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A whitepaper on the challenges of successfully implementing Basel regulations in developing economies

Introduction

The financial crisis of 2008 emphasised the importance of financial regulatory reforms, and data from the Basel Committee on Banking Supervision (BCBS) shows that the implementation of the first Basel standard is almost ubiquitous, and newer standards, specifically Basel II, have found widespread acceptance.

These global prudential standards represent significant efforts to increase the resilience of banking systems worldwide and thus reduce the likelihood of another systemic financial crisis. The complexities and intricacies are many, not least of which is the impact on developing economies.

Since the Basel standards were developed with global sustainability in mind, regulators focused on significant impact economies with similar levels of banking system operations and risk profiles. Regulators in many low- and lower-middle-income countries (developing economies) have continued pressing ahead with Basel II and III implementations even though these standards may be an imperfect match for their domestic banking systems' risk profile and level of development.

In this paper, we will explore ways in which developing market banks can adapt and even thrive within these imperfections.



A bit of history

The misalignment of regulations and the local environment is one reason why developing economies have adopted a more cautious approach to Basel II. Their intentions were first to understand Basel II implementation details and better grasp their possible implications to make an informed decision on the optimal way forward. Many economies had also not yet fully implemented Basel I and needed to catch up before addressing Basel II. Although the International Monetary Fund and the Basel Committee embraced this approach, there was pressure from rating agencies and others for countries to adopt Basel II.

Data from the Financial Stability Institute at the Bank of International Settlements (2015) shows that 90 out of 100 surveyed non-member jurisdictions have implemented Basel II at least partially or are in the process of planning to do so.

Implementation issues facing developing economies are not simply technical. There are also broader issues, such as:

1. The competitiveness of national and foreign banks
2. Access to credit by SMEs
3. Increased pro-cyclicality of bank lending resulting from Basel II
4. Other macro-economic impacts

For many developing economies, foreign banks represent a large proportion of their assets. These banks have adopted complex approaches in their home territories but have to assume simplified methods in developing economies based on the local regulatory regime, which creates a complex playing field.

Key drivers for a successful Basel implementation in developing economies

In practice, Basel standards are compendia of different regulations, and regulators can choose how many of the different components to implement. Data from the Financial Stability Institute (FSI) show that implementation in developing countries is both widespread and highly selective.

The implementation of Basel II (or III or IV) impacts a wide range of functions, including finance, risk, corporate, management and regulatory reporting, legal / compliance, and IT. In addition, multiple projects in each of these areas and their highly interdependent nature contribute to significant programme complexity.

To create a seamless adoption, financial institutions should consider certain key elements:

1. A new risk and finance management culture
2. End-to-end integration
3. Data management

Adoption varies significantly across regions

Basel implementation is varied across countries. In this example covering eleven developing countries and regions, four of which are classified as low income (Ethiopia, Rwanda, Tanzania and WAEMU) and seven as lower-middle income (Angola, Bolivia, Ghana, Kenya, Nigeria, Pakistan and Vietnam), one can see that regulators have responded in very different ways to international banking standards. At the start of this FSI research project in 2015, only three of the eleven jurisdictions had implemented any components of Basel II and III (Pakistan, Kenya and Nigeria). By January 2019, Ethiopia was the only country that had not implemented at least one component.

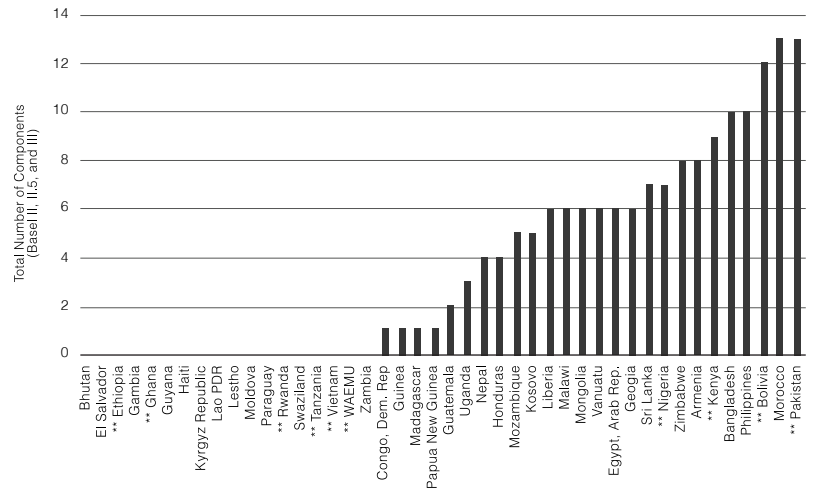


Figure 1.1 Implementation of international banking standards in low- and lower- middle-income countries

Note:** denotes a country that is studied in this volume

Source: Data from FSI Survey 2015 covering one hundred jurisdictions outside of the Basel Committee, supplemented with data from case studies in this volume. Income categories are according to World Bank classifications for the same year

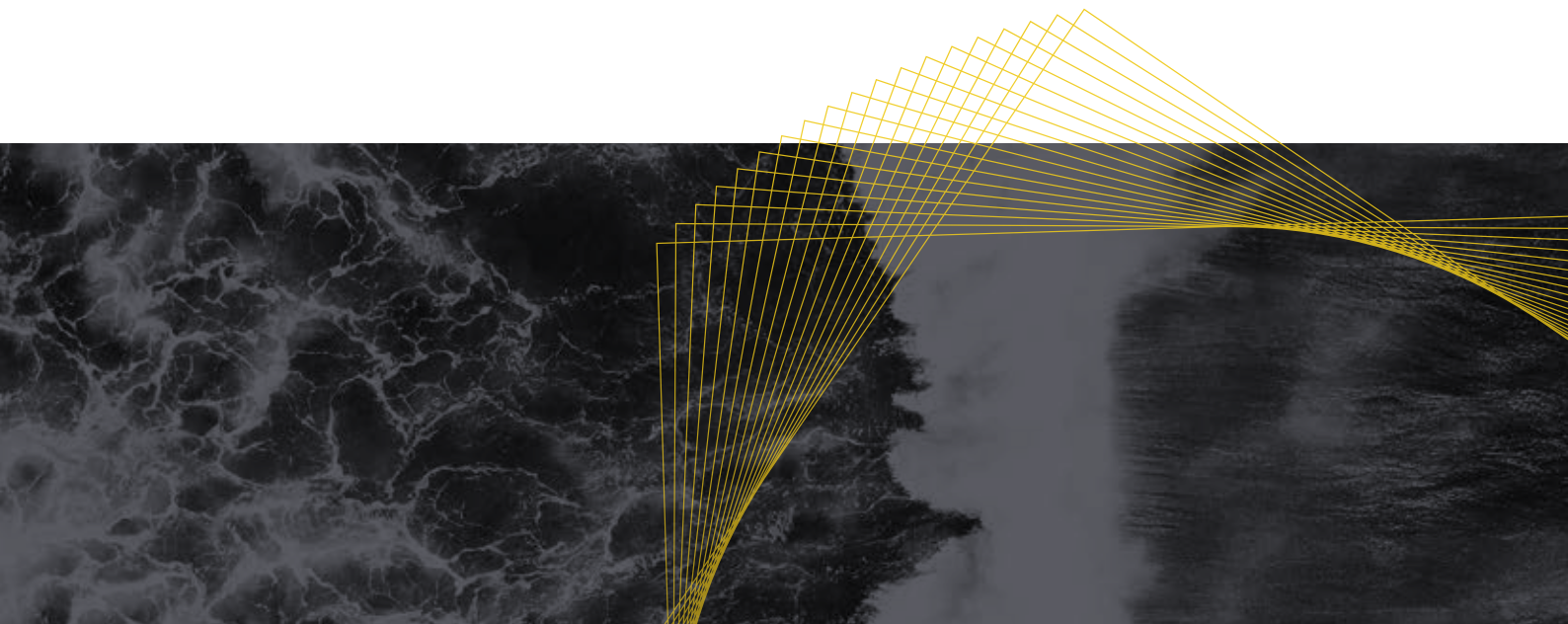
A new risk and finance management culture

Basel compliance is changing the way that banks address the management of risk and finance.

The new regime seeks much greater integration of these functions, which may drive the convergence of CFO and CRO responsibilities in delivering their business' strategic objectives. Reliance on multiple data silos and a separation of powers between finance and risk teams may hamper the adoption of a more rigorous regulatory stance.

The inherent risk emphasis in Basel requires that risk management frameworks evolve to match the robust nature of traditional finance management infrastructures. Basel thus, in many ways, provides a framework for pure enterprise-wide risk management.

Organisations that wish to evolve effectively will need to embrace this convergence.



| End-to-end integration

A component-based approach to Basel program implementation is often the best course of action because banks need to ensure that the various components tie in from an end-to-end perspective and that the interactions between projects are seamless.

Identifying and plugging gaps between accord requirements and the current state requires assessing the ability to deliver within the timelines stipulated by national regulators. This assessment

should include data availability, the existing process upgrades needed to support new functionality, and the time and cost implications of plugging the gaps.

Programs will need to prioritise these based on the business criticality of the missing elements and feasibility regarding cost and timelines.

Integration has two primary components:

1. End-to-end architecture
2. End-to-end testing

END-TO-END ARCHITECTURE

There are two critical aspects to Basel implementation architecture, namely business architecture and technical architecture. Defining boundaries for the various business process interactions from start to finish is essential. The business architecture team should review the requirements of individual projects to check they fit with the end-to-end flow. The technical architecture will address tool, platform, package selection and technology implementation of the business flow across platforms and technical specifications and standards.

END-TO-END TESTING

The importance of testing the end-to-end flow in such large and complex projects cannot be overstated. The preferred model is to design a proof of concept at the beginning of the implementation to capture issues upfront. End-to-end testing should involve users from product control groups and business units to test the seamless flow of data across different modules to deliver reliable results of RWA and reporting data points.

| Data management

The data management requirements of Basel are significant. For the bank, the regulator, and the broader market to get an accurate picture of the bank's position, the data must be accurate, consistent, and up to date. Delivering this cost effectively is difficult if the data is dispersed across silos. Ensuring that a bank's regulatory data is of the right quality and in the right place at the right time is probably the single most important criterion in deciding whether a Basel project will meet its objectives or not.

A Basel implementation is an enterprise data initiative that requires managing diverse data from multiple product systems and business lines through a central warehouse or regional data marts. Data would undergo many enhancements from the source at different stages to tie requirements to raw data.

Erroneous or missing data from the source system feeds a multiplier effect resulting in significant errors in calculating key risk indicators.

All Basel versions impose extensive data requirements on banks in their credit risk computation. Data collected needs to be of high quality and in a ready-to-use format. Data complexity is compounded by the multiplicity of product systems and business lines capturing and storing data in local structures.

Successful implementations address these data gaps or data non-availability upfront through enrichment or substitution of data. Not only can data errors result in regulatory inaccuracy, but they may negatively impact decision-making and result in regulatory penalties.

| Auditing the data

Once a regulatory report has been submitted, a regulator may follow up to clarify critical issues about the calculated results and the application of rules. This audit will require the bank to identify, check, approve and re-submit the data quickly and accurately.

Additional submissions need to be consistent with the original reporting, delivered in the same format and be completed cost-effectively to avoid impacting other business activities. This audit process will be challenging for banks whose data is dispersed across multiple silos and systems. Banks with a centralised data model will respond faster and more efficiently to these inquiries and have streamlined compliance and reporting processes.

| Stress testing and financial forecasting

Stress testing is defined as the ability to understand the impact of significant market events on the key ratios and accurate financial forecasting for planning purposes. It is becoming increasingly important in developing economies.

Increasingly, stress testing will be required more often, performed across more data, and need to be delivered in more depth. Achieving compliance will be hampered if organisations have data distributed

across multiple silos. Processing data in silos takes longer, requires more effort, and delivers less accurate results than having a data model where all the critical information is held in a central repository. A central data repository allows teams to run a wide array of complex stress tests that meet the insight needs of the business and the compliance needs of the regulator.

| Leveraging Basel beyond regulatory capital

How banks in developing economies choose to implement Basel can offer scope for competitive advantage. Those who implement intending to improve their business processes and regulatory processes stand to reap further rewards than those that see Basel compliance as an end in itself.

Having an efficient data set will help streamline the regulatory process and allow business managers to have a complete, seamless and consolidated picture of the business, potentially for the first time.

Re-using regulatory data in different contexts gives banks the potential to improve management, overall enterprise risk management, growth and profitability.

A successful implementation can create the building blocks for:

1. More profitable and effective pricing
2. More efficient capital allocation
3. Cost savings through the retirement of isolated databases and manual processes
4. Reduced dependency and reliance on legacy systems and individual contributors

| Multiple approaches, one destination

Implementing Basel creates a unique set of challenges for each organisation, regardless of their starting point. The most suitable selection will depend on the stability and performance of the organisation's current environment, the speed at which the organisation wishes to implement the regulations, and what resources are available.

Enhancing the current environment

In some cases, the best option is to upgrade the existing environment by adding modules to handle additional requirements, whether it be stress testing, data warehousing, or reporting. Enhancing or upgrading the current environment allows an organisation to adopt the regulations at a pace that they can tolerate and that is less disruptive to business operations.

Once the environment is defined, a gap analysis will identify where the team should focus the main compliance effort.

Deploying a new regulatory environment

In other cases, the most cost-effective option will be to replace the existing regulatory model with a new, purpose-built solution that delivers Basel "out of the box" without requiring extensive customisation. Although this might appear to be the most costly and disruptive solution, it may be the most cost effective since it allows the organisation to map to the regulations, thus embedding Basel within its processes.

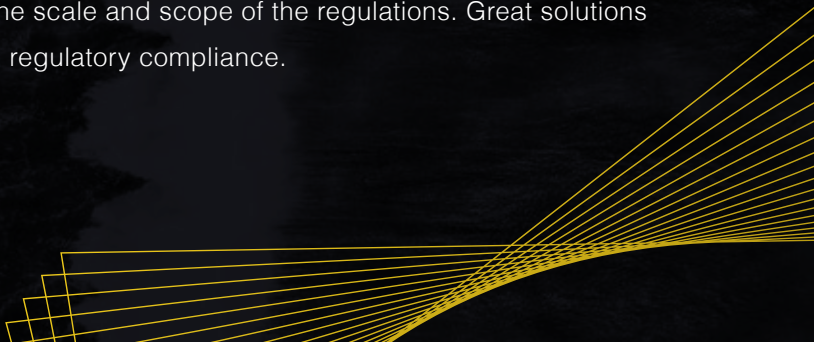
Buy or build

Another critical decision is whether to develop a system in-house or buy from a vendor. Beyond perhaps yielding more significant insight into the business, creating an in-house solution delivers minimal competitive advantage. The regulatory requirements are the same for all banks. Moreover, the regulations are subject to regular change globally. Managing this change is an essential but onerous task. Software vendors maintain teams to analyse and accommodate these changes, which is uneconomical for banks to do themselves.

| Conclusion

Basel is an opportunity, as well as a challenge for banks, especially in developing economies. It can provide a solid foundation for subsequent developments in the banking sector and ensure that past excesses are avoided.

The key to ensuring that Basel creates opportunity lies in selecting the technology architecture used to deliver the framework, particularly a technology architecture that accommodates scale and structure, processes, and geographic spread, blending all these seamlessly into the scale and scope of the regulations. Great solutions blend flexibility with improvements to both business and regulatory compliance.



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Basel and risk management credentials

Regulatory reporting

In collaboration with Ilion, part of the BBD Group, the PredictR regulatory risk team has implemented various solutions in building their expertise within the risk management arena. One such project was the implementation of a solution that focused on defining individual building blocks that can be linked, creating an end-to-end process that meets the need of each regulatory submission for a pan-African commercial bank.

The defined process is managed by an orchestration and automation engine which executes the process components based on the process dependency definition, manages the parallel processing of components to enable speed optimisation, and visualises the status of the process execution. The team specified, developed and implemented the solution using SQL Server, C#, SSIS and SSRS, as well as a web-based front-end. As a result, the bank's regulatory reporting was transformed in record time.

The solution allowed the client to drastically enhance their regulatory reporting processes through transparency, auditability and traceability. This approach resulted in improved reporting, capital planning and forecasting, in addition to end-to-end process control, increased flexibility and capital optimisation.

Financial and risk forecasting and optimisation

With banks across Africa upgrading their financial risk capability, moving from Basel I to Basel II and beyond, they are facing pressure from their respective regulators, and making the most of adhering to regulatory guidance and requirements. The PredictR team is assisting several banks in taking this opportunity to not only build a sophisticated stress testing capability, but also implement financial risk forecasting, capital management, and strategic financial risk planning solutions.



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Get in touch

With close to four decades under our belts, we've honed our skills and bulked up our knowledge to bring you a range of top-notch international expertise and services to meet your modern enterprise software requirements - partner with us for end-to-end digital solutions that optimise your business operations.



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