Optimisation under regulatory constraints KPIs and dashboard

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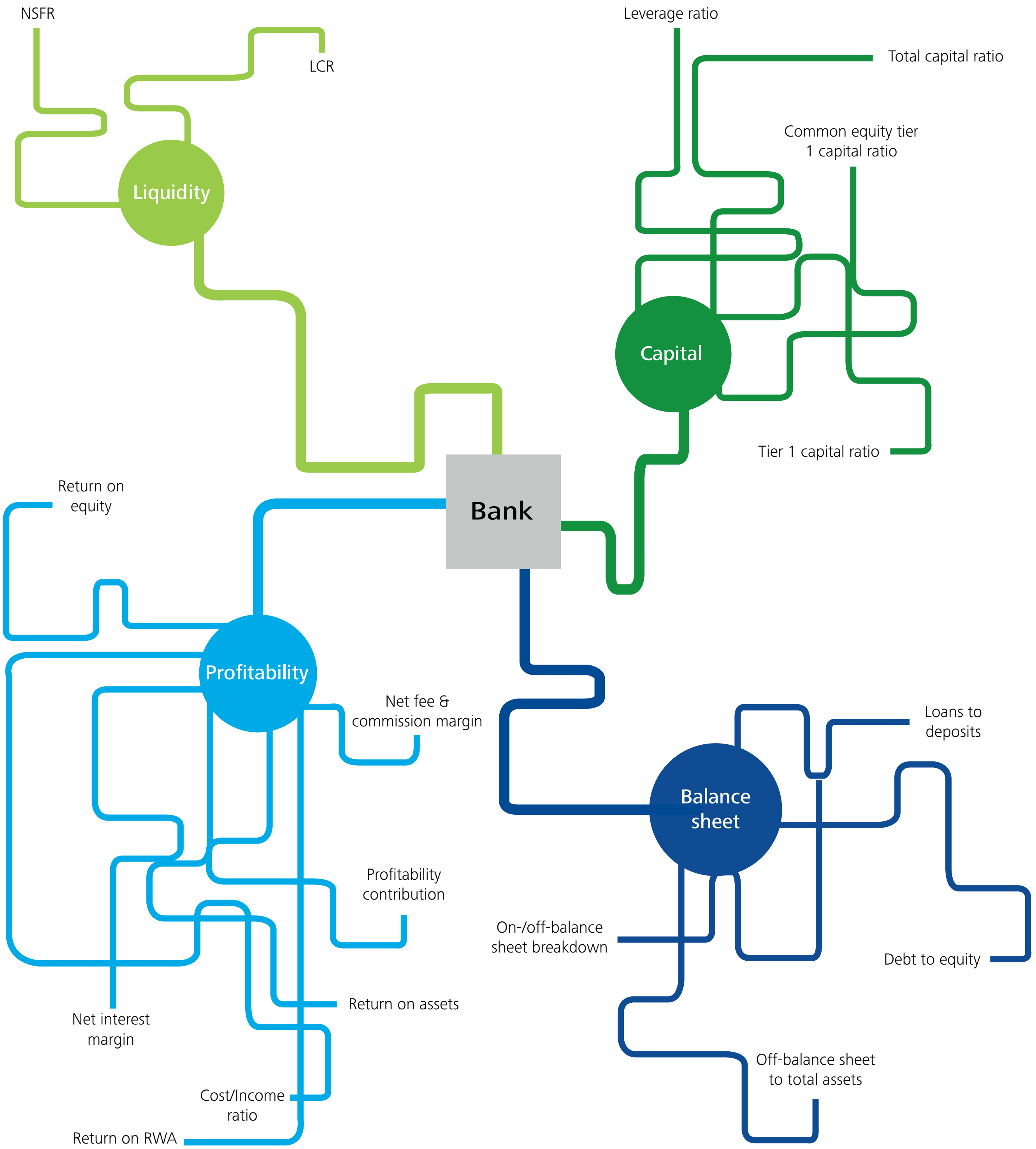
Why is Basel III a turning point for the banking industry?

The recent wave of new regulation (including CRR/CRD IV, EU mortgage directives, MIFID II, etc.) is considerably changing the rules of the game for the banking industry.

Basel III alone forces banks to manage additional regulatory ratios in parallel, which are highly interconnected — and this of course also impacts balance sheet and profitability ratios. The new requirements for capital and liquidity in particular will force banks to rethink their business strategy.

Gaining the right insights into this complex system (i.e. the interaction between balance sheet, capital, liquidity and profitability) will be a key success factor in this new era, and a major requirement for dashboards used by senior management.

In order to ensure profitability from a business perspective, the balance sheet needs to be optimised, taking into account all regulatory constraints.


NSFR
LCR
Liquidity
Leverage ratio
Total capital ratio
Common equity tier 1 capital ratio
Capital
Tier 1 capital ratio
Bank
Return on equity
Profitability
Net fee & commission margin
Profitability contribution
Return on assets
Net interest margin
Cost/Income ratio
Return on RWA
Balance sheet
Loans to deposits
On-/off-balance sheet breakdown
Debt to equity
Off-balance sheet to total assets

Balance sheet optimisation

The first step in this optimisation process is to understand the economic and regulatory features of the bank's balance products.

However, this can only be properly assessed if all direct and indirect income/expense items and opportunity costs (including funding, capital and liquidity buffer costs) are accurately allocated and factored in.

In order to enable our clients to analyse the various aspects of products/product categories, we have developed an intuitive and powerful approach that identifies the contribution of individual products to profitability, capital and liquidity requirements.

Once these contributions are known, a quantitative optimisation algorithm can be applied. Alternatively, this can also be achieved via an iterative process of integrated scenario analysis.

Dashboards and integrated scenario analysis

Of course, banks already use dashboards to summarise the main regulatory ratios and KPIs that senior management receive on a regular basis. Most of the time however, these are 'static' collections of numbers and ratios on a piece of paper and cannot easily be analysed in further detail.

Banks have also built tools to conduct sensitivity analyses and isolated 'what if' scenarios for capital or liquidity ratios. However, we rarely see the **simultaneous** impact of a specific scenario on the overall system of KPIs and KRIs being modelled and made available to senior management.

While grasping these complicated and manifold interactions is already not straightforward for risk managers who deal with this on a daily basis, we think it is even more challenging for senior management who – based on such static dashboards – is supposed to anticipate the impact of tactical/strategic decisions on their key KPIs and KRIs.

We know that banks have all the information (somewhere) to perform such integrated analyses, but such data is usually stored in different systems or database silos that cannot communicate with each other and have been designed for regulatory reporting rather than for internal management purposes. In such an environment, it is typically not a simple task to establish a direct link between specific balance sheet items and their impact on the RWA or LCR calculation, for example.

We are convinced that in this increasingly complex environment, senior management needs to be equipped with the right tools to enable him to look at their institution from a combined balance sheet, profitability, capital and liquidity perspective. Ideally, such dashboards should:

- Facilitate understanding of connections between the balance sheet and KPIs/KRIs
- Provide easy access to the underlying data if needed
- Allow simulation and evaluation of strategic options
- Provide for integrated analysis of products/product types
- Provide appealing, relevant and interactive visualisation

This means that dashboards will have to migrate to dedicated and interactive software tools that allow the impact of business decisions on the overall system of KPIs and KRIs to be anticipated.

Equipped with such tools, senior management will then also be better prepared for discussions with the different business and controlling units when adjusting and optimising the balance sheet according to the constraints of Basel III, for example.

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