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Risk Reporting

Professor Paul Klumpes

09 June 2013



Introduction

Goal

To understand risk reporting practices by insurance firms

Presentation overview

1. Objectives and Framework for Analysis
2. Disclosure Analysis
3. Internal Reporting Survey
4. Conclusions and Recommendations



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1.1 Terms of reference

- Best practice Risk reporting in sector
 - Shareholders
 - Own business
 - Regulators
- Identify EU insurers (large, consolidated), then compare to US and Asia Pacific competitors
- Focus on current practices
- Utilise risk classification framework appropriate to sector



1.2 Background of working party

WP started in november 2011

First year spent clarifying terms of reference, establishing framework etc

Main work completed since then is disclosure index construction and survey design and implementation

Profession financial support via research assistant (Tracey Zalk)

Current membership

- Ravi Dubey (KPMG)
- Abhishek Kumar (Ernst & Young)
- Paul Klumpes (Chair - EDHEC)

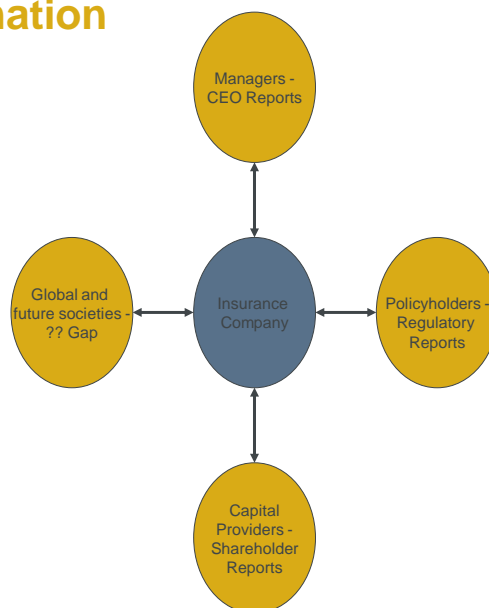


1.3 Issues and objectives

- Post crisis, changing focus of risk reporting (Walker Report)
- Part of broader accountability – to whom? For what? How?
 - External stakeholders (investors, credit rating agencies, public)
 - Regulators (national, Solvency II)
 - Internally managing the business (CRO, C suite governance)
- Evolving regulatory / market situation
- Viewing risk management as a process rather than starship enterprise COSO/Basel view
- Which firms are best practice? Criteria?
 - Reporting to external stakeholders (analysis of disclosure practice)
 - Internal business reporting (survey questionnaire)



1.4 Information Flows



1.5 Theories about risk reporting practices

- **Good stories** – agency, incentives, reduce information asymmetry
- **Bad stories** – legitimacy, political visibility to stakeholders
- ◊ *Ugly stories* – neoinstitutional theory, hubris, instrumentalism, (fraudulent misrepresentation of underlying reality)?



1.6 Institutional setting

- EU directives (insurance, MIFID, 3rd)
- COSO framework
- IFRS, ASB, SORP, auditing, actuarial standards
- Government imperatives (eg walker report)
- National variations in standards (eg German DRS 10,20)
- BASEL II/Solvency II
- FSA regulations + ABI guidance etc
- Sustainability reporting guidelines (eg IRG, ISO, WBCSD, AccountAbility, SIGMA)
- Extraterritorial regulations (eg SEC reg, credit agencies)



1.7 Prior literature - overview

- General literature surveys (eg ICAEW, 2012, ICAS 2013)
- Industry surveys (KPMG, PwC, TW)
- Best practice reporting awards (ACCA)
- Related industries (eg Banking)
- Horing and Grundl (GPP, 2011)
 - Surveyed top 31 EU insurers
 - Period 2005-2008
 - Disclosure quality improved over time
 - Constructed index based on 45 items (market, liquidity, credit, operational, frictional risks)
 - Find disclosure quality varied with size, profits



1.8 Critique of Horing and Grundl

- Relied on german DRS 10 (risk classified using COSO/Basel)
- Unable to discern results on firm by firm basis
- Risk classification framework ignores “soft risks” eg strategic, aggregation, frictional risk
- Index comprises items that captures a mix of various stages of RM processes; i.e. did not separate adequacy of disclosure of various stages:
 - risk identification from
 - analysis of risk measurement or
 - assessment of management
- Ignored other sources than annual report
- Assumes Var is best practice risk measurement
- Dated ? (post 2008 would be of current interest)



2.1 Disclosure analysis - key issues

- What is extent of variation in RR practice disclosure of 'big 10' EU insurers?
- Does it improve over time eg post crisis?
- Which types of risk are subject to most disclosure?
- Benchmark to non EU (US, Asian top firms)
- Risk exposure identification, vs risk measurement, risk management disclosure?
- Narrative v numeric, quantitative (financial v strategic risk sources)
- Compliance or best voluntary practice?



2.2 Method

- Construct disclosure index
 - Horing and Grundl (45 items spread across 7 classes)
 - Kelliher et al framework (for top discloser)
 - Compare to US and Asian top insurers
- Analyse both by firm, by year 2008-12
- Analyse determinants of risk disclosure (incomplete)
 - Control variables (firm, institutional, incentives, corporate governance)



2.3 Example of Horing Grundl disclosure index

Category no	Description	Max
1	Market risk	6
2	Credit risk	6
3	Insurance risk	14
4	Liquidity risk	4
5	Operational risk	4
6	Risk overview?	15
7		
	Total possible	45



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2.4 Method used to construct index1

1. Start with Horing and Grundl index (max 45 items broken down into 7 major categories + *strategic risk* =8)
2. Use keyword search for key items (eg 'market risk') and note no. of times used
3. Repeat for 8 categories, 4 years
4. Subtotal by risk category, total



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2.5 Alternative method to construct index?

1. Disclosure adequacy of identified ***primary risk exposure*** using Kelliher et al. high risk classification (1/2weight of H+G index)
2. Use keyword search for key items (eg sources of identified market risk) and note no. of times used
3. Repeat for 8 categories, 4 years
4. Add an additional ½ point for disclosure concerning RM analysis /assessment of each primary risk exposure identified in 1
5. Reweight the mix of financial (eg market, liquidity, credit) v non financial (eg operational, strategic, aggregation, frictional) risks



Strategic Risk in Regulation

IAIS, BaFin, FRC

"A clear distinction should be made between the assessment of current capital requirements and the projections, stress testing and scenario analyses used to assess an insurer's financial condition for the purposes of strategic risk management including maintaining solvency."

IAIS - Guidance on ERM for Capital and Solvency Purposes - 2008



"Strategic risk is the risk resulting from strategic business decisions. Strategic risk also includes the risk that results from business decisions that are not adapted to a changed economic environment. Strategic risk, as a rule, is a risk that emerges in conjunction with other risks. But it can also emerge as an individual risk. "

The "risk strategy" must address:

- the type of risk (which risks should be taken on in the first place?),
- the risk tolerance (what amount of risk is chosen?),
- the origin of risk (from where does the risk originate?),
- the time horizon of the risks (which risks in which time period are to be dealt with under the existing risk coverage?) and
- the risk-bearing capacity.

BaFin MaRisk - 2009



Strategic Risk in Corporate Governance

Walker Report, FRC Corporate Governance Code

Monitoring and management of risk in a BOFI is not only a set of controls aimed at the mitigation of financial risk, as normally in non-financial business, but relates to the core strategic objectives of the entity.

Walker Report - 2009

A review of corporate governance in UK banks and other financial industry entities
Final recommendations
26 November 2009

“The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives.”

FRC – Corporate Governance Code – Section C - 2010



Strategic Risk in Regulation

EIOPA

3.126. Strategic risk is a function of the incompatibility between two or more of the following components: the undertaking’s strategic goals; the business strategies developed and the resources deployed to achieve these goals, the quality of implementation and the economic situation of the markets the undertaking operates in.

3.127. The resources needed to carry out business strategies are both tangible and intangible. They include communication channels, operating systems, delivery networks, and managerial capacities and capabilities. The undertaking’s internal characteristics are evaluated against the impact of economic, technological, competitive, regulatory, and other environmental changes.

3.128. The overall strategy of the undertaking should incorporate its risk management practices. In this sense, the undertaking should have a process for setting strategic high-level objectives and translating these into detailed shorter-term business and operation plans.

CEIOPS (now EIOPA) – Level 3 Guidance - System of Governance - 2010



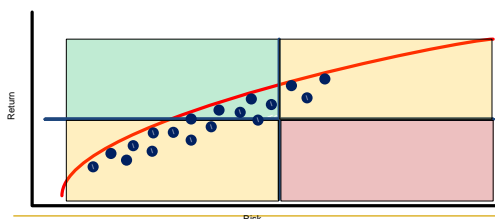
“CEIOPS expects that “the results of the internal model will be used in ... the setting of business strategy and “risk strategy”

CEIOPS (now EIOPA) – Level 3 Guidance – Use Test - 2010

Not “strategy risk but worth noting. Could lead people to think that strategic risk is about using internal models.

Strategic Risk in Rating

Standard & Poors ERM Criteria, 2006



- Company retained risk profile
- Strategic asset allocation
- Product risk/reward
- Rewarding performance
- Optimizing risk-adjusted results
- Determining adjustments to company dividend payments

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Strategic Risk Definitions (2008)

Allianz, Prudential, Old Mutual, Standard Life

Company	Definition of Strategic Risk
Allianz	Strategic risk is the risk of an unexpected negative change in the company value, arising from the adverse effect of management decisions on both business strategies and their implementation.
Old Mutual	(Strategic risk is) the risk that strategic decisions will adversely affect future sustainable growth.
Prudential	Ineffective, inefficient or inadequate senior management processes for the development and implementation of business strategy in relation to the business environment and the Group's capabilities.
Standard Life	The Group defines strategic risk as the risks or threats to the achievement of the Group's corporate objectives.

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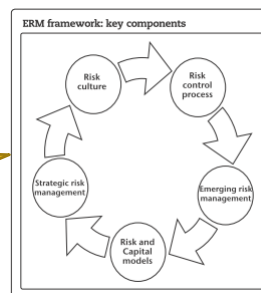
Where Strategic Risk Fits (2008)

Zurich, Standard Life



Zurich highlight risk transparency in their risk management framework and place strategic risk management at the summit of their framework.

Standard Life see strategic risk management as part of a cycle.



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2.6 Illustration of different approaches to index (e.g. market risk category = max 6 points possible)

- **Horing and Grundl**

1. Define market risk
2. Describe limits
3. Describe risk mitigation
4. Var at specified intervals
5. Describe stress test
6. Describe major risk classifications

- **Kelliher et al**

- ½ Identified risk exposure
 1. Equity risk
 2. Property risk
 3. Interest rate risk
 4. Bond risk
 5. Commodity risk
 6. Forex risk
- ½ Describe analysis/assessment of each exposure above?

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2.7 Sample Selection Criteria

- Based on AM Best Ranking
- Top 25 in 2008 and 2012 by:
 - Net Premium Written;
 - Assets under Management; and
 - Premium Sales
- Sampling yielded: 8 European, 3 Asian, 2 US



2.8 Three Disclosure Indices

- **Shareholder** : usefulness of general purpose reporting to capital providers; two constructions covering the risk classes – market, credit, insurance & demographic, liquidity, operational, strategic, frictional and aggregation (*note: 3 different versions!*)
- **Regulatory** : robustness and prudence and objectives per Pillar III type disclosures - Principles, Recognition, Measurement, Strategic, Functional
- **CRO** : resilience of firms internal processes to sustain competitive advantage: Principles, Recognition, Measurement, Strategic, Functional



2.9 Results overview – disclosure analysis

1. Overall summary
2. Regulatory
3. CRO
4. Shareholder

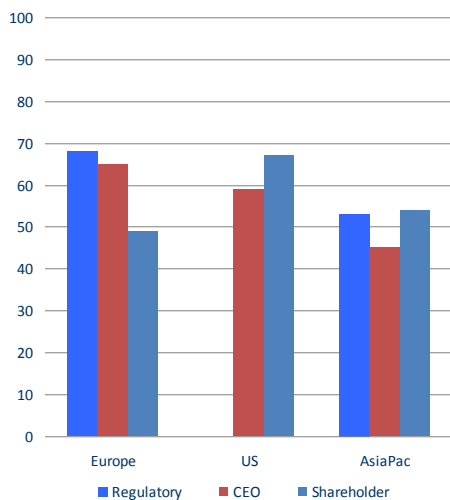


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2.9.1 Overall Disclosure Scores



Results

- EU companies: scored highest on Regulatory disclosure
- US* & AsiaPac companies: scored highest on Shareholder** disclosure
- Average per region: EU 61, US*** 63, AsiaPac 51

*Excluding US Regulatory

**Kelliher et al risk re-weighted

***Excluding US Regulatory

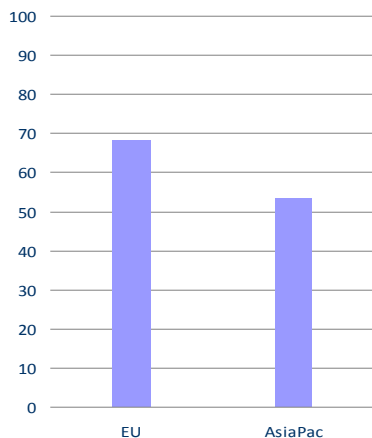


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2.9.2 Regulatory Disclosure Results - Regional Summary



Analysis

- Index total of 100
- Five Sections - principles, recognition & disclosure, measurement, strategic issues, risk disclosures
- Score between 0 and 2 awarded for each criterion
- Averages per region: EU 68, US not applicable, AsiaPac 53



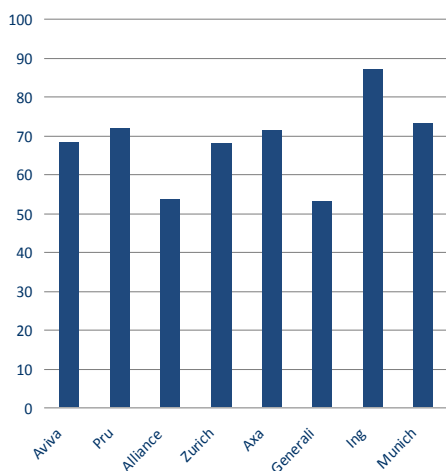
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2.9.2 Regulator disclosure Results - Europe



Results

- ING scored the highest, and overall Generali the lowest
- Trend of disclosure improving over time*
- Allianz showed the largest improvement from 29 in 2006 to 87 in 2012

*Exception for Aviva 2012 - results lower than 2011



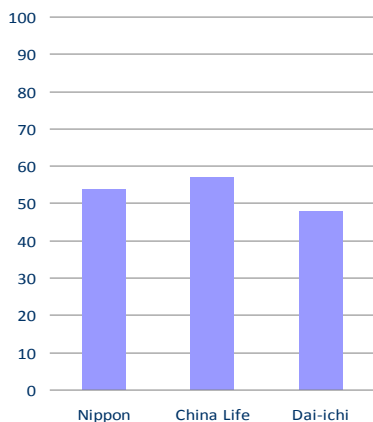
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2.9.2 Regulator disclosure Results - AsiaPac



Results

- Trend of disclosure improving over time
- ChinaLife scored the highest, Dai-ichi the lowest
- No specific issues although no company scored on strategic or frictional risk disclosure criterion



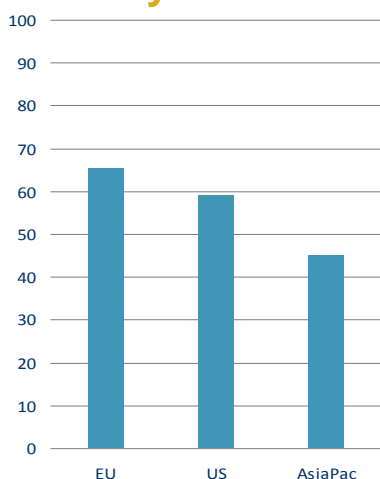
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2.9.3 CRO Disclosure Results - Regional Summary



Analysis

- Index total of 100
- Five Sections - principles, recognition & disclosure, measurement, strategic issues, risk disclosures
- Score between 0 and 2 awarded for each criteria
- Average per region: EU 65, US 59, AsiaPac 45



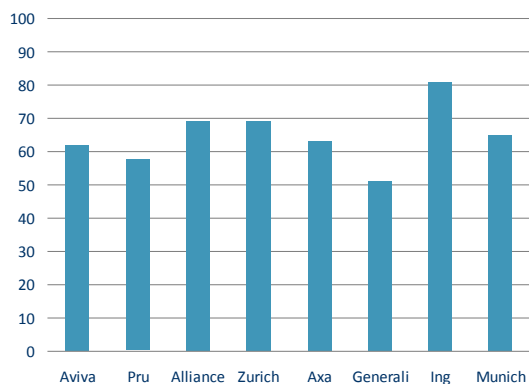
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2.9.3 CRO disclosure Results - Europe



Results

- Trend of disclosure improving over time
- ING averaged the highest and Generali the lowest
- Zurich showed the greatest improvement from 40 in 2006 to 87 in 2012



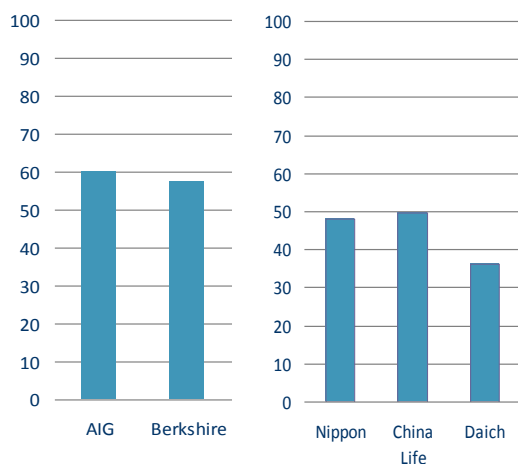
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2.9.3 CRO disclosure Results - US & AsiaPac



Results

- US averaged about 14 points higher than AsiaPac overall
- US: AIG and Berkshire Hathaway results broadly similar
- AsiaPac: ChinaLife showed the greatest improvement from 35 to 68



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2.9.4 Shareholder Disclosure Indices

1. **Horing & Grundel:** Risk measurement disclosure as well as company specific definition of risk type and risk management process (based on Basel/COSO risk classification system)
2. **Kelliher, Wilmot and Klumpes:** Comprehensive identification of risks (based on actuarial risk classification system)
3. **Kelliher, Wilmot and Klumpes** risk re-weighted: As per 2 above, but re-weighted to give greater emphasis to strategic, frictional risks and the aggregation of all risks

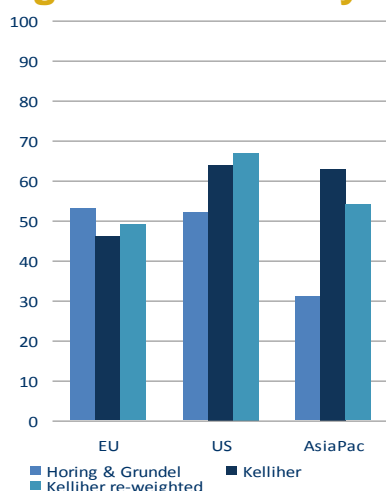


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2.9.4 Shareholder Disclosure Results - Regional Summary



Results

- EU companies: consistent across the three disclosure indices
- US companies: scored higher on Kelliher et al indices than Horing & Grundel and best when re-weighted
- AsiaPac companies: scored higher on comprehensive risk listing Kelliher et al indices
- Averages based on Kelliher et al re-weighted: Europe 50, US 68, AsiaPac 55

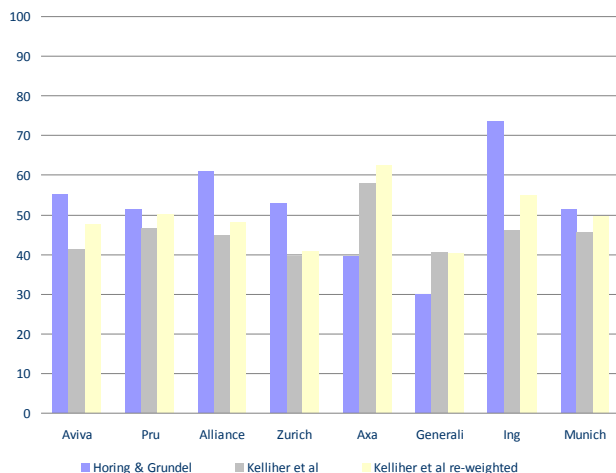


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2.9.4 Shareholder disclosure Results - Europe



Results

- Overall no clear trend of increasing disclosure over time across the indices
- Axa and ING scored the highest overall, Generali the lowest

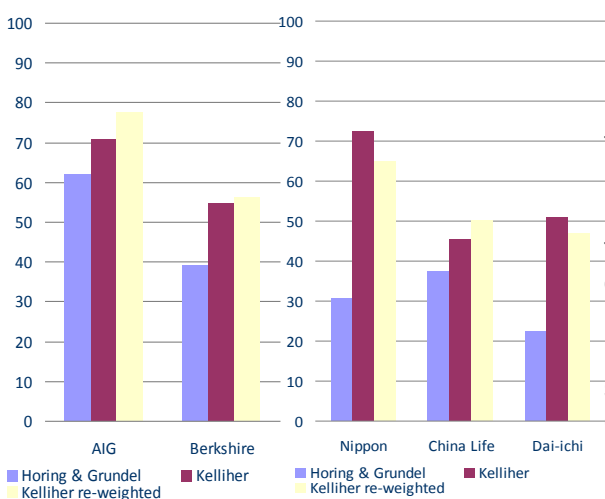


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2.9.4 Shareholder disclosure Results - US & AsiaPac



Results

- Overall no clear trend of increasing disclosure over time across the indices
- US: AIG scored higher than Berkshire Hathaway on all three indices
- AsiaPac: Overall Nippon scored higher than ChinaLife and Dai-ichi



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2.9.4 Risk Analyses

- Comparison of market, credit, liquidity, operational, strategic risk disclosures from perspective of:
 - Regulatory
 - Own business
 - Shareholders
- Regulatory disclosure - maximum of 6 per risk class
- CEO disclosure - maximum of 6 per risk class
- Shareholder disclosure based on re-weighted Kelliher et al - maximum of 11 per risk class

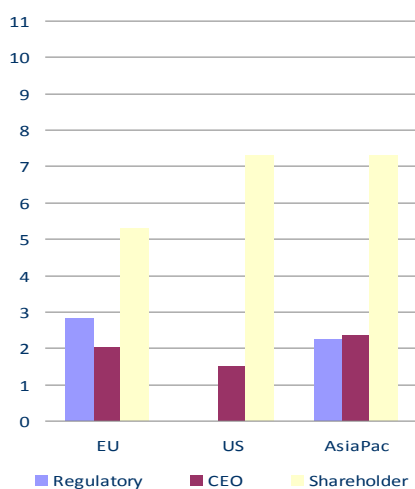


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2.9.4 Market Risk



Analysis

- Average EU and AsiaPac regulatory disclosure score similar and scoring less than half of available scores
- Average EU, US and AsiaPac score similar for CEO disclosure scoring less than half of available scores
- Average AsiaPac and US score higher than EU on shareholder, scored more than half of available scores

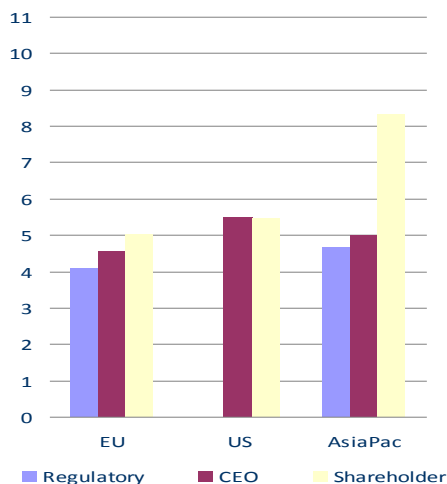


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2.9.4 Credit Risk



Analysis

- EU and AsiaPac broadly similar on regulatory disclosure and relatively high scores
- EU, US and AsiaPac broadly similar on CRO disclosure and relatively high scores
- AsiaPac scored highest on shareholder disclosure then US then EU
- No clear trend towards improvement year-on-year post crisis

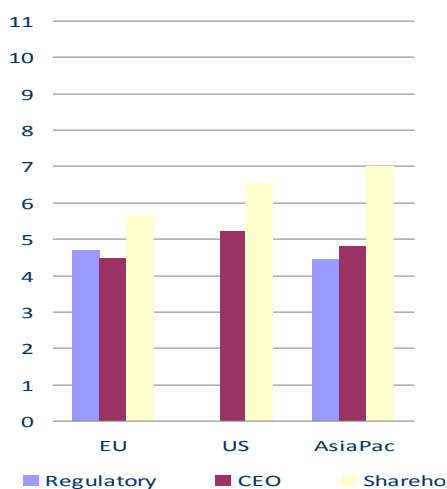


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2.9.4 Shareholder Disclosure Results - Liquidity Risk



Analysis

- Average EU and AsiaPac score broadly similar
- Average EU, US and AsiaPac score broadly similar
- Average AsiaPac score highest then US then EU on shareholder disclosure
- No clear trend towards improvement year-on-year post crisis

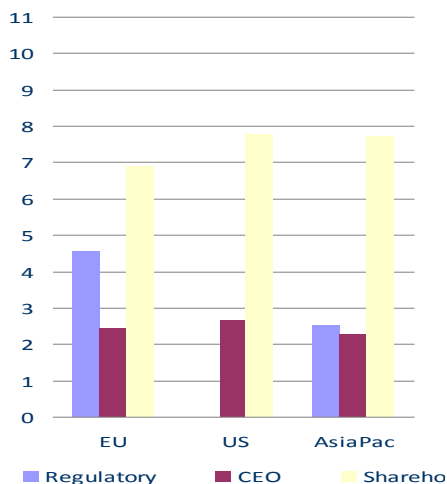


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2.9.4 Operational Risk



Analysis

- Average EU score higher than AsiaPac on regulatory disclosure
- Average EU, US and AsiaPac score broadly similar on CRO disclosure, scoring less than half of available score
- US scored highest then AsiaPac then EU on shareholder disclosure, scoring more than half available scores

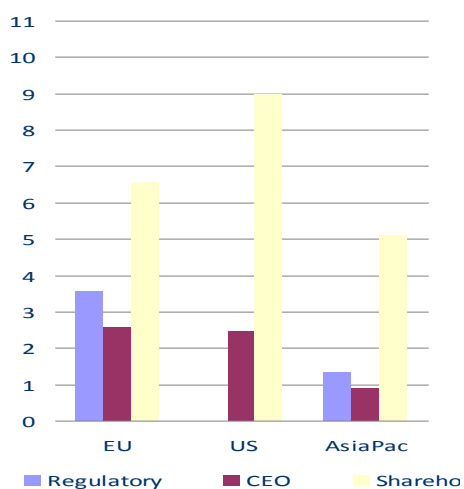


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2.9.4 Strategy Risk



Analysis

- Average EU score higher than AsiaPac on regulatory disclosure, one third of available scores) difference between the regions
- Average EU and US score higher than AsiaPac
- Average US score higher than EU then AsiaPac on shareholder disclosure. Out of eleven points, US scored four points more than AsiaPac



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3 Survey of internal reporting

- Whilst investigation in the first two domains can be carried out on publicly available information, internal risk reporting requires further direct interaction with individual companies to gauge processes and practices
- Survey drafted to assess the state of the internal risk reporting
- This is based on the assumption that the scope of internal risk reporting includes all management information and reports that are produced solely for the business management purposes.
- Survey questions are not related to any company specific practice but are related to a general reporting framework for these reports



3.2 Design of survey instrument

- The survey focuses on the following key aspects of the internal risk reporting:
 - Governance
 - Fit for purpose
 - Link to risk appetite framework
 - Use of risk reporting
 - Reporting capabilities
- Survey subject to validation and comments from profession members prior to administration



3.3 Administration of survey

- Survey administered to CRO reporting unit and /or person responsible for acting on and monitoring risk reporting on behalf of the entity
- On line administration of survey
 - Participants directed to weblink for on line completion of survey
 - Results remained anonymous to respect privacy
 - Survey still “live” and in process !
 - Please participate! Go to www.xxx.com (TBC) will take no more than 15 minutes to complete
 - Results will be distributed to participants



3.3 EDHEC survey on ERM practices

- Within the framework of research of the Financial Analysis and Accounting Research Centre at EDHEC Business School, we are also conducting a study **on risk management of insurance companies**.
Our study has two goals:
 - to determine whether insurance companies have established an ERM (Enterprise Risk Management) process and,
 - to determine its state of progress and efficiency.
- We thank you in advance for the time spent on this questionnaire (a maximum of 30 minutes) available [by clicking here](#).
- Or copy and paste the URL below into your internet browser:
http://edhec.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=4ZKmp79iqXCPnD_9TySyzZBnnsAr2t&_=1

Please note that the questionnaire is available in English and in French.

For any further information, please contact Julien Magnenet (julien.magnenet@edhec-risk.com).



4 Conclusions

- Risk reporting is an essential element of effective corporate governance for insurance entities (Walker Report)
- We develop a comprehensive framework for understanding risk reporting within the unique stakeholder, regulatory and CEO accountability contexts
- We predict and find that the extent and cohesion of risk reporting across shareholder, regulatory and CRO domains is related both to geographic, cultural and organisational design characteristics
- Disclosure analysis extends past research (Horing and Grundl) by adopting a functional rather than legalistic approach and by incorporating other elements (eg “soft risk sources” strategy etc)
- Survey of internal reporting quality connects internal risk reporting practices for internal consumption is linked to external reporting



4 Recommendations

- There is considerable cross sectional and time series variation in the extent and quality of risk reporting practices; need for further harmonisation (particularly on the regulatory side?)
- Further research is needed to understand:
 - incentives facing CROs and the C suite to integrate internal risk reporting processes with changing regulatory and general purpose reporting needs
 - The extent to which “comprehensive” risk reporting regulations are effectively enforced and change behaviour for internal reporting
 - Variations across business lines and vis a vis other financial institutions
 - Best practices in how these linkages can be enhanced to meet sustainable compliance needs of affected organisations





Questions



Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

