



**SAP White Paper**  
**SAP for Banking**

# **IFRS REQUIREMENTS AND THE SAP® BEST PRACTICES FOR IAS AND IFRS OFFERING FOR BANKS**

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## **EXECUTIVE SUMMARY**

The European Union's (EU) adoption of International Accounting Standards (IAS)/International Financial Reporting Standards (IFRS) has a profound effect on thousands of large and small companies, especially banks. Organizations, processes, and IT systems are affected. To cope with the demands of the new standards, companies and banks must prepare for the challenges IAS/IFRS presents.

The SAP® Best Practices for International Accounting Standards and International Financial Reporting Standards (SAP Best Practices for IAS and IFRS) offering ensures a uniform and transparent view of a bank's overall results – right down to the level of individual transactions.

SAP Best Practices for IAS and IFRS offers real subledger functionalities, and it enables banks to post complex financial instruments such as embedded derivatives and multicurrency transactions. Because of the integrated hedge accounting functionality, banks can conduct a full end-to-end process for hedging relations.

The flexible structure and open reporting functionality within the processing of IFRS figures leaves the bank well prepared for future changes in internal or external accounting and reporting requirements.

As a part of SAP's analytical banking strategy, SAP Best Practices for IAS and IFRS is a component of a broad and long-term overall approach to analytical banking.

## **INTRODUCTION: ECONOMIC AND LEGISLATIVE HARMONIZATION IN EUROPE**

Starting in 2005, the EU will require all publicly traded companies to issue their consolidated financial statements according to IAS/IFRS. This marks an important step toward transparency and comparability in both the European economic zone and international capital markets. According to EU estimates, the new reporting requirements will initially affect more than 7,000 companies. The EU will allow member states to broaden the application of IAS/IFRS for national statutory reporting requirements, which may dramatically expand the scope of this change. With IAS/IFRS, the EU continues the integration process by establishing a common financial reporting language that will make capital markets more efficient.

## A SHORT TIMETABLE

For many companies, the adoption of IAS/IFRS represents a major shift away from a model of accounting that is fiscally oriented and statutory to a model that is focused on financial markets and investors. Businesses converting to IAS/IFRS must make substantial efforts and investments now in order to reap benefits in the future.

Capital markets expect comparable financial data from companies of all sizes. Consistent and high-quality financial statements will become a competitive advantage for any company seeking positive market perception or access to capital. This has happened already under the recently adopted Basel II Capital Accord, which requires banks to rate their customers using extensive financial information. An objective rating in this process requires financial data that is both accurate and easily compared with data from other banks.

With IAS/IFRS adoption set for 2005, companies will need to run parallel or “test” operations for prior-year comparisons by 2004. In addition, companies will need to run live operations to obtain the prior-year requirements for 2005.

## THE MAIN IFRS REQUIREMENTS

The IAS/IFRS focuses extensively on the recognition, derecognition, and measurement at fair value of companies’ assets and liabilities. The measurement of income will rely heavily on changes in the fair value of net assets.

Therefore, the first step in any IAS/IFRS project is to determine how the accounting rules in current use differ from those in IAS/IFRS.

The main requirements of the IAS/IFRS for banks are in IAS 32, because of its relevance for the disclosure and presentation of financial instruments, and IAS 39, because of its relevance for the recognition and measurement of financial instruments.

As an illustration of the importance of financial instruments, at the end of June 2003, the Bank for International Settlements estimated that the total notional amount of over-the-counter, or OTC, derivatives contracts stood at US\$169.7 trillion, with a gross market value of US\$7.9 trillion.<sup>1</sup>

### **IAS 32 Financial Instruments: Disclosure and Presentation**

IAS 32 was issued in December 2003 and is applicable for annual periods beginning on or after January 1, 2005.

Financial instruments are classified, from the perspective of the issuer, as financial assets, financial liabilities, and equity instruments. Compound financial instruments may contain both a liability and an equity component.

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1) Source: Press releases of the International Accounting Standards Board: “Revised Standards on Financial Instruments”; December 17, 2003.

Financial assets and financial liabilities can be offset when and only when there is a legally enforceable right to set off and the entity intends to settle on a net basis.

IAS 32 requires disclosure about factors that affect the amount, timing, and certainty of an entity's future cash flows relating to financial instruments and the accounting policies applied to those instruments. It also requires disclosure about the nature and extent of an entity's use of financial instruments, the business purposes they serve, the risks associated with them, and management's policies for controlling those risks.

IAS 32 is intended to enhance the financial statement user's understanding of the significance of financial instruments to an entity's financial position, performance, and cash flows. It prescribes requirements for the presentation of financial instruments and identifies information that should be disclosed about them.

### **IAS 39 Financial Instruments: Recognition and Measurement**

IAS 39 was issued in December 2003 and is applicable for annual periods beginning on or after January 1, 2005. IAS 39 prescribes principles for recognizing and measuring all types of financial instruments.

Generally, a financial asset or liability is recognized when the entity becomes a part of the instrument contract. A financial liability is derecognized when the liability is extinguished. A financial asset is derecognized when the entity loses control of the asset, the entity transfers the risk of the asset, or contractual rights to the cash flows from the asset expire. Financial assets and liabilities are initially recognized at fair value.

The measurement itself depends on the category the financial instruments belong to. There are two valid general methods:

**At amortized cost**, using the effective interest methods valid for instruments, which are as follows:

- "Held-to-maturity (HTM) investments," with the character of a nonderivative financial asset with fixed or determinable payments and maturity that the entity has the positive intention and ability to hold to maturity
- Loans and receivables (LAR), with the character of nonderivative financial assets with fixed or determinable payments that are not quoted in an active market
- Other liabilities (OLI), which are financial liabilities but not held for trading and not designated at fair value through profit or loss

**At fair value** valid for instruments, which are designated as follows:

- "At fair value through profit or loss" (designated fair value – DFV) as a financial asset or liability that is classified as held for trading, is a derivative, or has been designated by the entity at inception as at fair value through profit or loss
- "Available-for-sale" (AFS) financial assets, which are nonderivative financial assets that do not fall within any of the other categories; the unrealized movements in fair value are recognized in equity until disposal or sale, at which time those unrealized movements from prior periods are recognized in profit or loss

In addition, the entity has to recognize impairment via its profit and loss (P/L) statement if there is objective evidence that the carrying amount of the asset is reduced and an impairment loss is recognized.

Furthermore, IAS 39 provides guidelines for fair value hedge and cash flow hedge accounting. Strict conditions must be met before hedge accounting is applied:

- There is formal designation and documentation of a hedge at inception.
- The hedge is expected to be highly effective (that is, the hedging instrument is expected to almost fully offset changes in fair value or cash flows of the hedged item that are attributable to the hedged risk).
- Any forecast transaction being hedged is highly probable.
- Hedge effectiveness is reliably measurable (that is, the fair value or cash flows of the hedged item and the fair value of the hedging instrument can be reliably measured).
- The hedge must be assessed on an ongoing basis and be highly effective.

## CORNERSTONES IN MEETING THE IFRS REQUIREMENTS

To meet the IAS/IFRS requirements and to assure an audit trail of the process flow, banks must have technology that can fulfill various needs of all involved stakeholders.

**Subledger:** To ensure that existing live systems do not need to be converted, IAS/IFRS values should be calculated in a central IAS/IFRS subledger that meets all reporting requirements for the balance sheet, P/L statement, and accompanying notes.

**Hedge Accounting:** To avoid P/L fluctuations, the IAS technology must meet hedge accounting requirements for both changes in future cash flows and changes in financial instruments' fair values. This means it has to be able to meet formal and measurable needs of IAS 39.

**Reporting:** The IAS/IFRS technology has to be able to generate financial reports for independent units that can then be integrated into the consolidated statements. This requires multilingual software and automated processes.

**Flexible Structure:** An IAS/IFRS offering needs to be future-focused and scalable, since it is apparent even today that the IAS is set to undergo continuous development.

**Data Storage:** An IAS/IFRS offering must be based on a central database that uses standardized methods to generate an IAS/IFRS result on a detailed level, the transaction level. Starting from a set of individual accounts, IAS/IFRS-compliant positions and hedges are calculated for the IAS/IFRS-relevant business transactions.

# SAP BEST PRACTICES FOR IAS AND IFRS FOR BANKS – BALANCE ANALYZER

SAP Best Practices for IAS and IFRS already contains the major functions and methods required for the adoption of IAS/IFRS. International financial reporting is, however, not static. Each year, new standards and issues arise that can have a major impact on companies and their IT systems. The balance analyzer is a preconfigured offering for the preparation of IAS/IFRS-compliant statements out of local Generally Accepted Accounting Principles (GAAP) data, particularly for banks. It covers all required aspects of IAS/IFRS.

		SOLUTION COVERAGE				
		Subledger Functionality	Data Management	Flexible Structure	Hedge Management	Reporting
IAS 39 REQUIREMENTS	Measurement in line with IAS 39	√ BA	√ BA	√ BA	√ BA	√ BA BW
	Impairment	---	√ BA	---	---	√ BA BW
	Hedge Accounting*	√ BA	√ BA	√ BA	√ BA	√ BA BW

\*including Macro Cash Flow Hedge and Fair Value Hedge; Portfolio Hedge availability April 2005 Hedges of net investment in a foreign entity are not supported because of the balance analyzer's function as a financial subledger.

√: completely IFRS compliant  
 BABW: Balance Analyzer BW  
 BA: Balance Analyzer  
 ---: not available or not relevant

Figure 1: Solution Coverage

## Brief Solution Offering Overview

SAP's best practices offering for IAS/IFRS is designed specifically to help banks prepare for and meet IAS/IFRS regulations. In particular, the offering addresses compliance with IAS 32 and IAS 39, the rules that relate to the valuation of financial instruments.

The offering is designed around a central data pool and standardized methods and can seamlessly be integrated into an efficient overall enterprise management offering.

Using SAP's offering to prepare an IAS/IFRS-compliant financial report, you can create a parallel financial statement based on a central data pool fed by your bank's existing system landscape. For IAS/IFRS-relevant business transactions, IAS/IFRS-compliant values are calculated and published in the bank's financial report.

This technique avoids parallel and redundant data storage. Local values are replaced only if the results in the local financial report differ from the IAS/IFRS figures. Finally, the original data that complies with IAS/IFRS and the newly calculated IAS/IFRS results are consolidated according to your bank's reporting requirements and analyzed in the SAP Business Information Warehouse (SAP BW) component of the SAP NetWeaver™ platform. This data can be exported for further processing in other applications as needed.

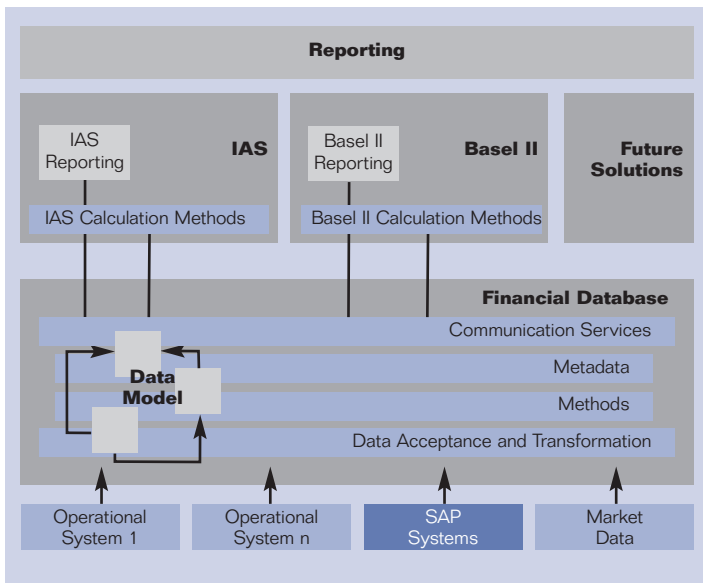
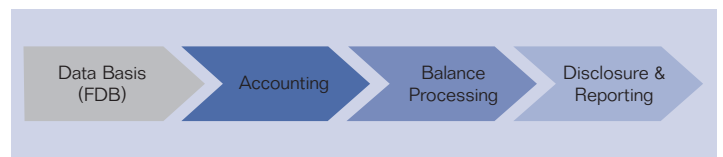


Figure 2: Analytical Banking Components

### Functionality

The balance analyzer as the core component of SAP Best Practices for IAS and IFRS is designed to meet all relevant IAS/IFRS requirements to help banks enhance the quality of their financial reporting and perceive an adequate response from the capital markets. The balance analyzer generates annual financial statements according to one or more generally accepted accounting principles.

The processing steps within the system can be divided into four major components:



- A consistent and uniform **data basis** is assured by the financial database (FDB), which acts as one single source for all analyzers of SAP's analytical banking solutions. It provides data in a harmonized form as a basis for further processing in the SAP best practices offering or additional offerings.
- The **accounting** functionality processes business transactions, posting documents and accounting balances according to IAS/IFRS hedge accounting and valuation according to IAS/IFRS.
- **Balance processing** merges balances from IAS and local GAAP accounting environments, adds key figures for the notes, and determines the assignments of reporting data to the balance sheet, the IAS statement, or notes.
- The **disclosure and reporting** takes place within SAP BW. Balance reports are generated to meet the disclosure requirements of the IFRS rules.

### Accounting

The accounting module within the IAS/IFRS offering provides a "real" subledger integration and features automatic posting as well as valuation of the functionalities of financial instruments. Business transactions are transferred to the accounting module and processed, producing posting documents following an elaborate and customizable posting methodology.

Besides the processing of business transactions, the accounting module also performs key date valuations, calculating and posting results in various steps, including amortization, fair value valuation, and distribution of valuation reserves across time and deferred taxes.

Relevant key figures are stored within accounting documents, aggregated, and transferred to the balance processing module.

Hedge accounting is also based on the processed data within the balance analyzer.

The SAP offering enables flexibility of processing in these areas:

- Changes in the reporting structure/financial position structure
- Changes in accounting rules
- Changes in the balance sheet structure

**Embedded Derivatives**

An *embedded derivative* is a feature within a contract, such that cash flows associated with that feature behave in a similar fashion to a standalone derivative and must be accounted for at fair value with changes recognized in the income statement. IAS 39 requires an embedded derivative to be separated from its host contract and accounted for as a derivative.

If you are unable to measure the embedded derivative separately, the entire contract must be treated as an asset or liability in the category “held for trading” (HFT).

The accounting module in SAP Best Practices for IAS and IFRS separates embedded derivatives from the host contract and enables a separate valuation. The individual parts of the contract can be used for the building of hedging relations within hedge accounting.

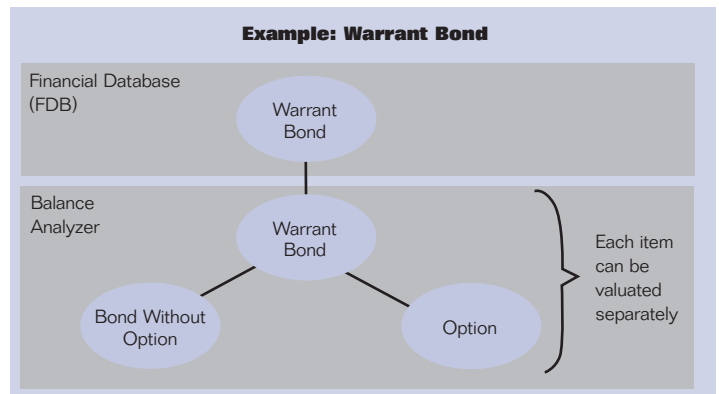


Figure 3: Embedded Derivatives

**Hedge Accounting**

With IAS 39, the IAS board introduced special accounting guidelines for hedge accounting. The target is to achieve hedge accounting treatment for existing hedge derivations in order to avoid P/L volatility.

So, if an enterprise can prove that financial instruments are effectively designated as hedged items and hedging instruments in a hedging relationship, the impacts to P/L can be balanced out (fair value hedge) or deferred to equity (cash flow hedge).

After hedging relationships are built up, various methods of testing the effectiveness can be performed.

There are five methods of testing effectiveness delivered by SAP:

General Test Methods	Retrospective Test Methods	Prospective Test Methods
1. Residual Maturity Check 2. Tolerance Value Check	3. Offset Method 4. Regression Analysis (Historical Data)	5. Regression Analysis (Market Data Shift)

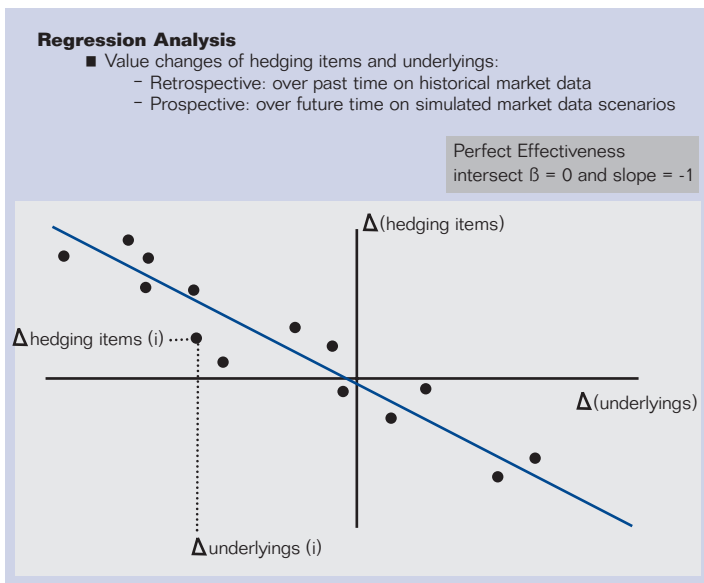


Figure 4: Regression Analysis

Effectiveness has to be assessed on inception as well as on an ongoing basis during the lifetime of the hedging relationship.

After the effectiveness is tested, relevant business transactions are published to the IAS/IFRS accounting module. In addition, automatic postings are generated.

### Balance Processing

After the process within the IAS/IFRS accounting module, the balance processing module merges data from the accounting module and FDB-stored local GAAP data.

Balance methods evaluate merged data to determine information relevant for the balance sheet, the P/L statement, and notes (for example, fair value for IAS 32, maturity grouping, and portfolio totals).

Within the determination of financial statement items, data will be transformed into reporting-compatible structures.

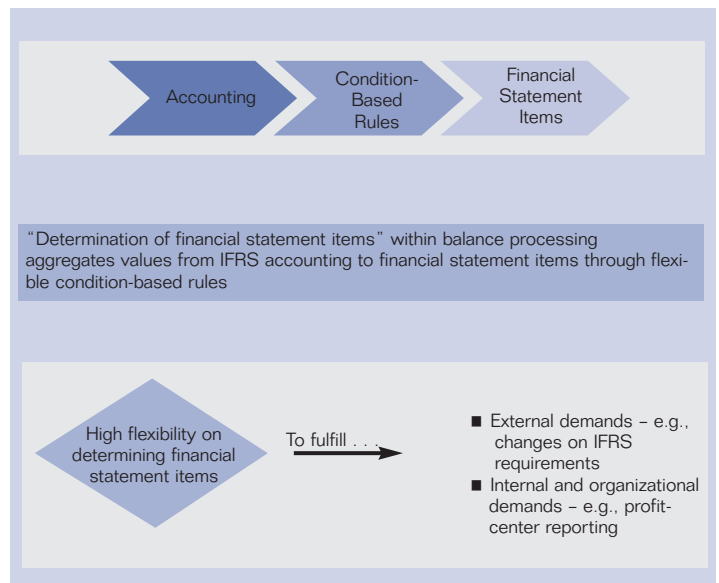


Figure 5: Balance Processing

### Disclosure and Reporting

The financial statement items that are generated in the balance processing module are extracted into SAP BW for IFRS reporting. Within SAP BW, all IFRS-compliant reports can be created. Moreover, there are various drill-down and drill-through possibilities from SAP BW into the IAS/IFRS accounting module and the FDB:

- Drill through balance objects to analyze values in more detail.
- Drill through accounting balances to analyze total values of accounting balances.
- Drill through FDB reporting to access the related FDB primary objects.

Therefore, a full audit trail can be assured.

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