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WHY IT'S TIME TO TAKE A RENEWED LOOK AT FUNDS TRANSFER PRICING PRACTICES

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1. EXECUTIVE SUMMARY

Traditional views of profitability have changed for financial institutions. Since the financial crisis, the regulatory regime for banks has evolved significantly, making it difficult to keep pace with new requirements. Today, banks operate in a highly competitive and complex profitability landscape, and in order to meet heightened performance management expectations, financial institutions need well-calibrated methodologies and the ability to capture key information quickly and effortlessly.

An effective Funds Transfer Pricing (FTP) framework is a large piece of the puzzle for enabling robust performance management in the post-crisis world. FTP capabilities are advancing, offering firms valuable tools for strategic decision making and incorporating the costs of financial resource constraints. When a well-defined system is deployed, it helps to incentivize prudent risk-return tradeoffs and better understand how specific products and business lines affect the overall profitability of your firm.

However, within many banks, FTP frameworks were implemented a decade or two ago, and are long overdue for an upgrade. With a profitability landscape that has dramatically shifted due to new capital, funding, liquidity regulations, and continued shareholder focus on improving returns, several institutions are beginning large-scale FTP upgrades. As a result, leading industry practice on FTP and broader performance management metrics are evolving rapidly.

The journey to target state FTP is challenging, particularly for larger institutions with diverse business lines that are constrained by multiple overlapping regulatory requirements and systems constraints.

We have observed three key actions required to successfully deploy an effective FTP framework:

1. **Ensure methodology aligns with firm goals:** The complexities of linking aggregate costs to individual drivers of costs result in unique challenges that need to be carefully addressed in order to align business unit level incentives with overall firm goals.

2. **Foster productive business engagement:** FTP is a "zero-sum" calculation which naturally creates internal resistance to change. Productive business engagement starts with a transparent framework and becomes a critical factor for ultimate success.

3. **Establish effective governance and reporting:** Robust governance processes are critical to ensure continued alignment of the methodology with firm goals. Effective reporting is instrumental in providing transparency to front-line decision makers looking to improve aggregate profitability by leveraging FTP insights.

The road to achieving target state is a multi-phased journey especially considering the systems upgrades that typically are necessary as well as the parallel run period recommended for implementing changes of this scale. However, the reward is sizeable. Effective performance management will be a key differentiator for financial success over the next decade—making this initiative too important to ignore or delay.

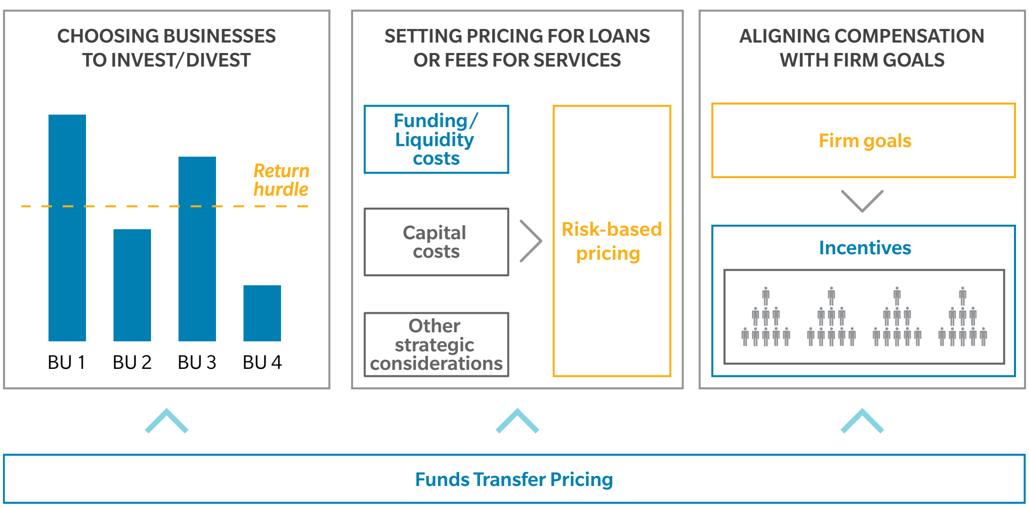
In the remainder of this paper, the findings and insights articulated are based on a combination of Oliver Wyman experience advising clients with FTP as well as the findings from a 2017 FTP Survey conducted by Oliver Wyman that included 27 banks with a North American presence.

2. THE CASE FOR CHANGE

2.1. WHY IS FTP IMPORTANT?

Banks rely on Funds Transfer Pricing to inform a wide-range of critical applications such as pricing and strategic decision making (for example, choosing which businesses to invest in). Having the ability to accurately attribute net interest income (64 percent of bank revenue on average[1]) via a well-specified FTP framework is crucial to producing the risk-adjusted profitability metrics, such as return on capital, used in these decisions. An effective FTP framework is a key imperative for any bank looking to maximize profitability.

Exhibit 1: Key applications informed by Funds Transfer Pricing



Miscalculating FTP can be costly to financial institutions, ranging from the loss of revenue or clients in the short term to significant profitability decline over the longer term. This is primarily due to overly simplified or biased allocation schemes within FTP, which may result in banks being priced out of profitable markets or assuming new business which, in actuality, is more costly to the enterprise than budgeted. This concept is highlighted in the Federal Reserve's SR 16-3 Interagency Guidance on Funds Transfer Pricing to Funding and Contingent Liquidity Risks: *"Failure to consistently and effectively apply FTP [...] can arise in new business and ongoing portfolio composition where the business metrics do not reflect risks taken, thereby undermining the business model."*

1 Average of net interest income as a percentage of total revenue for all US commercial banks over the past 5 years (Q1 2013–Q4 2017). Source: S&P Global Market Intelligence, Oliver Wyman analysis.

Example: Allocating contingent liquidity costs to derivative products

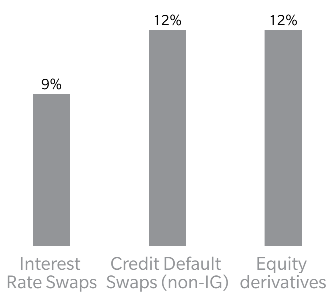
To illustrate this point, we considered the allocation of liquidity costs to three types of derivative products. For derivatives, accurately allocating aggregate firm requirements to specific business units is particularly complicated and requires granular data. In these cases, banks may be tempted to opt for more simplistic allocation schemes using "volume-based" metrics such as derivative notional which provides poor linkages to the actual driver(s) liquidity requirements.

However, as illustrated in the example below, the choice of allocation scheme can materially change the measured profitability of a business. In these cases, using notional-based metrics that do not provide an appropriate basis for comparison arbitrarily disadvantages one business relative to another. Pricing and investment decisions that are subsequently informed by these metrics will result in sub-optimal outcomes such as wrongly downsizing a profitable interest rate swaps business.

Exhibit 2: Example: Attribution of liquidity charges for derivatives

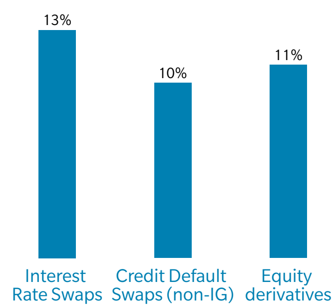
Firm-level **contingent liquidity cost of $500** to be allocated to businesses

ROE: VOLUME-BASED APPROACH



	Interest Rate Swaps	Credit Default Swaps (non-IG)	Equity derivatives
Net income*	$1,000	$1,000	$1,000
Allocated Equity	$7,500	$7,500	$7,500
Notional (%)	70%	15%	15%
Contingent liquidity cost	($350)	($75)	($75)

ROE: DRIVER-BASED APPROACH



	Interest Rate Swaps	Credit Default Swaps (non-IG)	Equity derivatives
Net income*	$1,000	$1,000	$1,000
Allocated Equity	$7,500	$7,500	$7,500
Exposure** (%)	11%	49%	39%
Contingent liquidity cost	($57)	($246)	($197)

* Net Income includes all attributed interest and non-interest expenses excluding allocated contingent liquidity cost.

** Exposure calculated using Potential Future Exposure (PFE) specified by the Basel III Supplementary Leverage Ratio; assumes weighted average maturity of IR swaps and Equity derivatives to be between 1–5 years.

Biased FTP schemes can be even more damaging in the longer term as the effects of misinformed investment decisions compound over time. Our analysis shows that sub-optimal balance sheet positioning can lead to 20–40 basis points (bps) of NIM decline[2] over time which is equivalent to roughly a 1% to 2.5% decline in return on average equity for the largest US banks[3].

2 Based on analysis comparing hypothetical NIM performance under different plausible balance sheet allocation schemes with varying degrees of bias.

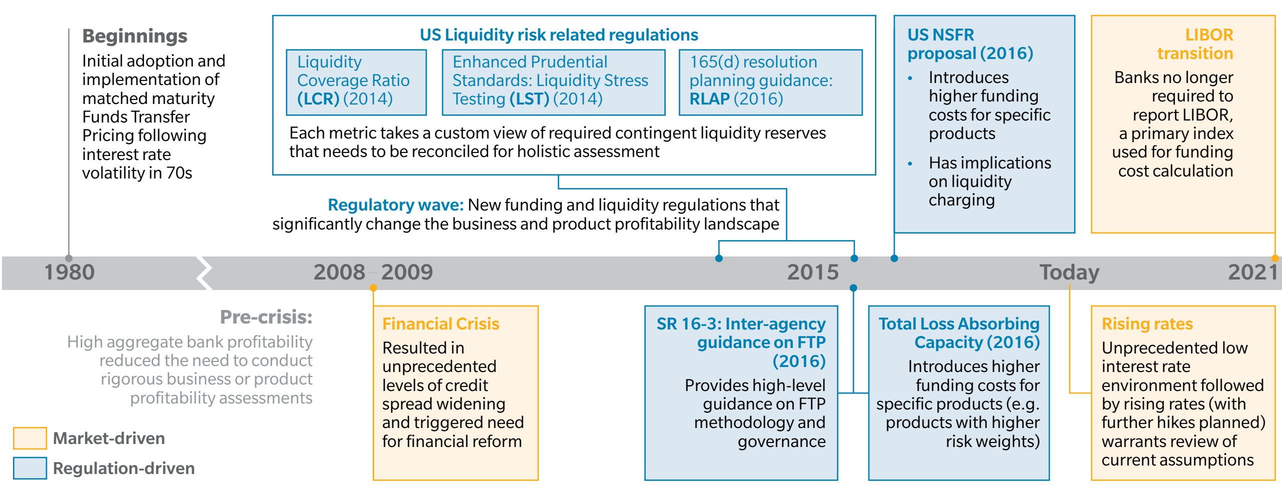
3 Based on annual P&L for US CCAR banks in 2017 (note: excludes observations with negative income, tax, or undisclosed figures). Impact on ROE estimated as increase in NII multiplied by current tax rate divided by average equity.

2.2. WHY DOES FTP NEED TO CHANGE?

While several institutions undertook significant efforts to design and implement FTP systems during the mid-1980s and 1990s, relatively few institutions have invested meaningfully in these systems in recent years. This is partly attributable to high profitability in the banking sector pre-crisis, which reduced the discipline of stringent profitability optimization across products and business segments. Furthermore, the multitude of post-crisis regulations resulted in scarce time and resources, and allowed for little investment in efforts outside of immediate regulatory compliance priorities.

Today, banks find themselves in a drastically different situation than when FTP frameworks were first implemented. Changes in financial regulations have significantly altered the profitability landscape. Post-crisis, banks have been under more pressure and constraints. Reduced bank profitability has placed a higher burden on institutions to optimize the deployment of scarce financial resources while improvements in data and systems are enabling new capabilities to enhance calculation speed and granularity.

Exhibit 3: Funds Transfer Pricing timeline



Effective profitability management will be a key differentiator over the next decade, with FTP being a critical component. While most institutions have made some marginal improvements to adapt to new regulations and conditions, often using “patch” solutions made to legacy processes, we believe that more significant changes are required to align with today’s needs.

Making the investment today to holistically review and upgrade FTP frameworks will reap significant financial benefits in the future. Furthermore, it enables institutions to align with the regulatory guidance outlined in the SR 16-3 Inter-agency Guidance on FTP. In the next section, we outline the key challenges faced by institutions on this journey.

3. FTP KEY CHALLENGES

In addition to advising many of our large banking clients on how to integrate and deploy effective FTP frameworks, in 2017, Oliver Wyman conducted a survey that gathered in-depth insights from 27 banks with a North American presence. Through these industry discussions, we have defined three key success factors for building an effective FTP approach.

3 KEY SUCCESS FACTORS

1. **ENSURE METHODOLOGY ALIGNS WITH FIRM GOALS**
   The complexities of linking aggregate costs to individual drivers of costs result in unique challenges that need to be carefully addressed to align business unit level incentives with overall firm goals.
2. **FOSTER PRODUCTIVE BUSINESS ENGAGEMENT**
   FTP is a "zero-sum" calculation which naturally creates internal tension and resistance to change. Productive business engagement starts with a transparent framework and becomes a critical factor for ultimate success.
3. **ESTABLISH EFFECTIVE GOVERNANCE AND REPORTING**
   Robust governance processes are critical to ensure continued alignment of the methodology with firm goals. Effective reporting is instrumental in providing transparency to front-line decision makers looking to improve aggregate profitability by leveraging FTP insights.

Below, we further describe these key success factors and provide an illustration of the complexities of setting up robust contingent liquidity charging.

1. ENSURE METHODOLOGY ALIGNS WITH FIRM GOALS

For Funds Transfer Pricing to be effective, business unit level incentives created through the framework must be aligned with the firm's overall goals. However, designing a framework that achieves this can be challenging, especially in cases where the specification of the FTP methodology requires significant judgment or deals with inherent uncertainty or complexity.

For areas that require significant judgment, banks can often struggle to select the most appropriate methodology given the lack of a clear industry standard. Exhibit 4 highlights three examples with significant divergence in industry practice, where methodology selection should be guided by which option promotes the institution's desired strategic objectives. Given the judgment involved, it is important that the methodology selected is adequately justified and documented as well as periodically reviewed for appropriateness in light of any changes in strategy and/or market conditions. For example, re-visiting the cost of funds curve specification will be a critical step in the coming year given the industry transition away from LIBOR.

Exhibit 4: Selected FTP topics with significant divergence in industry practice

TOPIC	OPTIONS	STRATEGIC OBJECTIVES	CONSIDERATIONS
1 COST OF FUNDS CURVE	Unsecured debt funding curve	Utilize neutral, market-consistent benchmark	Variation in bank credit spreads can create volatility in pricing and skewed incentives
	VS.		
	Blended or modified curve	Reflect unique funding structure or selectively incentivize uses or sources of funding	Judgement-based specification highlights need for additional governance including periodic review for appropriateness
2 TREATMENT OF ASSETS ELIGIBLE FOR SECURED FUNDING	Secured funding rate assigned	Reflect market rates of funding for businesses eligible for secured funding	Creates implicit subsidization of businesses if assets are not funded via secured funding in actuality
	VS.		
	Blended rates assigned	Share benefits of secured funding across businesses	Reflects central, treasury-led decision to fund via secured funding, but reduces incentive to source eligible assets
3 TREATMENT OF RESIDUAL NIM (MISMATCH)	Retain within Corporate Treasury	Hold Treasury centrally accountable for interest rate risk P&L impact	Mismatch P&L should be transparently reported to senior management and decision makers
	VS.		
	Allocate back to businesses	Expose businesses to interest rate risk volatility	Significant discretion is required to choose appropriate allocation key

In other cases, such as behavioral modeling for non-maturity deposits or allocation of contingent liquidity costs—inherent data limitations, uncertainty in the future behavior of products, or the complexities of incorporating multiple drivers of costs can pose unique challenges to developing an accurate attribution methodology. To illustrate this point, we highlight the complexities of setting up robust liquidity cost allocation practices for large institutions where multiple regulatory requirements drive overall funding and contingent liquidity requirements in the next section.

COMPLEXITIES OF CONTINGENT LIQUIDITY CHARGING

In order to size overall liquidity reserves, institutions typically hold the maximum of all relevant regulatory requirements including the:

1. Liquidity Coverage Ratio (**LCR**)
2. Limits set by internal liquidity stress testing (**LST**)
3. Liquidity requirements as part of resolution planning under Resolution Liquidity Adequacy and Positioning (**RLAP**), which often leverages similar machinery as LST but can produce significantly different outcomes given additional considerations such as ring-fencing

To date, most institutions either consider only one requirement to calculate FTP charges or use a very simplified methodology to consider multiple requirements (for example, different constraints for bank versus non-bank). However, leading industry players are moving towards more sophisticated approaches that capture the impact of multiple requirements. This is because the binding constraint—the driver of overall costs—can vary by business, and change from one requirement to another over time (for example, due to a shift in portfolio composition). In addition to yielding a more balanced view of liquidity charges, this framework provides transparency into the underlying drivers of liquidity costs under each metric that enables better liquidity risk management.

A further complication is introduced by the Net Stable Funding Ratio (**NSFR**[4]) which could impact the attribution of liquidity costs. Integrating NSFR into a liquidity charging framework can provide a more complete and balanced view of the drivers of costs. The stable funding sources assumed to support liquidity buffer assets drives the "negative cost of carry," while at the same time delivering a large NSFR benefit. Correspondingly, the associated costs of this debt should be attributed not only to businesses that require incremental contingent liquidity, but also to those that have NSFR shortfalls.

Lastly, attributing requirements defined at the aggregate level under each of these constraints to a specific business presents challenges, both in terms of technical limitations – for example data unavailable at appropriate level of granularity – and selecting the best attribution scheme (see Exhibit 5).

Exhibit 5: Key challenges in attributing consolidated requirements to specific businesses

KEY CHALLENGES			SELECT EXAMPLES
LINK TO THE CALCULATION	or	LINK TO THE INTENT	**LCR potential derivative valuation change:** *Calculated based on two-year lookback of net collateral outflows and inflows; however, intended to capture risk of future collateral outflows* **NSFR derivative gross liabilities:** *Calculated as 20% of gross liabilities; however, intended to "address liquidity risk associated with potential changes in value" of any derivative position*
ATTRIBUTE DIRECTLY	or	DISTRIBUTE AS SHARED COST	**Secured funding loss:** *Should outflow be directly attributed to the business holding the collateral in the transaction or should costs be shared when secured funding decisions are centrally managed?*
DATA AVAILABLE	or	PROXY REQUIRED	**Intraday liquidity:** *Is data available to attribute intraday liquidity usage directly to businesses? If not, what proxies are available to estimate usage?* **Derivatives:** *How should requirements calculated at the netting set level be allocated to businesses? Should businesses receive credit for offsetting transactions?*

4 Following the Basel Committee on Banking Supervision's final NSFR report published in October 2014, the US Federal Reserve released a US NSFR proposal in May 2016 but have yet to issue a final NSFR rule (as of the release of this paper).

2. FOSTER PRODUCTIVE BUSINESS ENGAGEMENT

Interaction and coordination between the institution's corporate treasury and business lines can be especially challenging when it comes to FTP—but is critically important for the success of enhancement initiatives. FTP is a "zero sum" calculation which means that any changes to the methodology necessarily result in businesses that benefit "at the expense of others" and may lead to resistance to change. Furthermore, the inclusion of incremental costs (for example, contingent liquidity charges) often based on complex regulatory requirements can reduce the transparency of charges and further strain lines of communication.

Despite these challenges, it is critical that corporate treasury and the business lines work closely together in order to define an accurate, transparent, and useful FTP framework that provides the business with the right set of tools (for example, granular and frequent reporting) and translates FTP insights into a tangible business strategy. Based on our experience, Exhibit 6 outlines four actions that are especially useful to foster productive business line engagement.

Exhibit 6: Actions to foster productive business engagement

INITIATIVE LEADS SHOULD PLAN TO:	BENEFITS
1 **Establish guiding principles**	✓ Provides a pre-agreed upon basis to inform decisions that require judgment (and hence may result in conflict) – quite often it may be necessary to trade-off between principles (e.g. having accurate metrics that appropriately reflect risk vs. having a transparent framework) ✓ Enables a shared understanding of goals that builds trust (e.g. metrics should reflect true economics as accurately as possible but are only meant to inform management action rather than dictate it)
2 **Involve the business early-on**	✓ Involvement in the decision-making process allows the business to have a stake in framework development ✓ Provides useful business feedback upfront that may inform downstream design decisions (e.g. desired granularity of reporting)
3 **Conduct pro-forma impact assessments**	✓ Provides a tangible basis to assess specific methodology choices (vs. qualitative "abstract" assessment) ✓ Sourcing data feeds for pro forma calculations help identify current data limitations and corresponding IT builds required to reach target state
4 **Plan for a phased implementation**	✓ Allows for a "parallel-run" period including comparisons to prior (existing) metrics limiting business disruption

3. ESTABLISH EFFECTIVE GOVERNANCE AND REPORTING

Effective governance and reporting is particularly important given the challenges discussed previously and specifically highlighted in Principles 2 and 3 of the SR 16-3 Interagency Guidance on FTP (Exhibit 7).

Historically, institutions have not consistently adopted a "three lines of defense" model for FTP given its internal-facing nature; in particular, the involvement of the risk management function has been less robust than for other similarly high impact methodologies. In recent years, institutions have started to increasingly enhance FTP governance practices by expanding the mandate of risk, ranging from model validation to more involvement in FTP working group meetings as well as including FTP within the scope of internal audit reviews.

We believe that establishing robust governance processes are an important aspect of implementing an effective Funds Transfer Pricing framework (as described in Exhibit 7). As institutions determine their FTP methodology, they need to establish robust controls and control testing for FTP results production, and an independent oversight body to discuss, challenge, and review methodology decisions. Furthermore, it is essential to clearly define an escalation path to senior management committees that can consider if the tradeoffs and business incentives align with the corporate strategy.

As an internal-facing tool, FTP only boosts risk-adjusted profitability if it enables and incentivizes better front-line decision making in aggregate. For FTP reporting, there are two critical factors—granularity and context—that institutions should assess (outlined in Exhibit 7).

Exhibit 7: SR 16-3 excerpts and suggested actions for governance and reporting

SR 16-3 PRINCIPLES[1]

"Principle 3: A firm should have a **robust governance structure for FTP**, including the **production of a report on FTP** and **oversight** from a **senior management group** and central management function."

"Principle 2: A firm should have a **consistent and transparent FTP framework** for identifying and allocating FTP costs and benefits on a **timely basis and at a sufficiently granular level**, commensurate with the firm's size, complexity, business activities, and overall risk profile."

GOVERNANCE

FEATURES OF FTP	GOVERNANCE IMPLICATIONS
Resistance to change and internal disputes on methodology	**Committees:** Provide effective routes of escalation to mediate and resolve conflict
Changes in market, regulation, strategy, etc. may impact methodology choices	**1st line:** Conduct periodic reviews of the methodology
Significant judgment required in methodology specification	**2nd line:** Provide independent review and challenge of methodology specification
Results feed into several critical internal (and sometimes external) reports	**3rd line:** Test processes and controls periodically

REPORTING

- ✓ Granularity to enable business transparency and action
  - Based on business input and resource consumption (e.g. more granularity for BUs with larger funding or liquidity consumption)
  - In cases where there may be data limitations, additional granularity can be provided for selected products where granularity may exist (e.g. derivatives)
- ✓ Adequate context for senior management to enable effective decision making – e.g.
  - **Unallocated charges** including mismatch NIM, excess liquidity (if unallocated)
  - **Subsidization:** notes on any implicit or explicit business subsidies incorporated within the framework
  - **Qualitative commentary** on results and changes to allocation methodology (or anticipated changes)

Source: SR 16-3 Interagency Guidance on Funds Transfer Pricing Related to Funding and Contingent Liquidity Risks

4. THE PATH FORWARD

In today's environment banks need to rely on their FTP frameworks to help steer operations towards optimal balance sheet profitability. With several competing internal and regulatory priorities, bank managers may be tempted to settle for what appears to be "good enough" and leave enhancement initiatives for later consideration or use incremental "patches" to achieve only what is most necessary in the short term.

However, given the financial implications, competitive landscape, and the focus on enhanced returns, this initiative is too important to ignore or delay. The journey to target state FTP requires significant planning, business engagement, and resources to implement. To achieve sustainable profitability and meet higher standards for performance management, financial institutions need well-calibrated methodologies, stronger governance and reporting, and the ability to capture granular information quickly and effortlessly.

It's time to take action—define a well-informed view of the "target state" framework and lay out a cohesive and executable plan required to get there. Technology, data and industry practice are rapidly improving as a small group of industry leaders forge the path to better performance management and higher returns. Will your institution be left behind?

Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

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