Monetary Authority of Singapore

ENHANCING ROBUSTNESS OF ENTERPRISE-WIDE RISK ASSESSMENT ON MONEY LAUNDERING AND TERRORISM FINANCING

Information Paper
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Introduction

The enterprise-wide money laundering and terrorism financing (ML/TF) risk assessment (EWRA) assesses a financial institution's (FI) inherent ML/TF risks, the effectiveness of the control environment designed to mitigate those risks, and the need to implement additional measures to manage residual risks where necessary. The requirements and expectations pertaining to EWRA are stipulated in MAS Notices and Guidelines.

MAS' thematic inspections on EWRA

MAS conducted thematic inspections of selected banks in 1Q 2020 to assess the robustness of their EWRA. MAS benchmarked practices amongst these banks.

Scope of inspection

1. Management oversight of EWRA

Adequacy of management's oversight of frameworks and processes, and quality of deliberation on EWRA

2. EWRA framework

Soundness of banks' frameworks and methodologies to assess and rate inherent risks, control effectiveness, and residual risks

3. EWRA implementation

Robustness of both quantitative and qualitative analyses in the EWRA

This information paper sets out MAS' supervisory expectation of effective EWRA frameworks and processes. While the paper does not impose new regulatory obligations, FIs should study the guidance to identify and address gaps in their EWRA frameworks and processes.

While the paper is based on MAS' thematic inspections of banks, the desired outcomes and good practices are relevant and applicable to other types of FIs. FIs should, therefore, incorporate the learning points from this paper in a risk-based and proportionate manner, giving proper regard to the profile of their business activities and customers.

Overall assessment

The banks inspected have generally established frameworks and processes to conduct the EWRA in accordance with the requirements set out in MAS Notice 626 and the Guidelines to MAS Notice 626.

The robustness of the EWRA was, however, uneven across the banks inspected.

Some banks have established good practices, such as utilising good quantitative analysis tools to detect ML/TF risks, that the industry can emulate.

Others have room to enhance the rigor of management oversight of EWRA processes, the robustness of EWRA methodologies, and the effectiveness of EWRA implementation.

MAS’ expectation of the Board and senior management

Set appropriate tone-from-the-top to instill awareness and appreciation of EWRA amongst staff

MAS looks to the Board and senior management to demonstrate good understanding of the underlying objectives of the EWRA, and set the appropriate tone-from-the-top to instill an appreciation of these objectives amongst staff.

Without a sound understanding of the EWRA’s underlying intent, staff may adopt a perfunctory and mechanical approach towards the EWRA, and view it as merely a paper exercise that needs to be done.

Exercise oversight of processes to ensure sound EWRA frameworks and effective implementation

MAS expects the Board and senior management to ensure that the EWRA frameworks and methodologies are sound and implemented effectively to meet the underlying objectives of the EWRA.

The Board and senior management should direct and ensure effective implementation of remediation measures to address gaps identified from the EWRA exercise.

Desired outcomes

1. Banks' **senior management maintain active oversight of EWRA frameworks and processes**, including ensuring compliance with relevant MAS Notices and Guidelines.

2. Banks have **sound and systematic frameworks and processes to assess inherent risks, control effectiveness, and residual risks** for each business line.

3. Banks perform **adequate and accurate qualitative and quantitative analyses** in assessing risks.

4. Banks **assess effectiveness of controls**, taking into account **policies and procedures**, **control testing results**, as well as insights from the banks' assessments of **their cultures**.

5. Banks have **systematic processes to establish and implement control measures** to address areas for improvement identified from the EWRA exercise.

6. Banks have **structured processes to perform gap analysis** against guidance papers, and **incorporate lessons learnt and good industry practices** in their own processes.

Outcome 1 - Banks' senior management maintain active oversight of EWRA frameworks and processes, including ensuring compliance with relevant MAS Notices and Guidelines

Effective senior management oversight is critical for the development and implementation of sound AML/CFT risk management frameworks. Senior management should exercise active oversight of EWRA processes, establish clear roles and responsibilities pertaining to EWRA across the three lines of defence, and ensure that staff understand the underlying objectives of the EWRA.

What can be better

1. Inadequate understanding of EWRA methodology

- Following past EWRA templates mechanically without a good understanding of underlying objectives and internal policy requirements.
- Relying on system-generated results for EWRA ratings, without a good knowledge of the weightages assigned to risk factors and how the results were computed.

2. Undetected errors and omissions

- Inadequate attention paid by management to the quality of the EWRA, resulting in undetected errors for several years and incomplete analyses.
- For example, several fields within the EWRA were either left blank or partially completed.

3. Insufficient deliberation by senior management

- Lack of robust discussions on EWRA by management (although most banks tabled the EWRA to management committees) e.g. senior management approved final rating without deliberating how it was derived, management was unable to provide responses to questions on EWRA ratings in some instances.
- Discussion on EWRA held outside of committee meetings and did not benefit from wider views from committee deliberation.
- Failure to maintain documentation for accountability and audit trail.

Good practices observed

Structured process for management to direct and monitor the implementation of control measures

- Processes established for management to oversee and direct the implementation of control measures to address gaps noted from the EWRA, and regularly monitor the status against target dates.
- Processes in place for validation of effectiveness of controls by internal audit/ compliance and escalation of overdue items, if any, to management.

Outcome 2 - Banks have sound and systematic frameworks and processes to assess inherent risks, control effectiveness, and residual risks for each business line

Banks should develop sound and systematic EWRA methodologies to effectively (i) identify and analyse inherent ML/TF risks, (ii) assess the adequacy of AML/CFT controls, and (iii) determine residual risks and additional mitigating measures to address these risks. Banks should pay close attention to the design of EWRA rating methodologies to ensure that they are sound and prudent. Besides the periodic EWRA exercises, banks should establish guidance on timely review of the EWRA upon material trigger events to keep the assessment up-to-date and relevant.

What can be better

1. Flaws in the design of EWRA rating methodology

- Scoring methodologies that are biased towards more benign ratings for inherent risks, control effectiveness, or residual risks. This could understate the overall level of risk exposure (refer to case study 1).

- EWRA methodologies with mathematically flawed metrics (refer to case study 1).

2. Inclusion of inapplicable factors / omissions of relevant factors

- Inapplicable factors included or relevant factors omitted in the assessments of inherent risks and control effectiveness.

- For example, a bank assessed that risk factors relating to trade-based products were inapplicable to its retail banking. However, the bank used the same EWRA template across its business lines, and nevertheless accorded a score to risk factors relating to trade-based products for its retail banking business. This had a downstream impact on the overall inherent ML/TF risk score.

Good practices observed

1. Structured methodologies

- Structured methodologies to assess and score inherent risks, control factors, and residual risks. Mandating mitigating measures if ratings exceed certain thresholds.

- Staff provided with adequate guidance to conduct EWRA consistently, across business lines and over time.

2. Detailed rationale for weightages

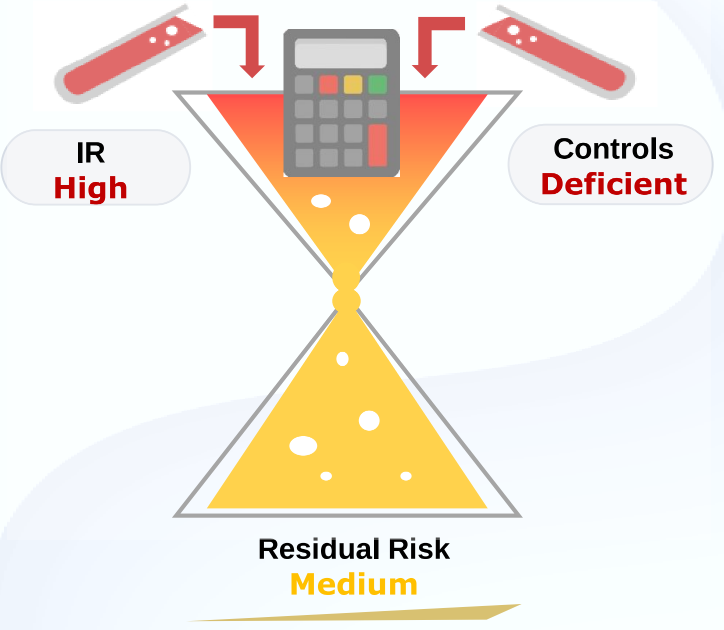
- Detailed rationale for assigning weightages to risk and control factors in the methodologies.

- For example, banks considered factors, such as nature of risk, operating environment, types of products offered, and implication on other risk factors, in assigning weightages.

Case study 1 - Flaws in EWRA rating methodologies

1A

These EWRA rating methodologies were **biased towards more benign ratings**.

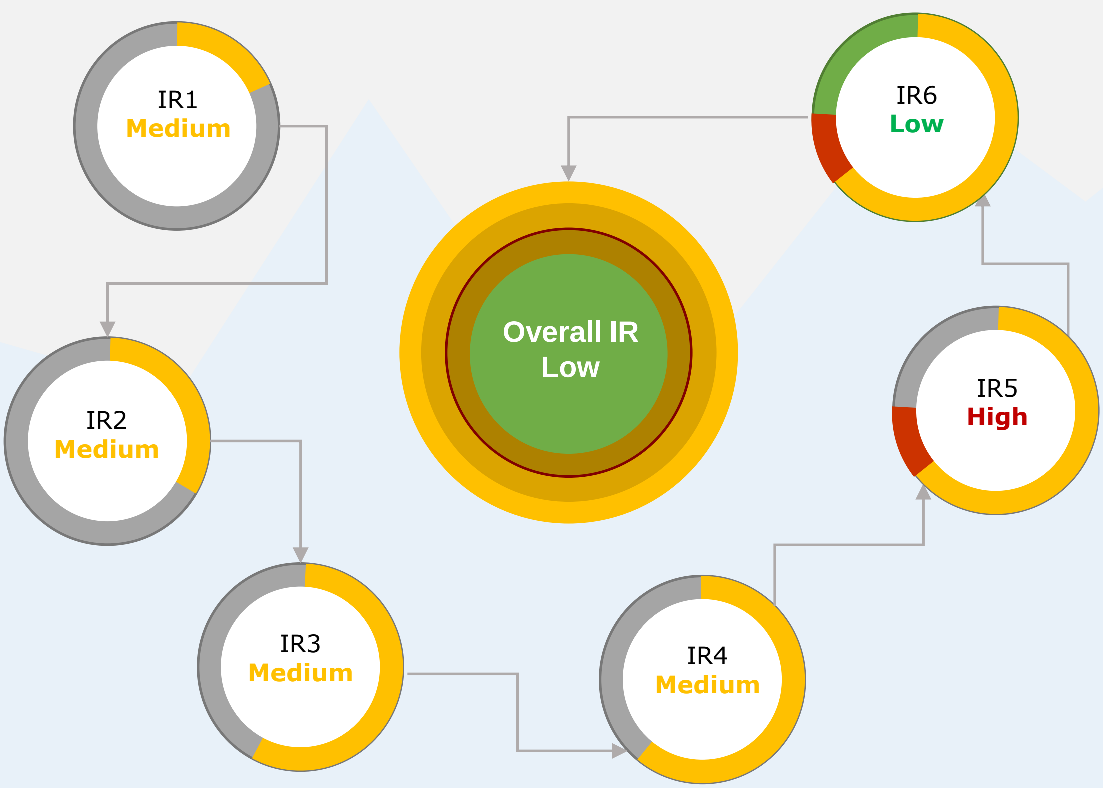


The residual risk rating methodology allowed the residual risk to be "Medium", when inherent risk (IR) was "High" and control effectiveness "Deficient".

a

b

The IR rating methodology allowed the overall IR to be "Low" when only one IR factor was assessed to be "Low".



Case study 1 - Flaws in EWRA rating methodologies

1B This case study illustrates a methodology (to rate the risk arising from client growth) that needs to be re-calibrated as it is mathematically flawed.

Step 1

Identify the client segment

Client Segment	Total Clients Min (>=)	Total Clients Max (<=)
A	1	100
B	101	1,000

Step 2

Calculate the actual % of new clients

$$\frac{\text{No. of new clients}}{\text{Total no. of clients}} \times 100\% = \text{% of new clients}$$

Step 3

Map "% of new clients" calculated in step 2 to a rating of Low, Medium, or High via a rating matrix calibrated based on pre-assigned client segment (i.e. A or B in step 1).
Refer to table below for rating matrix for Segment B.

Segment B

# of new clients	Risk Rating		
	Low	Medium	High
	% of new clients		
0 to 20	<20%	20%-30%	>30%
>20	<15%	15%-20%	>20%

These % ranges are beyond the maximum possible % that can be computed.

As 20 / 101 x 100% = 19.8%, the rating for segment B (0 to 20 new clients) will always be low.

Where flaws are identified in the design of the EWRA rating methodologies, banks should:

- **Re-calibrate the EWRA methodology** to ensure that it is sound and prudent.
- **Re-assess the EWRA** and rectify downstream impact if any.
- **Establish processes to perform periodic review of the EWRA methodology** to ensure its relevance and soundness.

Outcome 3 - Banks perform adequate and accurate qualitative and quantitative analyses in assessing risks

Banks typically rely on both qualitative and quantitative analyses to assess their ML/TF risk exposures.

The qualitative assessment deliberates, among others, the nature and complexity of risk factors. The quantitative assessment generally involves analysis of aggregated data across the bank's activities such as customers' transactions, inflows to, and outflows from, specific geographical locations, and transactions involving products assessed to be of higher risks.

Banks should conduct both qualitative and quantitative analyses to ensure that they adequately and accurately understand their ML/TF risk exposures.

What can be better

1. Errors and omissions in EWRA

- Errors and incomplete assessment noted in EWRA.
- For example, there were computational errors due to wrong formulas, data input errors, and omission to complete parts of EWRA questionnaires. Some were attributed to isolated cases of human errors. Others were due to inadequate review and oversight.
- Potential downstream impact on overall risk assessment and decisions on required mitigating measures.

2. Limited quantitative analysis

- Relying primarily on qualitative analysis, with limited quantitative analysis, in the conduct of the EWRA. Potentially impeding banks' in-depth understanding of ML/TF risks.
- Lack of robust quantitative analysis attributed to difficulties in extracting structured data across different systems.
- MAS encourages banks to leverage data analytic tools to enhance their assessments (refer to case studies 2 and 3).

Outcome 3 - Banks perform adequate and accurate qualitative and quantitative analyses in assessing risks

Good practices observed

1. Good use of quantitative analysis

- Extensive use of quantitative metrics in EWRA for more in-depth understanding of ML/TF risk exposure.
- For example, banks analysed number and % of clients who were politically exposed persons (PEP), number of high-risk customers on-boarded during the year, volume and value of transactions involving high-risk countries, % of customers holding high-risk products, etc.

  (Refer to case studies 2 and 3)

2. Inclusion of factors beyond industry practice

- Assessing employees as a separate risk factor to provide better focus, taking into account, among others, pre-employment checks, ongoing name screening and adequacy of AML trainings.
- Assessing risks arising from suppliers, e.g. geographical risks relating to hospitality and legal service providers based in higher risk countries.
- Inclusion of specific questions on management culture and compliance culture in the EWRA.

3. Analysis of future outlook in EWRA

- Inclusion of future outlook in the EWRA to aid assessments of potential significant developments and necessary enhancements to address these developments.
- For example, a bank analysed the emerging trend of Fintech companies seeking to establish banking relationships with the bank, and discussed the establishment of a specific AML/CFT compliance framework to manage these potential Fintech customers (e.g. bank's risk appetite, level of due diligence, red flags for any misuse of accounts).

Case study 2 - Examples of factors considered in the EWRA

Banks took into consideration multiple qualitative and quantitative factors in the EWRA. This case study provides notable factors considered by banks for FIs' reference, and is not meant to be an exhaustive list of factors.

Customers

- Number and % of high-risk customers by e.g. industry, occupation, geography, ownership structure
- Analysis of customers based on other factors such as PEP categorisation, adverse news, overdue KYC review

Geography

- Number and % of customers from high-risk jurisdictions
- Volume and value of cross-border transactions to/from high-risk jurisdictions
- Volume and value of transactions to/from a jurisdiction that presents higher risk of tax evasion.

Delivery channels

- Volume and value of transactions for each type of delivery channel (e.g. transactions conducted via branches or via internet banking)
- Analysis of face-to-face and non-face-to-face channels

Products and transactions

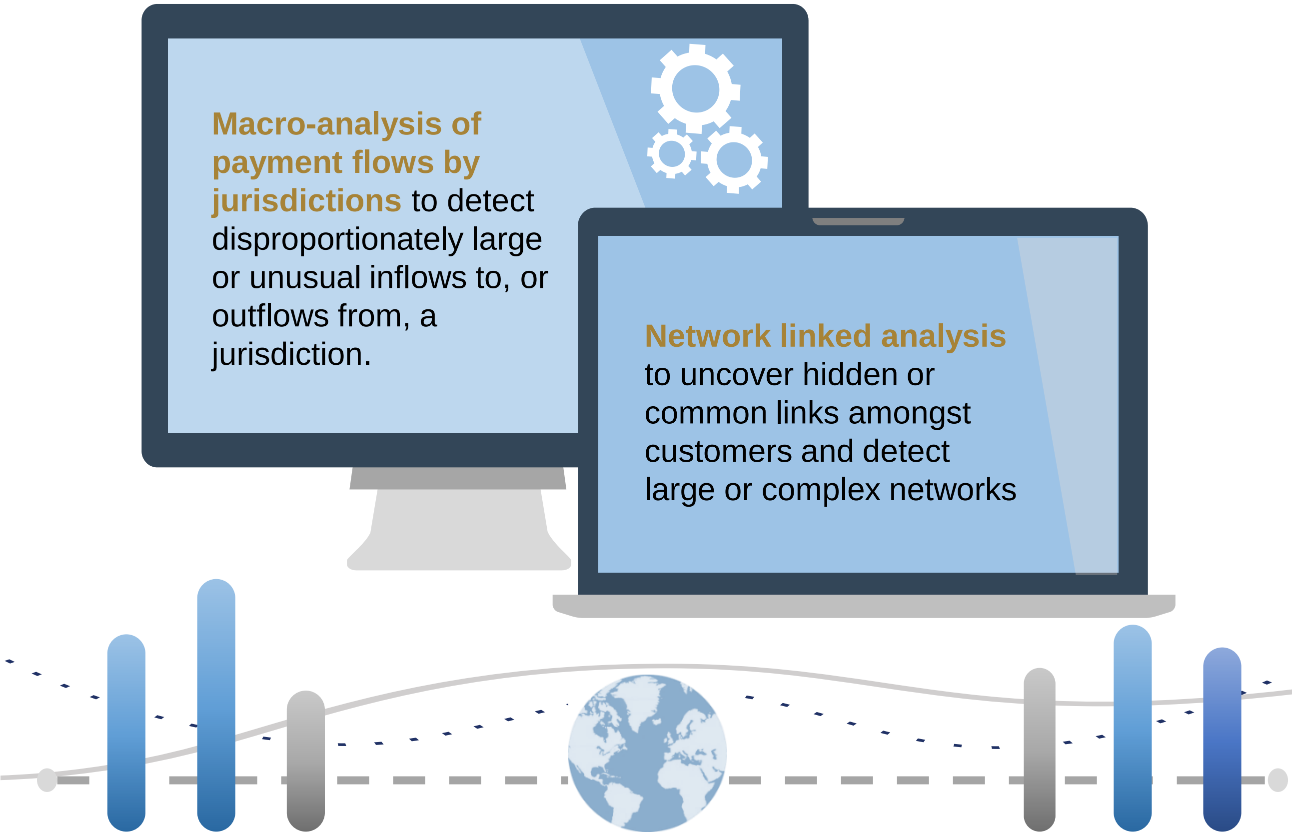
- Nature, complexity and diversity of products (e.g. cash-intensive, structured products)
- % of customers/high-risk customers holding high-risk products
- Volume, value, and % of transactions involving high-risk products

Other considerations that banks included in the EWRA …

- Significant findings from audits and compliance testing
- Organisational culture and compliance culture (e.g. tone from the top, completeness of information received by compliance)
- Outsourced AML/CFT functions
- Changes to business strategies, customer segments, and products and services in near future (e.g. next 12 months)
- Outlook on external events or emerging trends such as international developments in relation to sanctions or predictive identification of financial crime

Case study 3 - Good use of data analytics

Banks made use of **data analytics tools and techniques** to perform AML/CFT risk surveillance more effectively.



Through **macro-analysis of payment flows by jurisdictions**, a bank was able to detect disproportionately large or unusual inflows and outflows that were not commensurate with the economic activities or trade dealings between Singapore and these jurisdictions.

Using **network linked analysis**, the bank further detected suspicious entities and counterparties that had unusual flows from or to banks in these jurisdictions, which were not in line with the profile of these companies.

The application of such tools and analysis enabled the bank to identify higher risk areas, which would enrich the bank's assessment of risk exposures as part of the EWRA.

Outcome 4 - Banks assess effectiveness of controls, taking into account policies and procedures, control testing results, as well as insights from the banks' assessments of their cultures

The assessment of control effectiveness evaluates a bank's ability to mitigate its risks. Banks should perform control testing in a timely manner, and incorporate the results of control testing in the EWRA to assess the adequacy of controls in addressing ML/TF risks. In addition, as culture and shared values are important drivers of staff's behaviour, banks are encouraged to incorporate the assessments of their cultures in determining the effectiveness of their controls.

What can be better

1. Control testing results not included in EWRA

- Control testing results not incorporated in the assessment of control effectiveness.

- Insufficient to solely rely on frameworks and policies in the assessment of control effectiveness. Incorporating results of control testing in the EWRA is critical to reflect how the controls are implemented in practice.

2. Regular testing not conducted by second line of defence

- Regular testing of AML/CFT controls not always performed by an independent function from the second line of defence.

- Important for the second line of defence (e.g. compliance) to perform regular testing for timely identification of hotspots or emerging ML/TF risks, to complement any testing performed by the first line of defence or in-business control function.

Good practices observed

1. Systematic inclusion of testing results in control assessment

- Results of control testing incorporated in assessments of all control factors in the EWRA. This provides banks with a consistent approach to assess the effectiveness of its implementation of controls.

2. Structured consideration of formalisation of controls

- Assessment of control factors considers whether controls are formalised in policies and procedures. Formalisation of controls facilitates accountability and continuity in case of staff turnover.

Outcome 5 - Banks have systematic processes to establish and implement control measures to address areas for improvement identified from the EWRA exercise

Banks should put in place systematic processes to establish and monitor follow-up actions to address areas for improvements identified from the EWRA exercise. Structured processes provide banks with a consistent approach, and enhance accountability by bank management and staff. Effective implementation of mitigating measures, which are commensurate with the risks assessed in the EWRA, improves the robustness of banks' AML/CFT frameworks and controls.

What can be better

Failure to follow up on areas for improvement

- Failure to follow up on areas requiring improvement, identified from the EWRA, due to inadequate review and oversight by senior management. This was despite internal policy requirement to implement and track mitigating actions to ensure that they are adequately addressed.

(Refer to case study 4)

Good practices observed

Structured processes to establish and implement remedial measures

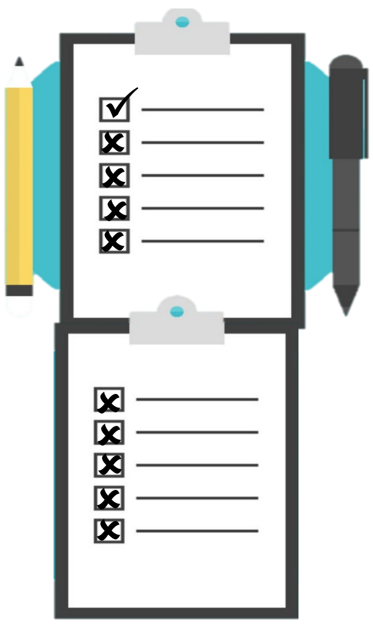
- Formalised requirements to implement additional control measures, based on the control effectiveness or residual risk ratings in the EWRA. This enhances accountability for and effectiveness of the EWRA.

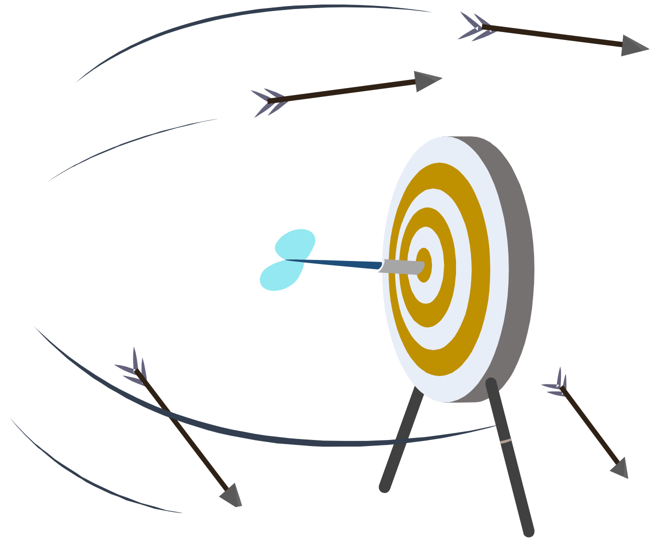
- Structured processes to monitor the implementation of measures to address areas for improvement identified from the EWRA exercise, including identification of action parties, setting of target completion dates, and providing regular status updates to senior management forums.

Case study 4 - Failure to follow up on deficiencies identified in the EWRA

A bank established methodology to identify areas requiring mitigating actions from the EWRA exercise. However, the bank did not implement this process, resulting in failure to follow up on areas for improvement identified in the EWRA.

Based on the bank's methodology, more than 10 areas were flagged in the EWRA as requiring mitigating actions

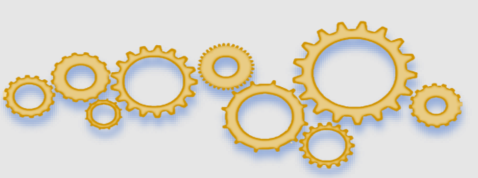




Due to inadequate oversight by senior management, the bank failed to comply with its internal policy requirement, and only followed up on one area.

To enhance the effectiveness of the EWRA exercise, banks should…

- Develop and implement **structured processes to identify areas requiring improvements** from the EWRA exercise
- **Establish mitigation measures**, key parties responsible and target completion dates
- **Track the implementation status and validate the effectiveness** of mitigation measures
- Provide **regular updates to relevant management** forums



Outcome 6 - Banks have structured processes to perform gap analysis against guidance papers, and incorporate lessons learnt and good industry practices in their own processes

Banks are expected to benchmark their practices against MAS' and other relevant guidance papers*, and ensure that gaps are addressed in a timely manner with adequate documentation for accountability and audit trail. The results of the gap analysis should be presented to senior management for deliberation, and learning points incorporated in the EWRA and control processes.

*For example, guidance papers issued by FATF, AML/CFT Industry Partnership (ACIP) best practice papers

What can be better

Lack of structured processes for gap analysis against guidance papers

- Lack of structured processes to track issuance of guidance papers, conduct timely gap analysis against these papers, and maintain proper documentation of gap analysis performed.
- Failure to carry out gap analysis against some guidance papers or inability to locate documents for past gap analysis. This exposed banks to potential undetected risks or loss of institutional knowledge acquired from past analysis.
- Circulation of guidance papers to staff without delineating any learning points. Minimal discussions on the guidance papers.

Good practices observed

Systematic processes to perform gap analysis and incorporate learning points in EWRA

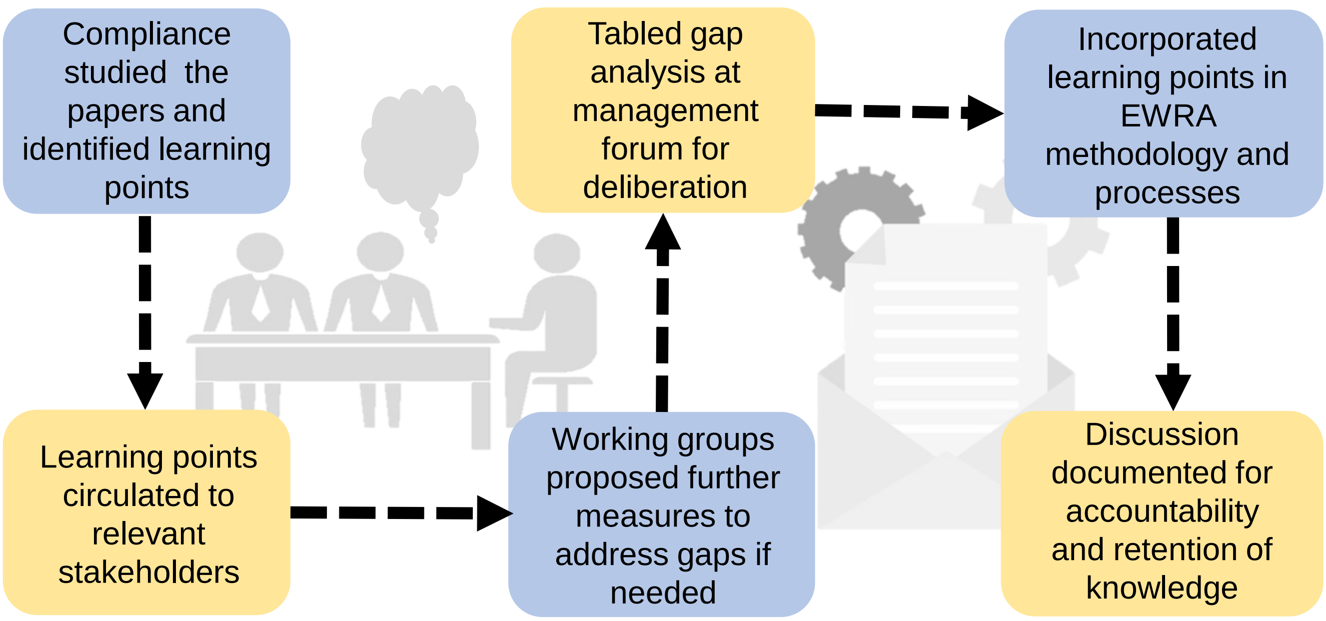
- Structured processes to perform gap analysis against guidance papers in a consistent and timely manner, and table the results of gap analysis to senior management forums for deliberation.
- EWRA questionnaire updated to include questions on good practices highlighted in guidance papers, and controls systematically assessed against these additional questions.

(Refer to case study 5)

Case study 5 - Structured processes for gap analysis

Some banks established structured processes for gap analysis against MAS' guidance papers (and other relevant AML/CFT guidance), with learning points being deliberated by bank management and other relevant stakeholders.

What the banks did…



Learning points

- **Structured processes for gap analysis** enable banks to benchmark the practices set out in MAS' guidance papers (and other relevant references) against banks' existing processes in a consistent and timely manner.

- **Deliberation by relevant stakeholders** on areas such as the latest trends, typologies, red flags and good practices set out in the guidance papers facilitates the identification of good processes for adoption or deficiencies to be avoided.

- **Tabling results of gap analyses to senior management forums** for deliberation enhances effectiveness of oversight by senior management, who can set the appropriate tone-from-the-top for banks to adopt good practices and rectify gaps if any.

- **Systematic implementation and tracking of action plans** facilitates timely remediation by banks. Proper documentation enhances accountability and enables banks to retain institutional knowledge for future reference and analysis.

In conclusion…

- The EWRA provides banks with an overview of their ML/TF risk exposure and forms the cornerstone of banks' AML/CFT risk management. Robust EWRA enables banks to better understand their ML/TF risks, implement relevant policies and control procedures to effectively mitigate these ML/TF risks, and optimise the allocation of AML/CFT resources.

- MAS' thematic inspections have shown that banks have room to improve the rigor of management oversight of EWRA processes, the robustness of the design of EWRA methodologies, and the effectiveness of EWRA implementation. The banks have taken, or are taking, remedial actions to improve their frameworks and processes.

- MAS will continue to engage FIs to promote best practices and maintain high AML/CFT standards in the industry.