

Annex A: List of Respondents to the Second Consultation Paper on Proposed Revisions to Guidelines on Business Continuity Management (15 October 2021)

A total of 86 submissions were received of which 6 respondents requested confidentiality of their identity, 6 respondents requested confidentiality of their submission and 50 respondents requested confidentiality of both their identity and submission.

**Respondents who requested confidentiality of their identity*

#Respondents who requested confidentiality for their submitted response

Please refer to Annex B for the submissions.

1. AAM Advisory Pte. Ltd.
2. abrdn Asia Limited
3. Aon Singapore Pte Ltd
4. Asia Securities Industry & Financial Markets Association (ASIFMA)
5. AXA Insurance Pte Ltd
6. AXA XL Singapore
7. Bank of Singapore Limited
8. Barclays Bank PLC Singapore Branch
9. Business Continuity Chapter, Singapore Computer Society
10. Coface
11. Depository Trust and Clearing Corporation (DTCC)
12. Deutsche Bank entities in Singapore
13. Endow.us Pte. Ltd.
14. FIL Investment Management (Singapore) Limited
15. FWD Singapore Pte. Ltd.
16. Lymon Pte. Ltd.
17. Mizuho Bank, Ltd. Singapore Branch
18. MUFG Bank, Ltd.
19. Quilter International Isle of Man Limited Singapore Branch
20. Razer Merchant Services (SG) Pte. Ltd.
21. Schroder Investment Management (Singapore) Ltd.
22. Securities Association of Singapore
23. Sumitomo Mitsui Banking Corporation Singapore Branch
24. Swiss Re Asia Pte Ltd
25. Swiss Re International SE Singapore Branch
26. The Great Eastern Life Assurance Company Limited
27. The Hongkong & Shanghai Banking Corporation Limited (Singapore Branch), HSBC Singapore Limited, HSBC Insurance (S) Ltd, HSBC Securities, HSBC Asset Management, HSBC Institutional Trust, HSBC Trustees Singapore Ltd, and Hang Seng Bank Singapore Branch
28. Tokio Marine Life Insurance Singapore
29. Transamerica Life (Bermuda) Ltd
30. Wirex Pte Ltd
31. An entity *
32. An entity *
33. An entity *
34. An entity *
35. An entity *
36. An entity *
37. An entity *#

38. An entity *#
39. An entity *#
40. An entity *#
41. An entity *#
42. An entity *#
43. An entity *#
44. An entity *#
45. An entity *#
46. An entity *#
47. An entity *#
48. An entity *#
49. An entity *#
50. An entity *#
51. An entity *#
52. An entity *#
53. An entity *#
54. An entity *#
55. An entity *#
56. An entity *#
57. An entity *#
58. An entity *#
59. An entity *#
60. An entity *#
61. An entity *#
62. An entity *#
63. An entity *#
64. An entity *#
65. An entity *#
66. An entity *#
67. An entity *#
68. An entity *#
69. An entity *#
70. An entity *#
71. An entity *#
72. An entity *#
73. An entity *#
74. An entity *#
75. An entity *#
76. An entity *#
77. An entity *#
78. An entity *#
79. An entity *#
80. An entity *#
81. An entity *#
82. An entity *#
83. An entity *#
84. An entity *#
85. An entity *#
86. An entity *#

Annex B: Submissions to the Public Consultation

Note: This table below only includes submissions for which respondents did not request confidentiality of submissions.

S/N	Respondent	Feedback from respondent
1.	abrdrn Asia Limited	<p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>In view of the extensive amount of effort and time required to ensure that the RTOs of underlying business functions and their dependencies meet the FI's SRTOs due to the large number of people, processes, and technology, including third parties involved for each critical business service especially for a larger FI, we would like to propose that MAS consider a longer transition period (e.g. 18 months) for FIs to adopt the Guidelines.</p>
2.	Aon Singapore Pte Ltd	<p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>There may be business services that are common across multiple FI's. It will be preferred for MAS to identify a list of common business services that are considered critical (eg: interbank fund transfers) and standardise the SRTO's for such business services across FI to ensure a common yardstick is used. For other business services, the FIs can consider whether they are critical in accordance to their business models and determine the STRO.</p>
3.	Asia Securities Industry & Financial Markets Association (ASIFMA)	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>We welcome the change in taxonomy which is more aligned with international practices and the developing international body of work on operational resilience. This is particularly beneficial for our members that are global multi-national firms with global frameworks managing operational resilience which includes BCM. As mentioned in the introduction, it would be helpful if MAS could also introduce the term Operational Resilience and further align it with the BCBS Principles on Operational Resilience.</p> <p>The identification and prioritisation of critical business services in addition to critical business functions is a logical next step as FIs seek to remain operationally resilient during disruptions. The proposal is in principle aligned with the BCBS Principles on Operational Resilience that define operational resilience as “the ability of a bank to deliver critical operations through disruption. This ability enables a bank to identify and protect itself from threats and potential failures, respond and adapt to, as well as recover and learn from disruptive events in order to minimise their impact on the delivery of critical operations through disruption.”</p> <p>That being said, there are still a few differences in terminology between the MAS Second BCM Consultation Paper and the BCBS terminology. For example, whilst the MAS uses the term of Critical Business Service, the BCBS uses the term Critical Operations (paragraph 11 and 12 of the BCBS Principles). In its Operational Resilience Principles, the BCBS uses the term Critical Operations as based on the Joint Forum’s 2006 high-level principles for business continuity. It encompasses Critical Functions as defined by the FSB which includes activities, processes, services and their relevant supporting assets the disruption of which would be material to the continued operation of the bank or its role in the financial system.</p>

S/N	Respondent	Feedback from respondent
		<p>Given the extent of the changes, we suggest a phased implementation approach, or an extended timeline of 24 months to give FIs sufficient time to comply with the Guidelines or alternatively to have a deadline for having an executable plan.</p> <p>We appreciate MAS' inclusion of 'Examples of Business Services' in the appendix (2.4) and would welcome further guidance on how wide or narrow is the definition of a Critical Business Service to help with more focused prioritization of Critical Business Services and setting more relevant/ accurate Service Recovery Time Objectives ("SRTO"). Example: Fo+J11r the provision of service 'Access to Savings', should 1) providing a view of available cash 2) dispensing cash, be considered as two distinct critical business services for which two different SRTOs must be set or not? We recommend the former to help with more focused prioritization of Critical Business Services and setting more relevant/accurate SRTO.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: Most firms would have an existing service level agreement ("SLA") with their third-party providers and the SLA timelines are pre-defined as part of the agreement. It would be helpful if the MAS can clarify how such SLA differs from the proposed SRTO.</p> <p>The SRTO concept appears to be broadly aligned with the concept of a 'tolerance for disruption' set out in the BCBS Principles defined as "...the level of disruption from any type of operational risk a bank is willing to accept given a range of severe but plausible scenarios." We welcome this conceptual alignment and our assumption is that SRTOs, like 'tolerances for disruption', are intended to be measures that should not be exceeded following an operational incident.</p> <p>However, we note that the MAS nonetheless introduce a new term "SRTO" which does not feature in other operational resilience frameworks. In particular, the UK PRA framework for operational resilience used the term 'Impact Tolerance' which it defines as "the maximum tolerable level of disruption to an important business service or an important group business service as measured by a length of time in addition to any other relevant metrics". The MAS defines SRTO as a time-based metric, which provides clarity between FIs and their third parties on the recovery expectation of the critical business service.</p> <p>As mentioned above, we would welcome further alignment with the BCBS Operational Resilience Principles and we would appreciate more clarity on the definition of SRTO. Differences in definition of key operational resilience concepts in local markets will not only increase organizational complexity but also increase the compliance divergence/ fragmentation. Adopting, or as a minimum aligning with existing terminology already in use in the industry would significantly reduce ambiguity and improve implementation of a relatively immature concept.</p> <p>We also note that the Consultation Paper reads that "FIs must ensure that the Recovery Time Objectives ("RTO"s) of the underlying business functions and their dependencies will meet its SRTOs". Some global FIs have been implementing operational resilience programs to be aligned with the BCBS Principles and other regulatory requirements (e.g., the UK) and have discovered that a strategy to meet their tolerances for disruption (or other similar targets)</p>

S/N	Respondent	Feedback from respondent
		<p>that is dependent on the underlying function RTOs is not always achievable. Certain severe but plausible scenarios e.g., a sophisticated cyber-attack may prevent function RTOs being met, but that does not remove the need to remain within the stated tolerance for disruption (or recover a sufficient level of service within the SRTO). We would therefore assume that an SRTO should be set at the point at which intolerable harm is likely to be caused to customers, the financial ecosystem, and its participants (which the Consultation Paper states firms must take into account when setting SRTOs). We would welcome clarification from the MAS on this issue and we would ask for more detail on the link between RTOs and SRTOs and the MAS' expectations around SRTOs. The ways to ensure that an FI remains within its tolerance for disruption (and ensure that the SRTO is met) could be numerous and may require some out-of-the-box thinking, but it is this flexible thinking that allows FIs to remain within their tolerances for disruption (and therefore meet the SRTO) without attaining individual function RTOs in those severe but plausible scenarios. We therefore suggest that instead of providing the term RTO for business function, firms should ensure that all functions have the ability to support the SRTO of the critical business service and recommend that the link between RTOs and SRTOs be reviewed ahead of the final publication of the updated Guidelines.</p> <p>We also note that the definition of SRTO within the glossary does not specify that they should be applied to critical business services only and would welcome clarification on this point. Without this clarification, there is a risk that FIs will be expected to apply SRTOs to a much broader range of services and functions than is required. This would impose a disproportionate burden on FIs and would not achieve MAS' aims. We suggest that the definition of SRTO in the glossary on page 13 of the Consultation Paper is aligned with the definition of SRTO in section 5.9, page 34 of the Consultation Paper, which defines SRTO as "SRTO refers to the target time to recover a critical business service to a level sufficient to meet its business obligations, or the acceptable duration before the disruption of a critical business service would result in severe business impact and losses to the FI and any of its customers</p> <p>Given that SRTO is a time-based metric, we would also appreciate clarification as to when the SRTO time period starts and stops, with reference to the availability of service. For example, is it appropriate for the objective to be set at the point in time that the service is only up and running, or would it be appropriate to set it at where the clearing of backlogs following recovery of the service (be that transactions, reconciliation, client queries, compensation claims) has been completed. Is the interpretation of SRTO to resume full BAU or to a pre-determined (lesser) capacity?</p> <p>We are pleased to see that the guideline acknowledges that 'in the event of disruption it might not be practical nor possible to recover all business services and functions at the earliest opportunity (2.3) therefore FIs should prioritize the recovery of its business services and functions based on criticality' i.e. critical business services and critical business functions'. It also states that an FI can adopt the business impact analysis (BIA) methodology to assist in identification of critical business services and functions. Does it follow that a BIA and other similar methodologies can be used by FIs to articulate their thought process to ascertain criticality? Could FIs also cluster together critical business services that have similar business impact?</p> <p>We are grateful to MAS for allowing FIs in adopting global frameworks, policies and procedures that have been instituted at Group level 'as long as it enables FI's Singapore operations to comply with the Guidelines'. We would like to</p>

S/N	Respondent	Feedback from respondent
		<p>confirm that firms are to adopt existing accountability framework to evidence local compliance to Guidelines for firms' global critical business services.</p> <p>Further clarification is appreciated on what 'recovery' criteria (3.1) are? There are instances whereby a lesser capacity is sufficient and resumption of BAU operation is not a good use of limited resources. For example - Due to COVID-19, it was acceptable that branches operate at degraded level due to the local ministry directive. Or if capacity is constrained following a disruption because of backlog.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>We note that footnote 3 in Section 2.12 includes intra-group service providers in the definition of third-parties. We suggest that the final BCM Guidelines are aligned with the MAS Outsourcing Guidelines in terms of dealing with intra-group service providers, on a risk-based approach.</p> <p>Point 2.13 – <i>“The FI should perform its due diligence to obtain assurance that the SRTOs of the critical business service can be met by the third parties. This assurance can be obtained through measures, such as the following ,where possible: (a) Establish and regularly review operational level or service level agreements with third parties that set out specific and measurable recovery expectations; (b) Request for dedicated manpower from their third party service providers for specialist functions that cannot be performed in-house; or (c) Conduct audits, regular tests, or joint tests with their third parties to ensure that the third parties have the ability to support FIs even in the scenario that these third parties experience disruptions.”</i></p> <p>We note and support that end-to-end dependency mapping for critical business services aligns with the BCBS Principles on Operational Resilience.</p> <p>Our members take third party management very seriously, certainly in light of their BCM and ASIFMA and GFMA are very engaged in the global regulatory efforts on this front. However, we point out that the negotiation power that FIs have over their critical third parties depends on many factors, including the service package FIs are buying. Many third parties are moving from STOs to SLAs and there is an increasing reluctance among third parties to participate in bilateral tests. We also understand that many FMIs/FMUs do not conduct live failover testing. Adopting the requirements listed in 2.13 will thus be on a best-effort basis, and subject to contractual challenges. We also point out that there is no harmonized guidance to FIs on what is required to gain operational resilience assurance. Further, there is no guidance for the artifacts that a third-party must collect to provide these assurances to FIs. In combination, this may result in disparate requests from different institutions to the same service providers and FMIs/FMUs which may limit these entities from providing FIs the support required to demonstrate compliance.</p> <p>Point 2.15 – <i>“Some interdependency risks (e.g. unavailability of telecommunications networks, power utilities, etc.) may be beyond an FI’s direct control to mitigate completely. Hence, it is important that FIs put in place risk mitigating measures, such as implementing redundancy or back-up arrangements, to address the interdependency risks posed by the disruption of these services.”</i> As some of these utilities are critical national infrastructure (power utilities, telco service provider, internet service provider), we would like to seek clarification on whether MAS through other relevant government</p>

S/N	Respondent	Feedback from respondent
		<p>agencies require these utilities to maintain redundancy and high availability to service FIs in Singapore.</p> <p>Our members see the value of the requirement for end-to-end mapping of Business Services to enable them to enhance their investment decisions, to understand residual risks, and to ensure appropriate decision-making during disruption. We would however request more guidance from the MAS around what level of detail the MAS expect from FIs. For example, in the mapping of people resources, would a percentage of recovery staff suffice or does the MAS expect each recovery staff to be mapped to a process/ task? Given that staff attrition rate, evolving technologies and enhanced focus on client delivery, these processes will undergo continuous change. We foresee challenges to taking an overly granular approach and ask for more time for FIs to develop a level of mapping sophistication.</p> <p>Mapping People, Process, and Technology to Business Services would benefit resilience, provided that the effort would require sufficient time for FIs to develop. We also note that the text of the consultation already provides a caveat “where possible”.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: We welcome that the MAS has taken our response to the first consultation paper on board and clarified in 2.17 that the scope and frequency of BCM audits should be commensurate with the criticality of business services and business functions and that any qualified independent party (whether internal or external) can perform the audit.</p> <p>Audits are an essential tool in any FIs risk management approach. In order to remain aligned with the BCBS principles we recommend that the phrase “BCM audits” is amended to simply “audits”. The BCBS principles identify BCM as one principle (Principle 3 Business Continuity & Planning) within Operational Resilience and, as such, to audit Operational Resilience an effective audit should not be limited to just BCM aspects.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>Section 10. Responsibilities of Board and Senior Management</p> <ul style="list-style-type: none"> • Item 10.6 which requires “an annual attestation to the Board on the state of the FI’s BCM preparedness, the extent of its alignment with the Guidelines, and key issues requiring Board’s attention such as significant residual risk and assessment of BCM readiness” seems overly prescriptive. • For many of our members, the Singapore operations rely largely on global systems and functions together with their regional and global approach for governance and oversight of BCP (including management/monitoring of testing, escalation of resiliency issues and their mitigation/remediation, etc.). • Understanding that some form of reporting to the Board may be required, but wonder whether global multi-national organizations with established global frameworks for BCM can leverage/outsourced those frameworks and governance/oversight without requiring what seems to be a very a detailed attestation to the Board?

S/N	Respondent	Feedback from respondent
		<p>Section 5: Concentration Risk</p> <ul style="list-style-type: none"> It is noted that MAS acknowledges the fact that due to a number of factors such as the differing size and complexity of business operations across FIs in Singapore, it would not be appropriate nor practical, to standardize on a criteria that defines a zone that could be applied equally across the financial sector. For smaller organizations or larger organizations with smaller teams that are performing specialized functions, it would be a challenge to adopt the suggested approaches to mitigate concentration risk. We hope that MAS can provide clarity on this point, as well as guidance for smaller firms. In relation to section 5.2 (e) (cross-border support), we are grateful for MAS supporting this approach but we wanted to flag that regulators in other jurisdictions might not be as supportive of this approach. Any assistance that the MAS can provide in engaging with other regulators on the benefits of allowing cross-border support would be welcome. An area that may require further discussion is cross-border support for regulated/licensed activities. In these instances, we may need specific allowance for non-licensed or previously licensed personnel in another jurisdiction to provide support during a BCP event. Also in relation to 5.2 (e) (cross-border support): as cross border support can help FIs establish a way to mitigate concentration risk, will MAS accept a risk-based approach for onshore only services in the event of a Singapore wide catastrophic event? <p>In relation to section 5.2 (f),</p> <ul style="list-style-type: none"> whilst we appreciate that appointing an alternative service provider is one of the many options for FIs to consider to mitigate concentration risk, some members have some concerns about pre-designated alternative service providers. This is because there are existing guardrails such as checking/testing that the service provider has satisfactory business continuity plans, notification requirements should there be any adverse developments which could impact the services. In addition, there could be other viable alternative approaches in the event that the primary service provider is unavailable to provide service. For example, for thir- party service such as cloud, FIs may choose internal hosting as a primary contingency plan rather than alternative service provider. MAS may encourage FIs to focus on contingency plans for critical third-party service providers and allow FIs to assess whether to bring the service back in-house or transfer to a replacement service provider or leverage other means. Pre-designating an alternate service provider would increase operational cost without necessarily enhancing business continuity. <p>Section 9: Crisis Management and Communications</p> <ul style="list-style-type: none"> Point 9.5 – “FIs should ensure that MAS is notified immediately of incidents where business operations are, or will, be severely disrupted, or when the BCP is activated, or going to be activated in response to an incident. In the notification, the FI should provide information, such as the assessed impact to its customers and the actions that have been taken (e.g. activation of alternative service channels, alternate sites or manual procedures, public communications, etc.)” – We would like to seek clarity from the MAS on the time limits to notify as the organization would require some time to activate the incident response, understand the issue and initiate appropriate resolution

S/N	Respondent	Feedback from respondent
		<p>measures. For example, Notice 644 Technology Risk Management states that “a bank shall notify the Authority as soon as possible, but not later than 1 hour, upon the discovery of a relevant incident”. We hope the MAS will agree that the impacted organization will need to assess the impact of an event, initiate failover and recovery strategies etc. and then provide an effective understanding of the situation and action being taken, within a reasonable timeframe (e.g. perhaps within 1 hour of a BCP event being confirmed).</p> <p>Timeline:</p> <ul style="list-style-type: none"> For FIs that adopt a global operating model, some aspects of the business functions that support a critical business service may be performed outside Singapore. The work to incorporate and align the concepts of critical business services, SRTO, end-to-end business service mapping for interdependencies etc. may require significant amount of time and effort. We would therefore suggest a phased implementation approach (e.g. a period of time to determine an FI’s critical business services and the establishment of SRTOs (or similar measure); a further period to conduct mapping and testing; and then a date by which any identified gaps (to SRTO or similar measure) are addressed), or an extended timeline of 24 months to give FIs sufficient time to comply with the Guidelines, or even have different deadline depending on the complexity of the change/requirement. For example, the UK PRA recognized that certain aspects of what they are asking for were complex and could be particularly onerous therefore allowed up to 3 years to come into compliance with the Impact Tolerance requirements. <p>Section 3: Service Recovery Time Objective</p> <ul style="list-style-type: none"> Intermittent Service Availability, in addition to perhaps SRTO, is an area which may require additional consideration to properly assess, and time to implement, particularly as it may require additional tooling, monitoring and alerting (to assess cumulative delays against SLAs/deadlines for example) in order to properly comply. <p>Section 6: Continuous Review and Improvement</p> <ul style="list-style-type: none"> Point 6.5 – “An FI should regularly assess the need for additional tools and automation to enable it to manage an incident or disruption more effectively. These could include implementing tools that enhance the FI’s BCM implementation or crisis management to better facilitate decision-making during a disruption.” - Implementing some of these requirements would mean upon a careful review, additional enhancements to the existing automated tools to extract the relevant information. As mentioned above, compliance within a 12-month time frame may be a challenge for the FIs. As mentioned further above, we suggest the MAS considers a 24 month implementation deadline. <p>Section 4: Mapping of interdependencies</p> <ul style="list-style-type: none"> Is there an expectation from MAS for FIs to review the exit clause for all its third-party SLAs (4.5)? and perform infrastructure or utility risk assessment for all its critical third-party suppliers (4.6) (including suppliers out of Singapore)? <p>Section 7: Testing</p>

S/N	Respondent	Feedback from respondent
		<ul style="list-style-type: none"> • Component failover of specific application: we submit that this is not directly related to resilience but rather linked to availability which is covered in the MAS Technology Risk Management (TRM) Guidelines. Applications with high availability architecture will have many component failure mode for testing. • Restoring data from back-up media: We submit that this too focuses on operational backup for short-term recovery which is not related to resilience. The MAS TRM Guidelines already cover recovery for application testing. • In demonstrating End-to-End testing of dependencies, what is the expectation from FIs to evidence that each service component has been incorporated/aggregated into the SRTO? We would appreciate guidance about how to set (and distinguish between) SRTO of 'degraded and BAU service' and how they might be calculated. Clarification on how to ascertain 'trigger point' of the event of disruption is also appreciated.
4.	AXA Insurance Pte Ltd	<p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>a) Some functions may not constitute part of a Critical Business Service. Please provide further guidance on the test requirements for a Critical Business Function (CBF) vs a Critical Business Service (CBS). critical, i.e. defined as a Critical Business Function (CBF)?</p> <p>b) Are functions that constitute a CBS automatically deemed to be critical, i.e. defined as a Critical Business Function (CBF)?</p> <p>c) Please provide further guidance on the requirement and expectation for environmental scanning for relevant risk events.</p> <p>d) A transition period of at least 18 months is more adequate for FIs to adopt the Guidelines after publication.</p>
5.	Bank of Singapore Limited	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>Clarification on 'Safety and Soundness' – How does one define 'Safety and Soundness' in relation to critical Business Services? We would like there to be further clarity on how it can be definitively determined.</p> <p>When it comes to Business Services with multiple Business Functions supporting it, who exactly is responsible for the coordination and resumption of the entire thing? If an overall manager is needed, who takes charge of it? Is it the Business Service itself or the Business Function owner with the lowest RTO or someone else?</p> <p>Clarifications on Critical Business Service and Critical Business Functions – we would like greater clarity on what exactly differentiates a Business Service and a Business Function. Business Services are defined in the paper as services rendered towards clients. Most examples given in relation to products for clients. Would something like Marketing count as a service then?</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p>

S/N	Respondent	Feedback from respondent
		<p>Difficulty in acquiring Third Party Business Continuity plans due to confidentiality issues makes ensuring that Third Party Service Providers can meet their SRT0 requirements hard. Third Party Service Providers may cite confidentiality and refuse to submit their Business Continuity plans, making assurance difficult.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>Implementation timeline of 12 months is deemed too tight given the changes are important and impacts the bank at the enterprise level and need to be formally tabled and ratified at various governance committees, amongst other implementation steps.</p>

S/N	Respondent	Feedback from respondent
6.	Business Continuity Chapter, Singapore Computer Society	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>The introduction of the concept of critical business services would not provide much value add in defining what an organisation needs to recover in a crisis. On the contrary, it would introduce confusion to the FIs and stakeholders than aid in BC Planning. This terminology is also not in-line with global business continuity management standards (e.g. ISO22301, DRII Glossary). In addition, for organisations that are using existing BCM tools, the introduction of such a terminology and definition would create difficulty as the existing tool would not have this definition. For global firms, a lot of effort and confusion would arise due to this new term as they would need to align their definition across all locations. All of this, would outweigh the little benefit of introducing such a term that appears to be splitting hairs.</p> <p>The feedback provided here is a consolidation of an online survey sent to the Business Continuity Chapter’s members. Members were asked if they were in favour of, against or neutral towards the proposed amendments by the Authority. They were then asked to provide justification for their views by stating how the proposal could solve challenges they faced, or what issues they would face if the proposals were instituted.</p> <p>There was a total of eight responses received. A breakdown of the industry they represented are as follows: -</p> <ul style="list-style-type: none"> • Banking, Securities and Finance – 37.5% • Consulting – 25% • Service Providers – 12.5% • Others – 25% <p>For-62.5%, Against-25%, Neutral-12.5%</p> <ul style="list-style-type: none"> • It depends on how business services are defined and prioritised. If it is viewed from customer’s perspective, it would mean the matrix of business services must be current so that the related business functions can then support the prioritised business service. It could translate to higher customer satisfaction. When all goes digital, managing these expectations is crucial to customer’s loyalty. • Critical business services and functions are most of the time linked. Organisations will be able to address in a holistic approach if critical business services are also included in addition to business function as part of the identification and prioritisation process. • This would formulate a more detailed and holistic RTO approach for the organization. • This will show an end-to-end service for the customer. Having a business function is good provided the function serves a particular purpose to customers. • More detailed guidance on definitions for CBS as opposed to CBFs. A service can be seen as a single Function or an amalgamation of functions and services. Hence, a detailed definition from MAS is needed to ensure that its expectations are met by the way FIs defines CBS and CBFs. • It was noted that “FIs should adopt an end-to-end view of the critical business services’ dependencies”. This is already performed and reviewed as part of the recovery strategy activity within BCM. Thus, it is a duplication of an existing activity. However, I agree that FIs should be cognizant of the services they provide, especially those that have SLAs and OLAs defined, and the underlying CBFs that support the delivery of those services.

S/N	Respondent	Feedback from respondent
		<p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>For-50%, Against-25%, Neutral-25%</p> <ul style="list-style-type: none"> • Organisation would be able to recover and continue their service according to the SRTOs. • Critical services have to be documented properly because the expectation of criticality is subjective from customer to customer, bank vs customers, etc. • The SRTO would create a more refine RTO requirements for the various business functions to identify the critical business functions and the overall SRTO for the business service. • This would aid the identification of departments running baseline infrastructure functions that support more than one service. This would also lead to more interdependency transparency. • SRTO seems to be a reference to the SLA that is published by the FIs to their customers. In such a case, wouldn't the existing recovery strategy already take into account the ability to deliver the SLA even in times of disaster or disruption? • Similar to the feedback to Qn1, the introduction of this term has far greater disadvantages than benefits for the FI, stakeholders and their service providers. • This gives the time required to establish a service. For example, in the case of ATMs, if we just have the time to recover 'check balance' function, it doesn't serve much purpose to the customer. Similarly, if we say the function 'PayLah' is available for checking wallet balance, it doesn't really serve much purpose. The RTO for function is useful if that function is the core function of the entire service, for example withdrawal function of ATMs, or mobile payment via PayLah. <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>For-75%, Against-12.5%, Neutral-12.5%</p> <ul style="list-style-type: none"> • This is just an extension of the service to business function mapping. The underlying link to people, technology and processes is the same. • Identification of dependency of each critical business services is important to make a successful recovery of the business service. This will ensure synergy in the BC plan rather than looking at it in silo based in different functional requirement. If organisations do not take into consideration all the dependencies, recovery of the business services could be at risk. • The Bank would then have a proper documented end-to-end workflow to check if their recovery strategy and BC plan is viable, especially including third parties involvement in the process. This will result in a more comprehensive review of the current plans and ensure that all parties involved can be activated to restore a service during a crisis and facilitate problem solving • This could form a more holistic approach towards a full Business and IT (including cyber risk) risk assessment framework. • The interdependency and third-party dependencies are part of the discovery activity when defining CBFs. A well thought through and comprehensive CBF should have captured and included these information. Where "assurance that SRTOs of critical business service can be met by the third parties", this due diligence and the audit of third parties should come under the vendor management framework, rather than BCM.

S/N	Respondent	Feedback from respondent
		<ul style="list-style-type: none"> • I am supportive of the proposal to develop an end-to-end dependency mapping. However, I disagree with the proposal to develop this to verify that the established SRTOs. This stems from the feedback to Qn 2 where I am not supportive of introducing the concept of SRTO. <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions:</p> <p>For-62.5%, Against-12.5%, Neutral-25%</p> <ul style="list-style-type: none"> • BCM audits will be able to identify the gaps for the critical business services and functions and will ensure that the organisation is aware about the gaps and have taken adequate action to address those gaps. This will require additional resource and efforts from the organisation but it is worth it as organisation can be alerted in advance of their gaps in BCM. • Audits are an effective way to ensure adherence to governance and processes. If it is not a mandate for any form of BCM Standard to be adopted by FIs, then audits should form part of a higher authority management governance. Along with any external audits, findings and remediations are naturally tracked and reported and monitored to senior management and board. • As mentioned in the response for Q2. Criticality of business services must be agreed and approved by management and documented for ease of audit so that there are no grey areas during any BCM audit. • This could promote a more resource efficient and productive BCM audit approach based on the critically level of the business service/s and function/s. • I am supportive of the recommendation to have 'qualified independent party'. However, the examples provided of a 'qualified internal or external auditor' is too broad. As BCM is a profession in itself, the auditor should have sufficient knowledge about the BCM process in order to add value to the audit process. Business or IT auditor often do not possess such specialised knowledge. So similar to expecting that a financially train auditor conducts an audit of a firm's financial statement, a 'qualified auditor' should have adequate BCM knowledge to ensure that the audit is comprehensive and robust. I would suggest to amend the term to 'qualified BCM trained independent party'. Examples of these could include past BCM practitioners and qualified BCM professionals (e.g. CBCP, CITBCM, etc.). <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>Over the last two years, we have seen organisations asking their staff to work from home (WFH) due to the pandemic situation. MAS should ensure that organisations continue to have an appropriate recovery strategy/BCM plan to support the continuity of critical services and functions in a WFH BAU model.</p>

S/N	Respondent	Feedback from respondent
7.	Coface	<p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: BCM is taken into consideration as an aspect during the full scope internal audit. To reiterate to Internal Audit to consider full scope BCM audit during the audit planning.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: Guidance from MAS on the proposed rollout timeframe of the BCM Guidelines.</p>
8.	Depository Trust and Clearing Corporation (DTCC)	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>DTCC supports the changes to the definitions made by the MAS from the feedback provided in the First Consultation¹. The definition of business services and business functions aligns with the definitions of critical operations and critical functions defined in the BCBS Principles on Operational Resilience². Further, these definitions align with the definition of these terms in the Operational Resilience policy statements from the United Kingdom’s Prudential Regulatory Authority (UK PRA)³ and the Financial Conduct Authority (UK FCA)⁴.</p> <p>DTCC agrees that the identification and prioritisation of business services and business functions provide a solid foundation which would allow firms to prioritise recovery based on the criticality of the service or function, and determining the appropriate recovery strategies and resource allocation contributes to improving the firm’s resilience program.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>The BCBS Principles on Operational Resilience introduced the concept of tolerance for disruption defined as the level of disruption from any type of operational risk a bank is willing to accept given a range of severe but plausible scenarios. The Proposed Rulemaking put forward two (2) terms to define tolerance for disruption, Service Recovery Time Objective (SRTO) and Recovery Time Objective (RTO). SRTO is defined as the target duration of time to restore a specific business service from the point of disruption, to the point when the specific business service is recovered to a level sufficient to meet the business obligation. RTO is defined as the target duration of time to restore a specific business function from the point of disruption to a point when the specific business function is recovered to a level sufficient to meet business obligations.</p> <p>The Proposed Guidelines introduce the term RTO as part of the tolerance for disruption measurement. DTCC agrees with MAS that financial institutions should understand how people, process, technologies and third party/supply chain providers map into providing a business service. DTCC further agrees that financial institutions should develop strategies that will provide reasonable assurance that it could meet the SRTO for the business service.</p> <p>While the setting of RTOs for business functions represents one way to gain assurance for meeting the SRTO, a sophisticated cyber event or material operational outages may create instances where the underlying RTO is not achievable. Even in such circumstances, financial institutions will need to implement diverse strategies to restore their operations as rapidly as is feasible with regard to the safety and soundness necessitated by the criticality of the business function in question. The definition and enforcement of an RTO may limit these business strategies and distract from the primary goal of restoring</p>

S/N	Respondent	Feedback from respondent
		<p>the business service. Further, the introduction of an RTO may lead to compliance or other potential risk where the financial institution attempts to meet each RTO as part of the service resumption. DTCC suggests that the concept of RTO be removed but agrees that financial institutions should develop business resumption strategies that will provide reasonable assurance for meeting its SRTO.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>As we have expressed in our response to the consultation on the BCBS Principles For Operational Resilience, DTCC notes that the process of mapping People, Process, and Technology to Business Services would benefit resilience arrangements. As stated in the proposed Guidelines, the process maps will assist financial institutions in identifying resources critical to service delivery, implications of their unavailability, and address any gaps that could hinder the effectiveness and safe recovery of the critical business service. Given the level of detail that these process maps may require and the number of critical business services a financial institution may have, DTCC suggests that from an industry perspective, 24 months from this becoming a requirement would be a more realistic target. Further, DTCC would encourage additional partnership between MAS and the financial services sector to determine the granularity needed to meet this requirement.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions:</p> <p>DTCC supports the principle that BCM audits should be commensurate with the criticality of the business services and functions. Further, DTCC supports that processes to track and monitor the remediation and implementation of identified risks should be established and that severe BCM impacts should receive visibility at the Board or sub-committee of the Board.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>Third Party Testing and Assurance</p> <p>The proposed Guidance encourages financial institutions to perform their due diligence to obtain assurance that the SRTO of the critical business service can be met by the third parties. This assurance could be obtained through measures, such as the following, when possible:</p> <ul style="list-style-type: none"> (a) Establish and regularly review operational level or service level agreements with third parties that set out specific and measurable recovery expectations; (b) Request for dedicated manpower from third party service providers for specialist functions that cannot be performed in-house; or (c) Conduct audits, regular tests, and/or joint tests with third parties to ensure that the third parties have the ability to appropriately support the financial institution even in the scenario that these third parties experience disruptions. <p>DTCC agrees that financial institutions should seek assurance that a third party's operations are appropriately risk-managed and gather evidence that the third party has instituted risk and resilience measures that are appropriate to the market capabilities and services provided. DTCC is actively involved in efforts to develop and improve third party risk and resilience frameworks with its</p>

S/N	Respondent	Feedback from respondent
		<p>financial services peers, financial authorities, and standards bodies. That stated, Financial Market Infrastructures (FMIs) and financial market utilities provide specific market services to a large set of financial institutions in a manner that creates market efficiencies, market transparency, and risk management services. Therefore, a proposed testing regime that drives (if not requires) individual financial institutions to conduct joint tests with its third parties may create a testing regime that is untenable and impractical for FMI organizations. Further, FMI are subject to rigorous oversight given their potential market impacts and are required to develop Principles for Financial Market Infrastructure (Principles or PFMI) disclosures that outline their adherence to these Principles. The PFMI principles are designed to enhance the risk and resilience measures of FMI. Market regulators frequently develop rulemaking in line with these Principles. Public/private partnerships between financial authorities and financial institutions are currently being considered to further build out third party assurance expectations that are aligned with the risks presented by different third parties (e.g., FMIs, technology providers, intragroup affiliates, unregulated entities). DTCC welcomes MAS to participate in these fora to further these efforts.</p>
9.	Deutsche Bank entities in Singapore	<p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>In 2.8, “FIs are expected to put in place recovery strategies to enable them to achieve the established SRTOs and recover to the service levels required to meet their business obligations.” - DB take business obligations as what have been identified under 2.4.</p> <p>In 2.7 - FIs should establish the Service Recovery Time Objective (SRTO) for each critical business service. The SRTO, being a time-based metric, provides clarity between FIs and their third parties on the recovery expectation of the business service. This will help to facilitate decision-making and monitoring of the progress of its recovery following a disruption - Is SRTO the same concept as Impact Tolerance level per the BCBS Standards?</p> <p>1.8 - MAS expects FIs to have robust business continuity plans (BCPs) that address a range of severe and plausible disruption scenarios only? - Would MAS expect FI to perform a multiple Telco service provider failure scenario analysis?</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>In 2.13 b “Request for dedicated manpower for their 3rd party service provider for specialist functions that cannot be performed in-house” - From a practicality and potential increased investment cost from request of dedicated 3rd party manpower to manage BCP scenario, is this a must that critical 3rd party contract needs to include, as it is stated as “when possible” If 3rd party could demonstrate that their BCP works, it be sufficient to fulfill the guidelines?</p> <p>In 2.13 c “Conducts audit, regular tests, or joint test with their 3rd parties to ensure that the 3rd party have the ability to support FIs even in the scenario that these 3rd party experience disruptions?”</p>

S/N	Respondent	Feedback from respondent
		<p>- Further clarification appreciated on expectation as some 3rd party may/does not allow client to participate in their recovery exercise or be part of the response team during their actual disruption or crisis event.</p> <p>- Further guidance on expectation around having joint test with 3rd parties would be appreciated.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: Given the critical business services and STRO is a new requirement in the industry, would MAS consider providing extension to the first year of implementation timeframe? i.e. 12 months for framework implementation (global system build out, training, end to end mapping etc.) and additional 6 months for testing for severe and plausible scenario, e.g. time is required to liaise with multiple telco for testing</p>
10.	Endow.us Pte. Ltd.	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: Based on the examples of business services it should be sufficient for FIs to identify and prioritise critical business services and the teams and processes that support the critical business service including dependencies on 3rd parties service providers. Then business functions is just another term for the teams of people behind the activities that provide the critical business service. Support units or teams like IT, HR, Compliance, Operations are not usually called business functions but support functions. So for simple implementation, it should be on identifying and prioritising critical business services.</p> <p>To illustrate, if a support or what the MAS term as business function is down and it impacts several business services then identifying the business services would involve identifying the business function. Therefore, there should not be any duplication.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: In this proposed guideline, FI is asked to set its own SRTO, however, based on CMGN02 (paragraph in quotes below), it would seem that a FI would be confined to no more than 4 hours where its business service is dependent on a critical system. We would like to seek the MAS clarification whether the CMGN02 will be updated to remove the 4 hours so that FI prioritises and sets its own SRTO.</p> <p>“A financial institution shall make all reasonable effort to maintain high availability for critical systems. The financial institution shall ensure that the maximum unscheduled downtime for each critical system that affects the financial institution’s operations or service to its customers does not exceed a total of 4 hours within any period of 12 months. 6 A financial institution shall establish a recovery time objective (“RTO”) of not more than 4 hours for each critical system. The RTO is the duration of time, from the point of disruption, within which a system must be restored. The financial institution shall validate and document at least once every 12 months, how it performs its system recovery testing and when the RTO is validated during the system recovery testing.”</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p>

S/N	Respondent	Feedback from respondent
		<p>As mentioned in our feedback for Qn 1, identifying the processes and teams involved in supporting the critical business service does mean looking at it end to end. However, we would like to highlight that unlike the big banks, small digital advisory FIs will have challenges in implementing mitigating measures such as building redundancy, designating alternative service providers or even bringing the activities in-house quickly. We seek for MAS to consider providing exemptions based on factors such as type of business service such as investment in CIS only.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>Paragraph 9.5 mentioned notifying the MAS immediately which is similar to CMGN02, however CMGN02 has an additional qualification (refer to paragraph below in quotes) that it is no later than an hour. We would like to seek the MAS clarification whether this guideline will also be aligned to CMGN02 on the no later than an hour or will the CMGN02 will be updated to remove the additional no later than an hour requirement.</p> <p>“A financial institution shall notify the Authority as soon as possible, but not later than 1 hour, upon the discovery of a relevant incident, other than a relevant incident arising from the circumstances set out in regulations 8(2)(a) and (b), and 21(d) of the Securities and Futures (Organised Markets) Regulations 2018 (“Markets Regulations”), regulation 9(1) of the Securities and Futures (Trade Repositories) Regulations 2013, regulation 11(1) of the Securities and Futures (Clearing Facilities) Regulations 2013, and regulations 11(1)(e) and 19(2)(b) of the Securities and Futures (Financial Benchmarks) Regulations 2018 (“Financial Benchmarks Regulations”).”</p> <p>In addition, while we understand the need for the MAS to be notified soonest possible, however, for smaller FI with small group of senior management and compliance team, the priority would be to oversee and manage the incident and/or activation of BCP and hence reporting to the MAS may not be as immediate as we would like. We recommend that the MAS consider that for such FIs, the reporting be done within a certain time period after BCP is activated and the consideration be based on size of the FIs.</p> <p>Also in terms of reporting to the BCM Hotline, from past experience in contacting the BCM Hotline, it seems the FI is then directed to sending email to their review officers when such reporting occurs outside of office hours. As such, we recommend that the reporting to the MAS be simplified to just calling the review officer failing which emailing the review officer will do.</p>
11.	FIL Investment Management (Singapore) Limited	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>For most global financial institutions including our firm, the Business Impact Analysis (including Recovery Time Objectives) is prepared at an activity level (function within a team/department) by business area and ultimately rolls up to the senior management level for accountability. Each activity is classified as critical or non-critical and can be tagged to a ‘business service’, which is currently being practised in the UK. We would like to request for MAS’s operational resilience requirements to be aligned with the UK’s Prudential Regulation Authority’s (PRA) expectations. This will enable global firms like ours to achieve the operational resilience while ensuring that a consistent and standardised approach can be applied across the organisation.</p>

S/N	Respondent	Feedback from respondent
12.	FWD Singapore Pte. Ltd.	<p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>We note that the MAS has given a high level guidance on the end-to-end dependency mapping on page 17 and 18 of the consultation paper.</p> <p>It would be helpful if the MAS could consider providing us with an information paper or an infographic on the possible end-to-end mapping of interdependencies for the various types of business services (e.g. banking, insurance) so that there is clearer alignment of the expectations within the respective business services.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p> <p>It would be helpful if the MAS could consider extending the transition period for adopting the new guidelines from 12 months to 24 months.</p> <p>We envisage that more time is required to assess the end to end dependencies. This is factoring the added effort on our assessments as these stakeholders could include third parties affecting our critical business services.</p>
13.	Mizuho Bank, Ltd. Singapore Branch	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>As banks vary in size and complexity the proposed BCM Framework should be tiered according to the kind of business it runs in Singapore. Is MAS planning to do that?</p> <p>More critically, how will critical business service be defined? At some level it can be argued that almost every aspect of our customer service is critical - cheque must be cleared and funds transferred on time; trade documents must be checked and returned within stipulated timeline etc. Due to the inter-relatedness of many functions we run the risk of almost everything we do falling under the umbrella of critical business services if there is no clear boundaries drawn up.</p> <p>Currently our Bank's BCP plans are designed based on business functions and not business service. We understand the importance to control the risk by end-to-end service level but we assume there might be some gap on the criticality of the service between retail Banks and corporate Banks. We would like continue clarification on this.</p> <p>We may also need to explore a BCM system usage for this requirement.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>Currently our Bank does not have SRTO for each critical business service. How do we establish SRTO? E.g. Is SRTO the sum of all RTO of the related business functions within the business service?</p> <p>Please provide more guideline on this.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>We understand the risk arising from interdependencies and importance to control such risks for sustainable customer service.</p> <p>Currently we have only business function dependencies that are within the bank. It depends on business service but this new requirement of coming out</p>

S/N	Respondent	Feedback from respondent
		<p>with the end-to-end dependencies which include third parties will be challenging for us to do it.</p> <p>We would like to request for sufficient amount of time (1.e. 18 months to 2 years) to ensure compliance with this new requirement.</p>
14.	MUFG Bank, Ltd.	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>On (a) - (c), we note that this is an enhanced concept. When considering the impact of critical business services/functions' unavailability against (a) to (c), may we seek MAS confirmation that staff well-being and safety should be taken into consideration as well?</p> <p>(Clause 2.4) We would like to clarify, what is the "business impact analysis methodology" that MAS is referring to. Would it be the ISO 22301 BCM standards, or are there any equivalent standards that MAS can specify for FI's compliance?</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>(Clause 2.7) We would like to clarify if the definition of the "Service Recovery Time Objective" will be the same as "Recovery Time Objective" in the ISO 22301 BCM standards.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions:</p> <p>(Clause 2.17) We would like to clarify whether MAS will be providing any guidance on BCM audit frequency. Is there a different expectation on audit frequency for critical versus non-critical systems?</p>
15.	Razer Merchant Services (SG) Pte. Ltd.	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>We agree that the prioritisation of the recovery of critical business services is essential to ensure business continuity.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO:</p> <p>We agree that the SRTO shall be clearly specified for the respective critical business services.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>We agree to document end-to-end dependency mapping on people, processes and technology for each critical business service.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions:</p> <p>We propose for Merchant Acquirers to be exempted from BCM Audits as we currently perform annual BCP and DR testing</p>
16.	Schroder Investment Management (Singapore) Ltd.	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions:</p> <p>Compared to banks, asset management firms have a smaller setup and functions that are highly connected and interdependent. As such, for firms that already have an established BCM process in place, we request that the requirement of having an overall manager appointed to coordinate incident</p>

S/N	Respondent	Feedback from respondent
		<p>management not be made compulsory, in that the decision on whether to have an overall manager be left to the discretion of the respective asset management firms.</p> <p>We are aware that there may not be common or standard terminology used by regulators for BCM. From the perspective of firms headquartered in other jurisdictions like the United Kingdom or United States, we are seeking MAS' consideration in aligning BCM terminology to pre-existing terms commonly used (e.g. FCA/ PRA terms "Important Business Services" instead of "Critical Business Services", "Impact Tolerances" instead of "SRTO") to facilitate a common standard/approach within a global firm.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: We seek MAS' further guidance on how "obligation to customers" should be defined. For example, should this be assessed based on contractual obligations? Examples on MAS' approach on this will be useful.</p> <p>It will be helpful if MAS can provide guidance on the quantum or percentage reduction thresholds for FIs to trigger the activation of BCP. This will give clarity to FIs in meeting expectations in this area.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: The proposed measures are reasonable for where third parties can be appointed by us. However, where third parties are appointed by clients or trustees, we suggest they not be included in the dependency mapping exercise. For example, asset management firms work closely with custodians that are appointed either by our trustees or clients and would rely on the trustee's or client's due diligence of the custodian.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: We seek MAS' clarification on what constitutes as "qualified internal auditor".</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: We understand that core business functions (e.g. traders, fund managers) can work from home as part of the BCP solution given the current Covid-19 restrictions. We would like to seek MAS' guidance on whether the work-from-home arrangement as part of the BCP solution is a short-term allowance only for current pandemic or if this is allowed for in the longer-term, post-pandemic.</p> <p>Most of the industry may struggle to ensure full resilience of third parties and completeness in implementation within the proposed 12-month period. We suggest that the timeline perhaps be extended to 18 months. An alternative suggestion is for implementation in two phases, with the first phase (12 months) to deliver this regulation change and the second phase (to have an additional 6 months) to be fully compliant in any areas of non-compliance around third-party resilience.</p>
17.	Sumitomo Mitsui Banking Corporation Singapore Branch	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: Can the overall manager be the same person as a Crisis Manager, or it should be another role?</p>

S/N	Respondent	Feedback from respondent
		<p>To what degree of a service should be identified (i.e. how broad should it be, such as based on the appendix (page 31) in the CP)? Will MAS leave it to the FI to determine this?</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: We would like to suggest that MAS provide guidelines on certain SRTOs eg for payments.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Under para 2.4, FI should identify their critical business services and functions. Is this to identify and map the functions or processes supporting each critical business service?</p>
18.	Swiss Re Asia Pte Ltd	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: Section 2.4 – can MAS consider providing a definition of the FI’s safety and soundness. For e.g., does safety means physical safety of office infrastructure and the wellbeing of staff, and soundness means operational soundness and financial soundness?</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: No specific comment on the establishment of SRTO. Comment on 2.9 a Defined threshold for BCP activation : We would like to seek clarification that application of time based Metric(SRTO) is sufficient for purposes of defining the threshold for activation of BCP.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: No specific comment on end-to-end dependency mapping. Comment on Joint Testing with 3rd parties : While we appreciate previous comments from MAS acknowledging the limited control FIs have on third parties, we would like to reiterate that conducting joint BCP tests with third parties, from our experience presents many challenges.</p>
19.	Swiss Re International SE Singapore Branch	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: We largely agree to MAS's proposal to identify critical business services and functions. We would only like to ask that MAS allows all FIs the commercial feasibility and flexibility to determine their own criticality assessment as each FI's business/distribution model would differ from FI to FI.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: Whilst we agree that establishing SRTO would be very useful for FIs as part of the BCM process, we would like to ask that MAS allows FIs the ability to establish their own SRTO according to their respective type of financial service and/or business model taking into account the FIs' own respective business criticality needs.</p>

S/N	Respondent	Feedback from respondent
		<p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: This would depend the granularity of the mapping to be undertaken, i.e. the amount of details in terms of process/technology to be set out. For certain services relating to external service providers, very detailed information relating to system information may not be easily obtained for confidentiality and/or proprietary issues. Such mapping may also be further complicated if certain small parts of a service (that is deemed critical as a whole) is being provided by different providers.</p> <p>MAS seeks comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: We agree that an independent party should periodically conduct audits that are commensurate with the criticality of the business services and functions - we however ask that MAS allow FIs the flexibility and feasibility to determine for themselves the periodicity and sufficiency of these audits to be conducted.</p> <p>MAS seeks comments on any other aspects of BCM that warrant further guidance from MAS: The guidelines in general appear to be more targeted towards banking industry. We would like to ask MAS for a more staggered approach in terms of other FIs (aside from banks) which may also be included in these BCM guidelines, especially in regard to MNCs where local entities in SG are also leveraging on the expertise of its parent company and other affiliates on an intragroup basis. We would also like MAS to take into consideration the position of FIs (vis-a-vis the applicability of these BCM Guidelines) where financial services are provided to corporates as opposed to retail customers.</p>
20.	The Great Eastern Life Assurance Company Limited	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: Based on the proposed 3 points on impact consideration, will MAS be sharing guidance on the indicators / threshold of each point for FI to constitute it as a critical business service? E.g. on the number and profile of customers affected - more than 20% of customers affected. This will help FI to have a consistent appreciation and application for the indicators especially the scope of services which will be similar across the FI in the same industry</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: It is indicated that FI should set out clear and defined threshold for BCP activation where performance of critical business service is reduced or intermittent but not to the extent that it is completely unavailability. However, previous planning scenario has always be planning for worst case scenario and unavailability of the service. Crisis do happen when it will wipe out the entire services. As such, need to seek clarification why planning for complete unavailable is not required.</p> <p>MAS seeks comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Can we clarify that the development of an end-to-end dependency mapping on people, processes and technology is only applicable to 3rd parties supporting critical business services?</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS:</p>

S/N	Respondent	Feedback from respondent
		<p>Under concentration risk, noted on the challenge of standardising on criteria to define zoning however can MAS share high level guidance on definition of zoning for FI to better plan for concentration risk.</p> <p>Under responsibilities of Senior Management, can we seek guidance on what measurable goals can be used to assess the FI's overall business continuity preparedness?</p>
21.	<p>The Hongkong & Shanghai Banking Corporation Limited (Singapore Branch), HSBC Singapore Limited, HSBC Insurance (S) Ltd, HSBC Securities, HSBC Asset Management, HSBC Institutional Trust, HSBC Trustees Singapore Ltd, and Hang Seng Bank Singapore Branch</p>	<p>Comments on the comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: May be a challenge to define critical services and link to all critical functions. Are we expected to have end to end strategy with 3rd party service provider as well?</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: Can we have flexibility to vary RTO of critical functions to SRTO of critical services? Not all critical functions would require similar RTOs.</p> <p>What does the MAS mean by “clear and defined thresholds for BCP activation”? It may be challenging to define “volume” thresholds for degradation of critical business services, as the services would rely on different factors and a detailed assessment of the impact?</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Bilateral testing can only be supported on a best-effort basis with mutual agreement from both sides. FIs and third parties rarely conduct their BCP tests on the same day, which implies both firms are impacted by the same incident detailed process mapping exercise.</p> <p>We can map Systems, Staff required and Third parties (if any) associated with a Critical Business Service. However, there will be challenges for detailed processing mapping – as these details are available in DOIs. We do not see much benefit from a detailed process mapping exercise.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: Can we restrict BCM audit scope to a) Framework and b) Critical business services (which will cover associated functions as well)? This will ensure the tracking of completion of audits will be restricted to Critical business services (and obviate the need to separately coverage across functions)?</p> <p>Can such reviews be performed by an independent second line (i.e. not a 3rd line audit function)?</p> <p>Could MAS clarify the meaning of “qualified” internal / external auditor? Is there a professional certification required for conducting such audits?</p> <p>We trust that services / functions which are not critical need not be necessarily subject to a BCM audit</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS</p>

S/N	Respondent	Feedback from respondent
		<p>Can we extend the adoption of the Guidelines within a year following the publication of the revised Guidelines to e.g. 18 or 24 months in view of COVID-19 situation?</p>
22.	Tokio Marine Life Insurance Singapore	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: TMLS agrees with the approach on critical business services.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: TMLS agree with the establishment of SRTOs.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service:</p> <p>TMLS broadly agrees with the approach. We would like to clarify the extent of having redundancies in place for key shared infrastructures. For example, are FIs expected to have alternate power suppliers or subscribe to multiple telco services? This might not be practicable for FIs with smaller operations. It may thus be useful to add in the guidelines that the FI should implement practices in a way that is commensurate with the size, complexity and nature of its activities, as well as its risk profile.</p> <p>Also, we would like to seek clarification on the expectations in getting assurance from these service providers. Operationally, it may be a challenge for these providers to provide such information to all FIs (noting that there are only limited players supporting the entire industry). This may then affect the FI's ability to comply with this requirement. An equivalent of an OSPAR (currently used in ABS' guidelines for outsourced service providers) that is generalized for shared service providers may be something to consider for the industry.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: TMLS agrees that BCM audits should be conducted. We would like to understand better what the expectations of a qualified independent party to conduct a BCM audit are. Does MAS require, for example, the qualified internal and external auditor to have certain BCM audit certifications or number of years of experience?</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: It would be useful for MAS to continue to publish information papers (e.g. Industry-Wide Survey on BCM in Dec 2013, Preparedness for Avian Influenza Pandemic and Security Threats in Jul 2007), but more periodically, to share best practices and the latest approaches to mitigate business continuity threats.</p>
23.	Transamerica Life (Bermuda) Ltd	<p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Just for clarity, does FI required to fulfill all the mentioned measures stated in 2.13 a and either b or c?</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions:</p>

S/N	Respondent	Feedback from respondent
		<p>Would business functions that do not have direct involvement into day-to-day services be classified as "independent party"?</p>
24.	Wirex Pte Ltd	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: With the introduction of 'critical business services', it is not clear if 'critical business functions' should therefore be determined based on their relation or role to the 'critical business services' and if they should be assessed based on the same identification criteria.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: It is more practical to have the RTO based on the service recovery rather than the business function recovery since function recovery may not necessarily have the same impact on business service disruption. It would be more practical to expect the implementation of recovery strategies to be based on service recovery, rather than function, since the strategies will need to primarily be tailored to the service disruption, which has a direct impact on the customers.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: This is a reasonable addition and the expectation is clear.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: The proposal under 8.2 for audit scope and frequency to be based on criticality may not be practical as this adds an additional layer of checks on top of the existing requirement for organizations to test their BCM preparedness. It may be better to require testing to be done at a frequency based on the criticality of the service, and simply have the organization ensure that the scope of the BCM audit covers all critical functions. MAS has, in its response to the second consultation paper, seemed to already recognize this under paragraph 5.54.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: Section 9 - What would constitute a 'crisis'?</p>
25.	An entity *	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: Further clarity required for what is meant by Business Service? Is this the service provided by the function to the customer i.e. claims payments, or collection, roadside assistance, travel assistance, policy inception, ability to meet clients to explain the products and services in detail. To confirm, this is not the systems that are customer facing e.g. quote and buy. Intermediaries having direct contact with the customers, how would this regulation affect the services they deliver?</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: Does SRTO come after the RTO, e.g. recovery of a function first before the service? Further clarity required around the levels of service suitable to be recovered.</p> <p>Is it expected to have the entire service back within the SRTO stated or a minimum service level? Will MAS define the SRTO, e.g. 1hr, 4hr, etc.</p>

S/N	Respondent	Feedback from respondent
		<p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Are the assurances mandated or suggested, e.g. request for dedicated manpower from their third-party service providers for specialist functions that cannot be performed in-house. Is it expected for third parties based outside of Singapore to include SRTO within the contract when the SRTO would not be a familiar term for those outside Singapore?</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: MAS to suggest the minimum audit requirements for each service type, e.g. annually for insurance, and bi-annually for banking.</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: MAS to provide clear guidance on what areas of this regulation can be flexed based on the size and complexity of the organization.</p>
26.	An entity *	No comment
27.	An entity *	<p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: For the avoidance of doubt, clarify that the FI's request for dedicated manpower from the third-party service providers is for the purpose of service recovery by inserting in Section 4.4(b) Request for dedicated manpower from their third party service providers for specialist functions that cannot be performed in-house "in the event of a disruption to the delivery of a critical business service"...</p> <p>Add to the list in Section 5.2 "(g) Multiple service providers - Diversify service providers supporting each critical business function, where feasible, to minimise the dependency on a single service provider; or (h) Interoperability, substitutability and survivability - Adopt open-source instead of proprietary solutions to strengthen exit planning and maintain flexibility in either insourcing or moving critical business functions to a different service provider."</p> <p>In assessing any risk, one should consider both the potential impact and the probability of any disruption of services provided by the single provider. The current list of risk mitigation measures focuses on mitigating the impact of such disruption. However, it is equally (if not more) important to reduce the probability of such disruption by reducing the dependence on any single service provider. Given that this list is meant to be neither prescriptive nor exhaustive, we recommend that MAS include the suggested additional risk mitigation measures to encourage FIs to consider all possible options. In particular, we believe that an open ecosystem and open-source technologies encourages greater innovation and flexibility, thus contributing to a more robust and resilient financial system. The suggested additional risk mitigation measures serve to achieve that.</p>
28.	An entity *	Comments on any other aspects of BCM that warrant further guidance from MAS:

S/N	Respondent	Feedback from respondent
		<p>There should be some clarification on applicability/feasibility of such a comprehensive system, for firms that are just 4-5 employees big (or even just two employees as in some FI's).</p>
29.	An entity *	<p>Comments on the proposed identification and prioritisation of critical business services in addition to critical business functions: No further comments for this section, proposed identification and prioritization of critical business services are important and critical aspects of an FI's business. Someone within the organization should be assigned as and incident manager who can oversee affected functions until resumption of business services.</p> <p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: The changes proposed are good and will give more visibility to third party on recovery expectation. Navis will take this onboard and refine our SRTO.</p> <p>Comments on the proposed development of an end-to-end dependency mapping on people, processes, and technology, including those involving third parties, for each critical business service: Proposed changes of developing a dependency mapping are good including audits and test with third party providers to ensure they can meet our SLA based on SRTO.</p> <p>Comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: Is it recommended for businesses to conduct a BCM on a yearly basis or once every 2 years? BCM should be done so we can better understand our preparedness based on operational risk a side from yearly BCP test that are done.</p>
30.	An entity *	<p>Comments on the proposed establishment of SRTO for each critical business service, and the implementation of recovery strategies to meet the SRTO: Firstly, we feel that the establishment of a SRTO for each critical service should be a consideration and not made mandatory. Depending on the organisational structure and how a company sets up its lines of business, it can be more appropriate to assess process level RTO at a functional level instead of consolidating them at the product/service level.</p> <p>MAS seeks comments on the expectation to conduct BCM audits that are commensurate with the criticality of the business services and functions: Could MAS elaborate further or give scenarios where MAS will request for such BCM audit reports?</p> <p>Comments on any other aspects of BCM that warrant further guidance from MAS: Under Paragraph 9.5 (page 27), could MAS clarify further on what would constitute a severe disruption that warrants an immediate notification to MAS? Financial institutions may have different or varying standards of what it means by a severe disruption. Our BCM framework may have an incident classified as "severe" internally but it does not meet the "severe disruption" definition/expectation of MAS and this could result in unnecessary notifications to MAS.</p> <p>On the transition period, the revised guidelines will entail changes in our BCM program and significant efforts. Hence, we hope MAS can consider extending the transition period to at least 18-24 months.</p>

S/N	Respondent	Feedback from respondent
		Under Paragraph 10.6 (page 30), could MAS clarify further on what form of internal attestation is expected?