



# BASEL II COMPLIANCE MANAGEMENT

## 2005 COMPUTERWORLD HONORS CASE STUDY

### FINANCE, INSURANCE & REAL ESTATE

QUADRANT RISK MANAGEMENT (INTERNATIONAL) LIMITED DEVELOPED AN END-TO-END, READY-TO-DEPLOY RISK MANAGEMENT SOLUTION WHICH IS ALREADY HELPING BANKS MEET THE STRINGENT NEW BANK OF INTERNATIONAL SETTLEMENTS REQUIREMENTS REGARDING CAPITAL ALLOCATION IN THE FINANCIAL SERVICES INDUSTRY, KNOWN AS BASEL II. [20055331]

*A Search for New Horizons*



### SUMMARY

In recent years, the Bank of International Settlements has issued increasingly stringent requirements regarding capital allocation in the financial services industry. The most recent iteration of this capital accord, commonly known as Basel II, has created an urgent need amongst banking organisations for sophisticated risk management tools to help them improve their risk management capabilities. Responding to this need, Quadrant Risk Management (International) Limited has developed the industry's only end-to-end, ready-to-deploy risk management solution by coupling its unique and extensive intellectual property with state-of-the-art information technology. This "out of the box" solution is already helping banks meet the requirements of Basel II whilst enabling them to capitalize on their existing technology investments.

Robert Carrigan,  
Chairman of the Chairmen's Committee

Ron Milton,  
Vice-Chairman of the Chairmen's Committee

Dan Morrow,  
Chief Historian

### APPLICATION

New regulatory requirements affecting virtually every industry are springing up like dandelions on a summer lawn. There is, perhaps, no industry more affected by these regulatory mandates than the financial services industry.

Within the next few years all large national and internationally active banking organisations will be required to comply with a set of minimum capital and risk management standards commonly known as Basel II. This framework, which replaces the original Basel Capital Accord enacted in 1988, is intended to promote public confidence in the banking system by ensuring that banks properly evaluate the various risks they face.

Implementing Basel II standards will provide banks with tangible benefits by facilitating the adoption of best practices. Because this will afford them a competitive edge in the global financial services marketplace, many banks are scrambling to find solutions that will enable compliance with the provisions of Basel II.

Specifically, Basel II is built on three pillars that:

- require banks to align their minimum capital requirements more closely to their actual risk of economic loss,
- establish management policies and procedures, enabling banks to exercise sound judgment and set sufficient capital aside to protect against potential credit, market and operational risks, and
- motivate prudent management by enhancing the degree of transparency in banks' public reporting.

To comply with the provisions of Basel II, banks must collect and maintain as much as seven years worth of data to enable them to analyse their current risk performance, and accurately predict customer and organizational performance for their future business activities.

And therein lies the problem, until recently, there has been no ready-to-deploy, end-to-end solution available to facilitate Basel II compliant data collection, collation, analysis and reporting. For a bank to create such a solution on its own could easily take a couple of years, which would effectively mean missing the compliance deadline. There is also the additional risk that even after years of extensive development time, the in-house developed solution may not actually work.

Quadrant Risk Management (International) Limited, a long established specialist banking risk management consultancy, owned and staffed by senior banking executives, in collaboration with Sybase Inc, developed the industry's only ready-to-deploy Basel II specific solution, B2, which can be implemented in as little as three months

Traditionally, risk management consulting firms have focused on the development and implementation of risk management techniques in operational, market and credit risk. This largely consisted of writing policies, developing processes and advising organisations on how to structure risk management across their enterprises. Quadrant, like many firms, consciously steered away from technology development. However, with the clock counting down to the Basel II compliance deadline, Quadrant's clients made it clear they wanted and needed more than consulting. They wanted a complete solution – a technical solution – to the challenges they faced in complying with Basel II.

The B2 solution is a ready-to-run solution, including a fully risk-modeled physical database, which would function as an enterprise-wide risk data repository. The B2 solution is a perfect marriage of intellectual property and information technology.

B2 uniquely satisfies the needs for Basel II compliance with the adoption of best practices in credit and operational risk management across all asset classes and business lines. Because the solution is modular, banks can leverage any work they have already done regarding Basel II compliance. B2 comprises 7 integrated components, providing a framework that enables banks to comply with Basel II and other industry best practices. The components include:

- Basel II gap analysis
- data mapping
- data integration
- an enterprise-wide risk data repository
- a predictive modeling and analytical engine
- data management tools
- Web dashboard

The inclusion of the physical database as the risk data repository distinguishes B2 from a number of incomplete solutions.

To understand the importance of this, consider the comment of one client who has implemented B2:

“The key to our decision to employ B2 was its Basel-specific database. It would have taken us two to three times as long to create our own solution if we'd had to develop that repository on our own.”

But there's more to B2 than Basel II compliance.

If one looks beyond Basel II, the B2 solution is really a state-of-the-art compliance engine against which organizations can build any number of compliance blades. Because risk data is stored at the atomic level, any compliance analytics can be applied to it.

This is critical because in a world now governed by statistics and rules, the organization that can gather its information into one pool where it can be analyzed in a multitude of ways is the organization that will succeed.

## **BENEFITS**

### Benefits

First and foremost, the Quadrant B2 solution makes it possible for banking organizations to meet the looming Basel II compliance deadline. This is good for the banks, the markets, and for banking customers alike as it ensures that banks properly evaluate the risks they face and adopt best practices and transparent reporting to promote public confidence in the global banking system.

Additionally, B2's centralized risk data repository and open architecture provide banks with the flexibility to address future regulations and expectations with minimal efforts, utilizing their existing IT infrastructures and assets.

## **IMPORTANCE**

The use of leading edge information technology was critical to the success of this initiative, as customers were demanding a complete solution as opposed to traditional consulting engagements that provided them with recommended policies and processes, and perhaps, a recommended technology roadmap. Given the fast approaching deadline for Basel II compliance, banking organizations wanted a complete, end-to-end, ready-to-

run solution.

The B2 solution provides risk management functionality without incurring excessive IT or development resources. Completing the picture is the data repository, allowing the storage of years worth of data for analysis.

## **ORIGINALITY**

As of this writing, the Quadrant B2 compliance solution remains the only end-to-end, ready to deploy solution available to banking organizations that must comply with the Basel II standards within the very near future.

## **SUCCESS**

The reason for the success of B2 is that Quadrant has addressed the difficulties listed above in a concise, accurate and efficient manner.

Quadrant's Principals and Consultants all have extensive banking risk management knowledge and experience and have been actively involved in Basel II projects since 2002. Consequently they have an in-depth understanding of the requirements of the Accord, especially in relation to the integrated view. This gives the practice an almost unique ability to make structural recommendations to organisations that will provide them with a strategic grasp of Basel II.

The analytical risk data repository, which can be overlaid on virtually any legacy bank operating system, not only forms the analytical data pool for Basel II, but also acts as the data target for gap analysis processes. This results in much shorter delivery times than developing logical models. A good analogy for this would be that in order to easily locate a paper file, it is much easier to have it stored in a clearly identified A-Z filing system than trying to rifle through a random pile of documents in the hope that you find what you are looking for.

There is no shortcut regarding the issue of data integrity. Quadrant's B2 solution has a physical data model that contains Basel II-related metadata. This is important because the data integration process is likely to account for 70% of the implementation effort.

Quadrant spent two years building an enterprise-wide risk data repository for credit, market and operational risk. Working with agnostic software platforms that were capable of absorbing and distributing data from and to any acknowledged bank legacy systems, Quadrant developed a Basel II solution, which is pre-built to enable rapid implementation, yet flexible enough to reflect a bank's own, unique, predictive data.

The development of a bank's Basel II data repository, together with a comprehensive Basel II workbench, gives a bank "one version of the truth" across all the risk and product lines in line with the essential Basel II requirements. In addition, it goes right to the heart of the integrated view by creating a fully modeled group-wide data repository to which any statistical solution can be applied. Indeed, it becomes the basis for future compliance structures that may be required within the organisation.

## **DIFFICULTY**

The major obstacles Quadrant has encountered in developing this solution have been the banks themselves, who on the whole, have not given enough thought and consideration to the main implication of Basel II – namely "one version of the truth" in management structures and risk-critical data pooling.

Additional difficulties encountered include:

- Consultancies making long-term projects out of what should be short-term boxed programmes,
  - Data integrity,(correct and consistent)
  - Multiple data sources (data stores for separate business lines or operational subsidiaries)
  - IT solutions vendors' "re-packaging" existing products that do not deal with "one version of the truth" across all risks and product lines across the enterprise
  - Banks reacting tactically to a strategic problem
- ? Non integrated approach of risk managers e.g. no correlation of risks or indeed business areas
- ? Vested self interest of stakeholders within the bank risk teams (invariably team members/stakeholders would have individual preferences in regard to their separate activities)

