

Pillar	Component	Description	eFrame
Pillar 1	Credit Risk - Standardized Approach	For Banks that decide to adopt the standardized approach they will be reliant on the ratings generated by external agencies such as Moody's and CARE. The external credit agencies will assign credit ratings to assets of Banks and then capital is allocated for each of the assets. Three categories of credit risk, 'loans to sovereigns', 'corporate', and 'banks' have risk weights determined by the external credit ratings assigned to the borrower.	eFrame has the capability to interface with external systems and can read, translate, store, and parse the data received. A 4 eye audit principle (2 people approving data) can be applied to the data received from external sources to provide full audit ability.
Pillar 1	Credit Risk - Foundation Internal Ratings Based (IRB) Approach	Lenders will be able to develop their own quantitative models to determine their regulatory capital requirement using the IRB approach. Under the Foundation IRB approach, lenders will estimate a probability of default (PD) while the supervisor provides set values for loss given default (LGD), exposure at default (EAD) and maturity of exposure (M). These values are inputs into the lender's appropriate risk weight function to provide a risk weighting for each exposure or type of exposure.	eFrame can support multiple models and has the capability to calculate according to a standard formula and full or partial internal model.
Pillar 1	Credit Risk - Advanced Internal Ratings Based (IRB) Approach	Lenders with the most advanced risk management and risk modeling skills (i.e the Jarrow-Turnbell model) will be able to move to the advanced IRB approach, under which the lender will estimate PD, LGD, EAD and M.	eFrame's design automates the undertakings processes and procedures in a controlled system environment; to ensure the appropriateness, completeness and accuracy of the data used in the calculation of their technical provisions. All the models and data pass through various signoff processes ensuring their correctness and completeness.
Pillar 1	Operational Risk - Basic Indicator approach (BIA)	Banks using the basic indicator approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage of positive annual gross income.	eFrame provides mechanisms for data collection that assist in completeness checks, and the framework for governance of data collection as part of the reporting process.
Pillar 1	Operational Risk - Standardized Approach (TSA)	Banks activities are divided into 8 business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage. Capital for operational risk for each of these lines is a percentage of the bank's gross income from that particular line of business. Each BL is assigned an exposure indicator multiplied by a risk factor will equal the capital charge.	With automated connections to transaction and operational systems completeness and accuracy of data used in reporting can be safe-guarded.
Pillar 1	Operational Risk - Advanced Measurement Approach (AMA)	An example of the AMA approach is using a Loss distribution model, operational events and frequency of occurrence captured in a form of normal distribution. The basics behind the AMA approach is Operational Loss = Probability of Loss Event (PE) * Loss Given Event (LGE). Historical loss data of banks is typically stored in a data repository where normal probability distribution curves can be derived and plotted. The two variables, PE and LGE can then be calculated from the normal distribution curve. The above analysis is performed with an advanced model approach defined by the Bank.	eFrame supports modelling of the internal control framework, where necessary reporting arrangements are possible at all levels of the undertaking. Through role-based access control and automatic work-flow the system enforces internal controls.
Pillar 1	Market Risk (Interest rate)	Interest rate risk is quantitatively measured using a 'Duration Gap model'. The basic foundation behind the model is: Duration Gap = Dollar weighted duration of asset portfolio – Dollar weighted duration of banks liabilities.	The data inputs that derive the duration gap are typically stored in a Bank's data warehouse which eFrame can interface with. eFrame can read, store and parse the data in a controlled auditable manner. Facilitate calculations with different models.

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Pillar 1	Market Risk (Equity, Foreign Exchange and Commodity )	Equity Risk, Foreign Exchange Risk, and Commodity Risk are measured using a methodology called 'Value at Risk' (VaR). VaR consists of time period, a confidence level and a loss amount. VaR defines the maximum loss a bank could occur with a 95% or 99% level of confidence over a selected time period. Methods used to calculate VaR are Historical simulation (Implied Volatility as an input), Models (i.e. Black-Scholes), and Monte Carlo simulation.	eFrame's design automates the undertakings processes and procedures in a controlled system environment; to ensure the appropriateness, completeness and accuracy of the data used in the calculation of their technical provisions. All the models and data pass through various signoff processes ensuring their correctness and completeness.
Pillar 2	Supervisory Review Process	Supervisors have the obligation to evaluate the activities, corporate governance, risk management and risk profiles of banks to determine whether they have to change or to allocate more capital for their risks (called Pillar 2 capital). The Supervisory review process is meant to identify risk factors not captured in Pillar 1, giving regulators discretion to adjust the regulatory capital requirement against that calculated under Pillar 1. For most lenders, the Pillar 2 process is expected to result in a higher regulatory capital requirement than calculated under Pillar 1	eFrame provides the undertakings with the necessary support where they can review and evaluate the on-going compliance with the full and partial internal models and allows Supervisory authorities to review. A Risk Analysis Dashboard for example can signal alerts to a Supervisor to focus attention towards a client whose probability of default rises to a warning level. eFrame supports the capability of providing data to a Risk Dashboard.
Pillar 3	Market Discipline Requirements (Information disclosure)	Pillar 3 covers transparency and the obligation of banks to disclose meaningful information to all stakeholders. Clients and shareholders should have a sufficient understanding of the activities of banks, and the way they manage their risks. Pillar 3 is designed to increase the transparency of lenders' risk profile by requiring them to give details of their risk management and risk distributions. Information is likely to be released through the normal mandatory financial statements lenders are required to publish or through lenders' websites.	eFrame is essentially reporting platform. eFrame provides the insurance/re-insurance undertakings a controlled risk reporting platform for supervisory reporting for both qualitative and quantitative elements as well as the data from internal or external sources. eFrame can also integrate with external report designers, such as Actuate and Crystal Reports. eFrame provides a mechanism, to provide auditability, traceability and version control.