

BEFORE

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AFTER



LIQUIDITY BEFORE AND AFTER

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THE EMERGENCE OF BALANCE SHEET RISK MANAGEMENT

In the recent history of banks and liquidity, only two eras exist. There is Before, and there is After. The thin line that separates them is the credit crisis. Before was based on the assumption that funding was readily available and could be obtained at a reasonable cost. After is the place where we realize this assumption was false. What applied Before does not apply After, and we need a new framework to understand, measure and manage the true relationship between liquidity and how the bank conducts its business.

It may be tempting to look outside our normal tool sets and search for an exotic, immediate answer to our problems. However if we wish to find a lasting solution we may need to start by defining the nature of the bank's business first, and apply specific models and calculations that support the context of this business second. This path leads us to an unexpected place where the relationships between assets, liabilities, profitability and liquidity come together naturally: the balance sheet.

We propose Balance Sheet Risk Management as a more complete remedy that looks at those risks in an institution that require simultaneous attention to, and coordination of, both sides of the balance sheet. This means coordinating funding on the liability side with investments on the asset side in order to achieve the desired level of returns within the defined and accepted risk tolerance level, and achieve long-term gains in capital value.

RISK AND ACCOUNTING: AN UNEXPECTED CONNECTION

Before, balance sheet management was well established only in the field of accounting. The majority of its utility was based on measuring the results of past activities. More recently, the IAS and FASB outlined new rules that helped introduce a forward-looking, modern perspective to accounting. This progress was made possible through the introduction of a fair value-based approach, which enabled banks to acknowledge different types of holdings on the investment horizon: those that would be held until maturity (accrual-based) as well as products that were held for trading (fair value-based). Despite the added flexibility of forward-looking components, the cost of funding and associated liquidity risk factors were not captured in these pricing models. This omission would become a contributing element to the crisis when it became apparent that certain products were not accurately valued.

Under existing accounting rules, fair value mark-to-market was used to determine the present day value of assets. However mark-to-market did not apply to certain products that lacked a market equivalent, including exotic derivatives such as CDOs. In these cases fair value mark-to-model was used. As it was generally assumed that funding was readily available at next to no cost, the valuation of these products did not include liquidity risk factors. When funding did dry up and liquidity became an issue, many of the products priced through mark-to-model had a substantially lower value.

How did a simple valuation contribute to a global crisis? Two things happened at the same time. The fair value accounting rules forced all banks to record their losses immediately, which they did. The results made it difficult to determine which institutions were in danger, and those that simply appeared to be in danger. This led to a lack of trust and eventually the credit crisis, which became systemic.

This is not to suggest that the losses reported did not exist; they did. But the accounting guidelines used by all institutions during this time, which did not address liquidity risk factors, helped accelerate and expand market turmoil.

In order to obtain proper valuations for all the products on the bank's investment horizon, the rules of risk and accounting should be more consistent with each other. When this consistency is in place, the relationships between the primary and consequential risks of the bank's assets and liabilities can be properly considered and disclosed. Balance Sheet Risk Management is the science that will enable banks to achieve this goal.

THE CASE FOR BALANCE SHEET RISK MANAGEMENT

Managing risk is dependant on the ability to analyze value and exposures across an investment horizon. If you want to measure risk, there are two dimensions that must be considered: do you have the money to fund the investment, and do you have enough capital to cover the loss should the investment go wrong. In basic terms, we work to compare different points in time by modeling interest rates, so that we

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can anticipate, with an estimated probability, what the value of a \$1 investment today will be tomorrow and at future dates. However, this hinges on an assumption that you could fund your investment as required. The future profitability of an investment is irrelevant if you can't meet the obligation of having to repay that \$1 today.

In periods of systemic need, when many or most institutions are in the market for funding, this cost can go up exponentially. Therefore the cost of funding needs to be integrated into our assumptions of estimating short-term and long-term profitability.

As a bank manager, you would like to see liquidity addressed within an integrated framework of assets and liabilities. In the short term, liquidity and liquidity risk are tied to the cost and availability of funding to the bank. When the bank creates economic value and generates profitability, part of these earnings are transferred to shareholders through dividends, while the remainder returns to the balance sheet as retained earnings. When these capital gains are acquired and invested in the business it demonstrates that the institution is confident in its future, which communicates a positive message to the market. This sensible business practice will help enhance the company's stock price by reducing perceptions of long-term volatility.

Modern accounting rules should enable banks to divide products, irrespective of whether they are derivatives, into those that are held for trading and those that will be held to maturity for hedging purposes. These rules will therefore allow



banks to estimate the true economic result in a more consistent way within the business strategy of the financial institution. This does not mean pushing losses forward in time that should be prudently reported today. However it will enable banks to record the losses according to the predefined business investment strategy. What the crisis has also proven is that what appear to be prudent regulations may not necessarily lead to the expected outcome, or may lead to a negative outcome as they were devised outside of a business context.

BENEFITS IN THE BALANCE SHEET

Credit risk, operational risk, ALM and market risk should all be considered primary risks. Liquidity risk is a consequential risk, as its value changes when factors within the primary risks change. Considering the impact of these primary and consequential risks together through Balance Sheet Risk Management will produce a more accurate holistic picture of risk.

Balance Sheet Risk Management also helps with dialogue and the exchange of ideas. In the past, the CFO tended to focus most of their attention on capital structures and budgeting, while the CRO was more concerned with economic capital and therefore risk. When these roles are focused on separate sides of the business, it becomes difficult to obtain and share a consistent picture of a bank's operations. Yet the CRO and the CFO hold a vested interest in the bank's profitability and liquidity, as do investors and regulators. Utilizing Balance Sheet Risk Management would provide a singular focus for all parties to understand exposures and discuss them in a common language.

This shared understanding can only take place within a framework that recognizes the primary importance of the business model. Institutions that seek meaningful economic relationships through mathematical equations first, and then attempt to connect the results to a business strategy second are simply leaving themselves vulnerable to disaster.

THE TRUE COST OF BUSINESS

Having cash flow available all the time has a cost. Before, that cost was assumed to be insignificant and tied to an unlimited well of funding. As the search for higher profits guided the policy at many banks, this assumption proved to be disastrous. After the nature of the liquidity crisis has been exposed, we can see that the availability of funding was not completely understood, and may have been further clouded by silo-based regulations, which helped obscure the true business model of banks.

We need to build integrated reporting for all steps in a bank's business. The crisis proved that risks are interrelated, and using a silo approach or integrated measurements that do not properly reflect the business model are insufficient.

Einstein famously said that to solve a problem that is new, we need a different level of thinking. Finding a methodology and envisioning a risk framework that properly incorporates liquidity is the problem. Balance Sheet Risk Management is a proposal to manage primary and consequential risks on one hand and profitability and economic long-term value creation on the other, within the context of an institution's true business model, to elevate our understanding to a new plane.