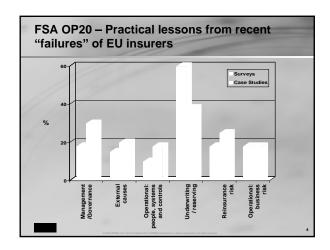
KPMG	I					
	FINANCIAL SECTOR ADVISORY Operational r	isk				
	Non-Executive D	irectors Seminar				
	18 October 2005 Adam Fusca & Omar Ripon					
	FINANCIAL RISK MANAGEMENT					
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				-		
AUDIT • TAX	A D V I S O R Y 0 2004 KPMG LLP, the LK member firm of KPMG international, a Swiss cool	perative. All rights reserved. The KPMG logo and name are trademarks of KPMG International.				
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Agend	da					
1. What	t is operational risk					
				-		
2. Why	is it important, especially for yo	u				
3. How	should it be managed					
4. What	t are the key issues facing the ir	surance industry				
	and the new records the manning the m	,				
5. Discu	ussion					
				-		
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What	is operational risk?					
and syste	of loss resulting from inadequate or ems, or from external events		,			
Processes	Incorrect transaction capture, execution, settlement Loss of client assets Compliance issues	Stock lending errors Accounting and taxation errors Inadequate record-keeping				
People	Unauthorised or insider trading Fraud Employee illness and injury	Discrimination claims Compensation, benefit, or termination issues Organised labour activity				
Systems	Hardware, software, or telecommunications failure Unavailability and questionable integrity of	Unauthorised access to information and systems security				
External events	Operational failure at suppliers or outsourced operations Fire or natural disaster	Terrorism Vandalism, theft, robbery	1			

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Why is this important for you?

Non-executive directors

- Provides insight on where and why Operational Risk capital is needed
- Ensure a robust exhaustive framework to deal with operational loss events
- Feedback on the quality of the management by highlighting areas of concern not well controlled
- Ultimately provides evidence for reducing capital requirements

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Operational risk management requirements

Immediate requirements

- Enables the organisation to calculate the ICA in a short period of time
- Performs rigorous analysis of risk exposure through top 10 risks list and through potential econometrics
- Elaborates analytical review of control environment then followed by efficient action plans to improve its effectiveness
- Combines qualitative and quantitative assessments
- Incorporates results from stress testing and scenario analysis to increase accuracy of the ICA

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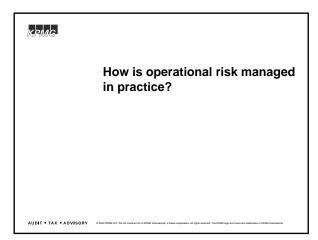
Operational risk management requirements

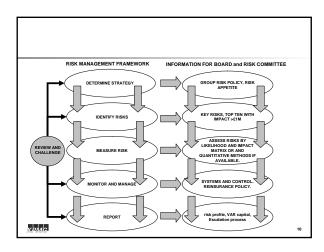
Long term objectives

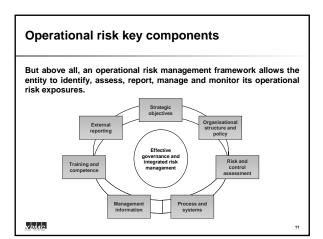
- Implements a scientific, reliable methodology to analyse and quantify risk exposure and tolerance
- Provides the management with an accurate, detailed and easy up-todating reporting tool
- Ensures a robust exhaustive framework to deal with operational loss exects.
- Can provide relevant feedback on the quality of the management by highlighting areas of concern not well controlled

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The challenges Op Risk definition Implicit margins FSA's views Timescale Evolving techniques Culture change Skill issues

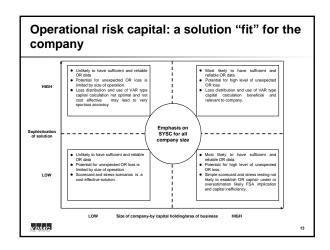


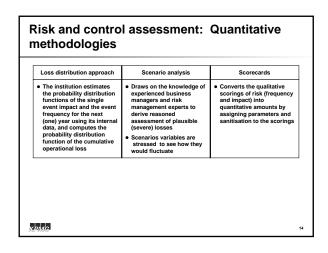


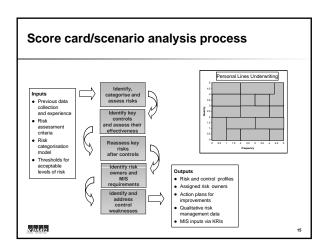


Fit for purpose: Optimising the balance

between risk and return



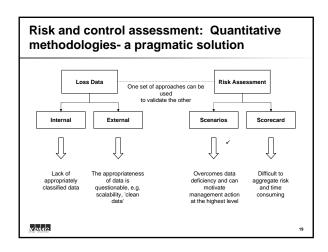




Operational risk - Key risk indicators (KRIs) • The construction of a KRI Information systems must follow one main ✓ Number of information security weaknesses identified design principle: x Number of incidents involving a security breach "to capture and correctly reflect operational risk exposure levels." No. of corrupt and missing back up tapes Proportion downtime across all key systems Proportion of outstanding business recovery plans x Number of successful virus attacks High Priority x / x Live support call out costs Medium Low Priority x Number (and type) of connections to external networks Number and size of business projects ✓ indicator readily available × indicator can be built from existing data ✓ Number of overdue business projects × Number of over budget business projects

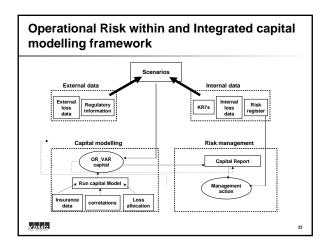
norat	ional ri	sk – Scaling	
perat	ionai n	Sk – Ocaling	
Severity			
Level	Descriptor	Examples	ı
5	Catastrophic	Financial – over \$500m lost per occurrence of the risk Service / operation – no output for greater than 10 working days	
4	Major	Financial – between \$100m and \$500m lost per occurrence of the risk Service / operation – no output for between 2 and 10 working days	
3	Moderate	Financial – between \$10m and \$100m lost per occurrence of the risk Service / operation – no output for between 1 and 2 working days	
2	Minor	Financial – between \$1m and \$10m lost per occurrence of the risk Service / operation – no output for between 30 mins and 1 working day	
1	Insignificant	Financial – up to \$1m lost per occurrence of the risk Service / operation – no output for up to 30mins	
requency / prol	bability		1
Level	Descriptor	Description	1
5	Almost certain	Is expected to occur in most circumstances (occurring at least once a day 1 day to 29 days	,
4	Likely	Will probably occur in most circumstances (occurring at least once every month) 1 month to 12 months	-
3	Possible	Might occur at some time (occurring at least once a year) 1 year to 5 years	•
2	Unlikely	Could occur at some time (occurring at least once every 5 years) 5 years to 10 years	•
1	Rare	May occur only in exceptional circumstances (occurring at least once every 10 years) 10 years +	•
ene.			1

Process	Risk identified in causal terms	Cause	Grou	Prob.	Description of controliother	Coversi* Effectiveness	Net	Prob.	KRI	Risk Owner	Action Plan	Risk Category
al Valuation	Note of omitamonal-trilley in processing transchin-equate for collevent visuation and field examination due to insidequate process for necelving/managing branch requests.	Process	1	6	Requests are managed via Wordfore System. A Automated request and receipt of appraisal & examination results from outsourced company. Internal regulations require that notification of appraisal & examination results to transfer bein add within some dead.	g	5	2	nez avalistin	O'Smith		Scecution, Delivery & Process Management
	Back of collateral valuation based on inaccurate information/encrease address, etc.) due to lack of procedures for checking of accuracy of data in the collateral valuation request application.	Process	1	4	agreed deads Collateral Valuation Examiner re-checks information in the collateral valuation request application against the collateral documents sent by branches.	a	1	3	# of enough of requests returned to branch)	RD Jones		Execution, Delivery & Process Management
	Risk of collateral valuation violating related guidelines due to employee error in classifying those subject to external collateral appraisal and those subject to tank collateral valuation.	People	1	4	College of Valuation Examiner re-checks whether college is subject to external college al appraisal according to internal buildelines.	a	1	2	# of vicinions	OP Smith		Execution, Delivery & Process Management
	Sies of loss from rescourse collisional walkation due to the Collisional Valuation Graminer's tack of knowledge.	People	3	3	Collected Valuation Scommerchare selected from those that have appraisal scenes or sending experience. Continued internalisational training For loan amounts exceeding 1 billion won based on collected valued at over 2 billion won, collected using the collected of the control of the collected of the collected professor of the collected collected of the collected professor of the c	R	3	2	- Examiner's average # of work experience - * of examiners with appraisor iscense - * of own-valuations identified by internal Audit	ac Edwards	IA is in the process of measuration control effectiveness.	Scecution, Delivery & Process Managem erz
	Plack of loss from over-valuation of collateral due to collation between the loan examiner and branch sales employee	People	4	3	Requests for collegeral valuation are randomly allotted among a number of Collegeral Valuation Examiners based on order of request, without specific branches being handled by certain persons. Entrics training of Collegeral	a	3	2	- Examiner's average # of work experience - # of examiners with appraisor license - # of over-valuations identified by Internal Audit	JC Edwards		Internal Found



Scenario analysis: Key strengths and weaknesses Strengths Strengths Original Potential integration of insurance, market and credit risks for enterprise-wide solutions Orections of integration of insurance, market and credit risks for enterprise-wide solutions Original Potential integration of insurance, market and credit risks for enterprise-wide solutions Original Potential integration of insurance, market and credit risks for enterprise-wide solutions Original Integration of Critical Operational Risk Drivers ("CORDs") is a top down' approach, the analysis will inevitably focus on the high impact, low frequency events that usually manifest themselves at a corporate level rather than at a process level Original Potential Integration of internal and external loss data as it becomes available Original Potential Integration of Internal and external and external loss data as it becomes available Original Potential Integration of Internal and external and external loss data as it becomes available Original Potential Integration of Internal and external loss data as it becomes available Original Potential Integration of Internal and external loss data as it becomes available Original Potential Integration of Internal and external loss data as it becomes available Original Potential Integration of Internal and external loss data as it becomes available

KEMG	Issues and Challenges
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ssues to b	ne considered
Sponsorship and culture	Is there a dedicated sponsor to support the requirements? Are the Board fully aware of the business impacts? Is there visible management buy-inconsensus throughout the organisation? Has the project been incorporated into business planning and budgeting?
Risks	Have the risks categories and their potential impacts been identified and fully understood? Has sufficient time been allowed to meet these requirements? Has the interaction between risk categories been understood and dealt with?
Data	Have likely data sources been identified?
Project management	Have overlaps and synergies between projects been identified? Are there conflicting priorities between projects Are projects being coordinated under a formal programme?
Resources	Are there adequate resources to meet the required deadline? Do the resources available have the necessary skills and expertise? Is there an appropriate training programme tailored for all levels across the organisation?
Organisation	Is there a strategy in place to communicate the implications and any related process changes? Does the reporting structure support implementation and the required changes Is the impact on performance management and measurement understood?
Product development	Is there a strategic plan to determine business mix and to support product development in the new environment? Has the impact on product mix and pricing decisions been considered?
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