Research

Banks’ financial disclosures during the financial crisis
In brief

Mazars is an international organisation specialising in audit, accounting, tax, legal and advisory services.

Our integrated partnership brings together more than 10,500 professionals from 50 countries, all of whom are bound by a shared commitment to quality and a determination to exceed the current technical and ethical standards.

Mazars is the key market challenger. Our multicultural organisation and complete range of services allow us to provide tailored and flexible solutions to large corporate multinational firms and to assist smaller companies with their development, as well as serving high-net-worth individuals.
Contents

INTRODUCTION ................................................................. 2

SCOPE OF THE RESEARCH .................................................. 3

1. MORE DETAILED DISCLOSURES ON THE IMPACT OF THE FINANCIAL CRISIS ................. 4

2. WIDESPREAD USE OF THE AMENDMENT TO IAS 39 ...................................................... 8

3. IMPROVED RISK MANAGEMENT DISCLOSURES ............................................................. 11

4. REASONABLY CONSISTENT QUANTITATIVE DATA ON FAIR VALUE ............................. 17

CONCLUSION ................................................................. 23

NB: The examples which follow are provided as illustration only. These examples are not intended to represent the whole range of good practices identified in the research.
Introduction

In response to the turbulence in the financial markets over the last months, the regulatory authorities have taken the following actions:

- the IASB published an amendment to IAS 39 in October 2008, which permits the reclassification of financial assets in certain circumstances;
- several documents were published which helped to clarify the concept of ‘inactive markets’ in the context of recognition of financial instruments at fair value. They were: the conclusions of the IASB’s Expert Advisory Board in November 2008, a good practice report from the Committee of European Banking Supervisors in June 2008, and a joint recommendation from the AMF, Commission Bancaire, CNC and ACAM on 15 October 2008.

These developments in the recognition of financial instruments have been accompanied by a demand for more detailed financial disclosures on:

- the reclassification of financial instruments;
- the risk management;
- the management judgements made in calculating fair value.

These recommendations support those published in spring 2008 by the Senior Supervisors Group of the Financial Stability Forum, which recommended that financial establishments should disclose their exposure to certain products (detailed below), with effect from 30th June 2008 publications:

- collateralised debt obligations (CDOs);
- residential/commercial mortgage-backed securities (RMBSs or CMBSs);
- special purpose entities (SPES);
- leveraged finance (LBOs).
Mazars analysed the annual reports of fourteen banks for the year ending 31 December 2008. Two of them were American and twelve were European.

<table>
<thead>
<tr>
<th>Country</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>BNP Paribas</td>
</tr>
<tr>
<td></td>
<td>Crédit Agricole</td>
</tr>
<tr>
<td></td>
<td>Groupe Caisse d’Epargne</td>
</tr>
<tr>
<td></td>
<td>Société Générale</td>
</tr>
<tr>
<td>Germany</td>
<td>Commerzbank</td>
</tr>
<tr>
<td>UK</td>
<td>Barclays</td>
</tr>
<tr>
<td></td>
<td>HSBC</td>
</tr>
<tr>
<td>Benelux</td>
<td>Dexia</td>
</tr>
<tr>
<td></td>
<td>ING</td>
</tr>
<tr>
<td>Spain</td>
<td>Santander</td>
</tr>
<tr>
<td>Italy</td>
<td>Unicredit</td>
</tr>
<tr>
<td>Switzerland</td>
<td>UBS</td>
</tr>
<tr>
<td>USA</td>
<td>Bank of America</td>
</tr>
<tr>
<td></td>
<td>Goldman Sachs</td>
</tr>
</tbody>
</table>

Our research addressed the following topics:
- disclosures relating specifically to the financial crisis;
- information on reclassification of securities;
- disclosures on financial risks;
- information on fair value.

The conclusions which follow are based solely on our analysis of the annual reports and do not take into account other financial communication, such as press releases or presentations to analysts made at the time the accounts were published.
More detailed disclosures on the impact of the financial crisis

At 31 December 2007, when IFRS 7 was first applied in Europe, financial institutions had already taken significant steps in disclosing information on the impact of the financial crisis.

The level of disclosures varied between banks. However, as the financial situation deteriorated further in the second half of 2008, with the collapse of Lehman Brothers, the announcement of rescue plans for several banks and the Madoff fraud case, most of the establishments in our sample responded by publishing full information on the financial crisis at December 31 2008. Some presented a summary of the impact of the crisis on income statement balances, while others provided more detailed analyses.

Summary presentation of impact on net banking income or cost of risk

Five banks in our sample decided to present the impact of the crisis in summary form. This information was published in the management commentary, allowing them to present recurrent and non-recurrent information relating to their 2008 activity. Those financial institutions which had previously provided this kind of information in 2007, like BNP Paribas, presented both the data for 2008 and the data for 2007, while others, such as ING, only presented the impact on 2008.

**Direct effect of the crisis on profit for the year**

<table>
<thead>
<tr>
<th>Description</th>
<th>Year to 31 Dec 2008</th>
<th>Year to 31 Dec 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EFFECT ON REVENUES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan syndications in progress</td>
<td>(101)</td>
<td>(230)</td>
</tr>
<tr>
<td>Securitisations and other investments</td>
<td>(514)</td>
<td>(81)</td>
</tr>
<tr>
<td>Impairment on equity portfolio</td>
<td>(81)</td>
<td>-</td>
</tr>
<tr>
<td>Credit adjustments to reflect counterparty risk on over-the-counter derivatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monoline insurers</td>
<td>(914)</td>
<td>(468)</td>
</tr>
<tr>
<td>Other counterparties</td>
<td>(721)</td>
<td>(57)</td>
</tr>
<tr>
<td><strong>TOTAL EFFECT ON REVENUES</strong></td>
<td>(2,942)</td>
<td>(851)</td>
</tr>
<tr>
<td><strong>EFFECT ON COST OF RISK</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans to customers</td>
<td>(87)</td>
<td>(211)</td>
</tr>
<tr>
<td>Investment portfolio</td>
<td>(181)</td>
<td>(111)</td>
</tr>
<tr>
<td>Market counterparties</td>
<td>(2,260)</td>
<td>(62)</td>
</tr>
<tr>
<td>of which monolines classified as doubtful</td>
<td>(974)</td>
<td>(46)</td>
</tr>
<tr>
<td>of which Lehman Brothers</td>
<td>(540)</td>
<td>-</td>
</tr>
<tr>
<td>of which Icelandic banks</td>
<td>(150)</td>
<td>-</td>
</tr>
<tr>
<td>Madoff risk</td>
<td>(145)</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL EFFECT ON COST OF RISK</strong></td>
<td>(3,645)</td>
<td>(424)</td>
</tr>
</tbody>
</table>

*BNP Paribas, Annual report 2008, p.166.*
More detailed presentation of exposure

Within our sample, nine banks presented detailed analysis of their exposure:

- **either by counterparty** - monolines, Lehman Brothers, Madoff, Icelandic banks – like HSBC;

### HSBC’s exposure to derivative transactions entered into directly with monoline insurers

<table>
<thead>
<tr>
<th></th>
<th>Notional amount US$m</th>
<th>Net exposure before credit risk adjustment US$m</th>
<th>Credit risk adjustment US$m</th>
<th>Net exposure after credit risk adjustment US$m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 31 December 2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derivative transactions with monoline counterparties</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monolines - BBB or above</td>
<td>9,427</td>
<td>2,829</td>
<td>(740)</td>
<td>2,089</td>
</tr>
<tr>
<td>Monolines - below BBB</td>
<td>2,731</td>
<td>1,104</td>
<td>(752)</td>
<td>332</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,158</strong></td>
<td><strong>3,933</strong></td>
<td><strong>(1,492)</strong></td>
<td><strong>2,441</strong></td>
</tr>
</tbody>
</table>

| | | | | |
| At 31 December 2007 | | | | |
| Derivative transactions with monoline counterparties | | | | |
| Monolines - BBB or above | 14 | 314 | 1,342 | (133) | 1,209 |
| Monolines - below BBB | 1 | 120 | 214 | (214) | – |
| **Total** | **15,014** | **1,556** | **(447)** | **1,109** |

For footnotes, see page 142.

The above table can be analysed as follows.

HSBC has derivative transactions referenced to underlying securities with a nominal value of US$12.4 billion, whose value at 31 December 2008 indicated a potential claim against the protection purchased from the monolines of some US$5.9 billion. On the basis of a credit assessment of the standing of the monolines, a provision of US$1.5 billion has been taken, leaving US$2.4 billion exposed, of which US$2.1 billion is recoverable from monolines rated investment grade at 31 December 2008. The provisions taken imply in aggregate that 74 cents in the dollar will be recoverable from investment grade monolines and 32 cents in the dollar from non-investment grade monolines.

HSBC’s exposure to direct lending and irrevocable commitments to lend to monoline insurers

HSBC has outstanding liquidity facilities totalling US$47 million to monoline insurers, of which US$2 million was drawn at 31 December 2008 (2007: US$15 million, none drawn).

### HSBC’s exposure to debt securities which benefit from guarantees provided by monoline insurers

Within both the trading and available-for-sale portfolios, HSBC holds bonds that are ‘wrapped’ with a credit enhancement from a monoline insurer. As the bonds are traded explicitly with the benefit of this enhancement, any deterioration in the credit profile of the monoline insurer is reflected in market prices and, therefore, in the carrying amount of these securities on HSBC’s balance sheet at 31 December 2008. For wrapped bonds held in the trading portfolio, the mark-to-market movement has been reflected through the income statement. For wrapped bonds held in the available-for-sale portfolio, the mark-to-market movement is reflected in equity unless there is objective evidence of impairment, in which case the impairment loss is reflected in the income statement. No wrapped bonds were included in the reclassification of financial assets described on page 145.

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**Tables and figures**

**Table 1**: ING results 2008 – Year-end 2008

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Insurance</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying result, excluding market volatility and risk costs</td>
<td>5,263</td>
<td>2,057</td>
<td>7,319</td>
</tr>
<tr>
<td>Impairments and FV changes on pressured assets</td>
<td>–2,039</td>
<td>–560</td>
<td>–2,599</td>
</tr>
<tr>
<td>Impairments on equity securities</td>
<td>–331</td>
<td>–1,576</td>
<td>–1,907</td>
</tr>
<tr>
<td>Impairments on other debt securities</td>
<td>–255</td>
<td>–520</td>
<td>–775</td>
</tr>
<tr>
<td>Impairments and losses</td>
<td>–2,625</td>
<td>–2,455</td>
<td>–5,081</td>
</tr>
<tr>
<td>Revaluations on real estate/impairments on development projects</td>
<td>–732</td>
<td>–452</td>
<td>–1,184</td>
</tr>
<tr>
<td>Revaluations on private equity</td>
<td>–399</td>
<td>–399</td>
<td>–399</td>
</tr>
<tr>
<td>Revaluations</td>
<td>–732</td>
<td>–851</td>
<td>–1,583</td>
</tr>
<tr>
<td>Equity capital gains/loss on equity hedge</td>
<td>39</td>
<td>1,181</td>
<td>1,211</td>
</tr>
<tr>
<td>Equity related DAC unlocking</td>
<td>–567</td>
<td>–367</td>
<td>–934</td>
</tr>
<tr>
<td>FX hedge/Other</td>
<td>–206</td>
<td>–600</td>
<td>–806</td>
</tr>
<tr>
<td>Other market impacts</td>
<td>–176</td>
<td>14</td>
<td>162</td>
</tr>
<tr>
<td>Risk costs Bank</td>
<td>–1,268</td>
<td>–1,189</td>
<td>–2,457</td>
</tr>
<tr>
<td>Underlying result before tax</td>
<td>449</td>
<td>–1,235</td>
<td>–786</td>
</tr>
<tr>
<td>Tax and third-party interests</td>
<td>273</td>
<td>343</td>
<td>615</td>
</tr>
<tr>
<td>Underlying net result</td>
<td>722</td>
<td>–893</td>
<td>–171</td>
</tr>
<tr>
<td>Divestments and special items</td>
<td>–267</td>
<td>–291</td>
<td>–558</td>
</tr>
<tr>
<td><strong>Total net result</strong></td>
<td><strong>454</strong></td>
<td><strong>–1,183</strong></td>
<td><strong>–729</strong></td>
</tr>
</tbody>
</table>

**Figure 1**: HSBC’s Annual report 2008, p. 179
or by category of financial instruments / assets: securitisation, loans, valuation haircuts on CDOs, RMBSs, ABSs, etc. Some establishments, such as Crédit Agricole, referred explicitly to the recommendations of the Financial Stability Forum;

PARTICULAR RISKS ATTRIBUTABLE TO THE FINANCIAL CRISIS

Following recommendations of the Financial Stability Forum, particular risks attributable to the financial crisis are presented below. These risks arise mainly on corporate and investment banking business.

3.1 Real estate ABS

<table>
<thead>
<tr>
<th>(in millions of euros)</th>
<th>USA</th>
<th>United Kingdom</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.12.2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognized in loans and receivables</td>
<td>274</td>
<td>346</td>
<td>199</td>
</tr>
<tr>
<td>Recognized in assets at fair value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross exposure</td>
<td>1,140</td>
<td>1,369</td>
<td>141</td>
</tr>
<tr>
<td>Discount</td>
<td>925</td>
<td>1,340</td>
<td>361</td>
</tr>
<tr>
<td>Net exposure in millions of euros</td>
<td>215</td>
<td>999</td>
<td>10</td>
</tr>
<tr>
<td>% subprime underlyings</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Breakdown of gross exposure at fair value, by rating:

AAA | 5% | 45% | 89% | 20%
AA | 4% | 50% | 12% | 4%
A  | 4% | 3%  | 43% | 3%
BBB| 8% | 2%  | 12% | 4%
BB | 10%| 33% |
B  | 14%|    |
CCC| 16%|    |
CC | 4% |    |
C  | 31%|    |

More detailed disclosures on the impact of the financial crisis

EXAMPLE

5.71 Groupe Caisse d’Epargne results: breakdown of the impacts of the financial crisis

<table>
<thead>
<tr>
<th>(in millions of euros)</th>
<th>2008</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale Banking &amp; Financial Services</td>
<td>(1,278)</td>
<td>(370)</td>
</tr>
<tr>
<td>Commercial Banking</td>
<td>(23)</td>
<td></td>
</tr>
<tr>
<td>Other Activities</td>
<td>(1,360)</td>
<td>(1,441)</td>
</tr>
<tr>
<td>Impact from the financial crisis on net banking income</td>
<td>(2,467)</td>
<td>(1,711)</td>
</tr>
<tr>
<td>Wholesale Banking &amp; Financial Services</td>
<td>(556)</td>
<td></td>
</tr>
<tr>
<td>Commercial Banking</td>
<td>(10)</td>
<td></td>
</tr>
<tr>
<td>Other Activities</td>
<td>(280)</td>
<td>(31)</td>
</tr>
<tr>
<td>Impact on cost of risk</td>
<td>(458)</td>
<td>(42)</td>
</tr>
<tr>
<td>Impact on income before tax</td>
<td>(3,319)</td>
<td>(1,803)</td>
</tr>
</tbody>
</table>

Crédit Agricole, annual report 2008, p.142.

Caisse d’Épargne, annual report 2008, p.223.

EXAMPLE

or by business line - corporate and investment banking, asset management, national and international networks, own funds under management - like Caisses d’Épargne.
In most cases, the detailed disclosures were provided in addition to a summary presentation of the impact. All the banks provided information on the crisis but the data were not always brought together in one place, so it is sometimes necessary to look for the information in different sections of the annual report.

**Lack of comparability between banks**

The data is lacking in comparability, as all banks did not use the same presentation method. The Financial Stability Forum disclosures were not always integrated into the annual reports, but specific communications were always made on the subject.

Comparative information for 2007 was only provided in three cases.

The European banks favoured quantitative data whereas the American banks were much more descriptive and provided less quantitative information.

In general, more details were provided in the annual reports of French banks, which provided background information, detailed disclosures about the impact on the accounts, the procedures used to mitigate risk, and so on.

Finally, the information was presented in different places, with no consistency between financial institutions. Thus, the management commentary was the preferred place for presenting information on the crisis, but in most cases it is necessary to look in other sections of the annual report for additional information.

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**Disclosures on the impact of the financial crisis**

<table>
<thead>
<tr>
<th></th>
<th>Number of bank providing information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td>5</td>
</tr>
<tr>
<td>Management report</td>
<td>12</td>
</tr>
<tr>
<td>Risk management</td>
<td>7</td>
</tr>
<tr>
<td>Introduction to annual report</td>
<td>8</td>
</tr>
</tbody>
</table>
Widespread use of the amendment to IAS 39

The European Union adopted the amendment to IAS 39 on 15 October 2008. It allows the following reclassifications, under certain conditions:

- from the “fair value through profit or loss” category to the “loans and receivables” category, except for instruments initially recognised under the fair value option;
- from the “financial assets available for sale” category to the “loans and receivables” category.

The publication of this amendment was accompanied by an amendment to IFRS 7 relating to the disclosure requirements for reclassified financial assets:

- the amount reclassified, for either old or new categories;
- the carrying amounts and fair values of all assets reclassified over the period or during previous reporting periods;
- the facts and circumstances pertaining to the “rare circumstances” exception, for the former type of reclassifications;
- in the reclassification period, the fair value gain or loss recognised in profit or loss or OCI for the current period and the previous period;
- in periods following the reclassification, the change in fair value that would have been recognised if the financial asset had not been reclassified;
- the effective interest rate and estimated future cash flows as at the date of reclassification.

Widespread use of the amendment to IAS 39 on reclassification of financial assets

Eleven of the twelve European banks in our sample made use of the possibility offered by IAS 39 to reclassify financial assets to the banking book. Eight of them made the reclassifications during the fourth quarter.

Almost €110 billion were reclassified from the “held for trading” category and €190 billion from the AFS category, as illustrated in the following table:

<table>
<thead>
<tr>
<th>Fair value of assets at transfer date</th>
<th>From Trading to AFS</th>
<th>From Trading to loans</th>
<th>From Trading to HTM</th>
<th>From AFS to loans</th>
<th>Impact on profit or loss</th>
<th>Impact on OCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of banks</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount in Bn €</td>
<td>6,8</td>
<td>104,4</td>
<td>0,1</td>
<td>188,8</td>
<td>10,5</td>
<td>3,5</td>
</tr>
</tbody>
</table>
If these reclassifications had not taken place, the fair value change on assets classified as “held for trading” by the banks in our sample would have been negative for more than €10 billion, and for the assets classified as AFS, the negative variation would have been €3.5 billion. However, despite these reclassifications, the total AFS reserves of the banks in our sample fell by more than €65 billion in 2008.

Among the banks in our sample, two of them account for the lion’s share of the €190 billion of reclassifications from AFS to loans, while the reclassifications from trading are spread across all the banks as illustrated in the following table:

<table>
<thead>
<tr>
<th>Bank</th>
<th>From trading to AFS</th>
<th>From trading to loans</th>
<th>From trading to HTM</th>
<th>From AFS to loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BNP Paribas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crédit Agricole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caisse d’Épargne</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commerzbank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dexia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSBC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unicredit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Société Générale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The banks which made use of the amendment to IAS 39 did not merely transfer assets from one category to another; in most cases they exploited various possibilities:
Disclosures in line with the amendment to IFRS 7

The banks in our sample met the requirements of IFRS 7 by disclosing in the notes the amounts transferred (at the transfer date and at the closing date), the impact on the accounts if the transfer had not been made, and the interest rate and future cash flows for the transferred assets. Some banks provided additional information:

- two banks stipulated the provisions made in the fourth quarter for the reclassified portfolio;
- one bank gave details of the impact of the reclassifications in the comparative analysis of its portfolio quality;
- one bank provided an analysis of VaR, indicating the impact of the reclassifications.

### 7.7. RECLASSIFICATION OF FINANCIAL ASSETS (IAS 39 AMENDED)

<table>
<thead>
<tr>
<th>DATE OF RE-CLASSIFICATION</th>
<th>From Trading to Loans and Receivables</th>
<th>From Trading to Available for Sale Portfolio</th>
<th>From Available for Sale Portfolio to Loans and Receivables</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCTOBER 1, 2008</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
</tbody>
</table>

- Carrying amount of assets reclassified at Oct. 1, 2008: 6,392, 3,704, 90,784.
- Fair value adjustment that would have been recognized if the asset had not been reclassified: (1) 7, (2) 133.
- Amortization of premium/discount in P&L during the year: (1) 87, (2) 18, (3) None.
- Amount not taken in AFS Reserve: (1) 14, (2) 1, (3) 4,840.
- Tax impact: (1) 14, (2) 1, (3) 77.

**Example**

Dexia decided to apply the amendment of IAS 39 & IFRS 7 as follows:

<table>
<thead>
<tr>
<th>Dexia, Annual report 2008, p. 143-144.</th>
</tr>
</thead>
</table>

- The only exception is FSA Asset Management (Financial Products activity kept by Dexia) where impaired bonds were reclassified from AFS to L&R. If the reclassification had taken place, the specific impairment would have been USD 589 million instead of USD 57 million recorded in Q4 2006. However, a collective impairment on US RMBS was recorded by Dexia in Q4 2006 for which the FSA Asset Management part amounts to USD 461 million on reclassified amounts. Therefore, the total impact on net profit would have been USD 50 million, or USD 51 million on net profit for the Group (€ 40 million).

- The change of AFS reserve that would have been recorded if the reclassification had not taken place is calculated based on valuation models taking into account the evolution of liquidity on the different markets and no more representative market prices were available.

- Reclassified bonds include first-charge bonds from zero coupon bonds to bonds payable 12.3% nominal coupons and with an effective interest rate varying from 0.4% to 27.2%, however as the interest rate risk of reclassified bonds was hedged and the interest rate risk of reclassified trading portfolio was also hedged, the interest rate risk is basically a floating rate risk which is part of the ALM sensibility. Expected cash flows will therefore depend on the evolution of the short term interest rate.

- The amount of reclassified assets as of December 31, 2008 (€ 59.6 billion) is higher than carrying amount at reclassification date (€ 20.8 billion) as the L&Rs are hedged against interest rate risk via fair value hedges. Therefore, their value increase due to the large decrease of interest rate end of 2008.

- Impact on future interest margin:

  - For assets transferred from AFS to L&R, the amortization of the discount on the bond is compensated by the amortization of the frozen AFS reserve so that the net impact on results is zero. For assets transferred from trading to AFS and L&Rs, the expected positive impact on the interest margin for future years coming from amortization of the negative market-to-market of provisions can be estimated to EUR 147 million. This amount will be amortized on the remaining life of the bonds transferred. Expected interest margins are EUR 140 million in 2009 and EUR 161 million in 2010.
When IFRS 7 was first applied on 31 December 2007, we noted an improvement in the level of disclosure on risk management, although there was room for further pedagogical effort to help users of the financial statements gain a better understanding of the methods and assumptions used. In 2008, as the financial crisis continued, we investigated whether any modifications had been made to the reporting.

More detailed financial disclosures on liquidity management

IFRS 7 only requires establishments to provide an analysis of the contractual maturities of their liabilities and stipulate how liquidity is managed. In 2007, most of the banks also stated their liquidity gap; this information must also be disclosed in FINREP prudential reporting.

During the last quarter of 2008, following the collapse of Lehman Brothers, the banks faced severe liquidity difficulties. This led governments and shareholders to intervene in order to avoid any further bankruptcies among financial institutions. The measures taken included:

- creation of the “Société de Financement de l’Économie Française” in France;
- interventions by the European Central Bank, the US Federal Reserve and the Treasury;
- capital increases;
- state guarantees.

In the latter half of 2008, we were unable to raise significant amounts of long-term unsecured debt in the public markets, other than as a result of the issuance of securities guaranteed by the FIDIC under the TLGP. It is unclear when we will regain access to the public long-term unsecured debt markets on customary terms or whether any similar program will be available after the TLGP’s scheduled June 2009 expiration. However, we continue to have access to short-term funding and to a number of sources of secured funding, both in the private markets and through various government and central bank sponsored initiatives.

Over the past year, a number of US regulatory agencies have taken steps to enhance the liquidity support available to financial services companies such as Group Inc., GS&Co., GS and GS Bank USA. Some of these steps include:

- The Federal Reserve Bank of New York established the Primary Dealer Credit Facility in March 2008 to provide overnight funding to primary dealers in exchange for a specified range of collateral. In September 2008, the eligible collateral was expanded to include all collateral eligible in tri-party repurchase arrangements with the major clearing banks, and the facility was made available to GS-I. This facility is scheduled to expire on April 30, 2009.
- The Federal Reserve Board introduced a new Term Securities Lending Facility (TSLF) in March 2008, which extended the term for which the Federal Reserve Board will lend Treasury securities to primary dealers from overnight to 28 days and, in September 2008, expanded the types of assets that can be used as collateral under the TSLF to include at investment-grade debt securities (rather than just Treasury agency and certain AAA-rated asset-backed securities). This facility is scheduled to expire on April 30, 2009.
- In October 2008, the Federal Reserve Board established the Commercial Paper Funding Facility (CPFF) to serve as a funding backstop to facilitate the issuance of term commercial paper by eligible issuers. Through the CPFF, the Federal Reserve Bank of New York will finance the purchase of unsecured and asset-backed highly rated, U.S. dollar-denominated, three-month commercial paper from eligible issuers through its primary dealers. The facility is scheduled to expire on April 30, 2009. Our available funding under the CPFF is approximately $11 billion, of which a de minimis amount was utilized as of January 22, 2009.
- The FIDIC’s TLGP, which was established in October 2008, provides a guarantee of certain new unissued senior unsecured debt issued by eligible entities, including Group Inc. and GS Bank USA, as well as funds over $250,000 in non-interest-bearing transaction deposit accounts held by FDIC-insured banks (such as GS Bank USA). The debt guarantee is available, subject to limitations, for debt issued through June 30, 2009 and the deposit coverage lasts through December 31, 2009. We are able to have outstanding approximately $3.5 billion of debt under the TLGP that is issued prior to June 30, 2009. As of November 2008 and January 22, 2009, we had outstanding $6.18 billion of senior unsecured term bonds and $29.54 billion of senior unsecured debt (comprised of $11.57 billion of short-term and $13.97 billion of long-term), respectively, under the TLGP.

The severity of this liquidity crisis led banks to provide more detailed disclosures on their liquidity situation and liquidity management. All but two of the banks in our sample state the indicators used to monitor their liquidity during the financial crisis in the risk management section of their annual reports. These indicators are as follows:

- improved oversight of short-term and long-term liquidity, taking account of more adverse stress scenarios;
- identifying sources of refinancing (nine banks) and optimising the management of eligible assets (assets which could be used as a guarantee);
- indicator for monitoring diversification of financing sources with maturities of less than one year, to ensure the bank is not dependent on too limited a range of sources;
- monthly monitoring and analysis of liquidity ratios, which must systematically remain above the regulatory minimum;
- monitoring of the ratio of sources to uses of funds.

However, it is not easy to draw comparisons between the different banks, particularly since the calculation of the liquidity ratio varies from one country to another and the banks do not give details of how it is calculated.

**Example**

**Liquidity risk management and supervision**

Day-to-day liquidity management is based on a full range of internal standards and warning flags at various maturities. An overnight target is set for each Treasury unit, limiting the amount raised on interbank overnight markets. This applies to the major currencies in which the Group does business.

The refinancing capacity needed to cope with an unexpected surge in liquidity needs is regularly measured at Group level. It mainly comprises available securities and loans eligible for central bank refinancing, available ineligible securities that can be sold under repurchase agreements or immediately on the market, and overnight loans not liable to be renewed.

BNP Paribas uses indicators to monitor the diversification of its sources of short-term funds on a worldwide basis to ensure that it is not over-dependent on a limited number of providers of capital.

Medium- and long-term liquidity management is based mainly on an analysis of the medium- and long-term sources of funds available to finance assets with the same maturity.

Over a one-year maturity, the ratio of sources to uses of funds must be more than 80%. The ratio is also monitored over two to five-year maturities. These ratios are based on maturity schedules of balance sheet and off-balance sheet items for all Group entities, whether contractual or theoretical (i.e. based on customer behaviour [prepayment in the case of loans, modelling customer behaviour in the case of regulated savings accounts, etc.).

The Group’s consolidated liquidity position by maturity (1 month, 3 months, 6 months, then annually to 15 years) is measured regularly by business line and currency.

**Risk exposure in 2008**

**Movements in the consolidated balance sheet**

The Group had total assets of EUR 2,075.6 billion at 31 December 2008. A total of EUR 1,995 billion in assets, excluding credit institutions, were refinanced in cash, an increase of EUR 77 billion on 2007, including EUR 49 billion relating to loans to customers.

This increase was refinanced primarily by customer deposits for EUR 67 billion.

**Regulatory liquidity ratios**

The average one-month regulatory liquidity ratio for BNP Paribas SA (French operations and branches) was 114% in 2008 compared with a minimum requirement of 100%.

**Internal medium and long-term liquidity ratios**

The ratio between sources and uses of funds due in more than one year was 84% at the end of December 2008 for the entire BNP Paribas Group, versus 88% at end-December 2007.

**BNP Paribas, Annual report 2008, p.162.**
More in-depth analysis of risk mitigation factors in the context of the financial crisis

The second area in which risk management disclosures have been improved is the banks’ analysis of the techniques used to mitigate their various risks over the period. This analysis is broken down by type of risk:

- **as regards market risk, the banks gave details of the measures taken to reduce their exposure:**
  - increased hedging despite the higher cost;
  - a reduction in positions that had become illiquid;
  - a systematic review of the portfolio, retaining only the business lines in which the establishment has critical mass and recognised expertise;

- **as regards credit risk, the focus was on limiting lending activities:**
  - a reduction in the volume of loans granted and a selective credit policy outside the core business lines;
  - implementation of stricter criteria for loans, such as a lower credit ceiling;

- **as regards liquidity risk, the banks focused on the innovations introduced at end-2008:**
  - diversification of financing sources in terms of structures, investors, and whether or not financing was collateralized;
  - sales of selected assets, or consideration of this option at the very least.

Thus, UBS stated that it had sold 38.9bn CHF in illiquid positions to the Swiss National Bank; ING is planning sales of assets that do not fall within the core business lines in 2009; and BNP Paribas stated that if the crisis continues, the bank may gradually reduce its balance sheet by selling assets outright.

ING included a specific paragraph on the measures taken to mitigate risks.

**Example**

**Risk mitigating actions**

Although some limits had been set at more stringent levels since early 2009, anticipating a downturn in the market, ING has taken additional actions over time to reduce risk across major asset classes.

- **Deleveraging**
  - ING is working to reduce its balance sheet by 10% by decreasing the non-lending part by 7%. The available for sale portfolio will be reduced over time as proceeds from maturing securities will be used to fund ING-generated loans. Reducing trading activities, deposits at other banks and reverse-repos will make up most of the remaining reduction. At the same time, lending activities will be maintained with focus on the corporate and retail business.

- **Credit risk**
  - In January 2009, ING entered into an illiquid Assets Back-up Facility term sheet with the Dutch State covering ING’s ABS-Residential Mortgage-Backed Securities (RMBS) portfolio. Through this transaction, which is expected to close in the first quarter of 2009, subject to final documentation and regulatory approval, the Dutch State will become the economic owner of 80% of the ABS-RMBS portfolio. This transaction is expected to be concluded at 90% of the EUR 35 billion par value of the portfolio. Following the deteriorated economic outlook in the third and fourth quarter, market prices for these securities had become depressed as liquidity dried up, which had an impact on ING’s results and equity in excess of estimated credit losses. Under the terms of the facility, ING will transfer 80% of each security in the ABS-RMBS portfolios to the Dutch State. The Dutch State will absorb 80% of the risk and returns on the ABS-RMBS portfolios. ING will remain exposed to 20% of the result of the ABS-RMBS portfolios and will remain the legal owner of 100% of the securities. As such, the transaction will significantly reduce the uncertainty regarding the impact on ING of any future losses in the portfolio. In addition, as a result of the facility, 80% of the ABS-RMBS portfolios will be derecognised from ING’s balance sheet under IFRS. Therefore, 80% of the negative revaluation reserve on the securities will be reversed, resulting in an increase of EUR 4.6 billion in shareholders’ equity. Another benefit of the facility is that it will reduce the amount of ING’s risk weighted assets approximately EUR 15 billion, subject to discussions with the regulators.

- **As condition to the facility ING committed to support the growth of the Dutch lending business for an amount of EUR 25 billion at market-conform conditions.**

- **ING is careful in mortgage underwriting and does not originate subprime mortgages. Moreover ING has not been in the business of manufacturing subprime RMBS or Collateralized Debt Obligations (CDOs) nor has it purchased a material amount of CDOs backed by US subprime mortgages.**

- **Reduction of equity exposure (available-for-sale)**
  - Direct public equity exposure was reduced from EUR 15.8 billion at the end of 2007 to EUR 8.8 billion at year-end 2008. The portfolio contains EUR 0.9 billion strategic banking stakes, mainly in Bank of Bilbao and Kreditanstalt Bank, ING Insurance has the remaining EUR 5.9 billion balance sheet exposure which was partially hedged against further market losses. In addition, a temporary hedging programme was put in place to reduce earnings volatility as a result of deferred acquisition cost (DAC) amortization.

- **Reduction of interest rate risk**
  - ING sold ING Life Taiwan which resulted in a reduction of its interest rate risk exposure. This divestment was in line with the strategy to allocate capital to those businesses that generate the highest return. In addition, ING lengthened its asset duration in order to hedge the impact of declining interest rates, hence further reducing its interest rate risk exposure.

**ING, Annual report 2008, p.20-21.**
Risk models changed and stress scenarios modified
to suit the financial environment

The third major change in financial reporting in 2008 among the banks in our sample relates to changes to risk models and the modification of stress scenarios to suit the new financial environment.

The changes to risk management models primarily took the form of modifications to VaR, as explained by UBS.

UBS increased the scope of its internal management VaR in third quarter 2008 to more accurately represent risk exposures and related hedges. Before these changes, certain credit exposures were excluded in VaR but the underlying credit exposures were not, resulting in an inconsistent treatment for risk monitoring and control. UBS therefore incorporated into its internal management VaR the impact of changes in credit spread sensitivities relating to counterparty exposures in its OTC derivatives portfolio. However, when computing regulatory capital these credit spread sensitivities are currently excluded. Refer to the “Value at Risk developments - treatment of CVA side bar” in UBS’s third quarter 2008 financial report for more information.

In fourth quarter 2008, UBS introduced additional granularity between certain cost of funding measures - Libor and the overnight index swap (OIS) rate. In addition, UBS excluded positions related to the asset and liability management (ALM) portfolio from its regulatory VaR. The ALM desk is a treasury function within the Investment Bank which manages the funding and liquidity exposures of the Investment Bank and is not managed with trading intent. The positions related to ALM this portfolio remain in internal management VaR.

UBS continues to review the performance of its VaR implementation and will continue to enhance its VaR model to more accurately capture the relationships between market risks associated with certain risk positions, as well as the revenue of large-scale movements for some trading positions.

Most banks set their confidence levels at 99%. Two banks set them at 95% in view of the financial crisis. For example, Barclays stipulated in its annual report that it changed its confidence interval from 98% to 95% in 2008.

Risk measurement and control
The measurement techniques used to measure and control market risk include Daily Value at Risk (DVAR), Expected Shortfall (ES), stress testing and scenario testing.

DVAR is an estimate of the potential loss arising from unfavourable market movements, if the current positions were to be held unchanged for one business day. Barclays Capital uses the historical simulation method with a two-year unweighted historical data set.

In 2008, the confidence level was changed to 99% from 98% to account for increasing incidence of significant market movements. The model was made more volatile and less effective for risk management purposes. Switching to 99% made DVAR more stable and consequently improved management, transparency and control of the market risk profile.

The historical simulation calculations can be split into three parts:
- Calculate hypothetical daily profit or loss for each position over the most recent two years, using observed daily market moves.
- Sum hypothetical profit or losses, for day t giving a total profit or loss. This is repeated for all other days in the two-year history.
- DVAR is the 95th percentile selected from the two years of daily hypothetical total profit or loss.

The DVAR model has been approved by the FSA to calculate regulatory capital for the trading book. The approval covers general market risk in interest rate, foreign exchange, commodities and equity products, and issuer-specific risk for the majority of single-name and portfolio traded credit products.

DVAR is an important market risk measurement and control tool, and consequently the models are regularly reviewed. The approach employed is the technique known as backtesting which counts the number of days when a loss, as defined by the FSA in BMR PD17/2, exceeds the corresponding DVAR estimate, measured at the 99% confidence level.

The FSA categorises a DVAR model as green (being best), amber or red. A green model is consistent with a good working DVAR model and is achieved for models that have four or less backtesting exceptions in a 12-month period. For Barclays Capital, a green model (green model status) was maintained for 2009 and 2010.
Nine out of fourteen banks gave figures for the number of times the VaR limits had been exceeded over the 2008 reporting period, as shown in the graph below:

![Disclosures on VaR violations](image)

Some banks, such as Caisses d’Épargne, implemented a more conservative VaR methodology at the end of the year, which was better suited to the ongoing high level of market volatility. The result of this was a significant increase in VaR for equivalent positions (between 1.5 and 2 times the previous level, depending on the scope).

**Structure of the limits system**

There are separate limits for both the Natixis group and the Commercial Banking division (CNCE, Caisses d’Épargne and subsidiaries).

Natixis’ daily market risk exposure limit is €35 million based on 1-day 99% VaR, which is monitored closely. A new VaR methodology, validated by the Natixis market risk committee, was implemented on December 15, 2008. It is more conservative and better suited to the extreme long-term volatility prevailing on markets. As such, this methodology significantly increases VaR (between 1.5 and 2 times depending on the scope) in comparison with other methodologies. Under this method, an overall limit was set at €70 million as of this date. This management limit and its use are also monitored on a daily basis.

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All but two of the banks in our sample said they had revised their stress scenarios in 2008, or were planning to do so in 2009.
Those banks which said they had revised their stress scenarios, had added more adverse stress scenarios to take account of the impact of the financial crisis. One example is Unicredit, which developed specific scenarios in 2008.

**Stress tests**

Stress tests complement the sensitivity analysis and VaR results in order to assess the potential risks in a different way. Stress test performs the evaluation of a portfolio under both simple scenarios (assuming change to single risk factors) and complex scenarios (assuming simultaneous changes in a number of risk factors). Results for simple scenarios are reported to top management on a weekly basis, together with the most relevant sensitivities. They include shocks on:

- Interest rates: Parallel shifts and Steepening/Flattening of IR curves; Increase/Decrease in IR volatilities
- Credit Markets: Parallel shifts of Credit Spreads curves (both absolute changes and relative changes); sensitivity to Base Correlation, Issuer Correlation and Recovery Rates
- FX Rates: Appreciation/Depreciation of each currency; Increase/Decrease in FX volatilities
- Equities: Increase/Decrease in Spot Prices; Increase/Decrease in Equity volatilities; sensitivity to Implied Correlation
- Commodities: Increase/Decrease in Spot Prices

As far as complex scenarios are concerned, so far, two different scenarios (Full US Recession and Financial Crisis) are applied to the whole MIB portfolio on a monthly basis and reported to top management.

**“Full US Recession” Scenario**

This scenario assumes a severe US recession affecting also the rest of the world by a “contagion effect”. In terms of macro-economic variables this scenario assumes:

- A dramatic decrease in equity stocks prices and indices either on the US and non-US markets associated to an equity volatility increase;
- A dramatic US [different stress factors depending on the maturity] and non-US [different stress factors depending on the maturity and geographical area] interest rate decrease each also associated to an increase in interest rate volatility;
- A dramatic and comprehensive widening in credit spreads depending on rating and industry class.

**“Financial Crisis” Scenario**

The Financial Crisis scenario was introduced in the last quarter of 2008 and reflects the trend of Financial Markets in the third quarter 2008. To account for the low liquidity in the market, the time horizon for this scenario was extended to cover a period of one quarter instead of a to 6 weeks applied so far.

In terms of macro-economic variables, this scenario assumes:

- Stock markets plunging (fall) related to an increase in equity volatilities;
- A comprehensive decrease in interest rates (different stress factors depending on the maturity and on the geographical area) together with a distinct steepening of interest rates curves. In this scenario an increase in interest rate volatility is assumed;
- A more dramatic and comprehensive widening of credit spreads with different stress factors depending on rating and industry class.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Recession</td>
<td>-324.5 %</td>
</tr>
<tr>
<td>Financial Crisis</td>
<td>-138.2 %</td>
</tr>
</tbody>
</table>


Commerzbank also emphasised the importance of using stress scenarios, and gave details of their scope.

**Stress and scenario analyses**

The financial crisis itself has highlighted the importance of adequate stress tests and scenario analyses for effective risk management. The Bank carries out comprehensive group-wide stress tests and scenario analyses as part of risk monitoring. The goal is to simulate the impact of crises, extreme market conditions and major changes in correlations and volatilities on Commerzbank’s overall market risk position. The effects on the various components of comprehensive income – income statement, revaluation reserve and hidden reserves or liabilities – are also quantified. The bank-wide stress test calculation is based on a combination of historical and anticipatory (synthetic) scenarios for individual asset classes, i.e. equities, interest rates, credit spreads and currencies.

During the financial crisis, anticipatory scenarios in particular were regularly enhanced and adjusted for current market developments and expectations, including those of the Bank’s economists, business areas and market risk function.
Reasonably consistent quantitative data on fair value

In response to the financial market turmoil in autumn 2008, the regulators suggested that greater use of valuation models should be permitted for measuring the fair value of financial instruments. The IASB’s Expert Advisory Panel was formed in spring 2008 to make recommendations for improving financial disclosures on complex financial instruments and their valuation in markets that are no longer active, and published its final conclusions in November 2008. The panel’s conclusions should not be taken as equivalent to a standard; rather, the goal was to produce a practical guide to implementation. The document echoes publications on valuation techniques from the FASB and the SEC, dated end-September 2008, and the joint recommendation from the AMF, CNC, ACAM and Commission Bancaire in October 2008. It recommended greater use of valuation techniques and the banker’s own judgement, with the following clarifications:

- **when measuring fair value in markets that are no longer active:**
  - transaction prices should not be the only information taken into account;
  - transaction prices may require significant adjustments;
  - transaction prices should not be used when the transaction was forced;

- **an inactive market is characterised by a significant decline in the volume of trading activity, and significant variation in prices;**

- **when measuring fair value, management judgement should be exercised:**
  - on the use of observable inputs;
  - on the use of models;
  - on the definition of an inactive market.

The document provides the option of greater use of model-based valuations, coupled with a request from the regulators for enhanced disclosures on the management judgements made and the assumptions used.

**Fair value of financial assets and liabilities generally presented at three levels of valuation**

Ten of the fourteen banks in our sample presented the fair value of financial instruments in a three-level hierarchy:

- **level 1:** fair value based on quoted prices in active markets;
- **level 2:** fair value based on valuation models and observable market data;
- **level 3:** fair value based on valuation models and unobservable inputs.

This type of presentation was not obligatory under IFRS in 2007 and will only become so from 2008 with the application of a new amendment to IFRS 7. However, it was obligatory for US banks.
The banks sometimes indicated what type of instruments were classified at each level, like Bank of America, which referred to the definitions of the three levels under US accounting standards and indicated the type of instruments in each category.

The graph below shows the fair value of financial assets at each level of valuation as a percentage of the total balance sheet.
Greater use of level 3

Despite having significantly reduced their trading positions, the banks were hit hard by the inactive markets, leading to greater use of level 3 (valuation models and unobservable inputs).

Goldman Sachs presented a fairly detailed breakdown of its level 3 portfolio, indicating both the nature of the portfolio and the weighting of level 3 as a proportion of profit and loss:

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank of America</td>
<td>3.3%</td>
<td>1.8%</td>
<td>180%</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>1.3%</td>
<td>0.2%</td>
<td>x 6</td>
</tr>
<tr>
<td>Crédit Agricole</td>
<td>2.3%</td>
<td>1.0%</td>
<td>x 2.3</td>
</tr>
<tr>
<td>Caisse d’Epargne</td>
<td>2.1%</td>
<td>1.2%</td>
<td>80%</td>
</tr>
<tr>
<td>Dexia</td>
<td>20%</td>
<td>0.2%</td>
<td>x 100</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>7.5%</td>
<td>6.2%</td>
<td>17%</td>
</tr>
<tr>
<td>HSBC</td>
<td>1.1%</td>
<td>1.1%</td>
<td>0%</td>
</tr>
<tr>
<td>ING</td>
<td>2.1%</td>
<td>0.3%</td>
<td>x 7</td>
</tr>
<tr>
<td>Société Générale</td>
<td>2%</td>
<td>0.6%</td>
<td>x 3</td>
</tr>
<tr>
<td>UBS</td>
<td>2.8%</td>
<td>3.3%</td>
<td>-18%</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank of America</td>
<td>0.5%</td>
<td>2.1%</td>
<td>-311%</td>
</tr>
<tr>
<td>BNP Paribas</td>
<td>1.3%</td>
<td>0.5%</td>
<td>x 2.5</td>
</tr>
<tr>
<td>Crédit Agricole</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0%</td>
</tr>
<tr>
<td>Caisse d’Epargne</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0%</td>
</tr>
<tr>
<td>Dexia</td>
<td>7.5%</td>
<td>1.3%</td>
<td>x 5.7</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>2.5%</td>
<td>1.7%</td>
<td>31%</td>
</tr>
<tr>
<td>HSBC</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0%</td>
</tr>
<tr>
<td>ING</td>
<td>NS</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>Société Générale</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>UBS</td>
<td>2.3%</td>
<td>2.6%</td>
<td>-13%</td>
</tr>
</tbody>
</table>

Goldman Sachs, Annual report 2008, p.91.92.
The definitions of an inactive / active market provided by the establishments generally drew on the guidance given by the regulators:

- an inactive market is characterised by a significant decline in the volume of trading activity;
- and by significant variation in prices

The judgement as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

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The following tables set forth by level within the fair value hierarchy “Trading assets, at fair value,” “Trading liabilities, at fair value” and other financial assets and financial liabilities accounted for at fair value under SFAS No. 155 and SFAS No. 159 as of November 2008 and November 2007. See Note 2 for further information on the fair value hierarchy. As required by SFAS No. 157, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

<table>
<thead>
<tr>
<th>Financial Assets at Fair Value as of November 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Commercial paper, certificates of deposit, time deposits and other money market instruments</td>
</tr>
<tr>
<td>U.S. government, federal agency and sovereign obligations</td>
</tr>
<tr>
<td>Mortgage and other asset-backed loans and securities</td>
</tr>
<tr>
<td>Bank loans and bridge loans</td>
</tr>
<tr>
<td>Corporate debt securities and other debt obligations</td>
</tr>
<tr>
<td>Equities and convertible debentures</td>
</tr>
<tr>
<td>Physical commodities</td>
</tr>
<tr>
<td>Cash instruments</td>
</tr>
<tr>
<td>Derivative contracts</td>
</tr>
<tr>
<td>Trading assets, at fair value</td>
</tr>
<tr>
<td>Securities segregated for regulatory and other purposes</td>
</tr>
<tr>
<td>Receivables from customers and counterparties</td>
</tr>
<tr>
<td>Securities borrowed</td>
</tr>
<tr>
<td>Securities purchased under agreements to resell, at fair value</td>
</tr>
<tr>
<td>Total financial assets at fair value</td>
</tr>
<tr>
<td>Level 3 assets for which the firm does not bear economic exposure</td>
</tr>
<tr>
<td>Level 3 assets for which the firm bears economic exposure</td>
</tr>
</tbody>
</table>

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Principal 3 consists of transfers accounted for as secured loans rather than purchases under SFAS No. 140 and prepaid variable share forwards.

Principal 4 consists of receivables from customers and counterparties, which are accounted for based on the amount of cash or receivables advanced plus accrued interest.

Principal 5 consists of level 3 assets which are financed by nonrecourse debt, attributable to minority investors or attributable to employees' interests in certain consolidated funds.

Principal 6 consists of U.S. Treasury securities and money market instruments as well as mortgage securitized assets measured at fair value under ASCOP 30-1, “Accounting and Reporting by Insurance Enterprises for Certain Nontraditional Long-Duration Contracts and for Separate Accounts.”

Principal 7 consists of special purpose entities, which are accounted for based on the amount of cash or receivables advanced plus accrued interest.

Principal 8 consists of private equity and real estate fund investments.

Principal 9 represents cash collateral and the impact of netting across the levels of the fair value hierarchy. Netting among positions classified within the same level is included in that level.”

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- an inactive market is characterised by a significant decline in the volume of trading activity;
- and by significant variation in prices

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- and by significant variation in prices

The judgement as to whether a market is active may include, but is not restricted to, the consideration of factors such as the magnitude and frequency of trading activity, the availability of prices and the size of bid/offer spreads. In inactive markets, obtaining assurance that the transaction price provides evidence of fair value or determining the adjustments to transaction prices that are necessary to measure the fair value of the instrument requires additional work during the valuation process.

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The banks generally did not indicate which instruments had been transferred from one valuation category to another, nor the amounts involved.

It is difficult to make comparisons between establishments, as very few details were given on the assumptions used by the management when opting for model-based valuation, or on how inputs are estimated. UBS is one of the few exceptions.

Analysis of sensitivity to market inputs

The regulators also asked banks to disclose the sensitivity of valuations to inputs used in measurement, particularly where such inputs have played a significant role in measurement.

They therefore provided enhanced disclosures on sensitivity to observable inputs, including the following elements:

- tolerance ranges for maturities and option strike prices;
- comparison with set limits;
- details of the impact on the value of instruments containing subprime assets, in the case of a 10% increase in the likelihood of default.
Here, Caisse d’Épargne presents a loss sensitivity analysis for its CDO exposure.

Sensitivity analysis

The total loss rates used to determine the fair value of CDOs rose by 10%, which had the following impacts:

- unhedged ABS CDOs: €13 million increase in unrealized losses;
- ABS CDOs hedged by CDSS under the commutation agreement with CIFG: €17 million increase in unrealized losses.

A 10% drop in the sensitivity of the excess spread assumption would have the following impact:

- €7 million increase in unrealized losses on unhedged ABS CDOs;
- €6 million increase in unrealized losses on ABS CDOs hedged by CDSS under the commutation agreement with CIFG.

Caisse d’Épargne, Annual report, p.168.

Five banks in our sample gave the deferred margin and the sensitivity of model values to ‘reasonably likely’ changes in assumptions:

- the deferred margin at the beginning of the reporting period;
- the deferred margin at the end of the reporting period;
- an estimate of changes in model values (estimate at 31/12/08 vs. 31/12/07).

Some banks gave details of the assumptions used in measuring sensitivity, but many of them only provided the results of their calculations.

Sensitivities of fair values

Reasonably likely changes in the assumptions used in the valuation techniques not supported by recent market transactions would not have a significant impact on equity and net result, other than explained below for investments in asset backed securities in the United States.

Assets classified in Valuation technique not supported by market inputs consist mainly (approximately 87%) of investments in asset backed securities in the United States. These assets are valued using external price sources that are obtained from third party pricing services and brokers. As at 31 December 2007, these assets were classified in Reference to published price quotations in active markets as valuation was based on independent quotes and trading in the relevant markets was active at that time. During 2008, the trading volumes in the relevant markets reduced significantly and these have now become inactive. The dispersion between prices for the same security from different price sources increased significantly. As a result, an amount of EUR 25 billion of asset backed securities in the United States was reclassified from Reference to published price quotations in active markets to Valuation technique not supported by market inputs in the third quarter of 2008. In order to ensure that the most accurate and relevant sources available are used in determining the fair value of these securities, the valuation process was further enhanced during 2008 by using information from more pricing sources and enhancing the process of selecting the most appropriate price.

Generally up to four different pricing services are utilised. Management carefully reviews the prices obtained in conjunction with other information available, including, where relevant, trades in the market, quotes from brokers and internal evaluations. If the dispersion between different prices for the same securities is limited, a hierarchy exists that ensures consistent selection of the most appropriate price. If the dispersion between different prices for the same security is significant, additional processes are applied to select the most appropriate price, including an internally developed price validation matrix and a process to challenge the price source.

As a result of the low trading volumes in the market and the widened disparity between prices for the same security from different price sources, valuation for these securities is inherently complex and subjective. Although each security in the portfolio is priced based on an external price, without modification by the ING Group, and management is confident that it has selected the most appropriate price in the current market circumstances, the valuation of these portfolios would have been significantly different had different prices been selected. The sensitivity of the valuation in this respect is illustrated as follows:

- had the valuation been based on the highest available market price for each and every security in these portfolios, the overall valuation would have been approximately 10% higher than the valuation applied by the ING Group;
- had the valuation been based on the lowest available market price for each and every security in these portfolios, the overall valuation would have been approximately 3% lower than the valuation applied by the ING Group;
- had the valuation been based on the weighted average available market price for these portfolios, the overall valuation would have been approximately 5% lower than the valuation applied by the ING Group.

These are indicators of sensitivity and not alternatives for fair value under IFRS-EU.

Banks improved their financial disclosures as of 31 December 2008 in the context of the financial crisis. In particular, they:

- focused on sensitive exposures, often in line with the recommendations from the Financial Stability Forum;
- emphasised the risk management measures taken in 2008.

However, there was still a lack of detailed qualitative information on measurement of fair value and the management judgements made.

The annual reports generally provided all the information required under financial reporting standards, but in Europe such reports are extremely comprehensive and it is sometimes difficult to find the information. In addition, there is sometimes a lack of comparability between the different banks. While some effort has been made to summarise the information and help the users of the financial statements gain a better understanding, further improvements are required in most cases.

It should however be noted that annual reports are only one method of financial communication. In Europe, the required disclosures have significantly increased as of 31 December 2008 under Pillar 3 of Basel 2; only three banks in our sample addressed these new requirements in their annual reports.

Changes are expected in the near future when the G20’s decisions are put into practice, coupled with the replacement of IAS 39 on the recognition and measurement of financial instruments. This will probably result in enhanced disclosure requirements.
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