

**RESPONSE TO
FEEDBACK RECEIVED**

July 2016

**Public Consultation on
Guidelines on
Outsourcing**

MAS

Monetary Authority of Singapore

Contents

1.	Preface	3
2.	Effective Date	3
3.	Application of Guidelines	4
4.	Definitions	4
5.	Engagement with MAS on Outsourcing	8
6.	Risk Management Practices	9
7.	Responsibility of the Board And Senior Management	10
8.	Evaluation of Risks	12
9.	Assessment of Service Providers	13
10.	Outsourcing Agreements	17
11.	Confidentiality and Security	19
12.	Business Continuity Management	22
13.	Monitoring and Control of Outsourcing Arrangements	22
14.	Audit and Inspection	25
15.	Outsourcing Outside Singapore	28
16.	Outsourcing within a Group	30
17.	Examples of Outsourcing Arrangement	31
18.	Register of Outsourcing Arrangement	35
19.	Applicability of Circular on IT Outsourcing	36
20.	Outsourcing of Risk Management or Internal Control Functions	36
Annex A	List of Respondents to the Consultation Paper on Guidelines on Outsourcing	37
Annex B	Guidelines on Outsourcing	
	Annex 1: Examples of Outsourcing Arrangements	
	Annex 2: Material Outsourcing	
	Annex 3: Register of Outsourcing Arrangements	

1. Preface

1.1 On 5 September 2014, MAS issued consultation papers on proposed revisions to the Guidelines on Outsourcing (the “Guidelines”) to raise the standards of institutions’ outsourcing risk management practices as outsourcing arrangements have become more prevalent and complex since the set of existing Guidelines was first issued in 2004. MAS also proposed to issue a Notice on Outsourcing (the “Notice”) that defines a set of minimum standards for outsourcing management.

1.2 The consultation period closed on 7 October 2014, and MAS continued to engage the industry on the proposals and feedback received. MAS would like to thank all respondents for their contributions. The list of respondents is in Appendix A.

1.3 MAS has considered the feedback received, and has incorporated them where appropriate. Comments that are of wider interest, together with MAS’ responses are set out below.

1.4 The Notice will be issued at a later date. MAS will engage the industry prior to the issuance of the Notice on Outsourcing, where necessary.

2. Effective Date

2.1 Respondents sought clarification on whether the Guidelines would apply to existing outsourcing arrangements which were renewed prior to the issuance of the Guidelines. Respondents also suggested an implementation timeline of at least 12 months from the issuance of the Guidelines to provide institutions with sufficient time to assess their outsourcing arrangements.

MAS’ Response

2.2 Institutions should conduct a self-assessment of all existing outsourcing arrangements against the Guidelines within three months from the issuance of the Guidelines. Institutions should also rectify deficiencies identified in the self-assessments no later than 12 months from the issuance of the Guidelines. Institutions should adopt a risk-based approach and rectify deficiencies relating to material outsourcing arrangements. Nevertheless, if a deficiency is significant, institutions should have in place measures to mitigate the risks in the interim. Where the rectification concerns an existing outsourcing agreement, it may be made when the outsourcing agreement is substantially amended, renewed or extended, whichever is earliest.

3. Application of Guidelines

3.1 Several respondents sought clarification on whether MAS' proposal for institutions incorporated in Singapore to consider the impact of outsourcing arrangements and ensure observance of the Guidelines by its branches and any corporation under its control, including those located outside Singapore, would include non-financial related companies.

MAS' Response

3.2 MAS expects an institution incorporated in Singapore to consider the impact of outsourcing by its branches and any corporation under its control, including those located outside Singapore and regardless if these are financial or non-financial related companies, on its consolidated operations and apply the appropriate outsourcing risk management framework.

4. Definitions

Definition of "customer"

4.1 A few respondents sought clarification on the definition of customer, such as whether it extended to the underlying user in relation to an approved exchange; and in relation to fund management companies, whether it referred to the fund, the underlying investors of the fund, or the offshore manager in the case where the fund management company is appointed as a sub-adviser to an offshore manager under a sub-advisory agreement.

4.2 There were requests for MAS to define customer for all types of institutions and to align the definition across existing legislations.

MAS' Response

4.3 MAS expects all institutions to accord high standards of care to their customers, regardless whether they are an individual or corporate.

4.4 MAS has considered the feedback and provided the definition of customer in relation to all types of institutions.

Definition of “customer information”

4.5 Two respondents suggested that the definition of customer information be aligned with the definition in section 40A of the Banking Act.

4.6 Some respondents sought clarification on whether customer information included anonymised customer data. Some respondents were of the view that information not referable to any named customer or group of named customers should be excluded to minimise regulatory burden on institutions. One respondent requested MAS to consider excluding information that was limited to the name and contact detail of the customer. The respondent also sought clarification on whether the definition included information that was publicly available.

4.7 One respondent suggested removing the phrase “held by” in the definition, to avoid any ambiguity on when the information is considered to be held by an institution.

MAS’ Response

4.8 It is not appropriate to adopt the definition of customer information in section 40A of the Banking Act for the purpose of the Guidelines as this definition was defined with respect to banking secrecy. For the purpose of the Guidelines, customer information has been separately defined to be relevant to all institutions.

4.9 MAS has accepted the feedback to exclude from the definition of customer information, information that is public, made anonymous or encrypted securely and which cannot be used to readily identify its customers. Reference to information that is held by the institution has also been removed to avoid ambiguity in interpretation.

Definition of “institution”

4.10 A few respondents sought clarification on whether the Guidelines would apply to institutions exempted in the Notice. One respondent inquired whether tied insurance agencies which were not licensed under the Financial Advisers Act (Cap. 110) were considered an institution.

MAS' Response

4.11 The Guidelines will apply to all institutions as defined under section 27A of the MAS Act, including the institutions indicated as exempted in the Notice. The Guidelines will not apply to tied insurance agencies as these agencies are not licensed under the Financial Advisers Act (Cap. 110) and hence not considered a financial institution under section 27A of the MAS Act.

Definition of "material outsourcing arrangement"

4.12 Several respondents were of the view that the proposed definition of "material outsourcing arrangement" was too wide, and essentially included any outsourcing arrangement which involved customer information. A few respondents requested that MAS provide more guidance for institutions to assess whether an outsourcing arrangement would be considered material. One respondent suggested for MAS to establish quantitative criteria to eliminate any subjectivity in assessment and ensure consistency in standards applied across the industry.

MAS' Response

4.13 The proposed definition has incorporated key characteristics which will deem an outsourcing arrangement to be material. An outsourcing arrangement which involves customer information would be deemed material only if it has been assessed to have a material impact on an institution's customers in the event of any unauthorised access or disclosure, loss or theft of customer information. Other characteristics which institutions could take into consideration when assessing the materiality of an outsourcing arrangement have been included in Annex 2 of the Guidelines.

4.14 Due to the diverse range of outsourcing arrangements, it is not plausible for MAS to take a prescriptive approach to risk management practices for outsourcing. Institutions are expected to have frameworks in place to evaluate the materiality of their outsourcing arrangements and to exercise sound judgement in identifying material outsourcing arrangements.

Definition of “outsourcing arrangement”

4.15 Under the existing Guidelines, an arrangement whereby it is prohibitive to change the service provider as substitutes are lacking in the market or may only be replaced at significant cost to the institution, could be considered as an outsourcing arrangement. Some respondents noted the removal of this characteristic in the revised definition and sought to understand the rationale.

4.16 One respondent requested MAS to consider including commercially available software as an example of a finished product. The respondent also sought clarification whether the customisation of a software by the vendor would also be regarded as a service that involved the provision of a finished product. Another respondent inquired whether the provision of a finished product referred to arrangements under a principal-agent relationship, and requested that MAS clearly specify the exclusion of such arrangements in the definition to avoid confusion. One respondent also requested MAS to clarify that the appointment of a custodian to satisfy the relevant regulatory requirements would not be considered an outsourcing arrangement.

4.17 One respondent requested clarification on what would be considered integral to the provision of a financial service by an institution.

4.18 Another respondent sought clarification whether human resource management services, in particular services provided by recruitment agencies, would constitute as outsourcing, and held the view that such arrangements should be excluded.

MAS' Response

4.19 In today's context where outsourcing has become common and it may no longer be prohibitive or costly to change service providers, MAS has assessed that the characteristic of outsourcing referring to arrangements where it is prohibitive to change the service provider as substitutes are lacking in the market or may only be replaced at significant cost to the institution, is no longer relevant in determining whether an arrangement should be deemed as outsourcing.

4.20 Whether an arrangement would be deemed as outsourcing would depend on its characteristics as set out in the Guidelines. For example, while the purchase of a software would be considered a finished product, an arrangement with a vendor to provide ongoing support to keep the software updated and relevant could generally be considered outsourcing. Similarly, human resource management services would constitute outsourcing if the institution may currently or potentially perform the service itself.

4.21 MAS would also like to clarify that consistent with paragraph 2(b) in Annex 1 of the Guidelines, arrangements that pertain to principal-agent relationships would generally not be considered outsourcing arrangements.

4.22 It is not MAS' intent to consider the maintenance of custody account with specified custodians as required by regulations as outsourcing. The arrangements have been included under paragraph 2(a) of Annex 1 of the Guidelines to clarify this. Please note that the examples provided in Annex 1 are not exhaustive.

Definition of "sub-contracting"

4.23 One respondent queried whether the arrangement where an institution outsources a service to its subsidiary which in turn engages a vendor to perform the service would be considered as sub-contracting.

MAS' Response

4.24 The arrangement described above would be considered sub-contracting as it involves further outsourcing of services or part of the services covered under the outsourcing arrangement to another service provider.

5. Engagement with MAS on Outsourcing

Notification to MAS

5.1 Some respondents sought clarification on whether institutions could commence outsourcing arrangements as soon as prior notification was provided or whether MAS' approval or response would be required. A few respondents also suggested limiting the scope of notification to material outsourcing arrangements only. In light of the expectation to notify MAS, several respondents requested MAS to commit to timelines for MAS to acknowledge the notification.

5.2 Some respondents also sought clarification on the type and scope of amendments to existing material outsourcing arrangements that would trigger an expectation to notify MAS. A few respondents queried whether a materiality test would be imposed on the nature of the amendment. Given that minor changes could be made to existing material outsourcing arrangements, the respondents suggested that institutions should only be expected to notify MAS of a material amendment to an existing material outsourcing arrangement.

5.3 In the area of adverse development, institutions also sought clarification on when MAS expects to be notified. Institutions noted that based on paragraph 4.2.1 of the Guidelines, most instances of incidents may result in a need to report them without considering if the incident is an adverse development.

MAS' Response

5.4 MAS has removed the expectation for institutions to notify MAS before commencing any material outsourcing arrangements. Institutions were previously expected to pre-notify MAS of any material outsourcing arrangements, and MAS would impose prudential requirements on the institution, where necessary. With the growing prevalence and complexity of outsourcing arrangements, such a case-by-case approach has become less tenable. Instead, MAS will continue to assess and monitor the robustness of institutions' outsourcing risk management frameworks while institutions will continue to be responsible for ensuring the safety of all of their outsourcing arrangements.

5.5 MAS does not prescribe the types of adverse development under which institutions should notify MAS because the consequence of an event on each institution could differ depending on the nature and scope of each outsourcing arrangement. Institutions can refer to some examples indicated in paragraph 4.2.1 of the Guidelines.

6. Risk Management Practices

6.1 One respondent felt that it was unclear whether all or only material outsourcing arrangements are subjected to the expectations in section 5 of the Guidelines. As the increased costs and efforts may not commensurate with the risks involved in the outsourcing arrangement, the respondent suggested MAS to allow institutions to exercise discretion on the types of outsourcing arrangements that should be subjected to the Guidelines.

MAS' Response

6.2 Taking into consideration the feedback from the industry, MAS has revised the proposals such that certain expectations on risk management practices apply only to material outsourcing arrangements. These include expectations to (i) perform periodic reviews at least on an annual basis; (ii) incorporate contractual clauses to allow the institution and MAS to be granted audit access as well as access to information and any report or findings made on the service provider and its sub-contractors; and (iii) ensure that outsourcing arrangements with service providers located outside Singapore are conducted in such manner so as not to hinder MAS' supervisory efforts.

7. Responsibility of the Board And Senior Management

Setting of Risk Appetite Statements and Limits

7.1 Some respondents highlighted that risk appetite statements may be set by the Head Office at the group level and it would therefore be challenging for the Singapore branch's management to ensure that such risk appetite statements are properly defined. There were also queries on whether such group risk appetite statements are acceptable so long as the local boards and/or committees of the Singapore branch are kept abreast of the group's framework. Some respondents requested MAS to provide guidance on what the board should consider when setting risk appetite to define the nature and extent of risks that the institution is willing and able to assume from its outsourcing arrangements. One respondent asked if institutions are expected to set risk appetite statements for intra-group outsourcing arrangements.

7.2 Some respondents expressed reservation over MAS' expectation for institutions to establish appropriate limits for outsourcing arrangements. A respondent requested MAS to explain the need for this, given that institutions would already be obliged to set a suitable risk appetite. Some requested MAS to remove this expectation, as it was not possible to determine the value of outsourcing arrangements in all cases and autonomy in the decision-making process should be granted to the approving authority to assess and weigh the outsourcing risks against business requirements before approving the arrangements.

MAS' Response

7.3 MAS would like to clarify that an institution's board, as defined in the Guidelines, can exercise their responsibility by ensuring the group's risk appetite statement sets out the expectations for the Singapore entity. Institutions can exercise their discretion when setting specific risk appetite measures to define the nature and extent of risks that the institution is willing and able to assume from its outsourcing arrangements.

7.4 With regard to intra-group outsourcing, MAS would like to clarify that intra-group outsourcing should be considered when an institution sets its the risk appetite for outsourcing , as such arrangements could still present risks posed by other group entities, including parent companies, due to different operating, legal and regulatory environments.

7.5 After taking into consideration the industry's feedback, MAS has removed the use of limits as a measure of risk appetite.

Board or Committees Delegated by the Board

7.6 Several requests for clarification on the definition of 'board or a committee delegated by it' were noted. One respondent commented that it was unclear whether MAS expects a committee per se to be formed which is responsible for acting on the delegated duties of the board, or whether the concept of a 'committee' is synonymous with the concept of 'senior management'. Another respondent asked if the branch operations of institutions incorporated outside Singapore, would require formal delegation from the Board, or whether it would suffice if the Country Officer of the Singapore branch (having the power delegated by the Board of the Head Office to oversee the Singapore branch) were to delegate his powers to a local committee to oversee the management of outsourcing risks.

MAS' Response

7.7 MAS would like to clarify that 'committee' and 'senior management' are not synonymous. In paragraph 5.2.2 of the Guidelines, the 'committee' referred to in "board, or a committee delegated by it" has to be beyond local management. An example of this, as highlighted in the Guidelines, is a regional risk management committee. Paragraph 5.2.5 of the Guidelines clarifies that for 'senior management', this lies with the local management of an institution. Hence, for institutions which are incorporated or established outside Singapore, the local committee cannot be delegated the responsibilities of the board under paragraph 5.2.2.

Testing of Contingency Plans

7.8 A respondent commented that it would be impractical and cost prohibitive to test all contingency plans. The respondent proposed that where testing of contingency plans is impractical or prohibitive, it should be acceptable to conduct a review of the action plan listed in the contingency plan and such actions and options listed have been assessed as reasonable and achievable.

MAS' Response

7.9 Contingency plans should be tested to validate recovery capabilities and ensure that plan deficiencies could be identified and addressed promptly. Where such testing is impractical or prohibitive, an institution should satisfy itself that the objectives of the testing are nevertheless achieved. Appropriate measures should also be put in place to address any residual risk from the non-testing, where necessary.

8. Evaluation of Risks

Assessment of Service Provider and Sub-Contractors

8.1 Many respondents sought clarification on the minimum due diligence expected to be conducted on sub-contractors. A respondent suggested providing MAS with the appropriate written assurance from service providers that they have carried out the necessary assessments on their sub-contractors, instead of having an institution to individually assess the sub-contractors. Another respondent noted that compliance could be onerous, as there could be situations where the service provider may have a significant number of sub-contractors, across many countries and subject to changes in the course of a year. There were also concerns that the service providers could be required to adhere to additional obligations usually reserved for regulated institutions.

MAS' Response

8.2 MAS expects institutions to retain the ability to maintain similar control over the risks from its outsourcing arrangements when a service provider uses a sub-contractor. As such, institutions should establish risk management frameworks and conduct appropriate due diligence to manage the risks associated with sub-contracting arrangements.

Analysis of the Institution's and Institution's Group Aggregate Exposure

8.3 Several respondents saw the need to rely on Head Office for analysing the institution's as well as the institution's group aggregate exposure to the outsourcing arrangement, to manage concentration risks in outsourcing to a service provider.

8.4 Two respondents sought clarification on whether the analysis of the aggregate exposure would apply to intra-group outsourcing arrangements, where the institution's outsourcing strategy and oversight are performed at group level. One of them suggested that intra-group outsourcing service providers should be exempted in the analysis of aggregate exposure.

MAS' Response

8.5 MAS would like to clarify that institutions can place reliance on its Head Office/parent company to analyse the institution's as well as the institution's group aggregate exposure to the outsourcing arrangement. Institutions should still be responsible over their aggregate exposure.

8.6 Regardless which party is relied upon to perform the analysis of aggregate exposure to an outsourcing arrangement, institutions should include intra-group outsourcing arrangements for such purpose. Such arrangements could still present risks due to different operating, legal and regulatory environments. Concentration risk could also exist if the intra-group outsourcing arrangement is used pervasively throughout the institution's group.

9. Assessment of Service Providers

9.1 A few respondents noted that they do not have discretion over the selection of service providers due to directives by Head Office, and sought clarification on how the guidelines would apply.

MAS' Response

9.2 MAS notes that institutions in Singapore may not be the party responsible for conducting due diligence of the service providers in cases where the service providers are selected by the institutions' Head Office. However, institutions in Singapore remain responsible for ensuring that the service providers are capable of providing the services and meeting their obligations. Therefore, institutions in Singapore are expected to play a part in the due diligence of the service providers. These could take the form of providing inputs on the service level performances, competencies and experiences of the staff that the institutions in Singapore may have dealt with, as well as their knowledge of the service providers' culture, compliance standards, quality of internal controls, etc., if they are aware of any. This would avoid any duplication of due diligence work by the institutions in Singapore, yet ensure that they are involved in monitoring the service providers and take proactive steps in making sure that the service providers are up to standard. Should Head Office appoint the service provider prior to the knowledge of the Singapore branch, institutions are expected to ensure that local requirements and guidelines are met.

Onsite visits

9.3 Some respondents sought clarification on whether the expectation to conduct onsite visits was only for material outsourcing arrangements and if audits or expert reviews would qualify as onsite visits. Some respondents were of the view that there would be difficulties in conducting onsite visits for overseas service providers.

MAS' Response

9.4 Onsite visits should be used by institutions to supplement findings noted from offsite reviews, or where onsite visits are expected to be more effective than offsite reviews. Institutions should adopt a risk-based approach when determining whether to supplement their due diligence of service providers with onsite visits. The onsite visits could be conducted by the institutions themselves or by independent parties appointed by the institutions or service providers.

Technology Risk Management

9.5 Some respondents sought clarification on whether technology risk management would apply to non-IT outsourcing arrangements.

9.6 Several respondents asked if institutions need to submit the Technology Risk Management ("TRM") checklist to MAS as evidence of the due diligence that they have performed to assess service providers and outsourcing risks.

MAS' Response

9.7 Institutions should apply technology risk management to non-IT outsourcing arrangements in situations where they assess that IT risks could manifest in the non-IT outsourcing arrangements. It would then be important to assess the service provider's technology risk management, where relevant.

9.8 Institutions are not required to submit their TRM checklist to MAS as the objective of the checklist is to facilitate institutions in assessing their technology risk management practices. MAS may require an institution to submit evidence of the outsourcing due diligence that it has performed as part of MAS' supervision of the institution's outsourcing risk management.

Employees of the Service Provider

9.9 Respondents sought clarifications on whether a 'fit and proper' assessment in the context of employees of an outsourcing service provider refers to MAS' Guidelines on Fit and Proper Criteria. Respondents also highlighted possible conflicts with some service provider's 'yellow-ribbon' hiring policies, particularly for services that might not be directly related to financial services such as printing or dispatch services.

9.10 Furthermore, respondents highlighted that it may not be possible for them to ensure that employees of the service providers and their sub-contractors' employees undertaking any part of the outsourcing arrangement are fit and proper. Respondents expressed concerns that they may eventually be compelled to seek less cost-efficient options.

9.11 Many respondents sought clarification as to whether institutions could place reliance on service providers' assessment of their employees, for instance, via review of human resource policies or through staff declarations furnished by the service provider.

9.12 Respondents sought clarity on applicability of the assessment, such as in relation to outsourcing within the group, to other regulated institutions and to short term contracts, arguing that the expectations should be relaxed in the given examples. A respondent also queried whether it was necessary to assess existing employees.

9.13 Respondents also sought clarification regarding the scope of such assessment, such as which employees should be assessed under which criteria, and how often such assessment should be performed.

MAS' Response

9.14 MAS expects institutions to ensure that a service provider and its sub-contractors employ a high standard of care in performing the service as if the service continued to be conducted by the institution. In this regard, MAS also expects institutions to apply similar standards, applicable to their own employees, on the employees of their service providers and sub-contractors.

9.15 Notwithstanding, MAS does not expect service provider's employees to undergo a fit and proper assessment as described in MAS' Guidelines on Fit and Proper Criteria. The listed examples of criteria for assessment are non-exhaustive and do not necessarily preclude an individual from taking on a role as assessments should be commensurate with the role that the employees are performing.

9.16 Employees employed by the institution's related companies in intra-group outsourcing arrangements can be assessed as part of their employment with the institution via the institution's human resource policies rather than via the outsourcing risk management process. Institutions can also consider obtaining relevant attestations from the service providers and their sub-contractors.

9.17 Institutions are not expected to conduct checks on third party service providers' employees themselves but they should ensure that the service providers and their sub-contractors have acceptable hiring and screening policies in place for ensuring their employees are suitable for the roles they are performing. This may include a higher degree of screening for employees in material outsourcing arrangements and/or in positions to handle sensitive information.

9.18 MAS would like to remind institutions to ensure that their service providers and sub-contractors have adequate control measures in place to mitigate risks in performing the relevant service (e.g., adequate hiring and screening policies to ensure their employees are suitable for the roles they are performing).

Due Diligence Process

9.19 Many respondents sought clarification on the various aspects to be assessed as part of their due diligence on service providers. Some respondents gave feedback that some of the criteria to be assessed are subjective and difficult to evaluate and information required for the assessment may not be readily available. A few respondents requested for MAS to allow the due diligence to be in the form of self-assessments by service providers.

9.20 Some respondents requested for the exemption of due diligence to be conducted on the service provider if it is an entity regulated by MAS.

9.21 Respondents were of the view that annual due diligence of the scope set out would be too onerous even for material outsourcing arrangements. Conversely, some respondents noted that an annual due diligence cycle could be too long if material changes had occurred.

9.22 Respondents requested clarity regarding 'reduced due diligence' mentioned in paragraph 5.4.5 of the Guidelines, in particular the suggested scope for reduction and the types of outsourcing arrangements to which this would apply.

MAS' Response

9.23 Periodic due diligence should be conducted on service providers. MAS does not prescribe the methods and sources of information used for the due diligence conducted on service providers and would allow institutions to determine appropriate criteria for assessment in line with their risk evaluation framework. Reasonable efforts should be made in the assessment and not all the criteria listed in the Guidelines may be applicable for each outsourcing arrangement. Institutions should adopt a risk-based approach in determining the appropriate scope, methodology (which may include the appropriate time interval for the refresh of information) and frequency of the assessment.

9.24 In general, due diligence should be conducted on all service providers as the onus is on the institutions to manage outsourcing risk, regardless of whether the service provider is a regulated entity or not.

9.25 However, a reduced scope and/or frequency may be adopted for outsourcing arrangements deemed as lower risk; institutions should perform their own assessment as to the types of arrangements deemed as lower risk in accordance to the institution's risk evaluation framework that has been endorsed by its Board and senior management. Such assessments should include relevant risk factors such as country risk where assessed to be significant.

10. Outsourcing Agreements

Validity and Enforceability of Agreements

10.1 Some respondents commented that in the case of intra-group outsourcing to the Head Office, there is a possibility that the outsourcing agreement may be invalid or not enforceable, as the branch may not enforce the agreement through legal means, given that they belong to the same entity.

MAS' Response

10.2 Institutions should ensure compliance with paragraph 5.5.1 of the Guidelines to the extent permissible by law. For intra-group outsourcing arrangements, institutions should ensure that service level agreements are in place to govern relationships, obligations, responsibilities, rights and expectations of the contracting parties in the outsourcing agreement.

Provisions within the Outsourcing Agreement

10.3 *Bridge Institution* - Some respondents sought clarification on what “bridge-institution” refers to. There were also queries on the rationale behind the guidelines relating to a “bridge institution”.

10.4 *Sub-contracting* - Several respondents opined that it would be challenging and onerous for the institution to ensure that sub-contracting of material outsourcing services should be subject to the institution’s prior approval. They highlighted that it will be extremely cumbersome and unproductive towards effective risk management if the institution needs to approve sub-contracting of processes that do not contribute to the materiality of the outsourcing arrangement. In addition, one respondent sought clarification on the MAS’ expectation on how the guidelines would apply to second, third and subsequent tiers of sub-contractors. As the nexus between the institution and such subsequent tiers of sub-contractors is even more remote, there would be greater operational and practical difficulties in applying all the guidelines to such subsequent tiers of sub-contractors, particularly where sub-contractors are not material sub-contractors.

MAS’ Response

10.5 Guidelines on bridge-institutions or third party are imposed to ensure continuity in a resolution of a distressed institution or service provider involving a transfer in whole or part of critical functions to a bridge bank or purchaser of outsourced services. Please refer to the definition of bridge- institution in the Guidelines.

10.6 On sub-contracting, institutions would need to ensure any sub-contracting performed by the service provider does not impact the institutions’ ability to comply with the Guidelines. The original phrasing of “all or substantially all of material outsourcing services” does not take into account situations where components of an outsourcing arrangement might not be deemed to be “substantially all” of a provided service (e.g., sub-contracting of data backup of customer information as a component of an outsourcing of a business operation) by a service provider but could still be important to institutions.

MAS' Supervisory Powers

10.7 Many respondents highlighted that it would be challenging to comply and ensure that “the outsourcing agreement should not hinder MAS in the exercise of its supervisory powers over the institution and right of access to information on the institution, the service provider, and its sub-contractors”, as the institution does not have direct contractual relationship with the sub-contractors and the latter is unlikely to agree to subject itself to MAS' supervision and access to information. Some service providers may have numerous sub-contractors and they may face difficulty in requesting all their sub-contractors to sign a supplemental agreement to provide the institution with the right to information. This is especially so if the sub-contractors are based overseas. From a legal and commercial perspective, the service providers may not be willing to accept such terms as this will impact their own commercial legal arrangements with the sub-contractors. Furthermore there might be restrictions imposed by host regulators on MAS' right of access to information. There is also a possibility that sub-contractors (including multinational conglomerate) may not accede to the institution's request.

MAS' Response

10.8 The Guidelines have been revised to better reflect the policy objective that outsourcing arrangements should not hinder MAS' supervisory powers over the institution and ability to carry out MAS' supervisory functions in respect of the institution's services.

11. Confidentiality and Security

Isolation and Identification of Customer Information

11.1 Many respondents sought clarification on the expectation to “isolate and clearly identify” customer information. Several respondents felt that logical segregation, rather than physical isolation, for information and other records held electronically, would be appropriate. Specifically for fund management companies which may sub-delegate investment management to another fund management company (i.e. service provider), respondents enquired if MAS expects the service provider to use separate fund management systems to manage the accounts provided by its different customers, or whether it would suffice for the service provider to assign unique identifiers to the accounts provided by its different customers.

11.2 One respondent suggested MAS to allow for flexibility while another suggested that MAS allow service providers to demonstrate that the institution's customer information is confidential and identifiable, rather than dictate the expectation to ensure isolation. In the event that the service provider is unable to isolate and clearly identify the institution's information, one respondent suggested that the service provider is, at least, required to clearly identify the institution's information and be subjected to the institution imposing a perpetual confidentiality obligation on the service provider.

MAS' Response

11.3 MAS would like to clarify that logical segregation is an acceptable form of control to segregate customer information held electronically. The expectation remains for institutions to protect the confidentiality of customer information. Institutions should ensure that strong controls are implemented to protect the information. Institutions should also ensure that the service provider have sufficient safeguards to protect information and records that are held in physical form.

Compliance with Personal Data Protection Act ("PDPA") and the Guidelines

11.4 With the PDPA implementation being effective since 2 July 2014, one respondent sought to clarify if it would meet the expectations of the Guidelines, if service providers had been notified to observe and comply with the relevant guidelines and codes, and signed PDPA addendums to the existing contracts.

MAS' Response

11.5 As PDPA provides a baseline standard for the protection of personal data across the economy by complementing MAS' regulatory requirements, institutions will have to comply with the PDPA as well as other relevant laws that are applied to the financial sector. Where institutions rely on customer consent to disclose information, they should be mindful of their legal obligations. Institutions should, among other things, provide the customer with a written summary of the extent to which the customer information transferred to those overseas jurisdictions will be disclosed, as well as the circumstances under which disclosure will be expected.

Frequency of Review and Monitoring of Security Practices and Control Processes

11.6 On the frequency of review and monitoring of security practices and control processes of the service provider, some respondents sought clarifications as to what is meant by 'periodic expert reports', the frequency of the reports, and the parties to perform such reviews, i.e. whether they should be performed by internal or external auditors. Concerns were raised over the associated additional costs.

MAS' Response

11.7 As the nature, scale and type of outsourcing arrangement may vary, institutions are better placed to perform their own assessment and determine the frequency of the review of the security practices and control processes of the service provider. The reviews should be conducted by persons who possess the requisite knowledge and skills to perform the engagement, and are independent of the unit or function performing the outsourced activity. These persons may include internal auditors or external auditors.

Intra-group Outsourcing Arrangements

11.8 One respondent suggested that MAS should consider excluding intra-group service providers from the expectation to protect the confidentiality and security of customer information, as there are group-wide policies and procedures governing the confidentiality of information which are subject to internal scrutiny by the internal audit functions.

MAS' Response

11.9 Intra-group outsourcing is not excluded from the confidentiality and security expectations due to risks posed by other group entities, including parent companies. Where there are group-wide policies and procedures, institutions remain responsible to ensure that these controls are effective to safeguard the confidentiality and security of the institution's customer information.

12. Business Continuity Management

Service Provider that Operates More Than One Active Site

12.1 Paragraph 5.7.2(a) of the Guidelines expects institutions to determine that a service provider has in place satisfactory business continuity plans (“BCP”). In particular, it should cover recovery time objectives (“RTO”), recovery point objectives (“RPO”), and resumption operating capacities. Some respondents asked whether the BCP expectations in the Guidelines would apply to a service provider that operates two active sites.

MAS’ Response

12.2 Depending on the outsourcing arrangements, an institution should ensure that the service providers can meet its business requirements on RTO, RPO and service levels (where applicable). The same BCP expectations would apply even if the service provider operates two active sites. Please refer to MAS’ Business Continuity Management Guidelines (<http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulatory-and-Supervisory-Framework/Risk-Management/Operational-Risk.aspx>).

Participation in Service Providers’ BCP Exercises

12.3 On the expectation for institutions to participate in the service providers’ BCP exercises and vice versa, some respondents highlighted that it would be onerous and operationally challenging to participate in such exercises.

MAS’ Response

12.4 MAS encourages institutions to participate in their service providers’ BCP and disaster recovery exercises where possible as such exercises allow institutions to familiarise themselves with the recovery processes as well as improve the coordination between the parties involved.

13. Monitoring and Control of Outsourcing Arrangements

Maintenance of Outsourcing Register

13.1 A few respondents asked if institutions are expected to maintain an outsourcing register for all outsourcing arrangements or only the material ones.

13.2 One respondent provided feedback that the internal controls and risk management frameworks would typically be established by an institution across all of its outsourcing arrangements. It should not be necessary in its review, to maintain records of the operational, internal control and risk management standards specific to each material outsourcing arrangement. It therefore suggested that a high level record of the reviews be captured in the outsourcing register (e.g. date, scope and other relevant information of the reviews made).

MAS' Response

13.3 As a matter of good risk management practice, MAS expects institutions to maintain a register of all its outsourcing arrangements. The register should minimally capture the information as indicated in Annex 3 of the Guidelines. Subsequent to the public consultation, MAS has taken into consideration the feedback received from the industry and revised the outsourcing register template.

Central Control and Monitoring Function

13.4 A few respondents asked if institutions are expected to establish a central control and monitoring function for their outsourcing arrangements. Respondents also queried whether operational monitoring and control roles would be more appropriately performed by the respective business units.

MAS' Response

13.5 The management and monitoring of outsourcing arrangements and service providers can be done by the respective business units which outsourced the activity. Typically, these relate to service levels and performance delivery. However, it is important for institutions to establish a central function or committee which is sufficiently senior and has the necessary expertise to maintain an institution-wide view of risks and ensure an optimal level of consistency in the management and control on all of the institution's outsourcing arrangements. Such a structure for the management and control of its outsourcing arrangements will vary depending on the nature and extent of risks in the outsourcing arrangements.

Information maintained in Outsourcing Register

13.6 Paragraph 5.8.2(a) of the Guidelines expects institutions to maintain specific information in their outsourcing register, such as the name and location(s) of the service provider, the value and expiry or renewal dates of the contracts, and reviews on the operational, internal control and risk management standards of the outsourcing arrangement. A respondent provided feedback that the internal controls and risk management frameworks would typically be established by an institution across for all outsourcing arrangements. Hence, it should not be necessary for an institution in its review, to maintain records of the operational, internal control and risk management standards specific to each material outsourcing arrangement. It suggested that for review purposes, a high-level record of the reviews performed (e.g. date, scope and other relevant information) should suffice.

MAS' Response

13.7 MAS has taken the industry's feedback into consideration. When carrying out periodic reviews on material outsourcing arrangements, institutions should ensure, minimally, the review date in relation to any due diligence or independent audit conducted, is recorded in addition to the items set out in Annex 3. MAS expects institutions to keep the documentation and reports of the due diligence and audit conducted.

Pre-and Post-Implementation Reviews

13.8 Many respondents requested for clarification on the scope of the pre- and post-implementation reviews, review frequency, how they differ and whether they apply to intra-group outsourcing arrangements. The respondents were of the view that the scope of the pre-implementation reviews of outsourcing arrangements is similar to the due diligence of service providers which institutions are expected to do, while the scope of the post-implementation review is similar to the periodic review of outsourcing arrangements which institutions are expected to conduct at least on an annual basis. A respondent also requested MAS to stipulate a timeline to perform the post-implementation review and provide guidance on what constitutes "material" amendments to outsourcing arrangements.

MAS' Response

13.9 MAS expects institutions to establish their own outsourcing risk management framework and the necessary policies and procedures with respect, but not limited, to the scope of their pre and post-implementation reviews. The scope of the pre- and post-implementation reviews should commensurate with the materiality of the changes made to the outsourcing arrangements.

13.10 As a good risk management practice, institutions are expected to perform pre- and post- implementation reviews of outsourcing arrangements. Pre-implementation reviews may not be limited to the due-diligence on the service provider but include checks and controls in place to ensure a smooth handover of the functions from the institutions and/or other service providers to the new service providers. Post-implementation reviews may include reviewing the effectiveness and adequacy of the institutions' controls in monitoring the performance of the service provider and checks to ensure that the risks associated with the outsourcing activity are managed appropriately as planned. Post-implementation reviews are usually conducted shortly after the commencement of the outsourcing arrangement. MAS expects institutions to determine an appropriate timeframe for these post-implementation reviews.

14. Audit and Inspection

Indemnity for MAS, its Officers, Agents and Employees

14.1 Many respondents highlighted that service providers and sub-contractors would likely have reservations on providing MAS, its officers, agents and employees with indemnity in their outsourcing agreements. Some respondents sought clarification on the scope of the indemnity. One respondent highlighted that institutions might have to bear higher outsourcing costs if the service provider is the intended party to provide for the indemnity.

MAS' Response

14.2 MAS has reviewed the industry's feedback and having considered the concerns raised, agreed to remove expectations for indemnity clauses to be provided for MAS, its officers, agents and employees in an institution's outsourcing agreement.

Independent Audits and Expert Assessments

14.3 Some respondents commented that it is onerous to perform independent audits and/or expert assessments on all outsourcing arrangements. One respondent suggested for the audit frequency on non-material outsourcing arrangements to be longer than 3 years.

14.4 Several respondents sought clarification on the parties which can conduct the independent audits or expert assessments, whether the independent audits or expert assessments could be conducted by the institutions' or service providers' internal auditors, external auditors, risk management and/or compliance functions and whether they apply to both the institution as well as its service providers. Others enquired if independent audits such as 'ISAE 3402' (Assurance Report on Controls at a Service Organisation), 'SAS 70' (Statement on Auditing Standards No 70), Threat and Vulnerability Risk Assessment ("TVRA") report or even self-attestation would suffice in meeting the independent audit and/or expert assessment expectations.

14.5 In validating the actions taken by a service provider prior to closure of audit findings, some respondents sought guidance on the form expected of such validations.

14.6 A few respondents suggested that independent audits and/or expert assessments should not be imposed on intra-group outsourcing arrangements, since being part of the same group, the entities would be subject to the same group policy and guidelines. One respondent enquired whether an independent audit for intra-group entities under the same outsourcing arrangement would satisfy MAS' audit expectation if the sampled data did not include those belonging to the institution.

14.7 One respondent sought guidance on the extent of reports and information related to outsourcing arrangements, which institutions should provide to MAS upon its request.

MAS' Response

14.8 MAS expects institutions to ensure that independent audits and/or expert assessments are conducted for all outsourcing arrangements on a regular basis, as a matter of good practice. The expectation for audit frequency not to exceed 3 years has been removed. In determining the frequency of audit and expert assessment, the institution should consider the nature and extent of risk and impact to the institution from the outsourcing arrangements.

14.9 The independent audits and/or expert assessments may be conducted either by the service providers and their sub-contractors or the institutions, or both, depending on the scope of the audits set out by the institutions. It is the responsibility of the institutions to ensure that the audits planned are adequate and effective in managing the risks associated with the outsourced activity. The persons appointed to conduct the independent audits and/or expert assessments should be independent of the outsourcing arrangement and in terms of reporting of the audit findings/ assessments.

14.10 When relying on audit reports such as ISAE 3402, institutions should ensure the reports fulfil the expectations set out in paragraphs 5.9.5 and 5.9.6 of the Guidelines.

14.11 Self-attestation cannot replace independent audits and/or expert assessment. The former is a vouch by the service provider itself, whereas the latter is assurance provided by independent parties on what the service provider had vouched for, and ascertained to be reliable and dependable.

14.12 As for validation of audit findings, institutions should determine the nature and extent of validation work that ought to be conducted such that they could be reasonably assured that the preventive and corrective measures put in place are effective in remediating the weaknesses, before closure of the audit findings.

14.13 With respect to intra-group outsourcing arrangements, regardless whether an independent audit or expert assessment is carried out for more than one entity within the group, an institution should satisfy itself on the adequacy of the samples selected and whether there is a need to include samples belonging to the institution, if it were to rely on the audit/assessment report. Where the processes are identical across different entities within the same institutional group, there should be assurance in the independent audit or expert assessment report that the process of transferring data from the institution in Singapore to the service provider, is in observance with the Guidelines.

14.14 Institutions are reminded that MAS' supervisory powers over the institutions and ability to carry out supervisory functions should not be hindered by virtue that a function is outsourced. As such, institutions should ensure that MAS is able to rely on the contractual rights of the institution to access and inspect the service providers and its sub-contractors, to obtain records and documents of transactions, and information of the institution given to, stored at or processed by the service provider and its sub-contractors.

In addition, institutions should also ensure that MAS has the right to access any report or findings made on the service providers and its sub-contractors, whether produced by the service provider's or its sub-contractors' internal or external auditors, or by agents appointed by the service providers or its sub-contractors, in relation to the material outsourcing arrangement.

15. Outsourcing Outside Singapore

Country Risk

15.1 Several respondents requested MAS to publish a list of jurisdictions where outsourcing is prohibited. The respondents sought clarification on how institutions could obtain information on the legal and regulatory developments in the foreign country for due diligence purposes, as the vendors themselves may not have the respective controls or insights.

15.2 In relation to the expectation that an institution should enter into outsourcing arrangements only with service providers operating in jurisdictions that generally uphold confidentiality clauses and agreements, some respondents commented that examples of jurisdictions that do or do not uphold such clauses and agreements would help provide clarity. Existing international assessment programs, for instance, could offer an objective benchmark.

15.3 Another respondent opined that the statement, "As information and data could be moved... the risk associated with the medium of transport, be it physical or electronic, across borders should also be considered" would add complexity, due to the increased cost of coordination needed across jurisdictions for any given global customer.

MAS' Response

15.4 The expectation for institutions to conduct due diligence on country risk, legal and regulatory framework is not new. Such considerations should have been incorporated into an institution's existing outsourcing risk management framework.

15.5 With regard to the list of jurisdictions that generally uphold confidentiality clauses and agreements, institutions should seek their own legal advice and conduct appropriate due diligence prior to entering into any outsourcing arrangement.

15.6 It is important for institutions to assess the risks associated with the medium of transport so as to identify the potential hot spots that could result in data leakage. Given that the type and nature of each outsourcing arrangement would vary, institutions are better placed to assess the extent and level of due diligence in assessing the risks associated with the medium of transport. Nonetheless, institutions are expected to be aware of the disaster recovery arrangements and locations established by the service provider in relation to the outsourcing arrangement.

Service Providers located outside Singapore

15.7 One respondent enquired if the expectations set out in paragraph 5.10.2 of the Guidelines was only applicable to material outsourcing arrangements. The respondent further suggested excluding intra-group outsourcing arrangements from the guidelines outlined in this paragraph.

15.8 Some respondents sought clarification whether notification to MAS would apply to sub-contractors if an overseas authority were to seek access to its customer information or if a situation were to arise where the rights of access of the institution and MAS set out in paragraph 5.10, have been restricted or denied.

MAS' Response

15.9 MAS has revised the Guidelines to clarify that only material outsourcing arrangements are subjected to the guidelines in paragraph 5.10.2. Material intra-group outsourcing arrangements may also be subject to country-specific conditions and events that could prevent the service provider from carrying out the terms of its agreement, and are thus not excluded.

15.10 The guidelines under paragraph 5.10.2 would also be applicable to material outsourcing arrangements that involve sub-contractors. For instance, MAS would expect to be notified should there be a situation where an overseas authority were to seek access to an institution's customer information that was residing with a sub-contractor. MAS would like to reiterate that sub-contracted services should be subject to the same level of controls as non-subcontracted services.

16. Outsourcing within a Group

16.1 Several respondents opined that intra-group outsourcing arrangements pose less risk to them, and hence would not require the same level of risk control measures applicable to service providers coming from outside the institution's group. They suggested that less stringent control measures be allowed, where institutions enter into intra-group outsourcing arrangements.

16.2 One respondent proposed intra-group outsourcing arrangements to be exempted from the guidelines under paragraph 5.11.

16.3 Respondents also wished to find out MAS' rationale for the change in stance, given that the Guidelines on Outsourcing issued in 2004 had permitted the expectations to be addressed within group-wide risk management policies and procedures, while the consultation paper did not state this. Respondents also noted that the Guidelines issued in 2004 are generally applicable to outsourcing to parties within an institution's group. However the word 'generally' had been removed in the public consultation. As it would be meaningless to apply controls such as annual due diligence and audits, the respondents requested that MAS reinstate the term "generally" to paragraph 5.11.1 of the Guidelines.

MAS' Response

16.4 The definition of outsourcing arrangement is not contingent on whether the service provider comes from the institution's group. Institutions should not be precluded from putting in place the appropriate level of risk control measures in relation to any outsourcing arrangement.

16.5 MAS does not intend to discourage institutions from entering into intra-group outsourcing arrangements. Paragraph 5.11.1 of the Guidelines has been expanded to clarify that institutions can adopt group-wide risk management policies and procedures in order to meet the expectations set out in the Guidelines. As there are still potential risks posed by intra-group outsourcing, including outsourcing to parent companies, due to different operating, legal and regulatory environments, intra-group outsourcing cannot be exempted from the guideline under paragraph 5.11. However the due diligence expectations associated with intra-group outsourcing would be not the same as what is expected of third-party outsourcing. As such, MAS has provided guidance in this aspect in paragraph 5.11.2.

Qualitative Evaluation

16.6 Several respondents sought clarification on MAS' expectations on the qualitative evaluation to be performed by institutions, as part of its due diligence on an intra-group service provider. One respondent wished to find out whether the due diligence expectations in paragraph 5.11.2 of the Guidelines would override the expectations in paragraph 5.4, when institutions outsource to intra-group service providers.

MAS' Response

16.7 MAS would like to highlight that the qualitative aspects to be evaluated by institutions that outsource to parties within the institution's group can be found under paragraph 5.11.2 of the Guidelines. Institutions should take guidance from paragraph 5.4 of the Guidelines when performing such evaluation.

17. Examples of Outsourcing Arrangement

17.1 Several respondents proposed that the examples of outsourcing arrangements should differentiate between third party and intra-group outsourcing, with two respondents specifically requesting differentiation for outsourcing that is centralised in Head Office.

17.2 One respondent requested that the Guidelines be applied proportionally based on the risks posed in order to ensure that appropriate decisions are made as to what is, and what is not, deemed to be an outsourcing arrangement.

MAS' Response

17.3 In determining if a service is an outsourcing arrangement, institutions are to consider the characteristics set out in the definition of outsourcing arrangement in the Guidelines. As specified in paragraph 1 of Annex 1, MAS would like to clarify that the list of examples provided are not intended to be exhaustive. Furthermore, MAS does not intend to differentiate outsourcing arrangements by the grouping which the service provider falls under (e.g. intra-group) since it is the managing of the underlying risks that matters.

Clarifications to Examples of Outsourcing

17.4 Respondents also sought clarification on the various examples of outsourcing reflected in Annex 1 of the Guidelines and MAS' responses are provided as follow:

S/N	Respondents' Feedback	MAS' Response
1	<p>Several respondents sought clarification on the classification of services where no confidential information is provided as part of the outsourcing arrangement. Specifically, one respondent sought clarification if paragraph 1(a) would include SMS gateways in which the content of the SMS text does not contain confidential information. Several respondents suggested that paragraph 1(n) should exclude archival and storage, with two respondents suggesting exclusion of archival services where no customer information is disclosed to the service provider.</p>	<p>Due to the considerations under the definition of an 'outsourcing arrangement', services falling under paragraph 1(a) and (n) should be evaluated as outsourcing arrangements. Institutions are reminded that MAS has revised the definition of customer information to exclude information where the identities of the customers cannot be readily inferred.</p>
2	<p>On paragraph 1(b), several respondents suggested that white-labelling arrangements which involve the provision of finished products, e.g., each white-labelled research report is a finished product provided to the clients, should not be regarded as outsourcing arrangements. Trading and hedging facilities shared between the Singapore branch and its overseas Head Office (including for purpose of coverage in contingency situations, time zone difference etc.) which would fall under the scope of white-labelling, should not be regarded as outsourcing.</p>	<p>White-labelling arrangements would generally be regarded as outsourcing unless the definition of "outsourcing arrangement" is not met.</p> <p>Trading and hedging facilities shared between the Singapore branch and its overseas Head Office should be regarded as outsourcing within intra-group, unless it is solely for the purpose of coverage in contingency situations or due to time zone difference.</p>

S/N	Respondents' Feedback	MAS' Response
3	<p>On paragraph 1(g) information systems hosting (e.g., software-as-a-service, platform-as-a-service, infrastructure-as-a-service), one respondent had sought clarification over what 'as-a-service' meant and another respondent wished to clarify whether it implied that institutions are now allowed to explore the use of public clouds. There was also feedback from several respondents that only hosting arrangements where the institution's corporate data/ information and/ or customer and transaction information/ data are hosted on the service provider's system should be regarded as outsourcing arrangements. This is because there are data hosting service providers engaged to host any information which would typically not be performed by the institution itself and should not be considered as outsourcing. One respondent also asked if a security consultancy engaged on an ongoing basis to perform testing would be considered as outsourcing.</p>	<p>A new section on Cloud Computing has been added to the Guidelines on Outsourcing. Respondents may wish to refer to the new section and associated responses for clarification.</p>
4	<p>On paragraph 1(i), there were comments from two respondents that research and/or portfolio models provided by another entity should be excluded from the list if the ultimate investment decisions were made by the discretionary investment management team. Similarly for sub-advisory arrangements, one respondent clarified that such arrangements do not typically result in service providers making investment decisions on behalf of the institutions, and therefore should not be considered as outsourcing.</p>	<p>On paragraph 1(i), investment management and services which are tailored to an investment mandate or fund are generally considered as outsourcing. However, services for which MAS expects independent service providers to provide (e.g., fund valuation, custodian services) will generally not be considered as outsourcing.</p>

S/N	Respondents' Feedback	MAS' Response
5	One respondent sought clarification on whether the processing of staff medical insurance claims directly by insurer and arrangement with insurance broker who arrange for the policy insurance from insurers to the bank would be caught under paragraph 1(j).	As services that could possibly be performed by the institution itself, the management of policy issuance and claims operations by management agents would fall under paragraph 1(j).
6	On paragraph 1(k), one respondent asked whether staff background checks and services provided by recruitment agencies should be regarded as outsourcing.	Manpower management services referred to under paragraph 1(k) would include staff background checks and services provided by recruitment agencies.
7	On paragraph 1(n), one respondent sought clarification on whether the destruction of documents would be included.	As archival, storage and destruction of documents which involve customer information is considered material outsourcing, MAS has revised paragraph 1(n) to 'support services related to archival, storage and destruction of data and records'.
8	On paragraph 2(a)(vii), several respondents sought clarification on global financial messaging infrastructure which are subject to oversight by relevant regulators, with one respondent requesting named examples.	MAS has added SWIFT as an example of a global financial messaging infrastructure that is subject to oversight by relevant regulators.
9	Some respondents noted the removal of the list of 'Arrangements that are generally considered low-risk' in the proposed revised Guidelines. There were suggestions that such low-risk outsourcing arrangements should continue to be excluded from the Guidelines, as it would be too onerous and the amount of operational burden placed on institutions would be disproportionate to the outsourcing-	The original list of low-risk outsourcing arrangements in the 2004 Guidelines comprised examples such as mail, courier and printing services which may not necessarily be deemed as low-risk in today's landscape. Hence, institutions should make their own assessment to determine the amount of resources to be allocated to manage the risks associated with the outsourcing arrangement.

S/N	Respondents' Feedback	MAS' Response
	related risks posed by these low-risk arrangements. One respondent proposed reinstating examples of low risk arrangements, particularly as not all arrangements with customer information will be considered material.	

18. Register of Outsourcing Arrangement

18.1 Respondents noted that institutions are expected to maintain a register of outsourcing arrangements, and that information maintained in the register should include those set out in Annex 3 of the Guidelines. Respondents suggested that MAS allows flexibility in relation to the format of the register. Respondents also had queries on whether the register should include information relating to both material and non-material outsourcing arrangements.

MAS' Response

18.2 Paragraph 5.8.2(a) of the Guidelines specifies MAS' expectation for institutions to maintain a register of material outsourcing arrangements and such register should form part of their Board and senior management oversight and governance reviews. MAS does not intend to prescribe the format for the register of material outsourcing arrangements provided to the Board and senior management. Institutions can maintain their own register format.

18.3 Nevertheless, paragraph 2.2 highlights MAS' expectation for institutions to maintain a register of all outsourcing arrangements, for submission to MAS. Institutions should ensure that the register includes the information set out in Annex 3 and is readily available upon MAS' request.

19. Applicability of Circular on IT Outsourcing

19.1 On 14 July 2011, MAS issued a Circular on IT Outsourcing (SRD TR01/2011), which sets out MAS' expectations of the risk control measures that institutions should have in place, in relation to IT outsourcing arrangements. Respondents questioned if the circular (and the accompanying Technology Questionnaire for Outsourcing) will remain applicable, given that the new Notice and Guidelines on Outsourcing will contain several overlapping requirements/expectations. Respondents also noted that the definition of "significant IT outsourcing" in the 2011 Circular and the definition of "material outsourcing" in the Guidelines on Outsourcing are not fully aligned.

MAS' Response

19.2 MAS would like to clarify that the new Outsourcing Guidelines supersede IT Outsourcing Circular.

20. Outsourcing of Risk Management or Internal Control Functions

20.1 Annex 2 of the Guidelines states that the outsourcing of all or substantially all of an institution's risk management or internal control functions, including compliance, internal audit, financial accounting and actuarial (other than performing certification activities) is to be considered a material outsourcing arrangement. Respondents suggested that the outsourcing of risk management and internal control functions should be considered material only if such outsourcing arrangements are entered into with third parties.

MAS' Response

20.2 Outsourcing of risk management and internal control functions as listed above should be considered material outsourcing arrangements regardless of the party contracted to perform these functions, as they are critical functions, which may subject institutions to high legal, reputational and regulatory risks, as well as other incidental risks, if they are not carried out properly.

MONETARY AUTHORITY OF SINGAPORE

27 July 2016

ANNEX A

**LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON
GUIDELINES ON OUTSOURCING**

Banks

1. The Association of Banks in Singapore
2. CTBC Bank Co., Ltd Singapore Branch
3. DBS Bank Limited
4. Deutsche Bank AG Singapore Branch
5. ING Bank NV, Singapore
6. Mizuho Bank Ltd Singapore Branch
7. OCBC Bank
8. State Street Bank and Trust Company Singapore Branch
9. Sumitomo Mitsui Banking Corporation Singapore Branch
10. The Hong Kong and Shanghai Bank Corporation Limited Singapore Branch
11. Six other respondents under this category requested for confidentiality of identity

Insurers

1. Life Insurance Association, Singapore
2. ACE Insurance Limited
3. Allianz SE Reinsurance Branch Asia Pacific
4. AXA Insurance Singapore Pte Ltd
5. AXA Life Insurance Singapore Private Limited
6. MSIG Insurance (Singapore) Pte. Ltd.
7. Odyssey Reinsurance Company, Singapore Branch
8. Prudential Assurance Co. Singapore (Pte) Ltd
9. QBE Insurance (International) Limited

10. Singapore Reinsurance Corporation Limited
11. Swiss National Insurance Company Ltd (Singapore Branch)
12. Swiss Re International SE, Singapore Branch
13. Swiss Reinsurance Company Limited, Singapore Branch
14. The Toa Reinsurance Company Limited (Singapore Branch)
15. Four other respondents under this category requested for confidentiality of identity

Capital Market Intermediaries

1. Alternative Investment Management Association
2. Investment Adviser Association
3. Investment Management Association of Singapore
4. Managed Funds Association
5. Securities Association of Singapore
6. Eastspring Investments (Singapore) Pte Ltd
7. FIL Investment Management (Singapore) Limited
8. Mercer (Singapore) Pte Ltd
9. Moody's
10. Sidley Austin LLP
11. Standard & Poor
12. Viva Industrial Trust Management Pte Ltd
13. One respondent under this category requested for confidentiality of identity

Approved Exchanges and Approved Clearing Houses

1. Three respondents under this category requested for confidentiality of identity

Recognised Market Operators

1. Australia Stock Exchange Limited (ASX)
2. Australia Securities Exchange Limited (ASX 24)
3. The London Metal Exchange

Others

1. Asia Cloud Computing Association
2. Allen & Overy LLP, Singapore
3. ATMD Bird & Bird LLP
4. Baker & Mckenzie, Singapore
5. KPMG Services Pte Ltd, Singapore
6. Maroon Analytics Pte Ltd
7. Mastercard
8. Olswang Asia LLP, Singapore
9. PWC LLP, Singapore
10. Salesforce.com inc.
11. ServiceNow Pte Ltd
12. Singapore Corporate Counsel Association
13. Singapore Post Limited
14. Singapore Telecommunications Limited
15. Three other respondents under this category requested for confidentiality of identity

ANNEX B

GUIDELINES ON OUTSOURCING

1 INTRODUCTION

1.1 While outsourcing arrangements can bring cost and other benefits, it may increase the risk profile of an institution due to, for example, reputation, compliance and operational risks arising from failure of a service provider in providing the service, breaches in security, or the institution's inability to comply with legal and regulatory requirements. An institution can also be exposed to country risk when a service provider is located overseas and concentration risk when more than one function is outsourced to the same service provider. Outsourcing does not diminish the obligations of an institution, and those of its board and senior management to comply with relevant laws and regulations in Singapore, it is thus important that an institution adopts a sound and responsive risk management framework for its outsourcing arrangements.

1.2 These Guidelines¹ on Outsourcing ("Guidelines") set out the Monetary Authority of Singapore's ("MAS") expectations of an institution that has entered into any outsourcing arrangement or is planning to outsource its business activities² to a service provider. An institution should conduct a self-assessment of all existing outsourcing arrangements against these Guidelines³.

2 APPLICATION OF GUIDELINES

2.1 These Guidelines provide guidance on sound practices on risk management of outsourcing arrangements. The Guidelines do not affect, and should not be regarded as a statement of the standard of care owed by institutions to their customers. The extent and degree to which an institution implements the Guidelines should be commensurate with the nature of risks in, and materiality of, the outsourcing arrangement. An institution should ensure that outsourced services (whether provided by a service

¹ Please refer to MAS' website (www.mas.gov.sg) for details of the classification of instruments issued by MAS.

² Any reference in these Guidelines to "business activities" of an institution is to be construed as a reference to the business and operational functions and processes of the institution.

³ This includes institutions which are bound by outsourcing arrangements as a result of an acquisition of the business of another institution.

provider or its sub-contractor) continue to be managed as if the services were still managed by the institution. In supervising an institution, MAS will review the implementation of these Guidelines by an institution to assess the quality of its board and senior management oversight and governance, internal controls and risk management. MAS is particularly interested in material outsourcing arrangements.

2.2 Annex 1 provides a non-exhaustive list of examples of outsourcing arrangements to which these Guidelines are applicable, and arrangements that are not intended to be subject to these Guidelines. It should also not be misconstrued that arrangements not defined as outsourcing need not be subject to adequate risk management and sound internal controls. Annex 2 provides guidance to an institution in assessing whether an arrangement would be considered a material outsourcing arrangement. Annex 3 provides a template for an institution to maintain a register of its outsourcing arrangements which is to be submitted to MAS, at least annually or upon request.

2.3 An institution incorporated in Singapore should also consider the impact of outsourcing arrangements by its branches and any corporation under its control, including those located outside Singapore, on its consolidated operations. Institutions incorporated in Singapore should ensure that these Guidelines are observed by branches and corporations under their control by applying a group-wide outsourcing risk management framework that complies with the Guidelines.

2.4 The practices articulated in these Guidelines are not intended to be exhaustive or override any legislative provisions. They should be read in conjunction with the provisions of the relevant legislation, the subsidiary legislation made under the relevant legislation, as well as written directions, notices, codes and other guidelines that MAS may issue from time to time pursuant to the relevant legislation and subsidiary legislation.

3 DEFINITIONS

3.1 In these Guidelines on Outsourcing, unless the context otherwise requires:

“board” or “board of directors” means –

- (a) in the case of an institution incorporated in Singapore, the board of directors; and
- (b) in the case of an institution incorporated or established outside Singapore, a management committee or body beyond local management charged with oversight and supervision responsibilities for the institution in Singapore;

“bridge-institution” means an institution, whether incorporated in Singapore or outside Singapore, to temporarily take over and maintain certain assets, liabilities and operations of a distressed financial institution, as part of a resolution Authority’s exercise of a resolution power;

“business relations” –

- (a) In relation to an insurer, means
 - (i) the issuance of a policy or reinsurance cover by the insurer to; or
 - (ii) the provision of financial advice by the insurer to, a person (whether a natural person, legal person or legal arrangement);
- (b) In relation to a bank, means
 - (i) the opening or maintenance of an account by the bank in the name of; or
 - (ii) the provision of financial advice by the bank to, a person (whether a natural person, legal person or legal arrangement);
- (c) In relation to a CMI, means
 - (i) the opening or maintenance of an account by the CMI in the name of;
 - (ii) the provision of financial advice by the CMI to; or
 - (iii) the provision of fund management services by the CMI to, a person (whether a natural person, legal person or legal arrangement);

-
- (d) in relation to a financial adviser, means
 - (i) the opening or maintenance of an account by the financial adviser in the name of; or
 - (ii) the provision of financial advice by the financial adviser to, a person (whether a natural person, legal person or legal arrangement);
 - (e) in relation to a credit card or charge card licensee licensed under section 57B of the Banking Act (Cap. 19), means the opening or maintenance of an account by the credit card or charge card licensee in the name of a person (whether a natural person, legal person or legal arrangement);

“CMI” means a person holding a capital markets services licence under the Securities and Futures Act (Cap. 289) (“SFA”), a fund management company registered under paragraph 5(1)(i) of the Second Schedule to the Securities and Futures (Licensing and Conduct of Business) Regulations (“SF(LCB)R”) or a person exempted from the requirement to hold such a licence under paragraph 7(1)(b) of the Second Schedule to the SF(LCB)R;

“customer” means –

- (a) in relation to any trustee for a collective investment scheme authorised under section 286 of the SFA, that is approved under that Act, the managers and participants of the collective investment scheme;
- (b) in relation to an approved exchange, recognised market operator, licensed trade repository, licensed foreign trade repository, approved clearing house, recognised clearing house, and central depository system under the SFA, a person who may participate in one or more of the services provided by such entities;
- (c) in relation to a licensed trust company under the Trust Companies Act (Cap. 336), a trust for which the trust company provides trust business services and includes the settlor and any beneficiary under the trust;
- (d) in relation to a bank, means a person (whether a natural person, legal person or legal arrangement) –
 - (i) with whom the bank establishes or intends to establish business relations; or

-
- (ii) for whom the bank undertakes or intends to undertake any transaction without an account being opened;
 - (e) in relation to an insurer, means a person (whether a natural person, legal person or legal arrangement) with whom the insurer establishes or intends to establish business relations, including, in the case of a group policy, the owner of the master policy issued or intended to be issued;
 - (f) in relation to an insurance intermediary, means a person (whether a natural person, legal person or a legal arrangement) with whom the insurance intermediary arranges or intends to arrange for such persons, contracts of insurance in Singapore with one or more insurers;
 - (g) in relation to a financial adviser, means a person (whether a natural person, legal person or a legal arrangement) with whom the financial adviser establishes or intends to establish business relations and includes in the case where the financial adviser arranges a group life insurance policy, the owner of the master policy;
 - (h) in relation to a CMI, means a person (whether a natural person, legal person or a legal arrangement) –
 - (i) with whom the CMI establishes or intends to establish business relations;
 - (ii) for whom the CMI undertakes or intends to undertake any transaction without an account being opened; or
 - (iii) who invests into an investment vehicle to which the CMI provides the regulated activities of fund management and real estate investment trust management;
 - (i) in relation to a credit card or charge card licensee licensed under section 57B of the Banking Act (Cap. 19), means a person (whether a natural person, legal person or legal arrangement) with whom the credit card or charge card licensee establishes or intends to establish business relations;
 - (j) in relation to money-changers and remittance businesses, means a person (whether a natural, legal person or legal arrangement) –
 - (i) with whom the licensee establishes or intends to establish an account relationship; or

-
- (ii) for whom the licensee undertakes or intends to undertake a relevant business transaction without an account being opened, including in the case of an inward remittance transaction, the person to whom the licensee pays out funds in cash or cash equivalent in Singapore and the person on behalf of whom such funds are paid out in Singapore;

“customer information” means –

- (a) in relation to an approved exchange, recognised market operator, approved clearing house and recognised clearing house, “user information” as defined in section 2 of the SFA;
- (b) in relation to a licensed trade repository and licensed foreign trade repository, “user information” and “transaction information” as defined in section 2 of the SFA; or
- (c) in the case of any other institution, information that relates to its customers and these include customers’ accounts, particulars, transaction details and dealings with the financial institutions, but does not include any information that is public, anonymised, or encrypted in a secure manner such that the identities of the customers cannot be readily inferred;

“financial adviser” means a licensed financial adviser under the FAA or a person exempt, under section 23(1)(f) of the FAA read with regulation 27(1)(d) of the FAR, from holding a financial adviser’s licence to act as a financial adviser in Singapore in respect of any financial advisory service;

“institution” means any financial institution as defined in section 27A of the Monetary Authority of Singapore Act (Cap. 186);

“material outsourcing arrangement” means an outsourcing arrangement –

- (a) which, in the event of a service failure or security breach, has the potential to either materially impact an institution’s–
 - (i) business operations, reputation or profitability; or

- (ii) ability to manage risk and comply with applicable laws and regulations,

or

- (b) which involves customer information and, in the event of any unauthorised access or disclosure, loss or theft of customer information, may have a material impact on an institution's customers;

“legal arrangement” means a trust or other similar arrangement;

“legal person” means an entity other than a natural person that can establish a permanent customer relationship with a financial institution or otherwise own property;

“outsourcing agreement” means a written agreement setting out the contractual terms and conditions governing relationships, obligations, responsibilities, rights and expectations of the contracting parties in an outsourcing arrangement;

“outsourcing arrangement” means an arrangement in which a service provider provides the institution with a service that may currently or potentially be performed by the institution itself and which includes the following characteristics–

- (a) the institution is dependent on the service on an ongoing basis; and
- (b) the service is integral to the provision of a financial service by the institution or the service is provided to the market by the service provider in the name of the institution;

“relevant business transaction” –

- (a) in relation to a holder of a money-changer's licence means –
 - (i) a money-changing transaction of an aggregate value not less than S\$5,000; or
 - (ii) an inward remittance transaction from another country or jurisdiction to Singapore; or
- (b) in relation to a holder of a remittance license means, a remittance transaction whether from Singapore to another country or jurisdiction or from another country or jurisdiction to Singapore;

“service provider” means any party which provides a service to the institution, including any entity within the institution’s group⁴, whether it is located in Singapore or elsewhere;

“sub-contracting” means an arrangement where a service provider which has an outsourcing arrangement with an institution, further outsources the services or part of the services covered under the outsourcing arrangement to another service provider.

4 ENGAGEMENT WITH MAS ON OUTSOURCING

4.1 Observance of the Guidelines

4.1.1 An institution should be ready to demonstrate to MAS its observance of these Guidelines. This should include submission of its outsourcing register in the template set out in Annex 3 at least annually or upon request.

4.1.2 Where MAS is not satisfied with the institution’s observance of the Guidelines, MAS may require the institution to take additional measures to address the deficiencies noted. MAS may also take such non-compliance into account in its assessment of the institution, depending on the potential impact of the outsourcing on the institution and the financial system, severity of the deficiencies noted, the institution’s track record in internal controls and risk management, and also on the circumstances of the case. MAS may directly communicate with the home or host regulators of the institution and the institution’s service provider, on their ability and willingness to cooperate with MAS in supervising the outsourcing risks to the institution.

4.1.3 MAS may require an institution to modify, make alternative arrangements or re-integrate an outsourced service into the institution where one of the following circumstances arises:

⁴ This refers to the institution’s Head Office or parent institution, subsidiaries, affiliates, and any entity (including their subsidiaries, affiliates and special purpose entities) that the institution exerts control over or that exerts control over the institution.

-
- (a) An institution fails or is unable to demonstrate a satisfactory level of understanding of the nature and extent of risk arising from the outsourcing arrangement;
 - (b) An institution fails or is unable to implement adequate measures to address the risks arising from its outsourcing arrangements in a satisfactory and timely manner;
 - (c) Adverse developments arise from the outsourcing arrangement that could impact an institution;
 - (d) MAS' supervisory powers over the institution and ability to carry out MAS' supervisory functions in respect of the institution's services are hindered;
or
 - (e) The security and confidentiality of the institution's customer information is lowered due to changes in the control environment of the service provider.

4.2 Notification of Adverse Developments

4.2.1 An institution should notify MAS as soon as possible of any adverse development arising from its outsourcing arrangements that could impact the institution. Such adverse developments include any event that could potentially lead to prolonged service failure or disruption in the outsourcing arrangement, or any breach of security and confidentiality of the institution's customer information. An institution should also notify MAS of such adverse development encountered within the institution's group.

5 RISK MANAGEMENT PRACTICES

5.1 Overview

5.1.1 In supervising an institution, MAS will review its implementation of these Guidelines, the quality of its board and senior management oversight and governance, internal controls and risk management with regard to managing outsourcing risks.

5.2 Responsibility of the Board and Senior Management

5.2.1 The board and senior management of an institution play pivotal roles in ensuring a sound risk management culture and environment. While an institution may delegate day-to-day operational duties to the service provider, the responsibilities for maintaining effective oversight and governance of outsourcing arrangements, managing outsourcing risks, and implementing an adequate outsourcing risk management framework, in accordance with these Guidelines, continue to rest with the institution, its board and senior management. The board and senior management of an institution should ensure there are adequate processes to provide a comprehensive institution-wide view of the institution's risk exposures from outsourcing, and incorporate the assessment and mitigation of such risks into the institution's outsourcing risk management framework.

5.2.2 The board, or a committee delegated by it, is responsible for:

- (a) approving a framework to evaluate the risks and materiality of all existing and prospective outsourcing arrangements and the policies that apply to such arrangements;
- (b) setting a suitable risk appetite to define the nature and extent of risks that the institution is willing and able to assume from its outsourcing arrangements;
- (c) laying down appropriate approval authorities for outsourcing arrangements consistent with its established strategy and risk appetite;
- (d) assessing management competencies for developing sound and responsive outsourcing risk management policies and procedures that are commensurate with the nature, scope and complexity of the outsourcing arrangements;
- (e) ensuring that senior management establishes appropriate governance structures and processes for sound and prudent risk management, such as a management body that reviews controls for consistency and alignment with a comprehensive institution-wide view of risk; and
- (f) undertaking regular reviews of these outsourcing strategies and arrangements for their continued relevance, and safety and soundness.

5.2.3 Senior management is responsible for:

- (a) evaluating the materiality and risks from all existing and prospective outsourcing arrangements, based on the framework approved by the board;
- (b) developing sound and prudent outsourcing policies and procedures that are commensurate with the nature, scope and complexity of the outsourcing arrangements as well as ensuring that such policies and procedures are implemented effectively;
- (c) reviewing regularly the effectiveness of, and appropriately adjusting, policies, standards and procedures to reflect changes in the institution's overall risk profile and risk environment;
- (d) monitoring and maintaining effective control of all risks from its material outsourcing arrangements on an institution-wide basis;
- (e) ensuring that contingency plans, based on realistic and probable disruptive scenarios, are in place and tested;
- (f) ensuring that there is independent review and audit for compliance with outsourcing policies and procedures;
- (g) ensuring that appropriate and timely remedial actions are taken to address audit findings; and
- (h) communicating information pertaining to risks arising from its material outsourcing arrangements to the board in a timely manner.

5.2.4 Where the board delegates its responsibility to a committee as described in paragraph 5.2.2, the board should establish communication procedures between the board and the committee. This should include requiring the committee to report to the board on a regular basis, and ensuring that senior management is held responsible for implementation of the guidelines as elaborated in paragraphs 5.2.3 (a) to 5.2.3 (h). Notwithstanding the delegation of responsibility to a committee, the board shall remain responsible for the performance of its responsibilities by that committee.

5.2.5 For an institution incorporated or established outside Singapore, the functions of the board described in paragraph 5.2.2 may be delegated to and performed by a management committee or body beyond local management that is charged to functionally oversee and supervise the local office (e.g., a regional risk management committee). The functions of senior management in paragraph 5.2.3 lie with local management. Local management of an institution incorporated or established outside Singapore should continue to take necessary steps to enable it to discharge its obligations to comply with the relevant laws and regulations in Singapore, including expectations under these Guidelines. Local management cannot abrogate its governance responsibilities to run the institution in a prudent and professional manner.

5.3 Evaluation of Risks

5.3.1 In order to be satisfied that an outsourcing arrangement does not result in the risk management, internal control, business conduct or reputation of an institution being compromised or weakened, the board and senior management would need to be fully aware of and understand the risks arising from outsourcing. The institution should establish a framework for risk evaluation which should include the following steps:

- (a) identifying the role of outsourcing in the overall business strategy and objectives of the institution;
- (b) performing comprehensive due diligence on the nature, scope and complexity of the outsourcing arrangement to identify and mitigate key risks;
- (c) assessing⁵ the service provider's ability to employ a high standard of care in performing the outsourced service and meet regulatory standards as expected of the institution, as if the outsourcing arrangement is performed by the institution;
- (d) analysing the impact of the outsourcing arrangement on the overall risk profile of the institution, and whether there are adequate internal expertise and resources to mitigate the risks identified;

⁵ Please see paragraph 5.4 on assessment of service providers.

-
- (e) analysing the institution's as well as the institution's group aggregate exposure to the outsourcing arrangement, to manage concentration risk; and
 - (f) analysing the benefits of outsourcing against the risks that may arise, ranging from the impact of temporary disruption to service to that of a breach in security and confidentiality, and unexpected termination in the outsourcing arrangement, and whether for strategic and internal control reasons, the institution should not enter into the outsourcing arrangement.

5.3.2 Such risk evaluations should be performed when an institution is planning to enter into an outsourcing arrangement with an existing or a new service provider, and also re-performed periodically on existing outsourcing arrangements, as part of the approval, strategic planning, risk management or internal control reviews of the outsourcing arrangements of the institution.

5.4 Assessment of Service Providers

5.4.1 In considering, renegotiating or renewing an outsourcing arrangement, an institution should subject the service provider to appropriate due diligence processes to assess the risks associated with the outsourcing arrangements.

5.4.2 An institution should assess all relevant aspects of the service provider, including its capability to employ a high standard of care in the performance of the outsourcing arrangement as if the service is performed by the institution to meet its obligations as a regulated entity. The due diligence should also take into account the physical and IT security controls the service provider has in place, the business reputation and financial strength of the service provider, including the ethical and professional standards held by the service provider, and its ability to meet obligations under the outsourcing arrangement. Onsite visits to the service provider, and where possible, independent reviews and market feedback on the service provider, should also be obtained to supplement the institution's assessment. Onsite visits should be conducted by persons who possess the requisite knowledge and skills to conduct the assessment.

5.4.3 The due diligence should involve an evaluation of all relevant information about the service provider. Information to be evaluated includes the service provider's:

-
- (a) experience and capability to implement and support the outsourcing arrangement over the contracted period;
 - (b) financial strength and resources (the due diligence should be similar to a credit assessment of the viability of the service provider based on reviews of business strategy and goals, audited financial statements, the strength of commitment of major equity sponsors and ability to service commitments even under adverse conditions);
 - (c) corporate governance, business reputation and culture, compliance, and pending or potential litigation;
 - (d) security and internal controls, audit coverage, reporting and monitoring environment;
 - (e) risk management framework and capabilities, including technology risk management⁶ and business continuity management⁷ in respect of the outsourcing arrangement;
 - (f) disaster recovery arrangements and disaster recovery track record;
 - (g) reliance on and success in dealing with sub-contractors;
 - (h) insurance coverage;
 - (i) external environment (such as the political, economic, social and legal environment of the jurisdiction in which the service provider operates); and
 - (j) ability to comply with applicable laws and regulations and track record in relation to its compliance with applicable laws and regulations.

5.4.4 The institution should ensure that the employees of the service provider undertaking any part of the outsourcing arrangement have been assessed to meet the institution's hiring policies for the role they are performing, consistent with the criteria

⁶ Standards should be commensurate with that expected of the institution as set out in MAS' Technology Risk Management Guidelines.

⁷ Standards should be commensurate with that expected of the institution as set out in MAS' Business Continuity Management Guidelines. Please also see paragraph 5.7 of the Guidelines on Outsourcing for more guidance.

applicable to its own employees. The following are some non-exhaustive examples of what should be considered under this assessment:

- (a) whether they have been the subject of any proceedings of a disciplinary or criminal nature;
- (b) whether they have been convicted of any offence (in particular, that associated with a finding of fraud, misrepresentation or dishonesty);
- (c) whether they have accepted civil liability for fraud or misrepresentation; and
- (d) whether they are financially sound.

Any adverse findings from this assessment should be considered in light of their relevance and impact to the outsourcing arrangement.

5.4.5 Due diligence undertaken during the assessment process should be documented and re-performed periodically as part of the monitoring and control processes of outsourcing arrangements. The due diligence process may vary depending on the nature, and extent of risk of the arrangement and impact to the institution in the event of a disruption to service or breach of security and confidentiality (e.g., reduced due diligence may be sufficient where the outsourcing arrangements are made within the institution's group⁸). An institution should ensure that the information used for due diligence evaluation is sufficiently current. An institution should also consider the findings from the due diligence evaluation to determine the frequency and scope of audit on the service provider.

5.5 Outsourcing Agreement

5.5.1 Contractual terms and conditions governing relationships, obligations, responsibilities, rights and expectations of the contracting parties in the outsourcing arrangement should be carefully and properly defined in written agreements. They should also be vetted by a competent authority (e.g., the institutions' legal counsel) on their legality and enforceability.

⁸ Please see paragraph 5.11 on arrangements relating to outsourcing within a group.

5.5.2 An institution should ensure that every outsourcing agreement addresses the risks identified at the risk evaluation and due diligence stages. Each outsourcing agreement should allow for timely renegotiation and renewal to enable the institution to retain an appropriate level of control over the outsourcing arrangement and the right to intervene with appropriate measures to meet its legal and regulatory obligations. It should at the very least, have provisions to address the following aspects of outsourcing:

- (a) scope of the outsourcing arrangement;
- (b) performance, operational, internal control and risk management standards;
- (c) confidentiality and security⁹;
- (d) business continuity management¹⁰;
- (e) monitoring and control¹¹;
- (f) audit and inspection¹²;
- (g) Notification of adverse developments

An institution should specify in its outsourcing agreement the type of events and the circumstances under which the service provider should report to the institution in order for an institution to take prompt risk mitigation measures and notify MAS of such developments under paragraph 4.2.1;

- (h) Dispute resolution

An institution should specify in its outsourcing agreement the resolution process, events of default, and the indemnities, remedies and recourse of the respective parties in the agreement. The institution should ensure that its contractual rights can be exercised in the event of a breach of the outsourcing agreement by the service provider;

⁹ Refer to paragraph 5.6

¹⁰ Refer to paragraph 5.7

¹¹ Refer to paragraph 5.8

¹² Refer to paragraph 5.9

(i) Default termination and early exit

An institution should, have the right to terminate the outsourcing agreement in the event of default, or under circumstances where:

- (i) the service provider undergoes a change in ownership;
- (ii) the service provider becomes insolvent or goes into liquidation;
- (iii) the service provider goes into receivership or judicial management whether in Singapore or elsewhere;
- (iv) there has been a breach of security or confidentiality; or
- (v) there is a demonstrable deterioration in the ability of the service provider to perform the contracted service.

The minimum period to execute a termination provision should be specified in the outsourcing agreement. Other provisions should also be put in place to ensure a smooth transition when the agreement is terminated or being amended. Such provisions may facilitate transferability of the outsourced services to a bridge-institution or a third party. Where the outsourcing agreement involves an intra-group entity, the agreement should be legally enforceable against the intra-group entity providing the outsourced service;

(j) Sub-contracting

An institution should retain the ability to monitor and control its outsourcing arrangements when a service provider uses a sub-contractor. An outsourcing agreement should contain clauses setting out the rules and limitations on sub-contracting. An institution should include clauses making the service provider contractually liable for the performance and risk management practices of its sub-contractor and for the sub-contractor's compliance with the provisions in its agreement with the service provider, including the prudent practices set out in these Guidelines. The institution should ensure that the sub-contracting of any part of material outsourcing arrangements is subject to the institution's prior approval;

(k) Applicable Laws

Agreements should include choice-of-law provisions, agreement covenants and jurisdictional covenants that provide for adjudication of disputes between the parties under the laws of a specific jurisdiction.

5.5.3 Each agreement should be tailored to address issues arising from country risks and potential obstacles in exercising oversight and management of the outsourcing arrangements made with a service provider outside Singapore¹³.

5.6 Confidentiality and Security

5.6.1 As public confidence in institutions is a cornerstone in the stability and reputation of the financial industry, it is vital that an institution satisfies itself that the service provider's security policies, procedures and controls will enable the institution to protect the confidentiality and security of customer information.

5.6.2 An institution should be proactive in identifying and specifying requirements for confidentiality and security in the outsourcing arrangement. An institution should take the following steps to protect the confidentiality and security of customer information:

- (a) State the responsibilities of contracting parties in the outsourcing agreement to ensure the adequacy and effectiveness of security policies and practices, including the circumstances under which each party has the right to change security requirements. The outsourcing agreement should also address:
 - (i) the issue of the party liable for losses in the event of a breach of security or confidentiality and the service provider's obligation to inform the institution; and
 - (ii) the issue of access to and disclosure of customer information by the service provider. Customer information should be used by the service provider and its staff strictly for the purpose of the contracted service;
- (b) Disclose customer information to the service provider only on a need-to-know basis;
- (c) Ensure the service provider is able to protect the confidentiality of customer information, documents, records, and assets, particularly where multi-tenancy¹⁴ arrangements are present at the service provider; and

¹³ Refer to paragraph 5.10.

-
- (d) Review and monitor the security practices and control processes of the service provider on a regular basis, including commissioning audits or obtaining periodic expert reports on confidentiality, security adequacy and compliance in respect of the operations of the service provider, and requiring the service provider to disclose to the institution breaches of confidentiality in relation to customer information.

5.7 Business Continuity Management

5.7.1 An institution should ensure that its business continuity is not compromised by outsourcing arrangements, in particular, of the operation of its critical systems as stipulated under the Technology Risk Management Notice. An institution should adopt the sound practices and standards contained in the Business Continuity Management (“BCM”) Guidelines issued by MAS, in evaluating the impact of outsourcing on its risk profile and for effective BCM.

5.7.2 In line with the BCM Guidelines, an institution should take steps to evaluate and satisfy itself that the interdependency risk arising from the outsourcing arrangement can be adequately mitigated such that the institution remains able to conduct its business with integrity and competence in the event of a service disruption or failure, or unexpected termination of the outsourcing arrangement or liquidation of the service provider. These should include taking the following steps:

- (a) Determine that the service provider has in place satisfactory business continuity plans (“BCP”) that are commensurate with the nature, scope and complexity of the outsourcing arrangement. Outsourcing agreements should contain BCP requirements on the service provider, in particular, recovery time objectives (“RTO”), recovery point objectives (“RPO”), and resumption operating capacities;

¹⁴ Multi-tenancy generally refers to a mode of operation adopted by service providers where a single computing infrastructure (e.g. servers, databases etc.) is used to serve multiple customers (tenants).

-
- (b) Proactively seek assurance on the state of BCP preparedness of the service provider, or participate in joint testing, where possible. It should ensure the service provider regularly tests its BCP plans and that the tests validate the feasibility of the RTO, RPO and resumption operating capacities. Such tests would serve to familiarise the institution and the service provider with the recovery processes as well as improve the coordination between the parties involved. The institution should require the service provider to notify it of any test finding that may affect the service provider's performance. The institution should also require the service provider to notify it of any substantial changes in the service provider's BCP plans and of any adverse development that could substantially impact the service provided to the institution; and
 - (c) Ensure that there are plans and procedures in place to address adverse conditions or termination of the outsourcing arrangement such that the institution will be able to continue business operations and that all documents, records of transactions and information previously given to the service provider should be promptly removed from the possession of the service provider or deleted, destroyed or rendered unusable.

5.7.3 For assurance on the functionality and effectiveness of its BCP plan, an institution should design and carry out regular, complete and meaningful BCP testing that is commensurate with the nature, scope and complexity of the outsourcing arrangement. For tests to be complete and meaningful, the institution should involve the service provider in the validation of its BCP and assessment of the awareness and preparedness of its own staff. Similarly, the institution should take part in its service providers' BCP and disaster recovery exercises.

5.7.4 The institution should consider worst case scenarios in its business continuity plans. Some examples of these scenarios are unavailability of service provider due to unexpected termination of the outsourcing agreement, liquidation of the service provider and wide-area disruptions that result in collateral impact on both the institution and the service provider. Where the interdependency on an institution in the financial system is high¹⁵, the institution should maintain a higher state of business continuity preparedness.

¹⁵ In MAS' BCM Guidelines, these institutions are referred to as Significantly Important Institutions.

The identification of viable alternatives for resuming operations without incurring prohibitive costs is also essential to mitigate interdependency risk.

5.8 Monitoring and Control of Outsourcing Arrangements

5.8.1 An institution should establish a structure for the management and control of its outsourcing arrangements. Such a structure will vary depending on the nature and extent of risks in the outsourcing arrangements. As relationships and interdependencies in respect of outsourcing arrangements increase in materiality and complexity, a more rigorous risk management approach should be adopted. An institution also has to be more proactive in its relationship with the service provider (e.g., having frequent meetings) to ensure that performance, operational, internal control and risk management standards are upheld. An institution should ensure that outsourcing agreements with service providers contain clauses to address the institution's monitoring and control of outsourcing arrangements.

5.8.2 An institution should put in place all the following measures for effective monitoring and control of any material outsourcing arrangement:

- (a) Maintain a register of all material outsourcing arrangements and ensure that the register is readily accessible for review by the board and senior management of the institution. Information maintained in the register should include those set out in Annex 3. The register should be updated promptly and form part of the oversight and governance reviews undertaken by the board and senior management of the institution, similar to those described in paragraph 5.2;
- (b) Establish multi-disciplinary outsourcing management groups with members from different risk and internal control functions including legal, compliance and finance, to ensure that all relevant technical issues and legal and regulatory requirements are met. The institution should allocate sufficient resources, in terms of both time and skilled manpower, to the management groups to enable its staff to adequately plan and oversee the entire outsourcing lifecycle;
- (c) Establish outsourcing management control groups to monitor and control the outsourced service on an ongoing basis. There should be policies and procedures to monitor service delivery and the confidentiality and security of customer information, for the purpose of gauging ongoing compliance

with agreed service levels and the viability of the institution's operations. Such monitoring should be regular and validated through the review of reports by auditors of the service provider or audits commissioned by the institution;

- (d) Periodic reviews, at least on an annual basis, on all material outsourcing arrangements. This is to ensure that the institution's outsourcing risk management policies and procedures, and these Guidelines, are effectively implemented. Such reviews should ascertain the adequacy of internal risk management and management information systems established by the institution (e.g., assessing the effectiveness of processes and metrics used to evaluate the performance and security of the service provider) and highlight any deficiency in the institution's systems of control;
- (e) Reporting policies and procedures
Reports on the monitoring and control activities of the institution should be reviewed by its senior management¹⁶ and provided to the board for information. The institution should ensure that monitoring metrics and performance data are not aggregated with those belonging to other customers of the service provider. The institution should also ensure that any adverse development arising in any outsourcing arrangement is brought to the attention of the senior management of the institution and service provider, or to the institution's board, where warranted, on a timely basis. When adverse development occurs, prompt actions should be taken by an institution to review the outsourcing relationship for modification or termination of the agreement; and
- (f) Perform comprehensive pre- and post- implementation reviews of new outsourcing arrangements or when amendments are made to the outsourcing arrangements. If an outsourcing arrangement is materially amended, a comprehensive due diligence of the outsourcing arrangement should also be conducted.

¹⁶ Refer to paragraph 5.2.3.

5.9 Audit and Inspection

5.9.1 An institution's outsourcing arrangements should not interfere with the ability of the institution to effectively manage its business activities or impede MAS in carrying out its supervisory functions and objectives.

5.9.2 An institution should include, in all its outsourcing agreements for material outsourcing arrangements, clauses that:

- (a) allow the institution to conduct audits on the service provider and its sub-contractors, whether by its internal or external auditors, or by agents appointed by the institution; and to obtain copies of any report and finding made on the service provider and its sub-contractors, whether produced by the service provider's or its sub-contractors' internal or external auditors, or by agents appointed by the service provider and its sub-contractor, in relation to the outsourcing arrangement;
- (b) allow MAS, or any agent appointed by MAS, where necessary or expedient, to exercise the contractual rights of the institution to:
 - (i) access and inspect the service provider and its sub-contractors, and obtain records and documents, of transactions, and information of the institution given to, stored at or processed by the service provider and its sub-contractors; and
 - (ii) access any report and finding made on the service provider and its sub-contractors, whether produced by the service provider's and its sub-contractors' internal or external auditors, or by agents appointed by the service provider and its sub-contractors, in relation to the outsourcing arrangement.

5.9.3 Outsourcing agreements for material outsourcing arrangements should also include clauses that require the service provider to comply, as soon as possible, with any request from MAS or the institution, to the service provider or its sub-contractors, to submit any reports on the security and control environment of the service provider and its sub-contractors to MAS, in relation to the outsourcing arrangement.

5.9.4 An institution should ensure that these expectations are met in its outsourcing arrangements with the service provider as well as any sub-contractor that the service

provider may engage in the outsourcing arrangement, including any disaster recovery and backup service providers. MAS will provide the institution reasonable notice of its intent to exercise its inspection rights and share its findings with the institution where appropriate.

5.9.5 An institution should ensure that independent audits and/or expert assessments of all its outsourcing arrangements are conducted. In determining the frequency of audit and expert assessment, the institution should consider the nature and extent of risk and impact to the institution from the outsourcing arrangements. The scope of the audits and expert assessments should include an assessment of the service providers' and its sub-contractors' security¹⁷ and control environment, incident management process (for material breaches, service disruptions or other material issues) and the institution's observance of these Guidelines in relation to the outsourcing arrangement.

5.9.6 The independent audit and/or expert assessment on the service provider and its sub-contractors may be performed by the institution's internal or external auditors, the service provider's external auditors¹⁸ or by agents appointed by the institution. The appointed persons should possess the requisite knowledge and skills to perform the engagement, and be independent of the unit or function performing the outsourcing arrangement. Senior management should ensure that appropriate and timely remedial actions are taken to address the audit findings¹⁹. Institutions and the service providers should have adequate processes in place to ensure that remedial actions are satisfactorily completed. Actions taken by the service provider to address the audit findings should be appropriately validated by the institution before closure. Where necessary, the relevant persons who possess the requisite knowledge and skills should be involved to validate the effectiveness of the security and control measures taken.

5.9.7 Significant issues and concerns should be brought to the attention of the senior management of the institution and service provider, or to the institution's board, where warranted, on a timely basis. Actions should be taken by the institution to review the outsourcing arrangement if the risk posed is no longer within the institution's risk tolerance.

¹⁷ The security environment refers to both the physical and IT security environments.

¹⁸ An institution should conduct its own audits to supplement the audits performed by the service provider's auditors, where necessary.

¹⁹ Please refer to para 5.2 on Responsibilities of Board and Senior Management

5.9.8 Copies of audit reports should be submitted by the institution to MAS. An institution should also, upon request, provide MAS with other reports or information on the institution and service provider that is related to the outsourcing arrangement.

5.10 Outsourcing Outside Singapore

5.10.1 The engagement of a service provider in a foreign country, or an outsourcing arrangement whereby the outsourced function is performed in a foreign country, may expose an institution to country risk - economic, social and political conditions and events in a foreign country that may adversely affect the institution. Such conditions and events could prevent the service provider from carrying out the terms of its agreement with the institution. In its risk management of such outsourcing arrangements, an institution should take into account, as part of its due diligence, and on a continuous basis:

- (a) government policies;
- (b) political, social, economic conditions;
- (c) legal and regulatory developments in the foreign country; and
- (d) the institution's ability to effectively monitor the service provider, and execute its business continuity management plans and exit strategy.

The institution should also be aware of the disaster recovery arrangements and locations established by the service provider in relation to the outsourcing arrangement. As information and data could be moved to primary or backup sites located in foreign countries, the risks associated with the medium of transport, be it physical or electronic, should also be considered.

5.10.2 Material outsourcing arrangements with service providers located outside Singapore should be conducted in a manner so as not to hinder MAS' efforts to supervise the Singapore business activities of the institution (i.e., from its books, accounts and documents) in a timely manner, in particular:

- (a) An institution should, in principle, enter into outsourcing arrangements only with service providers operating in jurisdictions that generally uphold confidentiality clauses and agreements.
- (b) An institution should not enter into outsourcing arrangements with service providers in jurisdictions where prompt access to information by MAS or

agents appointed by MAS to act on its behalf, at the service provider, may be impeded by legal or administrative restrictions. An institution must at least commit to retrieve information readily from the service provider should MAS request for such information. The institution should confirm in writing to MAS, that the institution has provided, in its outsourcing agreements, for MAS to have the rights of inspecting the service provider, as well as the rights of access to the institution and service provider's information, reports and findings related to the outsourcing arrangement, as set out in paragraph 5.9.

- (c) An institution should notify MAS if any overseas authority were to seek access to its customer information or if a situation were to arise where the rights of access of the institution and MAS set out in paragraph 5.9, have been restricted or denied.

5.11 Outsourcing Within a Group

5.11.1 These Guidelines are applicable to outsourcing arrangements with parties within an institution's group. The expectations may be addressed within group-wide risk management policies and procedures. The institution would be expected to provide, when requested, information demonstrating the structure and processes by which its board and senior management discharge their role in the oversight and management of outsourcing risks on a group-wide basis. For an institution incorporated or established outside Singapore, the roles and responsibilities of the local management are set out in paragraph 5.2.5.

5.11.2 Due diligence on an intra-group service provider may take the form of evaluating qualitative aspects of the service provider's ability to address risks specific to the institution, particularly those relating to business continuity management, monitoring and control, audit and inspection, including confirmation on the right of access to be provided to MAS, to retain effective supervision over the institution, and compliance with local regulatory standards.

The respective roles and responsibilities of each office in the outsourcing arrangement should be documented in writing in a service level agreement or an equivalent document.

5.12 Outsourcing of Internal Audit to External Auditors

5.12.1 Where the outsourced service is the internal audit function of an institution, there are additional issues that an institution should deliberate upon. One of these is the lack of independence or the appearance of impaired independence, when a service provider is handling multiple engagements for an institution, such as internal and external audits, and consulting work. There is doubt that the service provider, in its internal audit role, would criticise itself for the quality of the external audit or consultancy services provided to the institution. In addition, as operations of an institution could be complex and involve large transaction volumes and amounts, it should ensure service providers have the expertise to adequately complete the engagement. An institution should address these and other relevant issues before outsourcing the internal audit function. In addition, as a sound practice, institutions should not outsource their internal audit function to the institution's external audit firm²⁰.

5.12.2 Before outsourcing the internal audit function to external auditors, an institution should satisfy itself that the external auditor would be in compliance with the relevant auditor independence standards of the Singapore accounting profession.

6 CLOUD COMPUTING

6.1 Cloud services ("CS") are a combination of a business and delivery model that enable on-demand access to a shared pool of resources such as applications, servers, storage and network security. The service is typically delivered in the form of Software as a Service ("SaaS"), Platform as a Service ("PaaS") and Infrastructure as a Service ("IaaS").

6.2 CS can potentially offer a number of advantages, which include economies of scale, cost-savings, access to quality system administration well as operations that adhere to uniform security standards and best practices. CS may also be used to provide the flexibility and agility for institutions to scale up or pare down on computing resources quickly as usage requirements change, without major hardware and software outlay as well as lead-time. In addition, the distributed nature of CS may enhance system resilience during location-specific disasters or disruptions.

²⁰ Any departure from this best practice should be limited to small institutions and should remain within the bounds of the applicable ethical standards for the statutory or external auditor.

6.3 It has been noted that more and more institutions are adopting CS to fulfil their business and operational requirements. These CS deployments may be operated in-house or off-premises by service providers. While the latter can take the form of a private²¹ or public²² cloud, there is a growing trend for institutions to adopt a combination of private and public clouds to create a hybrid cloud. The different cloud models provide for distinct operational and security trade-offs.

6.4 In the recent years, cloud technology has evolved and matured considerably and CS providers have become aware of the technology and security requirements of institutions to protect sensitive customer data. In this regard, a number of CS providers have implemented strong authentication, access controls, tokenisation techniques and data encryption to bolster security to meet institutions' requirements.

6.5 MAS considers CS operated by service providers as a form of outsourcing and recognises that institutions may leverage on such a service to enhance their operations and service efficiency while reaping the benefits of CS' scalable, standardised and secured infrastructure.

6.6 The types of risks in CS that confront institutions are not distinct from that of other forms of outsourcing arrangements. Institutions should perform the necessary due diligence and apply sound governance and risk management practices articulated in this set of guidelines when subscribing to CS.

6.7 Institutions should be aware of CS' typical characteristics such as multi-tenancy, data commingling and the higher propensity for processing to be carried out in multiple locations. Hence, institutions should take active steps to address the risks associated with data access, confidentiality, integrity, sovereignty, recoverability, regulatory compliance and auditing. In particular, institutions should ensure that the service provider possesses the ability to clearly identify and segregate customer data using strong physical or logical controls. The service provider should have in place robust access controls to protect customer information and such access controls should survive the tenure of the contract of the CS.

²¹ A cloud infrastructure operated solely for an organisation

²² A cloud infrastructure made available to the general public or an industry group, and is owned by a third party service provider

6.8 Institutions are ultimately responsible and accountable for maintaining oversight of CS and managing the attendant risks of adopting CS, as in any other form of outsourcing arrangements. A risk-based approach should be taken by institutions to ensure that the level of oversight and controls are commensurate with the materiality of the risks posed by the CS.

Annex 1

EXAMPLES OF OUTSOURCING ARRANGEMENTS

1 The following are examples of some services that, when performed by a third party, would be regarded as outsourcing arrangements for the purposes of these Guidelines although they are not exhaustive:

- (a) application processing (e.g., loan origination, credit cards);
- (b) white-labelling arrangements such as for trading and hedging facilities;
- (c) middle and back office operations (e.g., electronic funds transfer, payroll processing, custody operations, quality control, purchasing, maintaining the register of participants of a collective investment scheme (CIS) and sending of accounts and reports to CIS participants, order processing, trade settlement and risk management);
- (d) business continuity and disaster recovery functions and activities;
- (e) claims administration (e.g., loan negotiations, loan processing, collateral management, collection of bad loans);
- (f) document processing (e.g., cheques, credit card and bill payments, bank statements, other corporate payments, customer statement printing);
- (g) information systems hosting (e.g., software-as-a-service, platform-as-a-service, infrastructure-as-a-service);
- (h) information systems management and maintenance (e.g., data entry and processing, data centres, data centre facilities management, end-user support, local area networks management, help desks, information technology security operations);
- (i) investment management (e.g., discretionary portfolio management, cash management);
- (j) management of policy issuance and claims operations by managing agents;
- (k) manpower management (e.g., benefits and compensation administration, staff appointment, training and development);
- (l) marketing and research (e.g., product development, data warehousing and mining, media relations, call centres, telemarketing);
- (m) professional services related to the business activities of the institution (e.g., accounting, internal audit, actuarial, compliance); and
- (n) support services related to archival and storage of data and records.

2 The following arrangements would generally not be considered outsourcing arrangements:

- (a) Arrangements in which certain industry characteristics require the use of third-party providers
 - (i) maintenance of custody account with specified custodians as required under Regulation 27 of the Securities and Futures (Licensing and Conduct of Business) Regulations;
 - (ii) telecommunication services and public utilities (e.g., electricity, SMS gateway services);
 - (iii) postal services;
 - (iv) market information services (e.g., Bloomberg, Moody's, Standard & Poor's);
 - (v) common network infrastructure (e.g., Visa, MasterCard, MASNET+);
 - (vi) clearing and settlement arrangements between clearing houses and settlement institutions and their members, and similar arrangements between members and non-members;
 - (vii) global financial messaging infrastructure which are subject to oversight by relevant regulators (e.g., SWIFT); and
 - (viii) correspondent banking services.

- (b) Introducer arrangements and arrangements that pertain to principal-agent relationships
 - (i) sale of insurance policies by agents, and ancillary services relating to those sales;
 - (ii) acceptance of business by underwriting agents; and
 - (iii) introducer arrangements (where the institution does not have any contractual relationship with customers).

- (c) Arrangements that the institution is not legally or administratively able to provide
 - (i) statutory audit and independent audit assessments;
 - (ii) discreet advisory services (e.g., legal opinions, independent appraisals, trustees in bankruptcy, loss adjuster); and
 - (iii) independent consulting (e.g., consultancy services for areas which the institution does not have the internal expertise to conduct)

Annex 2

MATERIAL OUTSOURCING

1 An institution should assess the materiality in an outsourcing arrangement. In assessing materiality, MAS recognises that qualitative judgment is involved and the circumstances faced by individual institutions may vary. Factors that an institution should consider include:

- (a) importance of the business activity to be outsourced (e.g. in terms of contribution to income and profit);
- (b) potential impact of the outsourcing on earnings, solvency, liquidity, funding and capital, and risk profile;
- (c) impact on the institution's reputation and brand value, and ability to achieve its business objectives, strategy and plans, should the service provider fail to perform the service or encounter a breach of confidentiality or security (e.g. compromise of customer information);
- (d) impact on the institution's customers, should the service provider fail to perform the service or encounter a breach of confidentiality or security;
- (e) impact on the institution's counterparties and the Singapore financial market, should the service provider fail to perform the service;
- (f) cost of the outsourcing as a proportion of total operating costs of the institution;
- (g) cost of outsourcing failure, which will require the institution to bring the outsourced activity in-house or seek similar service from another service provider, as a proportion of total operating costs of the institution;
- (h) aggregate exposure to a particular service provider in cases where the institution outsources various functions to the same service provider; and
- (i) ability to maintain appropriate internal controls and meet regulatory requirements, if the service provider faces operational problems.

2 Outsourcing of all or substantially all of its risk management or internal control functions, including compliance, internal audit, financial accounting and actuarial (other than performing certification activities) is to be considered a material outsourcing arrangement.

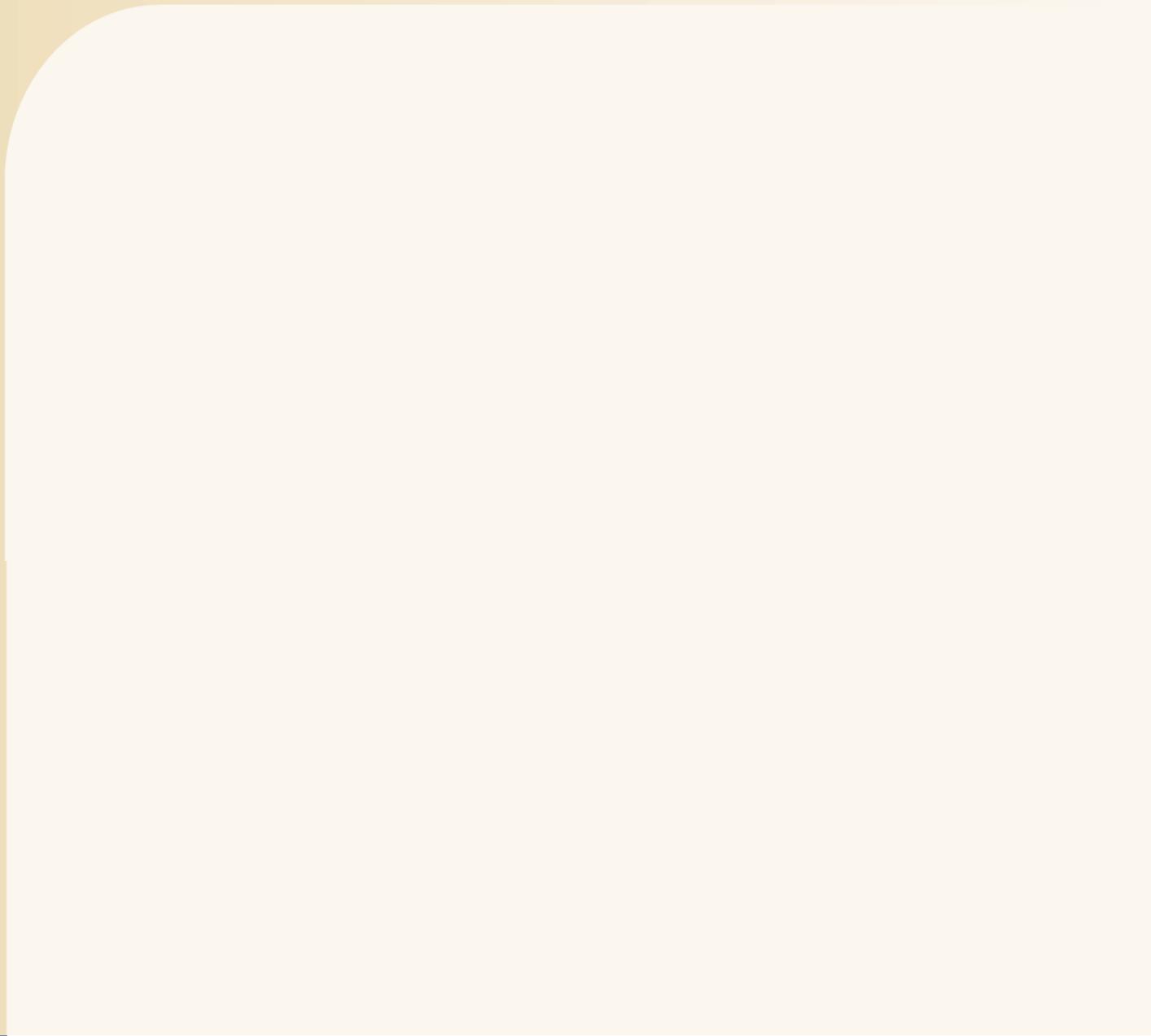
3 An institution should undertake periodic reviews of its outsourcing arrangements to identify new outsourcing risks as they arise. An outsourcing arrangement that was previously not material may subsequently become material from incremental services outsourced to the same service provider or an increase in volume or change in nature of the service outsourced to the service provider. Outsourcing risks may also increase when the service provider sub-contracts the service or makes significant changes to its sub-contracting arrangements.

4 An institution should consider materiality at both the institution's level and as a group, i.e., together with the institution's branches and corporations under its control.

Annex 3

REGISTER OF OUTSOURCING ARRANGEMENTS

1 An institution should maintain an updated register of all existing outsourcing arrangements in the format as per the template available from MAS website.



Monetary Authority of Singapore