

## Audit of Treasury Operations of a Bank – In Changing Times!



*In today's changing economic environment, the range of products and treasury risk management solutions offered by the banks to their clients has significantly evolved. Treasury products of the banks include investment securities, foreign exchange (forex) and derivatives. The increasing scale of treasury operations and the new IFC (Internal Financial Controls) reporting requirements under the Companies Act 2013 demand existence of robust controls based audit approach. This article, therefore, specifically focuses on the key themes arising as a result of these new requirements and a bank auditor's perspective to the audit of IFCs in treasury operations. Read on...*

### Background

Banking institutions in India primarily deal in treasury products for balance sheet management and market making purposes, albeit most of the Indian banks also do have separate proprietary trading desks.

In the changing economic environment globally and India, in particular, the range of products and treasury risk management solutions offered by the banks to their clients has significantly evolved. Whilst there was a phase in Indian banking system where banks moved from offering plain vanilla products to the more complex degree of treasury products (particularly some banks, through their overseas

banking branches and subsidiaries), the trend in the most recent years, particularly after the global credit meltdown, has regressed the banks' treasury product boutique largely to conventional vanilla products.

### Times are Changing—Advent of the Internal Financial Controls Reporting

The Companies Act 2013 (the 'Act') marked a major step towards raising the bar on corporate governance in India. The Act has re-emphasised the importance of a robust internal controls environment by introducing the 'internal financial controls' ('IFCs') attestation, and by casting specific responsibilities on the auditors in relation to audit and attestation of financial controls. The statutory auditor has to state in his audit report whether the company has adequate 'internal financial controls over financial reporting', and comment on its operating effectiveness. This requirement becomes effective for all financial reporting periods beginning on or after 1<sup>st</sup> April 2015 (effectively from the year ending 31<sup>st</sup> March 2016 onwards).



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With the advent of the IFCs requirements, an auditor will need to significantly enhance focus on the audit of 'controls' within a bank's treasury function. The ICAI released the Guidance Note on Audit of Internal Financial Controls over Financial Reporting recently, which covers detailed implementation guidance on various aspects of a controls audit.

Given the inherent high volumes of treasury transactions and the new IFC reporting requirements, it is pertinent that there exists a robust controls based audit approach.

### Treasury Product Suite and Risks

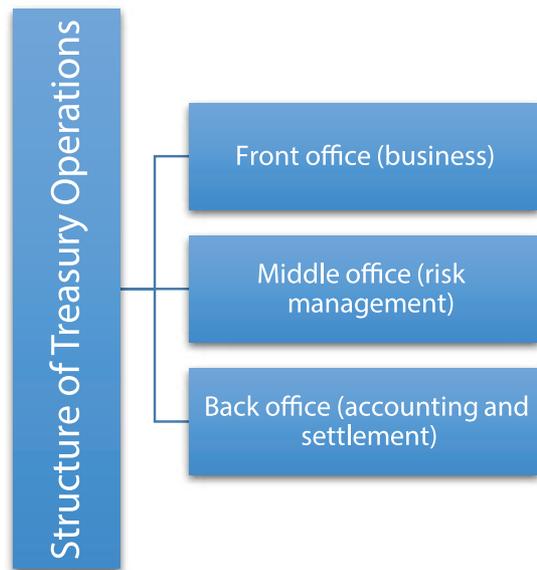
At a broad level, a bank's treasury products can be classified into investment securities, foreign exchange (forex) and derivatives. Banking institutions acquire securities for various purposes. In addition to providing a source of income through investment or resale, securities are used to manage interest-rate and liquidity risk as part of a bank's overall asset/liability management strategies. They are also used in certain collateralised transactions (such as repurchase (repo) and reverse repo agreements). A direct relationship generally exists between risk and return (the higher the security's risk, the higher its expected yield). An inverse relationship generally exists between the security's liquidity and its yield: less liquid and longer-term securities generally have higher yields. Achieving the proper mix of safety, liquidity and yield in an investment portfolio is one of the primary tasks of management. In managing their investment portfolios, banks seek to maximise their returns without jeopardising the liquidity the portfolios provide.

On the other hand, the derivative instruments include futures, forwards, swaps and option contracts, as well as other financial contracts with similar characteristics, which have become important financial management tools for banks.

Risks inherent in derivatives, such as credit risk, market risk, legal risk and control risk, are the same as risks inherent in other types of financial instruments. However, derivatives have unique risks because derivative transactions are designed to create price exposure, and thereby transfer risk, by having their value determined—or derived—from the value of an underlying commodity, security, index, rate or event.

### Typical Structure of a Bank's Treasury Operations

The core processes within the treasury operations of a bank can be functionally divided into the following broad compartments:



The above structure is ideal in terms of implementing best practice from a control environment stand point. The features of each of these compartments are summarised in brief below: **Front office**— the front office represents the business origination team, and the primary responsibility of this team is to execute trades within the pre-defined stated business objectives.

**Middle office**— the middle office is responsible for setting up control points and risk mitigating thresholds for transactions to be undertaken by the front office. It monitors the limits and tracks the performance of the portfolios. It also monitors various risks such as liquidity, credit and market risks.

**Back office** – the back office is typically responsible for validating and accounting of trades, effecting settlements and performing various reconciliations. It is also responsible for compliance with regulatory requirements.

### Audit Considerations from IFCs Perspective

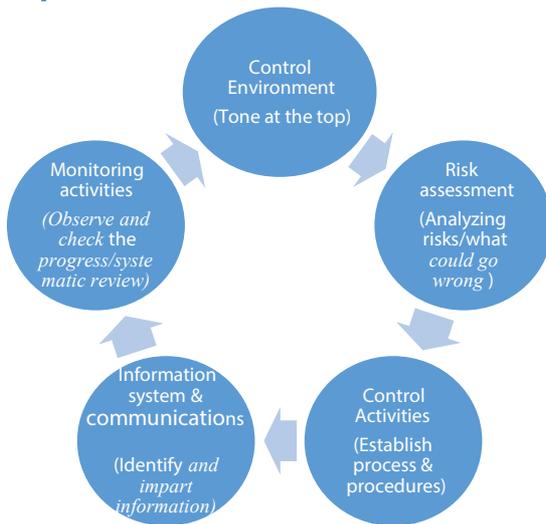
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Guidance Note on *Audit of Internal Financial Controls over Financial Reporting* recently, which covers detailed implementation guidance on various aspects of a controls audit. In the following sections, we have covered the key emerging aspects on audit of controls and how would they impact a bank auditor's approach for the audit of treasury operations.

The ICAI Guidance Note and Standard on Auditing 315 explain the five key components of an organisation's internal control framework. See the chart below:

## Components of Internal Controls



From a stand point of audit of treasury operations, this would require a bank auditor to ascertain mapping of treasury controls with each of the components above. It will become imperative that the auditor gains a complete understanding of the bank's business model, the processes and policies, the risks ('what could go wrong?'), the control activities mitigating those risks, a deep understanding of how the pertinent information flows through systems and divisions and finally the quality of monitoring of each of these aspects.

Generally, the control environment in treasury operations of a bank will comprise of:

- **Entity Level Controls ('ELCs')**– Controls at a corporate governance level. This could include setting up of organisation level policies (e.g. investment and derivatives policy), setting up of management committees (e.g. asset liability committee, risk committee). Entity level controls by design are not meant to function at a level of

precision which would prevent or detect errors of material proportions; nevertheless, they are critical to the overall governance at banks. They define the 'tone at the top'. Thus the policies and committees, as mentioned above, are necessary to guide the overall functioning of the business and the controls within which the bank needs to run the treasury division.

- **Management Review Controls ('MRCs')**– Senior management reviews of management information (such as management review of period-end valuation of investments and derivatives and analysis of movements to the previous periods) and review of daily treasury P&L accounts are the key controls through which bank's management draws comfort over treasury balances. These types of controls generally work at a level of precision to prevent or detect material misstatements. However, the precision will generally be higher than those that we find at transaction level controls. Scoping in the management review controls and testing them as part of the IFCs becomes particularly relevant when there is a risk that a transaction level control is likely to be ineffective as that could serve as a compensating control to prevent or detect a material misstatement. There is more discussion on audit considerations for testing MRCs in the next section of this article.
- **Higher Level Controls ('HLCs')**– These controls signify review by middle levels of management and more importantly, usually cater to more than one account balance/caption. For example, in the treasury context, the reconciliation of Nostro accounts and review controls over them help meet audit objectives for multiple account captions (such as various assertions for investments, derivatives, call and money market transactions all together). Similar to the MRCs, scoping and testing of HLCs could serve as a compensating control to prevent or detect a material misstatement.
- **Transaction Level/Process Level Controls**– The transaction level controls (e.g. a maker checker control or a four-eye control) work at a very basic level and help mitigate a risk at the transaction level itself. There is generally no precision defined for these types of controls as they are supposed to operate effectively across the entire account balance. Treasury operations would usually have multiple such transaction level controls (check

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over reconciliations, validation of trades, control checks over profit/loss on sale of investments, etc.).

- **Information Technology (IT) Controls**– In case of banks, a lot of processes and controls are automated. An auditor would need to have a good understanding of the bank's IT infrastructure and systems. Depending on the level of automation and use of technology, necessary controls around general IT and

specific applications would need testing. For instance, the validation of trades by the back office initiated by the front office would ordinarily be facilitated through a system application. This would require an auditor to test the IT functionality of the system to ensure that there is no scope for the system to validate the trade without a back office team's validation in system. The bank auditor would require testing all the above type of controls as part of its IFCs attestation.

#### **Risk Control Matrix (RCMs)**

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Process	Risks/WCGWs	Control Description	Type of Control	Anti-fraud (Y/N)?	Audit Assertions
Recording of a deal (investment, forex trade or a derivative trade)	Incorrect recording of deal in system	1. Deal parameters are checked by separate team as per checklist with mode of agreement (e.g. Reuters/Term sheet). 2. Discrepancies, if any, are flagged off to front office for rectification. 3. All deals are double validated by back office personnel.	Transaction level control	Y	Accuracy
	Risk of completeness whether all the deals are considered for valuation	1. The validation desk views the validation queues. 2. Outstanding deals and mark-to-market values of trades used for valuation and reporting are matched with MTM account codes. 3. Confirmations are sent for derivative trades to the counterparty.	Transaction level control	N	Completeness Existence
	Incorrect generation of accounting entries from the system	Once the deal is validated by the back office personnel, it gets accounted in the system automatically	IT control	N	Completeness
	Risk of fictitious entries recorded in system	1. Management review of daily P&L report 2. Reconciliation of Nostro accounts	Management review control	Y	Completeness Accuracy
	A deal may not be settled	Reconciliation of Nostro accounts	High level control (addressing other captions too)	N	Accuracy

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An RCM would assist the auditor to define the scope of controls testing. Similarly, RCMs should be compiled for all significant account balances within treasury operations such as for valuation of investments and derivatives, recording of interest income and amortisation of premium and discount, gains/losses on sale of investments, settlement of derivatives, *etc.*

## Other Key Aspects in IFCs Audit of a Treasury Operation

We discussed above the various types of controls and how the RCMs are useful tools to drive the IFC audits. We will now explore certain other specific concepts which are relevant as part of our audit considerations for audit of treasury operations of banks. These concepts are discussed generally in the Guidance Note on the IFCs. We have attempted to discuss how they will impact the bank's treasury audits.

### **Information Produced by Entity (IPE)**

IPE is typically in the form of a 'report' which may be either system-generated, manually-prepared, or a combination of both (e.g., a download of system accumulated data an excel spreadsheet). In case of banks, a significant amount of data received as part of the audit is generated from the bank's systems. Some examples of this include listing of trades, schedule of investments, down load of all investment sales during the period.

The key audit consideration for auditor is to challenge bank on the controls it has in place to ensure 'completeness' and 'accuracy' of these system generated data/reports.

The banks should ideally have effective system UAT (user access tests) and effective change management controls trail to enable auditor to conclude that there does not exist any issue in placing reliance on these reports. Further in a few instances, it may be necessary to have manual checks in place, such as hash totals check of the totals in the reports to the ones in the system, to ensure the completeness and accuracy of the data provided.

### **Management Review Controls—Increasing Emphasis**

The level of precision at which a management review control operates is a critical component in assessing whether the control is appropriately designed. Further, the documentation of management review controls may often be restricted to evidence of the review, and not incorporate all relevant attributes

of the review, including precision as well as the identification and disposition of any outliers identified.

The bank auditor should perform procedures to obtain evidence about how a management review control is designed (check for precision particularly) and its operating effectiveness (evidence of review of attributes) to prevent or detect misstatements. In the example, MRCs mentioned above (management review of period-end fair valuation or variance analysis from previous period), key audit considerations may include:

- assessing the numeric thresholds at which management reviews and challenges variations/data on fair valuation
- make an assessment whether these thresholds are fit for purpose and would they prevent a misstatement of fair values of the treasury products under consideration
- assess the evidence available with bank to provide an audit trail of the review being performed (e.g. a checklist or minutes of review)

Verifying that a review was signed off provides little or no evidence by itself about the control's effectiveness.

### **End-User Computing ('EUC') Controls**

End-user computing refers to a variety of user-based computer applications, including spreadsheets, databases, *ad-hoc* queries, stand-alone desktop applications, and other user based applications. These applications might be used as the basis for making journal entries or preparing other financial statement information. For treasury operations, certain banks use spreadsheets for valuation of their investments.

The following will be the key audit considerations:

- Does the valuation sheet have password protection?
- Are the formulae used for valuation protected and should not be susceptible to an operational/accidental change made to a cell?
- Are these spread sheets saved on a secured server with restricted access?
- Is there an alternate back-up mechanism?

A bank auditor should test the above EUC controls as part of test of controls over valuation of bank's investments.

### **Fraud Risk Assessment**

In the recent past, we have read about some very well publicised frauds in banking institutions globally,

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particularly the likes of HSBC, UBS, JP Morgan and Societe General where the quantum of losses due to treasury frauds ran into millions of dollars. Another interesting trend one could notice is the extent of sophistication in which these frauds were done and how the perpetrator was able to hide the losses over a prolonged period of time.

The risk of recording fictitious entries, rogue trades and inappropriate valuation of derivatives could be potential areas fraud risk.

In addition to the basic audit procedures that a bank auditor would perform (such as deal validation, derivatives deal confirmations, audit of position and settlement accounts), the following considerations will be the key to auditor's approach in designing sufficient anti-fraud checks:

- Assessing the overall architecture of the treasury function— how are dealer trading limits determined, are there system checks in place, policy around remuneration to dealers, policy around intra-desk trading;
- Overall tone at the top— control culture at a bank (including the dealer trading conduct), the work ethics in treasury operations, frequency and reviews by senior management;
- Strength of back office— as discussed above, a stronger back office check would keep a strong vigil over any wrong doings, particularly rogue trading opportunities.

#### ***What's on the Horizon?***

##### ***Fair Value Measurement— Game Changer of Sorts***

The Government has now put forward the roadmap for implementation of Indian Accounting Standards (Ind AS) by banks, insurance companies and certain classes of NBFCs. This will require scheduled commercial banks to prepare their financial statements as per Ind AS from 1<sup>st</sup> April 2018 with opening balances as at 31<sup>st</sup> March 2017. Most recent requirements require banks to prepare and submit Ind AS proforma financial statements to the Reserve Bank of India from the half year ending 30<sup>th</sup> September 2016 onwards. The adoption of Ind

AS by banks could have a significant impact on not just financial reporting, but also the way banks are managed and the way they do business.

In particular, the changes around the classification and measurement of financial assets, and the detailed disclosures around fair values would make the financial reporting more aligned to the bank's business model and risk management policies.

As the banking sector moves towards reporting under converged International Financial Reporting Standards, one of the key issues facing the industry would be the application of fair value measurement, in view of the very nature of banking business and the preponderance of financial instruments on a bank's balance sheet. This would also necessitate significant changes to existing bank systems to gear up to production of changed financial reporting and disclosure framework.

Challenges in migrating to fair value measurement could arise in view of the absence of active markets for corporate bonds, derivatives and loans, differences with extant RBI instructions and practices on valuation, absence of an established body of accredited valuers and lack of adequate historical experience in the use of fair values by banks.

Further talking from a controls perspective, if the adoption of Ind AS requires banks to use increased judgments around determination of fair value for treasury products, then as auditors, more robust controls testing would be necessitated.

There would also likely be certain added complexities on accounting side such as recognition of day one fair value gains/losses, treatment of convertible instruments and certain specific areas of hedge accounting.

#### **Concluding Comments**

To summarise, the IFC regulation brings in a considerable degree of added focus to a bank auditor's approach towards controls testing in treasury operations. Conventional controls testing approach will need a serious revamp particularly to include the above emerging themes which would facilitate a more robust and effective test of operating effectiveness of controls.

Further in the wake of evolving regulations impacting the banking industry, the treasury audit programs would need a constant re-look and challenge, particularly embedding key themes as noted above. With IFC regulation and the impending implementation of Ind AS, we as auditors have some exciting times ahead. ■