timely, accurate and focused reporting of the key performance indicators of liquidity will ensure critical information is provided to the right parties, in the right form and at the right time.*

When determining the frequency of reporting and reviewing liquidity consider:

- The accuracy of cash flow forecasts
  - Difficult to predict cash flows requires more frequent reporting

- The current enterprise liquidity position
  - Aggressive cash management practices may need to be supported by daily reporting of liquidity

- Robustness of alternative financing options and other liquidity remediation alternatives
  - Program backed by readily available alternative financing and/or sources of cash may be supported by less frequent reporting

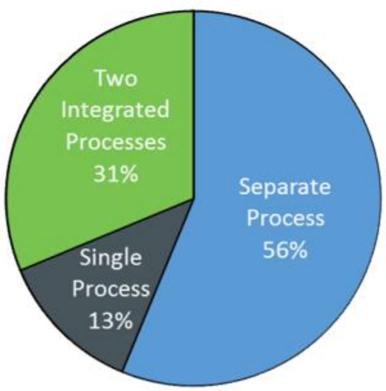
# How would you characterize the interaction between enterprise (non-investment related) cash management and investment cash management?

# Do you maintain a consolidated cash forecast for the entire organization?

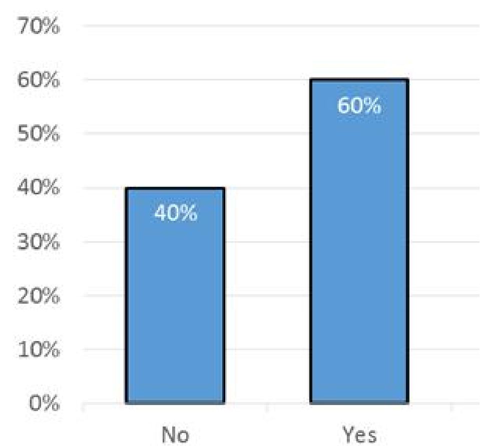
Survey and Interview Results:

- 44% view investment cash management and non-investment cash management as a single or two integrated processes.
- A majority of respondents utilize an enterprise wide view of cash.

Investment vs non-investment cash management




Enterprise level cash forecast



## Perspective/Best Practices:

*For all asset managers and asset owners, an enterprise level view of cash delivers the benefits of transparency and promotes continuity of practices and policies across the enterprise.*

*"Closed systems" such as pensions and SWFs liquidity management could benefit from the integration of both investment cash management and non-investment cash management.*

Benefits include:

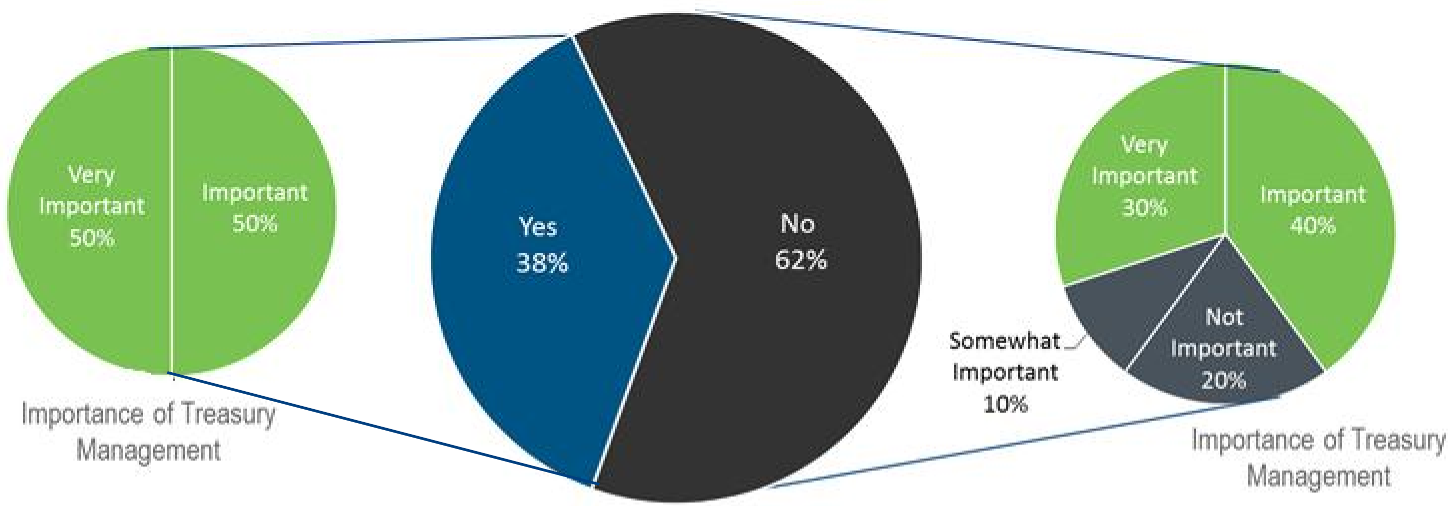
- Optimizes cash investments
- Cash flow forecasting at enterprise level
- Supports liability driven investing (LDI)

# Does your organization maintain specific policies or guidelines for managing enterprise liquidity during exceptional market events?

**Survey and Interview Results:**

- 38% of firms have formalized a policy for liquidity management and market events. Of these, all firms indicated that treasury management was "important" or "very important."
- However, of those that have not formalized a policy, more than half responded that treasury management is "important" or "very important" for enterprise risk management.

Liquidity policy for exceptional events?



## Perspective/Best Practices:

*It was surprising to see that out of those participants that ranked treasury management as "very important" or "important", less than half maintained policies or guidelines to manage exceptional market events.*

Contingency planning for liquidity shocks within a treasury management framework will:

- Reduce the risk of forced asset liquidation at depressed prices
- Supports proactive management of short term liquidity events
- Reduces potential disruption to investment programs
- Opportunity to include key stakeholders in the design, debate and decision making process outside of a liquidity crisis environment

# Maturity Matrix

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## Peer Perspective on Treasury Management – Maturity Matrix

| Peer TMP Maturity Level | Limited (25%) | Developing (31%) | Refining (19%) | Maturing (25%) |
|---|---|---|---|---|
| **Attributes of Each Level** | | | | |
| **Policy / Contingency Plan** | • Informal practices | • Established practices<br>• No contingency plan | • Some policies<br>• Contingency plan | • Comprehensive formal policies<br>• Formal contingency plan |
| **Structure** | • No dedicated team | • Dedicated function | • Centralized function<br>• Committee | • Dedicated treasurer<br>• Committee |
| **Liquidity Options** | • Asset sales | • Liquidity allocation<br>• Asset liquidation hierarchy | • Derivatives/Synthetics<br>• Limited use LOC | • LOC/CP/Repo program<br>• "Internal banker"<br>• Leverages balance sheet |
| **Level of Automaton** | • Manual | • Mostly manual | • Semi-automated | • Mostly automated |
| **Metrics/KPIs** | • Little to none | • Basic metrics<br>  • $ amount<br>  • % AUM<br>• No stress tests | • Expanded metrics<br>  • Coverage ratios<br>  • VAR<br>• Risk reporting<br>• Stress tests | • Advanced analytics<br>• Multiple risk and liquidity metrics<br>• Cost of capital analysis<br>• Stress testing/scenario analysis |