How can we more effectively manage our liquidity risk in challenging times?

YOUR GOAL: Better liquidity risk management

The global financial crisis highlighted liquidity as a critical business issue for individual banks and capital markets firms, as well as for the entire global financial system. Although many institutions had posted adequate levels of capital, they struggled to maintain adequate liquidity during the crisis, which led to both bank failures and the need for central banks to inject liquidity into national financial systems. Not only did firms fail to properly assess the amount of liquidity that they needed, but they also failed to adequately plan for the possibility of economic challenges. In fact, they believed that "severe and prolonged liquidity disruptions [were] implausible and did not conduct stress tests that factored in the possibility of marketwide strain or the severity or duration of the disruptions" (Basel, 2009).

At this point, as firms travel the road toward economic recovery in the face of continued economic uncertainty, one clear lesson from the financial crisis is that better liquidity risk management is essential. And that has given rise to new regulatory mandates governing liquidity risk. These new regulations, along with continuing global economic challenges – such as higher liquidity costs, larger funding spreads, greater market volatility and reduced market confidence – are driving financial institutions to focus in improving their liquidity risk management capabilities.

OUR APPROACH

The global financial crisis magnified the importance of sound liquidity risk management and illustrated the need for firms to take liquidity issues into account in planning and decision making. We approach the problem by providing high-performance analytic capabilities that enable you to:

- **Gain a centralized view of firm liquidity** by integrating the latest market information, portfolio updates and capital returns on a scenario basis so you can quickly and consistently evaluate expected returns against market inflections.
- **Minimize the impact of market shocks**, as well as look for better arbitrage opportunities, by analyzing the effects of changes in cost and liquidity in near-real time so you can act with precision.
- **Value complex portfolios and asset classes** by integrating portfolio valuation and scenario analyses on a single platform from which you can instantly assess the potential impact of future market shocks and scenarios on liquidity.
- **Quickly find optimized solutions to your firm's liquidity and capital needs** by evaluating market liquidity and firmwide optimization scenarios using rapid, on-demand scenario analysis based on the most complex portfolios, positions and instruments across multiple time horizons.

High-performance analytics for liquidity management can help you better manage liquidity risk, enabling you to make rapid decisions and take quick actions to protect the health of the firm, especially in times of volatility.

Business Impact

"Understanding the sources and uses of liquidity, and knowing its costs, in terms of both hard currency and the currency of time and energy, will put leading institutions in a better position to determine what they should be paying for liquidity."

Rodney Nelsestuen and Bob McDowell, TowerGroup, *The Cost and Price of Liquidity: Complexity and Structural Changes in a New Era*, March 22, 2010, Reference # V62:15EBS

Challenges

- **No centralized view of liquidity**. Siloed departments and business units limit a firm's ability to understand its liquidity position or to understand the impact of illiquid assets and asset classes across geographies, business units and asset classes.
- **Limited analytic capabilities**. Without sufficient analytic capabilities, firms have extreme difficulty projecting cash flow for underlying transactions, particularly when those transactions number in the millions.
- **Insufficient stress testing**. Because too many firms have commonly ignored trading and funding liquidity considerations in stress testing, they are unprepared for the impacts of market shocks, making it hard for them to get out of positions easily or to attract new funding.
- **Overcoming the compliance mindset.** If firms focus too closely on the compliance requirements surrounding liquidity risk management, they may overlook the business benefits that can be gained.

THE SAS® DIFFERENCE: Faster, better liquidity risk management

High-performance analytic capabilities from SAS can help you make well-informed decisions quickly to protect your firm's capital, liquidity and viability. With SAS, you get:

- **Faster results**. Our solutions dramatically accelerate current analytics and decision-making efforts. SAS exponentially speeds the calculation time for pricing functions. Pricing functions are directly enabled on the grid. Results are held resident in memory and available for analysis immediately.
- **An optimized platform**. SAS delivers high-performance analytics via a platform that is optimized for the calculation of risk, optimization of capital and the measurement of market events and liquidity.
- **An analytic framework**. SAS provides on-demand decision-making tools for traders and managers. Scenarios are used to understand the level of risk decision and how shocks might compound loss in a particular scenario.
- **Predictive analytics combined with a technology environment**. Only SAS computes cross-portfolio, market risk tolerance and capital optimization factors in an on-demand context with the ability to store results to multiple, parameterized what-if scenarios.

SAS helps you make faster decisions that protect the capital, liquidity and viability of the firm by enabling you to perform on-demand valuations and scenario analysis of future risk exposures so you can understand the impact of changes on your firm's capital and funding positions.

CASE STUDY: A well-established investment bank

Situation

The firm needed to quickly produce accurate market-based pricing and was concerned that its current system did not allow it to handle expanding risk factors effectively. The firm also had difficulty aggregating its positions and had problems generating daily reports and monitoring portfolio exposures in a timely fashion.

Solution

SAS provided a robust, integrated risk analysis environment that enabled the firm to:

- Quickly and more accurately measure risk.
- Determine its risk tolerance level by capturing the dynamic nature of market risk factors and future market states.

Results

- The staff can quickly produce on-demand, market-based pricing and calculate risk exposures on the bank's large, complex investment portfolios.
- A wide range of forward-looking stress testing schemes can be performed along with various simulation analyses.
- Risk calculations and reporting are significantly improved.

What if you could ...

Provide a centralized view of firm liquidity
What if you could analyze cash flows, exposure and volatility simultaneously to assess your firm's overall liquidity position?

Analyze the effects of changes in cost and liquidity
What if you could perform valuations of large, complex portfolios in minutes instead of hours?

Value complex portfolios and asset classes on a single platform
What if you could integrate risk functions, including valuation, scenarios and stress testing, on a single platform?

Make faster, better capital allocation decisions
What if you could measure, monitor and manage liquidity buffers across all parameters – instrument type, currency, credit rating, maturity, etc. – in near-real time?

Make better decisions faster
What if you could quickly assess levels of exposure aggregated across portfolios, instrument types, counterparties and markets on an intraday basis?

You can. SAS gives you THE POWER TO KNOW®.

SAS FACTS

- SAS solutions are used by more than 3,100 financial institutions worldwide, including 97 percent of the banks on the Fortune Global 500®.
- SAS was named a leader in five competitive landscape reports from Chartis Research, including *Financial Crime Risk Management 2011*, *Liquidity Risk Management Systems 2011*, *Market for Solvency II Technology 2011*, *Operational Risk & GRC Software Solutions 2011* and *Risk and Finance Integration*.

Learn more about SAS solutions for financial services at: sas.com/industry/fsi

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