

Insuring operational risk

John Thirlwell

Non-executive Director, Novae Syndicates Limited

ICBI, Paris, 5 July 2006

What do banks want?

Insurance and other risk transfer mechanisms

None of the firms appeared to have explored in detail how they might use insurance (or other risk transfer mechanisms) in their models; perhaps because it would not be included in firms' initial models. For insurance to be a credible mitigant, firms will need to demonstrate – amongst other things – how their insurance coverage matches the risk exposures identified in their models.

[FSA Thematic Review of AMA, March 2006]

Risk mapping

Category (Level 1)	Sub-category (Level 2)	Sub-category (Level 3)	Explanation / Example	Insurance Type and comment
People	Employee Fraud/Malice	Collusion	Involves more than one person, at least one of whom is an employee	BBB, ECC (if computer-related) Must be manifest intent to cause loss, or to receive gain Malicious acts not covered unless employee dishonest / fraudulent act
		Embezzlement	Obtaining money by deception; employee effectively steals from a client/customer e.g. raising false loans, altering cheques	BBB, ECC (if computer-related) Must be manifest intent to cause loss, or to receive gain
		(Deliberate) sabotage (including of a bank's reputation)		BBB, ECC (if computer-related) Must be tangible, provable damage
		(Deliberate) money laundering		<i>Standard exclusion across all coverage sections</i>
		Theft - physical	e.g. computer equipment, cash, artwork	BBB – <i>Tangible assets only</i>
		Theft - intellectual property	e.g. deliberate theft of software	FG – not covered under definition of property. PI- possible if legal liability to 3 rd party
		Programming fraud	e.g. deliberate introduction of a computer virus, by an employee	ECC - <i>loss of Data caused by any party; normal to have inner limit</i>

Category (Level 1)	Sub-category (Level 2)	Sub-category (Level 3)	Explanation / Example	Insurance Type and comment
People	Unauthorised Activity/ "Rogue" Trading/ Employee Misdeed	Misuse of privileged information	e.g. insider trading, front running	UT – not covered PI – covered if legal liability to 3 rd party
		Churning	Falsely inflating a deal for commission purposes	UT – not covered PI – standard exclusion
		Market manipulation	False/misleading statements; price manipulation	PI – covered if legal liability to 3 rd party
		Activity leading to deliberate mis-pricing	Unauthorised or other irregular activity which affects internal portfolio pricing	UT – not covered PI possible if 3 rd party who the insured has a legal relationship with suffers a loss
		Activity with unauthorised counterparty		UT – covered subject to there being a deliberate act and deliberate concealment
		Activity in unauthorised product		
		Limit breach	Deliberate breach by employee	
		Incorrect models (intentional)	Deliberately manipulating model; unauthorised changes to parameters	UT – not covered
		Activity outside exchange rules		UT – not covered PI – possible if civil liability coverage is provided
		Illegal/aggressive selling tactics	Deliberately or negligently selling inappropriate product or dispensing incorrect advice	UT – not covered PI – Covered if legal liability at law
	Ignoring/short-circuiting procedures (deliberate) Other		UT – not covered	

Category (Level 1)	Sub-category (Level 2)	Sub-category (Level 3)	Explanation / Example	Insurance Type and comment
People	Employment law	Wrongful termination		EPL – covered EPL – covered EPL – covered
		Discrimination/equal opportunity		EPL – only covered if results in claim from insuring clauses PI – Possible if civil liability coverage is provided
		Harassment		No
		Non-adherence to other Employment law		EPL
		Non-adherence to Health and Safety Regulations		No
		Other	<i>Retaliation Claims</i>	
	Workforce disruption	Industrial action	By firm's employees	No
	Loss or lack of key personnel	Lack of suitable employees	Suitable employees not available internally or in market place when needed	No
		Loss of key personnel Other	This may result in a loss of clients/business or the loss of a product line	PA policy o Could be modification of "Key Person"

Policy glossary

BBB	Banker's blanket bond
BI	Business interruption
D&O	Directors' and officers' liability
ECC	Electronic and computer crime
EPL	Employment practices liability
FG	Fidelity Guarantee
PA	Personal accident
PI	Professional indemnity
Property	Property
UT	Unauthorised trading

Mapping and coverage issues

- Mapping to:
 - Bank risk classifications
 - 56 cell matrix
 - Business units
 - Scenarios.
- Bank requirements
- Valuing a policy
 - Firms assess and prioritise risks differently
 - Exclusions
 - Deductibles/attachment/excess
 - Limits

Insurance is not a panacea for all losses:

Prevalence of Recovery Type

Table 17
Prevalence of Recovery Type
Sample 1 (89 Banks)

Business Line	Percentage of Total Recoveries Resulting from 'Other' Recoveries	Percentage of Total Recoveries Resulting from Non-Zero Insurance Recoveries
Corporate Finance	89.6%	10.4%
Trading & Sales	91.8%	9.1%
Retail Banking	87.7%	12.8%
Commercial Banking	89.7%	10.6%
Payment & Settlement	79.8%	22.0%
Agency Services	77.5%	23.6%
Asset Management	88.3%	11.7%
Retail Brokerage	96.9%	3.1%
All Business Lines	88.7%	11.8%

Event Type	Percentage of Total Recoveries Resulting from 'Other' Recoveries	Percentage of Total Recoveries Resulting from Non-Zero Insurance Recoveries
Internal Fraud	86.0%	16.7%
External Fraud	92.0%	8.5%
Employment Practices & Workplace Safety	25.4%	74.6%
Clients, Products & Business Practices	90.5%	9.8%
Damage to Physical Assets	9.4%	91.1%
Business Disruptions & System Failures	49.1%	50.9%
Execution, Delivery & Process Management	96.1%	4.0%
All Event Types	88.7%	11.8%

Note: Total Recoveries is equal to non-zero insurance recoveries and 'other' recoveries

Note: Because 30 events have recoveries of both types, the sum of the percentages in the two columns can sum to greater than 100%.

But when insurance pays, it pays reasonably well.....

Table 19
Recovery Rates by Gross Loss Amount

Panel A: Sample 1 (89 Banks)				
Gross Loss Amount (Euros 1000s)	Recovery Amount as a % of Loss Amount for all Insurance Claims (Includes Zero Recoveries)	Recovery Amount as a % of Loss Amount for all Insurance Claims (Excludes Zero Recoveries)	Non-Insurance Recovery Amount as a % of Loss Amount	Total Recovery Amount, Including Insurance and 'Other' Recoveries, as % of Loss Amount
0-10	79.4%	82.7%	83.3%	83.2%
10-50	58.2%	75.3%	57.0%	58.8%
50-100	57.7%	73.0%	56.2%	58.8%
100-500	62.7%	73.7%	61.2%	64.0%
500-1000	46.7%	52.9%	58.6%	66.2%
Greater than 1000	54.0%	66.0%	65.1%	67.6%
All Loss Events	58.4%	73.3%	58.6%	60.6%

Panel B: Sample 2 (63 Banks)				
Gross Loss Amount (Euros 1000s)	Recovery Amount as a % of Loss Amount for all Insurance Claims (Includes Zero Recoveries)	Recovery Amount as a % of Loss Amount for all Insurance Claims (Excludes Zero Recoveries)	Non-Insurance Recovery Amount as a % of Loss Amount	Total Recovery Amount, Including Insurance and 'Other' Recoveries, as % of Loss Amount
10-50	57.6%	72.3%	58.4%	59.2%
50-100	52.5%	67.6%	56.8%	58.2%
100-500	57.3%	72.0%	60.8%	62.8%
500-1000	42.0%	49.1%	59.1%	66.6%
Greater than 1000	41.0%	54.3%	71.4%	68.9%
All Loss Events	54.6%	68.8%	58.7%	59.7%

Issues for insurers

Claims paying ability

- A = A or includes A minus?
- Which agency's rating system will apply?
- What happens if ratings differ?
- What happens in the event of a downgrade?
- And captives? (“subject to genuine risk transfer reinsurance”)

A.M. BEST	
Secure	Vulnerable
A++, A+ Superior	B, B - Fair
A, A - Excellent	C++, C+ Marginal
B++, B+ Very good	C, C - Weak
	D Poor
	E Under regulatory supervision
	F In liquidation
	S Rating suspended

STANDARD & POOR'S	
“Able to meet financial commitments”	Vulnerable
AAA Extremely strong	BB Marginal
AA Very strong	B Weak
A Strong	CCC Very weak
BBB Good	CC Extremely weak
	R Regulatory action

Legal certainty and exclusions

- Regulatory actions
- Appointment of receiver or liquidator
 - Existing contract terminates because policyholder has changed. However, old policy still valid for appropriate events up to date of appointment.

Policy term

- Regulatory issues
 - 12 months' certainty of capital
 - Time between loss occurring and insurance payment
- Insurers' issues
 - History of multi-year policies
 - Policies valid in full up to day 365
- Possible solutions:
 - Multi-year
 - 12 month evergreen/rolling
 - 15 month
 - 15 month + 90 day discovery

Other issues

- Enterprise-wide policy – whole business (e.g. Swiss Re FIORI)
- Moral hazards
 - Mis-selling
 - Insurance as an investment
- Availability of cover for new risks
- Constraints of size
 - individual firm coverage
 - market

A possible model for a 'compliant' Integrated Insurance Policy:

Master policy incorporating
General definitions
common terms, conditions & exclusions

Insuring clause schedules:



Other possible solutions

- 'Insurance' as a capital substitute
- 'Insurance' as contingent capital
- Catastrophe bonds
- Specific OR bond
 - With reinsurance wrap?
- Pricing and rating
 - Asymmetric information between insurer and insured

John Thirlwell

Tel: +44 (0)20 8386 8019

E-mail: info@johnthirlwell.co.uk