

Institution Name: _____

Internal Data Template

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Reference Number	Date			Business Line		Event Type ²		Gross Loss Amount	Gross Loss Amount net of all Recoveries except Insurance	Currency ³	Country of Origin if Available	Insurance Coverage Y/N/NA	Insurance Recovery Amount	Used in AMA Model (Y/N)
	Date of Occurrence	Date of Financial Impact	Date of Discovery	Basel Level II if Available, Otherwise Basel Level I ¹	Internal Business Line	Basel Level I	Basel Level II							

¹ See Table 1 for a list of codes that should be used to refer to Basel business lines. If Basel Business Line is not available, please provide a mapping of internal business lines to Basel business lines on a best efforts basis in the next worksheet.

² See Table 2 for a list of codes that can be used to refer to event types.

³ Please use the three character currency abbreviations (ISO 4217 standard) found at <http://www.xe.com/iso4217.php>.

Table 1: Business Line Codes

Level 1 Business Line		Level 2 Business Lines	
Name	Code	Name	Code
Corporate Finance	BL1	Corporate Finance	BL11
		Municipal/Government Finance	BL12
		Merchant Banking	BL13
		Advisory Services	BL14
Trading & Sales	BL2	Sales	BL21
		Market Making	BL22
		Proprietary Positions	BL23
		Treasury	BL24
Retail Banking	BL3	Retail Banking	BL31
		Private Banking	BL32
		Card Services	BL33
Commercial Banking	BL4	Commercial Banking	BL41
Payment and Settlement	BL5	External Clients	BL51
Agency Services	BL6	Custody	BL61
		Corporate Agency	BL62
		Corporate Trust	BL63
Asset Management	BL7	Discretionary Fund Management	BL71
		Non-Discretionary Fund Management	BL72
Retail Brokerage	BL8	Retail Brokerage	BL81

Table 2: Event-Type Category Codes

Level 1 Event-Type Categories		Level 2 Event-Type Categories	
Name	Code	Name	Code
Internal fraud	ET1	Unauthorised Activity	ET11
		Theft and Fraud	ET12
External fraud	ET2	Theft and Fraud	ET21
		Systems Security	ET22
Employment Practices and Workplace Safety	ET3	Employee Relations	ET31
		Safe Environment	ET32
		Diversity & Discrimination	ET33
Clients, Products & Business Practices	ET4	Suitability, Disclosure & Fiduciary	ET41
		Improper Business or Market Practices	ET42
		Product Flaws	ET43
		Selection, Sponsorship & Exposure	ET44
		Advisory Activities	ET45
Damage to Physical Assets	ET5	Disasters and other events	ET51
Business disruption and system failures	ET6	Systems	ET61
Execution, Delivery & Process Management	ET7	Transaction Capture, Execution & Maintenance	ET71
		Monitoring and Reporting	ET72
		Customer Intake and Documentation	ET73
		Customer / Client Account Management	ET74
		Trade Counterparties	ET75
		Vendors & Suppliers	ET76

Percentile Approach

Cells for data input are shaded green.

Institution Name: _____

Units of Currency (eg thousands, millions): _____

Section 1. Scenario Reference Number	Section 2. Frequency (Events per year)		Section 3. Severity					Section 4. Currency ¹	Section 5. Basel Business Line ²	Section 6. Internal Business Line	Section 7. Basel Event Type ³	Section 8. Used in AMA Model (Y/N)	Section 9. Brief Description of Loss
	Mean or Percentile 1	Percentile 2 (if applicable)	Mean or Percentile 1	Percentile 2	Percentile 3	Percentile 4	Add columns for additional percentiles as necessary						
Line 10.													
Insert additional rows as necessary.													

¹ Please use the three character currency abbreviations (ISO 4217 standard) found at <http://www.xe.com/iso4217.php>.

² See Table 1 for a list of codes that should be used to refer to Basel business lines. If Basel Business Line is not available, please provide a mapping of internal business lines to Basel business lines on a best efforts basis in the Internal Business Line Mapping worksheet.

³ See Table 2 for a list of codes that can be used to refer to event types.

Individual Scenario Approach

Cells for data input are shaded green.

Institution Name: _____

Units of Currency (eg thousands, millions): _____

Section 1. Scenario Reference Number	Section 2. Frequency	Section 3. Loss Amount	Section 4. Currency ¹	Section 5. Basel Business Line ²	Section 6. Basel Business Line	Section 7. Basel Event Type ³	Section 8. Used in AMA Model (Y/ N)	Section 9. Brief Description of Loss
Insert additional rows as necessary.								

¹ Please use the three character currency abbreviations (ISO 4217 standard) found at <http://www.xe.com/iso4217.php>.
² See Table 1 for a list of codes that should be used to refer to Basel business lines. If Basel Business Line is not available, please provide a mapping of internal business lines to Basel business lines on a best efforts basis in the Internal Business Line Mapping worksheet.
³ See Table 2 for a list of codes that can be used to refer to event types.

SCENARIO TEMPLATE EXAMPLES

Percentile Approach Example

The largest scenarios for the percentile approach should be determined according to the values reported for the rightmost percentile that your institution has provided. For these example data, scenario number 3 would be considered the largest scenario as it has the largest value in the "Percentile 4" column.

Scenario #	Frequency (Events per year)		Severity				Currency	Basel II Business Line	Basel II Event-Type	Used in AMA Model (Y/N)	Brief Description of Loss (largest 20 scenarios only)
	Mean or Percentile 1	Percentile 2 (if applicable)	Mean or Percentile 1	Percentile 2	Percentile 3	Percentile 4					
	Mean	NA	75%	90%	95%	99%					
1	100		2,500	10,000	20,000	30,000	EUR	BL3	ET7	N	Misdirected wire transfer
2	10		300,000	600,000	900,000	5,000,000	EUR	BL8	ET7	Y	Failure to follow customer trading instructions
3	0.1		250,000	500,000	750,000	10,000,000	EUR	BL2	ET1	Y	Rogue trading

Interval Approach Example

The largest scenarios for the interval approach should be determined according to the values reported for the upper bound of the rightmost interval that your institution has provided. For these example data, scenario number 3 would be considered the largest scenario as interval 3 does not have an upper bound. Scenario number 2 would be considered the next largest scenario, as it has the same rightmost interval as scenario 1 but has a higher frequency.

Scenario #	Interval 1				Interval 2				Interval 3				Currency	Basel II Business Line	Basel II Event-Type	Used in AMA Model (Y/N)	Brief Description of Loss (largest 20 scenarios only)
	Severity		Frequency		Severity		Frequency		Severity		Frequency						
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High					
1	1,000	10,000	576	576	10,000	100,000	50	50	100,000	1,000,000	4	4	USD	BL1	ET4	N	Misdirected wire transfer
2	1,000	10,000	100	100	10,000	100,000	10	10	100,000	1,000,000	5	5	USD	BL2	ET1	Y	Failure to follow customer trading instructions
3	1,000	10,000	10	10	10,000	100,000	1	1	100,000	-	0.4	0.6	USD	BL3	ET4	Y	Rogue trading

Individual Scenario Approach

The largest scenarios for the individual scenario approach should be determined according to the values reported for the loss amount. For these example data, scenario number 3 would be considered the largest scenario and scenario number 2 would be considered the next largest scenario.

Scenario #	Frequency	Severity	Currency	Basel II Business Line	Basel II Event-Type	Used in AMA Model (Y/N)	Brief Description of Loss (largest 20 scenarios only)
1	100	10,000	USD	BL3	ET7	N	Misdirected wire transfer
2	10	99,000	USD	BL3	ET7	Y	Failure to follow customer trading instructions
3	0.1	10,000,000	USD	BL2	ET1	Y	Rogue trading

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		Proprietary Positions	BL23
		Treasury	BL24
Retail Banking	BL3	Retail Banking	BL31
		Private Banking	BL32
		Card Services	BL33
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Payment and Settlement	BL5	External Clients	BL51
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Employment Practices and Workplace Safety	ET3	Employee Relations	ET31
		Safe Environment	ET32
		Diversity & Discrimination	ET33
Clients, Products & Business Practices	ET4	Suitability, Disclosure & Fiduciary	ET41
		Improper Business or Market Practices	ET42
		Product Flaws	ET43
		Selection, Sponsorship & Exposure	ET44
		Advisory Activities	ET45
Damage to Physical Assets	ET5	Disasters and other events	ET51
Business disruption and system failures	ET6	Systems	ET61
Execution, Delivery & Process Management	ET7	Transaction Capture, Execution & Maintenance	ET71
		Monitoring and Reporting	ET72
		Customer Intake and Documentation	ET73
		Customer / Client Account Management	ET74
		Trade Counterparties	ET75
		Vendors & Suppliers	ET76



**Accord Implementation Group
Operational Risk Working Group**

**Attachment A
Supplemental Internal Loss Data and Scenario Analysis
Questionnaire**

INPUT DOCUMENT

April 2008

Attachment A
Supplemental Internal Loss Data and Scenario Analysis
Questionnaire

Institution Name: _____

Operational Risk Capital Estimates provided in Attachment B were calculated using the approach

Internal Loss Data

1. What loss data collection threshold(s) are used in your internal loss database?

<i>Unit of Collection</i>	<i>Threshold</i>	<i>Threshold Currency</i>

Note:

The **unit of collection** is the level at which the threshold is applicable. For example, group-wide, business line, event type, or business line/event type combination are units of collection.

The **threshold** is the gross loss amount above which loss data are collected.

Please use the three character currency abbreviations (ISO 4217 standard) found at <http://www.xe.com/iso4217.php> when filling out the **Threshold Currency**.

2. If there are any internal losses in the database that are not directly used for modelling operational risk capital, please provide the following:

- (a) Losses below a threshold of _____ in currency _____ are not used for modelling operational risk capital. If multiple thresholds are used, provide only the value of the highest threshold.
- (b) Losses not used for modelling operational risk capital fall in the date range of _____ to _____. Please use dd/mm/yyyy format.
- (c) If other losses (from certain subsidiaries, business lines or countries) are not used for modelling operational risk capital, please explain.

3. Do the internal loss data submitted include any **aggregate losses for very low impact events with high frequency**?

- Yes
- No

If Yes, please explain how these aggregate losses can be identified in the data (eg via a special format of the reference number)

Note:

Aggregate losses for very low impact/high frequency events are losses that do not represent an individual loss, but the sum of many small losses. This definition does not refer to multiple losses associated with the same event.

4. If there are any gaps in the internal loss data provided, please select all of the types of data issues that are relevant:

Excluded data for all or part of the following business lines (please select all that apply):

- | | | |
|--|---|---|
| <input type="checkbox"/> Corporate Finance | <input type="checkbox"/> Commercial Banking | <input type="checkbox"/> Asset Management |
| <input type="checkbox"/> Trading and Sales | <input type="checkbox"/> Payment and Settlement | <input type="checkbox"/> Retail Brokerage |
| <input type="checkbox"/> Retail Banking | <input type="checkbox"/> Agency Services | <input type="checkbox"/> Other - Please specify:
<div style="border: 1px solid black; width: 150px; height: 20px; margin-left: 10px;"></div> |

Excluded data for all or part of the following event types (please select all that apply):

- | | | |
|--|---|---|
| <input type="checkbox"/> Internal Fraud | <input type="checkbox"/> Clients, Products & Business Practices | <input type="checkbox"/> Execution, Delivery & Process Management |
| <input type="checkbox"/> External Fraud | <input type="checkbox"/> Damage to Physical Assets | <input type="checkbox"/> Other - Please specify:
<div style="border: 1px solid black; width: 150px; height: 20px; margin-left: 10px;"></div> |
| <input type="checkbox"/> Employment Practices & Workplace Safety | <input type="checkbox"/> Business Disruption & System Failures | |

Time periods in which data collection was incomplete (please provide date range) _____ to _____. Please use *dd/mm/yyyy* format.

Time periods that do not reflect **merger and acquisition activity** (please provide date range) _____ to _____. Please use *dd/mm/yyyy* format.

Other - please specify:

Note:

Merger and acquisition activity may not be reflected in the loss data either because the acquired institution did not collect loss data for the same period as the reporting institution or the reporting institution had not yet added loss data from the acquired institution to its own loss database.

5. Internal Loss Data Capture of Legal Events:

5.1 Please select when legal events are first entered into the internal loss database (with or without loss amounts) provided for this exercise.

- At discovery
- Upon establishing a legal reserve
- At settlement, or
- Other - please specify:

5.2 Please select when **loss amounts from legal events** are first entered into the database provided for this exercise.

- At discovery
- Upon establishing a legal reserve
- At settlement, or
- Other - please specify:

Note:

Loss amounts from legal events, or settlements due to operational risk events, do not include “timing impacts.” For the purpose of this exercise, a timing impact is a temporary distortion to the aggregate profit and loss statement of a banking organization in a particular reporting period that can be fully corrected when later discovered. It results in profit and/or loss being shifted from one period to another.

5.3 When are loss amounts from legal events used as a direct input to the AMA model?

- At discovery
- Upon establishing a legal reserve
- At settlement, or
- Other - please specify:

6. Please select the methodology used to allocate losses impacting multiple business lines:

- Allocating the entire loss to the business line for which the impact is greatest
- Allocating the loss on a pro-rata basis, or
- Other allocation methodology - please specify:

- No allocation method**

Note:

No allocation method means that losses are not assigned to specific business lines. If losses impacting multiple business lines are recorded in a category such as corporate centre, corporate operations, or 'other', then option (d) for "no allocation method" should be selected.

7. Indicate what any negative loss amounts represent in the submitted loss data.
(select all that apply)

- Recoveries
- Misses** that brought about profits
- Other - please specify:

Note:

Misses are operational risk events (eg failed controls, potential system failures, etc.) occurring within the organization that did not result in a loss, but a net gain to the institution.

8. Please briefly identify any **inconsistencies** between the internal loss data submitted and the information requested in the exercise. Examples of inconsistencies include reporting dates in quarter-year format rather than in day-month-year format; using a full-text currency name rather than the three character currency codes; or reporting numeric variables in thousands rather than ones.

Note:

Inconsistencies would generally arise if an institution is submitting a copy of the dataset prepared for submission to a consortium.

Scenario Analysis

1. Please indicate which scenarios you have provided in the scenario template:

- All operational risk scenarios that are currently in use within the organization
- The **twenty largest scenarios**
- Other - please specify:

Note:

The **twenty largest scenarios** refers to (i) at least the 20 highest-severity scenarios where at least 20 of these scenarios are expected to happen once or more every 1,000 years (ie with a mean annual frequency greater or equal to 0.001) and (ii) the five highest-severity scenarios for each of the seven Level I Basel II event types (if available).

2. Skip Question 2 if you provided all of your operational risk scenarios. Otherwise provide the total number of scenarios (group-wide) that are currently in use within the operational risk framework: _____

If your operational risk scenarios are mapped to Basel business lines, please provide the total number of scenarios by Basel business line:

_____ Corporate Finance	_____ Payment & Settlement
_____ Trading & Sales	_____ Agency Services
_____ Retail Banking	_____ Asset Management
_____ Commercial Banking	_____ Retail Brokerage

If your operational risk scenarios are mapped to Basel event types, please provide the total number of scenarios by Basel event type:

_____ Internal Fraud	_____ Damage to Physical Assets
_____ External Fraud	_____ Business Disruption & System Failures
_____ Employment Practices & Workplace Safety	_____ Execution Delivery & Process Management
_____ Clients, Products & Business Practices	

3. Select the data sources that are used as inputs in the scenario development process (select all that apply):

- Internal loss data
- External loss data
- Financial indicators
- Other - please specify:

4. Select which method(s) are used to gather scenario data (select all that apply):

- Workshops involving multiple employees/units
- A series of individual meetings/interviews
- Questionnaires
- Voting
- Other - please specify:

5. Which of the following types of scenarios are developed? (select all that apply)

- Group-wide scenarios that may affect the entire organization
- Scenarios that are specific to major internal business lines
- Scenarios that are specific to subgroups of major internal business lines
- Other - please specify:

6. Select all respondents' biases (under or over estimation) explicitly addressed as part of the scenario process:

- Partition Dependence – the respondents' knowledge was distorted by discrete choices or buckets within which their responses had to be represented
- Availability – overestimation of events the respondents had closer or more recent contact with
- Anchoring – respondents' bias towards information presented in background material to the questions or within the questions themselves
- Motivational – misrepresentation of information due to respondents' interests in conflict with the goals and consequences of the assessment
- Overconfidence - underestimation of risk due to the number of observed events being small
- Other - please specify:

7. Please briefly identify any **inconsistencies** between the scenario data requested and the scenario template submitted. Examples of inconsistencies include using a full-text currency name rather than the three character currency codes.

Note:

Inconsistencies would generally arise if an institution is submitting a copy of the dataset prepared for submission to a consortium.

Participating Institutions

Save preliminary work by using the menu option File | Save As ... Please include the name of the institution in the file name. When you have finished answering the Attachment's questions, please save the document (PDF) and send it to your national supervisor, using the procedures provided to your institution.

Participating National Supervisors

Save preliminary work by using the menu option File | Save As ... Please use the appropriate anonymous identifier you choose as the file name. When you have finished answering the Attachment's questions, please upload the document (PDF) onto the secured Basel website.



**Accord Implementation Group
Operational Risk Working Group**

**Attachment B
Exposure Indicators and Capital Estimates**

**All information submitted in this document will be
used only by an institution's National Supervisor**

INPUT DOCUMENT

April 2008

Attachment B Exposure Indicators and Capital Estimates

Institution Name: _____

Local Currency: _____ (Three character currency abbreviations (ISO 4217 standard) found at <http://www.xe.com/iso4217.php>)

Exposure Indicators:

1. Please provide total consolidated group-wide on-balance sheet assets (in thousands of local currency) as of 31 December 07: _____
2. Please provide the amount of consolidated group-wide **gross income** (in thousands of local currency) for the year ended 31 December 07: _____

Note:

Gross income is defined as net interest income plus net noninterest income as in paragraph 650 of the Basel II Framework.

3. Please provide the amount of consolidated group-wide Tier 1 capital (in thousands of local currency) as of 31 December 07: _____
4. Please provide gross income information at the consolidated group-wide for each of the following business lines (in thousands of local currency) for the year ended 31 December 07:

Business Line	Gross Income
Corporate Finance	
Trading & Sales	
Retail Banking	
Commercial Banking	
Payment & Settlement	
Agency Services	
Asset Management	
Retail Brokerage	
Other (please define)	

Note:

Business lines are the Level I Basel business lines set forth in Annex 8 of the Basel Framework.

For purposes of this question, **Gross Income** is measured for each business line, not the whole institution. As noted in paragraph 653 of the Basel II Framework, business line gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines.

AMA Capital Estimates:

For institutions using the AMA approach, please provide the total amount of **AMA regulatory operational risk capital** as of 31 December 07 and the following adjustments/offsets (please submit in thousands of local currency):

1. AMA Operational Risk Capital after including all dependence assumptions and offset adjustments	
a. AMA Operational Risk Capital assuming full independence , if available	
b. AMA Operational Risk Capital calculated as the sum of capital from each of the Operational Risk Categories (ORCs) , if available	
c. AMA Operational Risk Capital without including any offsets for expected loss	
d. AMA Operational Risk Capital without including any offsets for insurance risk mitigants	
e. AMA Operational Risk Capital without including any offsets for other risk mitigants	
2. Gross AMA Regulatory Operational Risk Capital before all dependence assumptions and offset adjustments, if available.	
3. Operational Risk Capital from 'Partial Use,' if any (Basic indicator and/or the Standardized Approach)	
4. Total Reported Regulatory Operational Risk Capital (1. + 3.)	
5. Amount of expected loss included in 1. above	

Note:

AMA regulatory operational risk capital is the capital calculated for regulatory consideration/approval.

The **AMA Operational Risk Capital assuming full independence** should include all other offset adjustments.

The **AMA Operational Risk Capital calculated as the sum** should include all other offset adjustments.

Operational Risk Categories (ORCs) are the level or unit of measure at which separate capital calculations are made, for example, at the business line or event type level, or at a level that is a combination of the two.

AMA Operational Risk Capital without including any offsets for insurance risk mitigants should include all other offset adjustments as well as all dependence/correlation assumptions.

AMA Operational Risk Capital without including any offsets for other risk mitigants should include all other offset adjustments as well as all dependence/correlation assumptions.

TSA Capital:

1. For Standardized Approach (TSA) institutions - please provide the total TSA capital (in thousands of local currency) as of 31 December 07: _____

BIA Capital:

1. For Basic Indicator Approach (BIA) institutions - please provide the total BIA capital (in thousands of local currency) as of 31 December 07: _____

Participating Institutions

Save preliminary work by using the menu option File | Save As ... Please include the name of the institution in the file name. When you have finished answering the Attachment's questions, please save the document (PDF) and send it to your national supervisor, using the procedures provided to your institution.

Participating National Supervisors

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**Accord Implementation Group
Operational Risk Working Group**

**Attachment C
Supplemental Range of Practice Questionnaire**

INPUT DOCUMENT

April 2008

Attachment C
Supplemental Range of Practice
Questionnaire

Institution Name: _____

Local Currency: _____

Completed by the institution or national supervisor?

Overall Framework:

1. Please provide the **direct effect** that each of the **four elements** has on the institution's final operational risk capital figure as of 31 December 2007, using a XX.X% format:

(a) Internal loss data:

Please indicate percentage _____ or, if estimating,
please indicate a range from _____ to _____.

(b) External loss data:

Please indicate percentage _____ or, if estimating,
please indicate a range from _____ to _____.

(c) Scenario Analysis:

Please indicate percentage _____ or, if estimating,
please indicate a range from _____ to _____.

(d) BEICF:

Please indicate percentage _____ or, if estimating,
please indicate a range from _____ to _____.

Note:

If available, each of the **four element's** effects should be reported as the marginal impact on capital added to the effect of the other elements. If readily available, please use the results of separate calculations for the percentage each element contributes to the amount of operational risk capital. If separate calculations are not available, please provide the best estimate of the element's direct effect.

Direct effects are inputs that directly inform the computational methodology (ie using external loss data as data points in the model used to quantify operational risk capital). If the element is not used directly, a zero weight should be assigned. If an approximate figure is not available, please provide a range, for example less than 25%; from 25 to 50%; etc.

2. How many **Operational Risk Categories** (ORCs) are defined in the AMA model?
Please specify the number in all applicable categories:

- (a) Identify the number of total ORCs _____. Please use an *integer* format.
- (b) Indicate the number of ORCs based only on business lines _____. Please use an *integer* format.
- (c) Indicate the number of ORCs based only on event types _____. Please use an *integer* format.
- (d) The number of ORCs based on a combination of business lines and event types _____. Please use an *integer* format.
- (e) The number of ORCs based on other criteria _____. Please use an *integer* format. Please list the criteria:

Note:

An **Operational Risk Category** is the level (for example, organizational unit, operational loss event type, risk category, etc.) at which the institution's quantification model generates a separate distribution for estimating potential operational losses.

3. Choose the approach that is used to estimate the severity distribution:

- Applying one single distribution model for all the data (based on a single distribution or a mixture of distributions)
- Applying one single model based on two separate distribution models for the body and tail
- Applying two separate distribution models for high frequency/low severity and low frequency/high severity losses
- Others - please specify:

4. What severity distributions were used in the most recent capital calculation? Please indicate (b) for the body; (t) for the tail and (d) for all the entire distribution:

Severity Distribution	Select b, t and/or d
LogNormal	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Gamma	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Generalized pareto	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Weibull	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
g and h	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Generalized beta	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Mixture of LogNormal-Gamma	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Mixture of LogNormal	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Empirical distribution	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
Others (please specify)	b <input type="checkbox"/> t <input type="checkbox"/> d <input type="checkbox"/>
<div style="border: 1px solid black; height: 20px; width: 100%;"></div>	

5. What frequency distributions were used in the most recent capital calculation?
(select all that apply)

- Poisson
- Negative Binomial
- Others - please specify:

6. For the dependence analytical model used:

6.1 What data sources were used to estimate dependence? (select all that apply)

- Dependence not modelled or estimated
- Internal loss data
- External loss data
- Scenario data
- Expert judgement
- Other - please specify:

6.2 What source of dependence was calculated and used as an input to the model?
(select all that apply)

- Frequency
- Severity
- Aggregate losses
- Other - please specify:

7. Describe how correlations are introduced in the analytical model.
(select all that apply)

- Copula model - please specify type _____
- Correlation matrix**
- Others - please specify:

Note:

Correlation matrix should be selected if used in a different way than the copula model.

8. What are the primary uses for the following data items in the operational risk capital model? (select all that apply)

	<i>Internal Loss Data</i>	<i>Scenario Data</i>	<i>External Loss Data</i>
As severity for high frequency / low severity events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As severity for low frequency / high severity events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As severity for the entire distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As frequency for high frequency / low severity events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As frequency for low frequency / high severity events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As frequency for the entire distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. What loss amount is used as an input to the AMA model? (select all that apply)

- Gross loss before any recoveries
- Gross loss after all recoveries except insurance recoveries
- Net loss (gross loss net of all recoveries)
- Other - please specify:

10. What circumstances would trigger an update of scenarios or external loss data between review dates? (select all that apply)

Circumstance:	Scenario Analysis	External Loss Data
New business or new product	<input type="checkbox"/>	<input type="checkbox"/>
Major operational loss	<input type="checkbox"/>	<input type="checkbox"/>
Major change in computer systems	<input type="checkbox"/>	<input type="checkbox"/>
Major change in organization (includes reorganizations, mergers, and acquisitions)	<input type="checkbox"/>	<input type="checkbox"/>
Major change in operations	<input type="checkbox"/>	<input type="checkbox"/>
Outsourcing	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Which applicable characteristics of the challenge function(s) (eg internal audit, external audit, use of subject matter experts, etc.) are used to maintain the integrity of each data element? (select all that apply)

	Internal Loss Data	Scenario Analysis	External Loss Data	BEICFs
Review by a Risk Control Function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review by Internal or External Audit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review by Business peers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparison with other data element(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparison with experience or expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not-defined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)				

12. How are scenario data incorporated into the AMA framework? (select all that apply)

- Scenarios are used only for risk management purposes
- Separate capital calculations are run for scenarios and for internal loss data (and external loss data if applicable)
- Single impact scenario estimates (ie individual scenario data points) are directly included as a supplement to internal loss and external data points in the capital calculation
- Simulated data from a scenario-generated distribution are included as a supplement to internal loss and external loss data points in the capital calculation
- Scenarios are applied only as qualitative adjustments to model outputs
- The **model is based only on scenarios**
- Other - please specify:

Note:

Models based on scenarios do not directly use internal loss or external loss data in the quantification process.

External Loss Data

1. How are external loss data incorporated into the AMA framework? (select all that apply)

- Separate calculations are run for internal loss and external loss data in the AMA calculation
- External loss data points are directly included as a supplement to internal loss data in the AMA calculation
- The AMA calculation is based only on external loss data
- As an input into scenario analysis
- As an input into business environment and internal control factor tools
- For risk management purposes

2. Select the sources of external loss data that are used in the AMA framework (select all that apply):

- In-house database from public sources such as newspapers, magazines and trade journals
- Industry consortia. Please provide names of consortia
_____ ; _____ ; _____
- External loss data from vendors. Please provide vendors used
_____ ; _____ ; _____
- Other - please specify:

3. What process is used to select external losses from the data source?
(select all that apply):

- Selection by industry, business line or institution size (eg asset, revenues)
- Selection by geography
- Selection by threshold (please specify threshold level _____)
- Other - please specify:

4. What process is used to scale external loss data? (select all that apply):

- Adjustment for size (eg asset, revenues)
- Other - please specify

- Scaling not performed

BEICFs

1. How are BEICFs utilized at the institution? (select all that apply)

- Risk management purposes.
- Risk quantification – indirect input (eg to inform scenario analysis).
- Risk quantification – direct input into model in parallel with other data elements (ie prior to the calculation of any exposure estimates).
- Risk quantification – ex post adjustment to calculated exposure estimates at the consolidated level (eg qualitative adjustment factors).
- Risk quantification – ex post adjustment to calculated exposure estimates at the business line level.
- Not used.
- Other - please specify:

2. Please indicate the **potential** impact that BEICF tools have on the institution's operational risk capital. (select all that apply)

- Indicate the largest possible increase in operational risk capital:
 _____ (in percent XX.X% format) or No limit
- Indicate the largest possible decrease in operational risk capital:
 _____ (in percent XX.X% format) or No limit
- Not used for quantification

3. How are the following BEICF tools used? (select all that apply)

	Used for Risk Management Purposes	Used directly or indirectly for Risk Quantification	Not used
Risk and Control Self Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KRI/KPIs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audit Scores/ Audit Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) <input style="width: 100%; height: 15px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How often is each BEICF tool updated? (please check the appropriate boxes for each BEICF tool)

BEICF Tool	Annually	Semi-annually to Annually	Quarterly to Semi-annually	Monthly to Quarterly	More frequently than Monthly	Reviewed when triggered	Not used
Risk and Control Self Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KRI/KPIs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audit Scores/ Audit Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) <input style="width: 100%; height: 15px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-
5. Please provide the names of up to three Key Risk/Key Process Indicators that are particularly useful for each of the following **business lines** and/or at the **group level**:

Business Line	KRI/KPI	KRI/KPI	KRI/KPI
Corporate Finance			
Trading & Sales			
Retail Banking			
Commercial Banking			
Payment & Settlement			
Agency Services			
Asset Management			
Retail Brokerage			
Group level (if used)			

Note:

Please provide the KRI/KPI the institution uses that best match the **business lines** noted above.

Group level is defined as the highest management level of the organization.

Participating Institutions

Save preliminary work by using the menu option File | Save As ... Please include the name of the institution in the file name. When you have finished answering the Attachment's questions, please save the document (PDF) and send it to your national supervisor, using the procedures provided to your institution.

Participating National Supervisors

Save preliminary work by using the menu option File | Save As ... Please use the appropriate anonymous identifier you choose as the file name. When you have finished answering the Attachment's questions, please upload the document (PDF) onto the secured Basel website.