Aptivaa

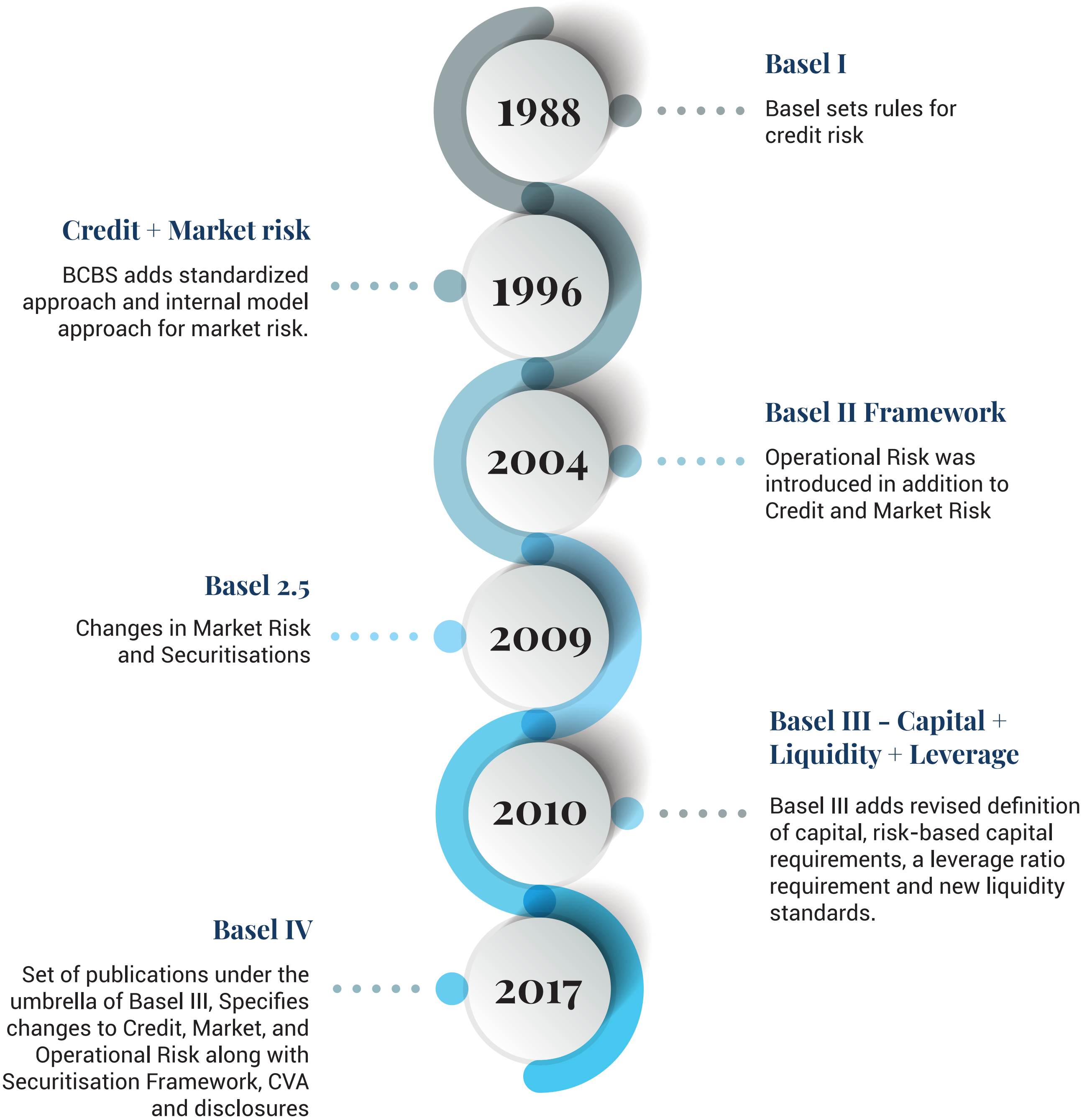
LEADING THROUGH INNOVATION

Basel IV

What does it mean for banks?

1. Introduction

The Basel Committee on Banking Supervision (BCBS) is the primary global standard setter for the prudential regulation of banks. BCBS introduced the first capital accord in 1988, which has since then been evolved into an integrated Basel Framework comprising of all the current and forthcoming standards of BCBS.



Officially, there have been three capital accords, viz. Basel I, Basel II and Basel III. These accords are primarily focused on governing capital adequacy i.e. the ratio of regulatory capital to risk weighted assets of the banks. Under the umbrella of Basel III, a set of publications were introduced around 2017, which mainly focused on changing the denominator of capital adequacy i.e., the method of calculation of risk weights for all types of risks and came to be known as Basel IV by the banking industry in general. The publications under Basel IV have been mentioned below.

Basel IV

Risk Area	Credit Risk	Counterparty Risk	Securitization Framework
BCBS Reference	BCBS 424	BCBS 279	BCBS 374, 442
Market Risk	**Credit Valuation Adjustment (CVA)**	**Operational Risk**	**Disclosures**
BCBS 457	BCBS 507	BCBS 424	BCBS 455, 468

2. Basel IV – Salient Points

Basel IV aims at restoring credibility in the calculation of risk-weighted assets (RWAs), and improving the comparability of banks' capital ratios by:

- Increasing risk sensitivity of the standardized approaches for credit risk, operational risk, market risk and credit valuation adjustment
- Constraining the use of the internal model approaches by
    - Placing limits on use of Advanced Internal Rating Based (AIRB) approach; and
    - Removing the use of the internal model approaches for CVA risk and operational risk
- Complementing the risk-weighted capital ratio with a finalized leverage ratio and a revised capital floor.

The banks are expected to adopt the revised Basel IV standards by 1st January 2023. The phase-in of Output Floor requirements will also start on 1st January 2023, which will continue till 1st January 2028.

Implementation Timeline

Standard	Implementation Date
Revised leverage ratio framework and G-SIB buffer	01 January 2023
Revised standardised approach for credt risk	01 January 2023
Revised IRB approach for credit risk	01 January 2023
Revised operational risk framework	01 January 2023
Revised CVA framework	01 January 2023
Revised market risk framework	01 January 2023
Pillar III Disclosure	01 January 2023
Output floor	01 January 2023; transitional arrangements to 01 January 2028

Implementation Date	Output Floor Calibration
01 January 2023	50%
01 January 2024	55%
01 January 2025	60%
01 January 2026	65%
01 January 2027	70%
01 January 2028	72.50%

The Basel IV regulations have introduced significant changes in the way risk weights are calculated. The changes range from the recalibration of existing standardized approaches for credit risk to the replacement of all existing approaches with a new standardized approach for operational risk.

One of the most important changes is the imposition of standardized models for calculating risk-weighted assets (RWAs) and constraining the use of internal ratings-based (IRB) models. Additionally, as per the new rules, the banks' RWA calculations for Pillar 1 capital requirements generated through the use of internal models cannot fall below 72.5 percent of the RWAs calculated under the standardized approach. Whenever the capital requirements as per internal models lead to a lower number, the bank must still allocate capital no less than 72.5 percent of the capital requirements as per standardized approach. This section covers the major changes introduced by Basel IV.

CHANGES

1 Credit Risk
Modifications in the Existing Approaches

Standardized Approach - Risk Weighted Asset (RWA) Computation

- Introduction of due diligence requirements while using external ratings
- Introduction of non-ratings based approach where external ratings not allowed
- Alignment of Standardized Approach (SA) asset classes with Internal Ratings Based (IRB) approach - separate risk weights for Specialized Lending exposures
- Increase in granularity of risk weighting for real estate, subordinated debt and equity and unrated exposure. Introduction of Loan to Value (LTV) based RWs for Real Estate exposures
- Introduction of lower risk weight requirements for transactors under revolving retail facilities
- Recalibration of Credit Conversion Factors (CCFs) for off balance sheet exposures; CCF of 10% for unconditionally cancellable commitments

Internal Ratings Based (IRB) Approach

- Modification in Probability of Default (PD) floors for IRB and introduction of Loss Given Default (LGD) and Exposure at Default (EAD) input floors for Advanced Internal Ratings Based (AIRB) approach
- Change in LGD computation under Foundation Internal Ratings Based (FIRB) approach
- Removal of IRB scaling factor of 1.06
- Advanced Internal Ratings Based (AIRB) approach removed for Banks, FIs and Large Corporates with consolidated revenue greater than €500 million
- Both Foundation and Advanced IRB removed for Equity exposures

CHANGES

2 Counterparty Credit Risk (CCR)
Revised Framework

- Modifications in the Counterparty Default Risk computation framework
- Introduction of Fundamental Review of Trading Book - Standardized Approach (FRTB -SA) for CVA (Credit Valuation Adjustment) which closely follows the FRTB Market Risk Standardized Approach

CHANGES

3 Market Risk
Increased Complexity and Compliance Requirements

- Market Risk to be measured as a part of Fundamental Review of Trading Book (FRTB) framework
- Introduction of FRTB Standardized sensitivities based method
- Shift from Value at Risk (VaR) to Expected Loss (EL) approach in case of Internal Models

CHANGES

4 Operational Risk
High Quality Loss Data Required

- All existing approaches including the Advanced Measurement Approach to be replaced with a new Standardized Approach
- 10-year high quality loss data requirement with increased granularity of loss data collection framework

CHANGES

5 Output Floor

- Banks' RWA to be calculated as the higher of: (i) total RWAs calculated using the approaches that the bank has supervisory approval to use (ii) 72.5% of the total Standardized Approach RWAs.

CHANGES

6

Additional Data Requirements and Changes in Disclosures

- Revised Standardized approaches lead to additional data requirements like missing LTV values in the reporting system, additional loss data requirements etc.
- Revised disclosures for credit, market and operational risk based on modification in capital computation frameworks
- Revisions to leverage ratio common disclosure template
- Inclusion of the introduction of leverage ratio buffer for G-SIBs in the disclosures
- New disclosure on Asset encumbrance and capital distribution constraints

3. Basel IV - Implications

The aim of Basel recommendations since inception has been to strengthen the banks' resilience to crises. Adding on the foundation laid by previous iterations of Basel recommendations, Basel IV will ensure a safer and better-capitalized banking system by introducing significant changes in the capital computation approaches. These changes will have a range of implications for banks depending on the business model/product offerings, geographies and existing capital computation approaches used by the banks.

Major implications for the banks have been listed below:

1) Credit Risk SA and IRB Approach

Capital computation framework to undergo significant update

- Banks will need to develop an internal assessment framework for externally rated portfolio in order to facilitate due diligence. For the unrated portfolio belonging to banks and corporates, a more granular approach will be followed. This may lead to usage of internal rating models/assessment frameworks even under standardized approach.
- Change in RWA computation techniques and capital requirements may significantly increase capital costs for a few products. This will necessitate the realignment of product/business strategy based on new RWA requirements.
- Change in models will also require adjustments to respective policies, procedures and governance frameworks.

2) Counterparty Credit Risk

Capital computation framework to be updated

- The Risk Weights for Counterparty Default Risk will have to be aligned to the new Credit Risk SA/IRB approach. Banks need to construct accurate aggregated views of their exposures including counterparty's legal structure and end obligor in order to understand fully how a counterparty failure may impact them.
- Further, banks will have to develop the framework for calculation of CVA risk capital charge and accommodate new eligibility requirements for CVA hedges.

3) Market Risk

System capabilities need to be enhanced

- Systems should be able to address the increased complexity of requirements for both the Standardized Approach and the Internal Models Approach, and make capital effects visible to traders in real time for executing trading decisions. The data collection and aggregation process will have to be streamlined so that the calculations can be run fast enough to make decisions.
- For FRTB, banks will need to address new requirements on length of history and, for those using internal models, proof of liquidity through real price is required. Robust data management is required for meeting these needs.
- The number of required simulations under internal models approach is significant when compared to most banks' current standard practices. The enhanced simulation requirements will place additional burden on risk systems.

4) Operational Risk

Capital Computation framework to be updated

- The new capital computation approach for operational risk will require a new model, processes and reporting. Further, banks will have to create a repository of high quality risk data as per the requirements of the standardized approach.

5) Output Floor

Capital computation framework to be updated

- Banks following the IRB approach will have to concurrently invest in SA infrastructure for facilitating the computation of output floor. Additionally, the requirement to 'top up' any shortfall in capital allocation could result in banks allocating more risk and capital to many of their products, which could in turn impact pricing, resulting in some products becoming less commercially viable.

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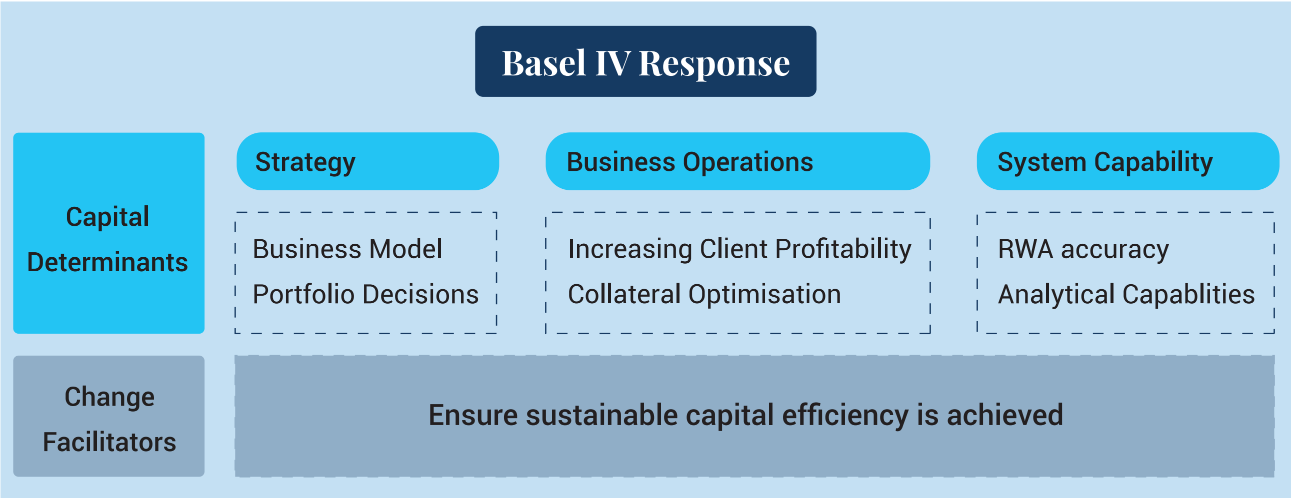
6) Reporting and analytical capabilities to be enhanced

- The standardized approaches for credit risk, operational risk and CVA are more granular and risk sensitive, necessitating the need for better data and analytical capabilities.
- The reforms will affect many aspects of the banks' business - ranging from data/infrastructure requirement, to pricing and strategy. Along with the apparent cost of additional capital requirements, the banks will have to invest in IT infrastructure and resources. The banks will also have to assess the viability of existing products, business model and choice of capital computation approaches.
- The banks will need to identify whether only a modification in current systems is required, or they should invest in complete replacement of their current IT systems for ensuring compliance to regulatory requirements.

The repercussions will vary for individual banks depending on the geography and business model and each bank will need its own customized response plan. Regardless, the banks can start with a few likely response measures to manage expectations of investors and rating agencies. This section describes a two-part response to the new Basel norms, which would help the Banks in optimizing the capital requirements while addressing the changes.

The first part of the response focuses on the capital determinants and thus, aims at streamlining Strategy & Vision, Business Operations and System Capability. The second part of the response focuses on managing the capital determinants using change facilitators consisting of robust control framework, updated capital management strategy, training programs to inculcate awareness at all levels in the bank and investing in sustainable IT solutions.

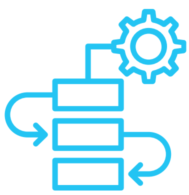


Capital Determinants

Capital determinants help in increasing capital efficiency by adjusting the business model to new requirements, increasing risk based profitability and improving RWA accuracy. The capital determinants have been covered below:

Strategy

- The banks should realign their strategy in order to optimize capital requirements and adapt to the new regulatory environment proposed by Basel IV.
- Risk Weighted Assets under the Credit Risk Standardized Approach (SA) are highly dependent on the business model. In some instances, specialized banks falling under higher risk weighting as per the new norms may consider diversification to other business areas as a viable solution.



Business Operations

- The standardized approaches under Basel IV are comparatively more risk sensitive. The banks may benefit by adapting their business operations in response to Basel IV.
- For instance, it would be worthwhile to reconsider client level profitability. In case of clients with higher RWA requirement, the banks may opt for re-pricing or request for additional collateral. In some of the cases, the banks may even consider exiting from high risk deals in order to improve capital efficiency.

System Capability

- Basel IV envisages modifications at the framework, approach, calculation and reporting level, and entails significant system level changes. Increased level of complexity of new rules and stringent reporting requirements necessitate advanced data churning capabilities which can only be assured through well suited systems.
- Enhancing the system capability in order to accommodate for Basel IV is an essential requirement and will help the banks in maintaining accuracy of RWA reporting for capital computation and increasing analytical capabilities.

Change Facilitators

Change facilitators provide a conducive environment for ensuring that the capital efficiency being brought by above measures is sustainable. The following steps can be undertaken to ensure that actions to improve capital efficiency become a part of the bank's culture and infrastructure:

- Emphasis on effective risk control framework
- Embedding Capital Management strategy in the overall risk framework
- Training programs aimed at making front line more aware of capital implications
- Investing in sustainable IT solutions with better analytical and reporting capabilities

At an overall level, Basel IV introduces a host of changes, which have a potential to significantly affect the banks' capital requirement. In order to optimize the impact on capital and ensure compliance with the expected timelines, banks should invest requisite time and resources to adopt the response measures. Each bank has its unique perspective about strategy, capital management, control frameworks, IT solutions etc., and the individual response should be customized based on the bank's sensitivity to Basel IV changes.

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