



Banks face rapid change today. The competition gets tougher, profit margins shrink, and technology evolves. Meanwhile, your customers are more demanding and less loyal. In this environment, managing risk has never been more important. The SAP® for Banking set of solutions makes it easy to meet this challenge.

SAP for Banking

RISK MANAGEMENT WITH SAP® FOR BANKING

New financial instruments, trading methods, and corporate structures require new procedures for identifying and managing market and default risks across your enterprise.

SAP® for Banking is a set of solutions that can help you analyze and control risk for all your trading and non-trading products. With SAP for Banking solutions, you can value country risk, counterparty or issuer risk, credit risk, and settlement risk using a variety of mathematical methods. You can calculate counterparty or issuer risks that arise from both classic loan products and trading products, as well as from complex loan products.

Because the solutions in SAP for Banking employ characteristics for these analyses that are system- or user-defined, you can create reports based on the criteria that best suit your needs. This gives you tighter control of the specific market and default risks that your bank faces today.

MARKET RISK

Static and Dynamic Risk Control

Traditional management of market risk focuses either on net present value (NPV) calculations or periodic results. SAP for Banking offers both approaches. In either case, you can interactively drill down to individual transactions and specific markets to depict results for interest rate changes, currency fluctuations, market volatility, and many other variables.

Analyses of NPV and value at risk (VaR) help you measure and control market risk based on different simulation scenarios. For grid scenarios that cover option price risks, you may use any number of interest rate, volatility, and currency factors. Both the NPV and VaR calculations are also available in a bank's non-trading book area.

By combining gap analysis and strategy management features in SAP for Banking with the risk management tools, you can depict balance sheet and profit-and-loss simulations that calculate period risk and ensure the quick recognition of any profit risk. You can choose from several different processes for calculating new transaction balances using a range of organizational structures.

Using strategy management functions, you can also calculate interest and exchange rate risks – as well as the risk of writing off your own securities and derivatives – for profit-and-loss planning with greater detail. This gives you a comprehensive balance sheet view of risk. Through gap analysis, which summarizes operative cash flows from transactions into a single cash flow for the bank as a whole, you can better judge and control your liquidity risk.

A static analysis of market risk management for the bank as a whole is based on existing portfolios or exposures. You can use this analysis to calculate VaR, NPV risk, and fixed interest rate period balances.

Integration at Different Levels

To be globally effective, risk analysis and the management of a bank's assets and liabilities must cover all related product areas. The same data must also be available for risk and profit calculations.

By providing uniform data aggregation that is based on freely definable structuring criteria, SAP for Banking lets you calculate fixed interest rate period balances, the market value of equity capital, or the liquidity status for your bank as a whole. At the same time, you can use different data aggregations to calculate and depict key figures for individual profit centers or trading products.

Meeting Capital Adequacy Requirements

To meet your capital adequacy requirements, SAP for Banking lets you make NVP calculations for a wide variety of bank products – including options.

SAP for Banking provides flexible scenarios for a range of yield curves and volatility or exchange rate simulations. You can create VaR analyses (such as Monte Carlo), historic simulations, and variance/covariance calculations. You can run back-test procedures to assess the quality of your model parameters.

Unlimited Hierarchical Reporting

For aggregated calculations, you can compile single transactions into evaluation portfolios and compile these into different aggregation levels. Portfolio hierarchies allow various views by user group or position.

You might, for example, group transactions to display market risk measurements for individual balance sheets. A second user group could analyze the same transactions by trading group and subsidiary. You can define several different portfolio structures in parallel, allowing each organizational area to decide whether it will use a lower, more calculation-intensive aggregation level or a higher level with calculations that require less time.

You can define as many specific hierarchies for reporting as you wish. For greater risk control, you can summarize individual market factors at a higher level. This means, for example, that you can aggregate specific interest rates into a risk calculation for a particular currency. You can then further aggregate data to produce an interest rate risk calculation for all relevant currencies. Using another hierarchy, you can combine the interest rate, stock market, and currency risks for individual countries.

In every risk hierarchy, you can further stipulate condensation for individual parts of the hierarchy's risk factors at a higher level through correlation, subtraction, or addition. This feature lets you make side-by-side comparisons based on both correlated and uncorrelated hierarchies and lets the risk hierarchy directly impact the calculation speed.

CREDIT RISK

In calculating credit risk, SAP for Banking lets you conduct separate measurements of classic credit risk, issuer risk, settlement risk, and counterparty risk from trading activities. You can also price country risk separately from counterparty or issuer risk. Credit risk calculations available with SAP for Banking include current exposure, potential exposure, and mitigating factors.

Current Exposure

You can calculate nominal value, book value, and present value using either external price calculators or calculators within SAP for Banking.

Potential Exposure

By calculating potential exposure, you can account for risk markups related to the market value change period and various sensitivity factors that anticipate future market fluctuations – such as interest, currency, price, interest or currency, and price or currency.

Mitigating Factors

You can use calculations of mitigating factors – such as collateral, collateral agreement, and netting – both to reduce primary risks and to calculate the net exposure from the gross exposure.

Netting features in SAP for Banking let you account for collateral that relates to the bank's trading activities – including complex collateral, such as ECAs, which cover counterparty or issuer risk and country risk. You can also analyze default risk that arises from the collateral itself, as in the case of third-party guarantees.

Other credit risk features help to:

- Adjust recovery rates according to the seniority of individual securities
- Derive default probabilities by risk commitment period and rating class
- Transfer external risk calculations into SAP for Banking

- Store calculations according to specific characteristics that you define, making the calculations more useful for the bank's reporting and limit-management processes

MANY BUSINESS BENEFITS

SAP for Banking offers many business benefits with respect to market risk. In addition to helping you manage both static and dynamic market risks, you can control risk over a broad range of product areas. Through portfolio hierarchies, you can tailor your market risk analyses to the particular needs of individual groups within the bank. Regulators have approved SAP for Banking as an internal model of risk that can reduce bank equity.

When it comes to credit risk, SAP for Banking provides separate treatment of counterparty or issuer, country, credit, and settlement risks – and integrates classic credit risks with risks for issuers and counterparties from trading activities.

As an additional benefit, you can perform nominal or book value, present value, and risk-adjusted calculations simultaneously and apply the results to other risk evaluations. Inclusion of risk-reducing measures in the display of net exposure gives you the complete risk picture you need for the most accurate calculations. In addition, you can adapt the flexible credit risk formulas in SAP for Banking to the needs of various internal users of risk reports. You could give analyses based on book value to the lending area of your bank, for example, and analyses based on present value to the trading area. You can further customize your analyses with external price calculators.

BUILD A MORE CONSISTENT RISK MANAGEMENT SYSTEM

SAP for Banking provides consistent management of your market and default risks by using the same engines to calculate these risks, as well as the same transaction and market data.

For enhanced risk management in your organization, visit the SAP Web site at www.sap.com/solutions/industry/banking

www.sap.com/contactsap

THE BEST-RUN BUSINESSES RUN SAP



50 048 529 (04/08)

© 2004 by SAP AG. All rights reserved. SAP, R/3, mySAP, mySAP.com, xApps, xApp, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary. Printed on environmentally friendly paper.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.