

## CHALLENGES FACING BANKS IN EMERGING COUNTRIES TO BE BASEL COMPLIANT FOR OPERATIONAL RISK

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### Abstract

The New Basel Accord identified various requirements for an effective operational risk management framework. Most central banks and regulators adopted these requirements for their own banking environments. However, there are many challenges facing these banks to ensure the effective incorporation of such a framework. An end-result of establishing an operational risk management framework is to calculate and allocate a realistic capital charge for operational risk. To achieve this, various principles and methodologies must be embedded that will ensure a practical approach to operational risk management. This paper aims to identify certain critical issues and challenges for banks of emerging countries to consider when developing an operational risk management framework in order to comply with the Basel requirements.

**Keywords:** Operational risk, Risk assessments, Basel Accord, Incident management, Risk management framework, Risk profile, Risk reporting, Risk appetite, Risk control, Capital allocation

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### 1. Introduction

Operational risk management is one of the most prominent management issues for banks, especially after a number of major incidents which negatively affected many organizations, such as the 911 terrorist attacks on the World Trade Center in 2001 and, specifically concerning the banking industry, the Barings Bank saga in 1995. Consequently various institutions became involved in a more focused approach on identifying specific approaches to manage risk, for example, the Basel Committee on Banking Supervision. This Committee, for example, identified various management principles and defined certain qualitative and quantitative requirements that form the basis for a healthy operational risk management framework. However, these principles and requirements generated a number of challenges for the banking sector as the management of operational risk is a fairly new approach for most banks. In the past, operational risk was managed as part of the general management procedures of a bank, however, it soon became clear that it should be regarded as a separate management discipline in its own right along with other risk types such as credit and market risks.

However, this concept posed various challenges for most banks, especially in emerging countries. With this paper the author endeavors to identify and analyze these challenges in more detail with the objective to share his consulting experience with various banks in Africa to assist banks in emerging

countries to develop and manage operational risk as a separate and specific risk management discipline.

### 2. Aim

The aim of this paper is to discuss the main challenges a bank faces during its objective to comply with the newly defined and adopted regulatory requirements set by the New Accord (Basel II). By understanding these challenges, a bank should be able to successfully address criteria to be compliant with most of the Basel requirements to manage operational risk.

### 3. Scope

This paper will cover the following challenges that were identified by the author during research and experience gained while providing a consultation service on risk management to various banks in Africa:

- 1<sup>st</sup> Challenge – Defining operational risk.
- 2<sup>nd</sup> Challenge – Understanding the Basel requirements.
- 3<sup>rd</sup> Challenge – Where to start?
- 4<sup>th</sup> Challenge – Implementing typical operational risk management methodologies.
- 5<sup>th</sup> Challenge – Establish an operational risk profile.
- 6<sup>th</sup> Challenge – Allocating a capital charge for operational risk and determining a realistic risk appetite.
- 7<sup>th</sup> Challenge – Managing risk data.

- 8<sup>th</sup> Challenge – Implementing an operational risk management strategy.
- 9<sup>th</sup> Challenge – Embedding an operational risk management framework.
- 10<sup>th</sup> Challenge – Regulatory reporting.
- Conclusion.

**1<sup>st</sup> Challenge – Defining operational risk**

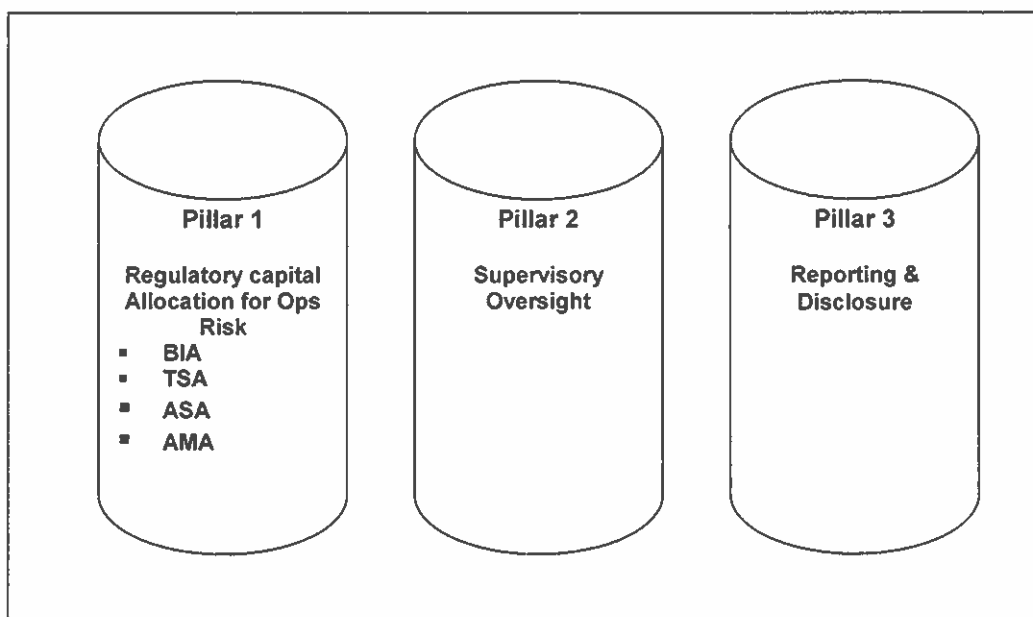
The concept, operational risk, is still becoming of age and used to be defined as all the risks not covered by market and credit risk. This view is not applicable in the modern world of banking, as operational risk became a more specified management discipline. One of the main reasons for this is a result of major incidents, which affected the global banking industry, for example the downfall of Barings Bank in 1995. An investigation into the Barings Bank saga concluded, for example, that one of the main causes of the downfall was due to operational issues, which can be linked to operational risk. Consequently, various institutions started to focus their attention on the development of management principles for operational risk, such as the Basel Committee on Banking Supervision. Accordingly, the Basel

Committee (2003:120) defined operational risk as: “Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk and excluding reputational and strategic risk.”

Most banks, worldwide, accepted this definition of operational risk as a starting point to develop an operational risk management capability. Once a definition for operational risk has been accepted, a logical next challenge is to understand the underlying risk management requirements, such as those advocated by the Basel Committee.

**2<sup>nd</sup> Challenge – Understanding the Basel requirements**

Along with the definition for operational risk, the Basel Committee based their management approach on three pillars, which represent, firstly, the measurement approaches to calculate a capital charge for operational risk, secondly, supervisory oversight to ensure that a bank is managing the risks effectively and, lastly, reporting and disclosure of operational risk and the management thereof (Basel 2004:137).



**Figure 1. Three Pillars for Managing Risk**

Adapted from Young (2006:20)

The fundamental objective of the Basel Committee has been to develop a framework that would strengthen the soundness and stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks (Basel Committee 2004:2). Consequently, the Committee (Basel 2004:137–139) identified four measurement approaches to calculate a capital charge for operational risk, namely:

- The Basic Indicator Approach (BIA);

- The Standardised Approach (TSA);
- The Alternative Standardised Approach (ASA); and
- The Advanced Measurement Approach (AMA).

In contrast with the promotion of risk-sensitivity, only the AMA allows, to some degree, a risk-sensitive approach which considers actual risk mitigating techniques to calculate a capital charge for operational risk. The other approaches are based on the gross income as a proxy to calculate a capital charge, which eliminates the effects of risk mitigating techniques and methodologies. However, to comply with the

AMA proved to be quite a challenge, as it requires a risk modeling approach to be able to determine a value for unexpected losses for which capital must be allocated. As such, most banks opted to use the Standardised Approach as a starting point, which also stipulates the following criteria for eligibility (Basel 2004:141-143).

**Qualitative Criteria.** The qualitative criteria are based on the sound principles for operational risk management, namely:

○ Board of directors and senior management must be involved. This principle could be achieved by involving the board of directors and senior management in the approval process of an operational risk management framework for the bank.

○ Clear responsibilities for operational risk management function. This principle could realise by establishing a specific operational risk management structure with allocated roles and responsibilities to specific role-players in risk management.

○ Develop operational risk management policies. Risk management policies could be drafted and distributed throughout the bank. However, the practical execution was not easily established and required training of employees in risk management.

○ Assessment of operational risk exposures and controls. A risk assessment is one of many tools which a bank can use to identify and evaluate operational risk exposures. However, many managers initially regarded this process as an additional burden. This attitude was changed once the value of risk assessments were realised.

○ Collection of operational risk incidents. Most banks do collect and monitor loss data which is related to operational risk exposures. In order for this information to be of value, it is necessary to manage operational risk incidents by means of a centralised loss event/incident system.

○ Identification and monitoring of operational risk indicators. Initially, the identification of risk indicators were confused with key performance indicators. However, as risks were successfully identified, the concept of managing risk indicators against specified thresholds became evident and thus an acceptable risk management tool.

○ Regular and systematic reporting at business unit level and filtered upwards. Risk reporting is probably one of the more important issues of operational risk management. Originally the operational risk reports included only losses, but gradually included various reports on major risk incidents, regulatory breaches, assessment results etc.

○ Regular independent monitoring of operational risk by operational risk practitioners. Monitoring was once again regarded as an additional task for management, but when the risk management structures were established, management realised the importance of regular and independent monitoring of operational risk.

▪ **Quantitative Criteria.** The quantification of operational risk provides a challenge for most banks

worldwide. However, for the purposes of calculating a capital charge for operational risk, using TSA, it requires the determination of gross income for preset business lines (Basel 2004:141). The challenge in this is to map the business entities/units of bank to the Basel Business Lines as set below.

**Basel Business Lines**

- Retail Banking
- Commercial Banking
- Corporate Finance
- Trading and Sales
- Payment and Settlement
- Agency Services
- Asset Management
- Retail Brokerage (Basel 2004:221).

As the above business lines are typical to most large banks, this is not the case for banks in emerging countries, resulting in difficulties for some banks to map their business structures to the business lines. Extreme care should be taken to prevent double-counting in the event where one business unit could be linked to more than one business line.

Although some of the criteria seemed easy and straightforward, not all banks have the capability to develop and implement these requirements. This led to the next challenge, namely where to start?

### *3<sup>rd</sup> Challenge – Where to start?*

A potential starting point for a bank to initiate an operational risk management capability is to involve the internal audit department. This is a logical place to start as internal audit usually focuses on internal controls, which is an inherent part of operational risk management. Although this is a logical place to start, it is not the ideal, as operational risk management is becoming a separate management discipline in its own right. This requires that the risk management function must be audited by an independent entity within the organisation as part of a healthy governance process. It is therefore imperative for a bank to establish a separate operational risk management capability, with the following primary functions:

- **Governance**
  - Coordinate risk management policies and standards on behalf of the board of directors.
  - Research and development of risk management practices.
    - Coordinate risk management training.
  - **Strategic planning**
    - Provide risk-related information and expertise during strategic planning processes.
    - Coordinate all risk information as a basis to determine the overall risk profile and the risk appetite.
  - **Risk control**
    - Monitor the implementation of risk policies and standards.
    - Monitor the use of risk management practices.
  - **Reporting**
    - Consolidate risk reports to the board of directors/risk committees.

- Consolidate all risk information on a centralised basis on behalf of the organisation.
- Coordinate the risk reports to various stakeholders such as the regulator.

Once an appropriate operational risk structure is in place and the basic criteria for an operational risk management process has been identified, the next challenge is to identify appropriate methodologies to manage operational risk.

#### **4<sup>th</sup> Challenge – Implementing typical operational risk management methodologies**

Risk identification and evaluation can be considered as a logical starting point to manage operational risk exposures. There are various methodologies to assist with these processes, namely:

- Incident management.
- Risk and control self-assessments.
- Risk process analysis.
- Risk indicators.

Incident management is based on incidents that happened in the past and will indicate the risks by means of losses suffered. By managing these incidents, control measures can be identified and implemented in order to prevent similar incidents and losses from reoccurring. This is a quantitative component of operational risk management as it is based on value (of losses).

A risk and control self-assessment is a qualitative approach and involves the identification of inherent risks of the business, rating it in terms of frequency and severity. Control measures are consequently evaluated in terms of effectiveness and adequacy. After taking into account the controls, the residual risk is determined and rated in order to indicate the potential future risks the organisation could be exposed to. If the residual risk is at an unacceptable level, it is imperative that the organisation identifies action plans to reduce the risk exposure.

Risk process analysis provides a structured approach to identifying risks. The risks are identified for each primary process of the organisation. Although also a qualitative approach, it will ensure that the primary risks are identified which could negatively affect the achievement of business objectives.

Key risk indicators (KRI's) are based on the current risk situation. It aims to serve as an early warning system by analysing the current situation in terms of the risk exposures. It is imperative that the identified KRI's are measurable and that the data is available to be benchmarked against a set threshold to indicate to management when there is a potential problem. This will allow management to be proactive to prevent a risk event from occurring or to minimise the potential negative effect should it occur.

These methodologies are the most popular for managing risks in terms of the past, present and future risk for the organisation.

According to the author's experience, risk and control self-assessments are the most used risk methodology, followed by incident management. However, it is important to keep in mind that all the abovementioned methodologies must be developed and implemented in order to qualify to apply the AMA to calculate a capital charge for operational risk.

Risk control is the next important component of a risk management process, which includes the following:

- Risk management policies and standards.
- Risk management structures.
- Internal controls.
- Risk reporting (Young 2006:94).

As mentioned earlier, risk reporting is one of the most important components of risk management as it serves as a platform for effective management decisions. However, should the risk reports not be accurate it could lead to incorrect strategic decisions which could have a negative effect on business. It is also imperative that the reporting channels are clear and that risk reports be compiled in a timely manner. Evenly important is the communication channels for the management decisions to ensure the implementation of the decisions. As such, risk reporting involves a bottom-up reporting and a top-down decision-making process.

Risk financing is yet another component of a risk management process which requires the attention of risk management. The aim is to determine an acceptable and realistic risk appetite for the organisation. Once the risks have been identified and evaluated, it is necessary to determine the costs. The components of risk financing, which will lead to the risk appetite of the organisation, are as follows:

- Cost of controls (Budget).
- Provisioning for potential expected losses.
- 3<sup>rd</sup> party insurance.
- Capital allocation for unexpected losses.

Lastly, it is important to monitor the total risk management process to ensure that the methodologies are effective and to ensure that best practices to manage risks are used.

The next challenge facing banks in terms of operational risk management is to determine the risk profile.

#### **5<sup>th</sup> Challenge – Establish an operational risk profile**

In order to establish an operational risk profile, it is imperative to have an embedded risk management process in place that will provide the required information. The following information is required to enable a bank to set a realistic operational risk profile:

- Incident management system that will provide the high-risk exposures in terms of losses.
- Risk and control self-assessments that will provide the residual risks in terms of likelihood and impact.
- Key risk indicators that will provide the current status of major risks that the bank is exposed to in terms of trends.

- Audit findings that will provide an indication of the efficiency and effectiveness of internal controls.

The risk profile is an important input to calculate and determine a capital allocation for operational risk, which is the next challenge.

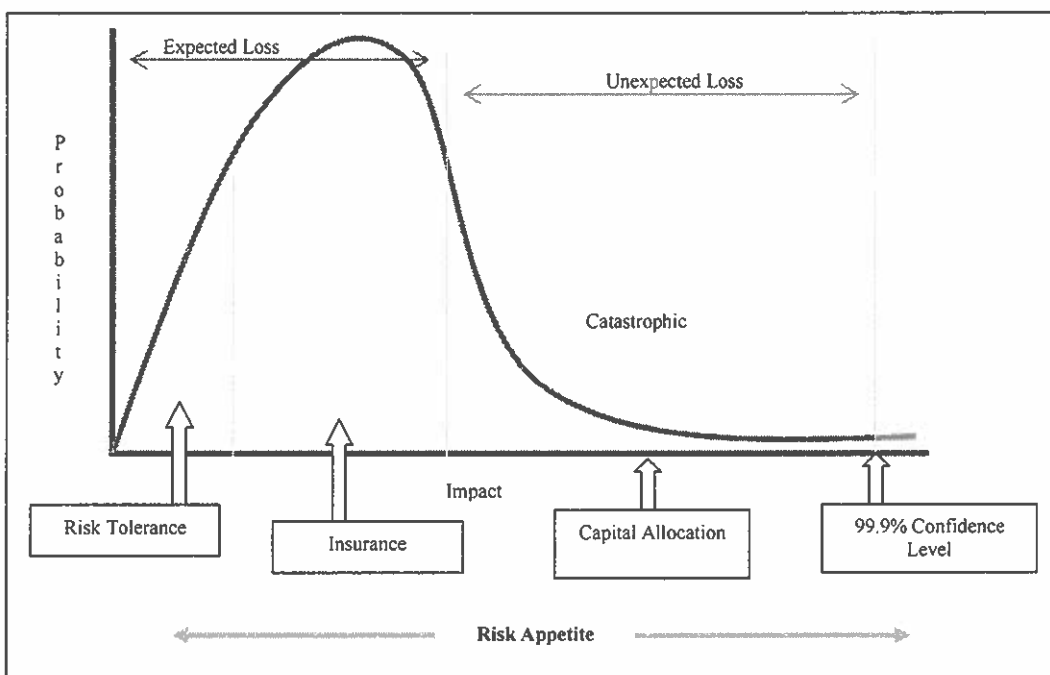
**6<sup>th</sup> Challenge – Allocating a capital charge for operational risk and determining a realistic risk appetite for operational risk**

Notwithstanding the requirements for an efficient risk management process, there are additional components that must be managed in order for a bank to embed a risk-sensitive approach to risk management. In addition to the abovementioned methodologies, a bank must also manage and have access to an external loss database and a process to identify risks by means of a scenario approach. These two methodologies aim to assist management in identifying the unexpected

losses, which is required for the use of the AMA to calculate a realistic capital charge. However, the challenge for a bank is to be able to identify the expected losses and the unexpected losses at a confidence interval of 99.9%. This requires some form of risk modeling, which is currently a challenge for most banks and risk practitioners.

A method to assist in modeling operational risk is to use loss distribution curves. Figure 2 illustrates a typical loss distribution curve and the allocation of expected and unexpected losses. It, furthermore, indicates how operational risk could be managed in terms of the following:

- Cost of controls.
- Insurance.
- Capital allocation.



**Figure 2.** Illustration of Loss Distribution Curve

Adapted from Young (2006:110)

Once the risks have been identified, it can be mapped in terms of a risk map (Illustrated by figure 3) that basically indicates how the identified risks should be addressed.

To determine a risk appetite, it is imperative to understand the concept. As such, a risk appetite can be defined as an expression of the total risk exposure of the bank in terms of expected and unexpected losses and the way the bank is prepared to manage these risks in terms of:

- tolerating the exposure and accepting the result of the risk event should it occur;
- implementing control measures to prevent the risk event;

- transferring the effect of a risk event should it occur to a 3rd party (insurance); and
- allocating capital in order to absorb the result of a major unexpected risk event.

It is imperative that the board of directors approve the risk appetite of the bank as it has a major effect on the business strategy of the bank, especially the capital allocation.

Currently, it seems that most banks are doing research and trying to determine the best way forward in calculating a capital charge for operational risk and to determine a realistic risk appetite. It thus remains a major challenge for banks aspiring to use the AMA to calculate a capital charge for operational risk.

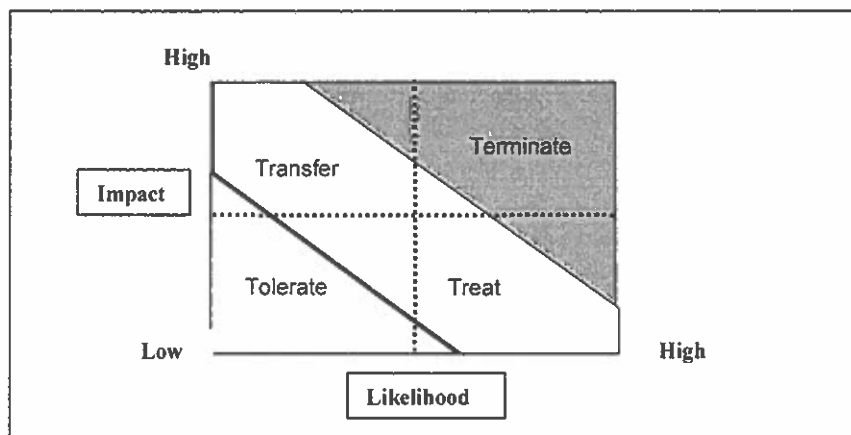


Figure 3. Risk Map

Adapted from Young (2006:76-78)

However, no risk model is of any use without adequate supporting data. In order to have suitable data for risk management, it is necessary to establish a system which could generate and maintain the required risk data. This leads to the next challenge, namely to systematically manage risk data.

#### **7<sup>th</sup> Challenge – Managing risk data**

Once the methodologies for operational risk management have been implemented, it is necessary to identify how these methodologies could be systemized to manage risk data. The amount of available risk data requires that it be managed and maintained by a system rather than a manual process. In this regard it is important to note that the systems to manage risk data should be customized according to the processes of the business. The established processes must not be adapted to suit the system as this could result in inadequate processes to support the business objectives of the bank.

Before the implementation of any risk data system, it is imperative to develop a detailed business model. This will ensure that a system will be developed for the correct processes and add value where required. It is also important to note that the system must be adaptable to changing circumstances and able to interface with the various risk methodologies to ensure future integration with all the relevant risk management architectures. Another system requirement is that a risk data system should be able to interface with other systems of the bank to extract data systematically.

Although a detailed automated risk system is the ideal for managing risk data, it should be kept in mind that a basic system should be implemented as a first step. Usually these data systems will initially only record operational losses as a starting point.

#### **8<sup>th</sup> Challenge – Implementing an operational risk management strategy**

It is a known fact that the identified and evaluated risks form an important input during a strategic planning process. This will serve as a guideline to top management when considering various activities to

set a strategy and achievable objectives for the business. It is, therefore, imperative that risk information is available during a bank's strategic planning process. As such, it is important to develop an operational risk management strategy to ensure that risk reports are accurate, relevant and available on a continuous basis.

#### **9<sup>th</sup> Challenge – Embedding an operational risk management framework**

Once all the previous mentioned challenges have been addressed, it will ensure a platform for a risk management framework. The main components of a typical operational risk management framework are:

- Risk philosophy and culture.
- Organisational and governance structures for operational risk.
- Operational risk management process.
- Operational risk management strategy (Young 2006:26).

The embedding of an operational risk management framework should provide a structured approach to risk management and ensure that it adds value to the achievement of business objectives in terms of the following business drivers:

- Profits;
- Governance; and.
- Reputation.

It is, however, important that the operational risk management framework be approved by senior management, endorsed by the board of directors and distributed throughout the organization.

#### **10<sup>th</sup> Challenge – Regulatory reporting**

Although risk reporting is one of the most critical issues of risk management, it is essential to identify regulatory reporting as a last challenge for banks. Most Central Banks adopted the regulatory reporting proposed by the Basel Committee in terms of, for example, business lines and event types. As such, it is necessary to develop the risk management processes and systems in a way that will include these requirements. However, not all banks are structured according to the Basel Business lines, but for the

Central Bank to level the playing field for all banks in terms of allocating a capital charge for operational risk requires standardised regulatory criteria. It is important for banks to ensure that their risk management processes support the requirements of regulatory reporting in order to prevent unnecessary reports. In essence, the bank's internal risk processes should be able to generate the required regulatory reports.

### Conclusion

During this paper, the author identified ten primary challenges for banks in emerging countries to be Basel II compliant for operational risk. These challenges were identified during consulting work with various banks in Africa. It is envisaged that when a bank addresses these challenges, it will add value during the process of establishing operational

risk management as an important and separate management discipline and to be compliant with the various regulatory requirements.

However, it must be emphasised that banks should approach the development and implementation of operational risk management systems and methodologies with caution, as this is still a new area for development and some of the methodologies are still being tested for effectiveness and feasibility. As such, it is important to identify methodologies that can be customised to the exact requirements and needs of the bank, rather than buy an "off-the-shelf" solution which is most of the time inflexible and expensive.

Finally, the 10 challenges that banks face during their objective to be Basel II compliant can be summarised by means of a diagram, illustrated in figure 4.

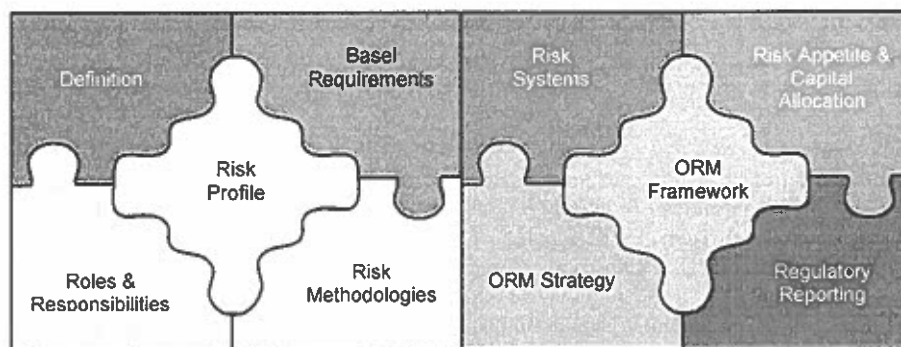


Figure 4. Ten challenges facing banks to be Basel II compliant

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