# THE IMPACT OF FAIR VALUE ACCOUNTING ON THE EUROPEAN BANKING SECTOR – A FINANCIAL STABILITY PERSPECTIVE

*From 2005 onwards, listed companies (including banks) in Europe will have to adopt the International Accounting Standards (IAS) for the presentation of their consolidated financial statements. These accounting standards, and in particular the proposed valuation rules for financial instruments, are expected to have a major impact on the European banking industry. This article provides an overview of the current debate and impact from a wider application of fair value accounting in the banking industry. It further investigates the possible consequences for financial stability by looking at how exogenous shocks to the banking sector are likely to manifest themselves in banks' financial statements under the new rules. The introduction of the IAS may in turn lead to changes in bank behaviour, for example in terms of customer relationships, types of products offered or risk management practices. More generally, the new accounting regime could affect the role of banks as financial intermediaries and the distribution of financial risks among economic agents.*

## 1 INTRODUCTION

International accounting standard-setters are currently refining their proposals for the more widespread use of fair value accounting (FVA). The ECB has a keen interest in this development for several reasons. First, accounting reforms are likely to have a profound impact on the European banking sector and through this channel also on the stability of the financial system. Second, harmonised and high-quality accounting standards make a significant contribution to the integration and efficiency of financial markets. Third, the consistency between the accounting framework and the reporting schemes for supervisory and statistical purposes is an additional area worthy of attention.

This article focuses on the potential impact of FVA on the banking sector mainly from the perspective of its stability. Section 2 presents the background to the FVA debate and the initiatives recently taken by international accounting standard-setters. Section 3 discusses the pros and cons of a wider application of FVA. Section 4 describes how various exogenous shocks to the banking sector are likely to manifest themselves under the new accounting rules and how this could lead to changes in bank behaviour. Finally, Section 5 draws some general conclusions.

## 2 THE FVA DEBATE

### THE BACKGROUND TO THE DEBATE

With the development of financial markets, in particular the strong growth of derivatives, and the increased involvement of banks in the trading of financial instruments, the current accounting framework has come under increased pressure because it does not adequately reflect economic reality. The growing demand in the investor community for transparency and for the creation of shareholder value requires firms to provide information that better reflects the impact of prevailing economic conditions on their financial position.

The traditional accounting framework is to a large extent based on so-called "historical cost accounting" (HCA), meaning that the individual balance sheet items are in principle recognised on the basis of their purchase price or the cost at the time of acquisition. Following on from this, the current accounting approach (CAA)[1] has moved away from the pure HCA framework towards a mixed model whereby different valuation rules are applied depending on management's intentions in holding certain assets and liabilities.

1 In the European Union, the current valuation framework to be applied to the annual financial statements of banks is laid down in the Directive 86/635/EEC. This Directive has in the meantime been amended to remove inconsistencies with the IAS and to bring it into line with modern accounting developments.

In this latter respect, financial instruments (such as loans, bonds, deposits or financial derivatives) are divided by the bank into two main portfolios or "books". Instruments that are intended to be held to maturity or for longer-term investment purposes are allocated to the "banking book". They continue to be accounted for at cost or at the "lower of cost or market" (LOCOM). In general terms, LOCOM can be considered as a more conservative variant of historical cost valuation and is thus an illustration of the prudence principle to which great importance is traditionally given in accounting. This is because, under LOCOM, the asset is valued at its market price when the latter is lower than its acquisition cost, meaning that unrealised losses are effectively recognised in the bank's profit and loss account, whereas unrealised gains are not. Instruments in the "trading book", by contrast, are in principle held for short-term trading purposes. They are accounted for at market prices (i.e. they are "marked to market"), with the resulting profit or loss being recognised directly.

The CAA's mixed valuation model described above would be adequate if banks managed their trading and banking books completely separately. However, this is not the case. Under current risk management practices, trading book items are often used to hedge exposures in the banking book. Owing to the differing accounting treatment of the items in the different books, accounting standard-setters have developed hedge accounting to adequately reflect in the statements the matched risk arising from a hedged position (see Box 1). Furthermore, the increased use of financial derivatives such as forwards, futures, swaps and options, has also made more evident the fact that the exposure to these financial instruments is inadequately reflected within the current accounting framework. At origination, such instruments have typically no or a very low acquisition cost. Over time, however, their economic value can change substantially, thus having a major impact on a bank's risk profile and financial position. However, since these instruments are typically not recorded in the balance sheet, their impact will only show up in the profit and loss account when they are actually settled.

## RECENT INITIATIVES BY INTERNATIONAL ACCOUNTING STANDARD-SETTERS

The increasing misalignment between the information contained in financial statements and the true risk profile of firms was considered significant and in need of correction. As a result, international accounting standard-setters have started to move towards an increased use of FVA. The basis of FVA is, in principle, the market values of the different items. If no relevant market price is available, the fair value will be estimated using a model (e.g. the discounted cash flow model) that takes into account all relevant valuation factors, such as the characteristics of the instrument and the prevailing market conditions.

In 1999, the International Accounting Standards Committee (IASC), which has since been replaced by the International Accounting Standards Board (IASB), issued an accounting standard (IAS 39) that required the use of fair values for certain financial instruments, in particular derivatives and debt and equity securities held for trading or available for sale.[2] This standard, which would have a particularly important impact on financial firms such as banks, was heavily criticised and considered prematurely finalised.

In December 2000, an integrated and harmonised standard to use FVA for all financial instruments, including loans and deposits and regardless of the intention with which they are held, was put forward by the Joint Working Group of Standard Setters (JWG), in which the IASB and national accounting standard-setters are represented. This proposal for full FVA, which would apply to trading book as well as banking book

2 The IAS distinguish between four categories of financial assets: (i) assets held for trading; (ii) held-to-maturity investments; (iii) loans and receivables originated by the firm; and (iv) available-for-sale assets. The last category includes financial assets that do not belong to any of the previous three categories.

Box 1

## HEDGE ACCOUNTING

The aim of hedging is to reduce the risk on a hedged instrument (e.g. a bond, loan or deposit) by combining it with a hedging instrument (e.g. a forward, future or swap) so that value changes in one instrument are offset by value changes in the other instrument. However, if different accounting valuation methods are used for the different instruments, for example historical cost for the hedged item and market value for the hedging item, this will result in volatility in the profit and loss account which does not correspond to the economic reality of a much reduced risk position. A specific accounting treatment, so-called "hedge accounting", is therefore required. Hedge accounting either defers the recognition of losses or brings forward the recognition of gains in the profit and loss account so that the gain or loss from the hedged instrument is recognised at the same time as the offsetting gain or loss from the hedging instrument. It follows that under full FVA, where the same valuation method is applied to all financial instruments, there is no need for hedge accounting.

In order to avoid situations where hedging relationships are identified ex post, for example to deliberately steer the profits and losses, the International Accounting Standards Board (IASB) laid down a number of specific requirements in order to qualify for hedge accounting. The key requirements are that the hedging relationship be:

- clearly identified and documented at inception;
- reliably measured;
- effective; and
- highly probable, if it is a forecasted transaction.

A hedge can only qualify for hedge accounting if an "effectiveness test" is passed, i.e. changes in the value of the hedged item and the hedging instrument must almost fully offset each other. Hedges must be expected to be highly effective at designation. In addition, the actual results realised over the life of the hedge must remain within a narrow margin in order for it to continue to be considered effective and for hedge accounting to continue to apply.

Hedge accounting was initially scheduled to be applied only at the micro level (i.e. instrument by instrument). However, the IASB is currently considering allowing hedge accounting also for a portfolio of instruments (so-called "macro-hedges"), which would move closer to banks' prevailing risk management practices.[1]

1 See the Exposure Draft on Fair Value Hedge Accounting for a Portfolio Hedge of Interest Rate Risk, IASB, August 2003.

instruments, was received with scepticism by the banking industry and the supervisory community.[3] The main argument against the proposal was based on the inadequate development of credit risk models and valuation methods for non-marketable instruments that would be used to derive fair values. The potential impact on financial stability from the increased volatility in financial statements was also identified as an issue of concern. The standard was not adopted, but the move towards

3 The ECB also conveyed its concerns to the JWG. See "Fair value accounting in the banking sector: ECB comments on the 'Draft standard and basis for conclusions – financial instruments and similar items' issued by the Financial Instruments Joint Working Group of Standard Setters", 8 November 2001 (www.ecb.int).

a more extensive use of fair value was not abandoned.

In August 2001, the IASB announced that it would undertake a project to amend IAS 39. In 2002, an Exposure Draft with proposed amendments was published and comments were invited. The Exposure Draft includes a proposal to give firms the (irrevocable) option to apply FVA to any financial instrument if the firm chooses to do so when entering the transaction. Following criticisms of the treatment of portfolio hedging, a further exposure draft on macro-hedging was issued in August 2003 for public consultation. In December 2003, the IASB released the revised versions of its IAS 32 and IAS 39 standards. The revisions benefited from extensive consultation, however some issues remain contentious, such as the fair value option and macro-hedging. With regard to the latter issue, further amendments to IAS 39 will be issued early in 2004.

### THE EU ACCOUNTING FRAMEWORK

Within the European Union, the impetus for an accounting reform stems mainly from the objective of creating a fully-fledged single market. The need to overcome differences in accounting standards between Member States and to have a harmonised accounting framework is considered a crucial step towards the integration of financial markets in the euro area and the European Union. Indeed, harmonised accounting rules would increase transparency and comparability, thus facilitating better capital allocation and potentially reducing the cost of capital. Recently, a number of major accounting scandals in the United States and Europe have again underlined the importance of transparent and high-quality financial reporting.

In July 2002, the European Parliament and Council adopted a Regulation[4] requiring listed companies, including banks, to prepare consolidated financial statements in accordance with the IAS from 2005 onwards. Moreover, Member States have the option of extending the requirements of the Regulation to unlisted companies and to non-consolidated statements. Although a regulation has force of law without transposition into national legislation, an endorsement process to adopt international accounting standards for application in the European Union was envisaged (see Box 2). The European Commission has expressed its commitment to endorse all the standards issued by the IASB.

In accordance with this process, the Accounting Regulatory Committee (ARC) endorsed in July 2003 the existing body of IAS, with the exception of IAS 32 (dealing with the presentation and disclosure of financial instruments) and IAS 39 (dealing with the recognition and measurement of such instruments). Subsequently, the Commission formally endorsed the same IAS by adopting a Regulation.[5] At that time, IAS 32 and IAS 39 were still being reviewed by the IASB since the financial industry and financial regulators had requested further discussion to assess and address concerns regarding the application of the two standards. In light of the comments received, the IASB revised these standards in December 2003, with the exception of the issues on "macro-hedging" which should be finalised in the first quarter of 2004. Subsequently, the Commission will consider them for endorsement in the second half of 2004.

## 3 THE PROS AND CONS OF FULL FVA

The increased use of fair value as envisaged by the IASB has many associated benefits, but it also raises significant concerns for financial institutions. One of the major benefits is undoubtedly that the market or fair value of financial derivatives will appear on the balance sheet. Since derivative instruments have

4 Regulation (EC) No. 1606/2002.
5 Regulation (EC) No. 1725/2003.

Box 2

## THE EU ENDORSEMENT PROCESS FOR INTERNATIONAL ACCOUNTING STANDARDS

The establishment of a formal endorsement process for accounting standards in the European Union is necessary for political and legal reasons. First, it is considered inappropriate to delegate accounting standards to private organisations such as the IASB over which the European Union has no influence. Second, it is important to create legal certainty by identifying the standards with which listed companies will have to comply in the future. The endorsement mechanism also examines whether the standards adopted by the IASB are consistent with EU public policy concerns. The endorsement process involves the intervention of a regulatory committee, the ARC, chaired by the European Commission and composed of representatives of the Member States. The ECB participates in the Committee in an observer capacity. The ARC adopts or rejects IAS on the basis of a proposal made by the Commission. The endorsement process can be described as follows:

**Step 1:**
The Commission submits its proposal to adopt or reject the accounting standard to the ARC, accompanied by a report identifying the specific IAS in question, examining its conformity with the existing accounting directives and its suitability as a basis for financial reporting in Europe.

**Step 2:**
The ARC has two months to deliver its opinion on the proposal. The Committee receives technical recommendations concerning the use of the IAS within the European legal environment from an accounting technical group called the European Financial Reporting Advisory Group (EFRAG), which is a private-sector forum composed of the main parties interested in financial reporting in Europe, namely the users and the preparers of accounts and representatives of the accounting profession (supported by the national standard-setters). EFRAG has one month to provide technical recommendations.

**Step 3:**
If the ARC agrees with the proposal, the Commission takes the necessary measures to ensure that the standard is adopted for use within the EU's legal environment. If the Committee has no opinion or delivers a negative opinion, the Commission might return the issue to EFRAG or bring the matter before the Council.

In accordance with the normal EU procedures for decision-making by regulatory committees, the European Parliament is informed of the work of the ARC. The European Parliament may also intervene if it considers that the Commission has exceeded its powers.

become a major risk management tool for banks, and their notional amount (which is now recorded off balance sheet) is often very significant relative to the total balance sheet, the user of financial statements will have a better picture of a bank's true financial position. In addition, it will be easier to assess the extent to which a bank's risk management practices, for example through the use of derivatives, are truly effective.

The wider application of FVA should also result in a more coherent and comparable valuation framework, as instruments would then be valued at the same point in time according to the same principle. One of the effects of this increased transparency and improved quality of information is that it may lead to earlier corrective action by management, shareholders or supervisors if a bank incurs excessive risks.

Another benefit is that the incentive for "cherry-picking" decreases. Under the current accounting framework, changes in the economic value of instruments are, as a rule, only recognised at the moment they are actually realised; hence a bank may have an incentive to realise certain transactions purely to boost its accounting profit. For example, assets which show substantial latent surplus values (hidden reserves) may be sold to offset poor results for core business activities.

But FVA also raises substantive concerns. First, as changes in the economic environment and the risk profile are better reflected, FVA is likely to increase volatility in financial statements. It could be argued that if volatility exists then the statements should reflect this and, in so doing, they give the user more relevant financial information. However, for instruments in the banking book that are in principle held to maturity, such as the majority of loans, the value at maturity necessarily has to be equal to the nominal or par value irrespective of the swings in the economic value during the lifetime of the instrument. The volatility in the profit and loss account arising over the lifetime of such instruments from the use of FVA may not therefore provide very relevant information and may even be misleading (see Box 3). An additional complication is the link in some countries between financial statements and taxation. There is therefore a risk under FVA that unrealised profits are taxed, a cost which might not be offset by the tax deductibility of unrealised losses.

Second, determining the fair value of certain instruments, in particular when there is no relevant market price, could be difficult. In such cases, a fair value will have to be calculated on the basis of models ("marking to model") and these could give very different results for instruments with comparable risk features. The value resulting from this procedure is only as good as the model and the data used as input. Often too short a time perspective is used for the estimation of the model parameters, and both market practitioners and supervisors agree that current valuation models still need to be further developed. Moreover, given that institutions can use different models with significantly different assumptions, the fair values and the resulting effects on the profit and loss account may not be comparable across different banks, which is at odds with one of the aims of FVA. For external auditing, it will be particularly challenging to verify whether the fair values obtained through model valuations are reliable.[6]

Finally, the issue of own credit risk or the risk arising from a bank's issued bonds should be mentioned. Under FVA, a deterioration in a bank's own credit risk would result in a reduction in the value of its own bonds, hence decreasing the fair value of its liabilities. If the value of the assets were to remain unchanged, this would simultaneously result in an increase in shareholders' funds, which are calculated as the difference between the fair value of the assets and liabilities. This improvement in the

6 There are also important issues regarding statistics, but these are not within the scope of this article.

Box 3

## ILLUSTRATION OF HOW FVA CAN LEAD TO ADDITIONAL VOLATILITY IN A BANK'S FINANCIAL STATEMENTS

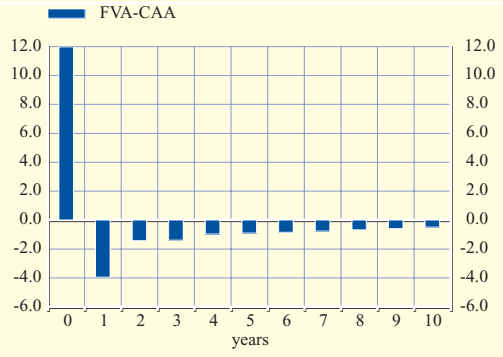
If a bank holds interest-bearing instruments (e.g. loans, bonds) on its balance sheet until maturity, FVA can lead to substantial additional volatility in the profit and loss account over the lifetime of the instruments, which is at odds with the intention with which they are held. This can be illustrated by looking at the balance sheet of an average European bank in the case of an external interest rate shock. Certain simplifying assumptions are made in constructing this balance sheet (e.g. no hedging, a maximum maturity of instruments of ten years).

In the absence of an observable or relevant market price, the fair value of bonds and loans can be approximated by calculating the net present value of their expected cash flows. This calculation consists of discounting the cash flows of the particular instrument over the remaining lifetime at a discount rate that reflects the risk-free rate and a risk premium. The effect of an interest rate shock on the fair value of the instruments can then be simulated by changing the discount rate.

At origination, the calculated value of these instruments will normally be equal to their nominal value, expressing the fact that they have been priced in accordance with prevailing market conditions. As time progresses and market conditions change, the calculated value will also change (decrease in the case of an interest rate rise, increase for an interest rate fall) and will no longer be equal to the nominal value. However, at maturity the calculated value will again have to be identical to the nominal value, reflecting the fact that at this point the bank's claim on the bond issuer or loan debtor is immediately repayable at nominal (par) value. This development of the value of a bond/loan over its lifetime is also known as the "pull to par" movement.

These principles are illustrated in the graph below, which shows the effect of a 100 basis point downward shift of the yield curve on the bank's profit and loss account over time, expressed as a percentage of the bank's capital and reserves. The effect is shown on an incremental basis, meaning that only the difference on the profit and loss account between FVA and the CAA is shown. It should be noted that because of the CAA's LOCOM valuation applied to securities in the banking book, the graph, in the case of an interest rate increase, is not just simply the mirror image of that which occurs in the event of an interest rate decrease.

**FVA-CAA as a percentage of capital and reserves**
**Downward shift in the yield curve of 100 basis points**




The graph illustrates that as the yield curve shifts downwards by 100 basis points, the fair value of the bond and loan portfolio would increase, which under FVA would be recognised in the bank's profit and loss account as a profit. Under the CAA, the portfolio would remain at its earlier book value (equal to the nominal value) so that there is no effect on the

profit and loss account. If there were no additional shocks, the value increase under FVA would be transferred back over time as losses through the profit and loss account, the reason being that at maturity the fair value of the bonds and loans would necessarily pull to par. The graph also shows that while the interest rate decrease would have a large immediate impact, the subsequent offsetting movement over time would be more gradual. Under FVA, all these value changes would be fully reflected in the profit and loss account, whereas under the CAA, the bonds and loans would remain at their nominal value.

To conclude, at origination and maturity of the instruments, FVA and the CAA have the same effect on the bank's financial statements, but for the period in between, FVA will result in more volatility, which seems to be inconsistent with the intentions with which the instruments are held.

solvency position resulting from a deterioration of the own credit risk is counter-intuitive and very controversial, especially from a supervisory point of view. It may be a major reason for supervisors not to accept that the IAS are entirely reflected in the calculations for regulatory capital requirements.

## 4 THE IMPACT OF THE ACCOUNTING FRAMEWORK ON BANKS

### THE IMPACT ON BANKS' FINANCIAL STATEMENTS

Shocks to the economy will manifest themselves differently in banks' financial statements depending on the accounting framework in place. In order to gain a better understanding of the impact on financial stability, a number of scenarios that are especially relevant to the banking sector are discussed under both the CAA and FVA. These scenarios are a significant deterioration in credit quality, an unexpected change in interest rates, a real estate crisis and a sharp adjustment in equity prices.

The *first scenario* analysed is that of a *deterioration in credit quality*. The deterioration in the credit quality of a financial asset, such as a loan or a bond, will be reflected in lower expected cash flows. If the fair value of the instrument were to be calculated by discounting its expected cash flows, the fair value would decline in parallel with the credit quality deterioration. Under current accounting rules, by contrast, the value of the asset will, as a rule, only be adjusted through the creation of a specific provision when the asset is "impaired" or "non-performing". In this case, a certain "real event" reflecting a deterioration in quality, such as default or a delay in interest payments, often has to occur before the value is adjusted in the statements.

The bank's provisioning behaviour under the CAA will therefore be crucial. If provisioning decisions are taken in a perfectly forward-looking manner and reflecting any change in the expected cash flows, the accounting effects under the CAA and FVA on credit risk will be identical. However, an important obstacle to forward-looking provisioning comes from the present accounting and tax regulations. In order to limit the possibility for management to manipulate financial results, regulations in most countries tend to narrowly define "impairment" or "non-performing loans". Provisioning is only allowed when specific losses have already materialised or when there is evidence that they will materialise soon. As a result, loan loss provisions are predominantly backward-looking.

Another important element in the CAA versus FVA debate is the way banks estimate their expected future cash flows. A crucial parameter here is the so-called "probability of default" or the likelihood that a certain debtor will default

over a certain time interval. Studies conducted on banks' credit risk assessment systems have demonstrated that, as a rule, probabilities of default and the associated credit ratings are estimated in a point-in-time manner with a short time horizon of usually one year; very few banks use a longer time horizon for their risk assessment by taking into account the expected average performance of a borrower over an economic cycle. If such short time frame estimates were to be fed into the estimation of the expected cash flows, they would be revised quite frequently, hence leading to more volatility in the statements.

The *second scenario* focuses on an *unexpected change in interest rates*. If derivatives are not taken into consideration, an interest rate change will have a very different impact on the accounting value of items in the banking book under FVA compared with the CAA. An interest rate increase would result in a lower economic value of these instruments because the present value of the expected future cash flows decreases. Conversely, an interest rate decrease would result in an increase of the economic value.

Under FVA, these value changes will, by the very nature of the accounting technique, always be recognised in the statements. By contrast, under the CAA, value changes resulting from interest rate volatility will not be recognised as far as loans are concerned. For securities in the banking book, the recognition will only occur in the case of an interest rate rise when the LOCOM valuation is used to value the portfolio. LOCOM valuation, however, will not recognise the latent value increases resulting from an interest rate decrease. As a result, interest rate changes are treated in an asymmetrical way, which is not the case under FVA. In an environment of strongly declining interest rates, banks applying LOCOM are therefore likely to have substantial hidden reserves on their balance sheets.

The *third scenario* is a typical *real estate crisis*, which to a large extent may be a combination of the two earlier scenarios, i.e. an increased fragility of borrowers and a rise in interest rates. Such a scenario, for example observed during the Swedish banking crisis in the early 1990s, is particularly relevant since a crisis in the commercial real estate market often goes hand in hand with a banking crisis. In addition, mortgages make up a major part of banks' retail business and specialised mortgage institutions play an important role in several European countries.

A real estate crisis may not only affect banks' expected cash flows from borrowers through a deterioration of their intrinsic repayment capacity, but also through lower values of real estate collateral if the debtors default. Under this scenario, the evolution of both the expected future cash flows (reflecting credit risk) and the discount rate (reflecting interest rate risk) would lead to lower asset values. This combined effect would be fully reflected in the statements under FVA, most likely resulting in a substantial erosion of the banks' own funds. Under the CAA, and disregarding the specific provisioning behaviour of the bank, the credit quality deterioration would have no impact until impairment; but even when impairment actually occurs, the effect would be substantially smaller than under FVA given that the interest rate effect on the loan portfolio will not be recognised.

The *last scenario* is a *sharp adjustment in equity prices*. As a rule, the CAA applies LOCOM to shares in the banking book, whereas under FVA both price increases and decreases are fully reflected in the statements. A major difference between FVA and the CAA will therefore emerge in the event of a sharp upward adjustment in stock prices. Although for many European banks shares represent a relatively small part of their total assets, large price increases such as those witnessed during the last period of buoyant stock markets are nevertheless likely to have a substantial impact on the statements under a fair value regime. Under the CAA, by contrast, such increases would lead to the building-up of larger hidden

reserves. As long as market prices remain above the initial acquisition prices, any subsequent price decline could be absorbed by the hidden reserves, whereas under FVA the price declines would be fully reflected in the profit and loss account.

These four scenarios illustrate that the wider application of FVA is likely to result in increased volatility in banks' profit and loss accounts as changing economic conditions are reflected more quickly in the financial statements. In addition, whereas under the CAA this process is to a large extent asymmetrical, with value increases resulting from improved economic conditions as a rule not being reflected, the process under FVA is symmetrical. The increased volatility can be substantial and might have an impact on bank behaviour, which would in turn raise a number of financial stability concerns.

## THE POTENTIAL IMPACT ON BANK BEHAVIOUR

Although in a world characterised by no information asymmetries and efficiently working financial markets the accounting regime should, in principle, not have any impact on economic agents' behaviour, reality shows that accounting rules do have the potential to affect firms' behaviour. The increased volatility under FVA resulting from the closer link between banks' financial statements, their risk positions and prevailing economic conditions could therefore lead to changes in bank behaviour, for example by influencing their business decisions or risk management practices. More generally, it may affect the role of banks as liquidity transformers and their contribution to the smooth functioning over time of savings and investments in the economy.

The timelier recognition of risks, such as an asset price decline or a credit quality deterioration, under FVA may lead to increased transparency compared with the CAA. Likewise, transactions that are not priced in accordance with prevailing market conditions should, in principle, be easier to identify. Examples include the undercutting of competitors to gain market share or cross-subsidisation, where a firm relies on profits from its various operations to finance predatory practices in other markets. Increased transparency may in turn improve discipline on banks as exercised by the market or the supervisor, so that problems are recognised in a timelier fashion and corrective action is taken sooner.

However, the earlier recognition of risk under FVA might increase the pro-cyclicality of lending behaviour and result in more pronounced economic cycles. Pro-cyclicality here refers to the phenomenon of banks' lending activity tending to follow the same pattern as that of the real economy, i.e. credit growth in an economic upturn and restrictions in an economic downturn. This raises a number of concerns. It can lead to a misallocation of resources and sub-optimal investment behaviour because, in an economic upturn, non-viable projects may get financed, while in a downturn even very promising projects may be rejected. In addition, systemic risk could increase, an illustration being the fuelling of an asset bubble during economic upturns through generous credit conditions and higher collateral values. The subsequent bursting of the bubble may result in a banking crisis and a credit crunch.

It is acknowledged that owing to a variety of factors, including business practices, the lending behaviour of banks is by its very nature pro-cyclical. But it is important that financial regulation, such as accounting rules or capital requirements, do not unduly increase this trait. Under the FVA regime, unrealised gains due to asset price increases or improved credit quality in an economic upturn would immediately fuel the banks' profit and loss account and own funds, thereby providing the basis for a further lending expansion. In the case of an economic downturn, the opposite would occur, thereby possibly deepening or prolonging the downturn. If the economic downturn is associated with lower interest rates, this

development may at least partially be offset by higher profits resulting from the revaluation of existing assets with a fixed interest rate.

FVA may not only have an impact on the level of banks' lending activity, but also on the relative composition of their balance sheets. In order to reduce the volatility in financial statements under FVA, banks may want to take on less risk. This can be done either by taking less risk at origination or by subsequently shedding the risk through activities such as hedging or securitisation. In this way, the role of banks as financial intermediaries may change and the risks they normally assume may be transferred to other economic agents. In principle, the resulting reduction in risk concentration may be beneficial in terms of financial stability, provided that the agents that take on the risk assess it adequately.

On the other hand, this risk-shifting behaviour may actually reduce the product choice or availability for customers and thus decrease social welfare. Banks may, for example, be reluctant to grant fixed-rate or long-term loans for fear that the interest rate risk will manifest itself in the financial statements or because of the costs associated with hedging or transferring the risk. Furthermore, debtors whose credit quality may be more volatile, such as small and medium-sized enterprises or start-up companies, may find it more difficult to gain access to bank loans or might only obtain such access under stricter conditions.

Finally, the introduction of FVA could affect the way banks build up financial buffers in the form of equity or reserves. Increased volatility in the financial statements raises the likelihood that thresholds for certain financial ratios will be breached. Examples are minimum solvency ratios or ratios used to prompt action such as the compulsory early repayment of a loan or a rating downgrade. In order to avoid the activation of such triggers by unanticipated value changes, the bank may want to build up larger financial buffers under FVA. Another important aspect in this respect is the reaction of shareholders. If in good times asset value increases are immediately reflected in the profit and loss account, banks may come under pressure from shareholders to distribute more dividends, which would be difficult to resist in favourable economic conditions. However, in the longer run, such behaviour may adversely affect banks' overall financial resilience.

## 5 CONCLUSION

The move from the CAA to FVA can be truly qualified as a paradigm shift since backward-looking accounting measures based on the concepts of prudence and reliability give way to measures based on prevailing economic values. This fundamental shift explains the often heated and contentious debate regarding the pros and cons of the two accounting models. FVA may have positive consequences, such as a better reflection of economic reality. On the other hand, there are serious doubts as to how reliable the fair value estimates would be for instruments not traded on an active and liquid market, such as the vast majority of bank loans. Differences in the reliability of valuation methods across banks might also jeopardise the comparability and transparency of financial statements. Comparability can be particularly affected if banks have the option of making different choices as to the assets and liabilities to be measured at fair value.

More generally, it is still very much unclear how a wider application of FVA would exactly affect bank behaviour. Different economic scenarios that are especially relevant for banks such as those discussed in this article may have a different impact under FVA, mostly resulting in increased volatility in the financial statements. For instruments that are held until maturity, as most bank loans are, this is at odds with the intention with which these instruments are held. Higher volatility may have an impact on the way banks are managing or willing to take on risk, which in turn could have an effect on their intermediation function and on how risks traditionally borne by them are

redistributed to other economic agents. Finally, there are serious concerns that FVA may enhance the pro-cyclicality of lending behaviour and reduce the ability of banks to react to adverse developments in the economy.

In view of the still limited reliability of fair value estimates and of the possible negative effects of FVA on the stability of the financial system, caution and further analysis seem to be warranted before moving to a wider use of FVA by banks.

## Glossary

**Accounting Regulatory Committee (ARC):** committee composed of representatives of EU Member States and headed by the European Commission. The committee has a regulatory function and provides opinions on Commission proposals to adopt international accounting standards.

**Banking book:** bank portfolio which consists of financial instruments that are, in principle, held to maturity or for longer-term investment purposes.

**European Financial Reporting Advisory Group (EFRAG):** private-sector group composed of users and preparers of accounts and representatives of the accounting profession and national standard-setters. It provides technical advice on the use of the IAS within Europe.

**Exposure Draft (ED):** the text of a proposed international accounting standard, with an invitation by the IASB to comment on it and provide answers to certain questions.

**Fair value:** this means the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. In practice, the fair value is often equal to the market value or is estimated using a model.

**Financial instrument:** for accounting purposes, this means any contract that gives rise to both a financial asset of one firm and a financial liability or equity instrument of another firm.

**Hedging:** this means designating one or more hedging instruments (mostly derivatives, such as forwards, futures or swaps) so that their change in fair value is an offset, in whole or in part, to the change in fair value or cash flows of a hedged item (e.g. bonds, loans or deposits).

**Hidden reserves:** the positive difference between the economic value or market value of an asset and its book value, which is not reflected in the financial statements.

**Historical cost:** for accounting purposes, this means the amount of cash or cash equivalents paid to acquire assets or the fair value of the consideration given to acquire them at the time of acquisition. For liabilities, it is the amount of proceeds received in exchange for the obligation.

**IAS 32:** international accounting standard that deals with the disclosure and presentation of financial instruments.

**IAS 39:** international accounting standard that deals with the recognition and measurement of financial instruments.

**International Accounting Standard (IAS):** accounting standard as adopted by the IASB.

**International Accounting Standards Board (IASB):** an independent, privately funded international accounting standard-setter.

**International Accounting Standards Committee (IASC):** predecessor body of the IASB (period 1973-2001).

**Joint Working Group of Standard Setters (JWG):** working group composed of representatives of the IASB and several national accounting standard-setters to deal with issues of common interest, such as the valuation of financial instruments.

**Lower of cost or market (LOCOM):** valuation rule, often applied to securities in the banking book, whereby the asset is valued at acquisition cost or at the market price if the latter is lower.

**Trading book:** bank portfolio that consists of financial instruments that are held for short-term trading purposes.