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The CFO Program

Designing a best-in-class fund transfer pricing (FTP) framework

How banking CFOs and their treasurers can evolve their FTP mechanisms to support strategic decision-making

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Contents

The evolving role of FTP mechanisms

How profitable are my bank's products and portfolios? As banking CFOs and their treasurers know only too well, this deceptively simple question is an incredibly complex one to answer. Historically, fund transfer pricing (FTP) mechanisms had been conceived as a tool to provide a consistent and fair means by which banks could resolve this conundrum through an ex-post economic funding cost measurement of their own products or portfolios' performance.

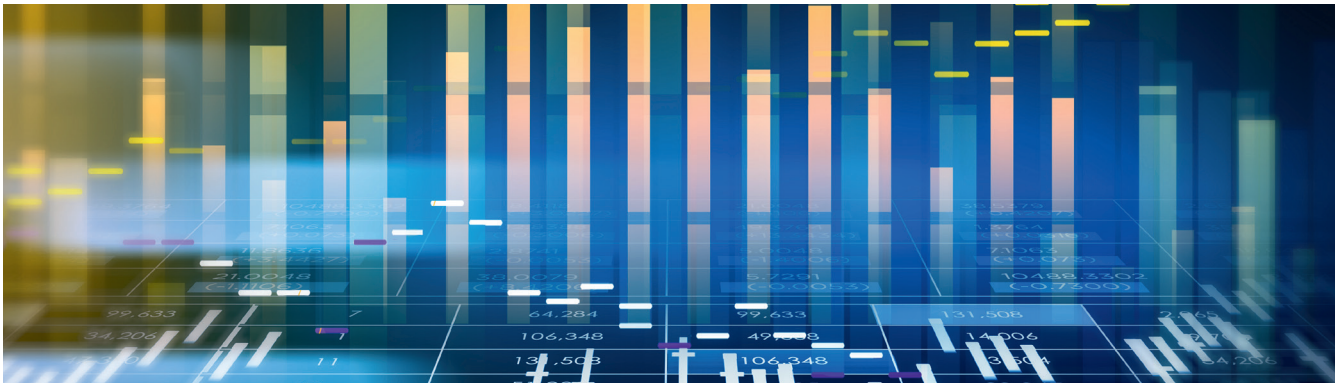
Increasing market volatility, inflation, cost of funding, and market illiquidity have placed a spotlight on the necessity of FTP mechanisms, which continue to evolve as a critical lever used by CFOs and their treasurers to evaluate and execute liquidity management, product pricing, performance measurement, and balance sheet management decisions.

The inadvertent result of this is that banking CFOs and their treasurers are now under growing pressure to reassess their existing FTP policies, and the accuracy with which they are evaluating, managing, and charging the various business units. This urgency is further exacerbated by heightened regulatory expectations for banks to not only accurately quantify their liquidity costs, but also incorporate the consideration of all risks and benefits in relation to their business activities into their strategic decision-making processes.

Suffice to say, this is a mammoth task: managing all these facets and moving parts requires nothing short of a wide array of deep subject matter expertise not only in FTP, but also its adjacent disciplines of interest rate and liquidity risk management. In addition, apart from the ability to develop a robust methodology and model strategy, banks also need to achieve buy-in and support from their various business units on the FTP framework and put in place the accompanying infrastructure in the form of processes, controls, IT systems, and data.

In this report, we will present an approach to developing a best-in-class FTP framework that aims to address these emerging industry and regulatory pressures. Along the way, we will also discuss three design themes and five dimensions of a comprehensive FTP framework that have been distilled from Deloitte's cumulative experience supporting banking CFOs and their treasurers on this journey in Asia Pacific and beyond. Finally, we will illustrate these concepts with a case study of how we worked with one multinational bank on the evolution of its FTP mechanism, and conclude with what we believe to be the key success factors for this journey.

Designing a best-in-class FTP framework



Given today's volatile and inflationary climate, the treasury function has an increasingly critical role to play in shaping a bank's finance strategy, particularly when it comes to leveraging balance sheets, maximising capital and liquidity efficiency, and improving risk-return ratios. In this context, a robust FTP framework has become one of its most important tools.

As an integral part of the performance and balance sheet management mechanisms of a bank, an FTP framework provides a means of not only monitoring the performance of products and business units, but also implementing policies that directly affect the net interest income (NII) of the bank. Indeed, the value of FTP processes lies effectively in their ability to align the risk-taking incentives of individual business lines, while taking into consideration the funding and liquidity risks that their activities create for the bank as a whole.

While there are no one-size-fits-all FTP approaches, a best-in-class framework is one that is fundamentally commensurate with the bank's activities and size, in terms of its complexity, methodology, and processes. This means that the FTP framework must be able to effectively capture the specific characteristics of the bank's funding and lending/investment products, and be fully integrated within its overall organisational and functional model, as well as asset and liability management (ALM) policies and hedging strategies.

All things considered, we believe that a best-in-class FTP framework should broadly adhere to three design themes. First, it must be strategically aligned with the bank's financial resource management objectives; second, it must demonstrate consistency and feasibility; and third, it must be technically sound and feasible (see Figure 1).

Figure 1: Three design themes for a best-in-class FTP framework

Strategic alignment

First and foremost, there needs to be strategic alignment between the FTP mechanism overseen by the treasury and the bank's overarching financial resource management objectives under the purview of the CFO. This is a critical pre-requisite to ensuring that the design of the FTP mechanism serves its purpose in driving balance sheet objectives and supporting optimal financial resource allocation and consumption. Key strategic functions of the FTP in this regard include, but are not limited to:

- Pricing in risks for liquidity consumption;
- Immunising the bank against interest rate risks within certain agreed limits; and
- Rewarding business units for reducing their liquidity footprint.

At this juncture, it must be emphasised that granularity is crucial to deriving a meaningful view of the bank's economic profit or value at the economic performance unit (EPU) level at which banks manage and govern their performance. More specifically, the FTP framework should take into consideration all classes of the bank's assets and liabilities, and align with the way in which the bank assesses its risk-adjusted returns on capital (RAROC). The latter, in particular, is critical to ensuring that funding costs are included in the risk-adjusted returns of the bank's EPUs (see Figure 2).

Further strategic considerations also include the bank's stance in terms of the role that the treasury function has been assigned within the broader finance context – for example, whether it is considered to be a cost centre or a profit centre. These strategic decisions will, in turn, drive specific mandates for product pricing, profitability, and balance sheet management across all EPUs within the bank.

Figure 2: Three design principles for strategic alignment

1	**Funded balance sheet/ business model review and definition of EPUs***	Growing pressure on traditional banking businesses has resulted in the need to re-optimise and diversify the asset and liability mix. To support the CFO and treasury function in making these business model decisions, it is critical to ensure that accurate performance metrics are readily available at both the product and portfolio level. **Key questions** • What are the business model and balance sheet objectives that the bank is looking to achieve? • How should EPUs be identified and structured? • What is the nature of the key products of each business unit (e.g., trading vs. banking assets)?
2	**Treasury liquidity management**	Liquidity portfolio optimisation and risk management strategies will need to be analysed under realistic but stressed scenarios in the context of the current interest rate environment. In parallel, it is crucial that the treasury function and business units collaborate to put in place more accurate cash forecasting processes that will reduce the need for excessive and costly cash buffers. **Key questions** • Are internal or regulatory liquidity models more appropriate for the analysis of liquidity buffer costs? • What is the appropriate divisional allocation for different elements of the liquidity buffer (operational vs. regulatory)? • How can the bank minimise the amount of liquidity buffer that it is holding? Conversely, what are the strategies that can be employed to enhance yield on high-quality liquid assets (HQLA) portfolios?
3	**Treasury risk management**	While extraordinary interest rate increases may present opportunities for banks in terms of net interest margin (NIM) accretion, they also pose questions of forward-looking risk when rates normalise. To manage volatility, treasury and ALM functions will need to tailor their active, commercial, and executable hedging structures to the bank's business model. **Key questions** • Which EPU is responsible for managing interest rate and foreign exchange risks? • What are the optimal instruments for the hedging of market risks? What is the most efficient treasury/ALM structure that the bank can deploy to reduce hedging costs?

**EPUs refer to 'cells' within the bank at which performance is managed. This could be at a main business or sub-business level, or even at a more granular product level. Examples of metrics used to measure performance at the EPU level include NIM, earnings after direct costs, and RAROC.*

Consistency and feasibility

The FTP framework needs to be clearly articulated, transparent, and easily understood by business units. Furthermore, it should be effective across both the banking book and trading book, and be applied at the group level with consistent pricing of similar currencies across different markets.

At the same time, however, there needs to be sufficient built-in flexibility within the FTP framework to accommodate market-specific features that could vary significantly by geography. Less mature markets, for example, may possess relatively limited hedging capacities and incomplete or illiquid funding curves.

Technical soundness and feasibility

Given that the FTP framework serves as the technical basis for the determination of the tenor of funding requirements, there needs to be conceptually sound and feasible approaches to establishing base rates and liquidity premiums, as well as allocating costs, in order for the bank to derive a true view of the product or portfolio's economic value against prescribed minimum performance returns on allocated or risk-based capital.

Other technical considerations also include ensuring clear differentiation between stock and flow components, where appropriate, and accounting for the implications of the transition to alternative risk-free rates (RFRs).

Additional technical considerations in the development of an FTP framework

Based on Deloitte's extensive experience supporting multinational and large Southeast Asia-based banks in the development of their FTP frameworks, we have observed the emergence of several additional technical considerations in recent years:

Alignment of FTP methodology between regulatory requirements, such as those relating to liquidity coverage ratio (LCR) and net stable funding ratio (NSFR), and the bank's internal liquidity requirements, including those relating to stress scenarios, LCR, and intra-day liquidity

Determination and ownership of synthetic benchmark portfolio duration for the active management of HQLA, including computation and allocation of liquidity drag

Assessment of the impact of a treasury unit's profit/loss on FTP rates, and management of structural mismatch in a scenario where the function is designated as a profit centre

Analysis of interest rate and liquidity risks across different portfolios in the context of behaviouralised product funding profiles

Calibration of liquidity spreads in an FTP framework in the context of a switch from Interbank Offered Rates (IBOR) to alternative RFRs, and assessment of the corresponding impacts on internal pricing strategies put in place to accommodate the new cost and availability of funding

Comparison between matched currency funding pools and single currency funding pools, including the evaluation of the implications of structural hedging portfolios in the determination of multi-currency FTP curves, and complications relating to restrictions on cross-border flows within multi-currency pools

Liquidity modelling, FTP strategy, and interest rate risk management of non-maturing deposit books have become increasingly important in volatile and competitive markets as banks compete for this relatively more cost-efficient source of funding from customers

A granular FTP maturity model

Leveraging our extensive experience supporting banking CFOs and their treasurers in evolving their FTP mechanisms, we have developed a granular maturity model to facilitate structured benchmarking discussions on FTP capabilities along five dimensions.

By systemically examining each of the five dimensions – namely, governance and organisation; processes and controls; models; systems and data; and management information systems (MIS) and reporting – we can significantly accelerate the gap analysis process, easily identify quick wins, and comprehensively articulate the desired target state for a bank's FTP mechanism (see Figure 3).

Figure 3: Five dimensions of a comprehensive FTP mechanism

1 **Governance and organisation**	Governance bodies	Policies, strategy, and appetite-setting	Roles and responsibilities	Skills and resources
2 **Processes and controls**	Capabilities and processes catalogue		Controls framework	
3 **Models**	Model catalogue and coverage	Stress/scenario/ behavioural modelling	Model governance	Model validation
4 **Systems and data**	Systems/IT architecture	Data sourcing and integration	Data quality and control	
5 **MIS and reporting**	MIS and decision-making	Management reporting	Reconciliation	

1 Governance and organisation

Mature, best-in-class FTP governance frameworks should possess at least two key characteristics in common. Firstly, they clearly define the policies, as well as roles and responsibilities, at the bank's group, regional, and divisional levels along the three lines of defence (3-LoD) (see sidebar). Furthermore, the roles of the business units, treasury function, finance function, and risk function should not only be well-defined, but also endorsed by senior stakeholders in order to ensure a smooth administration of the FTP framework and establish an effective ALM capability.

Secondly, these FTP governance frameworks should also have received the endorsement and buy-in of senior stakeholders. This is necessary to ensure the alignment of responsibilities, risk appetites, and mandates at all levels of the organisation, given that RAROC performance measurement and management are fundamental components of a bank's governance framework and the way in which it considers risk in its strategic decision-making.

The three lines of defence (3-LoD)

- **LoD 1:** Business units that perform control activities and assume overall ownership of risk management activities
- **LoD 2:** Treasury risk function that owns risk policies and advises on the implementation of controls
- **LoD 3:** Audit function that reviews effectiveness of controls

2 Processes and controls

Mature FTP frameworks and ALM mandates should be supported by robust processes and a comprehensive set of internal controls that are effective, efficient, and fully documented along the 3-LoD. It must be emphasised that it is also critical that FTP processes are seamlessly integrated into the bank's key business decision-making capabilities – particularly as they relate to transaction and deal pricing; funding; investment management; liquidity management; forecasting and budgeting; performance measurement and management; and reporting capabilities – and that stakeholders possess a sound understanding not only of the impacts that the FTP framework will have on these capabilities, but also the impacts that material decisions taken within these capabilities will have on the FTP framework.

3 Models

Apart from being capable of supporting the business-as-usual (BAU) activities of a bank, mature FTP models should be able to withstand the necessary stress-testing and scenario analysis planning as mandated by business and regulatory requirements. The model strategy should also be fully documented, and be subject to comprehensive controls and validation to ensure that there is a clear delineation between LoD 1 and LoD 2.

In addition, many banks are increasingly taking into consideration several emerging factors impacting FTP base rates, such as the transition from IBOR to alternative RFRs. In contrast to term RFRs that reflect actual market interest rates observed in transactions that have taken place overnight – IBOR, for example, provides a forward-looking view of market interest rates – these new alternative RFRs do not reflect term structures.

The absence of the liquidity element in the forward-looking view therefore creates some uncertainty around future interest rate payments. This picture becomes more complex when we consider the range of differing rate conventions being used for different product types, all of which could potentially result in the introduction of additional basis risks.

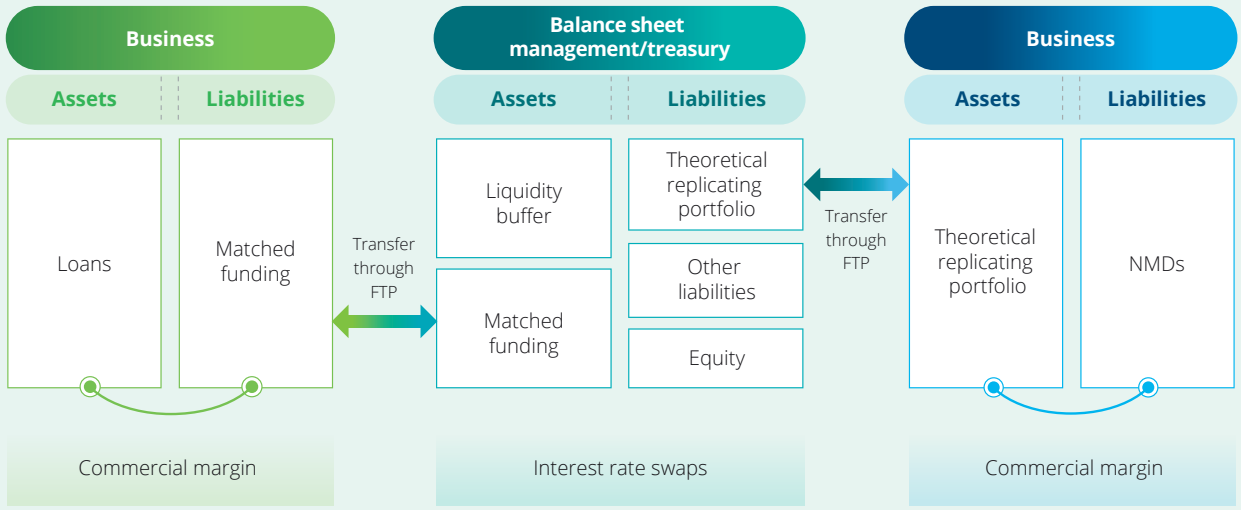
Hedging the interest rate and liquidity risks of non-maturing deposits (NMDs)

NMDs are an important source of funding for many banks, but modelling and hedging the accompanying interest rate risks can be tricky given the inherent uncertainties surrounding their maturity timelines and volume development. In this respect, the use of a replicating portfolio approach could be a pragmatic solution for banks to stabilise their commercial margins and enable the treasury function to more effectively manage interest rate and liquidity risks.

The main objective of a replicating portfolio approach is to enable the commercial margin to become independent of changes in interest rates and liquidity. Under such an approach, the FTP is determined through the creation of a theoretical hedge replicating portfolio that is designed to match, to the best extent possible, the interest rate and liquidity characteristics of the underlying assets and liabilities (see Figure 4).

The FTP, in turn, becomes the mechanism by which interest rate and liquidity risks are transferred from the various business units to the treasury. In a typical transaction, the FTP will comprise the cost of funds, which is defined as the market price of a liability if it is to be invested in the financial markets with the same interest rate, currency, and liquidity rate characteristics.

Figure 4: A simplified illustration of the replicating portfolio approach



4 Systems and data

In a mature setup, a comprehensive architecture of IT systems should be in place to support the mandate of FTP functions. These should, in turn, be accompanied by robust data quality controls and service-level agreements covering data flow and system functionality aspects. Typically, best-in-class systems are characterised by the use of a consistent data taxonomy, centralised management of IT systems, as well as continual strategic IT renewal and recurring review of service-level agreements with internal and external providers by the ALM function with oversight by the CFO and CIO/COO/CTO.

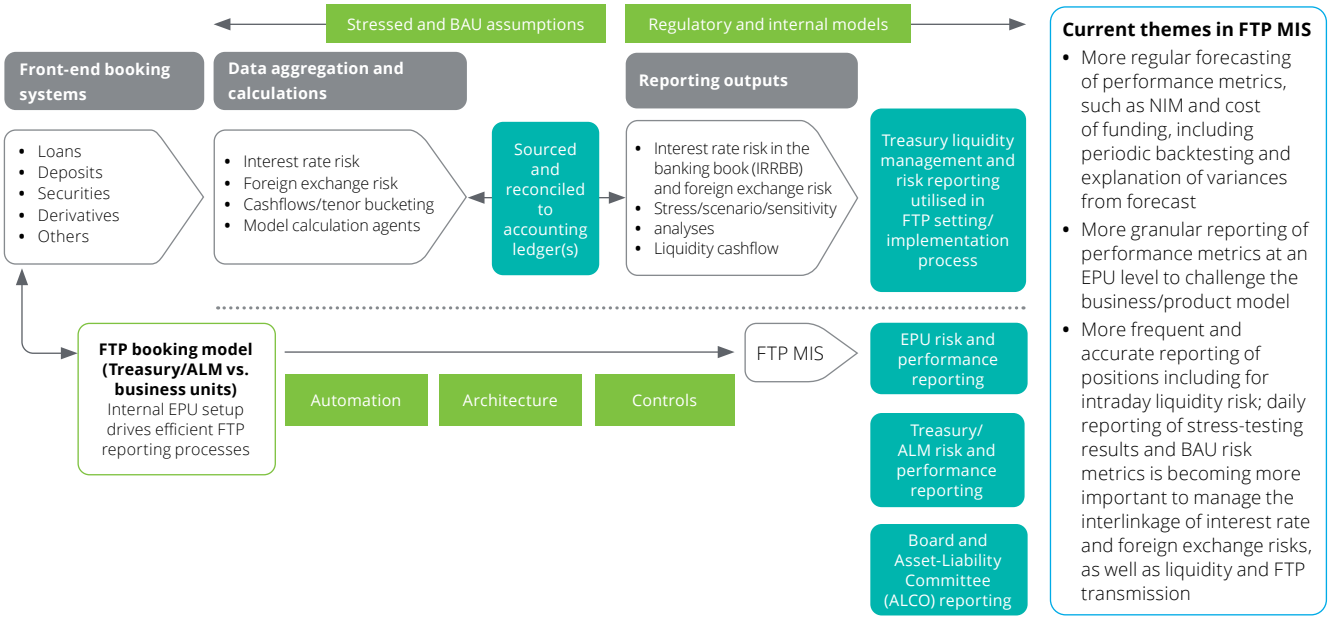
When it comes to optimising their ALM system landscapes, Deloitte's experience has shown that most mature multinational and large regional banks tend to apply similar selection criteria and possess more integrated IT solutions for the management of interest rate and liquidity risks. The caveat, however, is that this could vary significantly depending on the degree of centralisation of their ALM target operating model, as well as integration between the banking book and trading book.

5 MIS and reporting

An FTP framework is intrinsically linked to the way in which a bank manages its funding risks, including interest rate and liquidity risks. It therefore follows that given the importance of interest rate and liquidity risk metrics in both regulatory reporting and management information, the MIS should incorporate key funding risk metrics, which include but are not limited to cashflow reporting, interest rate risk, and foreign exchange risk, as well as stress/scenario/sensitivity analyses and exposures against approved risk appetites.

In this regard, we have also observed that intra-day liquidity reporting, risk metrics sensitivity and stress reporting, as well as accurate and timely regulatory reporting have emerged as some of key areas of management focus in recent years (see Figure 5). Fundamentally, in order to serve as a basis for effective decision-making, the MIS and reporting system must be able to cater to the needs of senior management both in terms of the type and frequency of the information, and include data visualisation tools to enable management to obtain a comprehensive understanding of the amount, evolution, and drivers of profit and loss (P&L) and risks within the bank.

Figure 5: Key areas of management focus in recent years



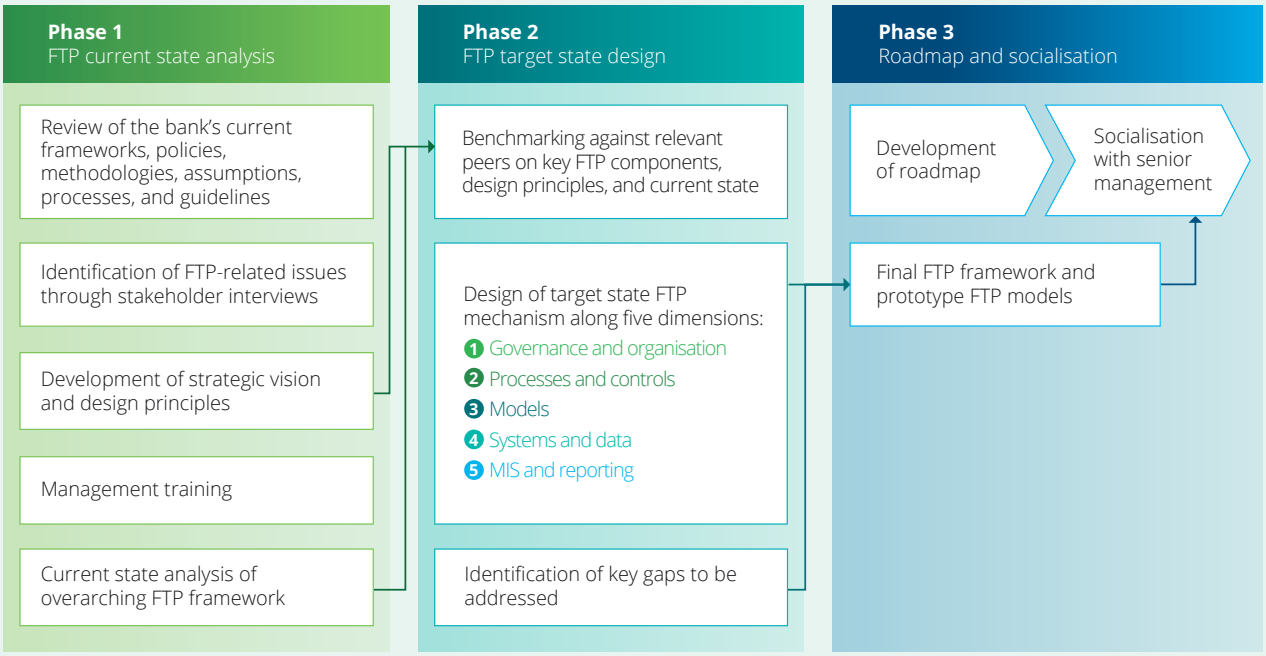
Case study: Evolving the FTP mechanism at a multinational bank

As a background, a multinational bank with significant presence across Asia Pacific had been keen to implement a new FTP mechanism to strengthen the management of its balance sheet and drive higher quality management decision-making on strategic priorities.

Central to this challenge was the need to design an FTP mechanism that could not only be implemented without running the risk of discording key financial metrics – including but not limited to RAROC, NII, and NIM – but also be applied to all existing and potential geographies in which the bank operates or intends to operate.

To support the bank in achieving its objectives, we leveraged our extensive experience supporting multinational and large Southeast Asia-based banks on their FTP frameworks to develop a comprehensive, three-phased approach to designing an FTP mechanism that would account for the above-mentioned considerations (see Figure 6).

Figure 6: A simplified overview of Deloitte's three-phased approach to designing an FTP mechanism



A three-phased approach

Briefly, in Phase 1, we worked with the bank to develop an in-depth understanding of its existing FTP framework, business model, and how its FTP capabilities enable it to achieve its strategic business outcomes. This was also supplemented by a benchmarking exercise, during which we conducted an analysis of the bank's position relative to its peers on matters relating to its key FTP issues and challenges.

Based on these findings, we designed the target state for a comprehensive FTP mechanism, covering the five dimensions detailed earlier in this report within its scope: governance and organisation; processes and controls; models; systems and data; as well as MIS and reporting.

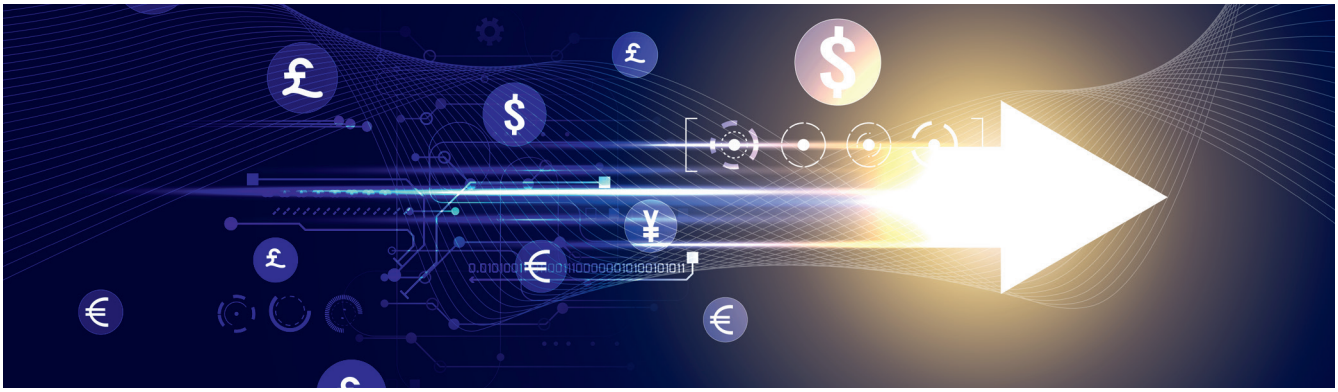
Finally, in Phase 3, we focused on the development and formalisation of a roadmap for the bank to reach its target state, as well as socialisation of the final FTP framework with its key stakeholders to obtain the necessary governance approval and sign-off. We also built prototype FTP models to cater for two of the bank's key portfolios.

Final outcomes

Ultimately, this project successfully delivered five specific transformations within the bank's treasury function:

1. A consistent FTP framework and related process improvements;
2. A mechanism to enable more effective interest rate risk management across the bank's products and business units;
3. Implementation of FTP assumptions and methodologies within prototype models consistent with the bank's ALM approaches;
4. A methodology for more dynamic capital management decision-making; and
5. Enhanced approaches for critical aspects of RAROC to enable better financial resource optimisation.

The evolution continues



Amidst the increasingly uncertain market environment, it has become clear that demands on CFOs and their treasurers to actively manage their bank's business mix, balance sheet, liquidity, and embedded risks have escalated. As they deliberate on how they can design robust, future-proof FTP frameworks to achieve this objective, we believe that they would do well to keep in mind three key success factors.

1. Develop a practical understanding of how FTP integrates with financial resource management
In order to align an FTP framework and its accompanying approaches and methodologies with the manner in which the bank measures value across the broader organisation, there is a critical need to develop an in-depth and practical understanding of how FTP integrates with financial resource management, particularly in aspects such as capital allocation and performance metrics. At this juncture, a word of caution is perhaps in order: the inability to apply a fuller and more reflective economic cost of funding reallocation perspective to the design of an FTP framework could have the inadvertent result of incentivising non-strategic behaviours at the expense of strategic ones.

2. Focus on delta and embrace quick wins
As the saying goes, perfection is the enemy of progress. A focus on developing overly detailed blueprints is not only extremely time-consuming, but also runs the risk of over-engineering and loss of stakeholder commitment. The key lies in identifying the maximum benefit profile – while complying with all relevant regulations – and embracing quick wins by focusing on critical areas for improvement to enhance balance sheet management.

3. Adopt a collaborative approach
A successful FTP framework is one that is embraced by its stakeholders. To bring stakeholders along the journey, sufficient time and resources must be factored in for engagement and socialisation activities. In the longer term, there is also the need to forge closer working alliances between the treasury, finance, and risk functions, as well as business units, to ensure that FTP framework components remain reflective of the full end-to-end costs based on the characteristics of the trade/portfolios. In this regard, we have observed significant recent developments within risk functions in terms of their behavioural modelling of portfolios as a result of evolving economic and regulatory requirements, including those relating to trading and non-trading book requirements.

Looking ahead, we fully expect FTP mechanisms to assume greater importance in overall performance management systems at multinational and large Southeast Asia-based banks – and when done right, they can enable banks to not only benefit from more optimal product pricing and profitability management, but also reap numerous competitive advantages stemming from a proper alignment of incentives, risk appetites, and reward rates.

The bottom line is that FTP mechanisms can no longer be a passive 'below the line' cost allocation process. Rather, they need to become dynamic processes with the buy-in – or even challenge – from critical stakeholders in order to drive key business decisions and other strategic objectives and, ultimately, contribute towards the optimisation of balance sheet and P&L performance.

Contact us

For more insights, please contact

Wayne Savage
Financial Services Industry
Assurance Leader
Deloitte Southeast Asia
dasavage@deloitte.com

Dishell Gokaldas
Algorithmic & Quantitative
Assurance Leader
Deloitte Southeast Asia
dgokaldas@deloitte.com

Southeast Asia CFO Program leadership team

Southeast Asia CFO Program Leader
Ho Kok Yong
kho@deloitte.com

Indonesia
Elisabeth Imelda
eimelda@deloitte.com

Malaysia
Yee Wing Peng
wpyee@deloitte.com

Ho Sai Weng
swho@deloitte.com

Philippines
Melissa Delgado
medelgado@deloitte.com

Singapore
Ho Kok Yong
kho@deloitte.com

Thailand
Somkrit Krishnamra
somkrishnamra@deloitte.com

Vietnam
Thinh Pham
thpham@deloitte.com

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