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From A Standalone ALM Desk
to A Group Function:
A Suggested Target Operating
Model for Group Treasury



Editorial

Look out for us on Oracle Financial Services ALCO Blogs starting this August 2020. We're moving our format to provide you faster and timely topics with more digestible content.

I frequently get asked what the current areas of focus are for regulators ahead of supervision visits. My usual response is, "Your guess is as good as mine!" But from time to time one does get an inkling from the proverbial grapevine. In the last year one observes in a number of jurisdictions that the Board-approved bank risk appetite statement (RAS) has been attracting considerable attention. And a good thing too. The RAS sets a formal discipline around the banking book balance sheet, in the same way that old-fashioned trading limits used to do for bond traders. The usual format is for the RAS to state the "green zone" appetite for risk, in the form of limits for a suite of metrics around capital, credit risk, liquidity risk, interest-rate risk and traded market risk. Typically a bank will set a traffic light system whereby "Green" is acceptable exposure, "Amber" is a warning signal and "Red" is a zone into which one must not tread. (I recommend a RAYG rather than RAG system, with a "Yellow" zone set between Green and Amber, giving more time for management actions to take effect and hence better enable the avoidance of a trip into the car crash that is Red).

It's reasonably straightforward to frame a set of "Tier 1" metrics for the Board RAS. The interesting part is calibrating the zone above the minimum. There will be regulatory minimums for capital such as Total Capital Requirement (TCR) and liquidity such as liquidity coverage ratio (LCR). But at what level above the minimum should the green zone be set? How much above 100% should the LCR be run at? 105%? 205% 305%? The firm's 12-month average? As a function of how much HQLA the bank should have, which the Board has decided should be no more than 10% of the balance sheet? the number that would enable at least 150 days liquidity survival in a "market lockout"? Or some other driver entirely?

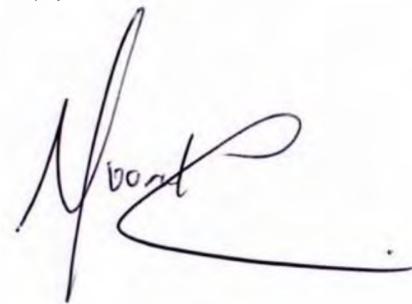
There is, as always in finance, more than one right answer. Setting the comfort zone level for all RAS metrics is something that ALCO must review, debate and approve at least annually. As the tone and culture of ALCO differs across banks, so the green zone for RAS metrics differs across even banks of near-identical business model and balance sheet size. It might be useful to know what range of levels was being set across one's peer banks, but that information is not always readily available and, in any case, I'm not sure that it informs that much. The key is to err on the conservative side, but paradoxically the more robust the balance sheet the less it needs to have a

very large buffer, because its ability to weather a stressed environment, and restore the metrics to green territory, will be greater. And that brings us to another paradox: to ensure confidence in the institution is maintained, the key is to ensure buffers do not dip below regulatory minimums. So the higher the regulatory requirement, the greater the buffer above it.

Now, before the onset of our current environment I would have suggested that the size of the buffer above the minimum is what is available to be dipped into, rather than the total amount of capital and liquidity in place. So one requires a surplus above minimum, and a surplus, so to speak, above that to ensure the surplus doesn't get eaten away under any going concern circumstances. But from the response of the regulatory authorities to the perceived impact of current lockdown measures, we can conclude that Pillar 2b buffers, at least, and the "Amber" zone of the LCR are available to be dipped into, without stigma, in the event of a market-wide systemic stress. What is apparent today is that, unlike in 2008, banks are part of the solution to the economic impact of the crisis, rather than part of the problem. Supporting the customer franchise should be the imperative ALCO objective.

Of course different bank Boards will have differing appetites for risk, and views on the direction that the bank should be taking. It isn't just risk metrics; what return on capital target should the bank be pursuing? This also drives the RAS limits. But the one common factor in every bank is the importance that this issue be fully debated and agreed at ALCO. The RAS is a key balance sheet risk management tool, the very essence of the risk management framework in a bank, and the time taken to set its RAYG zones should reflect this.

Enjoy the read.



Dr. Moorad Choudhry
Founder, The BTRM

ALCO

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Editor

Professor Moorad Choudhry

Managing Editors

Sabrina Scott

sabrina.scott@oracle.com

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Questions about the magazine and the status of articles are welcome by email.

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By Dr. Engelbert Plassmann

Funds transfer pricing is a key element of the overall liquidity risk framework in a bank, an area of focus of both ALCO and the regulator alike. Unfortunately it is perhaps one of the more opaque topics in finance, not least because often it means different things to different people. Dr. Plassmann discusses this topic in his trademark style, with clarity and focus. The first thing one needs to do with FTP is define what it is, and then agree what one wants it do. After that, if one has followed Engelbert's text, everything falls into place!

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02 **Spotlight:** **Green Banking**

By Suborna Barua

It should come as no surprise that ethical banking, and green banking, in all its forms, has had a higher profile since the crash of 2008. The number of banks labelling themselves as following "green" banking practice rises every year. The risk management imperatives of these banks may, or may not, present specific challenges to risk and ALM managers. Professor Barua presents a timely introduction to and description of the banking industry which we will all feel is timely and welcome.

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03 **Recommendation:** **Target operating model for Group Treasury**

By Dr. Polina Bardaeva

Banking group entities face a wider range of ALM and balance sheet management issues they must address, as cross-border business and multi-entity, multi-currency transactions raise their own host of additional risk management challenges. In this type of environment, the Group Treasury functions assumes almost exponentially higher significance and importance in the bank than it may do at a single-entity function. Polina Bardaeva presents her recommended target operating model for Group Treasury, assessing the pros and cons of the various different models that may be considered.

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04 **A Guide to Capital & Liquidity**

By Rob Ellison

I'm a big fan of topics being made accessible from first principles, and indeed being made "accessible" full stop. We always feature technical articles in ALCO, and this issue is no exception, however this succinct and elegant piece from Rob Ellison of Finance Unlocked, whilst on the technical topic of bank capital and liquidity, is noteworthy because it aims to make the subject understandable to everyone. This is of interest to us because of course members and attendees of a bank's ALM Committee come from a variety of backgrounds and skill sets, not just Treasury, Risk and Finance. The article is a timely reminder for all of us on the distinction and interaction between capital and liquidity on a bank's balance sheet, and a great way to kick off ALCO's second year.

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05 **The ALCO: making the most important bank committee more effective and more real**

By Moorad Choudhry

Yours truly also makes a repeat appearance, unsurprisingly enough on the subject of the ALCO itself. Yes it's an important committee, but it was already in place before the crash at every bank, in one shape or another. How does one make the forum truly effective and fit-for-purpose, as opposed to just a rubber-stamp going-thru-the-motions tick-box committee? Hopefully this article supplies some practical suggestions.

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01 Funds Transfer Pricing

By Dr. Engelbert Plassmann (Version 1.2 | 26th November 2018)

Fund transfer pricing (FTP) is a hedging-based approach for the pricing and the management of mismatch risks. Mismatch risks arise from intended or unintended gaps between a bank's assets and liabilities with respect to volume, maturity, currency, interest basis and other product features (e.g., optionalities). Mismatch risks realize as liquidity risk and/or profit and loss (P&L) risk. FTP is therefore an important part of a bank's asset-liability management (ALM) infrastructure. Its primary domain is the banking book. Since the term "FTP" is often casually applied to a variety of funding cost allocation mechanisms, this article seeks to flesh out the defining basics specifically of funds transfer pricing.

IDEA OF FTP

This section gives an intuitive understanding of FTP using a deliberately simplified example. Consider a bank that has no customers, but access to the wholesale money-, bond- and derivative-market (the capital market henceforth). Suppose this bank acquires a three-month (3M) money market deposit and invests the proceeds into a 10Y government bond. In a market environment exhibiting an upward sloping yield curve, the interest income earned from the 10Y bond is higher than the interest expense incurred on the 3M deposit. Thus, the bank is making a profit.

However, after three months the deposit must be rolled over. If the yield curve bear-flattens or inverts over that period, the roll-over will be more expensive and the bank may become unprofitable. If the capital market dries up over that period, the roll-over will be impossible and the bank becomes illiquid. Thus, the bank is running both price risk and funding liquidity risk. The generation of risky profits from intended or unintended mis-matches in the maturity structure of assets and liabilities is called maturity transformation.¹

Suppose now the bank obtains access to customers outside the capital market. Instead of the 3M money

market deposit, the bank acquires a 3M retail term deposit and instead of the 10Y government bond the bank grants a 10Y bullet mortgage loan. This change does not alter the maturity structure of assets and liabilities and, consequently, does not alter the mismatch position of the bank. However, this change introduces a second source of profits: the 10Y mortgage loan earns more than the otherwise identical government bond, and the 3M retail deposit costs less than the otherwise identical money market deposit. The ability of a bank to generate profits from selling customer products at rates above / below capital market rates is called customer franchise.

¹ This idea may be generalized to include also risky profits from mismatches in the currency denomination (e.g., £ versus €) and/or the interest rate basis (e.g., 3M Libor versus 6M Libor) between assets and liabilities. A further generalization might even include option risks from, e.g., prepayment rights embedded in customer loans.



The boundary between maturity transformation and customer franchise is set by the bank's FTP system. To see why, consider the rationale of the bank when deciding about selling a customer product. Selling a 10Y bullet mortgage loan increases interest surplus if and only if the customer rate exceeds the return on an alternative investment with the same maturity structure; here, a 10Y government bond. If not, the bank would be better off (in terms of interest surplus) to forgo the customer loan and actually invest its funds in the capital market. Similarly, selling a 3M retail term deposit increases interest surplus if and only if the customer rate is lower than the cost of an alternative funding with same maturity structure, here the 3M money market deposit. If not, the bank would

be better off (in terms of interest surplus) to forgo the customer deposit and actually source its funds from the capital market. This rationale is called the opportunity argument. Using matched-maturity capital market rates as internal transfer prices thus enables the bank to measure a Business Unit's ability to generate profits from customer franchise.

Similarly, consider the rationale of the bank when deciding about maturity transformation. The maturity transformation generated by selling a 10Y bullet mortgage loan to a customer can be hedged by issuing a 10Y bank bond in the capital market. Similarly, the maturity transformation generated by selling a 3M retail term deposit to a customer can be

hedged by placing a 3M money market deposit in the capital market. If these hedges are applied, the bank is only earning a riskless customer franchise profit. If these hedges are not applied, the bank is in addition earning a risky mismatch profit. This rationale is called the hedging argument. Using matched-maturity capital market rates as internal transfer prices thus enables the bank to measure Treasury's ability to generate profits from maturity transformation. It is important to note that from an FTP perspective Treasury is not obliged to actually realize the assumed hedges as external transactions. Rather, risk limits permitting, Treasury may well decide at its own risk to not externally hedge if it expects capital market rates to be moving in favour of the bank (in this example, falling 3M rates). This freedom with respect to external risk hedging does not affect the hedging argument used to derive internal transfer prices between Business Units and Treasury. Therefore, the assumed hedge underlying the FTP rate is called a replication or hedge fiction. In this sense, transfer prices are fictitious prices based on a notional hedge of the underlying customer deal.² The prices of the constituent notional hedging instruments (e.g., par-rates of bullet bank bonds) are given by the FTP curve.

² This principle is ubiquitous in Finance. Nearly all financial instruments are priced using a fictitious hedging argument. For example, Black-Scholes option prices are based on a dynamic delta-hedge argument and apply independent of the actual hedge situation of the option counterparties. The same principle applies in FTP.

DEFINITION OF FTP

This section provides a more formal definition of FTP. To assist our explanation, we view the bank as being organized into a number of Business Units on one hand and a central ALM function called Treasury on the other. Business Units contract external customer deals on the asset and liability side, such as the 3M retail deposit and the 10Y mortgage loan referred to earlier. Treasury contracts external capital market deals, both in cash instruments (bonds, money market deposits, etc) and in derivatives (swaps, swaptions, etc).³ Subject to the calculation of transfer prices are only customer deals. Capital market deals enter cost allocation through actual income or expense, and do not receive internal transfer prices.

In this setup, Treasury is serving as an internal bank for the Business Units, taking all funds received from new deposit business and providing all funds required for new loan business. The internal funds transfer between Treasury and Business Units is settled on a matched basis against a suitably chosen FTP curve. A mortgage loan of £5mn with a fixed customer rate of 4% agreed for 10Y is getting a fixed 10Y £ FTP rate, say 3%. This rate is initially derived from the FTP curve prevailing at loan inception and subsequently debited

periodically over the loan's 10Y contractual rate tenor, in sync with the external interest income from the customer. Likewise, a retail deposit of €2mn with a floating customer rate of 3M Euribor + 1% agreed for 2Y is getting a floating 2Y € FTP rate, say 3M Euribor + 1.5%. This rate is initially derived from the FTP curve prevailing at deposit inception and subsequently credited periodically over the deposit's 2Y contractual rate tenor. The difference between the external customer rate and the internal FTP rate is called the commercial margin of the respective deal. It remains as P&L with the contracting Business Unit. Obviously Business Units have a strong incentive to contract only customer deals that generate a positive commercial margin.

An FTP system's three defining properties:

1. Single customer deal commercial margin stays constant⁴
2. Asset-side and liability-side customer deals generate own commercial margin
3. Asset-side and liability-side customer deals are independent of each other⁵ (under capital-market structure)

Treasury guarantees internal FTP rates independent of subsequent external market developments. Thus, an FTP system generates not only a constant commercial margin on the Business Unit side, but as a necessary complement also a risky mismatch position (or ALM gap) on the Treasury side. The riskiness pertains to mismatches in volume, maturity, currency, basis, and so on.

Treasury's task is to centrally manage the aggregate balance sheet net mismatch position in line with the bank's desired risk-return profile. This activity is called asset-liability management (ALM). It is typically effected through actual capital market deals. In our example, Treasury might decide to hedge all risks (and to forgo any future mismatch profits) by actually raising £5mn fixed-rate for 10Y and investing €2mn floating-rate for 2Y on the external capital market. However, risk limits and market expectations permitting, Treasury might equally well decide to raise only £3.3mn for 10Y in the capital market and raise the remaining £1.7mn by converting the €2mn retail deposit at the current spot exchange rate (1€ = 0.85£).

³In terms of conventional microeconomics, the bank can be viewed as acting on two separate markets with different characteristics. Business Units act on a customer market where the bank is an oligopolistic price setter (and volume taker). Treasury acts on a capital market where the bank is a polypolistic price taker (and volume setter). In the literature this setup is known as a „Monti-Klein model“.

⁴In case of the € deposit the contracting Business Unit pays € external interest to the customer and receives € internal interest from Treasury. Thus, the Business Unit is protected from exchange rate risk up to the deal's notional plus internal interest. The residual commercial margin itself is living outside the FTP system and hence not protected against exchange rate risk (nor, by the way, against interest rate risk).

⁵In terms of conventional microeconomics, this independence can be shown to resemble the well known Fisher-Separation. In terms of practical banking, this independence justifies the organizational / managerial independence of loan business and deposit business typically observed in banks. See below.

This leaves our (£ based) Treasury with a risk position of 1.7mn £-equivalent. If, after 2Y, the money market is still liquid and the 3M Euribor and/or £/€ exchange rate lower, Treasury will be able to roll this position at better terms (either by rolling in € or by rolling in £ and converting into €). The mismatch profit generated from such position taking is sometimes called Treasury margin, although being risky it is not a margin in the strict sense of the word.

It is important to note that Treasury's decision for or against external capital market hedges is fully absorbed in the Treasury margin and does not affect the commercial margin of the Business Units. That is, the 10Y £ mortgage loan is always measured against the 10Y £ FTP rate – irrespective of whether the bank's actual funding consists of a 10Y £ bank bond, a 10Y € retail term deposit, a 2Y € money market deposit, a 2Y £ retail term deposit or anything else. The internal funding arrangements between Business Units and Treasury (always matched by design) are independent from the actual external ALM situation of the bank (possibly mis-matched by policy). In other words, the pricing of customer deals and the profitability of Business Units are not influenced (read: subsidized) by unrealized future P&L from risky mismatch bets. This property distinguishes an FTP system from other funding cost allocation mechanisms such as “blended

pool rate”, “weighted average cost of funding”, etc. Succinctly, FTP is neither about the external hedging of risks nor about the internal transfer of funds. Rather, FTP is about the internal transfer of risk.

An FTP system can now be formally defined as a sophisticated type of funding cost/benefit allocation mechanism which attaches an internal transfer price (called FTP rate) to every external customer deal. The internal transfer price:

1. is determined for individual deals (with certain exceptions for modelled short-term business, notably sight deposits),
2. is based on an explicit, though notional hedge argument rendering the deal internally risk-free for the Business Unit and, hence, the deal's commercial margin constant,
3. is calculated once at deal inception and guaranteed by Treasury over the deal's lifetime⁶, thereby transferring the risk position to Treasury,
4. is based on the hedging conditions prevailing for Treasury in the capital market at deal inception, as represented by a suitably chosen FTP curve.

Property 2 is also known as the matched-maturity principle, although it would be more precise to speak

of a matched-risk principle given that also currency risk, basis risk and perhaps even option risk (from prepayment rights) should and can be reflected in the hedging argument. Property 4 is known as the marginality principle. According to this principle, the incurred average cost of existing funding has no relevance for the pricing of new (= marginal) business. Rather, new customer deals are priced against the costs/benefits of currently prevailing (= marginal) hedge conditions. Succinctly, FTP does not assume an average ex-post view but rather a marginal ex-ante view on the bank's customer business.⁷ The above FTP principles could also be applied to the pricing and management of default risk using hedge arguments based, for example, on credit-default swaps and their central management in a “credit treasury”. While such a mechanism is actually implemented in many banks, it is not contained in the label “funds (!) transfer pricing”.

Its defining properties render an FTP system a powerful tool for product pricing, cost allocation and risk management. These three purposes are closely inter-related and examined in the following sections.

⁶ A deal's FTP-relevant lifetime is typically given by its contractual or behavioural external rate tenor. A rate tenor should not be confused with a fixing tenor. A customer rate 3M Libor + 1% agreed for 2Y has a fixing tenor 3M and a rate tenor 2Y.

⁷ This ex-ante view often poses a conceptual challenge for Finance Departments, which quite naturally are more inclined to think in terms of actual averages of past deals („we do fund our existing long-term loans with cheap short-term deposits“) rather than future opportunities of hypothetical hedging operations („we could hedge this new long-term loan by issuing a cheaper new long-term bond into the capital market“).

FTP AS A TOOL FOR PRODUCT PRICING

Product pricing means the determination of an internal hurdle rate (minimum rate for loans, maximum rate for deposits) against which an external customer rate can be negotiated for an imminent single customer deal. Economists call such deals “marginal”. Using FTP in product pricing ensures that such a customer deal is contracted only if it is generating over its full intended lifetime a positive commercial margin for the bank. In negative terms, using FTP in product pricing ensures that customer deals are not contracted if they would generate a negative commercial margin for the bank.

Protection against unprofitable deals can be an important task given a sometimes purely volume-driven business mentality.

Product pricing critically relies on the defining properties of an FTP system. The usefulness of property 1 for product pricing is obvious. More important, properties 2 and 3 ensure that the initial profitability assessment is not reverted (and the deal regretted) at some later point in time. Properties 3 and 4 ensure sustainable product pricing in that the

current pricing of customer deals is not implicitly subsidized by unrealized future P&L from risky mismatch bets. This latent danger of other product pricing practices was vividly demonstrated during the 2008 financial crisis.

By its very nature, product pricing takes an ex-ante view on imminent single customer deals. Sometimes this is also called pre-calculation. Product pricing is a typical Business Unit activity. This is in contrast to cost allocation. Cost allocation is a typical Finance activity, taking an aggregated ex-post view on contracted customer deals. Sometimes this is also called post-calculation. In the practical implementation of an FTP system care should be taken to preserve the identity of pre- and post-calculation. A deal deemed profitable before inception in product pricing by a Business Unit should not, after inception, be deemed unprofitable in cost allocation by Finance.

FTP AS A TOOL FOR PROFIT MANAGEMENT

By benchmarking customer deals against an FTP curve on a matched basis and performing internal cost allocation on this basis, an FTP system effectively splits the bank’s interest surplus into three components: commercial margin from asset-side customer business, Treasury margin from maturity

transformation, and commercial margin from liability-side customer business. The commercial margins are risk-free in the sense that they do not react (for existing deals) to variations in the FTP curve. Rather, such variations are fully absorbed by Treasury’s mis-match result, which in this sense is risky. This separation of “risky” maturity transformation and “risk-free” customer franchise is an important property of an FTP system.

To see why, note that maturity transformation and customer franchise are independent activities: a bank can have zero maturity transformation but high customer franchise, or conversely high maturity transformation with low or even zero customer franchise. The independence of these two components stretches deeply into a bank’s organisational setup and management processes. Maturity transformation depends on the bank’s risk appetite and is typically managed centrally by Treasury using its capital market expertise as well as risk management instruments (sensitivities, limits, hedges, etc). Customer franchise, in contrast, depends on the bank’s business model and is typically managed de-centrally by Business Units using their customer expertise combined with marketing instruments (friendly service, solid reputation, TV advertising, and so on).

In this management sense FTP provides an actionable split of the bank's interest surplus. Note that this separation does not depend on the particular choice of the FTP curve.

Assume now that the FTP system is market-oriented in the sense that Treasury is able and allowed to operate on the external capital market on an unrestricted basis and that, hence, the FTP curve is set to reflect current capital market conditions. Besides giving a sensible economic interpretation to maturity transformation and customer franchise, this condition also produces a second separation, namely that of asset-side- and liability-side customer business activities. Similar to the well-known Fisher Separation from investment theory, it can be shown that sales management for asset-side customer business (i.e., the setting of loan rates and management of loan volumes / maturities) and for liability-side customer business (i.e., the setting of deposit rates and management of deposit volumes / maturities) become mutually independent activities under a market-oriented FTP. This independence also stretches deeply and often unconsciously into a bank's organisational setup and management processes, as evidenced for example by independent business planning and product pricing responsibilities on the loan side and the deposit side. Note that this

independence critically relies on Treasury's ability to manage mismatches between asset-side and liability-side customer business (w.r.t. volume, maturity, currency, basis) through offsetting capital market transactions. Thus, while the general separation of interest surplus into maturity transformation and customer franchise holds for any choice of FTP curve, the further separation of customer franchise into independent sales management activities on the loan-side and deposit-side holds only for a market-oriented FTP curve.

FTP AS A TOOL FOR RISK MANAGEMENT

A transfer price is built on an explicit hedging argument. While the typical hedging paradigm is a matched-maturity replication of a given customer deal, the idea can be readily extended to more complex product features (for example, replication of prepayment options embedded in a mortgage loan through receiver swaptions). On basis of the hedging argument, the transfer price is guaranteed by Treasury over the deal's lifetime so as to immunize the Business Unit from later changes in the FTP curve. As a consequence of this internal risk transfer, all pertinent price- and liquidity risks of the bank become effectively concentrated at a single central

management unit, which is Treasury. Thus, under an FTP system the risk department can safely confine its attention to Treasury instead of expanding a risk infrastructure throughout the bank's entire Business Unit network.

The risk management aspect of FTP is often neglected in finance publications.

From a pricing and cost allocation perspective, it seems perfectly reasonable to require (as regulators like to do) the inclusion of "difficult" items like prepayment options, committed liquidity lines or country risk into the FTP mechanism. Why should, after all, such products go "mis-priced" and not bear their "fair share" of cost? The problem is risk management. For some products it is simply not possible to construct a hedge. For example, absent traded liquidity options, credit lines can neither be internally replicated nor externally hedged. For other items it might be possible to construct a hedge using traded instruments (e.g., country risk). However, an inclusion into FTP remains fairly meaningless as long as Treasury is not endowed with a mandate and an infrastructure (market access, trading system, trading people, product approvals, risk limits, etc) to actually

perform this external risk management. Succinctly, there is little sense in transferring a risk internally from Business Units to Treasury on whatever basis if the latter is not capable or not allowed to hedge this risk through external transactions.

Besides these organisational aspects, the risk management role also has implications for the conceptual design and technical implementation of an FTP system. On the technical side, the bank should ensure that the hedge fiction used by the FTP system is compatible with the cashflow representation of a customer deal in the liquidity risk management system. Only under this condition will the Treasury margin adequately reflect the P&L resulting from managing the bank's liquidity gap profile. On the conceptual side, the bank should ensure that the FTP methodology is capable of producing a net present value (NPV) view in addition to, and consistent with, the usual periodic accrual view. Only under this condition can (i) common risk metrics for Treasury's aggregate mismatch position (e.g., DV01 sensitivities or value-at-risk (VaR)) be calculated and (ii) the performance-oriented NPV view on Treasury's mismatch result be reconciled with the accounting-oriented accrual view on the Business Unit's commercial margin.

SUMMARY

FTP (in the sense defined here) is a powerful tool for product pricing, profit management and risk management in banks. Properly conceived it allows the bank to not only separate the central management of a risky ALM position by Treasury from the de-central management of the bank's customer franchise by Business Units, but also to separate the latter into independent asset-side activities (such as loan origination) and liability-side activities (such as deposit taking). However, its power is also its curse: FTP requires various bank departments with different mentalities (Business Units, Treasury, Finance, Risk) to agree and operate on a clean common understanding of an overarching theoretical concept – a task not every organisation is prepared to accomplish. And FTP is brutally honest about the sustainable profitability of customer deals – a message not every manager is prepared to hear.



Dr. Engelbert Plassmann

Dr. Engelbert Plassmann is a Director in the Treasury ALM department at Commerzbank, in Frankfurt. Before entering banking in 2001, Engelbert pursued academic interests and earned a doctoral degree in econometrics from University of Constance, Germany.

02 Risk Management in Green Banking

By Suborna Barua

ABSTRACT

Banks, through the nature of their business, face a wide range of risks. Greening the business practices of banks could reduce many of these risks, including credit risk, reputation risk, asset risk, liability risk, legal risk, and so on. The influences of green banking on these risks could have implications for banks' balance sheets. Beginning with a background of environmental considerations for banks, this article highlights the implications of green banking on these risks. The article argues that banks should take a long-term view and incorporate sustainability into their business operations for the collective good.

1.0 INTRODUCTION

Global warming, driven by human activities, has widespread impacts on the world's ecosystems, including on biodiversity, production, forestry, dry land, water resources, and human health, and the impacts are likely to intensify according to recent reports (IPCC, 2018). In addition to the real sector, the financial sector is also prone to such environmental impacts. For example, a study from the London School of Economics (LSE) estimated that the value of global financial assets at risk from climate change is about USD 2.5 trillion (Dietz et al., 2016) while another

estimate by The Economist suggested it to be around USD 4.2 trillion (EIU, 2015). The overall financial and investment risks could broadly be classified into six main areas: physical, secondary, policy, liability, transitional, and reputational (Ernest and Young, 2016). Environmental protection and more sustainable business activities are the key to reducing the estimated impacts. As major institutions in the economy, banks have enormous potential to reduce environmental impacts across all sectors in an economy and force economic agents (e.g. corporations) to incorporate sustainability into their business practices. In order to achieve this,

Banks need to go 'green' and proactively improve their business processes and principles.

One example of the trend of banks going green is the increasing number of financial institutions signing and adopting the Equator Principles (EP), with a total 94 financial institutions over 37 countries having signed as of today, compared to just ten in 2003 (EP,

2018). However, going green may have important implications for bank risk management practice. Banks are generally exposed to a wide range of risks, as the standard textbooks and practitioners suggest (e.g. interest rate, liquidity, credit risk), and green banking practices could influence their degree and magnitude. While the call for greening bank business practices has been increasing worldwide, it is important to understand why and how it impacts on banking risks, which this article aims to highlight. However, before addressing risk implications, we open with a preliminary discussion on green banking.

2.0 ENVIRONMENTAL RISK AND BANKS

Environmental degradation today is greatly intensified by human activities. Although all activities, and all businesses, impact on the environment to some extent, industrial and manufacturing businesses are considered to be the major contributors to environmental degradation. Mitigating such environmental damage requires taking two broad approaches simultaneously: (i) preventative measures: enforcing mechanisms beforehand so that no economic agent intentionally or unintentionally acts irresponsibly to the environment, and (ii) contingent measures: stopping or mitigating existing damage by correcting the irresponsible behaviour of economic agents and helping the communities affected recover.

Financial institutions are the primary drivers of environmentally responsible corporate behaviour by

influencing financing and investment decisions (Rahman and Barua, 2016). Banks have the ability to ensure these approaches work, perhaps, more on the 'preventative' than the 'contingent' measures. For example, banks can do this through enforcing environmental compliance before approving a loan (preventative) or by imposing new compliance requirements (e.g., Effluent Treatment Plant (ETP) installation) for loans already approved (contingent). Sometimes, it is difficult to enforce contingent measures, as parties to a loan contract are bound by mutually agreed covenants, and borrowers are usually reluctant to make changes in the middle of their investments. Considering the traditional business model of a bank, environmental considerations could be adopted in both the 'supply' and 'demand' sides. However, such intervention is relatively limited on the supply side (savers or depositors), apart from the initiation of motivation and awareness programs and

through paying a 'premium price' for environmentally responsible savers or lenders. However, on the demand side, banks have a greater role to play in changing the behaviour of borrowers.

Given the global experience, environmentally responsible behaviour in the financial services industry is seen to be more effective when initiated by regulatory authorities, e.g. by incorporating environmental considerations in prudential regulations. The regulations, available in different countries, are combinations of both voluntary and mandatory provisions. The fundamental message of the provisions across the world is the same: banks should focus more on long-term sustainability than on short-term gains, which can greatly help the planet, people and society.

Figure 1: Green banking interventions

Level of Environmental Risk	Unmanageable				Not Acceptable	Not Applicable	Level of Environmental Compliance
	Moderately Manageable			Less/Minimal Premium Concession		High	
	Substantially Manageable		Concessionary Premium			Low	
	Fully Manageable	Zero Premium				Minimal	
	Regular Rate	Low	Medium	High	Avoid		
Fund Pricing with Risk Premium							

Source: Author developed

Figure 1 presents a basic three-dimensional relationship between the bank fund (loan) price, environmental risks, and relevant compliance requirements. A bank’s fund pricing and compliance enforcement would depend on the degree and likelihood of environmental damage and its manageability associated with the usage of a loan for a particular project. Banks should normally price higher and enforce more compliance requirements when financing projects with a greater threat to environment. The pricing should be adjusted with perceived and/or estimated risks to be generated from potential environmental damage in both short and long-term. The risk estimation and adjustment should be made while assessing and appraising a

possible financing proposal. Similarly, a higher likelihood of environmental damage should attract higher compliance requirements and fund pricing (e.g., for chemical-based industries). Compliance enforcements could include, for example, banks making it mandatory for a potential borrowers for all to gain a new or special environmental approval from government agencies before approving a financing proposal. While there is no unified model for the ‘premium’ to be added to the interest rates, it would certainly depend on many factors, e.g., bank characteristics, borrower characteristics, and economic characteristics. Further, banks should avoid financing projects that have high likelihood to severely damage the environment (e.g., coal mining).

3.0 GREEN BANKING AND ITS IMPACTS

While environmentally-friendly banking is mainly defined by banks’ sustainable lending practices externally, green banking is a broader concept that includes green practices in both internal and external operations. The term ‘green banking’ generally refers to banking practices that deliver environmentally responsible external financial services and adopt environmentally sustainable internal systems and processes. A green bank is generally, though not necessarily always, also known as an ethical bank, an environmentally responsible bank, a socially responsible bank, or a sustainable bank, and is expected to consider all social and environmental concerns. As said before, environmentally-friendly banking practices operate in two broad dimensions: external (e.g., green financing, financing for ETP installation and renewables projects, climate change mitigation and adaptation financing) and internal (e.g. renewable energy usage, reducing paper use, saving water and electricity). Green banking practices can be divided into six major areas: (i) investment management, (ii) deposit management, (iii) internal office housekeeping, (iv) human resources management, (v) corporate social responsibility (CSR), and (vi) environmental awareness among clients and society.

As mentioned earlier, there may be two approaches to introduce green banking practices depending on who takes the lead: (i) by enforcement of the financial services regulator and (ii) by a bank's own voluntary endeavour. In order to generate a widespread shift in the entire financial services industry, the regulatory approach is perhaps more effective. In many countries and regions, for example in at least eight European Union countries, banking practices have integrated

environment risk management (ERM) guidelines, which essentially provides the basis for green banking (Weber et al., 2008). A list of the world's greenest banks and their environmental performance can be seen in Table 1. To understand the implications of green banking in the business practices of banks, refer to Figure 1. Banks need to assess and measure the nature and magnitude of environmental risks that can be created by a particular project under appraisal.

If the bank finds that the borrower has the ability to adequately manage the environmental impacts of the project, banks may choose not to add a premium to their regular interest rate and enforce a minimal level of compliance requirements. However, as the level of environmental risks increase, both the level of environmental compliance and the interest rate should increase. However, as higher interest rates may cause banks to lose customers, enforcing a higher level of compliance instead may be an attractive alternative. Therefore, if a bank finds that its potential financing has environmental impacts that are substantially or largely manageable, the combination of a small premium and higher compliance requirements may be chosen. In cases where projects have relatively less or moderately manageable impacts, a higher premium and compliance requirement should be implemented. However, for projects having likely unmanageable environmental impacts, banks should either deny financing or advise customers to redesign their projects to better manage environmental impacts.

Table 1: World's greenest banks

RANK	BANK NAME	COUNTRY	OVERALL SCORE	CLEAN ENERGY INVESTMENT	REDUCING ENVIRONMENTAL IMPACT
1	Banco Santander	Spain	85.1	95.8	76.7
2	BNP Paribas	France	82.3	95.6	76.4
3	UniCredit	Italy	81.8	94.3	69.4
4	Royal Bank of Canada	Canada	81.5	95	58.2
5	Goldman Sachs	US	81.1	98.1	74.7
6	Mizuho Financial Group	Japan	78.8	83.1	77.2
7	HSBC holdings	UK	78.7	97.7	59.2
8	Mitsubishi UFJ Financial Group	Japan	78.3	95	56
9	SEB	Sweden	77	79.6	71
10	Credit Swiss Group	Switzerland	76.9	97.3	54.3
11	JP Morgan Chase	US	76.9	91.6	75.9
12	Deutsche Bank	Germany	76.3	90.4	76.6
13	Bank of America	US	75.9	93.3	68.7
14	Canadian Imperial Bank of Commerce	Canada	74.9	88.2	43.9
15	Intesa Sanpaolo	Italy	74.9	74	77.1
16	Macquarie Group	Australia	73.9	92.7	46.7
17	Banco Bradesco	Brazil	73.5	78.3	62.4
18	National Bank of Canada	Canada	73.2	79.6	58.2
19	Standard Bank Group	South Africa	72.5	76.8	62.3
20	Bank of Nova Scotia	Canada	72.1	87.3	44.8

Source: Bloomberg (2014)

Greening both internal and external operations can improve a bank's reputation

which is why mainstream banks may not want to miss the opportunity to do so (Münchow et al., 2011). An increasing number of studies suggest that customers prefer banks that are greener, and customers often request that traditional banks develop more environmentally responsible products and services (Green Wiki, 2013; Arnsperger, 2014). A study on the top five Romanian banks suggests that being environmentally responsible is positively associated with higher rating and asset sizes (Cosmin et al., 2008). Green banking may substantially reduce some risks as well, e.g., credit risk by reducing possibility of default, due to direct or indirect cost imposed on customers through stricter environmental regulations imposed by governments (Bhardwaj and Malhotra, 2013). In the United Kingdom for example, a breach of the terms of a pollution control license would lead to prohibition, financial penalties and enforcement notices against companies found to have breached the license terms (Bhardwaj and Malhotra, 2013). Banks also lose out from financial risks arising from a lack of environmental considerations in their business practices (Hamilton, 1995; Blacconiere and Pattern, 1994). For example, the enforcement of The

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in USA in the 1980s led to many banks facing substantial loss as they were held responsible for the environmental degradation caused by their clients, and had to pay for the cost of remedial measures (Hong et al., 2016). Hence, banks are now aware more than ever on environmental risks. For example, a study of 55 UK banks, including five of the largest ones, reveal that about 90 percent of them believe that environmental risk and liabilities are critical for their business and about 80 percent them considered environmental risks and liabilities when making lending decisions (McKenzie and Wolfe, 2004).

4.0 GREEN BANKING AND BANK RISK

Green banking in the long run could help mitigate a variety of risks. Failing to take into account environmental concerns could add to existing risks, directly or indirectly, that banks normally face as a financial institution (Mazahrih, 2011; Sustainability Research Institute, n.d.). It is difficult to provide a clear estimate of the economic value of risk impacts arising from ignoring environmental considerations either at national or regional levels. However, environmental contribution to the risks bank normally face could adversely affect banks income, profitability, and value of assets and liabilities. There are many sectors or

industries that have significant environmental impacts (e.g., agriculture, mining, cement and steel manufacturing, energy and power etc.), and risks arising from the environmental impacts widely vary across sectors or industries. Considering the heterogeneous nature of risk exposure, banks in many developed (e.g. UK, USA) and developing countries (e.g. China, India) now consider environmental concerns in their risk management practices. Below is a basic perspective on how environmental considerations relate to different bank risks.

Credit Risk: Lending activities ignoring environmental concerns can add to credit risk when customers: (i) experience a loss in the value of their assets, and (ii) face unfavourable changes in environmental regulations and compliance requirements, which raises the cost of environmental management (Hong et al., 2016; Mazahrih, 2011). Extreme weather conditions, such as heavy storms, may damage physical assets and infrastructure financed by borrowing, causing an immediate increase in the probability of default. Changes in environmental regulations may force businesses to change their environmental management practices, the direct cost of which could be large enough to affect business performance. Many firms could cease operating simply because they cannot afford to comply.

For example, the cost of an ETP installation may be sufficient to induce a small-scale borrower to not proceed with a specific project. Therefore, when assessing a borrower's application, banks generally fail to consider that the credit risks may be effectively higher when environmental concerns are ignored and unconsidered, as there could be large-scale implied expenses related to environmental damage, loss of market share, and third party liability claims (Sahoo and Nayak, 2007). However, the extent or nature of the credit risks may vary across industries or sectors. For example, lending to mortgage financing in the real estate sector could have a higher risk due to the possibility of falls in asset values owing to environmental degradation. Again, the security or collateral quality for loans may become poorer due to environmental damage, e.g., contaminated land in the agricultural sector. In the UK, many banks consider environmental concerns while making lending decisions (McKenzie and Wolfe, 2004; Thompson, 1998).

Legal Risk: Banks, like other business entities, face legal risk if they do not comply with relevant environmental regulations. Legal risk for banks can arise in two forms: (i) the possibility that a bank would fall short of compliances with regards to environmental regulations aimed at the banks themselves, and (ii) indirect pressure on banks to

ensure their clients comply with environmental requirements, which otherwise would result in a penalty for banks. Banks have to comply with a number of rules, regulations, and guidelines more strictly than any other form of business. When there are set environmental management regulations adopted and employed by relevant government agencies and financial services authorities, banks are certainly always at the risk of falling short of compliance requirements by their activities. In many cases, there may be a risk of direct lender liability for clean-up costs or claims for damages if banks have taken possession of the contaminated or hazardous assets (Sahoo and Nayak, 2007). In both the UK and the US, regulations like CERCLA enforce large fines and penalties on banks for their customers' failure to adequately protect the environment (Hong et al., 2016).

Reputation Risk: Again, not considering environmental impacts arising from a borrower's operations can result in negative publicity for both the borrowers and the banks, creating reputation risk for banks (Thompson, 1998). Banking business is inherently prone to reputation risk. Given the increasing level of awareness on the environment in society, the reputation of banks may be adversely affected if they engage in business with big clients or projects that are considered to be socially,

environmentally and ecologically damaging. For example, the financing of coal projects in Australia by big banks is highly criticised by many social and community groups. Often, pressure groups such as Greenpeace take the lead and put banks' activities in public question that may cause severe and immediate damage to the reputation of banks. In addition, banks that do not care for the environment may lose deposits from environmentally aware clients, as they may be more inclined to switch to banks that are more environmentally responsible. Investors (i.e., savers) worldwide are increasingly preferring environmentally responsible investments (Gupta and Goldar, 2005). Therefore, reputation has become a function of sustainable banking, and green business practices not only protect, but can also improve, the reputation and image of banks, resulting in an increased goodwill value.

Market Risk: Banks may be exposed to market risk as a result of adverse movements in the value of marketable securities they hold for investment or trading purposes. In recent times, investors have become more careful in putting their money into the securities issued by environmentally responsible companies. Stock market investors also are now equally concerned about environmental degradations and they are ready to act against industries and institutions that do not comply with desirable

environmental practices (Gupta, 2003; Goldar, 2007). This growing preference has led to exchanges introducing separate market portfolios or indices. For example, the FTSE4Good Environmental Leaders Europe 40 Index in London Stock Exchange is composed of European companies with leading environmental practices, the Cleantech Index has been introduced in different markets, such as Australia, which is composed of 59 top companies doing business in clean technology and services, and the Solactive Green Bond Index. An increased number of environmentally responsible investors globally tend to deny the securities of the companies that significantly impact on the environment or do not take necessary measures to protect the environment. The market price of securities move depending on news or information released publicly on corporations, which means that news or information on environmental damage created by companies can attract seriously negative reactions from investors. Therefore, holding and investing in such marketable securities could create market risk, as they may lose value abruptly depending on investors' reactions to any negative news or information. For example, there are cases where news of a company's activities causing environmental damage has resulted in a decline in bond values (Heim and Zenklusen, 2005).

Funding Risk: Banks fund loans primarily by deposits from the public, although they may borrow from other institutions. People in many countries have started to shift their deposits to responsible banks, despite these banks often providing lower returns. This could lead to difficulties in financing if large depositors make the shift and banks find it difficult to attract new large-scale depositors. Moreover, borrowing from other institutions may also be less likely if those other institutions prefer to provide funding to responsible banks only. As a result of growing environmental awareness, many institutions have started to prefer banks that are green in their business practices, offer green banking products, and lend to environmentally responsible clients. In addition, due to the rise in multilateral and supranational initiatives on sustainable financing, banks are increasingly able to access low-cost and longer-term funds with fewer conditions from multilateral financial agencies, for example the International Finance Corporation (IFC). This means that

Banks that are green can actually attract a greater supply of funds financing at a lower cost

now compared to those that do not care for the environment.

Liability risk: Banks' liabilities generally include deposits and external borrowings. However, a 'third-party' liability could be created when collateral possessed by the banks from borrowers against loans made become impaired and the borrower is unable to pay out its other creditors. Such third-party liabilities generally stem from legal obligations and could result in fines, penalties, and damage costs. For example, a mortgaged coal mine could produce a large liability for the bank in the form of clean-up costs and community payments, if a major accident breaks-out, pollutes the surrounding area, results in human injury, and the borrower is unable to pay. However, sometimes corporations take out insurance to reduce the risk of such liabilities.

Asset risk: A bank's portfolio of fixed properties could be a major source of environmentally-created asset risk, particularly due to real estate ownership. Many assets owned by banks could have significant and heterogeneous levels of environmental exposure and sensitivity, for example, land and infrastructures owned in coastal areas, lands becoming unusable due to environmental degradation and therefore losing value, and quick depreciation of property values due to excessive heat and rainfall. The potential

consequences could lead to both direct and indirect losses (Balmar, 2008). Direct costs could include, but are not limited to, major clean-up costs or payments to relevant parties and losses in the real value of assets on the bank's balance sheet. Indirect costs could be produced in several ways, for example, properties becoming unusable resulting in a higher replacement, relocation, or substitute rental costs, interruption in business operations, and losses in rental income. For example, a national bank in California was facing a clean-up cost that could exceed \$2.5 million arising from damaged caused by nine oil wells in which the bank had ownership (Balmar, 2008). Overall, such environmental consequences could devalue equity positions for the banks.

5.0 CONCLUSION

Banks normally face a diverse range of risks, although not all of them are linked to green practices. Despite this, green banking can effectively help banks reduce many of these risks and boost business values substantially that can result in greater market share and power. As such, ignoring green practices could result in a higher likelihood and impacts of these risks, which in the end could worsen bank balance sheet and income statement positions. It can be inferred that if environmental outcomes raises the risk

impacts, it has potential to significantly reduce income, profitability, and asset-liability values. While the practice of green or environment-friendly banking is growing rapidly, there remains several challenges. For example, there is some reluctance to prioritize sustainability, a lack of knowledge and awareness among bankers and customers, the unavailability of valuation methods for the costs and benefits of green banking, and the lack of a standardized framework at international, supranational or regional levels. It is likely that it will take some time to mitigate these challenges and enable banks to change the way they do business. Given that banks cannot become full-fledged 'green banks' overnight, they need to begin acting now to protect all three objectives: people, planet, and profit. The ultimate conclusion that one might draw however is that there are sound balance sheet risk management reasons why one would adopt more green banking, alongside the ethical and wider societal aspects that might otherwise drive this new approach.

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Suborna Barua

Suborna Barua is Assistant Professor of Finance at the Department of International Business, University of Dhaka. He received his Doctor of Philosophy (PhD) in Finance and Economics from Federation University Australia and his Bachelor and Master of Business Administration degrees in Finance from the University of Dhaka, Bangladesh.

Email: sbarua@du.ac.bd

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03 From A Standalone ALM Desk to A Group Function: A Suggested Target Operating Model for Group Treasury

By Dr. Polina Bardaeva

In today's regulatory and competitive environment, managing the balance sheet for a single entity presents considerable challenges for the asset-liability management (ALM) manager. This challenge increases exponentially in a Group entity. In this article we address the significance of this challenge, and make recommendations for a best-practice Group Treasury operating model.

SETTING THE SCENE

Group Treasury (GT) is responsible for ALM in the orthodox manner of a single entity Treasury function, but with the additional complexity associated with a multi-entity bank. In other words GT is the ALM desk for the banking group. It means that there is a Head Office and there are subsidiary banks – and as parts of a wider financial organization they have to interact with each other. There are no fixed rules for each Group Treasury. But according to the peculiarities of different banks, associated with differences in business model and strategy, there are specific models of Group Treasury which are a better fit than others.

First of all, before describing the various GT operating models it is necessary to define the scope of tasks and problems that a GT faces. Some of the responsibilities

are exactly the same as of a standalone ALM desk, while some of the responsibilities are an extension of the latter.

The primary tasks of an ALM desk of a single-entity institution are: (i) management of banking book risk, including interest-rate risk and FX risk; (ii) liquidity and capital management and (iii) managing the funds transfer pricing and interest income allocation process.

The role of a GT is identical, but with the added responsibility of ensuring uniformity of approach across the group. Hence GT is responsible for interest rate risk, currency risk and liquidity risk management and balance sheet steering. The goals of GT in these aspects include:

- **To ensure that regulatory and internal requirements** (including Basel Capital and Liquidity

recommendations) of all the banks in the Group are met;

- **To analyze and manage interest rate and FX risk positions in the banking book** (including minimization of risk position for hedgeable risks and precise control over non-hedgeable risks);
- **To optimize liquidity buffer size and its composition**, in line with Basel but also in accordance with specific local jurisdiction rules and yields of the local financial market;
- **To ensure stable and cost-efficient funding** for subsidiaries;
- **To optimize capital consumption and capital adequacy ratios** within the Group and to ensure adequate capitalization within regulatory requirements and business plans.

Instead of interest income allocation within business lines now being the task of a standalone ALM desk, GT is responsible for implementation of Group-wide methodologies of interest margin allocation within business lines (defining targets and key performance indicators (KPIs)), as well as other Group principles to ensure the comparability of values and results within different subsidiary banks.

And finally, instead of the provision of a benchmark for interest rates to the business and establishment of the system of motivation that a standalone ALM desk does, GT is responsible for designing funds transfer pricing (FTP) principles, models (and sometimes even curves themselves) in a way that optimizes usage of the bank's capital and liquidity and maximizes group shareholder value.

HIGHER-LEVEL GROUP CONSIDERATIONS

These responsibilities are challenged by problems that almost every GT faces in its business due to geographical scale of business and differences between banks within the Group. Thus, each GT has to deal with:

- Different regulatory requirements in jurisdictions where subsidiary banks operate.

These include local lending limits, capital adequacy

ratios (different add-ons of the local regulators), liquidity buffer requirements and also constraints to transfer funds across legal entities and jurisdictions.

As a result of regulatory differences, there arises the task of funding and capital consumption optimization across the Group. This task becomes even more vital in times of economic slowdown: reduced availability of liquidity and capital makes FTP, strategic resource planning (funding/capital) and pricing more important.

- Local specifics of markets impacting the size of subsidiaries, their growth rate, types of business lines and product parameters

Difference in market dynamics means availability of different products (simple loan lending or with embedded options, derivatives, insurance) and availability or lack of some funding maturities drive the balance sheet structure.

The ability (or its absence) of subsidiaries to borrow money on local markets in different currencies and for different tenors, as well as different interest rate environments and, thus, the costs of funding, volatility of exchange rates of local currencies form

structural liquidity, interest rate and FX risks contribute to the financial results of the subsidiary and of the Group.

These different types and complexities of balance sheet risks have to be managed by GT. This task becomes more complicated if a subsidiary bank operates in markets where it is unable to hedge all the risks or even in countries under political sanctions.

- Double reporting lines within a Group from subsidiaries to local heads and Head Office may cause conflicts or ambiguity.

To prevent problems, proper establishment of the structure and governance within the Group becomes another task for GT. This task is easier if a strong central liquidity management framework and Group oversight is required by the home regulator.

CENTRALIZED OR DECENTRALIZED?

There are two basic operational models for Group Treasury: centralized and decentralized. Naturally a mixture of centralized and decentralized models gives life to many models, as each time the mixture is different according to the needs of the Group.

We consider the pros and cons of each model below.

A Centralized Group Treasury model is characterized by strong dependence of subsidiaries' Internal Treasuries (ALM desks) on GT. All the interaction between subsidiaries (if needed) is executed through the Head Office. There is a clear Group strategy, defined in the Head Office and applicable to all the subsidiaries, followed by strict Group standards, templates and limits. It finds its application first of all in governance and then in practical issues.

Centralized governance requires that subsidiaries Internal Treasuries' organizational structure completely reflects (repeats) that of Head Office. Subsidiaries have the same structural units as GT (liquidity, FTP, interest rate risk, capital adequacy etc.) and report to the latter within each unit. GT has direct influence on subsidiary Treasuries' action plans, budget, staffing and defines KPIs for heads of structural units of the subsidiaries' ALM desk.

GT determines policies and rolls out methodology to

subsidiaries, which align with Group principles and operating procedures, although all the adjustments and amendments have to be approved by GT. Within centralized governance GT defines the reports that subsidiaries must provide.

GT ensures availability of funding to subsidiaries and acts as the primary lender for them. Subsidiaries are allowed to raise funds in their financial market only in local currency and in line with the funding plan developed by GT.

Capital issuance is also controlled by GT (according to the plan of optimal capital allocation among the subsidiaries). Subsidiaries' risk appetite will be in line with the Group capital plan. This leaves subsidiaries Internal Treasuries responsible for compliance with local regulation.

From the scope of practical issues subsidiaries manage local portfolios according to GT guidelines for interest rate and FX risk management and within limits defined by GT, which monitors execution of deals and their alignment with Group standards. This covers not only the deals of local Internal Treasuries, but also the deals of the local business, which impact the Group's financial results. Here GT controls the alignment of deal accomplishment within the centrally developed FTP principles and consistency of application of these principles during the whole deal

making process (from the moment of deal construction till the moment of reflection of results in the local managerial system).

The Centralized GT model is valuable for providing transparency and comparability of the results of all the entities within the banking group, as well as for reducing costs for the Group due to scale effects and optimizing of deals structuring. The major drawback of this model is that centralized funding and capital allocation are not necessarily the cheapest option due to neglected economic cost differentials between legal entities. In addition, centrally developed methodologies can fail to take into account local specifics of the subsidiary banks.

Decentralized Group Treasury model is characterized by high independence of subsidiaries from the Head Office. Interaction of Subsidiaries with other banks in the Group is accomplished according to the local needs and understanding of the markets by local management. Subsidiaries' Internal Treasuries report directly only to their CFOs and not to Group Treasury. Only high level Group guidelines are issued and according to these guidelines local decision-making and execution takes place in practice.

From the managerial point of view subsidiaries' Internal Treasuries are separated and independent

from GT and may have different organizational structures from Head Office. GT may ask subsidiaries to provide only high level reports to Head Office (needed for consolidation on the Group level); all other reporting is executed locally for local bodies.

GT has no influence on subsidiaries' ALM desks action plan, budget or staffing. It defines only a number of high-level (and crucial for the banking group) KPIs on liquidity and capital to local CEO, who translate them into operational KPIs at local ALM desk level. As a rule GT is not involved in the hiring/firing process of subsidiaries ALM desk's staff.

GT defines high-level Group methodology, but allowing space and freedom to subsidiaries to implement their independent policies in line with Group standards. Responsibility for compliance with local regulations, determination of risk appetite level as well as capital allocation to different risks or business lines naturally remains within the subsidiaries.

Subsidiaries are responsible for all funding in all currencies that they may need. GT reviews and approves subsidiaries' funding plans and incorporates them into the Group plan and acts as the lender of last resort only in cases of emergency. Subsidiaries are also allowed to issue their own capital; GT coordinates the process of capital issuance, provides its expertise

on this issue and may facilitate the communication with market participants.

From the practical aspect GT defines country limits (including the limits for interest rate and FX risks), which subsidiaries are required to comply with while managing local portfolios. Subsidiaries define their own set of detailed limits. The same is true for FTP and pricing methodology: high-level guidelines are given by GT although the Subsidiaries develop their own methodology according to the local specifics, calculate rates locally and only notify GT about the applied principles.

The Decentralized Group Treasury model has the main advantage of allowing for the specifics of the local environment. Although this model requires high competence at each local level, which is not always possible and often more expensive for the whole Group, nevertheless it presents greater scope for more efficient balance sheet optimization. However lack of scale shortens the list of possible funding sources and hedging instruments, which hence may increase costs. Moreover, independence of the subsidiaries may cause a problem of clients' arbitrage against the banking group due to the lack of transparency and control within this model. This potential risk issue must be closely monitored and guarded against.

DECIDING ON THE OPTIMUM OPERATING MODEL

Both models for Group Treasury, centralized and decentralized, have their virtues and drawbacks, although sometimes there are definite external and internal factors and criteria which define the choice. They include the following.

Specific regulatory requirements across markets. If the local regulator requires only a local ALM desk to be responsible for asset and liability management and resources allocation, then this is an argument towards the decentralized model, and GT would have to act as the high-level supervisor.

Geographical spread of banking business and local peculiarities (geographical and cultural factor).

When the activities of the banking group are concentrated in the same region (for example in different countries of Western Europe) with approximately the same level of living and business traditions, then there is less justification to double treasury functions by implementing the decentralized operating model.

Awareness about local specifics starts to play a huge role in defining the better model for a Group with presence in different world areas.

Aligning a subsidiary's ALM desk with local business market and understanding the environment provides it advantages compared to Group Treasury, which will lack have full information by being based in a different country. Consequently, in this case the decentralized model is preferable.

Local markets development level. Lack of financial instruments, little access to financial markets, undeveloped markets and financial relations will lead a subsidiary, operating in these circumstances, to shortage (or lack) of funding and capital resources (senior/ subordinated debt) in financial markets. This will cause high dependence on the Head Office in terms of fundraising, liquidity and capital issues, risk management. In this case application of the Centralized model is essential.

The level of expertise of Group Treasury and its ability to operate in environment with diverse and unconnected systems (not integrated IT systems) also determines the type of the model for Group Treasury. The centralized model will increase the Group's value

only if GT has enough experience, skills and capabilities to understand local market and local business requirements.

The type and diversification of business

(specialization of the banking group). If the banking group is large and its business mix is focused mainly on commercial banking, then expectedly all the clients form geographical clusters (in main financial centers of the world). Therefore, the banking group needs to accumulate the most knowledge and more skilled talent, as well as independence, in these "hubs" (with the main "hub" in the city), and subsidiaries can be managed from the "hub" or by GT. This example represents the idea of the mixture of GT operating models. The same is true, when the relative size of the Head Office and among the subsidiaries significantly differ: one large domestic market (and small foreign ones (or several "hubs" in the world financial centers) forced to allocate all the power to Group Treasury (or to the Head Office and "hubs" within a mixture of models).

After the 2008 crash there was a rush towards centralization of treasuries, while technological advances in asset and liability management in itself made this process easier. That said, one can still observe a continuation of either the pure centralized

or decentralized operating model. For example, Lloyds Banking Group, according to its International markets key activities¹ can be seen to have adopted the centralized operating model; Santander group, on the other hand, emphasizes that its business model is based on local, legally independent and autonomous entities in terms of capital and liquidity², thus preferring the decentralized GT operating model.

CONCLUSIONS

Recent trends in banking business have forced large banking groups to implement a mixture of the basic operating models. The impact of more onerous regulatory requirements together with globalization means that rules and constraints across countries are more uniform across regions. For example, Dodd-Frank in the USA and the European Market Infrastructure Regulation (EMIR) in the EU are meant to impose similar regulatory constraints, although they have differences in product scope and require different reporting. Moreover, local Central Banks highlight the importance of sustainability of each local bank (a subsidiary in banking group) by ring-fencing of capital and funding along regional lines. The Basel recommendations towards capital solvency³ make it more costly to provide capital to subsidiaries and thus are leading some banking groups to a decision of

¹www.lloyds.com/internationalmarkets

²www.santander.com

³Basel III: A global regulatory framework for more resilient banks and banking systems // BIS December 2010 (rev June 2011)

subsidiaries' independence in questions of capital and long-term funding, only optimizing centrally the use of resources in order to avoid unwanted risk-taking across the Group.

This combination provides flexibility and is meant to achieve an optimal Group structure (by choosing the optimal model for each structural unit), but there are also some side effects of the hybrid model. Due to a matrix structure (with double reporting lines) the model becomes more complex, less transparent and rather difficult to govern. This requires the need to build a strong control framework over “independent” subsidiaries' Internal Treasuries.

Ultimately, no matter which model or mix of the two basic types the banking group will choose, its principles, rules and responsibility allocation (what tasks and to what extent are in responsibility of one or another unit of the banking group) should be clearly defined and well understood by everybody – both, in Group Treasury and in subsidiaries' Internal Treasuries.

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Dr. Polina Bardaeva

Dr. Polina Bardaeva is a Director in Group ALM at Sberbank, in Moscow. Dr Bardaeva is Head of the Masters program at Moscow State University and has authored 17 publications on finance and banking. She has a PhD from Moscow State University and is holder of the FRM designation.

04 A Guide to Capital and Liquidity

By Rob Ellison

CAPITAL, OR LIQUIDITY?

People often misunderstand the difference between bank capital and bank liquidity, and this isn't good because the two concepts are fundamentally different. In fact I recently bought a book written by a very well-known UK economics commentator and activist. In the first chapter he demonstrated that he didn't understand the difference between the two.

The best way to understand the difference between capital and liquidity is in the context of a bank's balance sheet. So let us consider a bank with a 100 billion pound balance sheet. This is a very simple bank and it only has two business lines. It takes deposits from its customers and it lends money to its customers in the form of mortgages.

Let us first populate the asset side of the balance sheet. This bank has lent 80bn to its customers in the form of mortgages. It also holds a 20bn stock of liquidity, in the form of government bonds, taking the total assets to 100bn. Now to populate the liability side of the balance sheet: this bank takes 95 billion pounds of deposits from its customers via savings accounts and current accounts. This bank also has 5bn of

shareholders equity and this is an accounting entry that reflects the current value of all the money this bank's shareholders have invested in the bank over the years.

So as you can see, with 100bn of assets and 100bn of liabilities, this bank currently obeys the golden rule of balance sheets, which is that it must balance. We show this at Exhibit 1.

Now I shouldn't really say the word "currently" because while what we have here is a snapshot moment in time, this balance sheet will always balance. Bank balance sheets are not static. The individual entries on each side fluctuate every day. Banks are writing mortgages and taking deposits all the time so these numbers are in a state of flux. But any time you take a snapshot, it will balance.

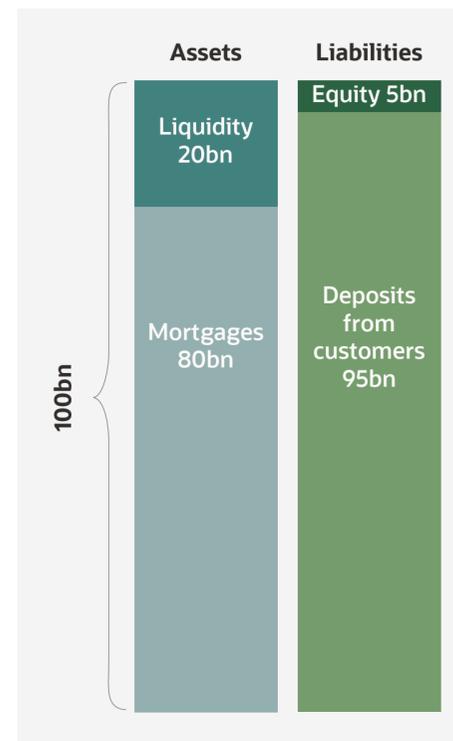


Exhibit 1

UNDERSTANDING CAPITAL

So let's consider how these numbers fluctuate, and let's think about some fairly extremely scenarios. It's helpful to look at extreme scenarios because that is precisely when liquidity and capital perform their two very different, but equally important, functions.

Let's start with the asset side of this bank's balance sheet and then think about what happens when there is a severe economic downturn. This bank has lent 80bn to its customers in the form of mortgages. Now in a severe economic downturn, we are likely to see a rise in unemployment and therefore often we see a high degree of mortgage-holders who get into financial difficulty, perhaps because they have lost their jobs. These borrowers can't keep up with their repayments, their homes are ultimately repossessed and become the property of the bank. Because house prices have fallen those houses are no longer worth as much as the bank has lent against the property.

So let's see how that changes our bank balance sheet. The bank originally lent 80bn to its customers in the form of mortgages. Now, let's say 10 percent of those customers accounting for 8bn have completely defaulted on their mortgages (this is a very unlikely scenario but let's keep going) and the bank has repossessed those houses against which it lent 8bn.

Because house prices have fallen very dramatically, those properties have fallen to be worth only 4bn. So what has that done to our bank's asset base? First we have to remove 10% of our mortgage book, because we have written off all hope of recovering that money. In fact the situation is so hopeless that the bank has repossessed 4bn worth of property, which is now the property of then bank so we can record that as an asset. The net result means the banks' balance sheet has fallen by 4bn, and the total asset balance sheet is now 96bn. We show this at Exhibit 2.

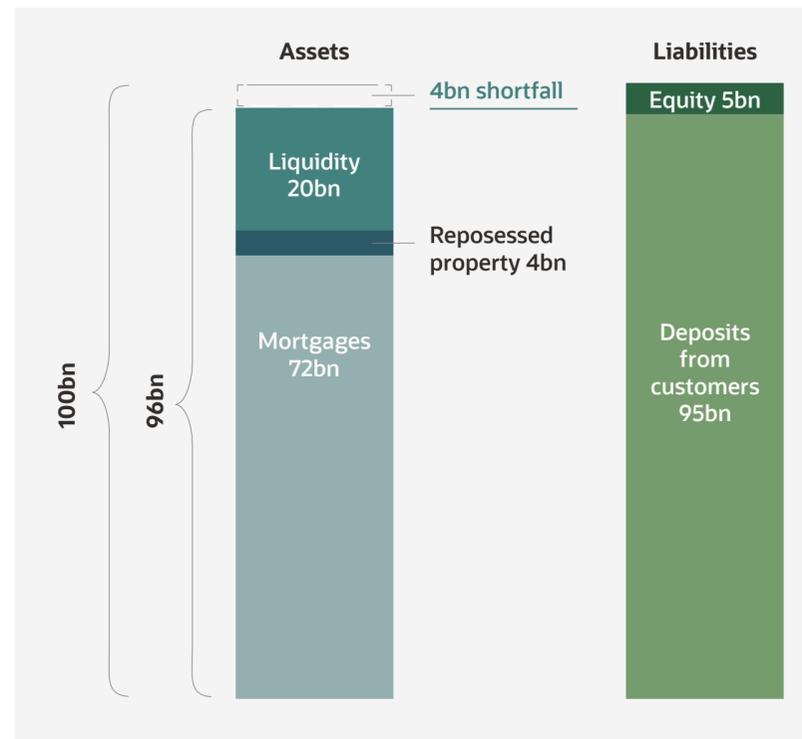


Exhibit 2

Of course our balance sheet must balance so our liability side of the balance sheet must also fall in response to the falling asset side.

So let's consider the liability side of the balance sheet. As we have already observed, it's a very simple bank with only two entries on the liability side of the balance sheet, shareholders equity and deposits. So we just have three options:

1. We reduce the shareholders equity by 4bn
2. We reduce the depositor base by 4bn
3. We reduce a bit from each, to reach the 4bn we need to balance our balance sheet

So start with customer deposits and think about what would happen if we decided to reduce that element of our liabilities. To make it fair on our customers, we'll spread the 4bn evenly across each of our 95bn depositors, taking our total deposits to 91bn. A quick calculation means that for every customer who had 100 pounds in their bank account would have their balance reduced to 96 pounds.

Now try to imagine the repercussions that we would see if every depositor in a major bank like ours was to suffer that 4 pound reduction through no fault of their own:

1. Firstly general confidence in the banking system would be shattered
2. And given many of these are current accounts are supporting every day economic activity there would be a massive hit to the real economy because there wouldn't be the funds available to meet customers' day to day needs.

It's safe to say that the very last thing we want to happen is for losses to be passed onto a banks depositor base when a bank needs to balance its balance sheet after having suffered a loss on the asset side. 90 percent of bank regulation is designed to prevent this from ever happening. So of our three options, we must take away numbers 2 and 3, leaving us just one, the shareholders equity.

And this is where the shareholders' equity is performing its role as capital. Whenever a bank suffers losses, then the first in line to have the value of their investment reduced are the shareholders. There it is: they originally had 5bn invested in the bank, the bank suffered 4bn of losses and therefore their shares in

the bank are only worth 1bn. If the bank was to go on experiencing losses on the asset side of the balance sheet and lost another 1bn, then that 1bn would be taken from the value of their holding and they would be wiped out, as the banks' equity would be reduced to zero.

At that point the bank would have no capital and the bank's depositors would no longer have the protection of shareholders who are there to suffer losses ahead of them, and only then would any more losses have to fall on the shoulders of the depositors themselves.

So, shareholders equity when it is acting as bank capital is there to protect the interests of depositors and to act like a shock absorber by standing first in line to take losses when the bank has suffered losses on the asset side of its balance sheet. We often call this a capital buffer, and whoever coined that phrase was clearly thinking about this shock absorber effect.

UNDERSTANDING LIQUIDITY

Let's move onto looking at the role of liquidity. This sits on the asset side of the balance sheet, so by definition it is something the bank owns, and as in the case of the mortgages, it is an asset in the form of money the bank has lent or invested.

Liquidity can come in all kinds of forms, but the thing that unites all the different forms, is that a liquidity portfolio can be turned into cash at a moment's notice, it is by definition "liquid".

In our example of a very simple bank, the entire liquidity portfolio has been invested in the form of a deposit at the central bank. So our simple bank has a 20bn deposit at the national central bank.

Now central banks are not known for being very generous with the rates they pay, so why would our bank make such a big deposit with the central bank when it could be lending that same money to its customers much more profitably? Well, looking back to our balance sheet, and how it can fluctuate and how it must always balance, let's imagine a scenario where the liability side of our balance sheet has shrunk, and in a rapid way.

Let's imagine on a given day or in a given week, a large number of our depositors want to withdraw their deposits from the liability side of the balance sheet. Let's say, over a short period of time 10bn of our 95bn of depositors decide they want to withdraw cash.

Our bank must honour their requests and return the 10bn on demand. Consequently, the balance sheet must shrink by 10bn on the liability side, and therefore the asset side of the balance sheet must also shrink by a corresponding amount.

Again, we have three options:

1. **We reduce our customer mortgages by 10bn**
2. **We reduce the stock of liquidity by 10bn**
3. **We reduce a bit from each, to reach the 10bn we need to balance our balance sheet**

Now when we reduce our asset base, really what we are doing is we are asking people to pay us back straight away. Now, imagine what would happen if a bank called its customers and told them to repay the mortgages immediately? It should be clear that this is mostly impossible: firstly, most mortgages are contractually set to be repaid over many years, and secondly even if the mortgage contract allowed the bank to demand immediate repayment then not many customers would even have the ability to repay their

mortgages at a moment's notice – or would even be prepared to take out such mortgage terms in the first place.

So we can't ask our mortgage customers to repay and this means we can take options 1 and 3 off the table, leaving us with only one option which is to reduce the stock of liquidity to thereby reduce our asset side balance sheet. As far as our simple bank is concerned, this is a very easy operation. They have a 20bn deposit with the central bank, and they simply call the central bank and ask to make a withdrawal from that account. We show this in Exhibit 3.

The funds they raise by reducing their deposit from the central bank are used to repay their own depositors who want to make their own withdrawals. In a very practical sense the liquidity is there to make sure the bank always has access to liquid funds to satisfy customer withdrawals. When we're thinking about liquidity from a balance sheet perspective then the liquidity buffer is there to enable a bank to shrink its asset base at a time when the liability side of the balance sheet is shrinking as a result of customer withdrawals.

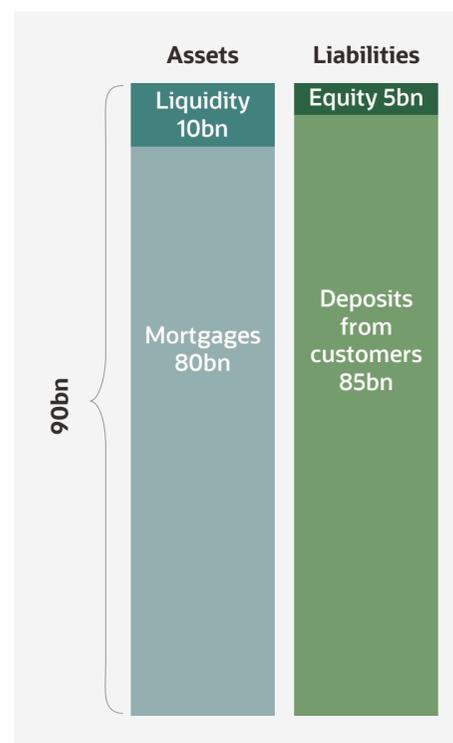


Exhibit 3

SUMMARY

So to summarise, when capital is absorbing losses it is the mechanism whereby we can shrink the liability side of the balance sheet to match the shrinking asset base that has been caused by losses on assets.

When a bank is deploying its liquidity it is making sure it can meet sudden and large scale withdrawals from its depositor base. Those customer withdrawals are driving down the liability side, and the liquidity portfolio can be shrunk to match that change.

Another way of thinking about the difference is that capital is a resource that is there to absorb long term losses that accrue in an economic winter. Liquidity is a

fund of assets which is available to sell at short notice to meet a short term cash requirement. If you like, it's a rainy day fund.

Capital and liquidity are similar in many respects and this is probably why they are often confused: they are both balance sheet items, and their principal effect on a balance sheet is to enable it to continue to balance when the other side of the balance sheet is shrinking. Both are there to increase a bank's resilience, and by extension the resilience of the whole system.

However, they sit on different sides of the balance sheet, they are used in very different ways, and their use comes in response to two very different fact patterns.



Rob Ellison

Rob Ellison has spent 20-years working in the city within debt origination, debt syndicate and client coverage, at UBS and Lloyds Banking Group. He is co-founder of Finance Unlocked.

05 ALCO: Making The Most Important Committee in A Bank More Effective and More Real

By Moorad Choudhry

Ringo Starr entitled his compilation album Blast From The Past. On occasion when speaking or writing about the importance of a bank's asset-liability committee (ALCO) and how to ensure it remains fit-for-purpose, I'm reminded of that charming exercise in nostalgia. Some topics remain important in perpetuity, and in banking making the ALCO effective is one of them.

A committee however is, after all, just another committee. Making a committee effective, and "real", to the business, is a challenge that goes beyond the mere procedural and into the realm of the cultural. And as befits a forum that is viewed typically as a "technical" one, the challenge is not a trivial one: how do we make the ALCO meaningful to the business lines, so they derive the full value-added that the primary balance sheet management grouping should be delivering? And with the impact of the coronavirus crisis on the markets being so significant, how best should we address the need to ensure flexibility and adaptability of response of the ALCO systemic stress events?

ALCO AND ITS IMPORTANCE

Before addressing the questions we've posed at the top we'll start with our own blast from the past, to wit the following extracts from the author's previous publications:

"A greater number of financial institutions are enhancing their risk management function by adding to the responsibilities of...the asset and liability committee (ALCO)...and integrating...traditional interest-rate risk management with credit risk and operational risk.

"In order to fulfil this more enhanced function

[ALCO] will require a more strategic approach to [its] function.

"These are Board-level decisions."

(From The Bond and Money Markets: Strategy, Trading, Analysis, Butterworth-Heinemann 2001, page 536)

An indication of that book's age is given from the inside back flap, which shows the author with a full head of hair!

Another extract, also dating from before the bank crash, sets out the ideal behind ALCO:

“The ALCO will have a specific remit to oversee all aspects of asset-liability management, from the front-office money market function to back-office operations and middle-office reporting and risk management.”

(From Bank Asset and Liability Management, John Wiley & Sons Ltd 2007, chapter 8)

But while these are laudable ideas and great theory, they don't necessarily make an ALCO fit-for-purpose – if by that we mean an ALCO that ensures that the bank's balance sheet remains robust and viable in perpetuity. Simply organising a monthly ALCO meeting and setting up a formal terms of reference (ToR) for it is not enough. Every failed bank in 2007 and 2008 had an ALCO.

Two subsequent publications, including chapter 9 from The Principles of Banking (Wiley 2012), which presented recommended ToR and membership guidance for the ALCO, and chapter 10 from Moorad Choudhry Anthology (Wiley 2018), which recommends greater authority for the ALCO by dint of making it report direct to the Board, continued on this theme of ALCO effectiveness. The bottom line was, and is, that

As balance sheet robustness is the last word on bank survivability in a stressed environment, the ultimate guardian of the balance sheet must be ALCO.

That's why it was very welcome when the UK regulatory authority (then called the Financial Services Authority, now the Prudential Regulatory Authority or PRA) issued a “Dear CEO” letter containing guidelines for effective ALCO practice, back in January 2011. This contained some real gems, including that ALCO should:

- proactively control the business in line with firms objectives; focuses on entire balance sheet;
- act as the arbitrator in the debate and challenge process between business lines;
- focus on effects of future plans / strategy at bank and business line level;
- ensure issues are fully articulated and debated;
- engage in active dialogue amongst various members and display a strong degree of challenge.

An ALCO that really did operate along these lines would be harder to render ineffective. Of course, the culture will come from the top, as it does in all groupings, and if the committee Chair is inclined towards the above behaviours, then there is more chance that ALCO will be able to act in line with these recommended guidelines. If the Chair is not so inclined, there is more chance that the ALCO is rendered less effective.

But let us suppose that a bank did do all the things we've described up to now. Imagine that the organisation structure gives the ALCO real authority, it acts as a genuine and open debating chamber, and its membership and ToR are fit-for-purpose. Is that enough?

ALCO AND ITS MEANINGFULNESS

A question I get asked frequently at seminars and workshops is, “How can we make ALCO more meaningful, especially to the business lines?”

Alongside that is the related, “Often the metrics reported in the ALCO pack aren’t ‘real’ to the business lines, for example earnings-at-risk (EaR) or economic value of equity (EVE)...how can we make the indicators more meaningful to the business, such that they actually assist the business in their planning and balance sheet optimisation?”

These are good questions. It’s true that that certain risk indicators reported in the ALCO deck do not tell the business line managers anything of genuine value that assists them with their day-to-day work. And when this happens, it makes the ALCO process less effective than it could be, because it makes it more difficult for the first line of defence (1LOD) to engage fully during the meeting and during the overall ALCO process. It is certainly true that in many banks ALCO is seen as a “technical” committee that is less relevant to the front line business.

ALCO needs to answer these questions fully, because otherwise it risks becoming less effective than it needs to be.

In the first place, balance sheet risk metrics reported

in the ALCO deck need to include meaningful indicators that actually help the business line heads manage their business from the product origination stage onwards. This goes beyond the metrics included for regulatory purposes: items such as CET1 ratio and LCR would be included at the start to demonstrate compliance with regulatory requirements. We might label these “Tier 1” metrics. However this list of indicators tends to include the NSFR, EVE, EAR and VAR type metrics, and whilst these are of course all very important Tier 1 metrics, they aren’t necessarily the ones that connect easily at the coal face (although, ideally they would be).

To make ALCO meaningful at all levels and across the business lines requires that it also reports metrics that are transparent and easily discussed, and also can be understood straight away in terms of impact at assets and liabilities origination stage. For instance,

- **Liquidity:** for example, customer loan-deposit ratio (LDR) and size of high quality liquid assets (HQLA) portfolio as a share of the balance sheet, and other measures that the 1LOD will use on a daily basis to help understand the business, alongside the standard regulatory metrics;
- **Capital:** for example, buffer over the total capital requirement (TCR) and capital available to absorb unexpected losses on a going concern basis, and

any “pinch points” over (say) the next two quarters where this level may be a constraint on the lending plan;

- **Earnings:** consider net interest income (NII) and net interest margin (NIM), and critically the sensitivity of these indicators to one or more changes in internal and external balance sheet factors (such as customer and product type changes);
- **Non-traded market risk:** for example, the Δ NII metric and its sensitivity to “business-as-usual” market changes alongside the prescribed stress scenarios;

There are of course any number of additional risk exposure numbers one can report, and the final suite of them will be a function of the size and business model of the institution. Including these additional risk indicators in the Tier 1 list of metrics alongside the standard regulator-driven ones in the monthly ALCO pack will make ALCO more meaningful to the business, and thereby assist in making the meeting itself more productive as all attendees engage in the proceedings.

In terms of order and layout, it is a good idea to have the ALCO deck aligned fully with the bank’s Board risk appetite statement (RAS). (Ideally, the RAS takes it cue from the ALCO deck, but the other way is more common).

Using LDR again as an example, this metric may appear in the Liquidity and Funding section of the RAS in the following format:

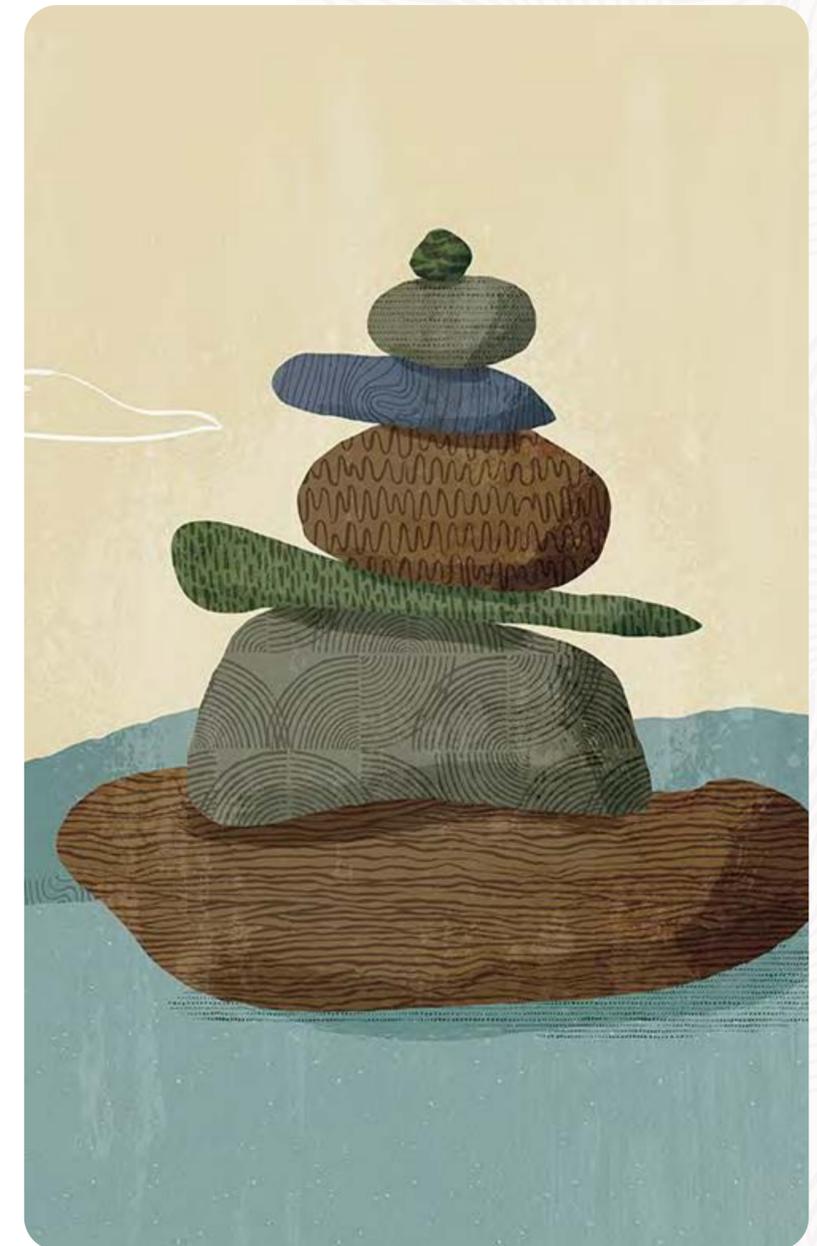
Executive Responsible	Liquidity Risk Indicator	Red	Amber	Yellow	Green	Rationale	Comments
	Customer Loan-Deposit Ratio	>110%	>95%	>85%	<85%	Sets the bank’s appetite for the extent of customer surplus funding of the balance sheet	LDR excludes any central bank facilities funding

The format should be replicated in the monthly ALCO MI pack, thereby giving instant conformation of compliance with the “green zone” of the RAS. Hence in this instance:

Liquidity Risk Indicator	Red	Amber	Yellow	Green	Comments
Customer Loan-Deposit Ratio				82%	

The format should be used for all risk metrics reported in the ALCO pack. Tier 2 and Tier 3 metrics, that may not appear in the RAS, would ideally be reported in the same way, again to enable ALCO attendees to note instantly that the balance sheet shape and structure is “green”.

And in the second place? ALCO needs to be as open as possible, and a genuine debating chamber. This second point is more “cultural” than technical, and presents not an insignificant challenge. But getting the first point right will assist in making the meeting itself more meaningful to all attendees, especially the business lines. And that is a “good thing” for what is the most important committee in the bank.



ALCO AND ADAPTING TO EVENTS

The Coronavirus crisis and “lockdown” response to the spread of Covid-19 has demonstrated, amongst a number of things, the importance of a bank being able to react quickly and decisively to market-wide stress events. Unlike in 2008, banks aren’t part of the problem this time, but they can and should be part of the solution. Supporting the customer franchise through difficult economic times remains the primary objective, and banks can take their cue from the central banks and regulatory authorities, who have implemented a number of support measures for the country’s workforce.

A bank’s ALCO terms of reference should ensure that it retains ownership of the balance sheet, under delegated authority of the Board, and enable it to meet as frequently as necessary to monitor balance sheet metrics for capital and liquidity as well as customer behaviour. It can then recommend for Board approval any adjustment of the risk appetite statement and quantitative limits, if necessary. Balance sheet robustness remains key during any stress event, hand-in-hand with customer franchise support, and in this regard ALCO remains the most important committee in the bank.



Moorad Choudhry

Moorad Choudhry is a non-executive director on the Board of Recognise Financial Services Limited, in London, and Founder of The BTRM.

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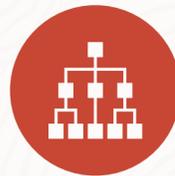
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Drive your business with unprecedented performance, responsiveness, scalability, and manageability



Insurance Data Foundation

Gain a single view of enterprise-wide data



Data Integration Hub

Manage upstream data acquisition and maintenance



Data Governance

Active governance for accuracy

Balance Sheet Management



Asset Liability Management

Award-winning ALM analytics to meet your risk-management goals



Balance Sheet Planning

Gain accurate margin forecasts and comprehensive, meaningful budgets



Funds Transfer Pricing

Assign cost of funds for base rate, liquidity, optionality, basis risk, and pricing incentives



Liquidity Risk Management

Comprehensively address liquidity risk requirements

Profitability Management



Institutional Performance Analytics

Track and manage organizational efficiency



Enterprise Financial Performance Analytics

Identify the most profitable customers, products, and organizations



Retail Performance Analytics

Monitor key performance indicators



Retail Customer Analytics

Drive marketing efficiency and optimization

Enterprise Risk Management



Credit Risk Management

Gain an enterprise-wide view of credit for retail, wholesale, and counterparty credit risk



Market Risk Measurement and Management

Comprehensively address market risk requirements



Liquidity Risk Management

Comprehensively address liquidity risk requirements

Accounting and Regulatory

Accounting Products



IFRS 17

Bring transparency to insurance contracts



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LDTI

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