KPMG

# Treasury of the future

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Balance Sheet Optimisation

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# A significant range of market forces are impacting banks


More challenging macro-climate

- Increased pressure on funding costs
- Significant and rapid increase in rates
- ESG commitments and transition
- Changes in depositor behaviour
- Changes to the competitive environment
- Increases in unrealised fair value losses
- Rising costs of capital
- Expected increases in cost of risk
- Recent bank failures increasing focus on viability
- Geo-political uncertainty

# These are driving a change in the way Treasury functions manage interest rates/credit spreads

## After years of low interest rates and stability, IRRBB and CSRBB regained focus

01 Renewed focus after period of stability

02 Being mindful that historic data doesn't represent recent turmoil

03 Reviewing and updating assumptions

04 Focusing on hedge accounting capability

05 More interest in equity structural hedging

06 Understanding, quantifying and monitoring unrealised losses

07 Increased regulatory focus and potential for new regulations

08 Evolving regulatory landscape

# There are also consistent high levels of regulatory change

## Regulatory change

### Basel 3.1

**Output Floor**

- Introduction of an output floor of **72.5%** of the risk exposure calculated using standardised approaches.

**Change of RWA**

- **Changing RWA** leading to different levels of profitability for specific assets.

### Strong & Simple

**Strong & Simple**

- **Liquidity** and **Disclosure requirements** for Simpler-regime Firms as part of the PRA's work to establish a "strong and simple" prudential framework for **non-systemic banks and building societies.**

### Open banking

**Open banking**

- **Visibility of deposit behaviour** can be instantly observed.
- Likely to alter the competitive landscape of the financial services industry, which could benefit consumers by **increasing competition.**

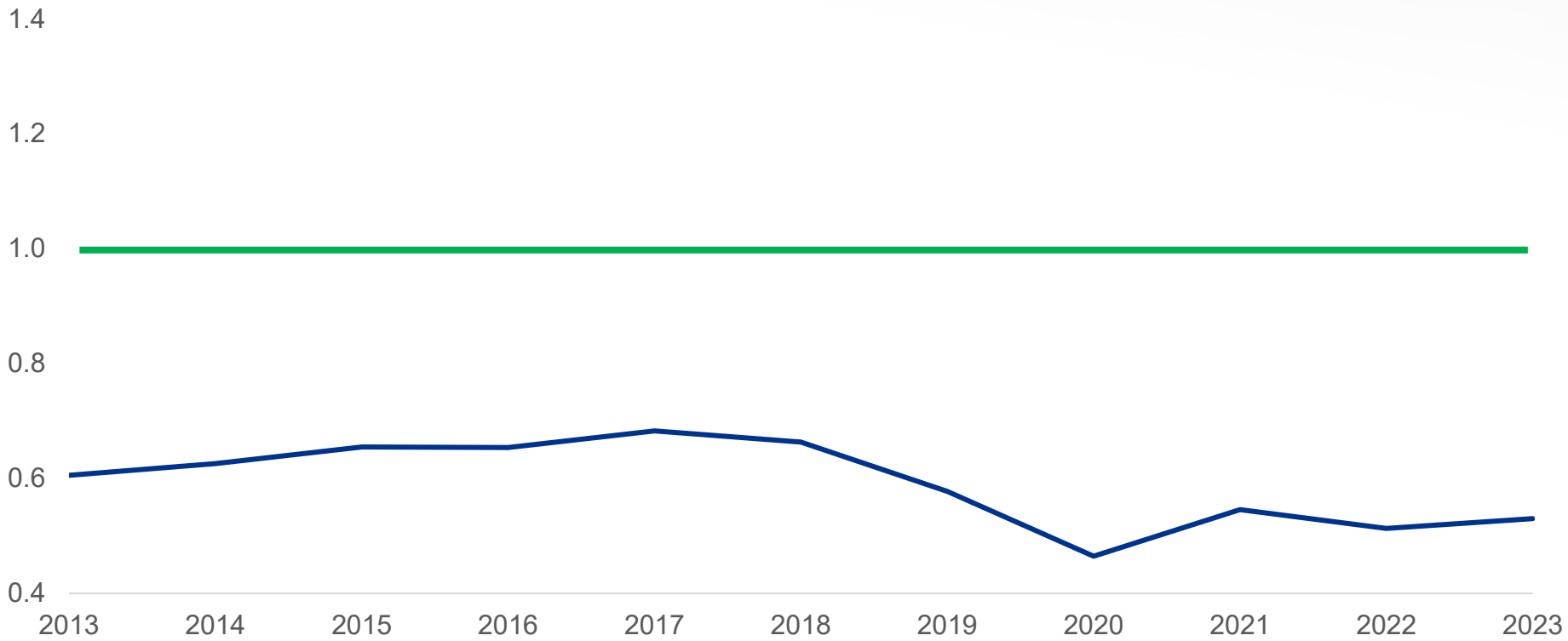
### Ringfencing

**Ringfencing**

- Review and update the **list of ring-fenced banks.**
- Update the definition of **Relevant Financial Institution**
- Review and update the **list of activities** which ring-fenced banks are restricted.
- Plans to increase the **threshold** from £35 billion to £50 billion.

# Resulting in a challenging valuation environment

## Price to book ratio for selected UK Banks




P/B ratios from selected UK banks incl. HSBC, Lloyds Bank, Barclays, Standard Chartered, NatWest and Virgin Money) taken from https://www.macrotrends.net/

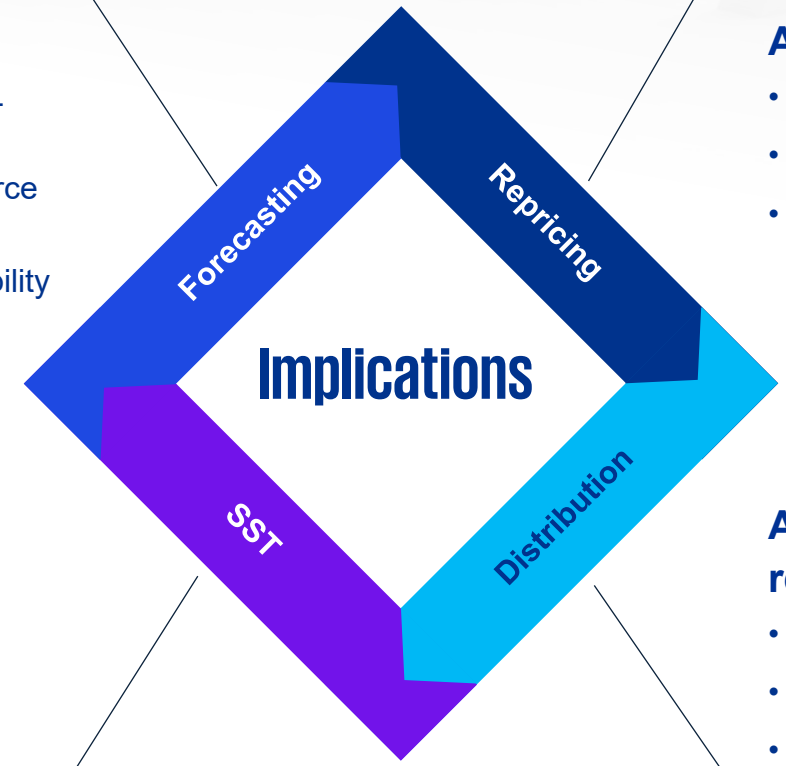
# Driving a different focus for Treasury activities

## More frequent forecasting

- Visibility of risk concentrations, P&L impacts and ROTE
- Update hurdles and financial resource allocation
- Clear incentivisation and accountability for delivering

## Greater focus on stress and scenario testing

- Strategic management tool not just downside risk avoidance
- Reactive to internal and external environment
- Automated and AI driven




## Ability to reprice quicker

- Tech led repricing and execution
- Avoid being selected against (e.g. mortgages)
- Dynamic hedging and hedge accounting capability

## Agility to distribute financial resources quickly

- Distribution tooling
- FTP / CTP
- Internal market place for resources

The Treasury Function of the future will need to be more holistic in its role of strategically identifying opportunities to optimise financial resources and enable banks to make strategic decisions.

# What this means for Treasury functions

## Mandate

- **Broader mandate** – Value creation, not just risk management
- **Identifying risk** – Mandate to identify risk distribution opportunities
- **Profitability** – Engine for profitability management and steering
- **Holistic focus** – Have a holistic focus on capital, liquidity, funding, IRRBB, RRP and the linkages between them

## Capability

- **Greater focus on interpreting results** – analysing data/ deviations between plan and actual figures for more accurate future planning
- **Strong business decision making** – Treasury as backbone of the bank and with strong connections across the different business units
- **Ability to influence business stakeholders** – Building strong relationships with internal and external partners

**Treasury operating model**

## Capacity

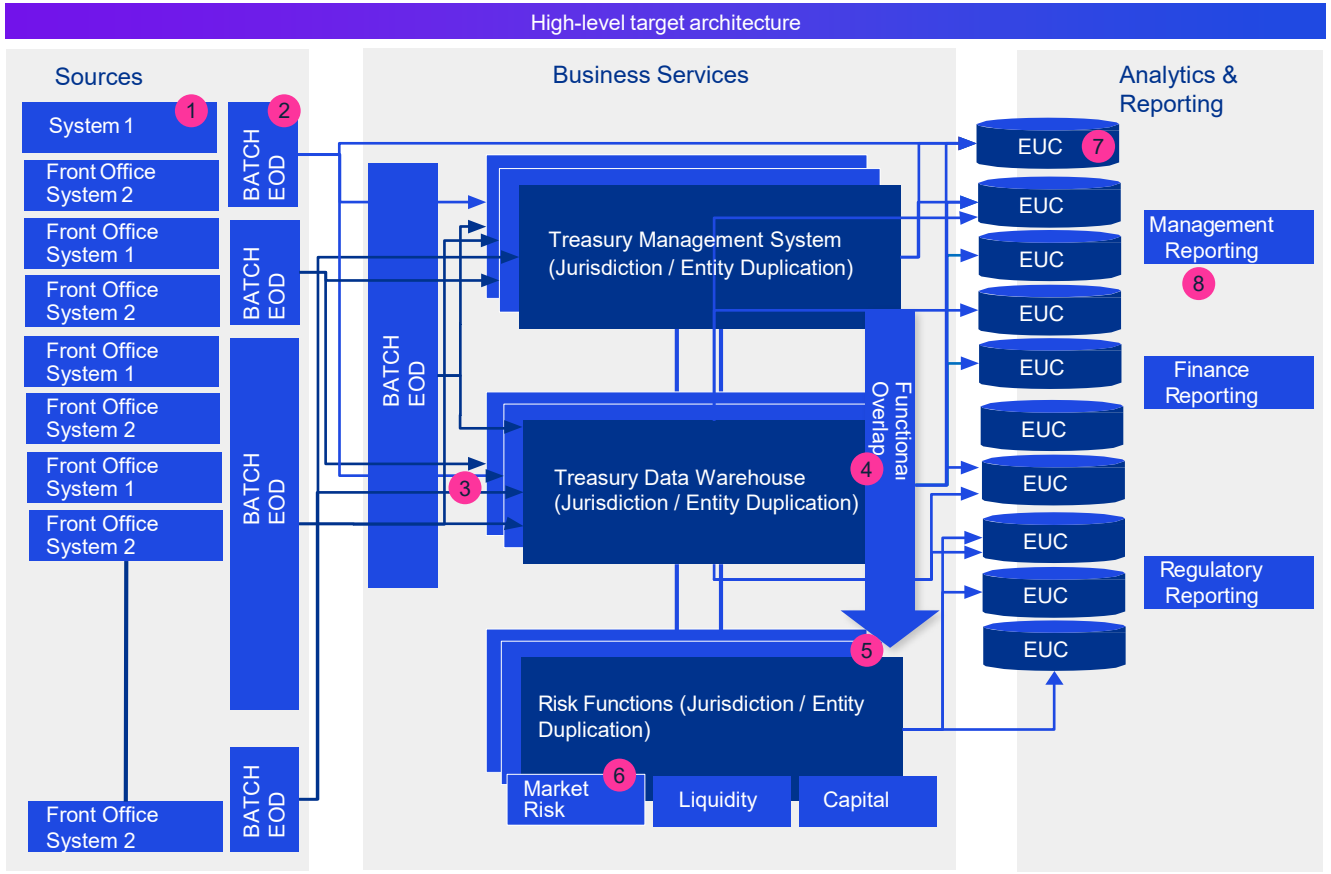
- **Different teams** - Automated processes will reduce the need for manual processes etc. requiring different team make-ups
- **Adaptability & continuous learning** – Embracing change and staying agile
- **Digital literacy & technological proficiency** – Staying up-to-date with emerging technologies

## Efficiency

- **Data driven decision making** – integrating new and addition data sources into analysis and forecasting
- **More Straight-Through Processing (STP)** – more automated process with no/limited manual intervention supports efficient processes
- **Use of AI** – adding AI to traditional processes gives you a broader perspective for decision making

# Which requires firms to address some of the limitations in the current technology architecture

**Treasury transformation has been made more complex by a set of common current state issues, which has been a result of technology constraints, organisational boundaries and limited investment**




1. **Fragmented upstream:** by the nature of the business lines, these are regional and disparate in system and data format even for common product types.
2. **Batch processing:** Considered a necessary fact of data exchange through batch processing and aggregation, there are often interactions between batches which create data dependencies, and these deliver within a wide ranging SLA, with poor quality and incomplete datasets
3. **Central Data Warehouse:** Adoption of data warehouse solutions is never consistent, with data being sourced directly by TMS and Risk functions.
4. **Overlapping Data Stores:** Typical vendor TMS offerings are restrictive on the data being published or having their data model exposed, as a result of this and any gaps in adoption of the data warehouse, there are often reporting attributes only available in a timely manner in the TMS system, either for Hedge Effectiveness or Management reporting
5. **Overlapping Risk services:** Similarly, vendors will seek to expand their remit to increase revenues and TMS systems often expand into risk calculation.
6. **Risk Function Duplication:** Implementations in region vary, we also see liquidity pools being held in region or buffered
7. **End User Compute:** business users, requiring control on the data format and manipulation, create a wide range of spreadsheets to process outputs for various reporting requirements
8. **Dependence on point in time reports:** Snapshot reports, requiring significant formatting and manipulation, presenting stale conclusions

The current state architecture of many large investment banks / universal banks is fragmented due to traditional jurisdiction and product siloes iterative and federated investment in technology has created a complex data architecture. Change requires significant investment, at high risk, with strong leadership to implement in a coherent manner with current technology solutions

# And facilitate the move to a more strategic end-state

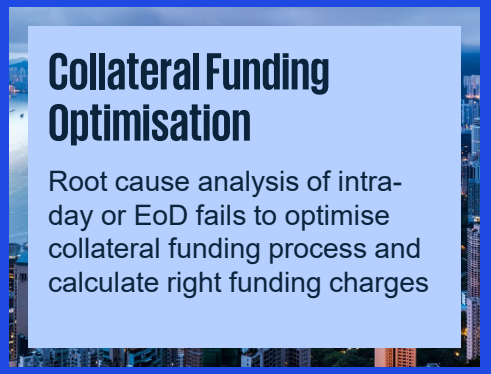
| | Current State | Strategic Direction |
|---|---|---|
| **Capital**  | • 11 of the 16 banks in a recent KPMG survey use in-house developed platforms for RWA related capital calculations.<br>• Common to have more than one system within a single bank – creating data and reconciliation risks | • Desire to combine capital calculation and reporting capability within a single system<br>• Transformational activities leading towards forecasting of capital and stress testing at the “push of a button” |
| **Liquidity**  | • As banks achieve scale it is more common to develop in-house applications for liquidity reporting to control infrastructure and functionality<br>• Even when a bank is using In-house application for Liquidity calculations, 3rd party applications may be used for ALM and cash flow forecasting purposes | • Improving Liquidity calculations (end to end) is an area of focus for leading banks due to time sensitive nature of Liquidity calculations and increased regulatory demands<br>• Leading banks are creating intra-day liquidity forecasting capability<br>• Creating functionality to make liquidity management a strategic enabler – moving beyond regulatory compliance |
| **Reporting**  | • At most banks, the in-house applications tend to contain the functionality for aggregating the data, and performing the calculations required for regulatory reporting<br>• 3rd party applications when used, are used to prepare the data in regulatory format (“last mile reporting”) and for final submission to the regulator | • Transformation efforts related to reporting are primarily focused on improvement in data supply chains to ensure end-to-end data lineage, and improvement in quality of data<br>• Focus on business intelligence and dashboarding<br>• For Stress testing purposes, banks are looking to reduce reliance on expensive grid based infrastructure such as SAS and looking to develop in-house execution engines using open source technologies (Python, TensorFlow) |

# Including potential adoption of AI

As AI technology advances, through increasing application of GenAI and LLM solutions, coupled with new entry of innovative FinTechs, the application within Treasury will only expand.

We are seeing the impact of AI across all business units within the organisation that will reduce human workload, improve accuracy and reduce costs / errors.

# Sample Use Cases



## Collateral Funding Optimisation

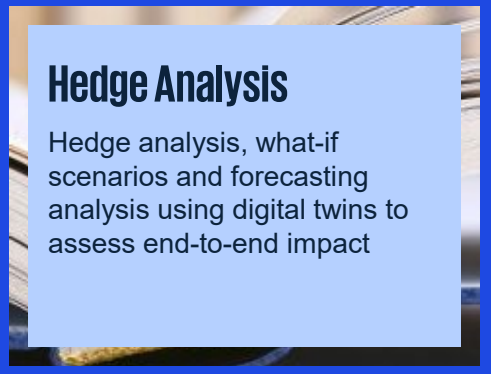
Root cause analysis of intra-day or EoD fails to optimise collateral funding process and calculate right funding charges

## Capital Allocation Optimisation

Optimise how capital is allocated to achieve risk and return goals

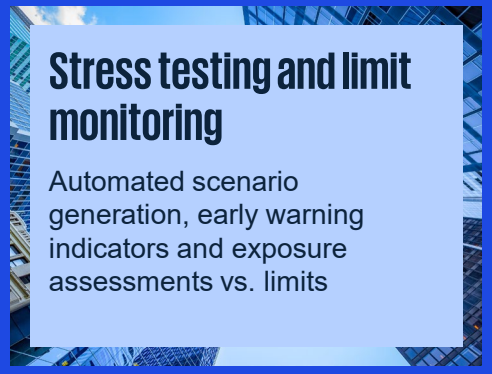
## Balance Sheet Optimisation

Optimise treasury, collateral, and liquidity impact to identify inefficiency, under utilisation, or trapped assets



## Hedge Analysis

Hedge analysis, what-if scenarios and forecasting analysis using digital twins to assess end-to-end impact



## Stress testing and limit monitoring

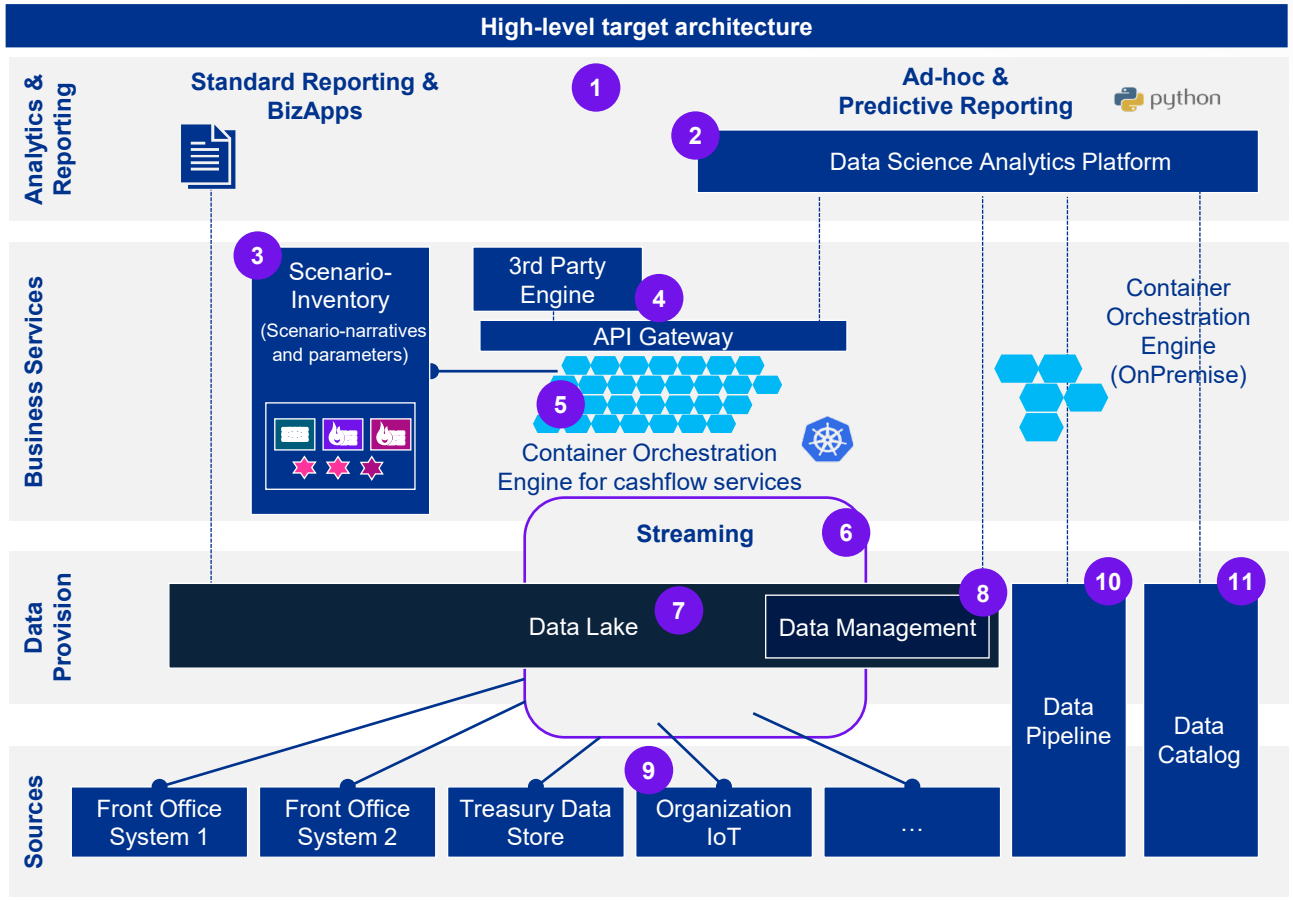
Automated scenario generation, early warning indicators and exposure assessments vs. limits

## External / Market Factors

Market for behavioural, market trends and sentiment analysis using social media, analyst and public data

# What the Treasury architecture of the future may look like

**Future Treasury architecture is automated, scalable and utilising AI / machine learning to reduce the reliance on person power and "crunching numbers"**




1. **Analytics Layer with Self-Service:** Layer of analytics and data science techniques to interrogate data on demand; BizApp for flexible workflows.
2. **Artificial Intelligence / Machine Learning Enabled:** Data science and application of AI / ML techniques for enhanced analytics and modelling.
3. **Central Scenario Repository:** Storage and management of scenarios to support treasury and wider business modelling and apply scenarios.
4. **Decoupled Calculation Services:** Calculation via APIs; scheduling ad-hoc runs with custom data, scenario narratives and parametrization.
5. **Container Orchestration Engine:** Containerized architecture supporting deployment and management; distributed on-prem and public cloud clusters.
6. **Event Streaming Data Pipelines:** Real-time data to respond to market events and make immediate adjustments intra-day.
7. **Single, Unified Data Lake:** Consolidation of Treasury related data onto single cloud data lake, established as the authoritative data source.
8. **Embedded Data Management Tech:** Data quality monitoring, data lineage, metadata management, etc. governs end-to-end data lifecycle.
9. **Source Integration:** Data platform integrated with source system feeds hosted in the cloud and on-prem for a true hybrid cloud strategy.
10. **Analytical Data Pipelines:** Data connections to various disparate sources for ad-hoc analytics and machine learning models.
11. **Data Catalog and Marketplace:** Modern data catalog available for analytics to foster a data culture and support selection of the right data.

# Concluding sentiments: what's happening in the market today

**We are already seeing changes in the way Treasury functions are operating as we transition to the Treasury function of the future**

## Strategic funding mix evaluation

- Continuous consideration of funding sources and mix
- Unlocking new markets and new funding sources
- Dynamic forecasting of cost of funding to drive hurdles
- Understanding of funding tenor on optionality risk for IRRBB

## Treasury transformation

- To transition to the Treasury function of the future, investment is required in systems and architecture.
- Redefining the mandate of treasury functions (e.g. ESG).
- Many larger firms are already embarking on transformative programmes.
- Cultural transformation (e.g. ownership of the balance sheet) as well as technological and organisational transformation

## Increase focus on balance sheet velocity and risk distribution

- 'OTD' is not a new concept but is an increasing focus to dynamically manage the B/S
- The output floor under Basel 3.1 may also change the assets that are selected for distribution
- Consideration of both capital (e.g. SRT) and funding (e.g. covered bond) trades

## FTP / CTP

- Always an area of focus, however more frequent forecasting and more agile allocation of financial resources requires strong FTP and CTP approaches.
- Creation of an internal marketplace for capital and funding.

# Q&A

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