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Whitepaper

IBOR Transition

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Introduction

How it all began

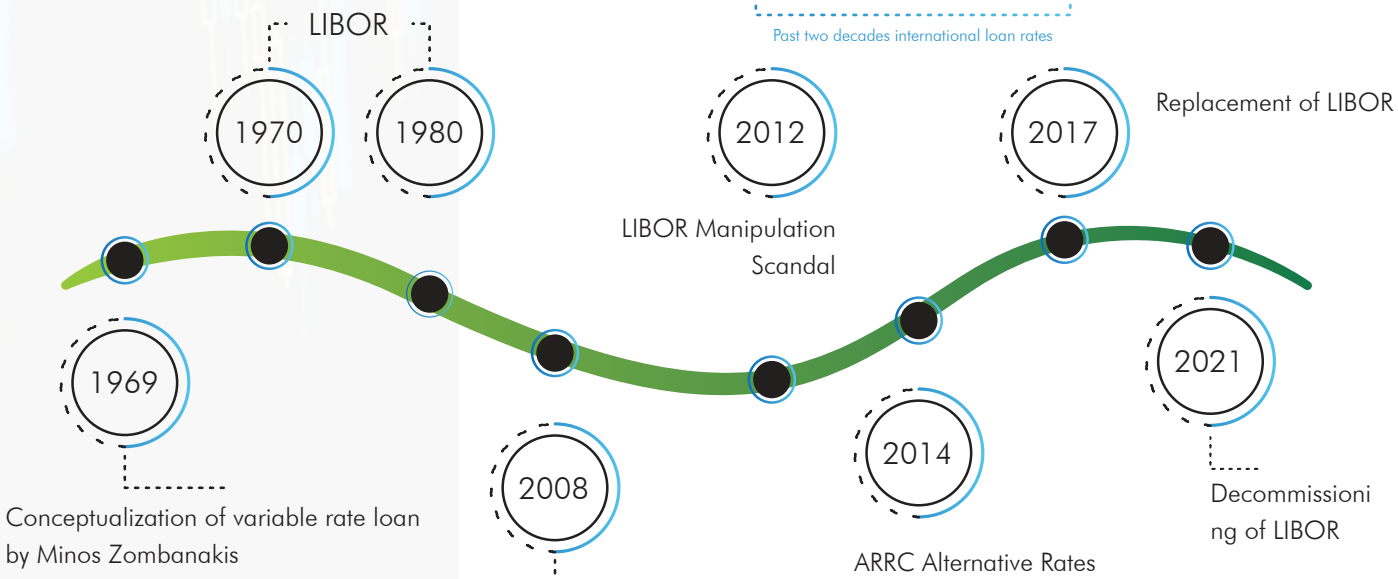
In 1969, Minos Zombanakis, a Greek banker, conceptualized and orchestrated a variable rate loan for the Shah of Iran. This and other subsequent events over time led to the development of an international lending rate, which became the LIBOR.

From loans and bonds, LIBOR became the benchmark for derivatives including interest rate swaps. The BBA (replaced later by the Intercontinental Exchange) established a panel of banks, polled daily, that calculated the daily LIBOR rate with the assistance of Thomson Reuters (now Refinitiv). LIBOR soon became integrated into the global financial system and expanded into mortgages and student loans.

Looking for alternatives

In 2008, the Wall Street Journal reported that banks may have understated borrowing costs. This led to an investigation by the Federal Reserve, which set up the Alternative Rates Reference Committee (ARRC) to investigate LIBOR alternatives. 2017 saw the announcement by UK's Financial Conduct Authority (FCA) of the plan to replace LIBOR by 2021. Later in the year, the ARRC recommended SOFR as the alternative for USD LIBOR.

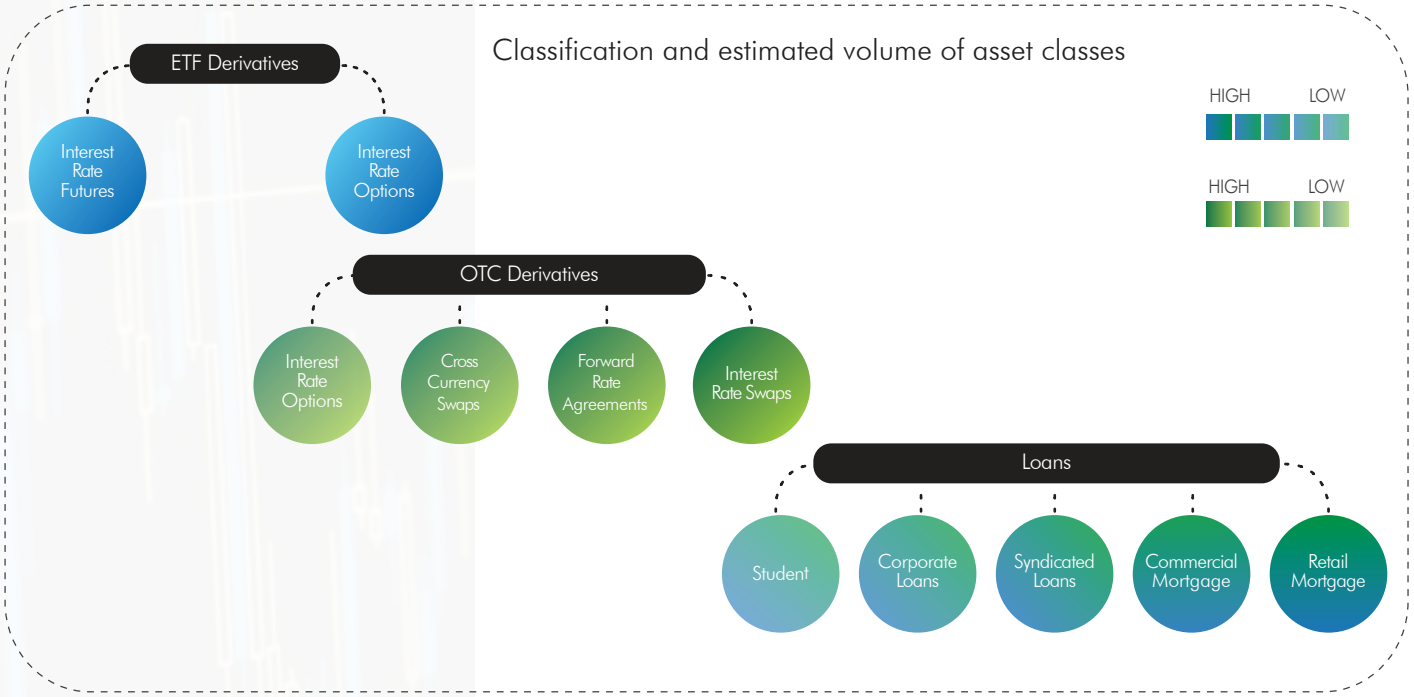
Past two decades international loan rates

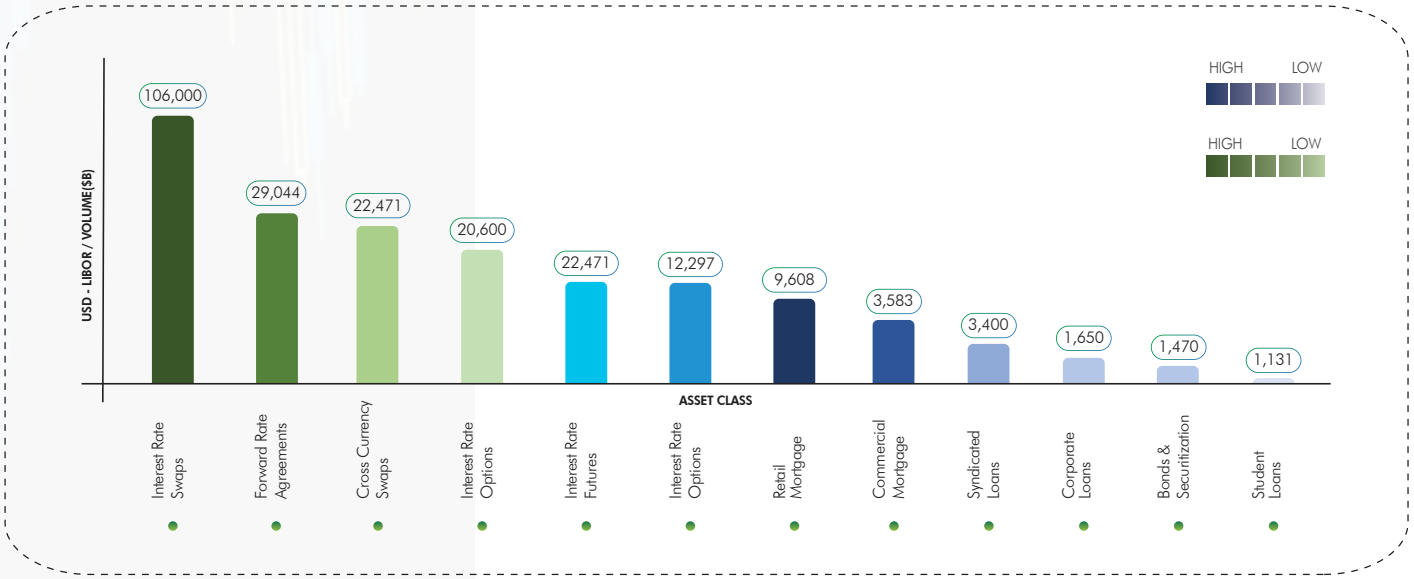


LIBOR Landscape

Several alternate reference benchmarks were proposed for the post-LIBOR world including ARRC[1], ISDA[2], and IOSCO[3].

For nearly a half-century, the financial world has been tightly integrated with LIBOR. Clearly, the transition would not be easy. Over $350 trillion in contracts worldwide ($200 trillion US) would be affected including bonds, ETF, floating/variable rate notes, OTC derivatives, securitization, and syndicated loans.

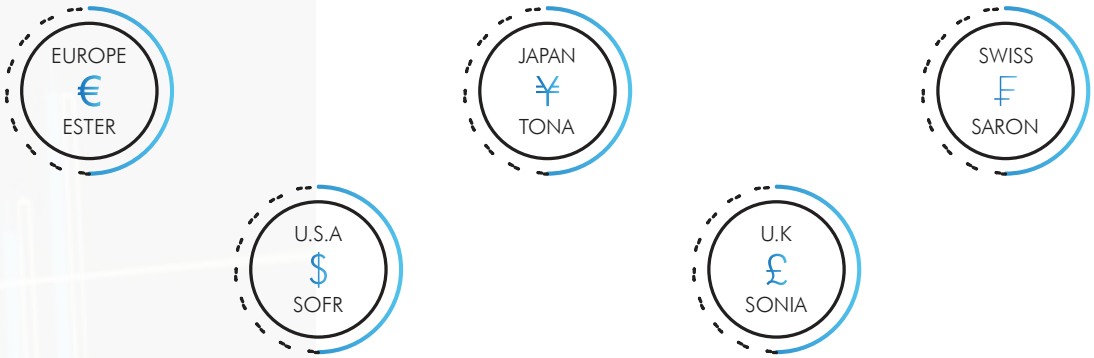




*Alternative Reference Rates Committee data and RBC Capital Markets

IBOR Transition

We still have a year and over to reach December 2021, and the so-called end of LIBOR. A multitude of organizations is providing guidance, principles, and alternative reference benchmarks on an IBOR/LIBOR transition, such as ARRC[1], ISDA[2], and IOSCO[3]. The financial services industry has been embarking on the IBOR/LIBOR transition, and embracing alternative reference rates, globally, such as:



The adoption of reference rates is inclusive within transition best practices, such as the below.

- Minimization of value transfer of the contract
- Mitigation of regulatory and legal risks
- Reduction in manipulation
- Depreciation in market disruption

The critical challenges of IBOR/LIBOR transition

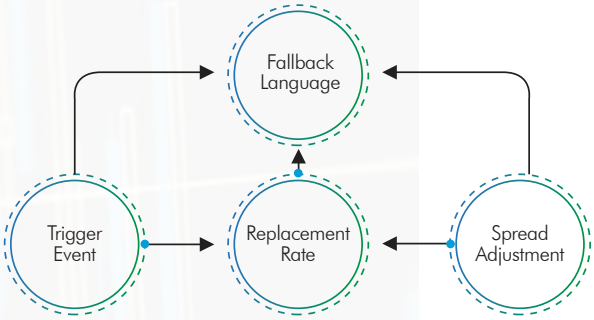
- Fallback provides - Agreement of amendments, else contracts will expire or result in litigation
- Fairness of RFRs, upon conversion
- Unified customer communications, inclusive of disclosures, supporting asset classes and LOBs
- Spread between IBORs and risk-free reference rates (RFRs)
- Tax implications

[1]https://www.newyorkfed.org/arrc
[2]https://www.isda.org
[3]https://www.iosco.org

Fallback Provisions

Impact on contracts

Fallback provisions in contracts include a replacement rate that kicks in if the benchmark (LIBOR) were to become unavailable. The actual language varies across asset classes. But some of the fallback language may not be adequately rigorous, which could trigger litigation. A trigger event (that varies by asset class) would lead to the application of a replacement rate (or waterfall of rates) and a spread adjustment that would align the replacement rate with the original benchmark.



The ARRC* has published guidelines and recommended fallback language for the following products: Adjustable rate mortgages, bilateral business loans, floating rate notes, securitizations, and syndicated loans. In addition, ARRC has collaborated with the International Swaps and Derivatives Association (ISDA) for derivative contracts.

ARRC guiding principles for cash products


Contract Language Evolution and Moving from Discretion to Specificity

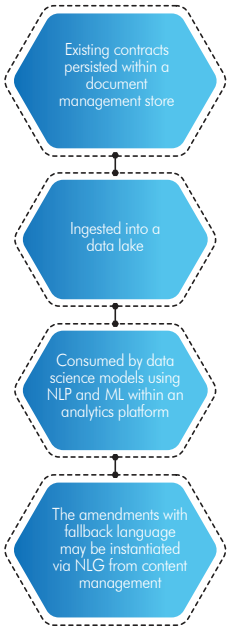

Feasibility and Fairness of Implementation


Consistency Between Asset Classes as Appropriate


Rate, spread and term structure adoption

The task ahead is to:

- Search all existing contracts across asset classes
- Identify fallback language provisions
- Classify and assess risk
- Incorporate robust fallback language as an amendment
- Create disclosures for customer communications



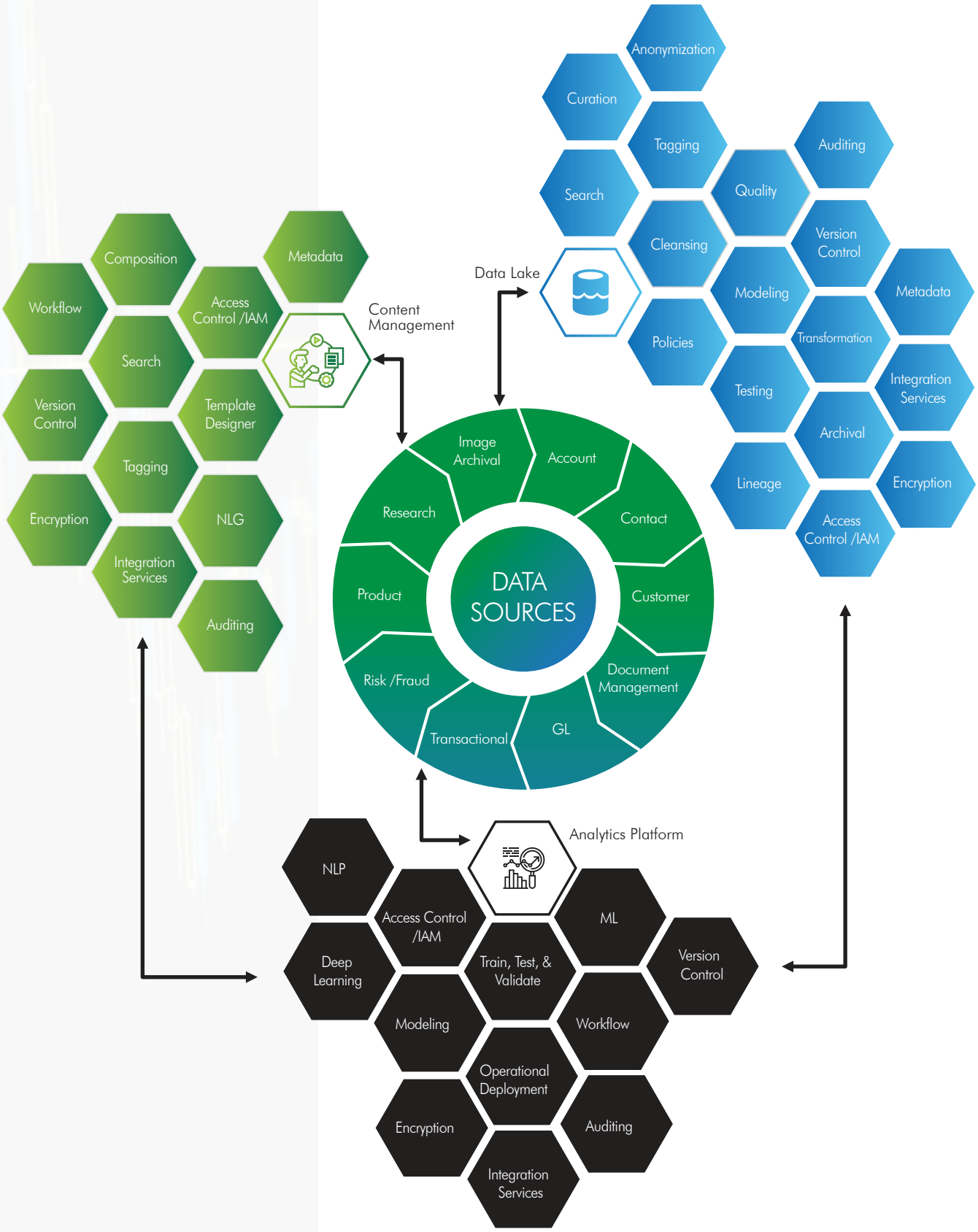
Impact on contracts

Currently, many financial institutions are performing manually intensive contract reviews that are time consuming and costly. Instead, an automated system will accelerate contract reviews, mitigate errors, reduce operational costs, incorporate robust fallback language, and support amendments as well as disclosures. By seamlessly combining automation, machine learning, and natural language processing with content management, the **Marlabs LIBOR Solution Powered by Enso AI** will alter the trajectory of the effort.

*https://www.newyorkfed.org/arrc

Fallback Provisions

Reference architecture of Marlabs LIBOR Solution Powered by Enso AI.



Fallback Provisions

Cognitive Platform Benefits

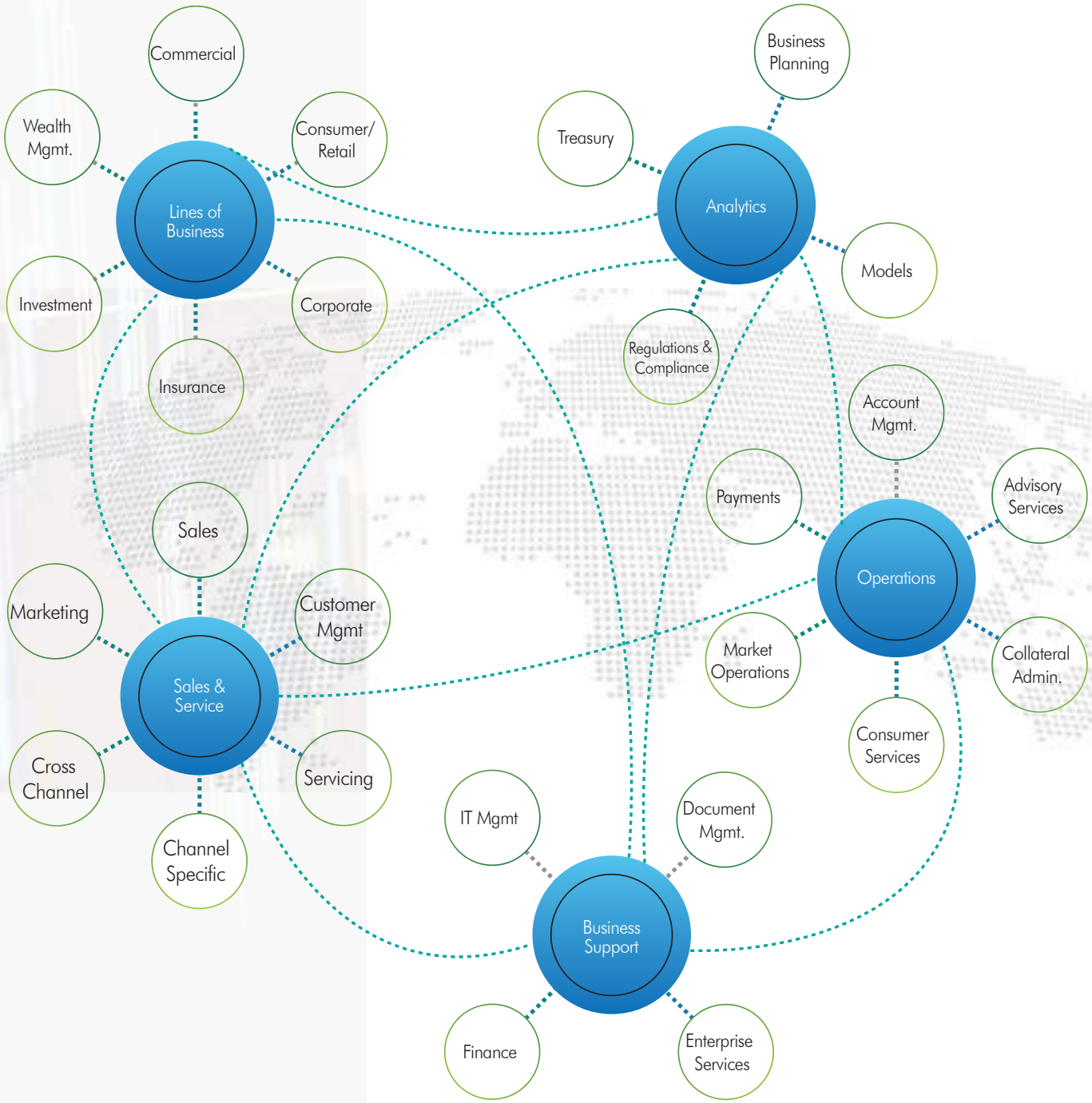
- Digitization of contracts and transactions
- 360 degree ingestion of structured, semi-structured, and unstructured content
- Intelligent search through large volumes of linked contracts, using linguistics and natural language processing
- Automation (partial / complete) of amendments, re-papering contracts, disclosures, and customer communications
- Governance framework through workflows, task queues, dashboards and reporting

Business Value

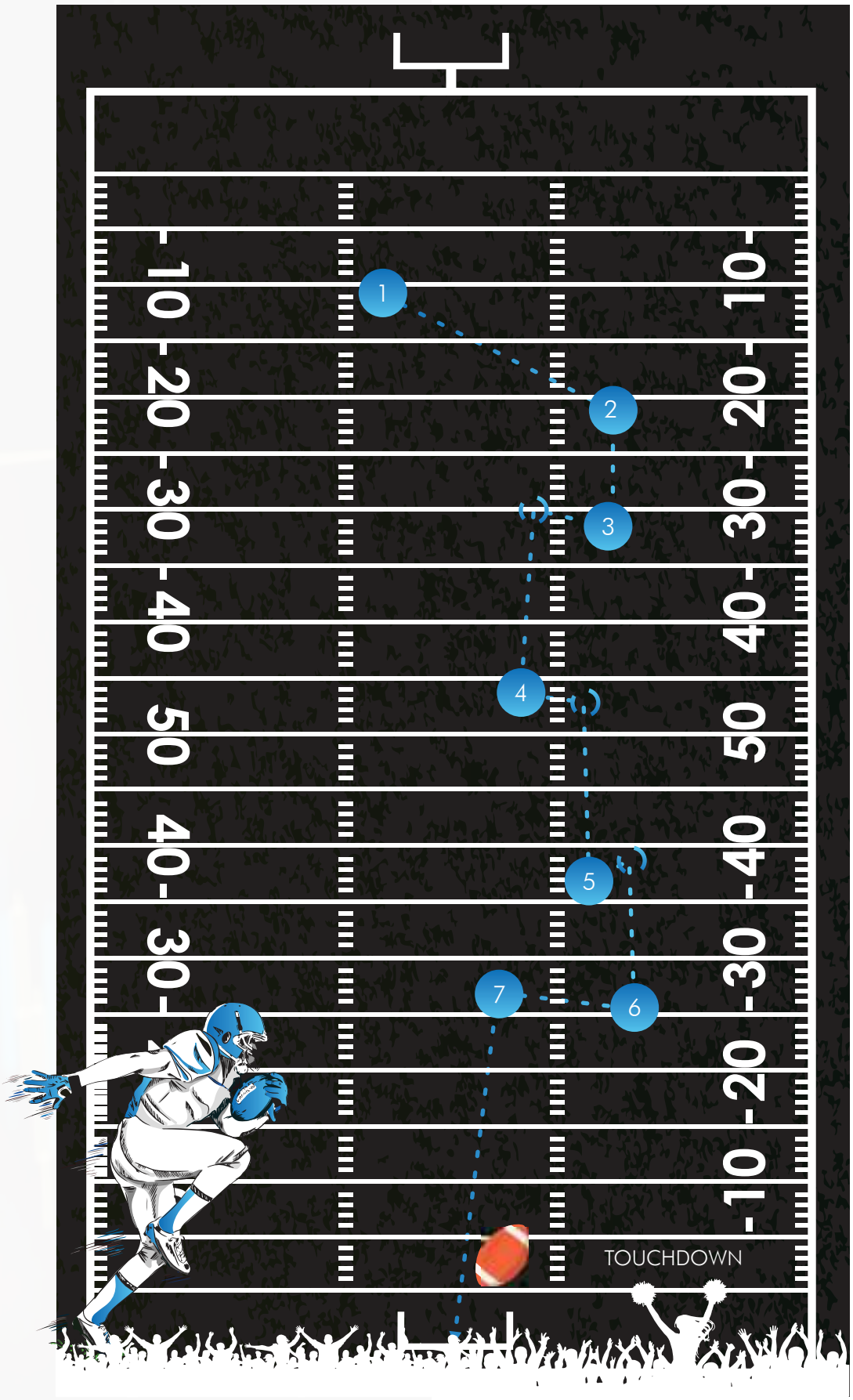
- Accelerate identification of contracts that are impacted
- Mitigate legal risk and financial exposure
- Reduce operational expenses
- Optimize team mobilization

Visceral Yet Systemic

Business Capability Map for the transition



Game Plan



Cognitive Platform Wins!

1. Establish cross functional core team
2. Chart activities, navigate through LOB's, and identify impacted functions, systems, and document repositories
3. Use reference architecture to guide architectural decisions for the cognitive platform
4. Institute fallback language, identify and assess risks of financial exposure, and mitigate with appropriate replacement rate
5. Deploy Marlabs LIBOR Solution Powered by Enso AI to assess, classify, andcategorize impacted contracts
6. Leverage the cognitive platform TOUCHDOWN for customer communication and amendments

Conclusion

Transition to Libor is a large and complex initiative with many moving parts. One of the significant challenges is the identification of fallback language provisions across the thousands of contracts, making amendments, and communicating with customers.

Automating the process and employing machine learning would make the entire process less burdensome. By ingesting structured, semi-structured, and unstructured data, intelligently searching through contracts, and automating amendments and disclosures, the Marlabs LIBOR Solution Powered by Enso AI will help raise speed and efficiency and deliver transformative outcomes.

Author Page

Sanjay B. Bhakta

Vice President Global Head
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Sanjay is a global technology leader with demonstrated experience in leading innovation centre of excellence, analytics, automation, cloud, cyber security, data, salesforce practices, engineering teams, and driving transformational initiatives in the digital economy, enabling revenue growth and achieving operational excellence while aligning to target operating models.

Sanjay has a rich experience in healthcare, life sciences, pharma, and telecom. He has expertise in specializing global financial services including asset management, commercial banking, corporate trust, mortgage, ratings agency, retail banking, treasury, and wealth management. chatbot(s), customer experience improvements, offers and campaign management, intergeneration wealth transfer, payments gateway, personalization, robo advisor(s), and robotic process automation has been his other areas of interest.

Sanjay also plays a role in providing thought leadership to C-level, senior management teams, start-up community, and partner ecosystems in developing enterprise strategies for data analytics and platform modernization, consisting of: API management and microservices, data analytics, data lake migration, cloud migration, and enterprise content management.

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