



Reimagining post-trade services

October 2025

Introduction

Post-trade services in banks are on the brink of a transformation. Regulatory pressures, rising transaction volumes, pressure on margins and the move towards compressed settlement cycles [Trade date+1 (T+1) and Trade date (T-Zero)] are converging with the emergence of new-age asset classes such as tokenised securities and cryptocurrencies. At the same time, market participants demand greater transparency, faster processing and more sophisticated reporting. Together, these forces expose the limitations of traditional middle- and back-office models and emphasise the need for a modernised, API- and AI-enabled operating model.

Reimagining the post-trade services operating model

We imagine an ecosystem where front-middle-back-office systems are seamlessly connected through APIs, enabling real-time data flows within the organisation and eliminating the need for repetitive internal reconciliations. We imagine a model where trade flows straight from the order management system, passes through internal bank systems, and is matched in real time with exchange data and counterparties. Such an environment lays the groundwork for industry-wide T+0 settlements. This vision sets the foundation for the use cases emerging across the post-trade value chain.

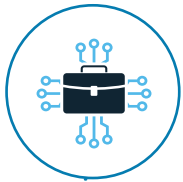


Near-term use cases emerging in the industry

Across the industry, many global banks are progressively adopting automation use cases to boost Straight Through Processing (STP) and reduce settlement cycle times, enhancing efficiency and lowering operational costs and risks.



Labour-intensive processes, such as **KYC, screening, transaction monitoring and AML**, are increasingly being performed by AI bots. These bots can automatically process screening checks, collect documents, validate information and flag exceptions for human review.



Counterparty confirmations are handled by AI agents that parse trade details, validate them and trigger electronic confirmations through dedicated platforms. A **central documentation hub** consolidates trade-related documents into a single digitised repository, accelerating the shift from paper-based to electronic confirmations. At the same time, AI-enhanced search, retrieval and audit trails improve user experience and strengthen operational control.



AI also transforms **email processing**, where intelligent agents read, classify and recommend actions on inbound participant communication. They execute decisions such as amendments, acceptance or rejection while involving humans only in exceptional cases that exceed predefined thresholds.



In **settlements**, AI generates payment instructions based on historical counterparty transactions and applies automated threshold-based validations and payout controls, reducing manual effort, accelerating settlements and improving liquidity management.



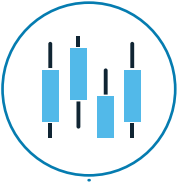
Clearing and netting processes are becoming more efficient through increased adoption of electronic netting platforms and API-based integration with clearing houses, enabling real-time netting and margin updates.



Horizontal utilities such as **reconciliations and collateral management** can support these functions. These can deliver scale and efficiency by utilising automated transaction matching, anomaly and error detection, and repeated user actions through Machine Learning (ML).

Challenges

The industry faces several hurdles in achieving a full-scale overhaul of post-trade services.



Adoption gaps: Banks often struggle to get market participants and counterparties onto the automated platforms they have built or adopted, primarily due to cost concerns, internal constraints and resistance to change. A way forward is through industry-wide mutualised utilities – shared platforms that reduce costs, set common standards and ease adoption by being widely accepted across the market infrastructure.



Human-in-the-loop dependency: AI and automation can handle much of the post-trade workflow, but human oversight is still needed for monitoring, exceptions and judgment calls. Striking the right balance between automation and human intervention is critical to effectively scaling these solutions.



Customisable vs. standardised reporting: Investors and other participants often demand bespoke reports with specific insights, while banks aim for standardised, cost-efficient reporting. The answer lies in flexible reporting models, such as modular dashboards, that deliver customisation without heavy operational effort.



Regulatory pressures: With frequent regulatory rewrites and a steady influx of new requirements, banks face the risk of penalties and fines when trades or events are not reported on time. Interpreting these complex regulations and adapting existing solutions at an agile pace remains a significant challenge. [Reference Annexure Figure 1 illustrates recent regulatory and market events driving post-trade pressures]

Addressing these challenges through well-thought-out, long-term value propositions will be critical for the industry's next phase of evolution.

[Reference Annexure Figures 2 and 3 illustrate challenges, issues and gaps of current post-trade services and the levers to address the gaps]

Long-term value propositions

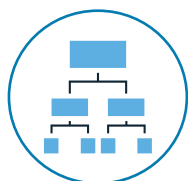
Looking beyond immediate efficiency gains, banks want to explore broader opportunities to address structural challenges in post-trade operations and unlock sustainable value.

1. Real-time connectivity with exchanges and clearing houses



The future post-trade ecosystem will move beyond end-of-day batch updates towards continuous, real-time clearing and settlement data exchange. On 29 May 2024 ¹, the US failed trades stood at 1.90 percent – roughly stable compared with the pre-T+1 May average of 2.01 percent. Affirmation rates, another key metric, rose to 94.55 percent that day, according to DTCC data. This is due to increased data connectivity between banks, exchanges, and clearing houses, which has helped achieve a T+1 settlement. Blockchain can reduce this further to support T+0 by creating a single, synchronised source of truth across market participants.

2. Breaking down front-middle-back office barriers



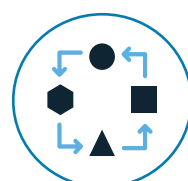
The separation of front, middle and back office will give way to a seamless, end-to-end trade lifecycle—where an order flows straight through to settlement without much manual intervention. Application Programming Interfaces (APIs) and Financial Information eXchange (FIX) will serve as the connective tissue, enabling real-time data exchange across internal systems, central counterparties, custodians and counterparties, substantially reducing the need for reconciliations and exception management.

3. AI-enabled regulatory reporting



Regulatory change will no longer mean costly rewrites and manual rework. AI-powered regulatory agents will interpret new rules as they emerge, recommend how they should be applied and automatically configure reporting logic within systems. This ensures real-time compliance and frees human effort for higher-value risk and oversight activities.

4. Multi-asset processing platforms



While banks recognise the growing relevance of new-age assets such as tokenised securities and crypto, most are adopting a cautious “wait-and-watch” approach given the regulatory uncertainty and complexity of processing these alongside traditional assets. However, the long-term opportunity lies in unified platforms supporting multiple asset classes – traditional and digital – on a single processing framework. Such platforms will allow banks to pivot quickly as demand for tokenised and digital assets accelerates, without the need for fragmented, asset-specific infrastructure.

[Reference Annexure Figure 4 illustrates the modernised future operating model for post-trade]

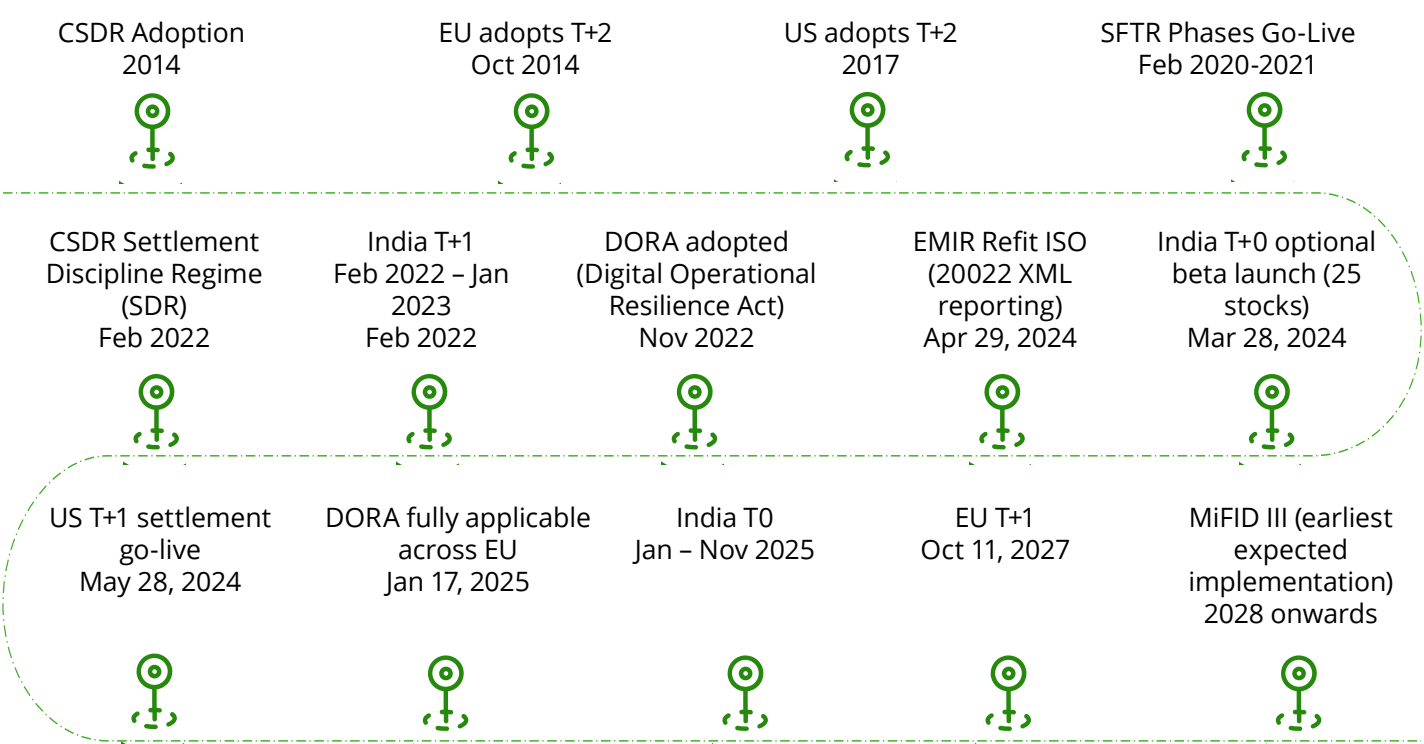
¹ Source: <https://www.reuters.com/markets/us/failed-wall-street-trades-rate-roughly-stable-under-faster-settlement-2024-05-30/>

Conclusion

While API and agentic AI offer potential to drive efficiency, predictability and automation, their success in delivering sustainable transformation hinges on the operating model that banks choose to envision for the near term while preparing for the long term. Foundational shifts are essential across data, underlying architecture, and operating constructs. At the same time, banks must remain nimble, ready to capitalise on the rapidly evolving technology landscape and adapt quickly to new regulatory and market dynamics.

Annexure

Figure 1: Regulatory and market events driving post-trade pressures - Recent timelines



Source: Deloitte Analysis

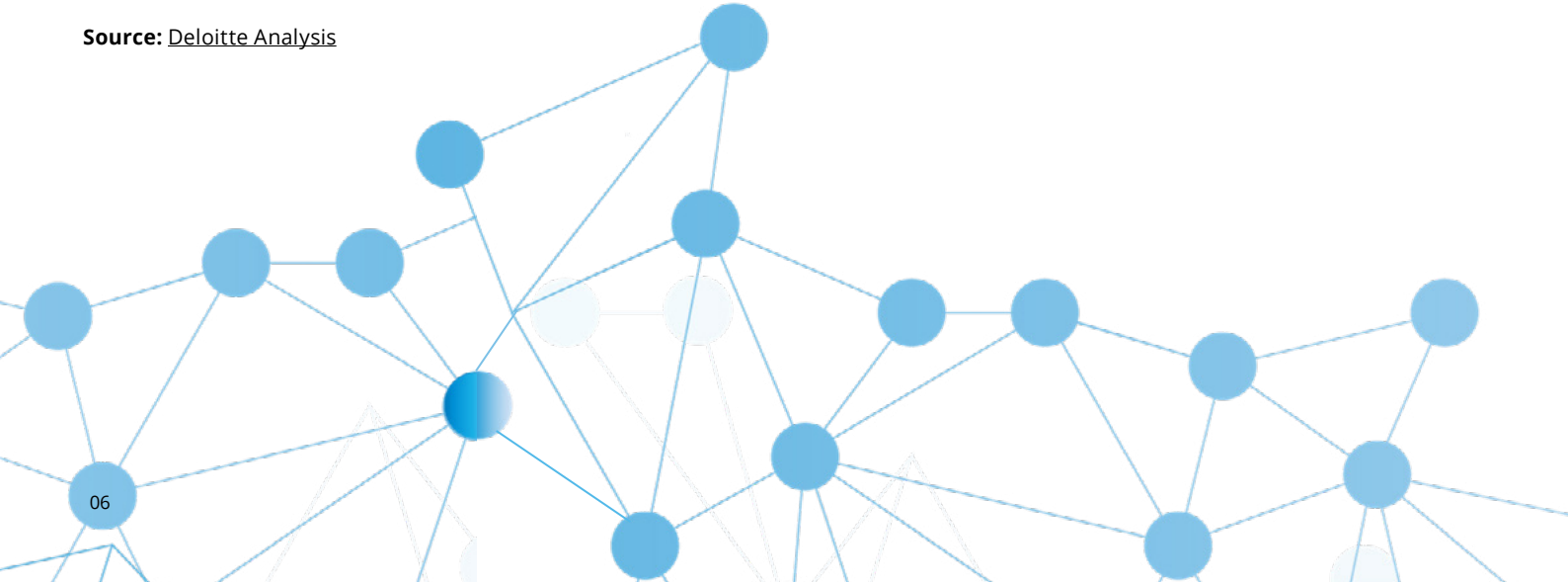
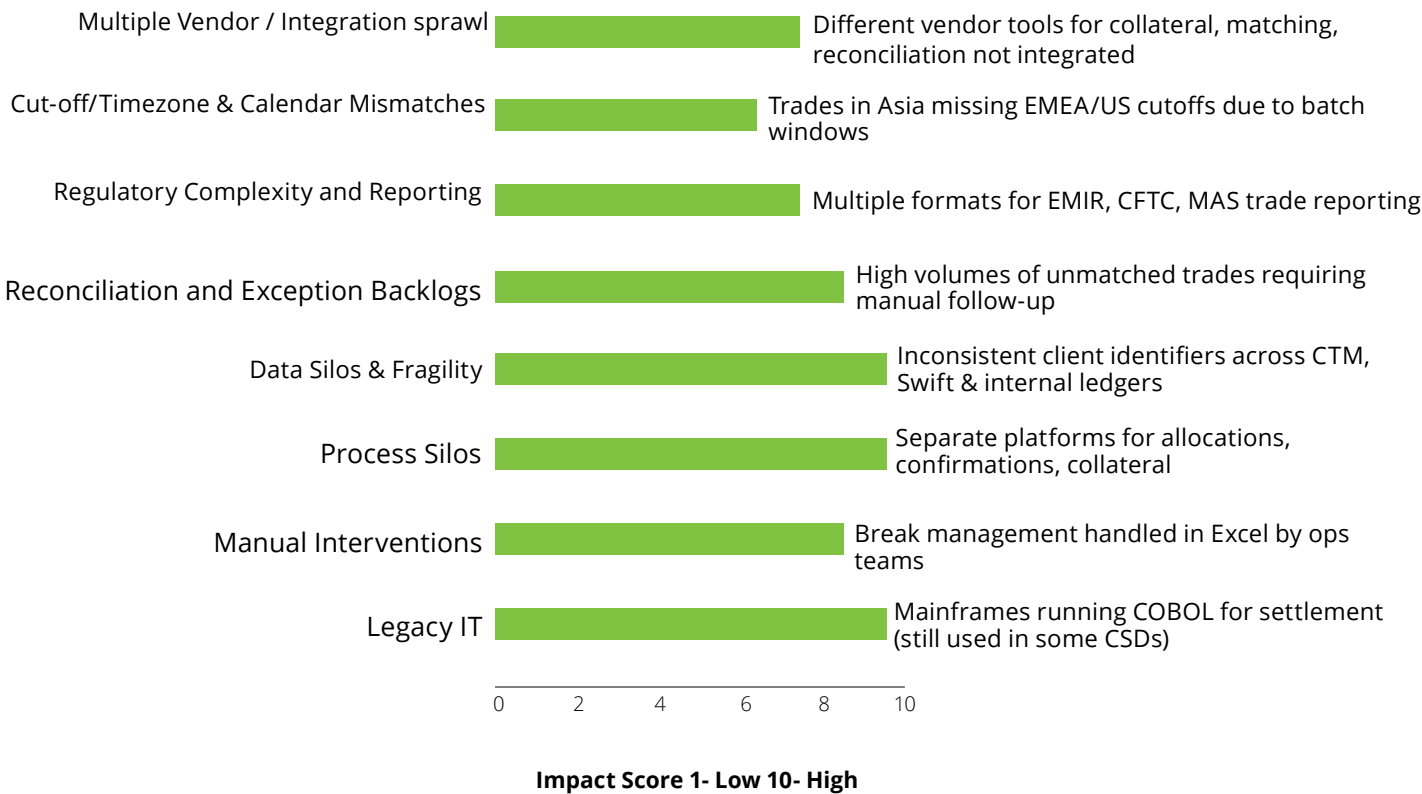


Figure 2: Consolidated view of post-trade services gaps and levers to address gaps


Themes	Current state	Gaps	Levers to address the gaps
Technology landscape	Legacy systems, fragmented architecture, batch processing	Latency, integration complexity, lack of real-time capabilities	API and Cloud adoption, DLT/Blockchain exploration
Operations	Manual processes, siloed workflows, limited automation	High cost, operational fragility, frequent outages	Utilities and mutualisation, outsourcing models
Market ecosystem	Fragmented global markets, diverse asset classes	Complex settlements, cross-border dependencies	Multi-asset platforms, digital asset readiness
User expectations	Traditional reporting, limited data insights	Lack of real-time visibility, poor user experience	AI-driven analytics, GenAI, multi-asset dashboards
Regulatory and risk environment	Increasing compliance requirements, fragmented reporting, no cross-asset risk management	Penalties for failures, data privacy concerns, better funding decisions	Integrated risk and compliance frameworks

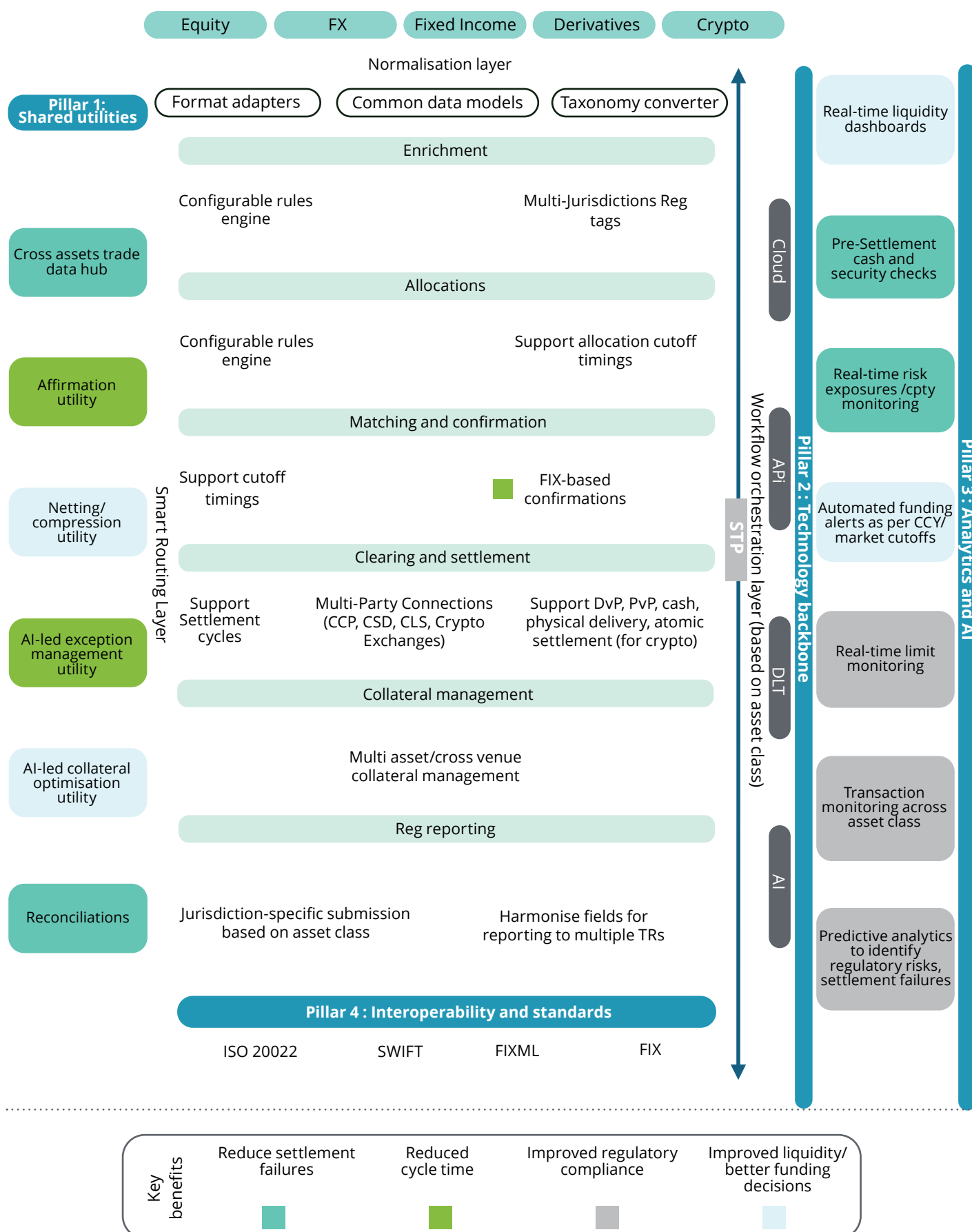
Source: Deloitte Analysis

Figure 3: Pain points of the existing technology landscape of post-trade



Source: [Deloitte Analysis](#)



Figure 4: Modernised future post-trade operating model (consolidated view)

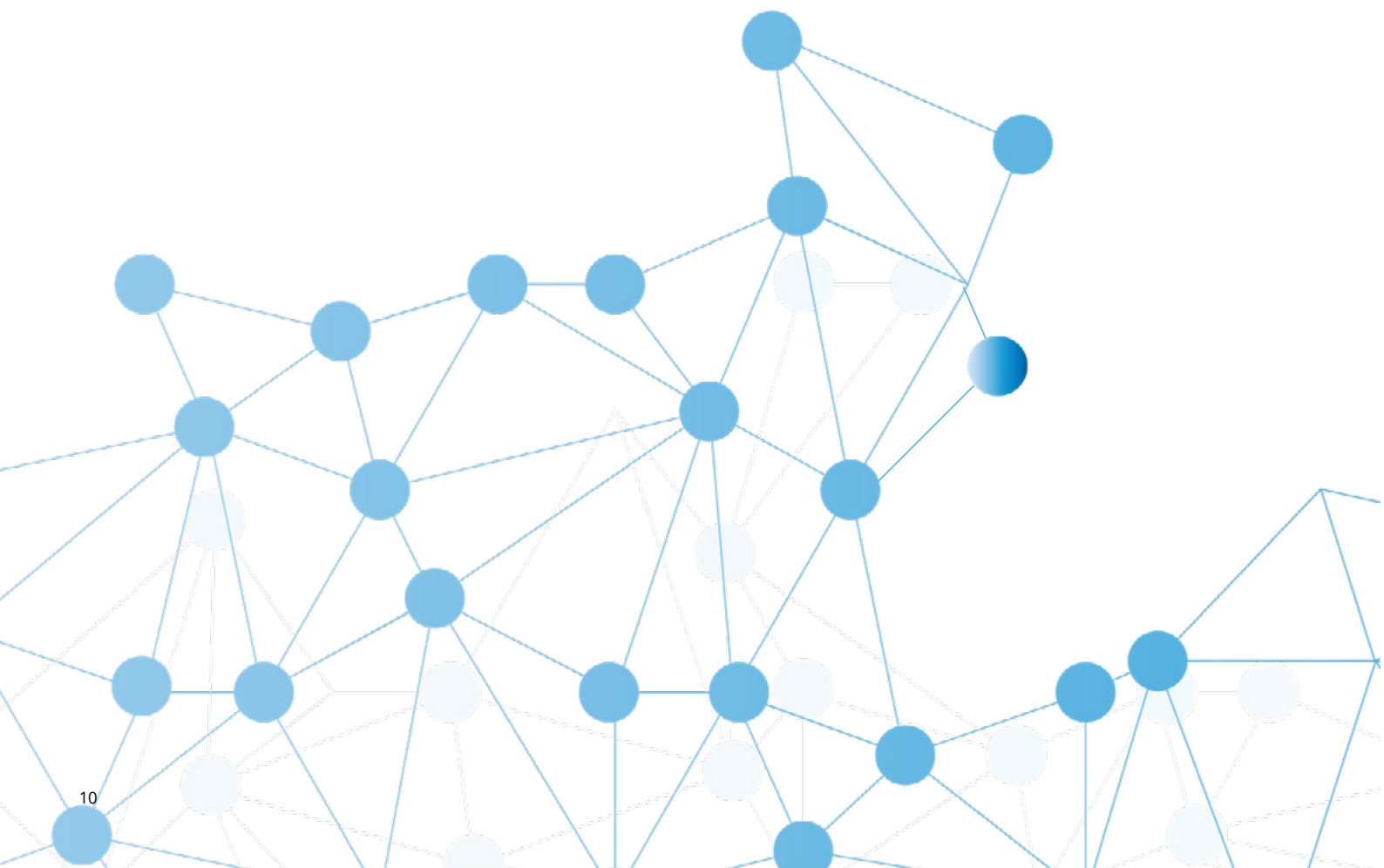
Source: Deloitte Analysis

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