

The Trust Algorithm: From Rumor to Financial Resilience



1. Introduction: Liquidity Risk in the Age of Zero Friction

The banking business is built on a particularly sensitive asset: trust. In the past, a “bank panic” materialized in lines of people waiting to withdraw cash at physical bank branches. Today, the loss of trust can spread at the speed of a digital post and be executed with a single click from a mobile app.

In this context, liquidity risk management has undergone a structural transformation driven by the digitalization of financial services. The traditional paradigm, based more on historical behavioral assumptions than on current dynamics, has been replaced by a “zero friction” environment. The ubiquity of mobile banking and the virality of social networks allow perceptions—whether founded or not—about the soundness of a financial institution to translate into accelerated deposit outflows and massive cash withdrawals within hours.

Thus, the financial system faces a new dimension of vulnerability: narrative risk, understood as the accelerated spread of perceptions capable of influencing collective financial decisions and affecting the operational stability of an institution. Liquidity no longer depends exclusively on the quality of high-quality liquid assets (HQLA), but also on the institutional capacity to monitor, analyze, and respond promptly to digital sentiment, which today acts as a powerful amplifier of distrust events.

In summary, we see two improvements of liquidity risk management opportunities for banks:

1. Fast liquidity risk calculations to support intraday analysis and reporting to enable early detection of liquidity risk issues and enable prompt management decisions to avoid further escalation.
2. Proactive liquidity risk management through better asset allocation and liquidity capability optimization for a resilient balance sheet

2. Hazard Report: From Physical Queues to Algorithmic Panic

The phrase attributed to George Santayana— “Those who cannot remember the past are condemned to repeat it”— remains fully valid in the evolution of modern financial risk. Banorte has documented and analyzed various historical episodes of liquidity stress, identifying a progressive reduction in institutional reaction times. Some illustrative milestones are:

Northern Rock (2007):

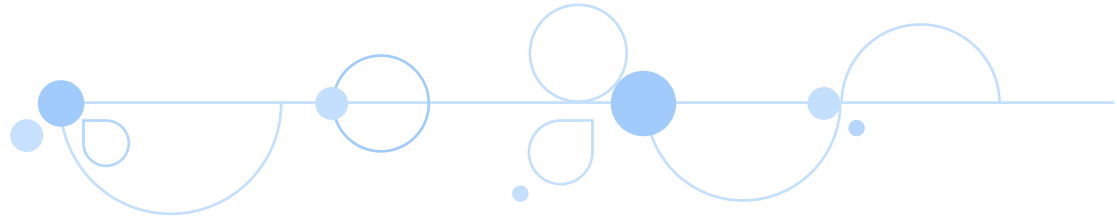
Represented analog panic. The crisis manifested in physical queues of savers, allowing regulators a reaction window of several days. The outcome was the nationalization of the bank and the first visible bank run in the UK in more than 150 years.

Caja Madrid / Bankia (2012):

Marked the transition toward digital distrust. Uncertainty spread gradually through forums and electronic media, eroding confidence over weeks and leading to a financial bailout with European support.

Metro Bank (2019):

Showed the harmful effect of viral misinformation. Rumors spread via WhatsApp about alleged solvency problems triggered massive withdrawals and significant reputational damage. The institution



responded with visual communication on social media showing operational continuity and cash availability.

Credit Suisse (2023):

Reflected the deterioration of institutional reputation accumulated over years. Adverse digital narratives accelerated deposit outflows at a speed beyond that contemplated in traditional stress models.

Silicon Valley Bank (2023):

Represented the consolidation of digital liquidity risk. The outflow of approximately \$42 billion in a single day demonstrated that digital platforms could precipitate confidence and liquidity crises in an extremely short operational horizon.

3. The Sentiment Radar: Translating Chaos into Quantifiable Signals

Technological evolution and the growing speed of information spread have led Banorte to develop early warning mechanisms capable of transforming unstructured data into quantifiable signals for risk management. Key methodological components include:

Natural Language Processing (NLP):

Use of Deep Learning models to identify semantic context and emotional load in digital mentions, differentiating between informational noise and relevant signals of reputational stress.

Sentiment KPIs:

Construction of indicators such as “Net Sentiment” and “Negativity Ratio,” which function as predictive sensors. Analyses have shown that persistent increases in digital negativity can anticipate atypical behaviors in deposit dynamics.

Support Vector Machines (SVM):

Application of supervised algorithms to estimate possible impacts on cash flows and deposit behavior, incorporating signals from public digital perception.

4. ALCO Governance: Timely Decision and Communication

The effectiveness of the sentiment radar depends on robust governance led by the Asset and Liability Committee (ALCO), prepared to respond in a digital-speed environment.

Activation and communication protocols:

Clear thresholds and alert levels have been defined. When indicators detect relevant anomalies, ALCO receives immediate notifications to enable agile responses and avoid critical delays in decision-making.

Strategic decision-making:

The committee evaluates not only traditional financial variables, but also corporate communication strategies aimed at containing false narratives or distorted perceptions, as well as preventive measures to strengthen operational liquidity availability in digital channels.

Process governance:

Responsibility and validation levels are established over alert signals, ensuring that decisions are based on refined intelligence rather than irrelevant media noise.

5. Technical execution with SAS

SAS serves as the central technology platform for validating and implementing these scenarios. In this environment, stress testing exercises evolve beyond traditional macroeconomic variables, incorporating elements linked to collective behavior and digital propagation.

Key capabilities include:

Simulation of digital stress scenarios:

SAS enables modeling of scenarios where severe reputational events trigger accelerated deposit outflows.

HQLA sufficiency tests:

Evaluation of the Liquidity Coverage Ratio (LCR) under scenarios of high-speed digital propagation, ensuring effective liquidity availability.

Contingency funding plans (CFP):

Validation of secondary funding sources and access capacity to liquidity under extreme pressure conditions.

Risk integration:

SAS consolidates liquidity information and sentiment analysis, allowing ALCO decisions to be supported by comprehensive financial simulations.

6. Evolution of Analysis: Geopolitical Factors

Banorte's sentiment radar may later evolve toward emerging risks with indirect impacts on liquidity and financial stability:

Geopolitical Risks:

Monitoring international tensions, sanctions, or regional events that may generate financial volatility, cross-border capital movements, or operational restrictions.

7. Conclusions and Trends: Toward Permanent Vigilance

Modern liquidity risk management has ceased to be a predominantly retrospective exercise to become a discipline of predictive resilience. The convergence of reputational risk, digital speed, and collective behavior forces institutions to redefine capabilities, analytical methodologies, and response mechanisms.

In this context, Banorte identifies several strategic lines for the future:

Trust as a critical balance variable:

Liquidity is financial; trust, however, represents one of the most sensitive and volatile components in the digital era.

Human-technological synergy:

The combination of advanced analytical capabilities, technological simulation, and executive governance constitutes the new institutional modus operandi.

Real-Time ALM:

Liquidity management will tend to operate at frequencies close to real time, aligned with the speed of digital trend propagation.

Systemic contagion risk:

The spread of severe distrust events toward systemically relevant financial institutions could generate contagion effects on interbank markets and funding mechanisms.

SAS offers a comprehensive, next-generation platform for liquidity and balance risk management, enabling multidimensional analysis, advanced simulations, and robust support for strategic decision-making. Likewise, SAS maintains a global leadership position in analytics applied and artificial intelligence to the financial sector, helping institutions transform complex data into timely and intelligent decisions.

