THE INSTITUTE OF OPERATIONAL RISK

CHASE COOPER

creating corporate value

Risk Appetite Breakfast

Wednesday 19th March 2014

Agenda

- Different risks have different types of appetite

- What level should be selected?

- Using a consistent methodology

- Developing appetite from your risk register

- Different ways of describing operational risk appetite?

- Practical examples of OR appetite reports

Different risks: different appetite types

▶ Financial (quantitative) risk

  ❑ Market risk

  ❑ Credit risk

  ❑ Insurance risk

▶ Non-Financial (qualitative) risk

  ❑ Operational risk

  ❑ Reputation risk

  ❑ Strategic risk

VOTE

Do you differentiate between Financial and Non-Financial risk appetite?

- ▶ 1 for Yes
- ▶ 2 for No

- ▶ Financial risk
  - ❑ Market risk
  - ❑ Credit risk
  - ❑ Insurance risk
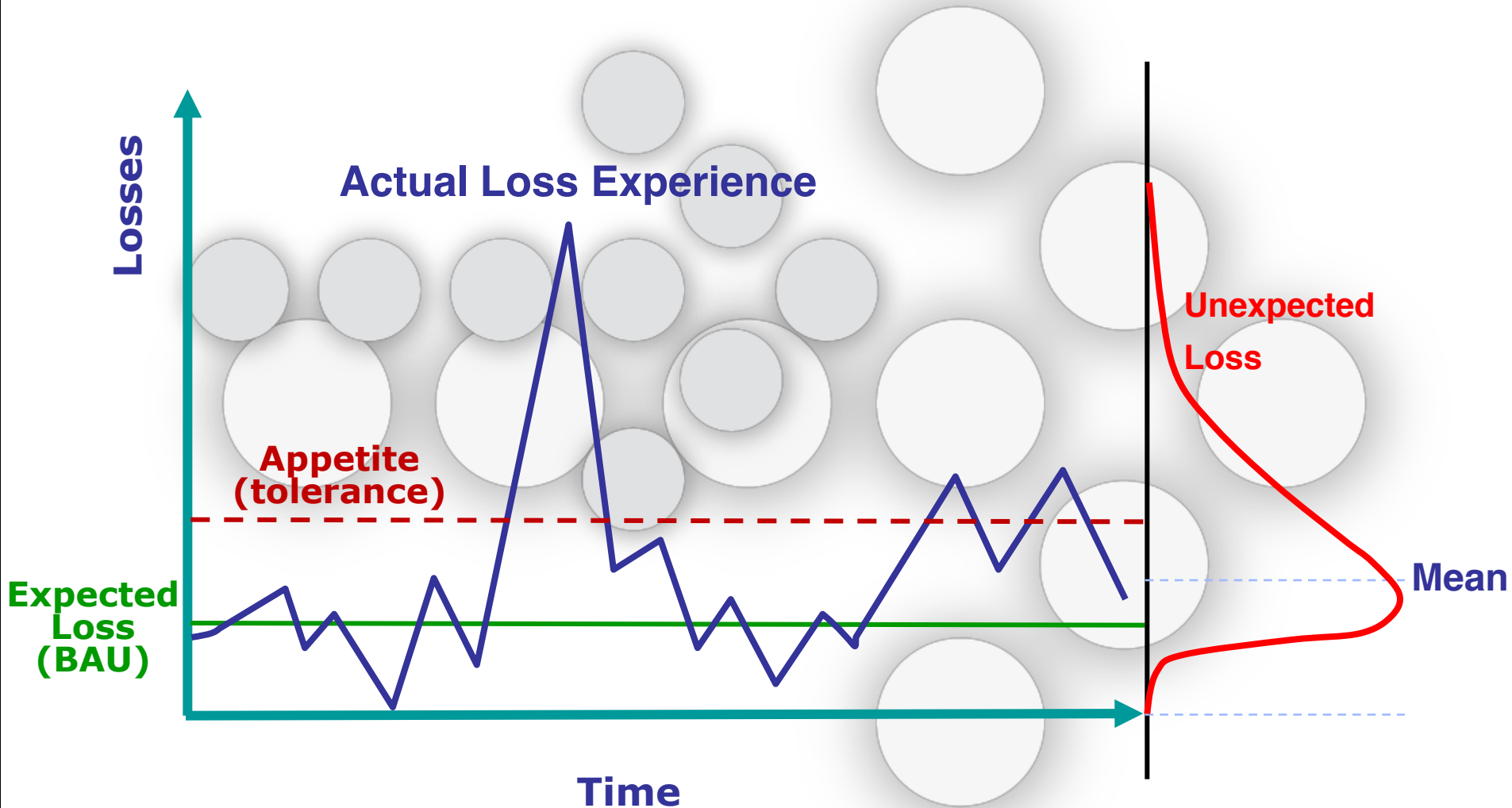- ▶ Non-Financial risk
  - ❑ Operational risk
  - ❑ Reputation risk

"'Be careful'! All you can tell me is 'be careful'?"

Apply an appropriate yet consistent methodology

Pyramid levels:
- Board
- Senior Management
- Business Units
- Business Support Units

Right-side boxes:
- Capital/ Monetary exposure
- Risks and Actions
- RCAs, KRIs and Losses
- Controls, KCIs and Events
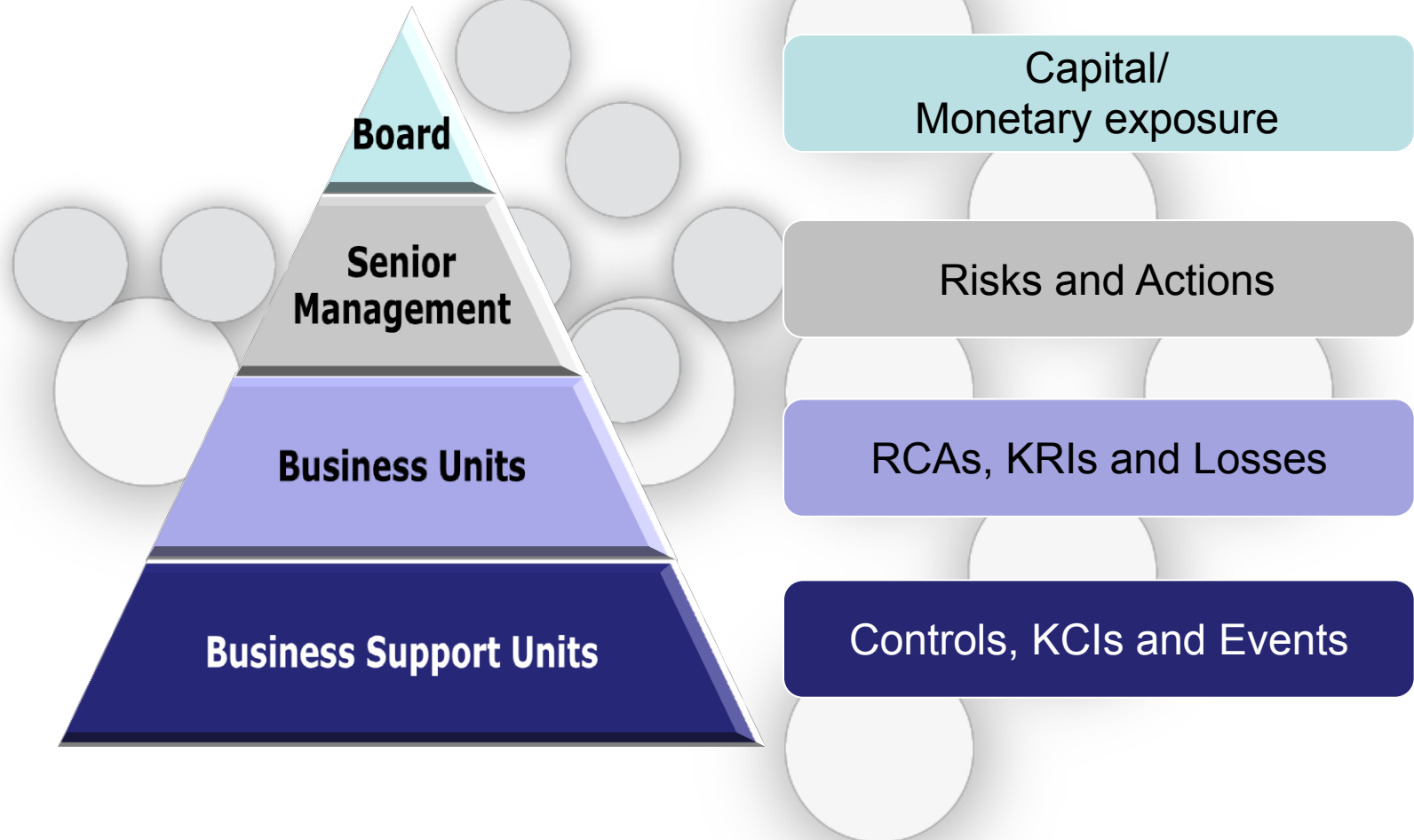
Developing your appetite from your risk register
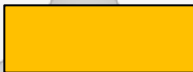
▸ Use your assessments of your inherent and residual risk, coupled with your control assessment

▸ Directive and preventative controls affect likelihood

▸ Detective and corrective controls affect impact

▸ So, if your controls were working as well as you would like:

▸ What is the residual likely to be (and are you comfortable with that level?

Effects of control types on a risk
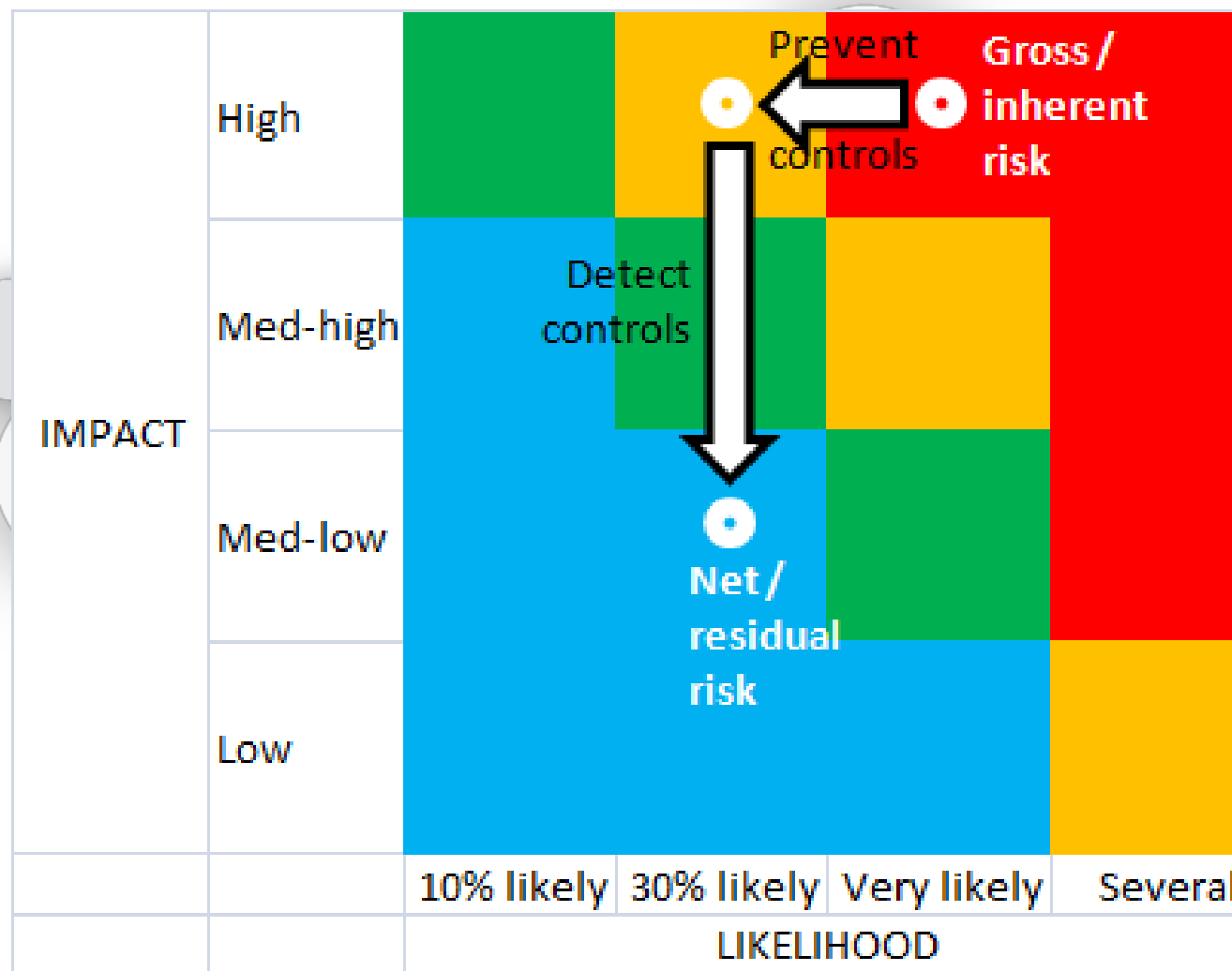
Let's do one together

▶ We will think about the

      □ Impact Appetite and

      □ Likelihood Appetite

▶ You should consider

      □ 4 = 🟥 High

      □ 3 = 🟧 Medium-high

      □ 2 = 🟨 Medium

      □ 1 = 🟩 Medium-low

A Generic Risk and Control Profile

ID	Risks	II	IL	RI	RL	TI	TL	Controls	D	P	E
1	**Failure to retain key staff**	4	4	4	3			-Salary surveys	2	2	4
								-Training and mentoring schemes	3	2	6
								-Retention packages for key staff	4	4	16
2	**Financial advisors misinterpret / fail to understand the complexity of "equity release" products**	4	4	3	2			-Staff training	4	4	16
								-Learning gained from previous deals	4	4	16
								-Review of individual needs in performance appraisal process	3	2	6
								-Procedure manuals for processes	4	4	16
3	**Poor staff communication**	4	4	4	3			-Defined communication channels	4	3	12
								-Documented procedures and processes	3	2	6
4	**Failure to understand the law and/ or regulations**	4	3	4	2			-Internal training courses	4	4	16
								-Regular updates from various sources	4	1	4
								-External training courses	4	3	12
5	**Poor detection of money laundering**	4	3	4	2			-AML annual training	3	2	6
								-Circulation of BBA awareness circulars	3	1	3
								-KYC	4	3	12

Acronyms used:

- II: Inherent Impact
- IL: Inherent Likelihood
- RI: Residual Impact
- RL: Residual Likelihood

- TI: Target Impact
- TL: Target Likelihood
- D: Design
- P: Performance

Do you use Target Appetite as one way to express your appetite?

▶ 1 for Yes

▶ 2 for No

ID	Risks	III	IIL	RRI	RRL	TTI	TTL	Controls	D	P	E
1	Failure to retain key staff	4	4	4	3			-Salary surveys	2	2	4
								-Training and mentoring schemes	3	2	6
								-Retention packages for key staff	4	4	16
2	Financial advisors misinterpret / fail to understand the complexity of "equity release" products	4	4	3	2			-Staff training	4	4	16
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3	Poor staff communication	4	4	4	3			-Defined communication channels	4	3	12
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4	Failure to understand the law and/ or regulations	4	3	4	2			-Internal training courses	4	4	16
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								-Circulation of BBA awareness circulars	3	1	3
								-KYC	4	3	12

Different ways of describing operational risk appetite

▸ Risk and control assessment

▸ Key indicators (both risk and control)

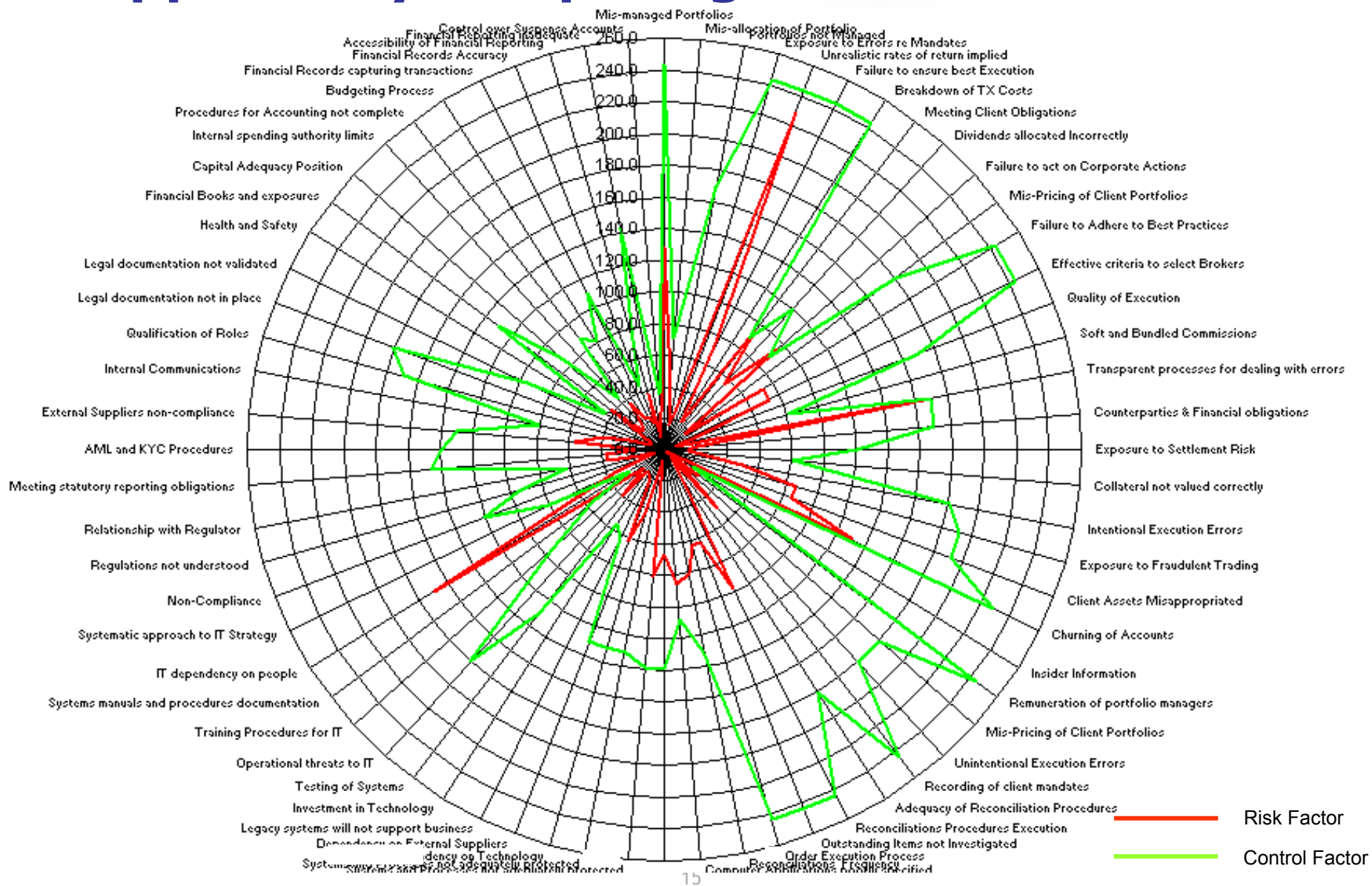▸ Losses

▸ Risk Modelling

▸ Capital Modelling

How many different ways do you describe your OR appetite?

- Vote:
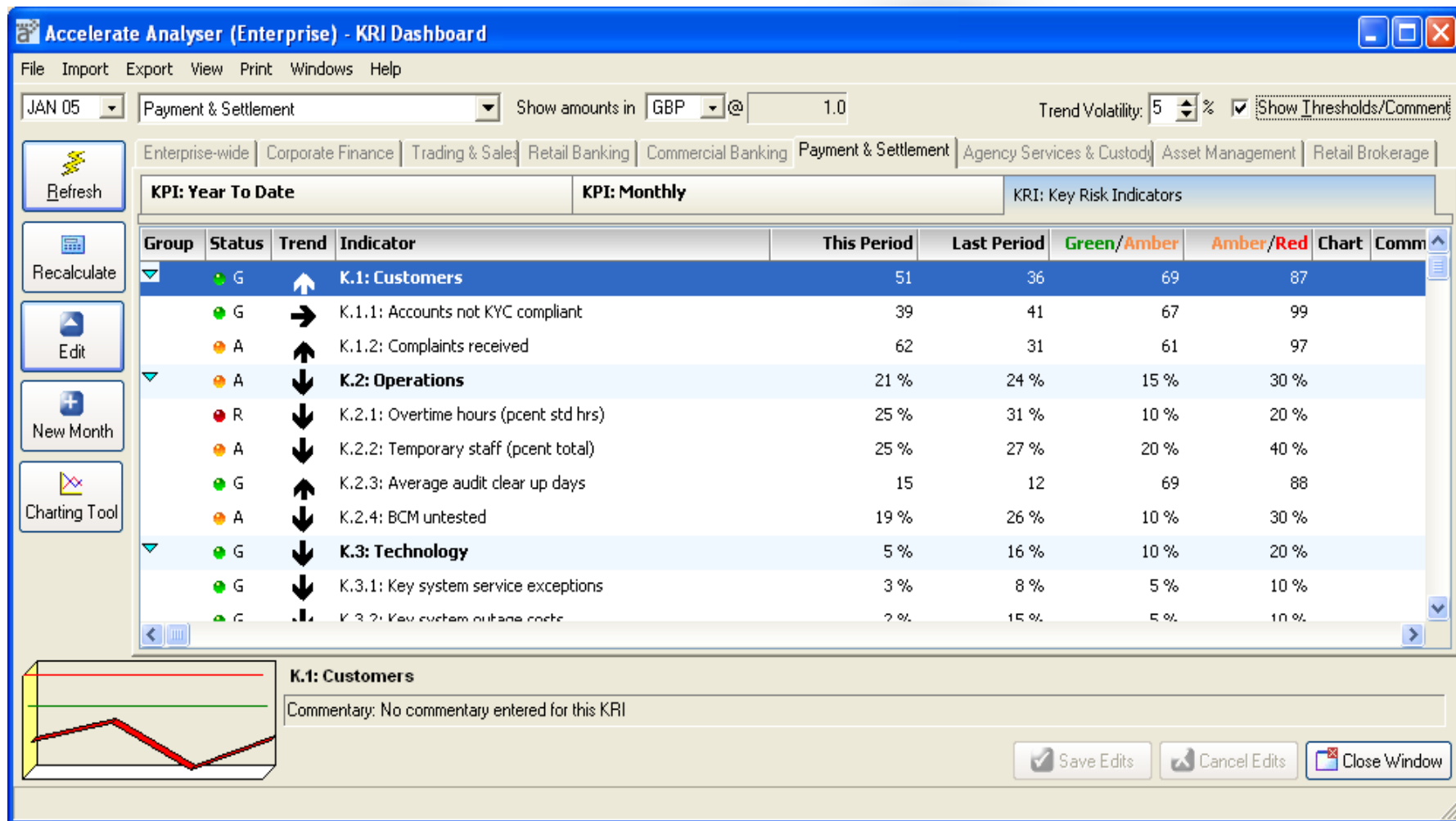 - 1, 2, 3, 4 or 5

- Risk and control assessment

- Indicators (both key risks and key controls)

- Losses

- Risk Modelling

- Capital Modelling

Appetite by comparing risk to controls

Risk Factor
Control Factor

Appetite by threshold

Accelerate Analyser (Enterprise) - KRI Dashboard

File   Import   Export   View   Print   Windows   Help

JAN 05 | Payment & Settlement | Show amounts in GBP @ 1.0 | Trend Volatility: 5 % ☑ Show Thresholds/Comment

Refresh | Recalculate | Edit | New Month | Charting Tool

| Enterprise-wide | Corporate Finance | Trading & Sales | Retail Banking | Commercial Banking | Payment & Settlement | Agency Services & Custody | Asset Management | Retail Brokerage |

KPI: Year To Date | KPI: Monthly | KRI: Key Risk Indicators

Group	Status	Trend	Indicator	This Period	Last Period	Green/Amber	Amber/Red	Chart	Comm
▼	G	⬆	K.1: Customers	51	36	69	87		
	G	➡	K.1.1: Accounts not KYC compliant	39	41	67	99		
	A	⬆	K.1.2: Complaints received	62	31	61	97		
▼	A	⬇	K.2: Operations	21 %	24 %	15 %	30 %		
	R	⬇	K.2.1: Overtime hours (pcent std hrs)	25 %	31 %	10 %	20 %		
	A	⬇	K.2.2: Temporary staff (pcent total)	25 %	27 %	20 %	40 %		
	G	⬆	K.2.3: Average audit clear up days	15	12	69	88		
	A	⬇	K.2.4: BCM untested	19 %	26 %	10 %	30 %		
▼	G	⬇	K.3: Technology	5 %	16 %	10 %	20 %		
	G	⬇	K.3.1: Key system service exceptions	3 %	8 %	5 %	10 %		
	G	⬇	K.3.2: Key system outage costs	2 %	15 %	5 %	10 %		

K.1: Customers

Commentary: No commentary entered for this KRI

Save Edits | Cancel Edits | Close Window
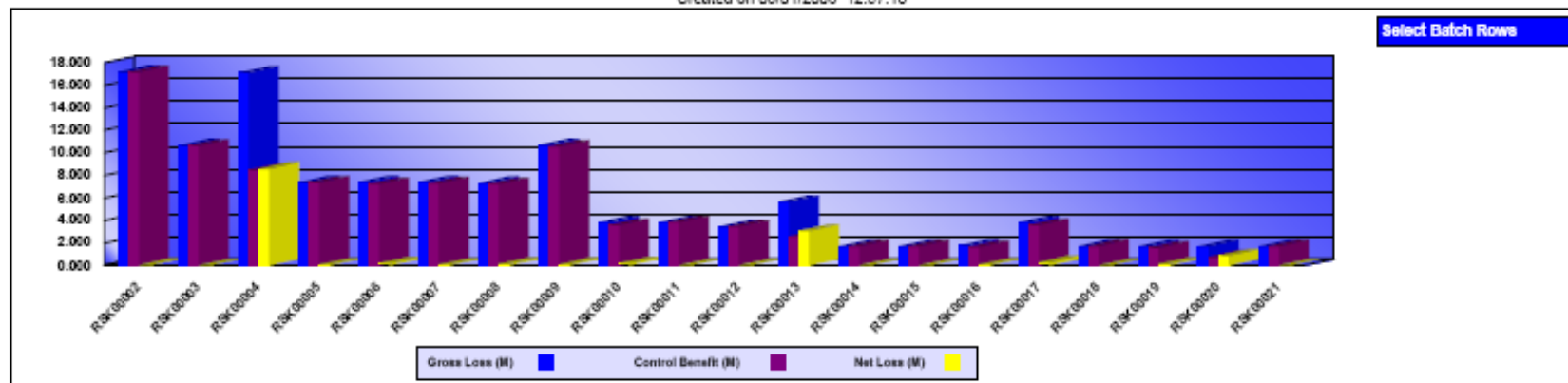
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Appetite by number of losses

Appetite by monetary exposure by risk

Risk Results [Sim1 99.9 50000 seed1(50) - Session: 1 Sample Retail Bank(14) - Quantile: 99.90%]
Time Frame Factor: 1 - Iterations: 50,000 - Seed: 1
Created on 08/01/2008 12:57:15

Risk	Risk Owner	Gross Loss GBP (M)	Control Benefit GBP (M)	Net Loss GBP (M)
RSK00002 Failure to attract, recruit and retain key staff	TB	17.203	17.162	0.041
RSK00003 Financial advisors misinterpret / fail to understand the com	CK	10.661	10.645	0.016
RSK00004 Poor staff communication	DA	17.114	8.518	8.595
RSK00005 Failure to understand the law and/or regulations	CK	7.402	7.345	0.057
RSK00006 Poor detection of money laundering	AN	7.421	7.233	0.188
RSK00007 Insufficient funds/deposits to cater for lending activites	TB	7.416	7.323	0.093
RSK00008 Over-selling credit cards	TB	7.335	7.219	0.116
RSK00009 Over-deployment of management resources on regulatoy issues	CK	10.690	10.581	0.109
RSK00010 Failure to capture market opportunities	CK	3.833	3.608	0.225
RSK00011 Over-dependency on outsourcing	DA	3.831	3.831	
RSK00012 Weakness in information security system	DA	3.471	3.449	0.022
RSK00013 Inadequate or insufficient IT infrastructure to achieve busi	CK	5.662	2.577	3.085
RSK00014 Poor employee incentives	DA	1.727	1.727	
RSK00015 Increasing external fraud activities	JY	1.722	1.695	0.027
RSK00016 Failure to grow staff competencies	CK	1.750	1.671	0.079
RSK00017 Misaligned employee goals	JK	3.872	3.580	0.292
RSK00018 Failure to sense and eliminate internal fraud	RT	1.744	1.744	
RSK00019 Unfit or inappropriate new products launched	DA	1.716	1.566	0.150
RSK00020 Poor strategic decision making	DA	1.702	0.797	0.905
RSK00021 Inaccessible premises	TB	1.715	1.696	0.019
		117.987	103.967	14.020

Appetite by risk owner

Results by Risk Owner [Sim1 99.9 50000 seed1(50) - Session: 1 Sample Retail Bank(14) - Quantile: 99.90%]
Time Frame Factor: 1 - Iterations: 50,000 - Seed: 1
Created on 08/01/2008 12:57:15
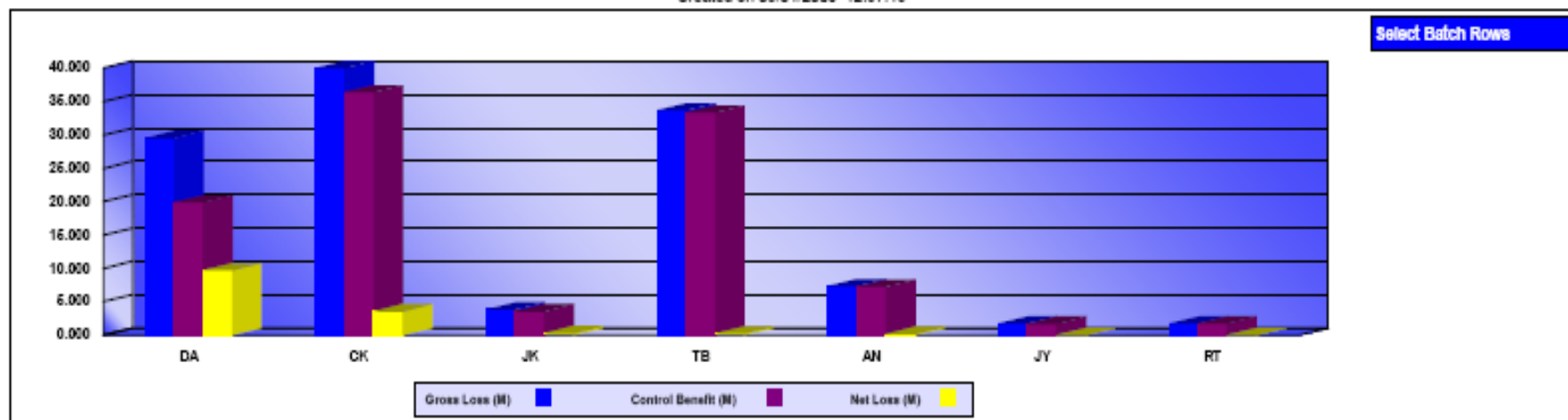
Risk Owner	Gross Loss GBP (M)	Control Benefit GBP (M)	Net Loss GBP (M)
DA	29.561	19.888	9.673
CK	39.997	36.427	3.570
JK	3.872	3.580	0.292
TB	33.668	33.399	0.269
AN	7.421	7.233	0.188
JY	1.722	1.695	0.027
RT	1.744	1.744	
	117.985	103.966	14.019

Appetite by monetary exposure by BLET

Chase Cooper - ECO v1.1.6.3

Load | Import | Save | Save As | Delete | Refresh | Calculate

File | Data | Tools | Help

Viewing Session: 1 Sample Retail Bank 50,000 99.9 seed1

Source Data | Distribution Functi | What If | Correlations | Output | Chart

View

Capital Charge

Actual

Report

Monte Carlo Set Up

Number of Samples: 50000

Confidence Level %: 99.9000

Seed: 0

Selected Cell Details

Total Losses: 45,141,924

Expected Losses: 18,978,656

Capital Charge: 26,163,268

Correlation only applicable when viewing Capital Charge

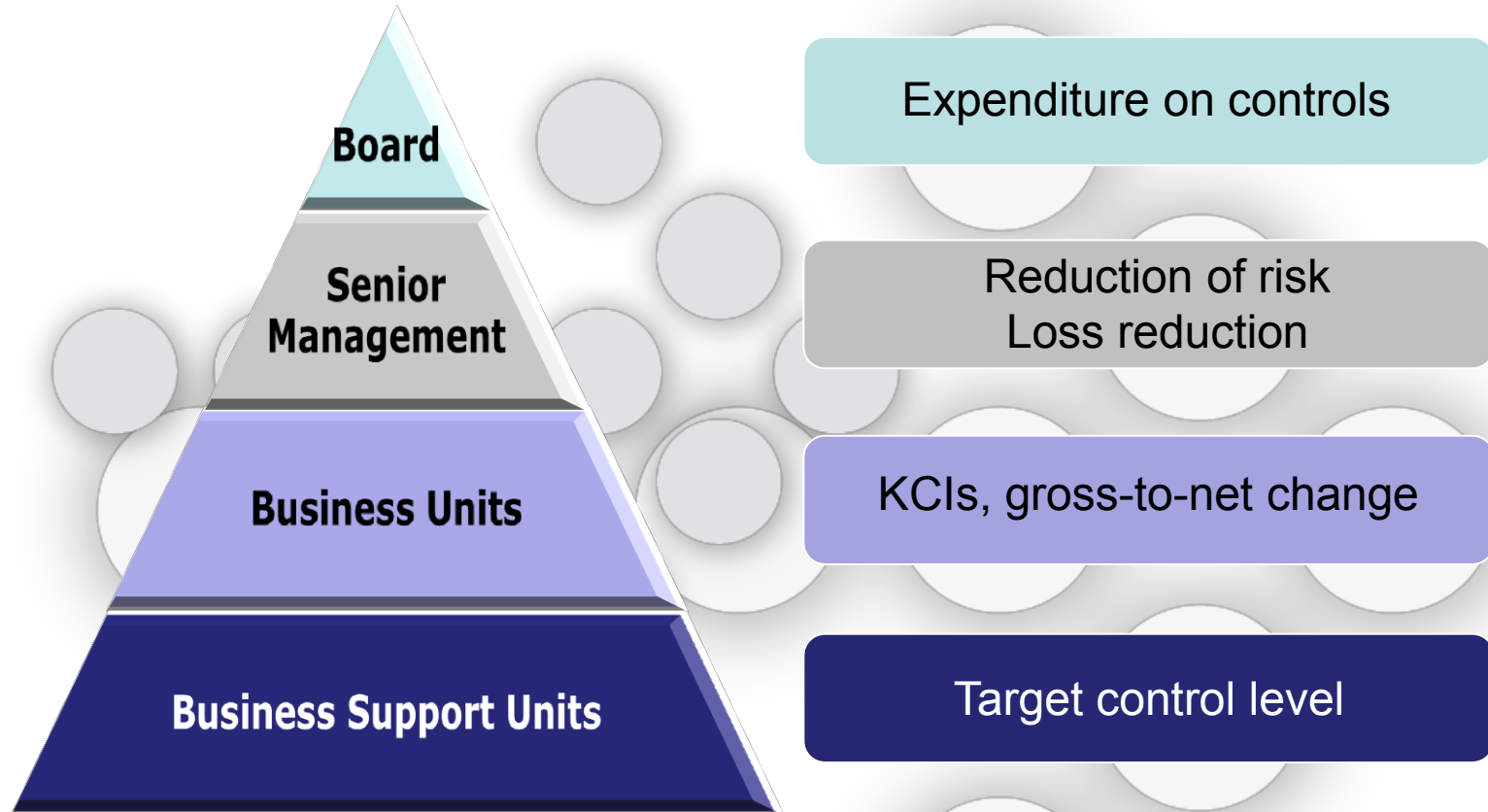|	1 Internal Fraud	2 External fraud	3 Employment Practices and Workplace	4 Clients, Products and Business	5 Damage to physical assets	6 Business Disruption and System Failures	7 Execution, Delivery and Process	TOTALS with full correlation (Simple Sum)	TOTALS with no correlation (SRSS)	TOTALS with assigned correlation
1 Retail Banking	26,163,268	351,457	194,930	241,346,640	31,605,786	2,223,075	27,667,672	329,552,828	246,378,259	290,953,024
2 Trading & Sales	32,207,998	4,235,132	23,241,050	65,758,516	221,298	1,386,816	14,604,644	141,655,454	78,325,527	114,457,760
3 Payment & Settlement	304,205,920	5,113,884	937,779	24,510,962	202,669	3,551,368	18,478,862	357,001,444	305,815,601	332,395,264
TOTALS with full correlation	362,577,186	9,700,473	24,373,759	331,616,118	32,029,753	7,161,259	60,751,178	828,209,726	630,519,387	737,806,048
TOTALS with no correlation	307,022,985	6,649,186	23,260,779	251,342,735	31,607,211	4,413,336	36,335,438	660,631,669	0	0
TOTALS with assigned	335,950,400	8,315,974	23,823,770	294,229,856	31,819,184	5,948,158	50,054,820	750,142,162	0	0

OK

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14:05 Friday 18/01/2008

Summary

▶ How appetite is described will depend upon the size, complexity and culture of the firm

▶ There are various ways to describe risk appetite – applying a consistent methodology is important

▶ You may find that you are over controlled (against your appetite)

▶ Stating risk appetite and benchmarking the business against this level enables the management team to have a clear picture of the real risk profile and to take appropriate mitigating actions

What is OR Control Appetite?

Board — Expenditure on controls

Senior Management — Reduction of risk / Loss reduction

Business Units — KCIs, gross-to-net change

Business Support Units — Target control level

The amount a firm is willing to spend to mitigate a risk
(in money, time and/or resources)

Control appetite

▸ Internal to the firm (cf Risk Appetite: driven by external as well as internal factors)

▸ Recognises that certain risks cannot be mitigated (or mitigated further)

▸ Recognises that management has a finite willingness to mitigate risks

▸ Allows management to focus on controls that can be improved within a given cost/benefit ratio

▸ Links to Internal Audit and Six Sigma/Lean work

Control appetite: causes and efects

▶ Control appetite splits into two main parts:

- causes appetite which concerns preventative control appetite, and

- effects appetite which concerns corrective control appetite

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