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# Operational Risk for Government Debt Management Operations

Presentation at the  
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Forum

Tbilisi, Georgia



Maldives 2004



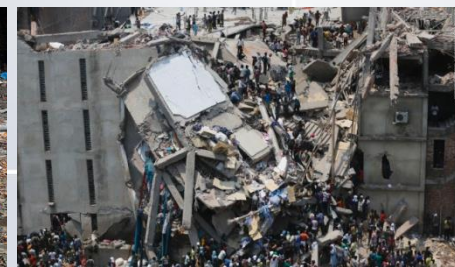
China 2008



Samoa 2009



Japan 2011



Bangladesh 2013

# Operational Risk Management

**The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events**

- definition explicitly includes legal risk, but excludes strategic and reputation risk
- has been applied to government debt management in publication by World Bank

# ORM & BCP – Why Necessary?

## ORM Govt Cases

- Anglo Leasing Affair in Kenya (2004)
- Orange County (1994)
- Hammersmith & Fulham Council (1989)

## BCP Facts

- Over one third of businesses that suffer a significant, though not necessarily catastrophic, business interruption are no longer in business within two years of the event

**But often management deny or ignore that there are risks**



**Costs can be high, reputation is at risk, but government's finances are critical, particularly in the case of a major incident such as a regional or national disaster**

**For Government, this is not an option**

# ORM & BCP – Why Not Addressed?

- **Mainly executive neglect:**

- “it won’t happen to us” is alive and well
- inadequate resource allocation
- low priority
- responsibility delegated
- project versus program
- relative lack of regulatory pressure

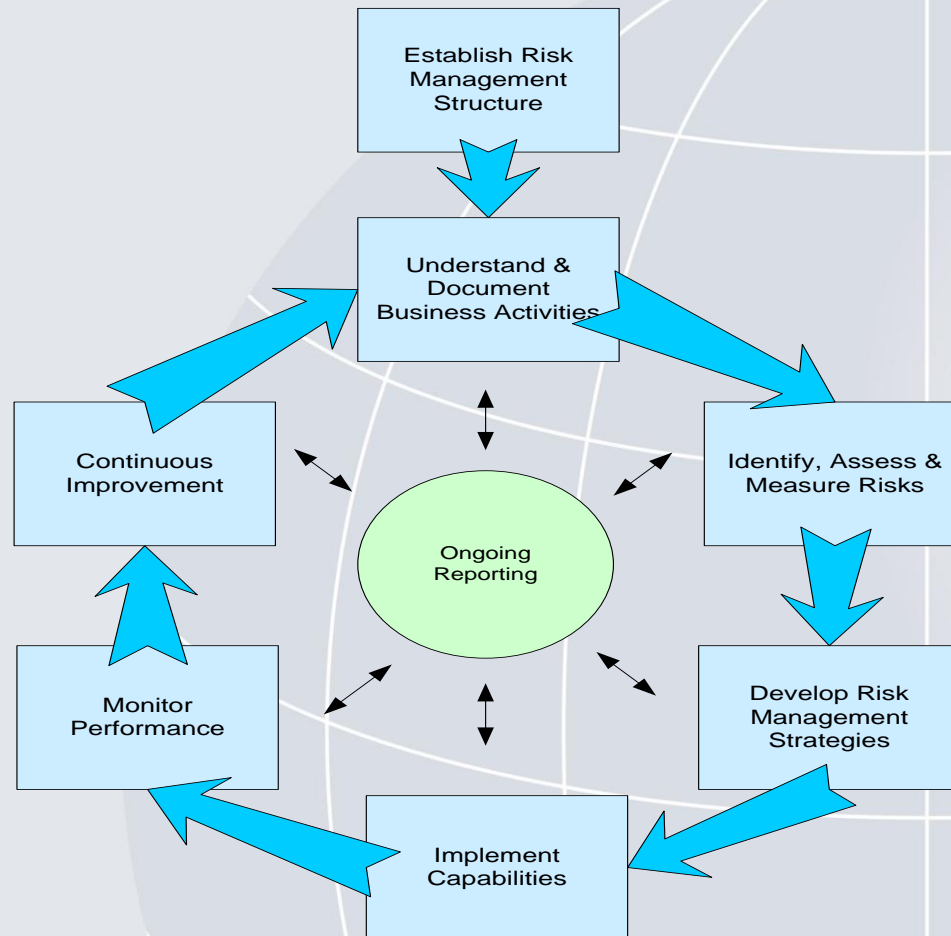
- **How well prepared is your DMO?**

- do you have an ORM framework and BCP / DRP?
- is business continuity viewed within an ORM framework?
- has the plan been tested in the last 12 months?
- is your plan managed by IT or risk management?

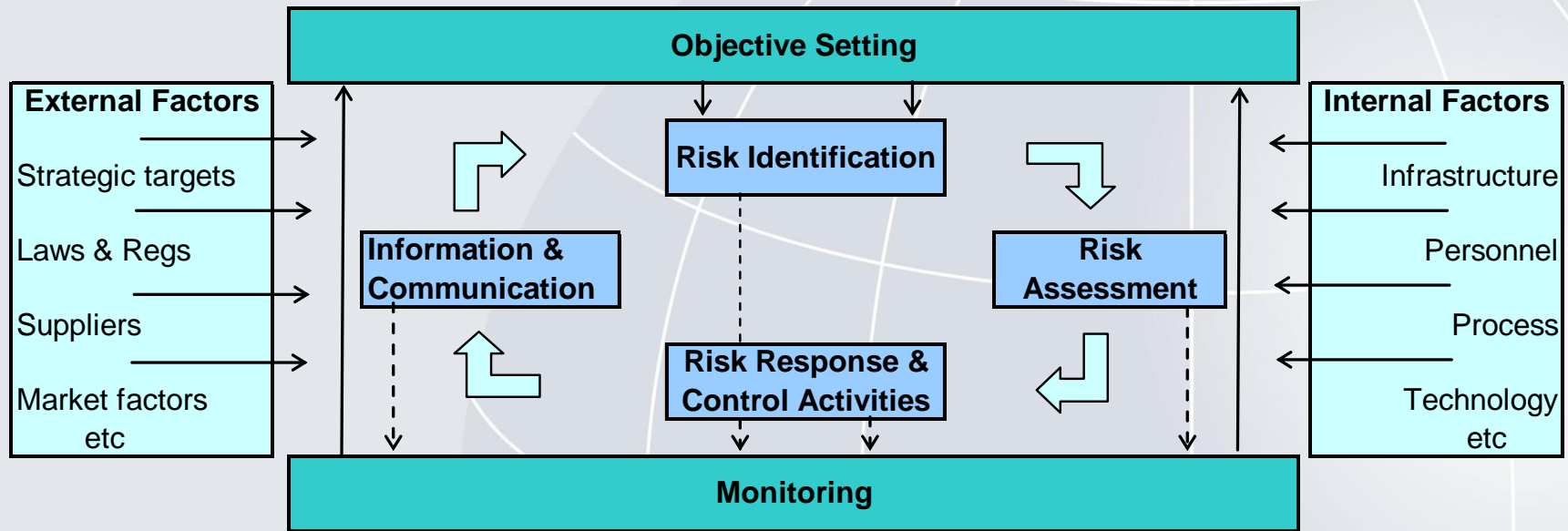
**Central Banks are normally better prepared than Ministry of Finance, as they normally have an ORM framework and a BCP/DRP including the recovery infrastructure such as an alternate site**

**and alternate site, and regularly test**

# Six-Step ORM Framework



# Example: Turkey



# Operational Risks

<i>INFRASTRUCTURE AND TECHNOLOGY FAILURES</i>		
Power failure	Hardware failure	Sabotage
Data corruption including viruses	LAN/WAN/Intranet/ Internet failure	Internal flood (sprinklers, pipes)
Voice network failure	Theft of equipment	Theft of data/information
Poor maintenance	Accidental damage	
<i>INCIDENTS WHERE ACCESS TO PREMISES IS DENIED</i>		
Flooding or a fire concern	Health and safety violation	Hazardous chemicals accident
Gas or chemical leak	Industrial action or riot	Bomb or terrorist threat
Building fire or explosion	Internal/external flood	Sabotage or terrorism
<i>KEY SERVICE PROVIDERS OR RESOURCE FAILURES DEPENDENCIES</i>		
Failure of key service providers (telephone, internet, banking etc)	Third party providers (Central Bank and other outsourced operations)	Impact of incident on critical teams or groups (travel, food poisoning, group incident)



# Operational Risks ...ctd

<i>STAFF, MANAGEMENT AND RELATED HUMAN FAILURES</i>		
Human error (which may be due to poor training or inadequate supervision)	Poor training or inadequate supervision (which may lead to human error or execution of unauthorized transactions)	Failure to follow code of conduct or conflict of interest guidelines
Lack of policy guidance (which may lead to poor decisions or unauthorized activities)	Poor understanding of risk environment (which may lead to unnecessary or unknown risks)	Poorly specified delegations (which may lead to execution of unauthorized transactions)
Failure to follow or adhere to administrative practices (which may lead to processing errors)	Key person risk (which may lead to human error when key person is absent)	Fraudulent, corrupt or dishonest practices (which may lead to financial loss and political embarrassment)
<i>FAILURE TO MEET STATUTORY, LEGAL, HUMAN RESOURCES AND OTHER OBLIGATIONS</i>		
Legal/statutory obligations (e.g. compliance with loan agreements)	Management directives (e.g. internal policies and procedures)	Procedures manuals and delegated authorities
Reporting obligations (e.g. to higher authorities and international institutions)	Contractual obligations (e.g. debt service obligations)	Health and safety regulations (e.g. national workplace laws or regulations)
<i>MAJOR NATURAL AND REGIONAL DISASTERS</i>		
Earthquake	Severe flooding	Tsunami
Volcanic eruption	Severe fires	Civil disturbance or terrorism



# Impact Guidelines

Assessment of Impact	Reputational Impact	Financial Loss Impact	Impact on Outputs or Budget Variance
<b>Very-High</b>	<ul style="list-style-type: none"> <li>Loss of stakeholder confidence</li> <li>Loss of market confidence</li> <li>Loss of trust, e.g. from primary dealers</li> <li>Extensive media coverage</li> <li>High-level ministerial enquiry [or resignation]</li> </ul>	<ul style="list-style-type: none"> <li>Reported in government's financial statements</li> <li>Significant amount of time spent dealing with issue (i.e. greater than 30 person-days)</li> </ul>	<ul style="list-style-type: none"> <li>Significant delay in achieving outputs</li> <li>Significant debt service budget variance (i.e. greater than 10%)</li> </ul>
<b>High</b>	<ul style="list-style-type: none"> <li>Strained stakeholder relationships</li> <li>Temporary loss of market confidence</li> <li>Moderate media coverage</li> <li>Ministerial enquiry</li> </ul>	<ul style="list-style-type: none"> <li>Reported to minister</li> <li>Large amount of time spent dealing with issue (i.e. between 20 and 30 person-days)</li> </ul>	<ul style="list-style-type: none"> <li>Large delay in achieving outputs</li> <li>Large debt service budget variance (i.e. between 5% and 10%)</li> </ul>
<b>Medium</b>	<ul style="list-style-type: none"> <li>Increased stakeholder attention</li> <li>Market confidence not affected</li> <li>Minor, if any, media attention</li> <li>Major attention within ministry/DMU</li> </ul>	<ul style="list-style-type: none"> <li>Reported to the entity responsible for monitoring the DMU</li> <li>Moderate amount of time spent dealing with issue (i.e. between 10 and 20 person-days)</li> </ul>	<ul style="list-style-type: none"> <li>Moderate delay in achieving outputs</li> <li>Moderate debt service budget variance (i.e. between 3% and 5%)</li> </ul>
<b>Low</b>	<ul style="list-style-type: none"> <li>Stakeholder and market relationships intact</li> <li>No media coverage</li> <li>Internal ministry/DMU enquiry</li> </ul>	<ul style="list-style-type: none"> <li>Included in internal monthly reports</li> <li>Minimal amount of time spent dealing with issue (i.e. less than 10 person-days)</li> </ul>	<ul style="list-style-type: none"> <li>Little or no delay in achieving outputs</li> <li>Little or no debt service budget variance (i.e. less than 3%)</li> </ul>

# Example: Mexico

Assessment of Impact	Reputational Impact	Reporting & Resource Impact	Impact on TESOFE's Operations
<b>Catastrophic</b>	<p>Loss of Mexican Government confidence</p> <p>Loss of market confidence</p> <p>Loss of trust, e.g. States &amp; Ministries</p> <p>Extensive media coverage</p> <p>High-level ministerial enquiry [or resignation]</p> <p>Financial and legal penalties</p>	<p>Reported to President or Congress</p> <p>Significant amount of time spent dealing with impact (i.e. greater than 20 person-days)</p>	<p>Failure to pay high priority payments on due date (personnel, debt service, tax refunds, States, taxes)</p> <p>To incur an erroneous payment such as crediting federal funds in the wrong account or deliver after the due date</p> <p>To incur payment default penalty (as no budgetary resource) such as, debt service, tax refunds, payroll and transfers to entities (with political impact).</p> <p>Incur an overdraft in bank account</p> <p>Unable to transfer between TESOFE's accounts due to the failure of BANXICO's payment systems and of commercial banks</p> <p>Unable to receive or access revenues</p> <p>Unable to transact in foreign currencies (receive, buy, sell or invest in USD)</p> <p>Unable to access TESOFEs bank accounts or its balances and operations</p>
<b>Major</b>	<p>Strained Mexican Government relationships</p> <p>Temporary loss of market confidence</p> <p>Moderate media coverage</p> <p>Ministerial enquiry</p> <p>Strained relationships with taxpayers and the discouragement of them to pay taxes</p>	<p>Reported to Minister</p> <p>Large amount of time spent dealing with impact (i.e. between 10 and 20 person-days)</p>	<p>Failure to pay Government contractors and/or subsidies, which would bring financial and political consequences because of payment delays</p> <p>Delay to pay the holder of a deposit or application for funds</p> <p>Unable to identify the concept of revenue</p> <p>Unable to issue reports for the operation and registration of revenues, and for official forms</p> <p>Unable to issue the certificate of received payment to the taxpayer</p> <p>Unable to open the vault that protects the official forms</p> <p>Inconsistent reports of bank accounts and their transactions and balances</p>

# Probability and Impact

	Low Impact	Medium Impact	High Impact	Very-High Impact
Very-High Probability (almost certain)	VHpLi	VHpMi	VHpHi	VHpVHi
High Probability (probable)	HpLi	HpMi	HpHi	HpVHi
Medium Probability (possible)	MpLi	MpMi	MpHi	MpVHi
Low Probability (remote)	LpLi	LpMi	LpHi	LpVHi

# Example: Turkey

		Impact level of risk				
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood level of risk	Very Low	1	1	2	2	3
	Low	1	2	2	3	4
	Medium	2	2	3	4	4
	High	2	3	4	4	5
	Very High	2	4	4	5	5

# ORM and BCP Strategy

- **Prevention or avoidance**, where the probability of an event occurring is reduced or eliminated
- **Transference**, where risks are passed to third parties such as insurance or outsourcing
- **Containment**, where the potential impact of an event occurring is limited in the early stages using controls or other techniques
- **Acceptance and recovery**, where an event or disruption might well occur but debt management operations can be resumed successfully using the disaster recovery plan

# ORM and BCP Implementation

- Appoint an **ORM/BCP champion** to oversee implementation of measures approved by senior management:
  - training program
  - raising awareness
  - introducing ORM/BCP into service level agreements
  - developing control tools and mitigation strategies
  - developing reporting requirements
  - maintaining ORM/BCP and annual testing

# Six-step BCP/DRP Framework

1. Document **business activities** and **critical processes and systems**
2. Undertake **business impact analysis** to assess probability and impact
3. Develop **BCP/DRP** (include 3<sup>rd</sup> parties)
4. **Implement** or **update** BCP/DRP
5. **Training** to imbed into the day-to-day operations of the DMO
6. Regular (at least annual) **testing** and **updating**



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