# FAIR VALUE ACCOUNTING IN TIMES OF FINANCIAL CRISIS

Natascha Jarolim<sup>1</sup> and Carina Öppinger<sup>2</sup>

<sup>1,2</sup> Department of Accounting and Auditing, Johannes Kepler University, Austria

Abstract. Fair value accounting is an essential feature of International Financial Reporting Standards. Even though this accounting method did not spark the financial crisis, it did enhance its impact. As a consequence of the financial crisis the IASB amended IAS 39 to override the fair value recognition. The amendments to IAS 39 & IFRS 7 permitted reclassifications of the categories Held for Trading and Available for Sale, some of which had explicitly been forbidden prior to the amendment. Critics argue that these modifications to IAS 39 made it possible to camouflage losses of hundreds of billions of euros. The main goal of this paper is to evaluate the amendment to IAS 39 & IFRS 7 by conducting a survey of the banking sector. Furthermore fair value accounting in general is critically discussed.

**Keywords:** amendment, banking sector, fair value, financial assets, financial crisis, IAS 39, IFRS 7, IFRS 9, OCI, reclassification.

#### Introduction

In the aftermath of the financial crisis in 2008 increased criticism was made of fair value measurement of financial instruments in accordance with IAS 39. Due to the inactivity of the markets it was almost impossible to perform a reliable market valuation. In addition to the valuation issue, the increased depreciation posed an even greater problem. These circumstances made it necessary for the IASB and the EU to take urgent measures. Thus, in October 2008 an amendment to IAS 39 and IFRS 7 was drafted by means of an accelerated process, which did not follow due process regulations. The amendment allowed additional reclassification options. In this paper, these will be presented, in order to subsequently investigate their effects on the financial statements of selected European Banks.

## Definition and determination of the fair value

The term "fair value" is not based on any precise definition that can be found within the framework of the IASB. Solely in two places is the term mentioned within the framework (F.51 and F.100). The exact definition of the term fair value is only given at the level of the individual standards. Since the beginning of the 1980's the following definition has been used in the individual standards: "Fair Value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction" (IAS 2.6). Subsequently the definition of the fair value will be discussed and the underlying methodology for determining it will be briefly demonstrated.

The fair value is described as the amount which could be transferred in a fictitious transaction between knowledgeable, willing parties under normal market conditions (arm's

length transaction). Therefore, the fair value constitutes a hypothetical market price under idealized conditions (Hitz, 2005a, p. 1014). This definition indicates that the fair value is a market-based measure of value (Hitz, 2005b, p. 83). At first glance, the definition of fair value in IFRS appears to be clear. However, the determination methodology is extremely difficult to apply in practice. Reasons for this are that not all assets are dealt on an active market and that observable market prices do not always exist. Furthermore, the policy of determination, as already described, can also be found within the individual standards, where they differ in respect to their detail and application areas (Hitz, 2005, p. 1016).1

The method of determining the fair value for financial instruments arises from the fair value hierarchy according to IAS 39. At this juncture basically two levels which arise as a result of the existence of an active market can be distinguished and broken down into five sublevels (IAS 39.48 in conjunction with IAS 39.AG69-AG82). This measurement hierarchy can be amended to a third level, which results from the derogation rule for unquoted equity instruments (Eckes and Frick, 2008, p. 459; IAS 39.46c; IAS 39.AG80; IAS 39.AG81). The derogation rules according to IAS 39.46c as well as IAS 39.AG80 and IAS.39.AG81 will not be discussed in more detail within the scope of this paper.

A measurement hierarchy according to the 3-step-hierarchy in US-GAAP (SFAS 157) has also been applied in practice. In March 2009 this hierarchy was taken over from the IASB as part of the amendments to IFRS 7 regarding disclosure of financial instruments (Deloitte, 2009; IFRS 7.27A).

Figure 1 illustrates the fair value measurement hierarchy of IAS 39 and IFRS 7 and provides an overview of the respective hierarchy levels and their relations to one another.

Firstly, the reporting entity must consider which measurement level applies. In the presence of an active market level 1 or 2 come into consideration, in accordance with IAS 39.AG71. In its absence level 3 to 5 should be selected. According to IAS 39.AG71 a financial instrument is regarded as having been quoted in an active market if the quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly-occurring market transactions on an arm's length basis (Eckes and Frick, 2008, p. 460; IAS 39.AG71).

#### Level 1 (mark to market):

The best evidence of fair value is the existence of published price quotations in an active market. If they exist, they will be used to measure the financial asset or liability (=level 1 (IAS 39)) (IAS 39.AG71). If current prices are unavailable, the fair value can be deduced from the most recent transactions. If the company, however, can demonstrate that the last transaction price is not the fair value, an appropriate price at the time shortly before the balance sheet date can be determined (= level 2 (IAS 39)) (Henkel and Eller, 2009a, p. 289; IAS 39.AG72 and IAS 39.AG73).

#### *Level 2 (mark to model with market parameters):*

The fair value is established by means of a valuation technique if the market for the financial instrument is not active. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties – if available (=level 3 (IAS 39)), reference to the current fair value of another financial instrument that is substantially the same (=level 4 (IAS 39)) or the application of discounted cash flow analysis (DCF) or option

<sup>1</sup> In May 2011 IFRS 13 was issued, which sets the definition of the fair value on a consistent basis and, additionally, leads to convergence with US-GAAP. This development can be assessed as extremely positive, although it did not provide solutions in the majority of the problem areas (Kümpel, Oldewurtel and Wolz, 2012, pp. 103-105).

pricing models (=level 5a (IAS 39)) (IAS 39.AG74). The fair value is estimated on the basis of the results of a valuation technique which makes the maximum use of the market inputs and relies as little as possible on entity-specific inputs (Henkel and Eller, 2009a, p. 289).

*Level 3 (mark to model without market parameters):* 

Equivalent to level 5a (IAS 39), non-observable market parameters are here incorporated into the valuation method. This is explicitly defined in IAS 39 for instruments which do not have quoted prices on an active market and the derivatives linked to them (= level 5b (IAS 39)) (IAS 39.AG80 and IAS 39.AG81). In respect to the level-3-systematics, this also applies for debt instruments (Henkel and Eller, 2009a, p. 289).

Whereas the investigative effort increases from level to level downwards, the reliability of the fair value steadily decreases (Baetge and Zülch, 2011, p. 547). Furthermore, the potential deobjectification of the stated amount increases with each level and the risk that the margin of powers distorts the measurement therefore increases (Hitz, 2005b, p. 95).

In a study from the year 2011 the 55 largest European banks were analyzed in respect to their fair value calculation methodology. The result show that for financial instruments measured at fair value on the asset side on average 33.66% were determined on the basis of observable market prices (level 1), 62.21% on the basis of past or similar transactions (level 2) and 4.13% on internal assessment (level 3) (Zülch and Salewski, 2011, p. 37). On the liabilities side, in contrast, the picture was different. Value determinations were on average based only 11.04% on active market prices (level 1), 85.84% within level 2 and 3.12% with the help of internal assessment (level 3) (Zülch and Salewski, 2011, p. 39). Accordingly, the influence of internal assessment procedures on the balance sheet structure of European banks seems to be negligible. The result must however be interpreted in perspective, and it must be considered, that some banks have an equity ratio of only 2-3%. The study's authors believe that even a level of one percentage point of total assets determined by internal assessment and therefore partly not due a traceable assessment process, is too high when the capital base is so low (Zülch and Salewski, 2011, p. 37). This view is also maintained by the authors of this paper. To clarify this statement, the result will be explained briefly with reference to Deutsche Bank. Deutsche Bank showed total assets amounting to EUR 2,164 billion in the year 2011. Let us assume that only a percentage of this amount is determined using valuation methods. This would be an amount of EUR 21.64 billion whose valuation would find its way into the balance sheet under the influence of subjective assessments and large discretionary decisions. Compared with an equity of only EUR 53.39 billion (with an equity ratio of 2.47 %), this value is considerable.

Common uncertainties arise not only from the fact that for valuations neither an active market nor comparable transactions are available. This was also the case during the financial crisis. In such situations recourse is taken to assessment procedures which also include estimations and assumptions of external data, such as interest rates, which are mainly based on current market conditions. In uncertain market conditions, there is a rise in interest rates and risk spread that are used for discounting in carrying out assessment procedures. As a result, the calculated fair value is lower and leads to devaluation (Schmitz, 2008, p. 236). In good times, on the other hand there is an increase in the calculated fair values because of lower risk spread. The influence of the interest rate selection will be illustrated subsequently by a brief example (see Table 1).

The presentation compares three different discount rates (a comparable interest rate, a lower and a higher rate) and their effects on total company value. The calculation shows that a change of only 1% in the discount rate has a major impact on the total company value. It

should also be noted, that a downward change in the interest rate has a greater effect (+15.37%) on the result than an upwards one (-11.76%).

In addition to this problem, the estimation of future cash flows involves a massive scope for discretion. This includes the failure rate, the failure time and the recovery rate. These parameters can inter alia be used to model cash flows from the underlying receivables. Usually this is done by using the following modeling techniques: re-rating-method, vector analysis or probabilistic-method (for further information see Prince, 2006, pp. 14-21). As a result of the choice of parameters and methods, the amount of the determined balance sheet value can be influenced to a great extent (Baetge, Bremdt and Brüggemann, 2008, p. 1008).

These problem areas of fair value measurement were exacerbated by the collapse of markets during the financial crisis. Due to the enormous depreciation of financial instruments, the company results and some of the equity vanished into air. Accordingly, fair value accounting was partially blamed for the financial crisis. The blame has yet to be seen critically, because the accounting merely reflects current problems and does not cause them (Schütte, 2009, p. 56).

In summary, it can be stated that fair value accounting should theoretically be able to provide crucial information for users of financial statements, but its ability to do so is severely limited by the insufficient reliability of the determined values. This is the result of the trade-off between relevance and reliability – investors perceive information at fair value as relevant, although it sometimes does not result from reliable market prices (level 2 and 3). This reduced reliability has negative effect on the decision usefulness of the information (Zülch, Fischer and Willms, 2006, p. 21).

# Fair value accounting in IFRS

The fair value is a customary assessment procedure within IFRS. However, it is neither consistently defined nor applied within the regulatory framework. For example, not all financial instruments are equally assessed at fair value, since an assessment on amortized cost is sometimes given. In addition, the fair value is not limited to financial items, but can also be found in a number of other positions.

Therefore the recognition of fair value changes in IFRS leads to significant differences in treatment. Evaluation results are partially recognized in the net income (NI) or in OCI. This can be achieved through explicit statutory provision or, on the other hand, by granted voting rights. Furthermore, not all items, which were previously recognized in OCI, are equally subjected to recycling. This results in a loss of the comparability of financial statements, as voting rights are applied differently in each company. And additionally unrealized value changes sometimes find their way into the net income (NI) (which financial performances are recognized for equity purposes is, for example, measured by the allocation of financial instruments in the category "Available for Sale" or by the decision whether or not to use hedge accounting) (Küting and Weber, 2009, p. 258).

These conceptual shortcomings within the IFRS accounting system give rise to discussions and sometimes to fierce criticism from experts and the accounting community. The demand for consistent conceptual recognition criteria is constantly getting louder (with further references Cearns, 1999; Kerkhoff, 2005; Kerkhoff and Diehm, 2005; Antonakopoulos, 2007; Ballwieser, 2009).

In addition to the conceptual weaknesses of fair value measurement in IFRS, there is a representation problem in terms of the valuation results. Below, the issues will be outlined briefly and evaluated critically in view of their increased recognition within the OCI.

## More recognition in the OCI

In the context of the financial statement presentation project (for further information see Pellens, Basche and Crasselt, 2004; IASB, 2004; Kerkhoff and Diehm, 2005; IASB, 2006a; EFRAG, 2006; IASB, 2012c) the performance reporting components were defined in 2007. These components are part of a complete financial statement (FASB and IASB, 2007, pp. 1-3). A significant step was the reform of the presentation and disclosure requirements of OCI. With the use of IAS 1 (rev. 2007) all components of financial performance should now be presented in the comprehensive income, which in turn will lead to an increase in the transparency of financial information (IASB, 2006b, pp. 4-5; IAS 1.81).

Until the implementation of IAS 1 (rev. 2007) on January 1<sup>st</sup> 2009, OCI was only shown in the statement of changes in equity. This led to a representation problem, since the question was whether the "hidden" representation in the statement of changes in equity had an effect on how readily accounting manipulation can be discovered. Studies have shown that the discovery of manipulation of the NI (net income) is more likely if the components of financial performance are shown within the statement of comprehensive income, and not in the statement of changes in equity (Hirst and Hopkins, 1998, pp. 67-68). In another study conducted in 2006, a positive correlation between the decrease in the frequency of "cherry picking" 2 and the compulsory disclosure of the OCI in the income statement was demonstrated (Hunton, Libby and Mazza, 2006, p. 151). Based on these findings, it can be regarded as very positive that the disclosure OCI in the statement of changes in equity has not been permitted since the year 2009 (IAS 1.139). The negative effect of various mapping and voting rights is compensated by the overall performance figure, and thus discretion in terms of balance sheet policy is disempowered (Holzer and Ernst, 1999, p. 369). This is also regarded as very positive in terms of fair value measurement issues, since book profits or losses, which for example result from the valuation of securities Available for Sale, must be prominently presented.

Through the revision of IAS 39, which is intended to be replaced by IFRS 9 in the near future, an increased entry of components of financial performance into OCI is probable (Zülch and Salewski, 2010, p. 427). Also the current revision of IAS 19 leads to the expectation of an increase in the components of financial performance which have to be recorded in OCI (Zimmermann and Huuk, 2010, pp. 483-487).

#### Trend towards more fair value in international accounting

Initially fair value was introduced only for the valuation of some assets and liabilities, mostly financial instruments. However, fair value has turned into an essential evaluation measurement within IFRS. Its slow implementation has led to the laying down of a variety of case-related regulations on the basis of individual standards. The fair value application field includes inter alia, up to date, IAS 16, IAS 36, IAS 38, IAS 40, IAS 41, IFRS 2, IFRS 3 and IFRS 9. The reason for this widespread application can be found in the primary objective of the IASB, namely to serve the information needs of investors. Up to now, it has not been possible to achieve the long-term ideal concept of IASB, which can be is seen in a full fair value approach. At the moment, fair value cannot act as the only evaluation measurement; rather a mixed model (amortized cost and fair value) is currently being used in IFRS (Kümpel, Oldewurtel and Wolz, 2012, p. 103).

<sup>2</sup> Through targeted sales, and some immediate redemption of Available for Sale securities, in OCI cached results are realized in income, which in turn leads to an increase in NI.

IFRS 9, which will (gradually) replace IAS 39 in the near future, partly leads to an increase in the fair value valuation. As late as the year 2009, Sir David Tweedy emphasized, that the revision of IAS 39 was not intended to be an expansion of fair value measurement (IASB, 2009b; for further information see Breitkreuz and Zimmermann, 2011; Kuhn, 2010).

# Fair value during the crisis

To improve the profitability of banks, mortgage loans were securitised using so-called special purpose vehicles (SPV) and sold on capital market. As the subprime crisis in the USA took its course, banks in the USA and Europe suffered losses of billions of dollars because of these securitizations. As a consequence, the crisis demanded its first great sacrifice: the bankruptcy of the investment bank Lehman Brothers. Afterwards, states were forced to invest billions in order to put together one rescue package after another in order to rescue banks. In connection with this crisis the fair value measurement has also been critically discussed and an attempt was made to define its role. Below the function and operation of fair value accounting in times of crisis will be briefly outlined.

In periods of rising market prices and, consequently, increasing valuation fair value measurement leads to book gains. These have not yet been paid by the market and it is doubtful whether they will ever be collected. Especially in the banking sector the recognition of such book gains plays a meaningful role if they result in an increase in regulatory equity (Bieg et al., 2008, p. 2551).

The macroeconomic mood may be strongly influenced by the volatility of reporting and earnings related to fair value measurement. The positive mood in boom times leads to high price estimates and high assessments. Therefore the book loss in periods of downturn is significantly higher, and thus leads to more pessimistic earning expectations (Küting and Lauer, 2009, p. 556). This mode of action is shown in figure 2, which compares the evaluation at fair value to the evaluation based on historical costs.

The pro-cyclical effect of fair value accounting is demonstrated by Schweitzer on the basis of bank balance sheets because of the particularly strong influence it exerts there. When banks hold securities and stocks whose prices fall, these stock have to be depreciated. Banks sell these securities in order to counter these losses, which again leads to losses. If all banks act according to this pattern, it leads to a self-accelerating spiral of depreciation (Schweitzer, 2009, p. 145).

The considerable devaluation resulting from financial instruments measured at fair value made it necessary to weaken the regulations of IAS 39 by introducing an amendment. This resulted in the admission of further reclassifications, and thus a suspension of fair value measurement was allowed. The accounting treatment of financial assets according to the regulation of IAS 39 and the October 2008 amendments to IAS 39 and IFRS 7 are presented below.

Reporting of financial instruments with special consideration of amendments to IAS 39 & IFRS 7

Adequate regulations concerning financial instruments can be found in IAS 32, 39 and IFRS 7. Financial instruments can be divided into financial assets and financial liabilities. This paper focuses on (original) financial assets, as only these are affected by the amendments to IAS 39 and IFRS 7.

#### Categorization

Financial instruments have to be assigned to one of the categories for financial assets at the time of their acquisition, (at "Fair Value through Profit or Loss", which is further divided into "Held for Trading" and "Designated as at Fair Value", "Held to Maturity", "Loans and Receivables" and "Available for Sale") (Eckes and Weigel, 2009, p. 374). Categorization is thereby separately carried out for each financial instrument.

# Held for Trading – Trading Portfolio

A financial instrument that has been acquired for short-term trade or as part of a unique portfolio of financial instruments which is aimed at driving short-term profits, has to be classified as Held for Trading (Petersen, Bansbach and Dornbach, 2008, p. 191).3 According to the appendix of IAS 39, trade is defined as the realization of profits from short-term buying and selling activities (IAS 39.AG14). The period considered as short term has to be defined in relation to the situation in a given industry, according to Grünberger (2008, p. 138). A benchmark should be separately determined within each company.

#### Fair Value Option – Designated financial instruments

When the fair value option is used, it has to be applied irrevocably. This is an accounting choice within the scope of IAS 39, which can be separately exploited for each business transaction. Moreover, the financial statement has to provide a reliable view when the fair value option is applied (IAS 39.AG4C). In order to make use of the fair value option, one of the following three criteria has to be fulfilled (Kuhn and Scharpf, 2006, p. 107):

- The classification has to decrease the possibility of an accounting mismatch. This can occur when associated financial assets and liabilities are classified in different categories of financial instruments and are therefore differently revaluated. A designation could then lead to more secure information.
- Another possibility for making use of the fair value option exists, when a portfolio of financial assets and liabilities is valued and monitored at fair value as part of an investment and risk-avoidance strategy. This has to be documented and reported to people holding key positions in the company (Grünberger, 2008, p. 140).
- According to IAS 39.11A it is also possible to designate contracts which include embedded derivates. These exceptions are made for derivates that only slightly modify the contractual cash flows, or if it can be readily seen that the separation of the derivate and the host contract is not possible (PWC, 2012b, p. 6002).

## Held to Maturity

This category is for non-derivative financial instruments which do not meet the definition of Loans and Receivables and are not Designated at Fair Value through Profit or Loss or as Available for Sale. An entity has to intend to hold the asset until maturity and, moreover, must have the ability to do so. The periodic cash flows have to be made to an equal amount or be fixed in advance (IAS 39.9). The amount and the period have to be noted on a contractual basis; a variable interest rate of the assets does not prevent classification in this category (IAS 39.AG17).

<sup>3</sup> These derivates, which are not considered in detail in this paper, have to be classified as Held for Trading mandatorily (IAS 39.9).

Moreover, the financial instrument has to be traded on an active market and a fixed maturity date has to be given (Grünberger, 2008, p. 149). An asset is regarded as being traded on an active market when it is regularly traded in a way that is recognizable for the general public; that means, that it takes place among independent outsiders (IAS 39.AG71).

#### Loans and Receivables

The requirements for a classification as Loans and Receivables are in some way similar to the requirements of the Held to Maturity category, since only non-derivative financial asset with fixed or determinable payments are included in this category. However, the asset must not be quoted in an active market when designated to this category (Rohatschek and Maukner, 2012, p. 128). A fixed maturity is not required, but the probability of a full refund must be given. As examples the standard mentions accounts payables, bank deposits and unlisted bonds (IAS 39.AG26).

#### Available for Sale

The fourth and final category for the classification of financial instruments is usually referred to as a collection item in the literature (Petersen, Bansbach and Dornbach, 2008, p. 192). This follows from its definition, which says that financial assets that are not designated as assets at Fair Value through Profit or Loss or as Available for Sale or as Loans and Receivables have to be classified as held for sale (IAS 39.9(a)-(c)).

These categorizations are critical for the initial and subsequent measurement and the recognition of changes in value.

#### *Initial and subsequent measurement*

Initial measurement should basically take place at fair value (IAS 39.43 und IAS 39.AG64). Financial assets categorized as Held to Maturity or Loans and Receivables should be measured after their initial recognition at their amortized cost, using the effective interest method for recording value changes. The effective interest rate represents a constant interest rate that discounts estimated future cash flows from the initial carrying amount of the asset during the life of the financial instrument (IAS 39.9). Fees that will eventually be paid, other fees, transaction costs, premiums and discounts will be included in the calculation and amortized over the life of the financial instrument (IAS 39.AG6). The calculation is based on reasonable estimations of cash flows. Should these estimations change during the term, the carrying amount must be adjusted (IAS 39.AG8).

The two remaining categories of financial instruments, "Available for Sale" and "at Fair Value through Profit and Loss", should be measured at their fair value. Value changes are thereby recognized in equity in the former, and affect net income in the latter. A presentation of the fair value valuation was undertaken in the previous section.

A graphic overview of initial and subsequent measurement of financial assets of the different categories can be found in Appendix, Table 2.

## Reclassification according to IAS 39 in the old version

The previous version of IAS 39 only mandated a reclassification of the category "Held to Maturity" into the category "Available for Sale" if there were changes in the intention or ability to hold (IAS 39.51), or if the so called "tainting provisions" was triggered as a result of sales (IAS 39.52). Is more than a minor amount of the category "Held to Maturity" reclassified into the Available for Sale category, a forced reclassification of all Held to Maturity financial instruments into the Available for Sale category has to take place (Beyer, 74

2008, pp. 62-63). This reclassification is accompanied by a change in valuation towards fair value. Furthermore, it is not allowed to classify financial instruments as "Held to Maturity" in the two subsequent periods (retention period) (so called tainting rule) (Barz, Eckes and Weigel, 2008, pp. 290-291 as well as Henkel and Eller, 2009b, p. 351).

If an intention and ability to hold arises over the course of time or the two-year retention period has expired, financial instruments of the "Available for Sale" category may be reclassified as "Held to Maturity" (IAS 39.53 and 39.54).

New Reclassification possibilities according to IAS 39 (amended 2008)

Against the background of the financial crisis the IASB issued amendments to IAS 39 & IFRS 7 "Reclassification of Financial Assets" on an accelerated basis (without due process) on October 13<sup>th</sup> 2008. The changes were adopted two days later, on October 15<sup>th</sup> 2008, in European law and two days after that, on October 17<sup>th</sup> 2008, they entered into force.

The newly adopted additional opportunities of reclassification only apply to non-derivative financial assets of the initial categories "Held for Trading" and "Available for Sale". Here the restriction on financial assets described above is declared. For derivative financial instruments (IAS 39.50 (a)) and financial instruments for which the fair value option was accessed at initial recognition (IAS 39.50 (b)), there still is a prohibition of reclassification.

Reclassification out of Held for Trading in Available for Sale or Held to Maturity

A reclassification from the "Held for Trading" category to the categories "Available for Sale" or "Held to Maturity" is permitted, when the intention to sell or repurchase which existed at the time of acquisition no longer exists or there are "rare circumstances" (IAS 39.50 (c) in conjunction with IAS 39.50B). The phrase "rare circumstances" is further defined in IAS 39.BC104D as "...rare circumstances arise from a single event that is unusual and highly unlikely to recur in the near term". A clear example of such a rare circumstance which was given by the IASB is the financial crisis (IASB, 2008). When a reclassification into the "Held to Maturity" category is planned, the reporting entity must have the intention and ability to hold the financial asset until maturity. Reclassification can only take place after all requirements have been met (Eckes and Weigel, 2009, p. 374).

For reclassification the fair value at the time of reclassification, which corresponds to the new or amortized cost, has to be used (IAS 39.50C). The difference between the new and amortized cost and the redemption amount is distributed with a determinable remaining period of time, using the effective interest method for financial assets. Gains or losses previously recognized as profit or loss cannot be reversed, according to IAS 39.50C.

A renewed classification into the category "Held for Trading" is excluded (IAS 39.50).

Reclassification from "Held for Trading" or "Available for Sale" into "Loans and Receivables"

For a reclassification of securities from "Held for Trading" to the category "Loans and Receivables", the requirements of IAS 39.50 (c) in conjunction with IAS 39.50D have to be observed.

Therefore, the following requirements have to be met to obtain the permission for such a reclassification:

• an intention to trade no longer exists

- the requirements for classification as Loans and Receivables have been met at the time of the reclassification
- the entity has the intention and ability to hold the financial asset "for foreseeable future" or until maturity

For a reclassification of Available for Sale in Loans and Receivables, the first condition does not pertain (IAS 39.50E).

In accordance with IAS 39.9, Loans and Receivables that are not quoted in an active market are described as non-derivative financial assets with fixed or determinable payments unless they are not Held for Trading, included in the fair value option or categorized as Available for Sale. If the claim holder's initial investment cannot recover substantially, caused by other reasons than a credit deterorientation, it has to be categorized as "Available for Sale". It is expected that there is no quotation in an active market at the time when (in the market environment in which) a reclassification is made.

Again, the reclassification in accordance with IAS 39.50F has to be carried out at fair value on the day of reclassification; the fair value represents new or amortized costs. With reclassification of the source category "Held for Trading", recorded valuation gains or losses cannot be reversed. For reclassification from the category "Available for Sale" to the category "Loans and Receivables", income previously recognized in other comprehensive income components according to IAS 39.55 has to be amortized over the remaining term using the effective interest method to turn it into interest income according to IAS 39.54. This resolution is not considered in calculating the effective interest rate for the distribution of the difference between fair value and repayment value on the day of reallocation.

In summary, it can be noted at this point, that the possibilities to reclassify made available by IAS 39 allow the transfer from a fair value assessment to amortized cost (HfT  $\rightarrow$  HtM, HfT  $\rightarrow$  L&R, AfS  $\rightarrow$  L&R), or at least from a performance effective fair value valuation to one that is neutral for profit purposes (HfT  $\rightarrow$  AfS). For an overview of the reclassification possibilities that are now permitted see also Table 3. Reclassification criteria are shown in Table 4.

#### Period of validity of the reclassification and effects

The reclassification was in fulfillment of the requirements allowed until October 31<sup>st</sup> 2008, or backdated until July 1<sup>st</sup> 2008 or at any time before November 1<sup>st</sup> 2008; from November 1<sup>st</sup> 2008 on the new reclassification regulations can only be applied prospectively (IAS 39.103G).

A retrospective application at the market conditions prevailing in the fall of 2008 resulted ceteris paribus in a reduction in expenses in the profit and loss account or a low burden on the (negative) revaluation reserve in both the III. Quarter of 2008 and the fiscal year 2008. This arrangement allowed a retrospective reclassification, to a period in which developments were already known.

#### Disclosure requirements under IFRS 7

The standard-setter has tied the granting of relief for the reclassification of financial assets to additional disclosure requirements, so the following points will have to be disclosed in future:

- the reclassified amount for each category, whereby both the access amount of the "receiving" category and the amount leaving the "donor" category will have to be given (IFRS 7.12 and IFRS 7.12A(a)). The amount is the fair value, the value at which the additional indication of nominal amounts would increase the informational value;
- the reasons for reclassification (IFRS 7.12);

- for each reporting period until derecognition, the carrying amounts and fair values of financial assets that were reclassified in the current and in prior periods (IFRS 7.12A(b));
- with reclassifications in accordance with IFRS 7.50B, the rare circumstance and facts that explain why the situation was rare have to be presented (IFRS 7.12A(c));
- for the reporting period of reclassification and the previous reporting period, the gains or losses realized in the income statement, or whether there was neutrally for profit purposes in equity (IFRS 7.12A(d));
- for the reporting period of the reclassification and for each reporting period until derecognition of the financial assets was accomplished, the gains or losses, that would have been recognized in the income statement or whether neutrality would have existed in respect to profit purposes in equity, and no diversion of income and real income would have been realized in the profit- and loss statement ("as-if-bill"; IFRS 7.12A(e)) and
- the effective interest rate and expected return of cash flows for the financial asset, estimated at the time of reclassification (IFRS 7.12A(f)).

Recalculation of effective interest rate on the date of reclassification and extensive additional disclosures make it necessary to document each reclassification promptly and to mark the assets accordingly in the accounting.

Due to the extensive additional disclosures, especially the "as-if-bills", there is no information loss for the financial statements analysis according to IFRS. However, the reclassification does result in an additional computational cost for both the accountant and the analyst. Estimation uncertainties arise in the context of economic conditions, especially in determining the fair value at the time of reclassification and in determining the expected cash backflows. However, after the reclassification has been accomplished there are fewer estimation uncertainties.

## Critical acknowledgement of the amendments

The public viewed the new regulations critically. The hasty approval of the amendment and its adoption into EU law without correct due-process led to a negative connotation being associated with it. This caused confusion among the public, which is understandable when considering that especially financial service providers supported the extension of valuation at fair value in good times (Dobler and Kuhner, 2009, pp. 24-33). Nevertheless, the relaxing of reclassification options, particularly from trading portfolio into the investment portfolio, does not represent an infringement of IFRS. Allocation in accordance with the amendment may only take place if an intention to sell is abandoned in favor of an intention to hold. An allocation to one of the four categories is regulated in IAS 39.9 according to the subjective purpose of the balancing unit. The different kinds of intentions to hold result in different valuation rules (for further information see Dobler and Kuhner, 2009, p 33).

#### **Empirical Method**

The accounting treatment of assets and liabilities at fair value is of particular relevance for banks, since a significantly greater portion of the bank's assets and liabilities falls into this category than that of other companies (Zülch and Salewski, 2011, p. 35). Therefore it seems that an industry-related restriction on the banking industry would be advantageous, when we consider the results of the following study on the significance of the amendments to IAS 39 and IFRS 7. For this reason the STOXX® Europe TMI Banks Index, which includes the 80

largest banks in the European region, was chosen as the basis for this study. This index seems to be appropriate, as it provides a good overview of the application and importance of the amendments in the European region.

Out of the 80 titles included in the STOXX® Europe TMI Banks Index, banks for which the annual report of 2008 was not publically available at the time of analysis (April/May 2012) were excluded. This was necessary, as the analysis is based on information included in the financial statements of 2008 (including differing balance sheet dates; quarterly reports were not included in the analysis). There were nine companies, whose financial statements were no longer available for download on their websites. In addition, financial statements that were not prepared under IFRS were eliminated. This led to the exclusion of three more companies, two of which had prepared their financial statements in accordance with SWISS GAAP and one of which had done so in agreement with US-GAAP. Finally, companies were eliminated whose data either contained no information on the amendment to IAS 39 & IFRS 7 or which provided information that was so inadequate that no statement could be made. This led to the exclusion of another 16 companies. In total, there were 52 financial statements that proved capable of analysis.

## Sample Selection

STOXX® Europe TMI Banks	80
- no annual report 2008	9
available financial reports	71
- not applying IFRS	3
available IFRS financial reports	68
- no or insufficient data	16
Sample	52

An exclusion of foreign currencies did not take place. Consequently, reporting date values were converted at their reporting date exchange rate, and flow variables at the average exchange rate of the period. The historical exchange rate data were taken from the OANDA website, using the respective midpoint between bid and ask price.

Of the remaining 52 companies 75%, that is 39, made use of the amendment possibility. In their financial statements of 2008 the remaining 25% (13 companies) clearly recorded, that they did not make use of the reclassification possibility.

Use of reclassification possibilities given by amendment	Number (absolute)	%
Yes	39	75.00
No	13	25.00
Total	52	100.00

The following detailed evaluation of the use of amendments is based on those 39 banks which actually used them. Banks with total assets of around EUR 20 trillion (average total assets:

around EUR 508 billion) or with a total capital sum of around EUR 708 billion (average equity: around EUR 18 billion) were examined.

## Analysis of reclassification time

First the reclassification date is analyzed. The regulations of the amendment imply that reclassifications done up to October 31<sup>st</sup> 2008 can be backdated to October 1<sup>st</sup> 2008 or to any time prior to November 1<sup>st</sup> 2008. After November 1<sup>st</sup> 2008 the reclassification regulations can only be applied prospectively.

Of the 39 banks that were surveyed, seven reclassified their financial instruments on two or more dates and 25 banks chose only a single reclassification date. The seven remaining banks have not provided sufficient information to enable an assessment of reclassification times.

Two or more reclassification times	Number (absolute)	%
Yes	7	17.95
No	25	64.10
n.a.	7	17.95
Total	39	100.00

The majority of banks (23 or 58.97%) decided in favour of a retrospective reclassification on July  $1^{st}$  2008. Ten banks (25.64%) opted for a reclassification date different from July  $1^{st}$  2008. For six banks the given information was not sufficient to enable an assessment of whether a reclassification had been made on July  $1^{st}$  2008 or not.

Retrospective reclassification on 01.07.2008	Number (absolute)	%
Yes	23	58.97
No	10	25.64
n.a.	6	15.39
Total	39	100.00

Nine (23.08%) banks decided in favour of a retrospective reclassification between July 2<sup>nd</sup> 2008 and October 31<sup>st</sup> 2008. Eight of these carried out a retrospective reclassification on October 1<sup>st</sup> 2008 and one did so on October 31<sup>st</sup> 2008.

Retrospective reclassification between July 2 <sup>nd</sup> 2008 and October 31 <sup>st</sup> 2008	Number (absolute)	%
Yes	9	23.08
- on October 1 <sup>st</sup> 2008	8	20.51
- on October 31 <sup>st</sup> 2008	1	2.57
No	24	61.54

Retrospective reclassification between July 2 <sup>nd</sup> 2008 and October 31 <sup>st</sup> 2008	Number (absolute)	%
n.a.	6	15.38
Total	39	100.00

A prospective reclassification was carried out by nine banks (23.08%), but 24 banks refrained from doing one. Six banks made insufficient statements, so it could not be assessed whether a prospective reclassification had been made or not.

Prospective reclassification (after October 31 <sup>st</sup> 2008)	Number (absolute)	%
Yes	9	23.08
- November 1 <sup>st</sup> 2008	1	2.56
- December 16 <sup>th</sup> 2008	1	2.56
- December 31st 2008	1	2.56
- March 31 <sup>st</sup> 2009	1	2.56
- no information about the date of prospective reclassification	5	12.84
No	24	61.54
n.a.	6	15.38
Total	39	100.00

In summary, at this point it can be noted that only eleven banks (thus 28.21%) provided complete information regarding their time of reclassification. However, one or more item of information was missing from 28 banks, so an analysis of the reclassification time was not or only incompletely possible.

Sufficient information regarding reclassification time	Number (absolute)	%
Yes	11	28.21
No	28	71.79
Total	39	100.00

#### Reclassification

In the next step, the reclassifications were examined in detail. Initially, the number of reclassifications that were made by banks was investigated. Reclassifications of the same type (eg. HtM in AfS) were only recorded as reclassifications if they were made at different times. A majority of the banks that were surveyed (51.28% or 20) made only one reclassification. The remaining 19 banks made several reclassifications, and two of them even used all four possible forms of reclassification. Reclassifications which had previously been permitted (AfS in HtM or vice versa) were not taken into account. The analysis therefore only covers those reclassifications that were newly introduced by the amendment.

Number of reclassifications made per bank	Number (absolute)	%
1	20	51.28
2	7	17.95
3	10	25.64
4	2	5.13
Total	39	100.00

From the above analysis it can be seen that 72 reclassifications were made. Of these 72 reclassifications a quarter was from HfT into AfS. Most reclassifications were from HfT to L&R (33.33%). HfT was reclassified into HtM 13 times (18.06%) and AfS into L&R 17 times (23.61%). As for two reclassifications from HfT into L&R no book value data are available; the given total book value only includes those 70 reclassifications for which the book value was available. In respect to their total number, reclassifications from AfS to L&R (book value of EUR 167,120,685,900) were most significant, followed by L&R into HfT (EUR 134,217,540,150). The other two reclassification categories involved much smaller amounts.

Type of reclassification	Number	%	Number incl. BV	Book value∑
HfT in AfS	18	25.00	18	52,047,488,900
HfT in L&R	24	33.33	22	134,217,540,150
HfT in HtM	13	18.06	13	15,219,502,425
AfS in L&R	17	23.61	17	167,120,685,900
Total	72	100.00	70	368,605,217,375

Per reclassification an average book value of EUR 5 billion was reclassified. The most insignificant reclassification in respect to its amount came to EUR 87,250 (at Sparebank 1 Nord-Norge). The highest reclassification in this respect amounts to EUR 90 million at Dexia. These high amount related differences are also shown in the calculation of the standard deviation.

Type of reclassification	Mean	Min	Median	Max	Std.dev.
HfT in AfS	2,891,527,161	3,600,000	603,533,500	19,313,139,000	5,563,569,544
HfT in L&R	6,100,797,280	87,250	2,444,000,000	23,633,000,000	7,704,757,950
HfT in HtM	1,170,730,956	388,625	371,686,000	11,008,800,000	2,966,168,526
AfS in L&R	9,830,628,582	61,900,000	2,713,524,000	90,784,000,000	22,388,078,599
Total	5,265,788,820	87,250 (Sparebank 1 Nord-Norge)	822,604,000	90,784,000,000 (Dexia)	12,386,928,077

Sparebank 1 Nord-Norge (NO) did the least reclassification (EUR 475,875). The most reclassification was done by Dexia (BE) with a book value of around EUR 100 billion.

Minimum and maximum values (bank)	Total book value of reclassification
MIN (Sparebank 1 Nord-Norge)	475,875
MAX (Dexia)	100,079,000,000

Apart from the representation of the reclassified amounts, the relative importance of reclassification, that is the percentage of the total assets and the percentage of equity involved, should also be analysed at this point. The equity was generally taken from the balance sheet, provided that the total equity (including minority interest) could be seen on it. When no clear equity value was shown in the balance sheet, the value was taken from the statement of changes in equity.

In relation to total assets, the reclassification, which had an average percentage level of 2.92%, did not show a very great influence. In relation to bank equity, which is usually relatively low, it was shown that the average book value of the reclassification exceeded the average book value of equity by 2.02%. The lowest relative effects of 0.01% on total assets or 0.11% on equity were found at Sparebank 1 Nord-Norge.

When considering the maximum values, however, it is shown that the reclassification at Natixis (FR) was 20.80% of the total assets and therefore amounted to about a fifth of them. Reclassification had an extreme impact in relation to equity at Dexia, namely 1,781.40%.

Relative importance of reclassifications	Mean	Min	Median	Max	Std.dev.
reclassification/ total assets	2.92%	0.01%	1.54%	20.80%	4.55%
reclassification / equity	102.02%	0.11%	34.24%	1,781.40%	304.83%

#### Impact of reclassification on results

In this section, the losses which were prevented by reclassification are analysed in detail. In principle, banks had to report the losses they would have suffered if reclassification had not been undertaken. However, ten banks (25.64%) did not fulfil this requirement, so they were eliminated from the following analysis. Furthermore, two companies were eliminated from the analysis of NI-effects, because they showed an effect of 0 on the results. This was done in order to avoid an adulteration of the calculation; only data which show a value > 0 are included in the following analysis. The same applies to 15 banks, for which an influence on NI but not on OCI was given. These are excluded from the more detailed analysis of OCI.

Impact of reclassification on results	n.a	n.a. %	No impact	No impact %
Total CI	10	25.64%	-	-
NI	10	25.64%	2	5.13%
OCI	10	25.64%	15	38.46%

On average, losses of EUR 863,531,416 were prevented due to reclassification. The reclassification of Barclays had the slightest effect on the total CI. Barclays saved losses of approximately EUR 2 million due to reclassification. Reclassification had the greatest effect at Deutsche Bank, which was able to avoid losses of approximately EUR 5 billion by reclassification.

Net income was impacted positively by EUR 595 million on average as a result of reclassification. The lowest effect is again shown by Barclays and the highest by the Deutsche Bank.

OCI has been improved by an average of EUR 555 million as a result of reclassification. Leader in this case is Dexia, which would have had to record a loss of EUR 2 billion in OCI without reclassification. The lowest OCI effect resulting from reclassification was shown at BCO Comercial Portugues.

Impact of reclassification on results	Mean	Min	Median	Max	Std.dev.
Total CI-effect	-863,531,416	-1,595,850 (Barclays)	-336,471,000	-5,209,000,000 (Deutsche Bank)	1,369,464,756
NI-effect	-594,898,698	-1,595,850 (Barclays)	-73,218,600	-3,409,000,000 (Deutsche Bank)	1,021,377,997
OCI-effect	-555,170,329	-81,371,000 (BCO Comercial Portugues)	-261,567,500	-2,123,000,000 (Dexia)	649,661,900

In a further step, the net income effect (in relation to the annual net income) that was prevented by reclassification was analyzed. On average, there would have been a 22.65% on annual net income as a result of losses that would have occurred if there had been no reclassification. A minimal effect on the result was revealed at Barclays (0.02%). The largest effect on the profit and loss statement was revealed at BCO Popolare di Sondrino, where the influence on the annual net income amounted to 91.73%. It should also be mentioned, that Deutsche Bank was also able to influence its annual net income massively - by 85.50%.

	Mean	Min	Median	Max	Std.dev.
P&L- effect in % of net income	22.65%	0.02% (Barclays)	14.04%	91.73% (BCO Popolare di Sondrino)	25.43%

Reallocation of results from Profit/Loss into OCI due to reclassification from HfT into AfS

Furthermore, the reallocation from HfT into AfS was analysed in greater detail. This reclassification made it possible to report losses in a manner that is neutral as far as profit is concerned, namely in OCI. Originally they would have been reported in the income statement. This enabled the transfer of losses out of the profit and loss account into OCI, and thus into the statement of changes in equity. So these losses were presented in a less prominent place. Concerning this issue, also see chapter "More recognition in the OCI" in this article. Basically 18 companies carried out a reclassification from HfT into AfS. Since eight of these companies did not adequately present the impact of the AfS reserve on the results after the time of reclassification, these 44.44% were excluded from the analysis. Therefore, ten banks were included in the following analysis.

Due to the reclassification, it was possible to transfer around one billion (an average of around EUR 128 million) in losses from the profit or loss statement into the OCI.

Loss detection trough reclassification of HfT into AfS	Total	Mean	Min	Median	Max	Std.dev.
Detection neutrally for profit purposes by AfS reclassification	-1,284,219,100	-128,421,910	-1,340,000 (Bank Attica)	-34,467,200	-807,629,200 (Royal Bank of Scotland GRP)	249,562,030
AfS reserve effect in % of equity		-1.19%	-0.05% (Intesa Sanpaolo)	-0.55%	-5.43% (Atebank)	1.64%

## Disclosure requirements according to IFRS 7

Finally, the extent to which banks fulfilled the extensive disclosure requirements of IFRS 7 was shown. Considering the complexity of individual disclosure requirements, it is not surprising that only 20.51% (8) fulfilled all of them. The overwhelming majority of 79.49% of the banks (thus 31) were negligent in respect to at least one requirement. An extensive evaluation of the information which was not provided has not been performed.

	Yes	Yes %	No	No %
Disclosure requirements fulfilled	8	20.51%	31	79.49%

Summarizing the empirical results showed that the majority of the surveyed banks made use of the amendment possibility. Thereby, losses of EUR 863,531,416 per bank were prevented. Although these amendments prevented losses of billions of euros and therefore an imminent economic collapse, the public viewed the new possibilities critically. This general criticism was due to the fact that the banks, who are now opponents of the amendments, formerly supported the fair value system. Nevertheless the IASB broke with his fair value concept and permitted an exit option of fair value accounting.

# **Future perspectives**

Within international financial reporting the implementation of a single fair value definition for all standards is being undertaken (IAS, IFRS). After an exposure draft in 2009 (IASB, 2009a), which showed differences in comparison to US-GAAP, a supplementary exposure draft was

published in 2010 (IASB, 2010a). The new draft and the FASB's ED now have uniform rules concerning fair value (FASB, 2011; IASB, 2010a; IASB, 2010b). In the spring of 2011 the final standard (IFRS 13 – Fair Value Measurement) including all of the adaptations that had been made was finally released (for further information see Grosse, 2011; Flick, Gehrer and Meyer, 2011, Hitz and Zachow, 2011). This approach can be interpreted as positive in terms of definition problems. With it, the standard setters created a uniform basis for fair value accounting, a method which is sometimes subject to controversy. However, it was not possible to solve either the problem of inconsistent recognition or the representation problem of fair value changes.

In addition to the uniform fair value definition, changes have been made to the accounting rules for financial instruments. The new IFRS 9 is intended to fulfil the desire for reduced complexity and create a single set of regulations for the accounting of financial instruments. The standard contains only two categories, on the one hand recognition at amortized cost and on the other hand at fair value (PWC, 2012; for further information see Breitkreuz and Zimmermann, 2011; Kuhn, 2010; for project details see IASB, 2012b).

Finally, it can be stated that the current crisis was not caused by an incorrect accounting or inadequate corporate disclosure. Instead, the large structuring and securitization of assets, the risks of which cannot be communicated to the capital markets audience with the previously existing instruments, was a trigger (Dobler and Kuhner, 2009, p. 33).

# **Appendix**

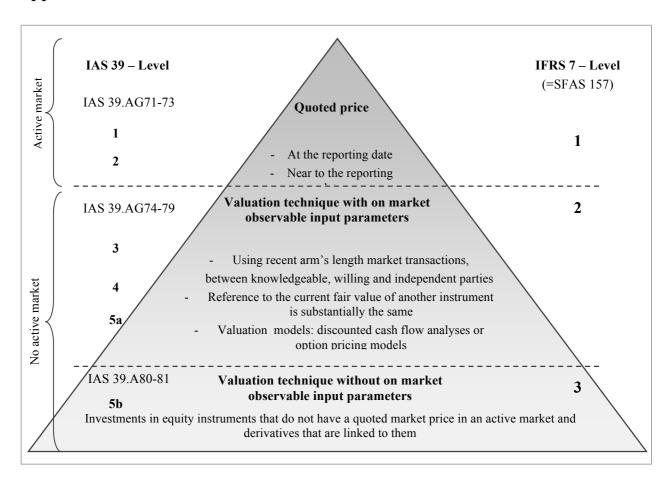


Figure 1: Fair value hierarchy IAS 39 versus SFAS 157

	X1	X2	X3	X4	X5	perpetuity
Free Cash Flow	2,000,000.00	2,500,000.00	2,200,000.00	2,150,000.00	2,100,000.00	2,200,000.00
WACC	7.50%	7.49%	7.51%	7.51%	7.48%	7.51%
Present value	1,860,465.12	2,163,734.07	1,770,419.14	1,609,322.24	1,464,134.61	20,395,691.51
Total enterprise value	29,263,766.67					

WACC 1% higher	8.50%	8.49%	8.51%	8.51%	8.48%	8.51%
Present value	1,843,317.97	2,124,029.73	1,721,921.67	1,550,812.90	1,397,883.29	17,184,792.93
Total enterprise value	25,822,758.48					
Difference	-3,441,008.20					

WACC 1% lower	6.50%	6.49%	6.51%	6.51%	6.48%	6.51%
Present value	1,877,934.27	2,204,562.19	1,820,755.07	1,670,617.10	1,534,189.77	24,654,134.95
Total enterprise value	33,762,193.34					
Difference	4,498,426.67					
Difference in %	15.37%	1				

Table 1: Selection of discount rate (DCF-Method)

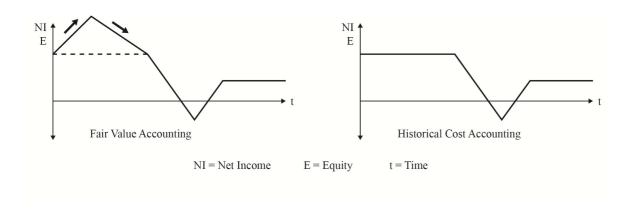


Figure 2: Fair value accounting versus historical cost accounting

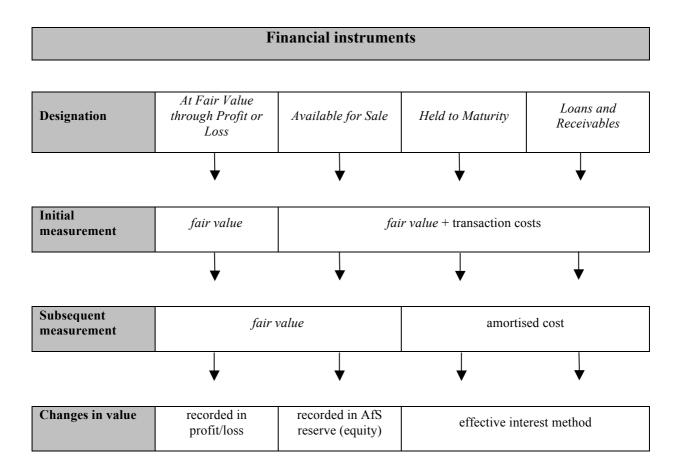


Table 2: Initial and subsequent measurement of financial instruments according to IAS 39

	Into				
Out of	Held for Trading	Designated at Fair Value	Loans and Receivables	Held to Maturity	Available for Sale
Held for Trading		No	Yes* (IAS 39.50 (c) iVm IAS 39.50D)	Yes* (IAS 30.50(c) iVm IAS 30.50B+C)	Yes* (IAS 39.50(c) iVm IAS 39.50B+C)
Designated at Fair Value	No		No	No	No
Loans and Receivables	No	No		No	No
Held to Maturity	No	No	No		Yes
Available for Sale	No	No	Yes* (IAS 39.50E)	Yes	

<sup>\*</sup> Amendments to IAS 39 & IFRS 7 (2008)

Table 3: Reclassification options according to the Amendment to IAS 39 & IFRS 7

Reclass	ification	Criteria					
Out of	Into	Rare circumstances			definition of L&R		
HfT	AfS	Yes	Yes	No	No		
HfT	HtM	Yes	Yes	No	No		
HfT	L&R	No	Yes	Yes	Yes		
AfS	L&R	No	No	Yes	Yes		

Table 4: Reclassification criteria

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