

## Foreword

**With the emergence and positioning of Singapore as a global financial hub, its financial services industry has experienced rapid changes to the way it conducts business and manages systems & operations.**

To ensure sound technology risk management and information security

practices, the Monetary Authority of Singapore (MAS) has recently issued an updated guidance to financial institutions to address existing and emerging technology risks within the financial services industry.

Technology Risk Management (TRM) Notice & Guidelines address these aspects of technology risk management for financial institutions – technology risk management framework, resiliency & availability of critical systems and incident reporting. As the TRM Notice will take

effect in about half a year from now (1 July 2014), financial institutions need to take immediate actions to ensure compliance.

In this issue, we set out the key changes and how these could impact Singapore financial institutions.

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## Contents



**02**

### Next Steps towards MAS TRM framework compliance

Technology Risk Management Notice and Guidelines necessitate FIs to implement information technology (IT) controls to protect customer information from unauthorised access or disclosure.



**04**

### Regulatory, accounting and tax updates

An update to recent regulatory, accounting and tax changes which may have an impact on your business.



**07**

### Global topics

Recent KPMG reports, whitepapers and publications from KPMG around the world of relevance to the financial services sector.





## Changes to the TRM framework for Financial Institutes -

By: Daryl Pereira

The Technology Risk Management Notice and Guidelines are applicable to all Financial Institutions (FIs). These include requirements for a high level of reliability, availability, security and recoverability of critical IT systems, and necessitate FIs to implement information technology (IT) controls to protect customer information from unauthorised access or disclosure. The TRM Notice document sets out requirements for all FIs. The Notice is effective from 1 July 2014.

Key changes to the Technology Risk Management Notice and Guidelines: Instead of a single Notice on Technology Risk Management that would be applicable to all types of Financial Institutions (FIs), MAS has issued separate Notices under the respective Acts which apply to each type of FI. Financial Institutions as defined under section 27A(6) of the MAS Act include, but are not limited to, the following:

- -Banks
- -Insurance companies
- -Trust companies
- -Finance companies
- -Holding companies
- -Recognised market operators
- -Security exchanges
- -Clearing houses
- -Capital market services
- -Stored value facilities

Under the TRM Notice, FIs shall:

1. Establish a framework and process to identify critical systems, whereby the failure of which will cause significant disruption to FIs' operations or materially impact the FI's service to its customers.

Examples include systems that process time critical transactions or systems that provide essential services to customers.

Key Impact: Management are required to perform a methodical assessment of all their IT systems to determine which are critical to the provision of services to the company's clients or the company's operations.

2. Ensure that maximum unscheduled downtime for each critical system does not exceed a total of four hours within any 12 month period.
3. Notify MAS within one hour upon discovery of system malfunctions or IT security incidents that have severe and widespread impact on the FI's operations or materially impact its customers. Previously under the Consultation Paper, the proposed timeframe was 30 minutes.
4. Submit a root cause and impact analysis report to the MAS within 14 days from the discovery of a system malfunction or an IT security incident. Previously under the Consultation Paper, the proposed timeframe was one month.

### Key implications and challenges on FS industry

#### Impact drivers for FIs:

With the emergence and positioning of Singapore as a major global financial hub, regulations are being tightened on online channels (ATM, credit

cards, internet / mobile), controls on Outsourcing business such as cloud computing security, vendor governance and due diligence as well as resiliency of business and technology applications.

Common TRM challenges KPMG has identified across FS industry include:

- -Group & Localised IT Risk Management Framework & Governance structure
- -Critical System Assessment process (Business Impact + Customer Impact)
- -System resiliency against single point of failure risk
- -Business continuity: Recovery Time Objective (RTO) =/ < four hrs critical applications per 12 month window
- -Timely response and reporting of security incidents and system malfunctions, i.e. with 60 minutes upon discovery
- -Assessment of security risks (e.g., Distributed Denial of Service, Man-in-the-middle-attack and skimming) on internet banking, mobile banking and payment cards
- -Restrict access to privileged user accounts and monitoring activity
- -Encryption of sensitive data - both data in motion and data at rest
- -IT Outsourcing Framework with head quarter (HQ) and third parties, Service Level Agreements (SLA) monitoring Key Risk Indicators (KRIs)

### The MAS TRM framework changes outlined:

The Notice has three key requirements, namely, Technology Risk Management, Resiliency and Incident Reporting.



These three requirements and the TRM guidelines modelled to support the Notices have been recommended primarily to ensure that FIs have taken measures to secure these critical systems and information assets against unauthorised access and malicious attacks. It stresses on the need for FIs to have designed their systems to be resilient to any internal or external attempts such as denial of service attacks, virus attacks or system sabotages.

#### • Key Requirement 1 - Technology Risk Management:

FIs are required to establish a framework for identifying critical systems and information assets. TRM Guidelines requirements: The TRM guidelines supporting this Notice requires a comprehensive Technology Risk Management Framework to manage technology risks in a systematic and consistent manner with the Board of directors and senior management ensuring that a sound and robust risk management framework is established and maintained.

Recommended solutions:

- Board and senior management ownership and oversight of IT decisions covering both run-the-bank (RTB) and change-the-bank (CTB) activities
- Embedding IT risk assessment process into governance framework
- Combination of data classification, asset prioritisation and critical system assessment performed using the principles of business impact analysis (BIA) and customer impact analysis

#### • Key Requirement 2 – Resiliency:

FIs should maintain high availability for critical systems with maximum allowable unscheduled downtime within 12 months not exceeding four hours and RTO for critical systems should be four hours or less. FIs must perform yearly testing on RTO verification. TRM Guidelines requirements: Specific RTO and RPO should be defined for IT systems and applications.

Recommended solutions:

- High availability (HA) infrastructure (mirror production sites) for critical applications. Across industry the four hour RTO is not easy to achieve and requires increased investment
- Enhance Incident Management process to track the resolution time
- Review Disaster Recovery (DR) plans to make sure the RTO defined for critical systems are end-to-end
- Decrease intervals between data snapshots (more recovery points)

#### • Key Requirement 3 – Incident reporting

FIs are to inform MAS about IT security incidents and system malfunctions\* within 60 minutes upon discovery and submit an incident report including root cause & impact analysis to MAS within 14 days from the occurrence of the incident.

Recommended solution:

- Establish classification / identification/ reporting process for security incidents and malfunctions. This includes defining of reportable and non-reportable incidents.
- Use automated monitoring/ reporting tools to facilitate timely escalation to senior management

- Have a structured framework for root-cause and impact analysis

#### Next Steps towards MAS TRM framework compliance

As the TRM Notice will take effect a few months from now (1 July 2014), FIs do not have much time to work towards being compliance ready with the TRM regulatory requirements.

In 2013, there were a few high profile cases of cyber attacks causing disruption to financial institutions in countries such as the US and South Korea. As an immediate measure, FIs should conduct a detailed gap analysis between current policies/control environment and MAS TRM requirements to establish a plan to close the gap, if they have not already done so.

FIs need to ensure a robust Technology Risk Management framework is in operation to meet their compliance responsibilities. With a robust governance structure in place, it can guide the development of organisation controls and improve a FI's ability to protect themselves and their customer information from unauthorised access or disclosure. Continuous improvement and investments should not be compromised especially given the increasing reliance on technology to meet business demands and increased focus from the media on high profile failures.

### Considerations for Board of Directors & Management

#### Next steps to address TRM



##### Board & Management oversight of Technology related Risks

Embed an IT risk assessment process into your governance framework, and use this to oversee Management decision-making concerning strategic RTB and CTB



##### Critical Systems Assessment

Group-wide detailed assessment of all systems to determine list of Critical Applications. Include vendor provided systems



##### Investment in High Availability Infrastructure

Increase investment in HA Infrastructure to ensure continuity of business services in the event of an incident.

Refine business/IT end-to-end recovery process



##### Incident Management Process

Establish incident management process, including outsourced processes.

Define escalation structure to smooth decision-making around reporting of incidents to Regulator

**Gap Analysis:** Conduct a detailed gap analysis between management policies / control environment versus MAS TRM. Establish action plan to close gaps.



## Regulatory, accounting and tax updates



### Regulatory Updates -

#### Financial Institutions

##### **Amendment to Computation of Total Debt Servicing Ratio (TDSR) for Property Loans**

The Monetary Authority of Singapore (MAS) introduced the TDSR framework in June 2013 for all property loans granted by financial institutions (FIs) to facilitate FIs' assessment of the Borrower's repayment ability. In August 2013, amendments were made to the computation of TDSR which mainly pertain to revisions to definitions, in particular, FIs shall now compute the TDSR of a Borrower who is applying for:

- Any credit facility for the purchase of Property;
- Any re-financing facility for the purchase of Property;
- Any credit facility otherwise secured by Property; and
- Any re-financing facility for a credit facility otherwise secured by Property.

The amendments came into effect on 28 August 2013.

##### **Notice on Residential Property Loans**

MAS Notices 632 and 1106 (collectively, the "Notices") dated 13 January 2011 and last revised on 28 June 2013 were cancelled with effect from 28 August 2013 and replaced by Notices dated 27 August 2013.

The revised Notices mainly include amendments made to definitions. In

particular, certain requirements within these Notices have been revised to include credit facilities granted to Borrowers who are vehicles set up solely for the purchase of Residential Property.

In addition, the loan-to-value (LTV) ratios and cash percentage amounts have been amended to provide more clarity on the applicable ratios and amounts to be used between credit facilities for the purchase of Residential Property that is not a HDB flat and those for the purchase of HDB flat.

##### **Consultation Paper on Proposed Changes to Credit Cards and Unsecured Credit Rules**

On 21 December 2012, the MAS issued a consultation paper on proposed changes to MAS's rules on credit cards and unsecured credit. The MAS has considered the feedback received during the public consultation and issued this subsequent consultation paper in September 2013 on the proposed draft legislative amendments to credit cards and unsecured credit rules to implement the finalised proposals.

Key policy changes effective 1 June 2014 include:

- FIs will be required to review a borrower's total debt and credit limits before granting new credit card or unsecured credit facility or increasing the credit limit on such facilities; and
- FIs will be required to obtain a borrower's express consent for the amount of each credit limit increase;

In addition to the above, some other key changes will take effect from 1 June 2015.

##### **Consultation Paper on Local Implementation of Basel III Liquidity Rules – Liquidity Coverage Ratio**

The consultation paper sets out the proposed replacement of the existing Minimum Liquid Assets framework under MAS Notice 613 with Basel III's Liquidity Coverage Ratio (LCR) framework. The key objective of the LCR framework is to ensure that a bank has an adequate stock of unencumbered high quality liquid

assets (HQLA) that can be converted into cash at little or no loss of value to meet its liquidity needs for a 30 calendar day liquidity stress scenario.

The MAS has proposed to impose a 100 percent SGD LCR on 1 January 2015 and a 40 percent USD LCR on 1 January 2015 which will rise in equal annual increments to reach 80 percent on 1 January 2019.

##### **Consultation Paper on the MAS's Power to Issue Prohibition Orders under the Banking Act**

The MAS currently has the power to issue prohibition orders (PO) to prevent unsuitable persons from engaging in capital markets, financial advisory and insurance intermediation activities, but does not have similar powers for banking business. To ensure the fitness and propriety of those involved in banking activities, the MAS proposed that it be given the power to issue PO under the Banking Act to prohibit unfit and improper persons from conducting banking business and functions incidental thereto.

##### **Consultation Paper on Proposed Amendments to MAS Notice 637 on Disclosure and Submission Requirements for Assessing Global Systemically Important Banks and Point of Non-Viability Requirements**

This consultation paper sets out the MAS's proposed amendments to MAS Notice 637 ("the Notice"), incorporating disclosure and submission requirements for assessing Global Systemically Important Banks (G-SIBs). The proposed disclosure and submission requirements in the Notice will allow the Basel Committee on Banking Supervision (BCBS) to assess the systemic importance of Singapore-incorporated banks, based on the methodology set out in the BCBS' framework "G-SIBs: updated assessment methodology and the higher loss absorbency requirement".

##### **Personal Data Protection Act (PDPA)**

The PDPA, promulgated on 2 January 2013, has the following three constituents:

- A Personal Data Protection



Commission (PDPC) has been set up to issue guidelines and work with regulators like the MAS and CASE to help organisations to adjust and comply with the PDPA.

- A Data Protection Advisor Committee set up to advise the Commission on its role.
- A Do-Not-Call (DNC) Registry which will be set up by the Commission by early 2014.

Compliance with the PDPA is expected within 18 months after the Act is effective. The above will have significant impact on the banks on collection, usage of customer information and marketing products to consumers.



### **Securities, Futures and Fund Management/ Financial Advisers**

#### **Securities and Futures (Reporting of Derivative Contracts) Regulations 2013**

The Securities and Futures (Reporting of Derivative Contracts) Regulations 2013 came into operation on 31 October 2013. Under the regulations, certain information in relation to specified derivatives contracts traded or booked in Singapore are required to be reported to a licensed trade repository with effect from the reporting commencement date. The reporting commencement dates for banks, other financial entities, and significant derivatives holders are 1 April 2014, 1 July 2014, and 1 October 2014 respectively. The reporting regime will start with the reporting of interest rate and credit derivatives, while reporting of other asset classes of derivatives contracts will commence after October 2014.

#### **Consultation Paper on Draft Regulations for Complaints Handling and Resolution**

On 30 September 2013, MAS consulted on draft Regulations for Complaints Handling and Resolution pursuant to the FAA to effect the policy proposals aimed at strengthening the complaints handling and resolution processes of financial advisory firms. This consultation arose from one of

the recommendations made by the Financial Advisory Industry Review (FAIR) Panel in its report of 16 January 2013.

#### **Accounting Updates**

##### **Singapore**

##### **Offsetting**

Offsetting Financial Assets and Financial Liabilities (Amendments to FRS 32), which are effective from 1 January 2014, clarify the accounting requirements for offsetting financial instruments and address inconsistencies identified in applying the offsetting criteria in FRS 32 Financial Instruments: Presentation. Under the currently effective FRS 32, financial assets and financial liabilities are offset and a net amount presented in the statement of financial position only when an entity:

- currently has a legally enforceable right to set off the recognised amounts; and
- intends either to settle on a net basis, or to realise the assets and settle the liability simultaneously.

The amendments clarify that, to meet the offsetting criteria, the right of set off:

- must not be contingent on a future event; and
- should be enforceable both in the normal course of business and in the event of default, insolvency or bankruptcy of the entity and all of the counterparties.

The amendments are relevant for the presentation of financial instruments in a bank's statement of financial position. New disclosure requirements have been introduced on rights to set off under FRS 107 which are effective from 1 January 2013. These apply to financial assets and financial liabilities that are:

- offset in the statement of financial position; or
- subject to enforceable master netting arrangements or similar agreements.

##### **International**

##### **Hedging**

The banking industry recently welcomed two developments in hedge accounting. The first is the International Accounting Standards Board's (IASB) provision of a limited scope relief for a widespread issue resulting from derivative novations.

The second – the decision to allow an accounting policy choice over which general hedging model to use – once IFRS 9 Financial Instruments becomes effective. The IASB has removed the 1 January 2015 effective date of the standard which was part of the amendments to IFRS 9 released on 19 November 2013. The new mandatory effective date will be determined once the classification and measurement and impairment phases of IFRS 9 are finalised.





However, with only months left before issuing their first financial statements under IFRS 13 Fair Value Measurement, banks face a number of implementation challenges. The magnitude of these challenges is largely dependent on a bank's existing approach under IAS 39/IFRS 9, the nature of the business and the financial instruments held. It will be important for banks to monitor evolving practice in complicated areas and areas with only limited guidance available.

To help entities in their planning, the IASB on 21 November 2013 tentatively decided that the mandatory effective date of IFRS 9 would be no earlier than annual periods beginning on or after 1 January 2017.

## Tax Updates

In tandem with the Singapore Government efforts to raise the standards of business conduct for

fund management firms, the Monetary Authority of Singapore (the "MAS") has announced enhancements to the existing tax regime for fund management.

We highlight below the relevant updates:

### 1. **Committed capital concession applies in meeting the minimum Asset under Management ("AUM") requirement under the Financial Sector Incentive – Fund Management ("FSI-FM") incentive scheme**

The FSI-FM scheme offers a concessionary rate of 10% on income derived by approved fund management company from managing or advising qualifying funds.

In the recent enhancements to the FSI scheme announced by the MAS on 28 June 2013 (please refer

to Issue 18 of our Tax Alert), new applicants / existing FSI-FM award recipients seeking a renewal of the FSI-FM incentive will be subjected to an additional requirement of having the minimum Assets under Management AUM of at least S\$250 million.

The MAS has recently clarified that private equity, real estate and infrastructure fund managers may use the committed capital secured for these funds in the calculation of their AUM for the purpose of meeting S\$250 million criteria under the FSI-FM tax incentive.

It is required that the level of committed capital must be legally enforceable through a contract between the investor and the fund at the point of application. The fund manager should also have recourse to recover any capital committed, or to take the necessary remedial action in the event that the investor defaults on his or her commitments. In addition, the fund must demonstrate that a component of payments made to the fund manager for managing its fund is charged based on the committed capital.

### 2. **Goods and Services Tax (GST) remission for qualifying funds**

The Minister for Finance introduced in 2009 a GST remission scheme under which funds that meet the qualifying conditions will be able to recover GST incurred on all expenses (except disallowed expenses under the GST Regulations 26 and 27) from 22 January 2009 to 31 March 2014 based on a fixed recovery rate, without requiring the funds to register for GST.

In this regard, the fixed recovery rate for expenses incurred during the period from 1 January 2014 to 31 March 2014 (date of expiry of the current GST remission scheme) will be 90%. A review of the GST remission scheme is expected on or before 31 March 2014.



# Global topics -



## Guide to Annual Financial Statements - Illustrative Disclosures for Banks (December 2013)

A new guide takes account of the impact of new or revised IFRSs, which are effective for the first time for an annual reporting period ending on 31 December 2013.



## There's More To Risk Governance Than Just Risk (November 2013)

Organisational decisions require different levels of scrutiny from a risk management perspective. Governance frameworks must clearly specify decision-making authority along with individual escalation responsibilities and processes.



## Are You Ready? Assessing Your FATCA Compliance Program (November 2013)

KPMG's approach to helping our clients review and build on their existing FATCA Impact Assessment and Implementation Plans.



## The cost of compliance - 2013 KPMG-AIMA-MFA Global hedge fund survey (October 2013)

A survey of hedge fund managers, undertaken with the Alternative Investment Management Association (AIMA) and the Managed Funds Association (MFA), which looks at the costs, challenges and opportunities of regulatory compliance for the hedge fund sector.



## IFRS Newsletter - The Bank Statement Q3 2013 (October 2013)

This quarterly publication provides updates on IFRS developments directly impacting banks, considers accounting issues affecting the sector, and discusses potential accounting implications of regulatory developments.



## Revisions to the Risk-Based Capital Framework: How will RBC2 and ERM affect insurers in Singapore? (September 2013)

A publication discussing the upcoming RBC 2 and ERM framework requirements and how the proposed changes will affect insurers in Singapore.



## Fix, Refine, and Rebalance - A Five-Stage Process Banks Use to Optimize Capital Under the Basel Accords (September 2013)

This paper explores many of these issues and focuses on strategies to reduce RWA in a manner that provides relief to organisations' capital and leverage requirements.



## Frontiers in Finance (September 2013)

The FS industry needs a fundamental change in attitude & culture to respond to the new environment. This is why we have chosen to devote much of this issue of frontiers to issues of culture. We believe culture is the new fundamental challenge.



## Basel 4: Emerging from the mist (September 2013)

An overview of the key industry and regulatory issues affecting the Banking and Capital Markets sectors.



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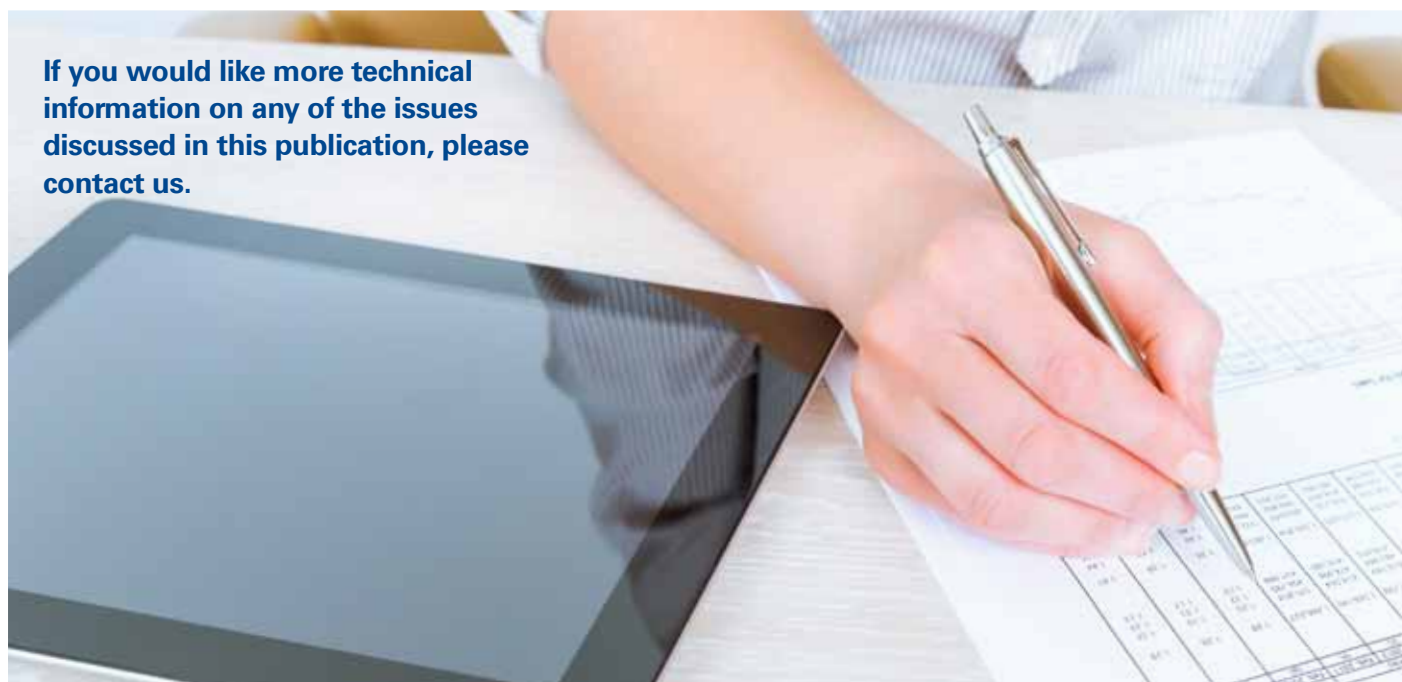
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**If you would like more technical  
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