

在不确定时期的企业风险和机遇管理 (第一稿2011年9月1日)

Enterprise Risk & Opportunity Management

in more uncertain times (first draft 1 sept. 2011)



你愿意为完美的答案花费多少？

How much are you willing to pay for the perfect answers?

The No Nonsense Risk Averse CFO

国际财务协会联合会 (北京) World Congress IAFEI Beijing

2011年9月17日

职业经历介绍

- SONY 欧洲总监 (德国法兰克福)
- KNPBT NV财务副总裁 (荷兰)
- SCA财务和商业发展高级副总裁 (瑞典)
- 联合利华特种化学品公司 财务总监(英国伦敦)
- ICI's 食物和香料成分公司财物总监 (英国伦敦)
- Owner Procurement Services UK-PRC
- EMBA 讲师(美国杜克大学, 美国纽约大学商学院, 英国伦敦城市大学)
- AIA(中国)学术咨询委员会成员

这个报告涵盖了。。。。

简介 风险管理 ≠ 风险管理 (ISO 31000)

Intro Risk Management ≠ Risk Management (ISO 31000)

什么是财务“风向标”？

What is the financial “weather forecast” ?

你是哪种类型的CFO？

What kind of CFO are you?

CFO可以帮助做什么准备/在短期和长期过程中的作用？

What CFO's can help do to get ready/ to stay on track short and long term?

可使用的工具/如何使用有效的工具？

What instruments are available/How to use available instruments ?

企业风险管理中的管理和内部控制

What about Governance and Internal Controls in relation to ERM ?

你喜欢惊喜吗？

Do you like surprises?

- 你有多少时候会在不经意中得到惊喜？
How often are you surprised when you shouldn't be?
- 这意味着什么？What does that mean?
 - 是环境变化比我们所知道的发展的快吗？
Is the environment changing faster than we acknowledge?
 - 是我们未能预见到的吗？ Are we unprepared?
 - 我们了解我们的企业吗？
Do we understand our business?
 - 世事难料？ Do we know that we sometimes can't know?
 - 有没有人真正负责风险管理？
Is nobody really responsible for Risk Management? (is it time for the CRM?)

ISO 31000 (2009)

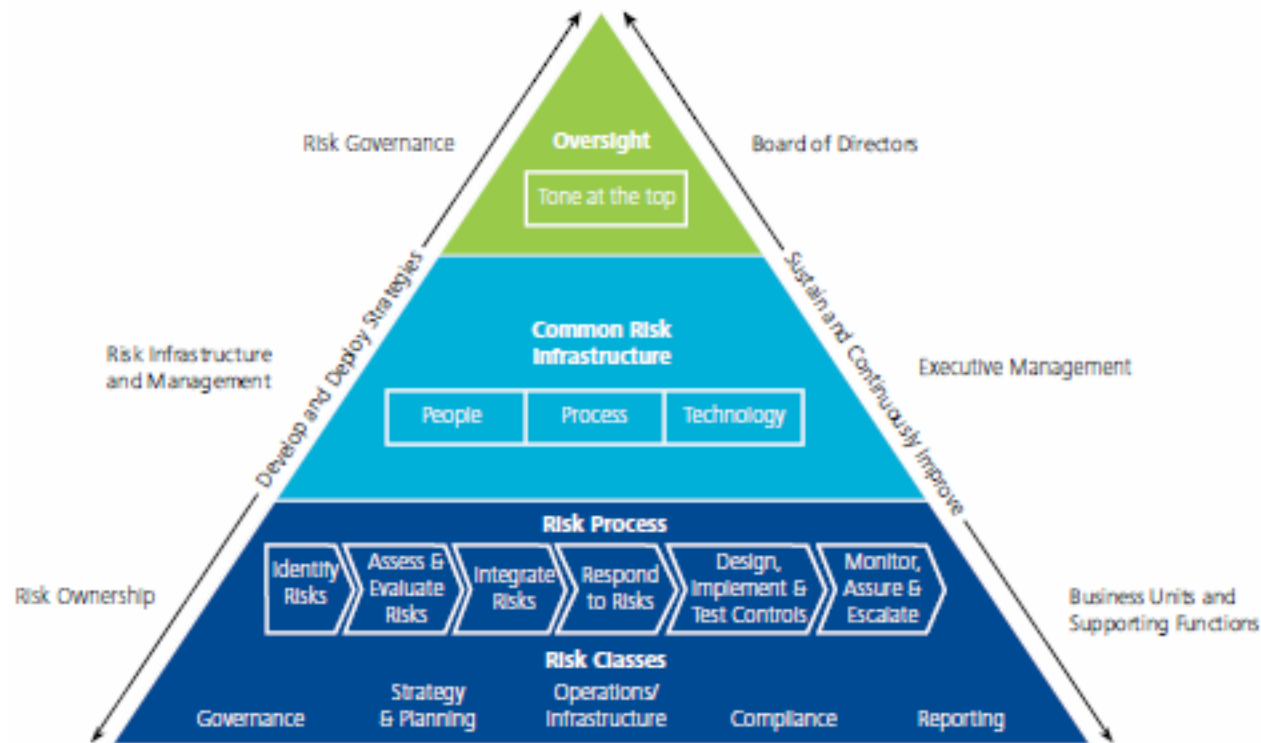
- 风险管理的创立和保护价值
Risk management creates and protects value
- 风险管理是组织结构中的一个组成部分
Risk management is an integral part of organizational processes.
- 风险管理是决策的一部分
Risk management is part of decision-making
- 风险管理应明确的标注不确定性
- Risk management explicitly addresses uncertainty
- 风险管理的是建立在最好的可利用的信息基础上的
Risk management is based on the best available information
- 风险管理是动态的、迭代的,并能适应变化的
Risk management is dynamic, iterative, and responsive to change

企业风险管理 (ERM)

- 风险管理不单是: Risk management is not just about:
 - 管理财务风险,通胀/利息运转风险
managing financial risks, risks related to currency/interest movements
 - 商品价格的变化changes in the price of commodities
 - 不遵守法律法规的风险管理
 - managing the risk of failing to comply with laws and regulations
 - 管理财务报表中错误的风险
Managing the risk of errors in the financial statements
 - 管理经营和战略上的风险 (如同一个潜在失败的供应商)
Managing operational and strategic risks (like the potential failure of a sole supplier)
- 管理整个企业经营的不确定性的潜在影响, 因此, 上面所列都以包含
- It's about managing the potential effects of uncertainty throughout your business operations; thus it's all of the above!

董事会的运作

From Operational to BoD...



Risk Management

坏天气来临的迹象...

- 信用市场 (不是股票市场)
 - 我们所知道的股票市场是无效的
 - 股票市场对危机的响应是在危机爆发之后。。。Equity markets respond to crisis after the crisis has started....(无用的行动指示)
 - 宽松的银行借贷标准Loose lending standards of Banks
 - 2005 年美国房地产泡沫Real Estate Bubble US
 - 公司借款没有应有的审核Companies borrow with no due diligence
 - 国家借款的低成本(希腊)Countries borrow low cost (Greece)
 - 异乎寻常高的财务杠杆率(资产/负债)Unusually high leverage (Assets/Liabilities)
 - 私人抵押贷款融资与短期利率可调债务
 - Private mortgages financed with short term rate adjustable debt (US)
 - 1997年亚洲金融危机:当美金增长时,使用美债来添加生产设备.....从而更多的当地货币来还的债务
 - 1997 Asian Crisis: production facilities financed with USD debt while the USD was strengthening...thus more local currency was needed to service the debt
 - 对冲基金使用越来越多的短期借款融资减少了流动资产
Hedge Funds using more and more short term debt to finance less liquid assets...
 - 越来越多的公司试图从资产负债表里获得借款
More and more companies are trying to take debt of their balance sheets...
 - 2000年之前的安然和其他很多公司 Enron and many other companies in the early 2000's
 - 3年前的莱曼兄弟公司 Lehmann Brothers 3 years ago...
 - 银行创造了很好的收入但是没有为股东创造价值
Creating nice fees for Banks but does not create value for shareholders

将会有多糟糕？

How bad will it get ?

- 有什么可调整的部分？他们如何塑造一个不同的世界？
What are the moving parts and how do they shape a different future
- 预算模型在不同通胀情况的波动情况
Model future budgets in different currency scenario's and show the dynamics
- 在变化的通货汇率时价格应该怎么移动
How prices should move with changing currency rates
- 评定等级并不是很有效；在今天的市场上有些你认为应该是AA或AAA的表现并不是那样
Ratings are less useful ; things you think are AA or AAA certainly do not act like that in markets today
- 投资效益低，而且不管你影响多少公司
Yields are very low and no matter what you do it is impacting many companies

为什么股票市场不能预见到它的到来

Why Equity Markets can't see it coming?

(^VIX- volatility S&P 500 Index)



Financial Weather

你是哪一种COF？

What kind of CFO are you?

- 顾问型CFO Advisor of CEO (M&A, Finance,...)
- 备用的银行和金融机构的合作伙伴Sparing partner of Banks and Financial institutions (Treasury)
- 高度集中的正确的融资/资助
Highly focused on right financing/funding
- 高度集中的管理
Highly focused on governance
- 高度集中在检查&控制/程序
Highly focused on checks & controls/process

Kind of CFO

你的认知偏见是什么？

What is your cognitive bias?

- 过度自信？Over confident？
- 确认偏差？Confirmation bias？
- 过多的风险规避？Excessive risk avoidance？

- 注意Note: 我们都是过度自信的(这是人的本性)
We are all over confident (it is human nature)
- 注意Note: 有些风险我们总是坚持自己的意见
some risks we will always keep to ourselves...

不喜欢风险？ Don't like risk?
住在盒子里？ Live in a Box?



Kind of CFO

这是否就是你的风险管理呢？

What does this imply for your Risk Management ?

- 过度自信：我们只看见眼前的风险

Over confident: we only see risks that we see...

- 确认偏差：我们只确认我们所知道的风险

Confirmation bias: we only see the risks that we know...

- 过多的风险规避：哪里都是风险

Excessive risk avoiders: we see risks everywhere...

你应该获得的企业风险管理

You will get the ERM you deserve...

- 没有一个单一的企业风险管理

There is not one single way to ERM

- 根据你们的范围/目的, 它包括:

Depending on your scope/objective it will contain:

- 分销渠道策略Distribution Strategy
- 绩效评估/奖金制度Performance Measurement/Bonus system
- 资产分配Asset allocation
- 战略规划Strategic Planning
- 产品设计/产品开发Product design/development
- 股利战略Dividend strategy
- 风险融资Risk financing
- 销售及运营计划和绩效
Sales and Operational Planning and Performance

Kind of CFO

CFO的作用

What CFO's help to do...

- 短期Short term:
 - 成本削减(出差成本被视频会议所取代)
Cost cutting (Travel cost replaced by Halo Video Conferencing)
 - 工资削减(为以后的分红削减现在的工资)
Pay cuts (give up salary now for bonus later)
 - 加强商业评论和规划
Intensify Business Review/Planning (last 3 next 3 system)
 - 组织结构的调整(为了更加灵活的组织结构取消事业部)
Change Structure of Organization (give up BU's for more flexibility)

CFO helps to do

CFO的作用

What CFO's help to do...

- 长期目标Longer term:
 - 收购稳定业务Acquisitions that stabilize the business
 - 随着高操作杠杆率减少业务投资
Reduce investments in Business with high operational Leverage (PC's HP)
 - 抓住正确的成本结构, 使成长!
Getting your cost structure right enables growth!
 - 在未来继续投资增长Continue investments in future growth (R&D)
 - 应该把你的资金投资在金砖四国
Put your money where your mouth is- invest in BRIC countries
对于一个快速成长公司所需的人是: 经验技能丰富并且能够思考; 在金砖四国雇用优秀的人才
 - Right People for a fast growing business: skilled experienced and can do mentality ; Over hire good talents in BRIC countries
 - 为并购开拓眼界(未来成长的引擎)
 - Keep eyes open for M&A (future growth engines)
 - 在试验中创新和小额投资失误
 - Innovate based on trial and error with small investments
 - 保持灵活性(分析/调节成本/调整投资)
Keep your flexibility (move for opportunities/adjust costs/adjust investments)
 - 提供结构(管理)和控制
Provide Structure (Governance) and Controls

CFO helps to do

CFO应具备的What CFO's should do

- 使用流程来衡量并审查失误
- Put processes in place to measure and review risk
- 发展内部控制Develop internal controls
- 确保它在每个商业会议和与之相关的董事局的议程上
Make sure it is on the agenda of every Business Meeting and it is linked to the BoD
- 确保有董事会这个组织结构
Make sure there is a framework set by the BoD

CFO helps to do

什么时候管理风险？ Manage Risk When?

- 风险不能每个三个月被梳理一次
Risks can not be managed once per 3 months
- 或者只是在周五。。。
Or only on Fridays...
- 风险需要被不间断的关注
Risks need attention continuously...
- 就像是在驾驶你的汽车
It is like driving your car...

CFO helps to do

如何保持客观性？

What could be the Objective?

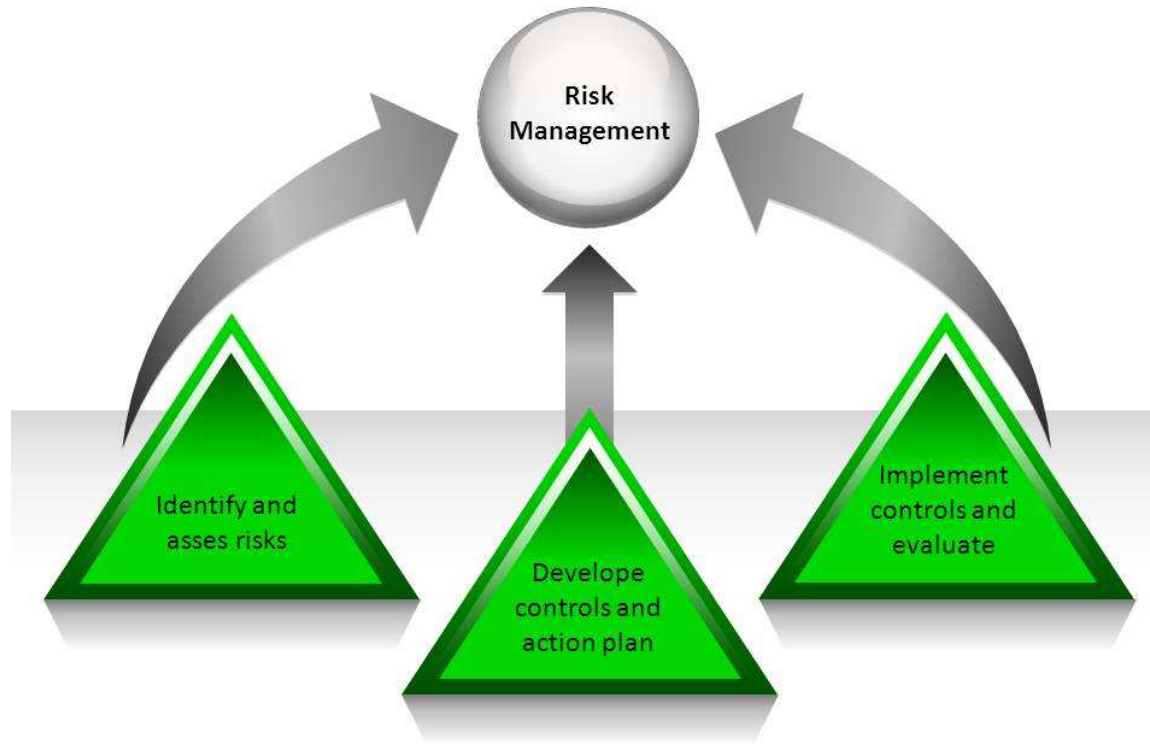
- 不要墨守成规！
Not just to comply with rules and regulations!
- 创造利益价值...Create Stakeholder's value...
- 为可能会发生的事情做好准备
To be prepared for what might happen
- 不仅要减轻不利因素的影响，还要充分利用有利机会
To not only mitigate the effect of adverse situations but also take full advantage of opportunities
- 例如：要做好因为自然灾害而导致的供应链混乱
Example: To be prepared for a natural disaster that disrupts the supply chain
- 例如：当竞争对手还未为产品质量问题做好准备时，这就创造了机会
Example: As well as for the opportunity created when a competitor that wasn't prepared has product-quality issues

CFO helps to do

了解你的风险...管理它

Understand your risk...and Manage it !

RISK MANAGEMENT



CFO helps to do

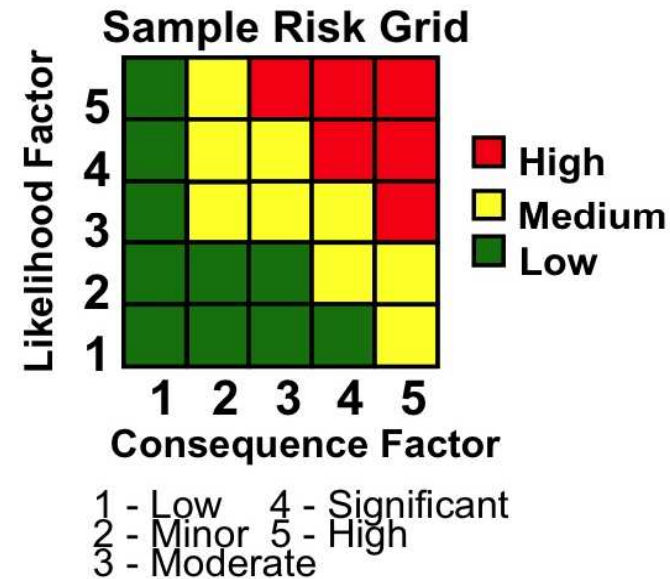
Risk Analysis Method

- Describe the Risks

- Brainstorming potential risks
- Walkthrough of the risk identification checklist

- Analyze and Prioritize Risks

- Walkthrough risk sheet and estimate the probability and cost of each risk
- Calculate risk rating of each risk (e.g. likelihood * consequence)
- Prioritize in risk classes concentrate on class “High”



CFO helps to do

更多需求 More exact...

Impact	Risk Management Actions		
Significant	Considerable management required	Must manage and monitor risks	Extensive management essential
Moderate	Risks may be worth accepting with monitoring	Management effort worthwhile	Management effort required
Minor	Accept risks	Accept, but monitor risks	Manage and monitor risks
	Low	Medium	High

Likelihood

CFO helps to do

企业风险管理工具 Instruments of ERM

历史数据分析

Historical Data Analysis

合适的理论分布数据

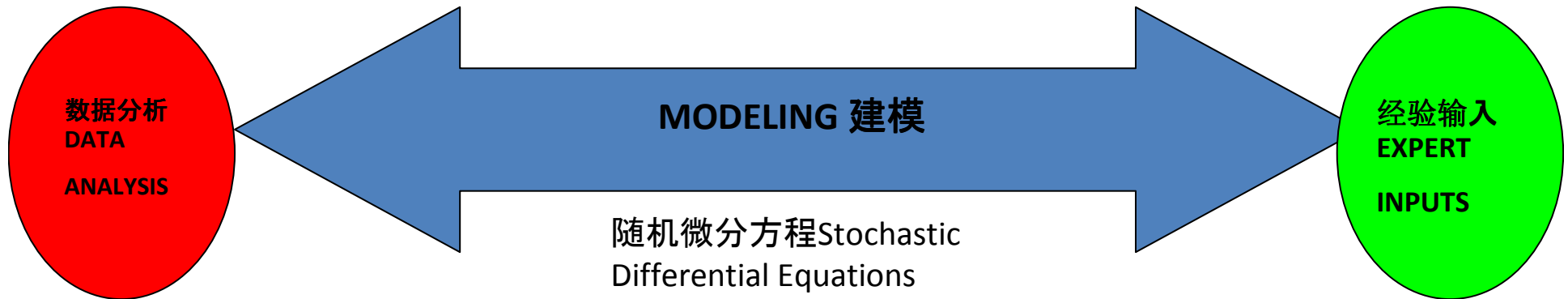
Fit Data to Theoretical Distribution

极值理论Extreme Value Theory

直接评估可能性事件Direct
assessment of likelihood of events

德尔菲法Delphi Method

赌注和彩票的偏好Preference
among bets and lotteries



变量回归影响的风险
Regressions of Variables
that effect Risk

贝叶斯模型 Bayesian Belief
Models

系统动态模型 System
Dynamic Simulations

Instruments

贝叶斯模型 Bayesian Models...

- “贝叶斯推理”是一个收集重复修改初始概率分布的新证据的迭代过程
"Bayesian inference" refers to an iterative process in which collection of fresh evidence repeatedly modifies an initial probability distribution
- 在一个迭代中，初始分配叫做“事前概率”，修改的叫做“事后概率”
In each iteration, the initial distribution is called the [prior probability](#), whereas the modified belief is called the [posterior probability](#)
- 2个饼干碗的例子
Example of 2 cookie bowls :
- E=可见原味饼干，H1=1号碗，H2=2号碗，P(H1)=P(H2)=50%
(note E= observation plain cookie; H1=Bowl 1 H2=Bowl 2 P(H1)=P(H2)=50%)
- 1号碗有10块可可和30块原味饼干 Bowl 1 carries 10 choco and 30 plain P(E|H1)=30/40=75%
- 2号碗有20块可可和20块原味饼干 Bowl 2 carries 20 choco and 20 plain P(E|H2)=20/40=50%
- 拿出一块饼干，是一块原味的You pick one cookie and it is a plain cookie
- 这块饼干是怎样从1号碗拿出来的？ How likely is it this cookie comes from Bowl 1?

Prior Probabilities!

$$P(H_1|E) = \frac{P(E|H_1) P(H_1)}{P(E|H_1) P(H_1) + P(E|H_2) P(H_2)}$$

$$= \frac{0.75 \times 0.5}{0.75 \times 0.5 + 0.5 \times 0.5}$$

$$= 0.6$$

后验概率 Posterior Probability !

Instruments

赌注的偏好 Preference among bets

- 让某些人参与下面的打赌中
Offer somebody in your organisation the following bet:
- 如有新的竞争者进入市场，赢得\$ x
Win \$ x if a new competitor enters the market
- 如没有新竞争者，丢掉\$ y
Lose \$ y if there is no new competition

- 相反的赌注： Opposite bet:
- 如有新的竞争者进入市场，丢掉\$ x
Lose \$ x if a new competitor enters the market
- 如没有新竞争者，赢得\$ y
Win \$ y if no new competitor enters the market

- $P(C)$ 是竞争者进入市场，付清每个修改的赌注，直到他持仓或下相反赌注的机会。
Let $P(C)$ be the chance that a competitor enters the market then the pay offs for each bet are adjusted until the person is indifferent to take a position on the bet or opposite bet side
- 如果公司赢得\$900M，竞争者进入市场输掉\$100M，如果没有新竞争者，我们假设此时专家不会持仓，那么
Let's assume the expert is indifferent to take a position at either side if the company wins \$900M if a competitor enters the market and lose \$100M if there is no new competition then:

- Since $\$x P(C) - \$y (1-P(C)) = -\$x P(C) + \$y (1-P(C))$ so $P(C) = \$y / (\$x + \$y)$
- $P(C) = \$100M / (\$900M + \$100M) = 10\%$
- 因此竞争者进入市场的主观频率是10%
The subjective Probability of a competitor entering the market is thus 10%

德尔菲法Delphi Method

- 通过几轮的匿名提问，缩小调查对象对未来预期/事件的结论及对事件的可能性。

Anonymous questioning technique in several rounds as to narrow down respondents underlying assumptions about future expectations/events and their likelihood of occurring

- 需要加入主观经验时使用

Used when subjective expert inputs are required

内部控制Internal Control

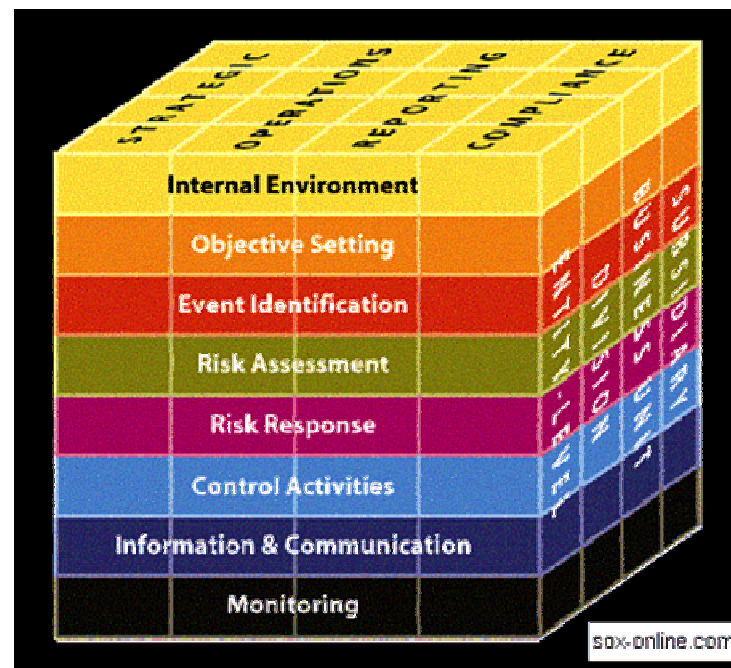
- 深层信息的参考资源是COSO和特恩布尔

The two most common sources of reference for further information are COSO and Turnbull.

- COSO（德威委员会发起组织委员会）出版了风险管理的主要著作

COSO (Committee of Sponsoring Organizations of the Treadway Commission), has produced two major works on risk management:

- 内部控制-整合框架（1992）
Internal Control – Integrated Framework (1992);
and
- 企业风险管理-整合框架（2004）
Enterprise Risk Management – Integrated Framework (2004).



The COSO cube

Instruments

管理Governance (OECD)

- 大多数情况下管理控制留给了公司负责（自愿者结构），尤其是未上市公司。
In many cases Governance control's are left to the responsibility of the company (volunteer structure) especially for non listed companies
- 大多数捐助来自于董事会成员中的非执行董事
Most of the contribution has to come from non-executive BoD members
- 立法主要集中于外部审计，公司依赖于它
Legislation is mainly focused on external audits and company's rely on that
- 没有领导人规定管理和财务分析，并且不能依赖信用评级机构
There is no leading body that regulates Governance and financial analysts and rating agencies can not be relied on
- 因此所有责任交给法律顾问/公司秘书。。。和审计委员会
Thus everything falls in the hands of the General Counsel/Company Secretary...and the Audit Committee....

审计委员会职责

Audit Committee Role

- CEO和高管应评估和管理公司可能面对的风险，审计委员会必须讨论控制过程的指导方针和政策。

While it is the job of the CEO and senior management to assess and manage the listed company's exposure to risk, the audit committee must discuss guidelines and policies to govern the process by which this is handled.

- 审计委员会应当讨论上市公司面临的主要财务风险和已采取的控制管理步骤

The audit committee should discuss the listed company's major financial risk exposures and the steps management has taken to monitor and control such exposures.

- 审计委员会并不是为风险评估和管理负责的唯一一方，但是如前所述，委员会必须讨论执行风险评估和管理控制过程的指导方针和政策。

The audit committee is not required to be the sole body responsible for risk assessment and management, but, as stated above, the committee must discuss guidelines and policies to govern the process by which risk assessment and management is undertaken.

风险管理不良状态

The state of risk-management practices is poor

- KPMG执行官近期研究发现

In a recent study of executives by KPMG:

- 1) 2/3的公司指出“他们的董事会不能控制风险信息来改进策略
1) two-thirds of companies indicated that "their board is unable to leverage the risk information it receives to improve strategy
- 2)公司的风险保险不足。
2) Risk assurance in companies is not given sufficient weight!
- 3)缺少监管的健全程度（如来自非执行董事的）、充足的资金、和风险管理保险
3) Healthy degree of oversight (i.e. from non-executive directors) and sufficient funding and Management of Risk assurance is lacking!

结论Conclusion

职责 Take charge...

- CFO们有责任确认潜在风险，限制公司能力，管理潜在敌对事件，抓住机遇。

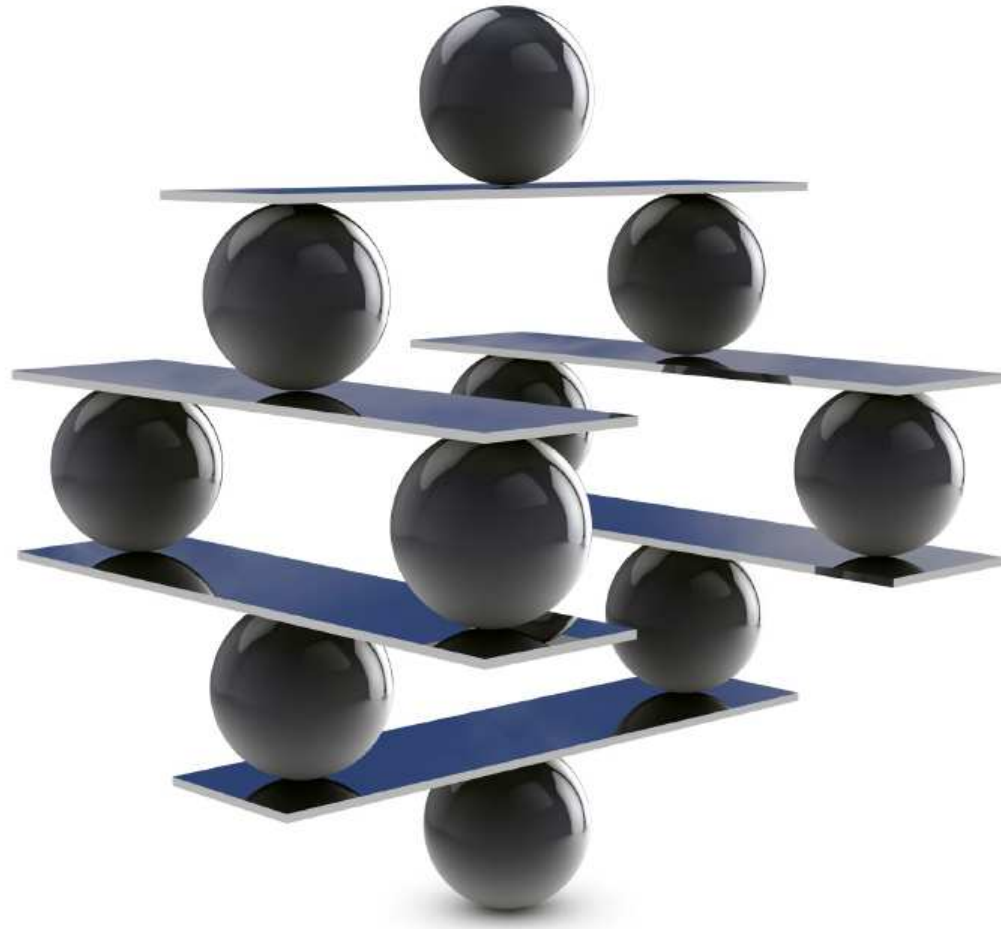
CFO's have the responsibility to recognize where immature risk management limits the ability of the company to manage potential adverse events and seize opportunities

- CFO们必须帮助执行管理团队确认并实现风险管理的价值。

CFO's must help the executive management team recognize and realize the value of risk management

So what ?

风险管理: 平衡法则



Thank You.