OLIVER WYMAN

Financial Services

TOWARDS SUSTAINABLE FINANCIAL RESOURCE MANAGEMENT

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Banks of every size, shape, and jurisdiction are navigating a fundamental transformation of the rules of the road for their industry. Nowhere is this more evident than in new, more stringent controls on the level, composition, and use of financial resources – risk-based capital, leverage-based capital, liquidity and funding. A steady stream of new capital, liquidity and funding regulations has been rolled out over the past five years, with each new proposal driving an intense industry-wide response to bring the business into compliance with the new regulations or match the performance of peers. Understandably, banks have been responding to each new challenge in turn, optimizing against the "binding constraint" of the day.

However, efforts to optimize the use of one financial resource in isolation often come at the expense of the efficient use of some other financial resource and overall economic performance. This is not a sustainable model for Financial Resource Management (FRM).

New capital, liquidity and funding requirements are now a permanent fixture of the industry landscape, and are increasingly driving the strategic direction of the bank. We therefore argue in this paper, which forms part of the Oliver Wyman series on Financial Resource Management[1], for the development of a holistic, group wide approach to FRM with formal and active engagement from Strategy, Finance, Risk, Treasury, and the Business.

1 Previous work in the series includes "Adding 5% to RoE: How banks can do more with less", 2012

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We believe that the banks that win at FRM in the new environment will be those that focus on five essential activities, which we detail later in this paper:

1. Organization
2. Development of FRM tools and metrics
3. Execution of near-term optimization
4. Moving toward dynamic, real-time optimization steering behavior and decisions
5. Integrating FRM into strategic planning

1. THE FINANCIAL RESOURCE MANAGEMENT CHALLENGE

Prior to the crisis, most banks primarily focused on revenues and managing "economic capital" as the firm's scarce resource, measuring capital using internal statistical models that captured various drivers of risk and resource consumption. Minimum capital requirements imposed by regulators were rarely binding, and liquidity was considered to be readily accessible in the markets. The costs of capital, leverage, liquidity, or funding were allocated for the purposes of performance measurement and risk-based costing, with little attention paid to regulatory constraints.

The introduction of a series of new constraints on the level, composition and use of financial resources, also varied by jurisdictions, has dramatically altered the landscape.

EXHIBIT 1: KEY CONSTRAINTS IN THE NEW REGULATORY ENVIRONMENT

GLOBAL REGULATORY CONSTRAINTS	REGIONAL REGULATORY CONSTRAINTS	NON-REGULATORY CONSTRAINTS
• Basel 2.5 and Basel 3 risk capital requirements • Basel 3 leverage ratio • Basel 3 liquidity requirements (LCR, NSFR) • Long term debt (under discussion)	• Stress-testing e.g. CCAR, AQR • Pre-Basel 3 leverage ratios e.g. US GAAP leverage • US intermediate holding company regulation • UK ring-fencing/ICB regulation • European/Liikanen regulation	• RoE targets and hurdles • Revenue and growth targets • Internal risk capital limits • Liquidity risk limits • Counterparty limits • Other risk appetite and risk control limits

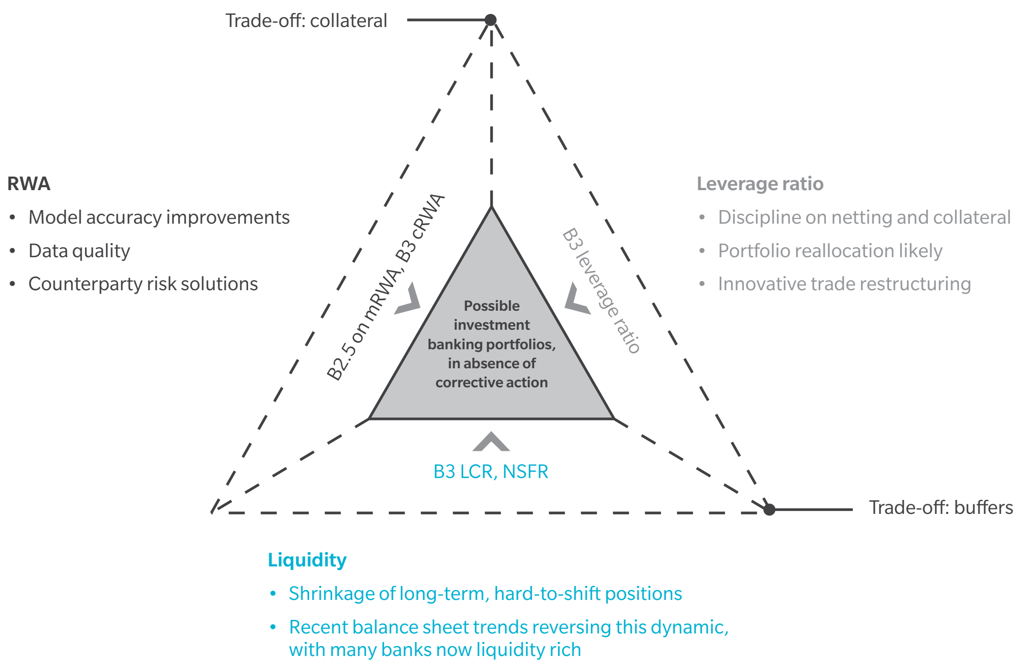
Source Oliver Wyman analysis

The primary financial resource constraints facing banks today come in three broad forms:

- Multiple risk-based capital ratios (current and under stress): Minimum capital relative to risk-weighted assets[2]
- Leverage ratios varied: Minimum capital relative to total leverage exposure[3]
- Minimum standards for liquidity and funding[4]

These constraints are not harmonized. Optimizing the business against any single constraint (e.g. reducing risk-based capital requirements) often moves an institution closer to leverage, liquidity, or funding constraints. By way of illustration, cash liquidity buffers (required for compliance with the Liquidity Coverage Ratio) are included in total leverage exposure, negatively impacting leverage ratios and generating one of several "tension points" along the multiple dimensions of the FRM optimization landscape depicted below.

EXHIBIT 2: THE FRM OPTIMIZATION CHALLENGE



Source Oliver Wyman analysis

2 Basel 2.5 and 3 have imposed significantly higher risk capital measures, with counterparty credit risk seeing especially large increases in capital charge. Several national/regional regulators have also introduced rigorous and punitive stress-testing regimes (e.g. CCAR under Fed's adverse and severely adverse scenarios in the US, AQR in the EU) which have effectively become the binding constraint for capital at many banks in these jurisdictions. There are also jurisdictional differences which increase the complexity of managing these constraints. For example, "Advanced Banks" in the US would need to use the worst of Standardized or Advanced approach to calculate RWA.

3 The new Basel 3 leverage ratio capitalizes balance sheet and puts previously capital-light businesses such as repo and prime under renewed pressure, as well as increasing capitalization requirements for off-balance sheet commitments This new constraint has been forcing many large banks, especially in Europe, to shrink the outright size of the balance sheet. The January 2014 BCBS revised leverage framework has clarified many questions and is less onerous on several dimensions than the framework proposed in the June 2013 consultation paper, however leverage still poses a challenge for low-risk yet balance sheet-intensive businesses at several large banking entities, not least with regulators publically proposing (and positioning versus competitors demanding) significantly higher ratios than the Basel's 3% in several jurisdictions.

4 Basel's new liquidity coverage ratio (LCR) is designed to ensure banks have an adequate stock of unencumbered High Quality Liquid Assets (HQLA) that consists of cash or assets that can be converted into cash at little or no loss of value in private markets, to meet its liquidity needs for a 30 calendar day liquidity stress scenario. In addition, the net stable funding ratio (NSFR) forces banks to term out the funding profile over long term, promoting long term funding stability. The details of these ratios introduce multiple layers of constraints for the composition of investment portfolio and retail, SME, corporate and institutional deposit businesses. Furthermore, local regulators (e.g. US) have already proposed more stringent requirements than the BCBS's LCR on several dimensions, such as haircuts and limits for HQLA and peak day outflow for the denominator of LCR.

Despite the inconsistencies of the new regulations, most banks have demonstrated the ability to respond to each of these constraints in turn and bring the business in line with regulatory requirements. However, managing multiple constraints simultaneously, through a dynamic economic cycle, within a forward looking approach with multiple scenarios, also integrating risk-based approaches with regulatory constraints and across multiple levels of the organization is (1) overwhelming the existing FRM capabilities of most institutions and (2) moving FRM to the top of the strategic planning agenda.

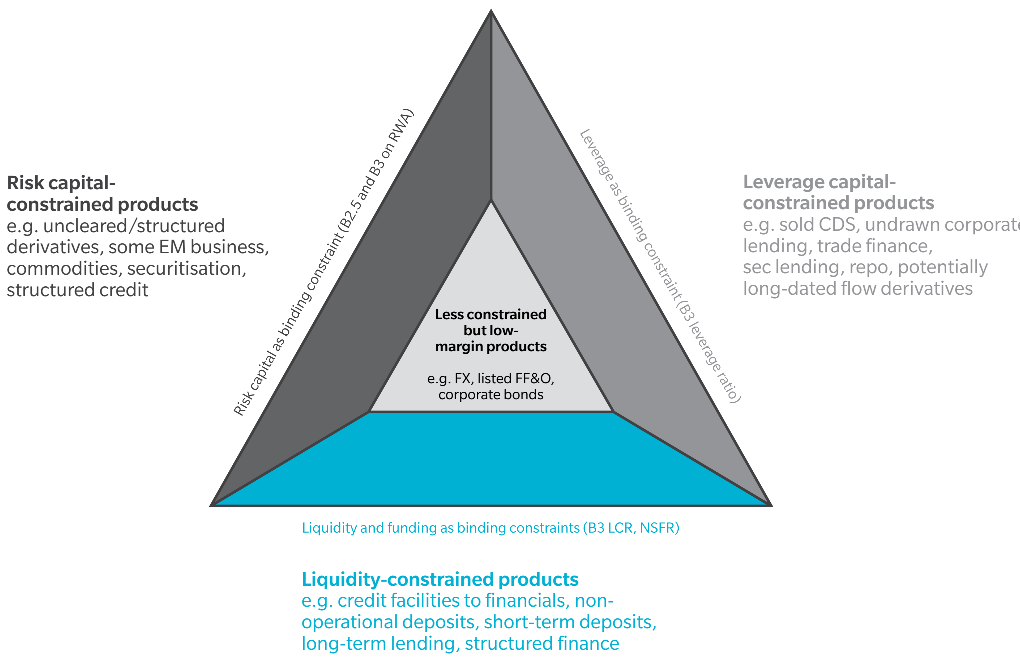
We see three primary areas where the existing FRM model is ill-suited to the dynamic, joint optimization challenge facing the industry:

- Organization – Most institutions are not effectively organized to manage the FRM challenge today, with no central team taking ultimate responsibility for the use of financial resources across the group, at consolidated, business line and legal entity levels. Responsibilities are typically fragmented across the organization and financial resource optimization therefore becomes a complex "project" that becomes difficult to replicate or institutionalize.
- Operations – These institutions also frequently struggle to "measure the problem" with dynamic, sufficiently accurate metrics on the use of financial resources at every level of the organization. This lack of visibility complicates the FRM challenge enormously, creating an imperative to upgrade financial resource data available to managers and the front line.
- Implementation – Perhaps the biggest challenge is "executing" FRM decisions. This requires the organizational and operational infrastructure described above, but also demands a coherent strategy for managing front line activities (which ultimately consume resources) with more sophistication than periodically resetting limits. There is no standard practice in this area, with some firms relying on periodic allocation exercises, others developing sophisticated charging mechanisms, and others using a hybrid of the two. Education, engagement, and awareness of the business are clearly vital here.

The strategic implications of these deficiencies are significant. In a world of multiple binding constraints, pursuing activity in one area consumes capacity to pursue activities in others – that is the essence of the optimization challenge. However, it is extremely unlikely that any institution will find itself up against all binding constraints at once. This creates a comparative advantage (or "axe") that can be used to pursue new opportunities. For example, an investment banking business with an outsized repo financing book may be up against the leverage-based capital constraint, but consume relatively low levels of RWA (risk-based capital) or liquidity and funding. This will generate capacity to pursue more RWA-consumptive business (e.g. structured) or more-liquidity and funding consumptive business (e.g. mortgages) with a relative pricing advantage over risk-based capital or liquidity and funding constrained competitors, all else equal. Moreover, risk-return comparisons are extremely sensitive to changes in interest rates, which make it even more difficult to make strategic conclusions.

Against this backdrop, strategy setting must begin to encompass both franchise- and resource-driven decisions. Franchise-driven decision making has always been a feature of strategic planning – identifying and prioritizing the "crown jewels" of the franchise where the business enjoys genuine competitive advantages. Multi-dimensional resource-driven decision making is a new frontier, requiring a deeper understanding of how pursuit of crown jewels creates advantages or disadvantages in the pursuit of other opportunities (and ultimately drives economics). Exhibit 3 provides a sense of where different crown jewels will steer the business on the risk-leverage-liquidity-profitability spectrum.

EXHIBIT 3: FINANCIAL RESOURCE CONSUMPTION "HEAT MAP"



Source Oliver Wyman analysis

In this context, a retooling of the way many banks set strategy and manage financial resources will be necessary for compliance and business optimization. We believe a comprehensive approach, both in terms of holistic management across constraints and group wide cross-functional coordination between the Business, Strategy, Finance, Risk, and Treasury, will be a prerequisite.

2. MOVING TOWARD BEST PRACTICE

The issues are clearly complex and appropriate responses will obviously vary from bank to bank, mainly driven by the bank's culture and starting point. However there are five key areas where we believe the leading banks of the future will coalesce around best practice.

2.1. GETTING THE ORGANIZATION RIGHT

FRM is no longer an issue able to be "owned" by Finance, Treasury or Risk alone. It requires coordination and communication between these departments and more importantly, will require active engagement of Business and Strategy to get it right.

Leading banks are empowering the teams charged with managing financial resources, to engage the business on the thorniest issues and problematic business lines, to change key allocation and charging methodologies and to effectively navigate upcoming deadlines while maintaining profitability. Most banks are also moving towards a more centralized approach. To do this effectively, these teams must be led by respected executives with thorough institutional knowledge – and empowered through appropriate committees, at both group and divisional levels.

Making FRM strategic essentially involves converting "Scarce Resource Management" teams in the traditional, passive sense into "Strategic Resource Management Units" capable of using FRM proactively to navigate both volatile markets and regulatory reform to maximise bank returns. The development of Strategic Resource Management Units is somewhat analogous to previous industry responses to multi-dimensional problems such as Active Credit Portfolio Management (ACPM) and, more recently, XVA desks

EXHIBIT 4: ANALOGOUS MULTI-DIMENSIONAL CHALLENGES, AND OBSERVED BANK RESPONSES

MULTI-DIMENSIONAL INDUSTRY CHALLENGE	OBSERVED BANK RESPONSE
Combination of regulatory capital and name-level constraints risking impact on returns, unless capital can be freed up from selling and hedging risk	**Active Credit Portfolio Management**
Managing various derivative valuations adjustments (CVA, DVA, FVA) risking becoming unwieldy and sub-optimal unless a central desk can manage comprehensively	**XVA desks (currently in development at several banks)**
Need for holistic management of overlapping and complex financial resource constraints, moving beyond reactionary and one-dimensional management to drive group strategy	**Strategic Resource Management Units**

Source Oliver Wyman analysis

We believe the industry as a whole has significant work to do before best practice in this area is achieved, but with the correct management mind-set, much progress can be achieved quickly.

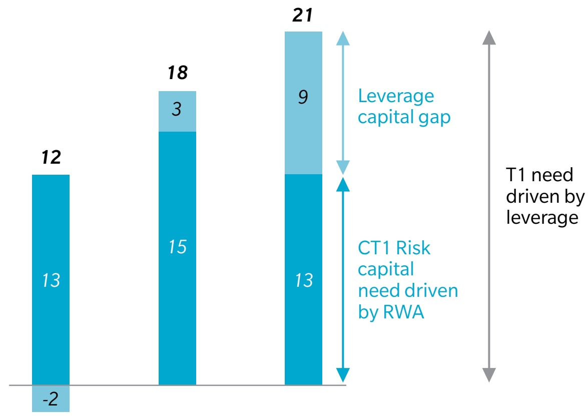
2.2. DEVELOPMENT OF FRM TOOLS AND METRICS

By using capital allocation, funds transfer pricing and activity-based cost allocation techniques, banks have developed different tools to steer behaviors, including hard dollar limits at portfolio level, ex-ante metrics embedding deal-level resource consumption to evaluate the profitability at time of inception and ex-post, new risk-based performance indicators (sometimes impacting compensation) or charging mechanisms to reflect the use of financial resources.

On the latter point, banks have employed increasingly diverse methodologies for charging for the key components of financial resources (e.g. risk capital, leverage, liquidity, balance sheet) in recent years. Many do not charge formally for all metrics and instead consider below-the-line returns on capital metrics for observing business profitability, however best practice banks put a specific effort to correctly incentivize business behavior.

An example is leverage, which up until now has been a "free" resource at many banks. As leverage is a key driver of banks' issuance of additional tier 1 hybrid bonds, there is a case for passing on the cost of these coupons to the businesses. An appropriate incentivization metric is to marry RWA and leverage in a "leverage-adjusted RoE", whereby a business's use of leverage is converted into a proxy cost and subtracted from profit. There are several important methodological considerations in designing this type of metric, but such metrics can greatly facilitate inter-business comparisons of returns on multiple constraints to steer strategy.

EXHIBIT 5: "LEVERAGE-ADJUSTED ROE" HYBRID PERFORMANCE METRICS FOR AN EXAMPLE BANK ($BN) – ILLUSTRATIVE



		Retail lending	Corporate lending	Investment bank	**Group**
A. Profit		2	2	2	**6**
B. Risk capital need		13	15	13	**41**
C. RoE	**(a/b)**	**15.0%**	**13.3%**	**16.0%**	**14.7%**
D. Cost of additional tier 1 hybrids					**-0.3**
E. Leverage exposure		333	500	600	**1,433**
F. Tier 1 leverage target		3.5%	3.5%	3.5%	
G. Tier 1 leverage capital need	(f xe)	12	18	21	**50**
H. Leverage capital gap	(g-b)	-2	3	9	**9**
I. Positive leverage capital need		0	3	9	**11**
J. Leverage unit cost	(d/i)				**-0.03**
K. Lev cap cost (impact on profit)	(jxi)	0.0	-0.1	-0.2	**-0.3**
L. Leverage cost-adjusted profit	(a+k)	2.0	1.9	1.8	**5.7**
M. Leverage cost-adjusted RoE	**(l/b)**	**15.0%**	**12.9%**	**14.1%**	**14.0%**

Source Oliver Wyman analysis

Creating well-thought methodologies (and enhancing current ones) for financial resource charging will be a key differentiator in the battle for efficient resource use and there are many choices to consider. For example the metric for capital charging is defined considering a combination of both regulatory and economic considerations – we see different practices from blended metrics to heavy focus on the binding constraint metric – usually regulatory metric, to sequential allocation which starts with economic approach then incorporates regulatory constraints. Also, we see alternative charging algorithms emerging, from a simple flat charge, through step and progressive charges, to more sophisticated contingent charges.

While there is no quick fix for quality management and human guidance, and while over-reliance on blunt quantitative techniques can risk a loss of agility, tools can nevertheless be powerful levers to optimize behavior, if appropriately conceived and implemented. Moreover, there is a tension to manage between theoretical accuracy and simplicity; pursuing accuracy through multiple charge dimensions risks overcomplicating and masking the understanding of the business regarding what to optimize to.

2.3. EXECUTION OF NEAR-TERM OPTIMIZATION

New constraints across financial resource metrics are in some cases forcing painful decisions to be made, and at the very least will have a significant impact on future group strategy. Leading banks are already accepting this, and planning accordingly.

This involves measurement of the scale of the financial resource problem, followed by triaging of initiatives needed to meet group objectives and regulatory requirements. We typically interact with banks on 3 groups of initiatives:

1. Technical: typically the first priority, this involves work on models, parameters or other non-business elements (e.g. netting sets) and can deliver substantial improvements without hurting the top line.
2. Tactical: targeted adjustments on non-core businesses or activities with limited revenue or return impact – the second-best option after technical optimization to preserve optionality.
3. Strategic: in the last resort, some banks have chosen to pull out from certain products, client segments or geographies, with fixed income and non-domestic activities under greatest scrutiny.

Leaders will have several things in common here: total prioritization of identifying technical initiatives, often through a combination of internal and external experts, and functions to identify key technical optimizations; the ability to "think big" and to not shy away from identifying strategic initiatives, where appropriate, which significantly alter the course of group strategy; and ruthless execution of identified initiatives, with a competent project management team to comprehensively execute and continuously update and upgrade the functioning of resource optimization programs.

2.4. MOVING TOWARDS DYNAMIC, REAL-TIME OPTIMIZATION STEERING BEHAVIOR AND DECISIONS

The increased resource pressure is not taking place in a buoyant market. Banking revenues have been both challenged and volatile for several years, with some business lines exhibiting very high earnings volatility. It is unlikely that this market conditions will improve greatly in the near term, providing an extra challenge for FRM. While regulatory compliance is key, winning banks will not lose sight of the fact that profit and capital accretion cannot be generated without the intelligent deployment of financial resources.

In the extreme case, management could dynamically re-allocate capital, funding and liquidity between businesses in real time, based on observed profitability in financial markets. For reasons of both constraints on systems visibility (many banks struggle to produce monthly resource usage maps) and desirability (it is not always optimal for a central manager to be continuously calibrating desks' resource usage allocations), it is more likely that winning banks will use their access to cutting-edge systems giving precise, timely and granular visibility into financial resource usage, to enhance their intra-year and multi-year strategic planning exercises, affecting the future allocations received by businesses. It is then up to the business to cascade down this new constraint down to the trade-level to steer the business appropriately.

2.5. INTEGRATING FRM INTO STRATEGIC PLANNING

The nature of the challenge has evolved: in recent years, a large amount of uncertainty prevailed in estimating the exact final rules across financial resources. While this has now largely been clarified on some dimensions, e.g. the BCBS January 2014 leverage exposure calibration paper, the change in regulation is not over and country regulators have discretion for implementation. There are also industry discussions on introducing regulatory minimum long term debt ratio. Banks will therefore find it critical to define their priority constraint to manage to as well as secondary constraints to optimize further.

Moreover, banks still face a number of uncertainties in terms of market structure and competitive dynamics. Strategy departments continue to evaluate the impact of new constraints on various activities for the bank and the industry over both near term and medium term.

Banks at the leading edge of FRM are shifting from defensive retrenchment to offensive plays in areas of competitive advantage. Leaders are shifting from fixation on the binding constraint (leverage, liquidity, RWA, or another resource) towards the non-binding financial resources where the bank can be said to have a comparative advantage versus competitors. For example, leverage-constrained banks may have certain surpluses of risk capital available which they can use to increase presence in targeted and strategic markets and regions, disrupting competition and improving overall returns.

Leading banks are also moving forward into second-order analysis involving their key competitors, using FRM war-gaming exercises as an offensive strategic tool to win market share in advantaged segments and products. The ability to run analysis on key competitors, assessing their liquidity, leverage and capital ratios under future scenarios based on operating model, client franchise and product portfolio, identifying likely pain points for the competition and comparing this analysis to the bank's pain points is emerging as a competitive differentiator in strategic planning.

EXHIBIT 6: TYPICAL WAR GAMING ANALYSIS

Client level impact

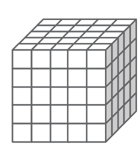
- Industry-wide multipliers: cost of financing and b/s intensive services "paid back" at client level
- Client servicing models structurally disadvantaged by new regulation across liquidity, leverage and capital
- Problem segments vs. those where particular bank supplier groups will struggle

Real money
Hedge funds
Banks
Retail
Commercial
...
Corporates

Product level impact

- Industry product economics (revenue, assets, RWA, cost per product area)
- Roll forward for rulemaking "scenarios" currently considered
- Efficient frontier analysis on effects of the new financial resource constraints
- Migration from return on risk cap to return on leverage or blended capital

Flow rates
Structured rates
Corp lending
OTC eq derivs
Prime mortgages
Term deposits
...
Trade finance



Competitor segmentation

Global IBs
US universals
Euro universals
Regionals/locals
Non-bank FIs
Retail monolines
Own bank

- **Areas negative for own bank, negative for market**: may want to take first mover advantage to shrink from the most un-attractive sub-pockets or clients
- **Positive for own bank relative to market**: opportunity to take share from competitors forced to retrench
- **Multiplier and resource skews**: Areas where the client service dynamics will be shifted by leverage constraints; own bank may want to skew resources accordingly

Source Oliver Wyman analysis

3. NEXT STEPS

Banks' starting points, in terms of relative resource constraint, business mix, sophistication of existing resource management and national jurisdiction, are clearly diverse. While there is no fixed prescription, given different starting points and culture, we believe most banks need to do 3 things next, in order to develop a new FRM blueprint which is fit for purpose.

3.6. UPGRADE THE FRM FUNCTION AND INTEGRATE CORPORATE STRATEGY AND FRM STRATEGY PROCESSES

Banks need to A. establish a function, at group level, responsible for the management of all financial resources with active leadership contributions from Business, Strategy, Finance, Treasury and Risk; B. upgrade existing FRM teams within divisions to coordinate across resources with Group FRM; and C. ensure that the governance and committee structure is appropriate for the new FRM team mandate. Of course some banks will try to find their way through pure process to avoid reshuffling the organisation, but we believe a new function is best suited here.

Under the new capital, leverage and liquidity constraints, feasible bank portfolios are limited and granular calculation details of these constraints are becoming increasingly central to corporate strategy, planning, budgeting and performance management processes. Banks need to ensure integration of corporate strategy with FRM strategy with active collaboration of Business, Strategy, Finance, Risk and Treasury. The strategic review is only complete with explicit consideration of FRM.

3.7. CLARIFY DECISION MAKING AND CHARGING PHILOSOPHY FOR THE INDIVIDUAL BANK

There are many schools for decision making and charging for financial resource usage. On one extreme, central planning makes allocation decisions based on the strategic ambition of central teams and/or a flat charge for all businesses, with tactical/granular decisions on allocations based on, for instance, forecasts of upcoming profitability in a given market. On the other extreme, highly granular charging methodologies calibrated from markets and constraints are applied to affect front office behavior and encourage optimal use of resources in a decentralized system.

Given market and regulatory uncertainties and that banks are going through a period of aftershock, either of these approaches could be successful in a given context. We believe banks need to decide early on which route to take, because both options require careful consideration of a differing set of issues.

3.8. ENSURE DATA IS SUFFICIENTLY ACCURATE, TIMELY AND GRANULAR

Successful FRM, achieving regulatory compliance while maximizing returns, is almost impossible without excellent data visibility, but many bank management teams are still operating with data with a month lag and at a somewhat high level.

Banks should aim to accelerate the build of resource usage maps at granular levels, giving current visibility into leverage, RWA, liquidity and funding and other key metrics at a regional, product and business levels. This will enable a diagnostic into where systems are not delivering sufficiently timely and granular data, enabling targeted technology upgrades where warranted.

Another ambition of banks should be to move towards real-time visibility of all key financial metrics. Leaders in the field of data transparency are already well on the way to achieving this and it is a challenge to the others in the industry to match this ability, or else risk falling behind in resource management efficiency, to the detriment of returns.

Last but not the least, qualitative evaluation of strategies under multiple macro scenarios continues to be highly critical and supplement FRM observations to support strategic decisions.

4. HOW WE CAN HELP

In recent years, Oliver Wyman has advised a number of leading banks on how best to address these challenges. Our client work typically involves a number of work streams, working with key stakeholders to identify and implement technical, tactical, organizational and strategic improvements in a short time frame.

Our approach has helped clients significantly increase the efficiency of resource usage, driving higher returns while accelerating regulatory compliance, and leaving them significantly better positioned to take advantage of future opportunities in banking and capital markets.

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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