Deutsche Bank

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European Banks Strategy

Interpreting the Stress Test results

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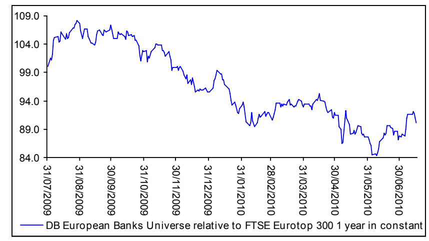
Breaking News

Top picks	
Credit Suisse Group (CSGN.VX),CHF44.33	Buy
Societe Generale (SOGN.PA),EUR38.00	Buy
Intesa SanPaolo (ISP.MI),EUR2.40	Buy
Lloyds Banking Group (LLOY.L),GBP63.52	Buy

EU Banks vs FTSEU300



Related recent research	Date
CEBS Stress tests Matt Spick	08 Jul 2010
Short-term funding and solutions	09 Jun 2010
YTD funding: problems and solutions	21 May 2010

What should we make of the stress tests?
In this report we analyse the outcome of the CEBS stress tests on European banks. These stress tests applied two scenarios to forecast 2011 Tier 1 ratios, including an adverse economic outcome and a sovereign risk shock. Our overall conclusion is that the stress tests were a missed opportunity, and will not increase confidence in the sector. We expect the stronger national champion names to continue to fund (and see value in these names), but risks from uncertainty and volatility will likely continue, in our view.

A flawed stress test?
We were disappointed with the stress test in three areas. First, we do not find a 6% stated tier 1 ratio target particularly challenging. Second, we have found it difficult to reconcile some banks' assumptions (some banks have forecast that they will make more pre-provision revenue in an adverse scenario than they did in 2009; we believe that too much reliance has been placed on Q1 2010 run-rates). Third, we think that trading book shocks have not been sufficiently conservative, even before considering sovereign risk. In the adverse scenario, Euro 473bn of impairment (banking book) losses were included, and just Euro 26bn from trading losses, which does not match the experience of 2007 to 2009, in our eyes.

7 banks failed to meet the 6% threshold, 31 were between 6% and 8%
Seven banks failed, with an aggregate capital shortfall of Euro 3.5bn versus a stated Tier 1 ratio target of 6%. We do, however, see a risk that banks will be pressured to recapitalize to 8% rather than 6%, and that "near misses" may also end up being expected to raise capital. If we apply an 8% stated target tier 1 ratio, then 31 additional banks would fail, and the aggregate shortfall in capital would be Euro 27bn (and this could rise towards Euro 100bn if we were to disallow hybrids). This may be more representative of the long-run outcome, in our opinion.

A missed opportunity
We were also disappointed by the stress tests because the capital was available for the banks had a more stringent approach been taken. Between Soffin, FROB, funds available for the Greek banks' recapitalisation, and already-planned capital raises, we believe that a Euro 100bn recapitalisation requirement could have been met. Indeed, given that FROB and Soffin are expiring at the end of this year, we think that the best chance for a relatively straightforward recapitalisation of the sector has passed.

Valuations: stuck at 1.0x P/TBV
The European Banks remain stuck at 1.0x price to tangible book value. But differentiation within the sector remains low. Even under a tough stress test, we believe that most of our banks under coverage would have passed. We also still see value within the national champion European banks, especially Lloyds Banking Group, Intesa, Société Générale and Credit Suisse, all of which we think are secure on both funding and capital. But a double-dip recession remains a risk for the sector and our top picks. In our view the CEBS stress tests were a missed opportunity to strengthen weaker banks in the sector in advance of any future potential problems.

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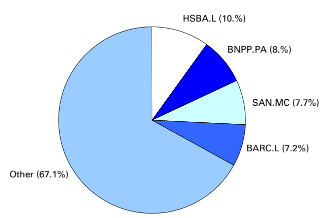
Model updated: 24 July 2010

Equity Research

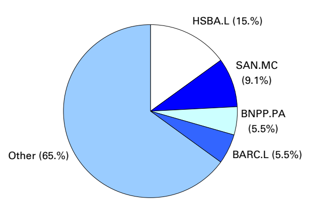
Europe

Aggregation

European Banks

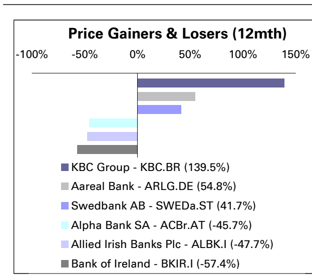


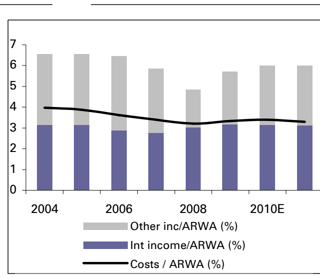
Revenues - FY1	(EUR m)
1. HSBC Holdings (HSBA.L)	53,024
2. BNP Paribas (BNPP.PA)	42,752
3. Banco Santander (SAN.MC)	41,163
4. Barclays (BARC.L)	38,062
Other (Other)	356,382
Total	**531,382**

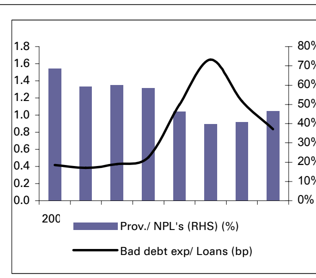


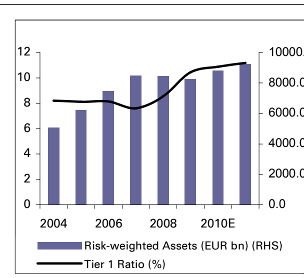
Market Capitalization - Current	(EUR m)
1. HSBC Holdings (HSBA.L)	147,866
2. Banco Santander (SAN.MC)	89,331
3. BNP Paribas (BNPP.PA)	54,147
4. Barclays (BARC.L)	53,866
Other	640,670
Total	**985,879**

Year Ending 31 December	2004	2005	2006	2007	2008	2009	2010E	2011E
Earnings & Book Value Growth Rates								
No. of Banks	43	45	47	47	48	48	48	48
Earnings - Stated	47%	26%	29%	-6%	-106%	-541%	122%	48%
Earnings - adj., fully diluted, core	23%	20%	22%	-7%	-85%	189%	59%	49%
Dividends	17%	22%	28%	1%	-56%	-20%	18%	32%
Book Value - Stated	13%	19%	24%	5%	-3%	24%	10%	7%
Tangible NAV (incl. holdings)	11%	26%	27%	-3%	-3%	35%	13%	10%
Total Market Cap	822,798	974,588	1,323,940	1,430,506	1,016,834	741,976	929,813	939,835
Valuation & Profitability Measures								
P/E (stated)	11.0	9.9	10.5	12.2	-127.3	22.7	12.8	8.7
P/E (adj)	10.9	10.6	11.7	13.5	79.9	16.5	12.7	8.6
P/E (adj ex holdings)	10.8	10.6	11.6	13.5	79.9	16.5	12.6	8.6
P/B (stated)	1.80	1.70	1.85	1.85	1.42	0.90	0.92	0.86
P/Tangible equity	2.48	2.31	2.52	2.71	2.09	1.21	1.21	1.11
P/Tangible equity (DB Core)	2.51	2.33	2.53	2.73	2.08	1.21	1.21	1.11
ROE (stated) (%)	16.8%	19.5%	19.1%	15.5%	-1.0%	3.8%	7.4%	10.1%
ROTE (return on tangible equity)	23.6%	23.9%	23.3%	19.9%	3.1%	7.8%	10.1%	13.6%
ROTE (ex holdings)	22.9%	22.0%	21.4%	20.3%	3.1%	6.8%	9.5%	13.0%
ROIC (return on invested capital)	15.4%	15.8%	15.8%	13.2%	1.9%	5.1%	7.0%	9.8%
Dividend yield (%)	4.1%	4.3%	4.2%	3.9%	2.4%	2.9%	2.8%	3.9%
Dividend cover (x)	2.3	2.2	2.1	1.9	0.6	2.2	2.8	3.0
Profit & Loss (EUR m)								
Net interest revenue	155,222	182,630	203,512	222,331	266,120	271,856	276,006	290,048
Non-interest income	166,525	198,556	250,423	250,729	159,448	217,961	250,099	265,954
Commissions	89,648	106,533	129,664	143,309	128,144	125,715	147,943	159,892
Trading revenue	41,261	68,085	82,173	65,775	-3,910	49,593	48,447	51,672
Other revenue	35,616	23,938	38,585	41,645	35,214	42,653	53,709	54,390
Total revenue	322,156	381,185	453,935	473,060	425,567	489,817	526,105	556,002
Total Operating Costs	196,888	227,489	256,707	275,135	307,914	286,304	302,895	307,863
Employee costs	121,003	139,112	161,927	169,812	164,022	171,170	178,703	183,506
Other costs	75,711	88,377	94,781	105,323	143,883	115,134	124,191	124,357
Pre-Provision profit / (loss)	126,982	155,287	199,881	200,108	144,901	203,097	227,908	251,169
Bad debt expense	20,952	24,033	32,585	44,694	107,249	160,011	118,409	87,488
Operating Profit	104,316	129,664	164,642	153,230	10,405	43,502	104,802	160,651
Pre-tax associates	2,310	3,003	3,336	4,691	1,711	1,239	3,158	4,013
Pre-tax profit	106,627	132,667	167,978	157,921	12,116	44,741	107,960	164,664
Tax	26,292	33,230	43,164	36,189	3,966	13,755	28,248	43,058
Other post tax items	-5,427	-3,821	518	-4,142	-15,562	1,688	-7,192	-14,391
Stated net profit	74,971	98,090	126,328	117,202	-7,986	32,632	72,691	107,538
Reconciliation to DB adjusted core earnings								
Goodwill	1,125	761	1,002	1,575	11,964	3,080	2,289	2,102
Extraordinary & Other items	14	-3,019	-9,233	-12,769	12,041	8,478	-1,505	668
Bad Debt Provisioning	1,181	195	0	0	177	0	0	0
Investment reval, cap gains / losses	-1,189	-3,662	-3,804	269	-99	2,377	414	29
DB adj. core earnings	76,102	92,364	114,293	106,276	16,097	46,568	73,889	110,337
Key Balance Sheet Items & Capital Ratios								
Risk weighted assets	5,048,857	6,237,120	7,452,505	8,481,847	8,449,148	8,265,196	8,816,410	9,237,961
Average Total Assets	10,993,415	13,498,925	16,081,237	18,261,518	20,984,707	21,578,516	21,189,182	21,558,864
Total loans	5,025,088	6,282,704	7,626,932	8,811,906	9,576,543	9,704,769	10,184,638	10,468,546
Total deposits	4,538,859	5,507,116	6,612,057	7,436,774	7,536,198	7,976,807	8,547,550	8,964,744
Stated Shareholder Equity	464,414	577,507	734,094	771,026	750,368	927,700	1,021,347	1,096,037
Tangible shareholders equity	337,424	425,817	540,180	526,669	510,790	687,783	774,961	850,724
Tier 1 capital	414,756	505,502	607,083	645,537	722,359	863,936	958,859	1,034,273
Tier 1 ratio (%)	8.2%	8.1%	8.1%	7.6%	8.5%	10.5%	10.9%	11.2%
o/w core tier 1 capital ratio (%)	6.8%	6.5%	6.6%	6.2%	6.6%	8.4%	9.0%	9.4%
Tangible equity / total assets (%)	2.7%	2.4%	2.7%	2.5%	2.2%	2.8%	3.2%	3.5%
Credit Quality								
Gross NPLs / Total Loans (%)	2.74%	2.64%	2.52%	2.38%	3.32%	5.41%	5.50%	4.70%
Risk Provisions / NPLs (%)	69%	59%	60%	58%	46%	40%	41%	46%
Bad debt chg / Avg loans (%)	0.42%	0.38%	0.43%	0.51%	1.12%	1.65%	1.16%	0.84%
Growth Rates & Key Ratios								
Growth in revenues (%)	9%	17%	17%	4%	-10%	15%	7%	6%
Growth in costs (%)	7%	14%	11%	7%	12%	-7%	6%	2%
Growth in bad debts (%)	-23%	13%	32%	37%	140%	49%	-26%	-26%
Growth in RWA (%)	13%	22%	17%	14%	0%	-2%	7%	5%
Growth in loans (%)	12%	25%	18%	15%	13%	6%	3%	3%
Growth in deposits (%)	21%	30%	12%	17%	11%	-8%	5%	3%
Net int. margin (%)	1.85%	1.64%	1.47%	1.43%	1.59%	1.59%	1.60%	1.62%
Cost income ratio (%)	60.6%	59.3%	56.0%	57.7%	66.0%	58.5%	56.7%	54.8%
Cap.-market rev. / Total revs (%)	32%	33%	34%	29%	23%	35%	35%	36%
Total loans / Total deposits (%)	111%	114%	115%	118%	127%	122%	119%	117%









Source: Company data, Deutsche Bank estimates

A missed opportunity?

Key points

- On Friday 23 July the CEBS announced the results of its stress tests. Seven banks failed to meet the threshold of 6% stated tier 1 ratio.
- The aggregate capital shortfall stands at Euro 3.5bn, a smaller capital raise than we believe was desirable. If we were to apply an 8% stated Tier 1 ratio this would rise to Euro 27bn, which we think the market is likely to push for over the medium term.
- Market pressure for capital raises is indeed what happened in the US. Also, the CEBS seems to suggest that this is the intention, as it mentions in its Q&A that "banks whose capital ratios decline and move **towards** [our emphasis] the threshold value for this stress will […] be subject to closer supervisory scrutiny [...]. If deemed necessary, the national supervisor will ask the bank's management to develop a plan to improve the situation, including potentially, a plan to increase capital buffers […]."
- Overall, we had not expected any banks in our coverage universe to raise capital or to fail the stress tests, so for our coverage universe, we do not change our views. But for the sector as a whole, we see the CEBS stress tests as a missed opportunity. Between Soffin, FROB and the Greek recapitalisation fund (plus pre-announced schemes for e.g. AIB), we believe that a Euro 100bn recapitalisation requirement could have been met. Indeed, with several of these schemes expiring at the end of this year, we think that the best chance for a relatively straightforward recapitalisation of the sector has passed.
- As a result, we expect that the onus will stay on the ECB to continue to provide liquidity and in all likelihood extend the 3 month LTROs (long-term refinancing operations) beyond September. The ultimate way to judge the success of the stress tests/recapitalisation effort, will be the ability of European banks (especially the weaker ones) to access the term debt market.
- That said, even under a tough stress test, we believe that most of our banks under coverage would have passed (the exceptions being NBG and AIB, see our 8 July report). We also still see value within the national champion European banks, especially Lloyds Banking Group, Intesa, Société Générale and Credit Suisse, all of which we think are secure on both funding (i.e. can access the term debt market) and capital. We rate all four banks as BUY.
- But a double-dip recession remains a risk for the sector, and in our view the CEBS stress tests were a missed opportunity to strengthen weaker banks in the sector in advance of any future potential problems.

Figure 1: DB European Banks research team

Sector	Analyst	Telephone
UK and Irish Banks	Jason Napier	+44(20)754-74433
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Swiss Banks	Matt Spick	+44(20)754-57895
Nordic Banks	Jan Wolter	+46(8)463-5519
Italian Banks	Paola Sabbione	+39(02)86379-704
Greek and Iberian Banks	Carlos Berastain	+34 913355971
German Banks	Alexander Hendricks	+49(69)910-31928
French and Belgian Banks	Brice Vandamme	+44(20)754-51710

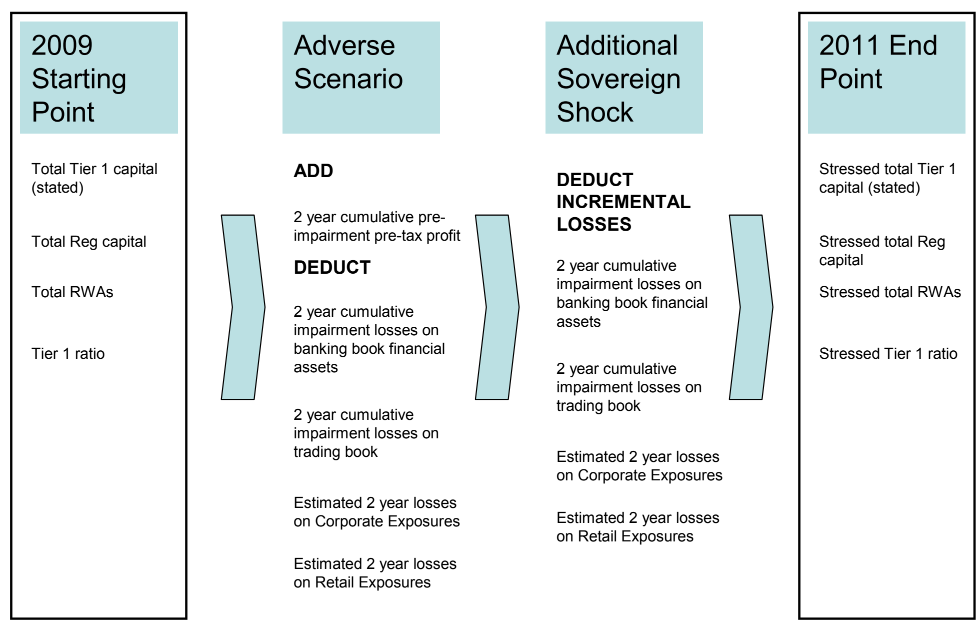
Source: Deutsche Bank

Understanding the inputs

The CEBS stress test was based on the following broad framework. Economically, the "adverse scenario" applied by regulators to the 91 banks assumed " a 3 percentage point deviation of GDP for the EU compared to the European Commission's forecasts over the two-year time horizon, and a sovereign risk shock representing " a deterioration of market conditions as compared to the situation observed in early May 2010.".

In theory, this provides scope for a serious stress test, a 3% adverse deviation versus EC forecasts was in fact more severe or comparable to the US stress tests, albeit these ended up being close to the actual outcome for the US economy. **In practice**, this was modeled for the adverse scenario in the following way.

Figure 2: CEBS Stress Test process



Our understanding is that the adverse scenario is based on a double dip recession in Europe, assuming a cumulative annual drop of 3 percent in GDP in 2010 and 2011. Loan portfolios were stressed by increasing their expected losses, i.e. by increasing probabilities of default and loss severity. Equity holdings in AFS holdings have been stressed via a cumulative fall of 36 percent that puts shares deep into bear market territory, credit ratings on securitised products being downgraded by four notches, short-term interbank borrowing rates rising by 125 basis points, and long-term interest rates rising by 75 basis points. This method both increases RWAs (lower ratings and higher volatility would increase risk weightings) and reduce capital. This adverse scenario is then further tested by a simulated sovereign shock, where further losses on the trading book are incurred on peripheral sovereign debt, and long term interest rates in the euro area increase an additional 30bp.

Source: Deutsche Bank representation of CEBS methodology

The actual inputs varied substantially between institutions, both between countries and within countries. But broadly, the inputs can be categorised into real economy inputs (unemployment, house price falls, etc) and financial market inputs (asset price declines). A comprehensive discussion of the inputs and assumptions can be accessed at http://stress-test.c-ebs.org/documents/Summaryreport.pdf, but we briefly review the major inputs below.

Real economy inputs

The CEBS stress tests covered a 3% reduction cumulatively in GDP growth versus forecasts. For the EU 27 on average, this results under the adverse scenario in 0.0% GDP growth in 2010, and a 0.4% GDP contraction in 2011. Cumulatively, this is clearly not a worst case scenario, but in our view it is reasonably stressful (coming immediately after a previous recession), and the loss outputs look demanding to us (see below). CEBS also disclosed some common assumptions on the real economy. These included unemployment and house price declines, for example.

- On unemployment, the CEBS worked with an average increase for the EU27 of 1.6% in 2010 and 0.5% in 2011, under the adverse scenario. But unemployment has already risen by 0.7% in q1 2010 already, so it is not clear to us how adverse this actually is.
- For house prices the CEBS worked with a wide range, from a 10% fall in the UK per annum, to a much lower fall in Italy of 1.8% per annum, under the adverse scenario. We have set out the detailed assumptions at the end of this section.
- On commercial real estate, the CEBS worked in a similarly wide range. With again a UK commercial real estate price decline of 10% per annum, and real estate prices unchanged in say Austria, the variations are substantial. By far the largest haircuts, however, were found in Spain, with 32.5% declines in commercial real estate prices per annum, and 12.5% per annum in Ireland.

Overall, the real economy assumptions delivered an average two-year cumulative loss for corporates of 4.4% (2.2% per annum, compared with 1.5% in 2009) and 2.1% for retail (1.0% per annum, compared with 0.8% in 2009), under the adverse scenario. In total, impairment losses (as opposed to trading losses) were Euro 472.8bn over 2 years. This seems to us to be suitably stressful.

Figure 3: GDP and Unemployment assumptions under the adverse scenario

%	2008 realised	2009 realised	2010 Q1	adverse 2010-	adverse 2011
EU 27					
GDP YoY	0.7	-4.2	0.2	0.0	-0.4
Unemployment	7.0	8.9	9.6	10.5	11.0
Euro area					
GDP YoY	0.6	-4.1	0.2	-0.2	-0.6
Unemployment	7.5	9.4	10.0	10.8	11.5
US					
GDP YoY	0.4	-2.4	0.7	1.5	0.6
Unemployment	5.8	9.3	9.7	10.2	11.1

Source: CEBS

Financial market inputs:
The inputs for the financial markets part of the impairment charge were more complex, and are likely we think to be more controversial. In broad terms the CEBS stress tests covered the following areas:

- **Sovereign bond mark-downs**. This was one of the most controversial areas. In the end, trading books were marked down, but banking books were not (hold to maturity and AFS holdings). "The sovereign risk [was] tested by applying a price-shock to the sovereign debt in the bank's trading book by applying valuation haircuts on the trading book exposures to EU sovereign debt and by taking into account additional impairment losses on the non-sovereign exposures in the banking book - attributed to the interest rate component of the macro-economic scenario affecting the risk parameters (the so-called Probabilities of Default (PDs) and Loss Given Defaults (LGDs)). In the design of the test [the CEBS] did not assume that an EU Member State would default."
- **Equity holdings:** any equity holdings were marked down by 20% per annum, for a cumulative decline of 36%. Volatility was also increased. Exposures to hedge funds (20% per annum) and mutual funds (10% per annum) were also stressed.
- **Interest rate and currency risk shocks:** these were modeled with a sharp upward shock to short term rates (200bp) and a modest upward move in long rates (50bp), and a 20% decline in all currencies versus the dollar per annum. 60% increase in volatility in currencies per annum.

The full details of the stress test were set out in Annex 5 of the CEBS stress test summary report. Overall, the financial market shock assumptions delivered Euro 26bn of impairments. We regard this as a relatively low number. Even inclusive of the sovereign risk shock, trading losses would only rise to Euro 65bn over two years. Financial market "shocks" are difficult to model, and usually, regulators conduct a whole series of scenarios to stress test trading books. We are not sure that this approach was the best way to find how large potential losses in the trading book might be.

A flawed methodology?

Any stress test is bound to be "wrong", in the sense that we do not, and cannot know what future crises will be like. But a stress test does at least need to be tough, to be as credible as possible. We believe that there were several major problems with the CEBS stress tests, which lead us to disregard the conclusions.

- Insufficient attention to liquidity and funding. In our view, the bigger issue at the moment for many European banks is accessing term debt funding (see our reports dated 9 June 2010 and 21 May 2010, *Short-term funding*, and *YTD funding: problems and solutions*).
- Too many simplifying assumptions. Because of the time available, we believe that the CEBS stress tests have assumed constant balance sheet size, losses realised no faster than profits are generated (highly unrealistic in our view). Overall, too generous an approach to pre-provision profit generation generally.
- Insufficient transparency around trading book tests, insufficient information to determine whether the trading book loss estimates are adequate.
- And finally, we do not regard a 6% stated Tier 1 ratio as sufficient in a genuine crisis. We think that banks would, in practice, be forced to recapitalize to higher levels than this.

We look at the stresses in more detail in the country sections. But another way to assess the stress tests is to look at the outputs, and how they compared with expectations. We look at this issue in the following section.

The outputs: were they unconvincing?

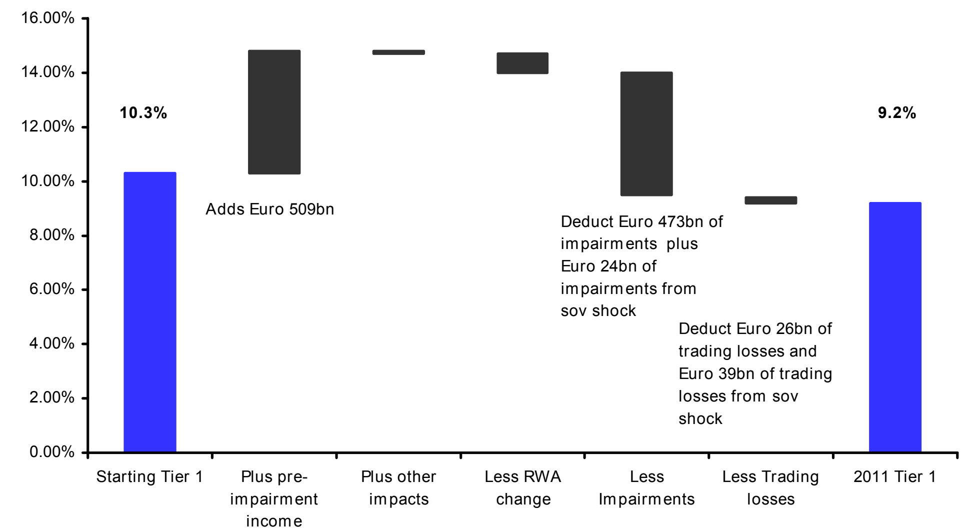
Aggregate out-turn

Below we summarise the aggregate outputs from the stress tests. The aggregate Tier 1 ratio on a stated basis, in the adverse scenario and including the sovereign risk shock, declined from 10.3% in 2009 to 9.2% at end-2011. This includes government support, e.g. German silent participations, which total Euro 169.1bn of capital, or 1.2% of the 9.2% Tier 1. In aggregate, the European banking system is quite well capitalised.

The components of the stress test were as follows. **Impairment losses** were Euro 472.8bn over the two year period, a robust number, which we think is fair. **Trading losses** were Euro 25.9bn, a low number, which we have some concerns over, given that experience in 1998, 2001 and 2008 suggests that trading books can be the source of very large trading losses (as a simple arithmetic mean, Euro 25.9bn of trading losses over 91 banks would be just Euro 285m per bank. Losses from the additional sovereign risk shock total Euro 67.2bn, from trading losses on trading book bonds Euro 38.9bn, and real economy losses linked to the risk shock of Euro 28.3bn. The total impairment losses were Euro 565.9bn.

The aggregate pre-impairment income (essentially pre-provision profits) was, however, an extremely large offset. Again, under the adverse scenario, the 91 banks tested forecast a total of Euro 509bn of pre-impairment income, or Euro 255bn per annum. But this compares with the baseline forecast of Euro 261bn in 2010 and Euro 277bn in 2011. The 2009 achieved pre-impairment income was Euro 270bn. In other words, the pre-impairment income has been assumed to be almost entirely stable. The CEBS cites Q1 2010 profits as consistent with this baseline outturn, but we believe that trading profits were unusually high in Q1, and that this is not a realistic assumption. In our view, pre-impairment income is not as stressed as it could have been. Indeed, some banks appear to have estimated that their pre-impairment income would rise versus 2009 under the adverse scenario.

Figure 4: Summary of contributions to change in stated Tier 1 ratio from 2009 to 2011 under the adverse scenario plus sovereign shock add on



Source: Deutsche Bank

The banks that failed

Below we list the banks that the CEBS and national regulators have identified as failing the CEBS stress test. Note that none of these banks excepting Agricultural Bank of Greece are under coverage by Deutsche Bank Company Research.

- In Germany, Hypo Real Estate failed the CEBS stress test with a Tier 1 ratio of 4.7% under the adverse scenario with the sovereign risk shock (with a Euro 1.2bn shortfall).
- In Spain, a number of savings banks groups failed, with Cajasur (a 4.3% Tier 1 ratio under the adverse risk scenario with the sovereign risk shock, and a Euro 208m shortfall), Diada (3.9% and a Euro 1,032m shortfall), Unnim (4.5% and Euro 270m deficit), Espiga (5.6% and Euro 127m), and Banca Civica (4.7% and a Euro 406m shortfall) failing the stress test of a 6% Tier 1 ratio under the adverse scenario with the sovereign risk shock.
- In Greece one bank failed, ATEBank (Agricultural Bank of Greece), with a Tier 1 ratio of 4.4% under the adverse scenario with a sovereign risk shock (with a Euro 243m shortfall).
- We note that no banks in Ireland failed the stress test, but that AIB received credit for its planned Euro 7bn capital raising.

The near misses

We also note that there were many near misses. We should stress that these banks have passed, and we do not expect any imminent action from these banks. But, there may be a risk factor that the market could pressure banks that were close to the 6% threshold to act in any case. We look at this issue in the following section.

The backstops that weren't used

As commented above, we were disappointed that the stress tests did not call for further capital injections, not least because funds were available. In Spain, prior to Friday, Euro 14.3bn of capital had already been committed to recapitalise the Cajas. On Friday, July 23 the EC granted the Spanish government the extension of the deadline for FROB until December 31 2010. This suggested the intention to inject further capital, but as we now know a shortfall of just Euro 3.5bn of capital has been identified across Europe, with a little over half in Spain. For Ireland, the regulator had requested an additional Euro 10bn of capital for Bank of Ireland and Allied Irish Banks. Band of Ireland raised Euro 2.9bn in June and AIB is expected to raise an additional Euro 7.4bn by year end. This was allowed within AIB's stress test. Finally, in Germany, we know that the European Commission had authorised an extension until 31 December of the Soffin funds, but in effect, this is not being used at all.

Each of these funds were considered by the European Commission to be "in line with its guidance on state aid to banks during the crisis (see IP/08/1945) and the recent adjustment of the rules for State guarantee, endorsed by the Ecofin Council (see conclusions of 18 May 2010) meeting on the phasing out of the support measures for the financial sector.". Each was also viewed from the EC point of view as "well-targeted, proportionate and limited in time and scope".

In our view, there is no guarantee that future state bailout programmes will necessarily secure EC approval (in the technical parlance, being compatible with Article 107(3)(b) of the EU Treaty). Nor is there any guarantee that future bailouts will be politically acceptable to each country's electorate. So, we certainly view this as a chance missed, that may not present itself again.

How large would the requirement be at an 8% target?

As discussed above, one problem with the stress tests, in our view, is that the 6% stated Tier 1 ratio target is not especially onerous, and that a large number of banks were "near misses", having a stated tier one ratio of between 6% and 8%. In total, 38 banks would have missed an 8% target, given that 31 were between 6% and 8%.

Overleaf we show in table form for our coverage universe the exact numbers for the CEBS stress test adverse scenario, including the sovereign risk shock. We also show the additional capital requirement to reach an 8% ratio (around Euro 8bn for our coverage universe). This compares with our calculation of the total shortfall versus an 8% threshold for all 91 banks of Euro 26.9bn.

Figure 5: Summary of banks between 6% and 8% Tier 1 ratio under CEBS test

Country	Banks failing at 6%	Banks between at 6% to 8%	Shortfall to an 8% target ratio
UK	0	0	0
Greece	1	4	Euro 1.9bn
Italy	0	4	Euro 4.3bn
Spain	5	17	Euro 13.2bn
Nordics	0	0	0
Germany	1	4	Euro 6.9bn
Ireland (CEBS basis)	0	2	Euro 0.6bn
France	0	0	0
Belgium	0	0	0
Total	**7**	**31**	**Euro 26.9bn**

Source: Deutsche Bank estimates

Figure 6: Summary of impairments under adverse scenario and sovereign risk shock for DB Banks Team coverage universe

	2010-2011 Losses under adverse scenario	2010-2011 additional shock banking book	2010-2011 additional shock trading book	Implied annual impairments	As % of peak imp. year 2006-9	Memo: 2 year corporate loss rate %	Memo: 2 year retail loss rate in %	Estimated tier 1 ratio %	Reduction in Tier 1 ratio % from base	Additional capital required	Currency	Additional capital required to reach 8%
Barclays	-20,095	-740	-473	-10,654	132%	3.07%	4.38%	13.7%	(211bp)	n/a	GBP	0
RBS	-30,898	-1,064	-1,809	-16,886	121%	3.16%	4.79%	11.2%	(290bp)	n/a	GBP	0
LBG	-23,109	-1,396	-23	-12,264	51%	3.56%	2.70%	9.2%	(162bp)	n/a	GBP	0
HSBC	-56,822	-780	-3,653	-30,628	116%	3.06%	5.30%	10.2%	(149bp)	n/a	USD	0
Danske Bank	-46,474	-3,572	-7,866	-28,956	113%	1.54%	1.94%	10.0%	(169bp)		DKK	0
Nordea	-5,579	-438	-233	-3,125	210%	2.65%	0.84%	10.1%	(117bp)		EUR	0
SEB	-25,270	-1,596	-1,530	-14,198	114%	2.51%	1.50%	10.3%	(155bp)		SEK	0
Svenska Handelsbanken	-12,606	-2,423	-2,879	-8,954	264%	0.98%	0.38%	8.9%	(132bp)		SEK	0
Swedbank	-18,126	-2,119	-3,116	-11,680	47%	3.06%	0.84%	9.9%	(85bp)		SEK	0
Banco Popolare	-2,688	241	323	-1,062	91%	3.17%	2.43%	7.0%	(80bp)	0	EUR	931
Monte dei Paschi	-4,416	451	675	-1,645	112%	2.78%	2.82%	6.2%	(139bp)	0	EUR	2,207
UBI Banca	-2,747	298	70	-1,190	137%	2.94%	2.32%	6.8%	(79bp)	0	EUR	1,029
Intesa SanPaolo	-11,451	928	1,915	-4,304	116%	3.09%	2.56%	8.2%	(163bp)	0	EUR	0
UniCredito	-22,299	1,200	1,608	-9,746	117%	3.56%	3.44%	7.8%	(215bp)	0	EUR	942
Bank of Ireland	-6,812	-586	-5	-3,702	91%	4.47%	3.78%	7.1%	(188bp)	n/a	EUR	777
Allied Irish Banks	-9,849	-606	-36	-5,246	98%	6.38%	4.94%	6.5%	(296bp)	n/a	EUR	1,107
Bankinter	-1,171	-265	-163	-800	363%	5.10%	1.50%	6.8%	(159bp)	0	EUR	368
Banco Pastor	-1,714	-140	-46	-950	157%	8.60%	2.20%	6.0%	(272bp)	0	EUR	374
Banco Popular	-7,565	-630	-4	-4,100	270%	9.50%	2.40%	7.0%	(222bp)	0	EUR	926
BBVA	-12,206	-1,505	-1,223	-7,467	136%	2.10%	4.10%	9.3%	(135bp)	0	EUR	0
Banco Santander	-28,159	-2,255	-907	-15,661	165%	2.70%	3.90%	10.0%	(102bp)	0	EUR	0
Banco de Sabadell	-4,065	-382	0	-2,224	378%	6.90%	1.50%	7.2%	(238bp)	0	EUR	464
EFG EuroBank	-2,697	-1,443	-30	-2,085	177%	6.79%	6.67%	8.2%	(355bp)	0	EUR	0
Alpha Bank	-2,299	-1,496	-37	-1,916	283%	6.73%	7.68%	8.2%	(412bp)	0	EUR	0
National Bank of Greece	-4,926	-1,531	-374	-3,416	323%	11.92%	7.59%	7.4%	(433bp)	0	EUR	427
Commerzbank	-8,338	-341	-340	-4,510	107%	1.70%	1.00%	9.1%	(140bp)	0	EUR	0
Credit Agricole	-16,393	-1,658	-1,368	-9,710	207%	2.66%	1.69%	9.0%	(162bp)	0	EUR	0
BNP Paribas	-22,624	-988	-425	-12,019	144%	1.64%	2.89%	9.6%	(177bp)	0	EUR	0
Societe Generale	-12,515	-576	-941	-7,016	120%	2.32%	2.76%	10.0%	(188bp)	0	EUR	0
Dexia	-3,469	-260	-257	-1,993	61%	1.18%	1.07%	10.9%	(250bp)	0	EUR	0

Source: Deutsche Bank estimates and CEBS

Valuation and top picks

Even under a tough stress test, we believe that most of our banks under coverage would have passed. Of our coverage universe, the smaller Italian banks and the smaller Spanish banks might have been at risk, but the total amounts were small.

If anything, this stress test reasserts our view that the greatest potential upside for the lowest risk lies within the strong, national champion names that we rate as our Top Picks. These are Lloyds Banking Group, Intesa, Société Générale and Credit Suisse, all of which we think are secure on both funding (i.e. can access the term debt market) and capital. We rate all four banks as BUY.

Our stocks under coverage are discussed in more detail in the country sections.

Figure 7: Summary data for DB European Banks top picks

Stock	DB Rec.	Price	Target price	Up/(downside)	Mkt Cap	Adjusted P/E		
		24/07/2010			E'm	2009E	2010E	2011E
Societe Generale	Buy	38.0	53.0	39.5%	28,113	6.9	7.0	5.6
Intesa SanPaolo	Buy	2.4	3.3	37.4%	30,708	11.9	12.9	8.5
Credit Suisse Group	Buy	44.3	64.0	44.4%	40,579	7.3	8.4	7.5
Lloyds Banking Group	Buy	63.5	90.0	41.5%	52,327	(36.4)	30.4	8.3

Source: Deutsche Bank estimates, pricing from Datastream

Figure 8: Long-run price to book valuations for the European Banking Sector

As of March 2009 the sector was trading on its trough of 0.5x P/BV (stated) or 0.7x P/TBV .

During the Q2 to Q3 rally the setor recovered to 1.4x P/TBV.

From Q4 2009 to Q2 2010 the sector has been range bound between 1.0x and 1.3x, vacillating between economic rebound, sovereign risk fears, and regulatory reform. The stress tests, in our view, will not break this range.

This compares with the 20 year average of 1.8x

Source: Deutsche Bank

Figure 9: Macroeconomic scenarios – adverse scenario, including sovereign risk

2010 - Adverse	GDP at constant prices	Unemployment	Short-term interest rates	Long-term interest rates	Nominal USD exchange rate	CPI
Austria	-0.1	6.1	2.1	4.5	0.7	1.5
Belgium	-0.3	9.9	2.1	4.8	0.7	1.2
Cyprus	-0.7	6.7	2.1	5.4	0.7	3.1
Finland	-0.1	10.4	2.1	4.0	0.7	1.3
France	0.7	10.2	2.1	4.3	0.7	1.2
Germany	0.2	9.2	2.1	4.0	0.7	0.7
Greece	-4.6	11.8	2.1	11.8	0.7	1.4
Ireland	-2.1	14.1	2.1	6.7	0.7	-0.6
Italy	-0.3	8.8	2.1	5.4	0.7	1.7
Luxembourg	-0.1	7.3	2.1	4.6	0.7	1.8
Malta	-0.8	7.6	2.1	5.1	0.7	1.8
Netherlands	0.0	5.5	2.1	4.3	0.7	0.8
Portugal	-0.3	11.3	2.1	7.0	0.7	1.3
Slovakia	0.8	12.9	2.1	4.5	0.7	1.8
Slovenia	0.7	8.5	2.1	4.4	0.7	1.8
Spain	-1.4	20.3	2.1	5.8	0.7	1.0
Euro area	**-0.2**	**10.8**	**2.1**	**4.4**	**0.7**	**1.1**
Bulgaria	-0.7	9.2		8.0	1.4	2.0
Czech R.	0.9	8.6		5.8	18.7	0.9
Denmark	0.8	6.0	3.0	4.4	5.0	1.2
Estonia	-0.1	16.4		13.2	11.5	0.9
Hungary	-0.2	12.6		9.5	196.5	4.8
Latvia	-4.2	20.7		13.8	0.5	-3.9
Lithuania	-0.9	17.6		13.2	2.5	-0.2
Poland	2.1	10.7	5.7	7.4	2.9	2.5
Romania	-1.8	8.5		10.5	3.0	3.9
Sweden	0.9	10.2	2.4	4.3	7.0	1.3
UK	-0.2	9.1	2.4	5.0	0.6	2.4
Rest of the EU	**0.2**	**9.6**				**2.3**
2011 - Adverse	**GDP at constant prices**	**Unemployment**	**Short-term interest rates**	**Long-term interest rates**	**Nominal USD exchange rate**	**CPI**
Austria	-1.2	6.1	3.3	5.3	0.7	1.0
Belgium	-0.6	11.1	3.3	5.6	0.7	0.6
Cyprus	-0.1	7.3	3.3	6.3	0.7	2.1
Finland	-0.6	11.4	3.3	4.9	0.7	0.1
France	-0.1	10.5	3.3	5.1	0.7	1.0
Germany	-0.6	9.7	3.3	4.7	0.7	0.6
Greece	-4.3	14.8	3.3	14.7	0.7	2.1
Ireland	1.0	13.7	3.3	7.8	0.7	0.7
Italy	-0.3	9.3	3.3	6.3	0.7	1.7
Luxembourg	-0.8	7.7	3.3	5.5	0.7	1.4
Malta	-1.2	8.2	3.3	6.0	0.7	1.6
Netherlands	-1.0	7.0	3.3	5.1	0.7	1.0
Portugal	-2.3	12.8	3.3	8.5	0.7	0.9
Slovakia	-0.6	13.2	3.3	5.4	0.7	1.4
Slovenia	0.6	9.1	3.3	5.3	0.7	1.9
Spain	-1.2	21.6	3.3	6.8	0.7	1.2
Euro area	**-0.6**	**11.5**	**3.3**	**5.3**	**0.7**	**1.1**
Bulgaria	2.8	8.4		8.0	1.5	0.5
Czech R.	0.6	9.6		5.8	18.8	0.9
Denmark	0.2	6.3	4.1	5.1	5.0	1.2
Estonia	3.0	14.8		13.2	11.6	-1.0
Hungary	1.6	13.2		9.5	197.2	2.5
Latvia	2.5	18.8		13.8	0.5	-3.6
Lithuania	2.4	16.3		13.2	2.6	-2.3
Poland	0.5	12.2	7.0	7.6	2.9	2.3
Romania	2.1	9.2		10.5	3.1	1.2
Sweden	0.9	10.3	4.1	4.9	7.0	1.2
UK	0.1	8.8	4.2	5.7	0.6	0.6
Rest of the EU	**0.5**	**9.6**				**0.9**

Source: ECB calculations Note: GDP at constant prices (annual percent change (y-o-y)), Unemployment (as % of the labour force at year-end), Short-term interest rate (Short term interest rates (3M) at year-end - Euribor or Libor depending on the country), Long term interest rates (Long term interest rates (10Y) at year-end - Treasuries), Nominal USD exchange rate (Level of nominal USD exchange rate to the respective currency at year-end), CPI (% change from previous year (y-o-y)).

Figure 10: Evolution of property prices assumed in the exercise

	UK		Germany		France		Netherlands		Spain		Italy		Belgium		Sweden		Austria		Denmark	
Benchmark Scenario	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**
Commercial Property Prices, % change from previous year (y-o-y)	0.0%	0.0%	0.0%	0.0%	-4.5%	-2.5%	0.0%	0.0%	20.0%	15.0%	-0.7%	0.3%	-3.0%	-3.0%	0.0%	-2.5%	2.0%	2.7%	0.2%	2.0%
Residential Property Prices, % change from previous year (y-o-y)	2.0%	1.0%	0.0%	0.0%	-4.5%	-2.5%	0.0%	0.0%	-3.8%	-5.2%	-0.7%	0.3%	-3.0%	-3.0%	5.0%	0.0%	2.0%	2.7%	0.2%	2.0%
Adverse Scenario	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**
Commercial Property Prices, % change from previous year (y-o-y)	10.0%	10.0%	10.0%	10.0%	-4.5%	-4.5%	10.0%	10.0%	35.0%	30.0%	-1.6%	-2.0%	10.0%	10.0%	12.5%	15.0%	2.0%	2.7%	-7.0%	-1.6%
Residential Property Prices, % change from previous year (y-o-y)	10.0%	10.0%	10.0%	10.0%	-4.5%	-4.5%	10.0%	10.0%	-8.8%	15.2%	-1.6%	-2.0%	10.0%	10.0%	-7.5%	12.5%	2.0%	2.7%	-7.0%	-1.6%

	Greece		Ireland		Cyprus		Luxembourg		Malta		Portugal		Slovenia		Finland		Hungary		Poland	
Benchmark Scenario	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**
Commercial Property Prices, % change from previous year (y-o-y)	-3.0%	0.0%	14.0%	6.0%	-2.0%	2.0%	n.a.	n.a.	1.6%	2.5%	0.0%	0.0%	n.a.	n.a.	0.0%	0.0%	-5.0%	0.0%	0.0%	0.0%
Residential Property Prices, % change from previous year (y-o-y)	-3.0%	0.0%	13.0%	-2.5%	-2.0%	2.0%	n.a.	n.a.	1.6%	2.5%	0.0%	0.0%	n.a.	n.a.	0.0%	0.0%	-10.0%	-3.0%	0.0%	0.0%
Adverse Scenario	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**
Commercial Property Prices, % change from previous year (y-o-y)	-5.0%	-2.0%	17.0%	-8.0%	-4.0%	0.0%	n.a.	n.a.	-2.0%	-2.0%	-5.0%	-5.0%	n.a.	n.a.	10.0%	10.0%	-8.0%	-5.0%	0.0%	0.0%
Residential Property Prices, % change from previous year (y-o-y)	-5.0%	-2.0%	17.0%	-5.0%	-4.0%	0.0%	n.a.	n.a.	-2.0%	-2.0%	-5.0%	-5.0%	n.a.	n.a.	-5.0%	-5.0%	-13.0%	-8.0%	0.0%	0.0%

Source: CEBS report Notes: Estimates of the annual changes of the property prices are provided by the national supervisory authorities participating in the exercise and are outside the scope of the macro-economic scenarios. It should be noted that at the current time in Europe there is no consistent reference set of property price data, which can be used for central modeling.

German Banks

Key points

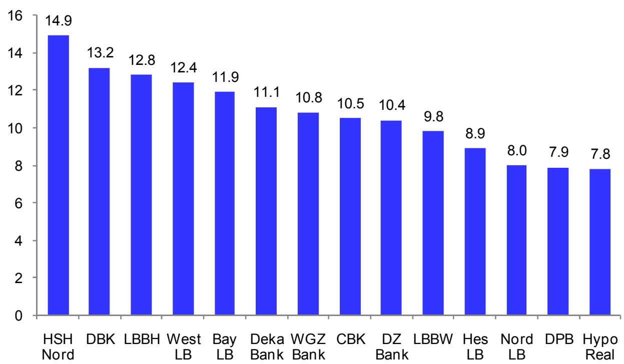
- A total of 14 institutions were directly addressed by the stress test (Deutsche Bank, Commerzbank, Deutsche Postbank, LBBW, BayernLB, WestLB, NordLB, HSH Nordbank, Helaba, LB Berlin, Hypo Real Estate, DZ Bank, WGZ Bank, DekaBank), covering more than 60% of the German banking system's total assets (including UniCredit Bank AG that is covered via the parent bank). With the exception of Hypo Real Estate Group all banks have passed the test; Hypo Real Estate fails under both the adverse scenario and the additional sovereign shock scenario.
- The aggregate capital shortfall, which is also the shortfall for Hypo Real Estate, is Euro 1.25bn. However, Hypo Real Estate points out that the stress tests do not consider the spin-off of Euro 210bn non-core assets in 2H2010 that materially reduce the group's risk weighted assets. Also, Hypo Real Estate Group had already applied for a total capital injection by Soffin of EUR10bn, of which Euro 2.9bn have been received so far. The remainder covers the capital shortfall. Soffin total funds for bank recapitalizations amounts to EUR80bn, of which EUR29bn have been used until 30 June 2010. The European Commission has recently authorized the extension of Soffin-related support measures until 31 Dec 2010.
- On balance, the results might be taken as an indication that the assumptions and/or design of the stress test were rather academic. An average 2-year loss rate on corporate exposures of 1.5% and an average 2-year loss rate on retail exposures of 1.0% only partial capture the full dynamic potential of a downturn. According to data provided by the banks, the average 1-year loss rate on corporate exposures was 1.0% and the average 1-year loss rate on retail exposures was 0.3% in 2009. Average sovereign haircuts of 8.5% seem aggressive (and include a 4.7% haircut on Germany exposure) but given that on average less than 10% of sovereign exposures are held in the trading book the importance of sovereign exposure treatment in the test gets diluted. Regarding disclosure we were disappointed by the reluctance of commercial banks to disclose sovereign exposures – only Commerzbank provided data. On the positive side, we note that 6 of 7 Landesbanks disclosed this information – only Landesbank Berlin decided against it.
- Commerzbank passes the test with a Tier 1 ratio of 9.1% under the most severe scenario. The overall Tier 1 reduction compared to the benchmark scenario is 1.4ppt which is both a result of deterioration of capital as well as rising risk positions. The scenario's 2-year pre-provision profits of EUR7.0bn compare to our present EUR8.2bn forecast, a plausible 15% gap. As Commerzbank has booked 98% of sovereign exposures in its banking book the sovereign shock effects are negligible, although one should monitor its EUR2.9bn Greece exposure. Commerzbank's biggest challenge does not appear to be surviving another recession but to replace EUR16.4bn Soffin-injected capital.
- How much of a capital shortfall would there have been in the event of a more strict, 8% stated Tier 1 ratio target? We calculate that for Germany, in aggregate, using an 8% Tier 1 ratio target would have led to an aggregate capital shortfall of Euro 6.9bn (as compared with the shortfall of Euro 1.3bn under the 6% threshold). We believe that there is a moderate risk for the German banking system as a whole, in that banks below 6% may be forced by the market to recapitalise to 8% to create a cushion, and that "near-misses" between 6% and 8% could also come under pressure to raise capital. In Germany, a total of 4 institutions (in addition to Hypo Real Estate) disclosed an adverse-plus-sovereign-shock scenario Tier 1 ratio below 8% (NordLB, Deutsche Postbank, Helaba and WestLB).

- Several banks continue to benefit from ring-fencing measures. Owners of several large Landesbanks (including LBBW, HSH Nordbank, BayernLB, WestLB) have committed to absorb losses related to certain portfolios totaling nearly EUR40bn, an important risk mitigation.

The stress test for German banks: the results

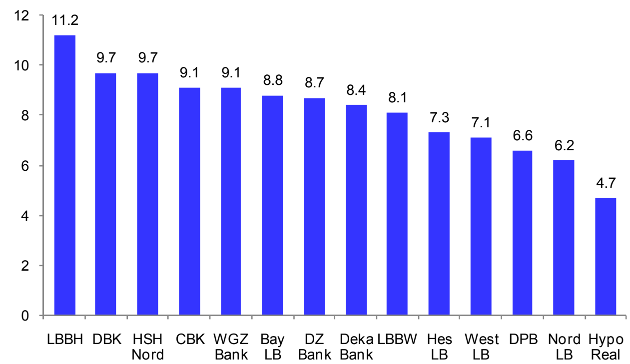
A total of 14 institutions were directly addressed by the stress test (Deutsche Bank, Commerzbank, Deutsche Postbank, LBBW, BayernLB, WestLB, NordLB, HSH Nordbank, Helaba, LB Berlin, Hypo Real Estate, DZ Bank, WGZ Bank, DekaBank), covering more than 60% of the German banking system's total assets (including UniCredit Bank AG that is covered via the parent bank). With the exception of Hypo Real Estate Group all banks have passed the test; Hypo Real Estate fails under both the adverse scenario and the additional sovereign shock scenario.

Figure 11: Tier 1 ratio (%) in benchmark scenario



Source: Company daa, Deutsche Bank

Figure 12: Tier 1 ratio (%) in adverse scenario plus additional sovereign shock



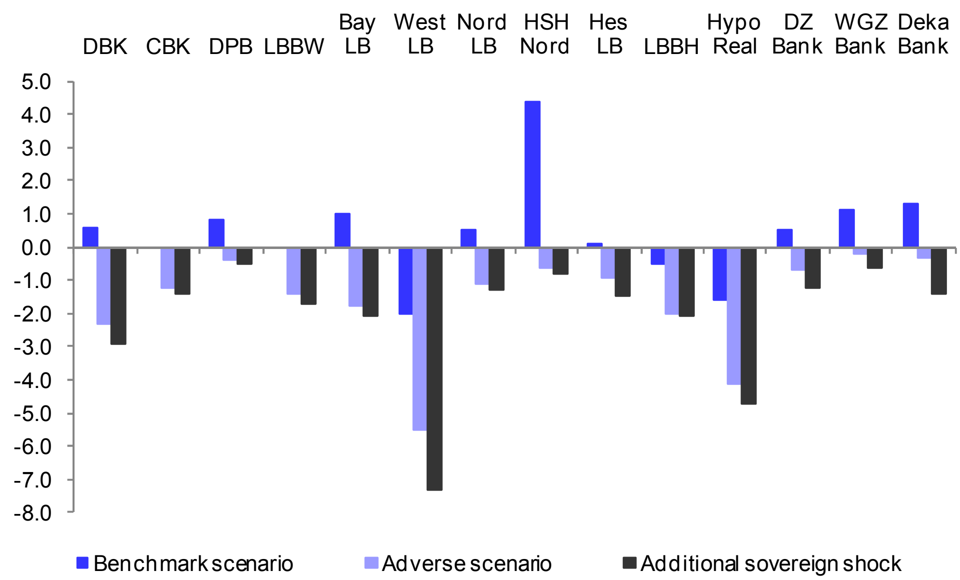
Source: Company data, Deutsche Bank

Using the benchmark scenario, average for the tested German banks is a 10.9% Tier 1 ratio. HSH Nordbank would be best capitalized bank with 14.9% while Hypo Real Estate Group remains below 8.0%. Generally, the banks that are already weaker capitalized using the benchmark scenario continue to report the weaker ratios under the adverse scenario. A bank with larger moves is WestLB as they have a more than 40% of their sovereign exposures in the trading portfolio.

The results make clear that no particular group of banks is generally better or weaker capitalized. Commercial banks can be found in the best and worst capitalized quarter in both the benchmark scenario, and the adverse scenario, the same holds true for Landesbanks.

While the attention of the stress testing exercise generally is on the adverse scenario a brief glance on the benchmark scenario also reveals some interesting details. Comparing scenario capitalization ratios of the benchmark scenario with 2009 actual ratios shows that 5 German banks already fail to increase its capitalization. For two banks, the benchmark scenario capitalisation is more than 1 percentage point lower than that at end of 2009: WestLB largely because of strongly rising risk-weighted assets, Hypo Real Estate due to lower capital, i.e. forecasted losses.

Figure 13: Change in Tier 1 ratio vs 2009 actual



Source: Deutsche Bank

Switching to the implications of the adverse scenario (for most banks the difference between the adverse scenario and the additional sovereign shock is contained as the bulk of sovereign exposure is held in the banking book, WestLB being an exception) we compute an average reduction of Tier 1 capitalisation of more than 1.5 percentage points for the German banks (or a reduction of nearly 2.5 percentage points compared to the benchmark scenario). The largest moves are recorded for Hypo Real Estate from 9.4% to 4.7% and for WestLB from 14.4% to 7.1%, both face at least 4 percentage points weaker Tier 1 in the sovereign shock model.

Figure 14: Assumed changes in capital and risk positions compared to 2009 actual in %

	DBK	CBK	DPB	LBBW	Bay LB	West LB	Nord LB	HSH Nord	Hes LB	LBBH	Hypo Real	DZ Bank	WGZ Bank	Deka Bank	GER14
Benchmark scenario															
Tier 1 capital change p.a.	10.3	1.3	2.8	1.3	-3.6	-1.1	3.0	-3.5	1.7	-3.0	-9.2	3.4	5.7	7.6	2.3
RWA change p.a.	7.6	1.5	-2.3	1.3	-7.6	7.0	-0.6	-17.2	1.4	-1.1	-0.5	1.1	0.0	1.0	0.4
Adverse scenario															
Tier 1 capital change p.a.	6.7	-2.1	-7.4	0.0	-9.5	-4.9	-0.5	-10.0	2.1	-3.0	-17.8	3.1	5.2	5.8	-1.3
RWA change p.a.	19.3	4.1	-4.8	7.9	-1.5	23.5	8.4	-7.6	8.4	5.6	7.6	6.9	6.4	7.8	7.3
PPP ADV vs PPP 2009	15.8	80.3	98.3	-49.2	-52.7	41.9	-17.2	-56.1	-24.1	15.2	57.4	-26.4	3.5	-32.3	-1.1

Source: Company data, Deutsche Bank

In Figure 14 we highlight the changes in regulatory capital, and risk position of the banks for the benchmark scenario and the adverse scenario. Overall, the internal capital generation capacity of the industry remains weak, indicated by an average expected increase in Tier 1 capital of 2.3% for each 2010 and 2011; low appetite or capacity to increase risk positions is also evident as the average expected increase in risk-weighted assets is close to zero. Only one bank seems to have the potential to increase its regulatory capital in double digits, several banks (largely Landesbanks) see their capital base under erosion, already in the benchmark scenario that still forecasts GDP growth. The adverse scenario not only cuts the ability of banks to make and retain profits but it also results in an increase of risk positions.

The two important risk parameters that drive the results are credit risk and market risk. Credit risk is modeled via assumptions on loan losses while market risk is modeled through assumed haircuts on sovereign exposures (and other haircuts on trading positions, like a 20% cut on equity positions).

Figure 15: Loan loss assumptions

Adverse scenario		DBK	CBK	DPB	LBBW	Bay LB	West LB	Nord LB	HSH Nord	Hes LB	LBBH	Hypo Real	DZ Bank	WGZ Bank	Deka Bank	GER14
2Y loss rate corporate exposure	2011	1.3	1.6	2.0	0.9	2.2	2.4	2.0	2.1	0.9	0.9	1.6	1.0	0.9	0.5	1.5
1Y loss rate corporate exposure	2009	1.9	1.0	0.6	0.8	1.1	1.1	1.8	2.5	0.4	0.4	0.5	0.7	0.9	0.2	1.0
2Y scenario loss rate less 1Y actual 2009 loan rate		-0.6	0.6	1.4	0.1	1.1	1.3	0.2	-0.4	0.5	0.5	1.1	0.3	0.0	0.3	0.5
2Y loss rate retail exposure	2011	1.9	0.9	1.1	1.0	1.7		0.5		0.3	1.5			0.0		1.0
1Y loss rate retail exposure	2009	0.8	0.3	0.4	0.1	0.3		0.5		0.1	0.6		0.5	0.1		0.3
2Y scenario loss rate less 1Y actual 2009 loan rate		1.1	0.6	0.7	0.9	1.4		0.0		0.2	0.9			-0.1		0.7
Average loan losses	2009	1.0	1.2	0.6	1.0	2.1	0.8	0.9	2.5	0.6	0.4	1.1	0.6	1.6	1.5	1.1

Source: Company data, Deutsche Bank

In Figure 15 we compare the loss rate assumptions with 2009 actual data provided by the stress test results and our own computations derived from annual reports. The results hardly can be considered consistent. A few banks report an assumed 2-year loss rate on corporate exposure that is lower than the recorded 1-year loss of 2009. While 2009 in some cases might have been an exceptionally challenging year regards credit risk the purpose of the stress test is to replicate a difficult market environment. The least charge one should expect is a 2-year loss rate that matches the 2009 number. In that respect, retail exposure loss rate assumptions look much more realistic than assumed corporate loss rates. Unfortunately, for most banks that participate in the stress test corporate exposures are a larger portion of the lending book than retail exposure and therefore the accuracy of forecasting corporate losses is of higher importance.

Figure 16: Sovereign shock applied to banking book instruments

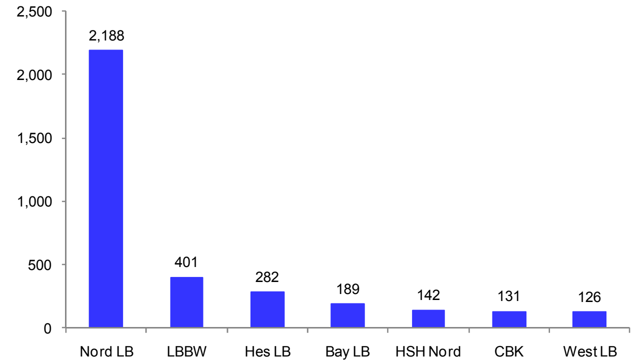
Commerzbank	EUR m	LBBW	EUR m	BayernLB	EUR m	Helaba	EUR m	HSH Nord	EUR m	NordLB	EUR m	WestLB	EUR m
Germany	1,814	Germany	2,620	Germany	1,315	Germany	717	Germany	499	Germany	7,126	Germany	304
Italy	725	Spain	491	Hungary	171	Spain	190	Italy	55	Spain	657	Spain	66
Greece	670	Greece	313	Spain	83	Greece	18	Greece	45	UK	644	Portugal	23
Poland	492	Portugal	294	UK	82	Italy	16	Spain	23	Luxemb.	616	Greece	22
Spain	432	Italy	264	Italy	46	UK	13	Belgium	20	Ireland	457	Austria	15
Slovakia	250	France	138	Greece	46	Portugal	12	Austria	15	Italy	342	Belgium	7
UK	235	Ireland	74	Iceland	31	Hungary	5	Portugal	11	France	274	France	6
Portugal	155	Poland	74	Ireland	23	Belgium	3	Poland	8	Austria	238	Netherland	5
Hungary	130	Norway	73	Romania	14	France	3	Hungary	5	Netherland	202	Ireland	4
Czech Rep	46	Austria	64	France	8	Poland	2	Lithuania	3	Portugal	164	Slovenia	2

Source: Company data, Deutsche Bank

The stress test includes a sovereign shock scenario, requiring the institutions to apply an average haircut of 8.5% of banking book sovereign exposures. Compared to some other European countries German banks have the benefit that the haircut to be applied to sovereign exposure where they are domiciled is among the lowest (only exposure to Slovenia has a lower haircut prescribed) and that – on average – they hold 90% of the sovereign exposure in the banking book which is ignored in this exercise. We have simulated the effects of sovereign haircuts to banking book positions in Figure 16.

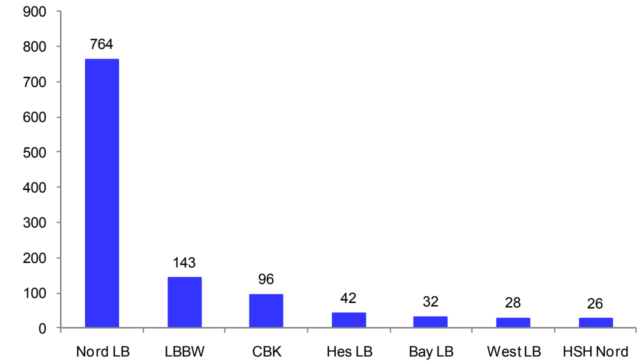
We benchmark the sovereign exposure of German institutions that disclosed the data below; we have split them in German sovereign exposure and non-German sovereign exposure. Our benchmark is Tier 1 capital of the respective institution. With the exception of NordLB and possibly LBBW the exposures don't look out of proportion (although we also do not consider Commerzbank's exposure to non-German sovereigns as low with 96% of Tier 1 capital).

Figure 17: German sovereign exposure in relation to Tier 1 capital (%)



Source: Company data, Deutsche Bank

Figure 18: Non-German sovereign exposure in relation to Tier 1 capital (%)



Source: Company data, Deutsche Bank

The overall risk of a sovereign shock to banking book positions is some EUR10bn for the banks that disclose their exposures, with the exception of NordLB (we are not fully sure how to read their exposures) the sovereign risk seems controllable (using the stress tests haircuts and ignoring German exposure).

Figure 19: Haircuts for selected banks

	Commerzbank	LBBW	BayernLB	Helaba	HSH Nord	NordLB	WestLB
Haircut (EUR m)	3,095	2,054	522	263	190	4,569	152
Haircut (%)	10.9	10.3	11.1	11.6	9.7	8.6	10.3
Haircut (% of T1)	10.5	14.8	3.5	4.9	2.5	65.9	2.9

Source: Deutsche Bank

For more details on potential recapitalization requirements for German banks see also our report *German banks, Stress tested again*, published 22 July 2010.

Capital requirements for the German banks following the results

The aggregate capital shortfall, which is also the shortfall for Hypo Real Estate, is EUR1.25bn. However, Hypo Real Estate points out that the stress tests do not consider the spin-off of Euro 210bn non-core assets in 2H2010 that materially reduce the group's risk weighted assets. Also, Hypo Real Estate Group had already applied for a total capital injection by Soffin of Euro 10bn, of which Euro 2.9bn have been received so far. The remainder covers the capital shortfall. Soffin total funds for bank recapitalizations amounts to EUR80bn, of which EUR29bn have been used until 30 June 2010. The European Commission has recently authorized the extension of Soffin-related support measures until 31 Dec 2010.

We calculate that for Germany, in aggregate, using an 8% Tier 1 ratio target would have led to an aggregate capital shortfall of Euro 6.9bn (as compared with the shortfall of Euro 1.3bn under the 6% threshold). We believe that there is a moderate risk for the German banking system as a whole, in that banks below 6% may be forced by the market to recapitalise to 8% to create a cushion, and that "near-misses" between 6% and 8% could also come under pressure to raise capital. In Germany, a total of 4 institutions (in addition to Hypo Real Estate) disclosed an adverse-plus-sovereign-shock scenario Tier 1 ratio below 8% (NordLB, Deutsche Postbank, Helaba and WestLB).

Generally, we believe that an exclusive focus on regulatory capital requirement has some shortcomings. For example, Tier 1 ratios exclude effects of changes in the valuation of available-for-sale securities. Also, as seen above, tradable positions booked in the banking book are generally ignored when computing regulatory capital ratios. From a markets perspective, we believe tangible equity ratios are a reasonable addition for regulatory capital ratios to judge the appropriateness of a bank's capital position. We have briefly discussed potential capital requirements, including mark-to-market effects of bond-type instruments held in Loans and Receivables positions and available-for sale financial instruments in the aforementioned report *German banks, Stress tested again*, published 22 July 2010.

Company comments

Commerzbank passes the test with a Tier 1 ratio of 9.1% under the most severe scenario. The overall Tier 1 reduction compared to the benchmark scenario is 1.4ppt which is both a result of deterioration of capital as well as rising risk positions. The scenario's 2-year pre-provision profits of EUR7.0bn compare to our present EUR8.2bn forecast, a plausible 15% gap. As Commerzbank has booked 98% of sovereign exposures in its banking book, the sovereign shock effects would be negligible.

Figure 20: Commerbank sovereign exposures

EUR bn	Gross exposures	o/w Banking book	o/w Trading book	Net exposures
Germany	42.8	38.6	4.2	42.8
Italy	10.0	9.8	0.2	10.0
Poland	4.0	4.0	0.0	4.0
Spain	3.6	3.6	0.0	3.6
Greece	2.9	2.9	0.0	2.9
United Kingdom	2.4	2.3	0.1	2.4
France	1.3	0.6	0.7	1.3
Hungary	1.2	1.1	0.1	1.2
Portugal	1.1	1.1	0.0	1.1
Belgium	0.8	0.5	0.3	0.8
Austria	0.7	0.5	0.2	0.7
Netherlands	0.5	0.1	0.4	0.5
Slovakia	0.5	0.5	0.0	0.5
Czech Republic	0.4	0.4	0.0	0.4
Other	1.1	1.0	0.1	1.1
Total	73.3	67.0	6.3	73.3

Source: Company data, Deutsche Bank

Commerzbank's biggest challenge does not appear to be surviving another recession but to replace EUR16.4bn of Soffin-injected capital.

CEBS stress tests results for German banks

Finally, below we show the CEBS stress test data for the German companies that participated in the stress testing exercise.

Figure 21: Stress test results, German banks

			DBK	CBK	DPB	LBBW	Bay LB	West LB	Nord LB	HSH Nord	Hes LB	LBBH	Hypo Real	DZ Bank	WGZ Bank	Deka Bank	GER 14
Actual results																	
Tier 1 capital	EUR m	2009	34,406	29,521	4,906	13,914	14,788	5,148	6,931	7,491	5,416	5,642	7,613	9,408	1,833	2,821	149,838
Risk weighted assets	EUR m	2009	273,477	280,133	68,701	142,525	135,787	35,651	92,576	71,391	61,272	42,363	80,966	95,024	18,981	28,815	1,427,662
Pre-provision profit	EUR m	2009	9,400	1,944	258	783	1,804	197	1,187	2,046	1,041	525	-122	1,606	494	898	22,061
Impairments banking book	EUR m	2009	-3,071	-4,927	-712	-770	-4,173	-141	-1,098	-2,794	-526	-204	-2,080	-707	-132	-378	-21,713
1Y loss rate corporate exposure	%	2009	1.9	1.0	0.6	0.8	1.1	1.1	1.8	2.5	0.4	0.4	0.5	0.7	0.9	0.2	1.0
1Y loss rate retail exposure	%	2009	0.8	0.3	0.4	0.1	0.3		0.5		0.1	0.6		0.5	0.1	0.0	0.3
Tier 1 ratio	%	2009	12.6	10.5	7.1	9.8	10.9	14.4	7.5	10.5	8.8	13.3	9.4	9.9	9.7	9.8	10.5
Benchmark scenario																	
Tier 1 capital	EUR m	2011	41,527	30,282	5,177	14,283	13,734	5,033	7,342	6,969	5,604	5,309	6,211	10,052	2,042	3,250	156,815
Risk weighted assets	EUR m	2011	315,057	288,356	65,544	146,165	115,175	40,615	91,373	46,901	62,988	41,406	80,096	97,027	18,969	29,407	1,439,079
Tier 1 ratio	%	2011	13.2	10.5	7.9	9.8	11.9	12.4	8.0	14.9	8.9	12.8	7.8	10.4	10.8	11.1	10.9
Adverse scenario																	
Tier 1 capital	EUR m	2011	38,987	28,304	4,180	13,912	11,985	4,639	6,866	5,992	5,647	5,309	4,898	9,986	2,024	3,147	145,876
Risk weighted assets	EUR m	2011	378,924	302,990	62,040	164,988	131,699	52,414	108,095	60,585	71,602	47,095	93,283	108,135	21,421	33,291	1,636,562
Pre-provision profit	EUR m	2011	21,775	7,009	1,023	796	1,708	559	1,966	1,795	1,580	1,210	-384	2,363	1,023	1,215	43,638
Impairments banking book	EUR m	2011	-10,713	-7,128	-1,737	-1,119	-2,570	-482	-2,516	-3,114	-1,020	-576	-3,217	-1,798	-221	-496	-36,707
Impairments trading book	EUR m	2011	-2,788	-1,201	-35	-460	-32	-125	-28	218	-394	1	-23	-444	-471	-39	-5,821
2Y loss rate corporate exposure	%	2011	1.3	1.6	2.0	0.9	2.2	2.4	2.0	2.1	0.9	0.9	1.6	1.0	0.9	0.5	1.5
2Y loss rate retail exposure	%	2011	1.9	0.9	1.1	1.0	1.7		0.5		0.3	1.5			0.0		1.0
Tier 1 ratio	%	2011	10.3	9.3	6.7	8.4	9.1	8.9	6.4	9.9	7.9	11.3	5.3	9.2	9.5	9.5	8.9
Additional sovereign shock																	
Additional impairments banking book	EUR m	2011	-411	-341	-120	-186	-238	-17	-106	-80	-86	-59	-184	-138	-32	-43	-2,041
Additional impairments trading book	EUR m	2011	-2,812	-340	-57	-579	-231	-1,005	-103	-56	-378	-14	-362	-416	-63	-414	-6,830
2Y loss rate corporate exposure	%	2011	1.7	1.7	2.1	0.9	2.4	2.4	2.1	2.2	1.0	1.0	1.6	1.1	1.0	0.6	1.6
2Y loss rate retail exposure	%	2011	2.1	1.0	1.2	1.0	1.7		0.6		0.4	1.6			0.1		1.1
Tier 1 ratio	%	2011	9.7	9.1	6.6	8.1	8.8	7.1	6.2	9.7	7.3	11.2	4.7	8.7	9.1	8.4	8.5

Source: BaFin, Deutsche Bundesbank, company data, Deutsche Bank

UK Banks

Key points

- Four UK banks were stress tested – Barclays, HSBC, Lloyds Banking Group and RBS – and all passed. However, with the five listed UK banks having increased tier 1 capital from £155bn in 2006 to £257bn in 2009, and tier 1 ratios from 8.4% to 11.7%, this outcome is unsurprising, in our view.
- Barclays, HSBC and StanChart were consistently profitable through the credit crisis. LBG returned to profit in 1H10 on an underlying basis, we believe. Although we expect RBS to post an operating loss in 2010, the successful conclusion of the sale of Merchant Services and the balance of RBS Sempra could see the group return to a profit on a stated basis this year. Both LBG and RBS were subject to rigorous stress testing around the potential use of the Asset Protection Scheme in 2009. We do not believe that capital adequacy under the current regulatory framework is a significant equity market fear for the UK banks.
- In the event, at 9.2% LBG posts the lowest of the UK bank tier 1 ratios under the CEBS adverse economic and sovereign shock scenario. This compares with 10.8% under the benchmark outlook (a fairly modest downside risk, in our view). Barclay's fares best with a downside tier 1 ratio of 13.7%.
- Although the disclosure around sovereign exposures ought to reassure (higher risk exposures are less than 1% of tier 1 at LBG, up to a maximum of 19% at RBS), the balance of the disclosed data is fairly unhelpful: the CEBS framework assumes none of the significant deleveraging planned by HSBC, LBG and RBS, in earnings or capital ratios. Forward capital ratios also exclude regulatory change under Basel 2.5 and 3.0.
- LBG remains our top pick of the UK banks, with commanding market shares in the attractive UK retail banking market (See our UK Retail banking note of 13 July 2010), trading at 1.1x tangible book, 5.3x normalised earnings, and a 16% forecast normalised ROTE.

The UK banks pass the stress tests

Four UK banks were stress tested – Barclays, HSBC, Lloyds Banking Group, and RBS – and all passed. However, with the five listed UK banks increasing their tier 1 capital from £155bn in 2006 to £257bn in 2009, and subject to regular local stress tests, this outcome is not surprising, in our view (Figure 22).

Figure 22: UK bank core and tier 1 capital ratios pre- and post-crisis

	Core tier 1 capital			Tier 1 capital			Core tier 1 ratio			Tier 1 ratio			Risk-weighted assets		
	2006	2009	2011	2006	2009	2011	2006	2009	2011	2006	2009	2011	2006	2009	2011
Barclays	16,776	38,437	45,825	23,005	49,637	57,496	5.6%	10.0%	8.9%	7.7%	13.0%	11.2%	297,828	382,653	514,417
LBG	26,664	39,935	46,952	35,257	47,530	54,547	6.2%	8.1%	9.9%	8.2%	9.6%	11.5%	432,012	493,307	472,804
HSBC	46,380	69,908	85,279	57,791	80,366	96,160	7.5%	9.4%	11.4%	9.4%	10.8%	12.8%	617,551	745,505	749,380
RBS	20,281	48,151	50,240	30,041	62,898	63,519	5.1%	11.0%	9.8%	7.5%	14.4%	12.4%	400,257	438,200	513,109
StanChart	6,955	12,567	17,064	8,443	16,172	20,669	6.9%	8.9%	9.7%	8.4%	11.5%	11.8%	100,949	140,739	175,867
Total/Ave	**117,055**	**208,998**	**245,360**	**154,537**	**256,604**	**292,392**	**6.3%**	**9.5%**	**10.1%**	**8.4%**	**11.7%**	**12.1%**	**1,848,598**	**2,200,404**	**2,425,577**

Source: Deutsche Bank estimates, Company data

As Figure 22 shows, listed tier 1 capital increased by 66% between 2006 and the end of last year, with the largest increases in evidence at Barclays and RBS which bolstered regulatory capital by 116% and 109% respectively. Under the scenarios required by CEBS for the stress tests, the UK banks fared well, with LBG showing the lowest – but still strong – tier 1 ratio of 9.2% assuming an adverse economic environment and sovereign securities price shock (Figure 23).

Figure 23: Tier 1 ratios: Historical, forecast, and under CEBS scenarios

	2009	2011 Benchmark	2011 DB est	2011 Adverse	2011 Adverse with Sov shock
Barclays	13.0%	15.8%	11.2%	13.9%	13.7%
HSBC	10.8%	11.7%	12.8%	10.4%	10.2%
LBG	9.6%	10.8%	11.5%	9.4%	9.2%
RBS	14.4%	14.1%	12.4%	11.7%	11.2%

Source: Deutsche Bank estimates, Company data, CEBS

It is understandable that the regulator assumed a static balance sheet and regulatory framework in conducting these tests, as another layer of assumptions may have hurt the credibility of the process (though we note, for example, that AIB's forward capital ratios assume the completion of its disposals). However, the fact that none of the extensive delevering planned by HSBC, LBG and RBS, nor the regulatory change planned around market risk under Basel 2.5, enters the calculations reduces the utility of the absolute tier 1 ratios published in backing out assumed retained profit etc.

The return to profit of all players had bolstered confidence

We do not believe that the capital adequacy of the UK banks was seriously questioned by the equity market, at least under the current Basel 2 regulatory framework. Barclays, HSBC and StanChart were consistently profitable through the credit crisis. LBG has returned to profit on a continuing business basis in 1H10 according to the company. Though we expect RBS to post an underlying operating loss for the year, the successful conclusion of the sale of Global Merchant Services and what remains of the RBS Sempra joint venture operations could see the business profitable in 2010 on a stated basis (Figure 24).

Figure 24: RBS EU-required disposal businesses

	Williams and Glyn's (Retail and Commercial)		RBS Insurance		Global Merchant Services		RBS Sempra Commodities		Total	
	FY08	**FY09**	**FY08**	**FY09**	**FY08**	**FY09**	**FY08**	**FY09**	**FY08**	**FY09**
Income (£'m)	1,082	946	4,430	4,460	535	527	765	746	6,812	6,679
Costs (£'m)	-515	-478	-3,804	-4,394	-254	-261	-553	-694	-5,126	-5,827
Pre-provision profit (£'m)	567	468	626	66	281	266	212	52	1,686	852
Impairments (£'m)	-914	-614	-42	-8	-14	-17	-3	0	-973	-639
Pre-tax profit (£'m)	-347	-146	584	58	267	249	209	52	713	213
Tax (28%)	97	41	-164	-16	-75	-70	-59	-15	-200	-60
Post tax profit (£'m)	**-250**	**-105**	**420**	**42**	**192**	**179**	**150**	**37**	**513**	**153**
Loans (£'m)	24,200	23,500	n/m	n/m	0	0	0	0	24,200	23,500
Deposits (£'m)	19,000	22,500	n/m	n/m	0	0	0	0	19,000	22,500
Risk-weighted assets (£'m)	14,500	18,200	n/m	n/m	1,500	1,600	10,700	10,200	26,700	30,000
Total assets (£'m)	24,200	23,500	10,800	11,800	1,500	1,600	17,800	14,200	54,300	51,100
Book value	n/d	1,000	n/d	4,100	n/d	200	n/d	1,000	n/d	6,300
Tangible book value	n/d	1,000	n/d	3,000	n/d	200	n/d	1,000	n/d	5,200
Estimated Capital	1,200	1,500	3,600	4,100	100	100	1,000	1,000	5,900	6,700
Normalised post tax profit (£'m)		**220**		**540**		**200**		**225**		**1,185**
Fair P/E multiple (DB e)		**8**		**9**		**12**		**8**		**9**
Estimated proceeds (£'m)		**1,760**		**4,860**		**2,400**		**1,845**		**10,865**

Source: Deutsche Bank estimates

What have we learned?

Given the concerns outlined above regarding the severity of the stress test process, and our view that the equity market was not unduly concerned about the capital adequacy of HSBC and its UK peers, it is right to ask what we have learned. We group our findings under two headings.

Sovereign exposures

It is helpful to see bank sovereign exposures on a country by country basis, split into banking and trading books, and including loan exposures as well as traded securities. Though the CEBS approach excluded a default of counterparties, the equity market is now well equipped to perform its own stress tests around this particular risk. This is a significant step forward we believe from the limited Bank for International Settlements data on which much market work relied. We think the UK banks come out well on this front, with total exposure to markets considered higher risk of below 20% of 2009 tier 1 capital, and with LBG carrying balances of less than 1% of tier 1 capital (Figure 25).

Figure 25: Greater clarity on sovereign exposures allows the market to make up its mind

	Banking book				Trading book				Total gross exposure			
GBPm and USDm for HSBC	**Barclays**	**HSBC**	**LBG**	**RBS**	**Barclays**	**HSBC**	**LBG**	**RBS**	**Barclays**	**HSBC**	**LBG**	**RBS**
Greece	89	241	0	1,284	299	1,032	0	726	388	1,273	0	2,010
Portugal	838	311	143	558	187	149	0	102	1,025	459	143	660
Spain	4,466	1	0	179	-90	66	0	642	4,376	66	0	821
Italy	103	266	94	924	684	3,844	0	2,995	787	4,110	94	3,919
Ireland	140	0	0	3,322	6	537	0	958	146	537	0	4,280
Sub-total	**5,636**	**818**	**237**	**6,267**	**1,086**	**5,628**	**0**	**5,423**	**6,722**	**6,445**	**237**	**11,690**
Other sovereign	29,427	27,378	7,723	61,213	6,276	19,180	318	18,104	35,703	46,558	8,041	79,317
Total sovereign	**35,063**	**28,195**	**7,960**	**67,480**	**7,362**	**24,808**	**318**	**23,527**	**42,425**	**53,003**	**8,278**	**91,007**
Tier 1 capital (2009a)	**49,637**	**80,366**	**47,530**	**62,898**	**49,637**	**80,366**	**47,530**	**62,898**	**49,637**	**80,366**	**47,530**	**62,898**
Sub-total/Tier 1 capital (2009a) (%)	**11%**	**1%**	**0%**	**10%**	**2%**	**7%**	**0%**	**9%**	**14%**	**8%**	**0%**	**19%**

Source: Company data (GBP)

Pre-provision profit, loan losses

In order to calculate 2011 tier 1 ratios, CEBS must make assumptions around the pre-provision profit which will be generated over the two year period which is available to absorb loan losses and securities hits. The assumed PPP is disclosed and can be compared with our forecasts as in Figure 26 below.

Figure 26: Comparison of pre-provision profit in stress versus DB estimates

GBPm and USDm for HSBC	Barclays	HSBC	LBG	RBS
2010-2011 cum. pre-impairment income	31,533	61,442	24,444	24,219
2010 DB estimate pre-impairment income	13,606	34,891	11,332	10,542
2011 DB estimate pre-impairment income	14,890	35,647	13,544	11,062
2010-2011 DB cum. PPP	28,497	70,538	24,876	21,604
Difference (+ve = CEBS is higher)	**3,036**	**-9,096**	**-432**	**2,615**

Source: Deutsche Bank estimates, CEBS

But given that CEBS assumes a constant balance sheet the figures provided are not especially helpful, we believe: note that HSBC has 20% of group RWAs in run-off (HSBC Finance in North America plus some GBM assets), LBG has £170bn in run-off loans and £70bn in run-off treasury assets, RBS has £141bn in non-core loans.

We might similarly expect to gain some comfort from the regulator's view of what stressed loan losses might look like. As Figure 27 shows, the CEBS stress test inputs lead to the determination that corporate loan losses under the stress scenario for Barclays, LBG and RBS would still see lower loss rates than seen in 2009 (HSBC's were higher) and with the reverse true in retail, with all banks other than HSBC seeing higher retail charges under the envisaged scenario.

Figure 27: In the main, a further stress sees higher charges in retail, lower in corporate

	CEBS Adverse				CEBS Adverse plus Sov Shock			
	Barclays	**HSBC**	**LBG**	**RBS**	**Barclays**	**HSBC**	**LBG**	**RBS**
Memo: 2 year corporate loss rate %	2.98%	3.00%	3.03%	3.02%	3.07%	3.06%	3.56%	3.16%
Memo: 2 year retail loss rate in %	4.15%	5.24%	2.68%	4.61%	4.38%	5.30%	2.70%	4.79%
2 year corporate loss - Gap versus 09	**-0.22%**	**+2.32%**	**-7.65%**	**-1.30%**	**-0.13%**	**+2.38%**	**-7.12%**	**-1.16%**
2 year retail loss - Gap versus 09	**+0.47%**	**-2.82%**	**+0.36%**	**+1.35%**	**+0.70%**	**-2.76%**	**+0.38%**	**+1.53%**

Source: CEBS

With the more troubled domestic banks reporting much higher absolute-£ loan losses in corporate than in retail, this result provides some comfort, and confirms one of the more attractive realities of banks in a cyclical downturn: the more that banks write off, the more insulated they are from further weakness. With LBG, for example, having reserved 16% of its real estate portfolio by end 2009, the room for further charges falls relative to 2009 unless economic conditions are significantly worse than that year, given the improvement in the quality of the remaining loan book.

LBG remains our top UK pick

Lloyds Banking Group remains our top pick in the sector, with commanding market shares in the attractive UK retail banking market[1], trading at 1.1x tangible book, 5.3x normalised earnings, and with a 16% forecast normalised ROTE. Our target price is 90p for upside of 45%.

We remain positive over the next year on Barclays (Buy, TP400p) which we see as inexpensive at 0.9x 2009 tangible book value and 5.3x normalised earnings. Nearer term, however, we see uncertainty regarding the bank's ability to flex BarCap costs in line with a likely slower 2Q10 operating environment against the ongoing build-out of cash equities, M&A and prime services in Europe and Asia.

The key risk to the UK banks is the large funding requirement for 2011 in particular, which presently includes a need to refinance £120bn in Bank of England Special Liquidity Scheme funding.

[1] See our detailed review of the UK retail banking market, dated 13 July 2001, which analyses the profitability of the four major banking products, and retail operations of the 11 most significant players, plus 3 start-up operations.

Irish Banks

Key points

- Allied Irish Banks (AIB) and Bank of Ireland (BKIR) were both deemed by CEBS and the Irish regulator to have passed the stress test, with **Tier 1 ratios of 6.5% (AIB) and 7.1% (BKIR)** after the adverse and sovereign shock scenario. This sees AIB and BKIR having projected capital buffers over a 6% tier 1 requirement of E352m and E933m in the adverse scenario with sovereign shock.
- These results take into account capital which the banks were required to raise by the end of the year under the Irish regulator's Prudential Capital Assessment Review (PCAR) conducted in March 2010. Bank of Ireland has raised E2.94bn (in excess of its requirement) since the review, whilst AIB has yet to raise the E7.386bn it has been required to accumulate.
- The Irish Regulator disclosed that it applied **higher loan loss rates than were required by CEBS.** These tougher assumptions were those which were provided to CEBS for publication. Had the standard CEBS assumptions been applied to AIB and BKIR then the tier 1 capital ratios under the adverse and shock scenario would have increased to 7.4% and 7.8%, and capital buffers would have risen to E986m and E1527m, respectively.
- The stress test appears to be, in our view, **a fair simulation of a stressed environment**, which seems to have been applied consistently. We do not think the stress test used mild assumptions: under the stress scenario both banks have been put through the near equivalent of a 2009 loan-loss experience for another two years, despite the transfer of much of each bank's property and development exposure to the National Asset Management Agency – NAMA.
- **We apply a further stress-test** to sovereign exposures in the banking book, applying the haircut used on trading exposures. Under this test, AIB would fall below the 6% target (5.3%), but BKIR would pass comfortably with 7% tier 1 ratio.
- Finally, we compare the stress test results to the targets set by the Irish Central Bank and Regulator, estimating that **both banks manage to keep core tier 1 capital above 4% target set under the PCAR** under a stressed scenario in 2011, though likely to fail to reach the target of an 8% CT1 ratio on a 2012 base case scenario.
- While both BKIR and ALBK look attractive at Price to Tangible Book, we find the quantum and timing of normalised earnings sufficiently uncertain to justify Hold ratings on both shares.

The stress test for Irish banks

How the tests were conducted

The Irish Central Bank and National Regulator conducted the CEBS stress tests on AIB and BKIR, including the capital raised by Bank of Ireland and required to be raised by AIB, as disclosed under its own stress tests (the Prudential Capital Assessment Review, PCAR) in March 2010 (Figure 28).

Figure 28: Capital assumptions used by Financial Regulator

EUR bn	Bank of Ireland	Allied Irish Banks
PCAR required raise by Dec 2010	2.66	7.396
Raised so far	2.94	Zero, but plan submitted
Additional capital (over Dec 09) used by the stress test	**2.94**	**7.386**

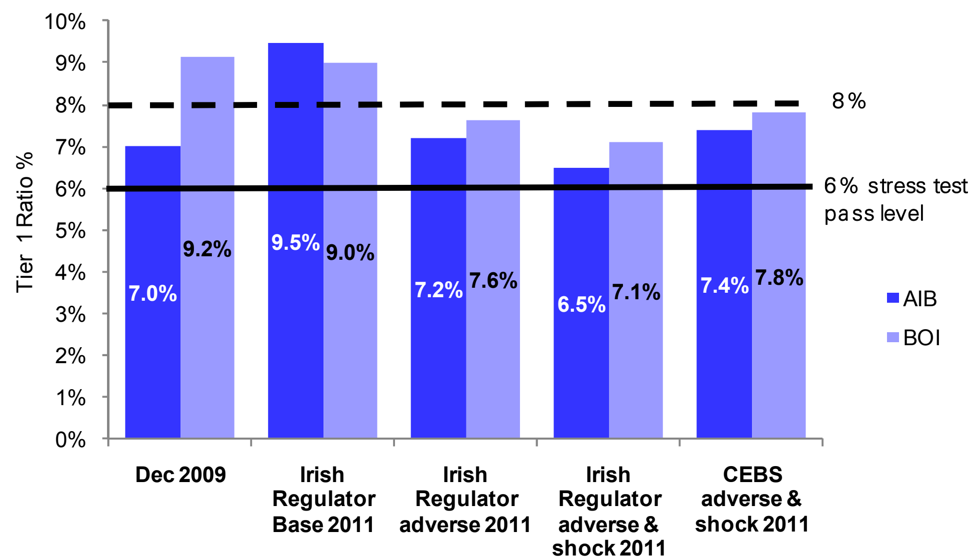
Source: Irish Central Bank and Financial Regulator

Since March, Bank of Ireland has raised capital in excess of this requirement, and this has been incorporated into the stress test. AIB has not raised capital yet though it has submitted plans to the regulator for asset disposals followed by an equity raise. AIB has been given credit for a successful execution of these plans in the stress tests.

Tougher than the standard CEBS stress test

The Irish Regulator has disclosed that it applied **higher loan loss rates than were required by CEBS** on all NAMA loans and non-NAMA investment and development property loans. These tougher assumptions and results were provided to CEBS for publication. Had just the standard CEBS stress test assumptions been applied to AIB and BKIR then the tier 1 capital ratios under the adverse and shock scenario would have increased to 7.4%and 7.8% respectively as can be seen in Figure 29.

Figure 29: Tier 1 ratio across the different scenarios



Source: CEBS, Financial regulator data.

Performance under the scenarios

The results of the stress tests (both the Irish Regulator adjusted and CEBS methods) are detailed in Figure 30 below.

Figure 30: The stress test results

EUR million		AIB	BKIR
At 31st December 2009 *	Tier 1 capital	8,542	9,575
	RWAs	121,605	104,639
	Tier 1 ratio	**7.0%**	**9.2%**
	Capital surplus over 6%	**1,246**	**3,297**
Irish Regulator 2011 benchmark	Tier 1 capital	6,838	7,660
	RWAs	72,313	85,292
	Tier 1 ratio	**9.5%**	**9.0%**
	Capital surplus over 6%	**2,499**	**2,542**
Irish Regulator adverse scenario	Tier 1 capital	5,305	6,595
	RWAs	73,771	86,282
	Tier 1 ratio %	**7.2%**	**7.6%**
	Capital surplus over 6%	**879**	**1,418**
Irish Regulator adverse + shock scenario	**Tier 1 ratio**	**6.5%**	**7.1%**
	Implied Tier 1 capital	4,576	6,022
	Implied RWAs	70,400	84,818
	Capital surplus over 6%	**352**	**933**
	Additional required for 8%	**1,056**	**763**
CEBS adverse + shock scenario	**Tier 1 ratio**	**7.4%**	**7.8%**
	Implied Tier 1 capital	5,210	6,616
	Capital surplus over 6%	**986**	**1,527**
	Additional required for 8%	**422**	**170**

*Source: Deutsche Bank estimates, CEBS, Irish Regulator. *December 2009 data differs to that previously published by BKIR and AIB due to additional supervisory adjustments. This has lowered Tier 1 to 7.0% from 7.3% for AIB, and lowered Tier to 9.2% from 9.8% for BKIR.*

The balance sheets of AIB and BKIR are markedly different between 2009 and 2011 as a result of the capital raising and disposals which are planned or have taken place, as well as the transfer of loans to NAMA (E12.2bn for BKIR and E23bn for AIB). The effect of this reduces AIB's RWAs by E50bn, raising its tier 1 ratio to 9.5%. Under the harshest stress test ('Irish Regulator adverse + shock scenario'), both banks still have above the 6% required level, though they would require additional capital if a higher 8% minimum was desired (E1,056m for AIB and E763m for BKIR).

For comparison with the results reported by the other European banks, note that the application of the CEBS inputs rather than the more conservative Irish regulator inputs would see AIB and BKIR report tier 1 ratios 90bps and 70bps higher for AIB and BKIR respectively.

How stressed was the stress test?

We know that the Irish regulator applied tougher assumptions than CEBS did across Europe, but in order to judge the severity of the stress test we compare the assumed impairments with those reported in 2006-2009 (Figure 31).

Figure 31: Irish Banks impairments analysis

		BKIR	AIB
Reported	2006	-103	-118
	2007	-232	-99
	2008	-1,513	-1,822
	2009	-4,055	-5,355
DB estimates	**2010e**	-3,218	-3,382
	2011e	-1,145	-2,932
	2010e -2011e cum.	-4,363	-6,315
Stress test 'Adverse'	2010-2011 cumulative banking book	-6,807	-9,829
	2010-2011 cumulative trading book	-5	-20
	2010-2011 cumulative total	-6,812	-9,849
	Implied annual impairments	**-3,406**	**-4,925**
	As % of peak imp. year 2006-9	**84%**	**92%**
	As % of DB estimates	**156%**	**156%**
Stress test 'Adverse + shock'	2010-2011 additional shock banking book	-586	-606
	2010-2011 additional shock trading book	-5	-36
	2010-2011 cumulative shock + adverse	-7,403	-10,491
	Implied annual impairments	**-3,702**	**-5,246**
	As % of peak imp. year 2006-9	**91%**	**98%**
	As % of DB estimates	**170%**	**166%**

Source: Deutsche Bank estimates, CEBS, Financial Regulator

Under the adverse scenario the stress test implies impairment losses which are just below those experienced in 2009. As a % of our estimates for 2010-2011, these are more than 50% higher. Adding in the sovereign risk scenario makes impairment losses almost equal to those in 2009, and pushes impairments as a percentage of our estimates to 170% for BKIR and 166% for AIB. We similarly compare the loan loss rates applied with history in Figure 32.

Figure 32: Corporate and retail loss rates compared to 2009

	Type	AIB	BKIR
2009 actual	1 year corporate loss rate %	4.60%	3.10%
	1 year retail loss rate in %	0.70%	0.90%
	Implied 2 year corporate loss rate %	**9.20%**	**6.20%**
	Implied 2 year retail loss rate %	**1.40%**	**1.80%**
Adverse	2 year corporate loss rate %	6.11%	4.23%
	2 year retail loss rate in %	4.31%	3.26%
	2 year corporate loss - Gap versus 09	**-3.09%**	**-1.97%**
	2 year retail loss - Gap versus 09	**+2.91%**	**+1.46%**
Adverse + shock	Memo: 2 year corporate loss rate %	6.38%	4.47%
	Memo: 2 year retail loss rate in %	4.94%	3.78%
	2 year corporate loss - Gap versus 09	**-2.82%**	**-1.73%**
	2 year retail loss - Gap versus 09	**+3.54%**	**+1.98%**

Source: CEBS, Deutsche Bank estimates

As can be seen above, in a result similar to that seen for the UK banks, the assumed loss rates under the stress test are higher than the recent charges in retail, but lower for corporate. Aggregate losses are similar to the 2009 result, with the lower corporate charge explicable given the high level of cumulative impairments already taken and the pending transfer of loans to NAMA, in our view.

The stress test appears to be, in our view, **a fair simulation of a stressed environment**, given the application of the near equivalent of a 2009 loan-loss experience for two further years (despite no longer having the NAMA portfolio). On this basis, both report tier 1 ratios above 6% (though, as discussed below, in AIB's case this assumes the successful execution of significant disposals and capital raises).

Stress testing the banking book

Some in the market have suggested that the sovereign haircuts applied by CEBS to the trading portfolio ought to also be applied to the banking book. AIB and BKIR have disclosed their group exposures to central and local governments on a consolidated basis, as we show in Figure 33 below. Euro-sovereign exposures do not appear to have changed markedly from Dec 2009: AIB held E9.6bn of Government securities in its AFS portfolio whilst BKIR held E1.6bn.

Figure 33: Applying trading book haircuts to banking book sovereign exposures

EUR, millions	Exposure		Assumptions		Loss on capital	
As at 31 March 2010	**AIB**	**BOI**	**Haircut**	**Tax**	**AIB**	**BKIR**
France	845	21	6%	18%	42	1
Germany	525	0	5%	18%	20	0
Greece	41	0	23%	18%	8	0
Hungary	71	0	12%	18%	7	0
Ireland	4,136	1,186	13%	18%	434	124
Italy	671	0	7%	18%	41	0
Poland	1,050	0	12%	18%	106	0
Portugal	257	0	14%	18%	30	0
Spain	391	0	12%	18%	38	0
United Kingdom	1,088	0	10%	18%	91	0
Other	489	0	n/a	18%	23	0
Total	**9,564**	**1,207**			**839**	**126**

Original stress test result	Tier 1 ratio	6.5%	7.1%
	Capital surplus	352	933
	Implied RWAs	70,400	84,818
	Implied capital	**4,576**	**6,022**
Including banking book MTM shock	Less shock	3,737	5,897
	Tier 1 ratio	**5.3%**	**7.0%**
	Loss on core	**-1.19%**	**-0.15%**

Source: Deutsche Bank estimates, CEBS, company data

Applying the trading book haircuts and adjusting for tax would cost AIB and BKIR E839m and E126m, with the bulk of this cost predictably arising on Irish government exposure, which amounts to around half (E5.3bn) of the euro-sovereign debt of both banks. The impact on the tier 1 ratio is modest for BKIR at only 15bp, maintaining the Tier 1 ratio at 7% and well above the threshold. AIB would stand to lose 119bps, enough for the bank to miss the 6% target tier 1 ratio under the Irish regulator's stress test, though pass under the unadjusted CEBS test.

How the stress tests compare to the Irish Regulator's capital targets

The Irish Central Bank and Financial Regulator set a number of capital targets for Irish banks when deciding the capital requirements in the PCAR at the end of March 2010. These requirements were intended to take into account losses through to 2012 (note: CEBS is for 2011).

- **8% core tier 1 capital** and **7% equity core tier 1** under a base case scenario.
- **4% core tier 1 capital** under "a stress scenario or a portfolio level sensitivity analysis, which is similar to that employed by US and UK supervisory authorities".

Do the CEBS stress tests meet these targets?

The Central Bank and Financial Regulator thinks so, stating that the results "demonstrate that AIB and Bank of Ireland meet the stress requirements and do not require additional capital beyond the requirement set in March 2010 by the Central Bank and Financial Regulator following completion of the Prudential Capital Assessment Review (PCAR)".

In Figure 34 below we have calculated estimates of Core Tier 1 and Equity Core Tier 1, using the assumption that Tier 1 debt at December 2009 remains constant out to 2011. We test this against the CEBS base and adverse & shock scenarios for 2011.

Figure 34: Deducing Core Tier 1 and Equity Tier 1 ratios

EUR, millions	**AIB**	**BKIR**
Tier 1 debt at Dec 09	861	872
Base Scenario (target 8% CT1, 7% equity)		
CEBS 2011 Tier 1 capital	6,838	7,660
CEBS 2011 RWAs	72,313	85,292
CEBS 2011 Tier 1 ratio	9.46%	8.98%
Implied CT1 capital	**5,977**	**6,788**
Implied CT1 ratio	**8.27%**	**7.96%**
Required profit / (loss limit) in 2011	(192)	35
Max govt. preference shares for equity CT1 7%	**915**	**818**
CEBS adverse & shock scenario (CT1 target 4%)	**AIB**	**BKIR**
2011 implied adverse + shock stress test capital *	4,576	6,022
Implied RWAs *	70,400	84,818
Implied 2011 Core Tier 1 Capital	**3,715**	**5,150**
Implied 2011 Core Tier 1 Ratio	**5.3%**	**6.1%**

*Source: Deutsche Bank estimates; company data. * See Figure 30 above for how implied 2011 tier 1 capital and RWAs were calculated*

On this basis the adverse & shock scenario passes the 4% core tier 1 target comfortably, with AIB at 5.3% and BKIR at 6.1% core tier 1 ratios. The target on the base scenario is much closer, with 8.3% for AIB and 8.0% for BKIR – and we would note that the regulatory target is for 2012 not 2011. For the equity tier 1 ratio target of 7%, the maximum government preference shares held by the banks would have to be capped at E915m for AIB and E818m for BKIR (currently AIB holds E3.5bn and BKIR E1.7bn of government prefs).

Looking ahead

While both BKIR and ALBK look attractive to us on a P/TNAV basis, uncertainty around the timing and quantum of normalised earnings, especially relative to banks such as Lloyds Banking Group, justify our Hold recommendations in our view.

The situation at AIB is further complicated by the required disposal of 3 businesses (stakes in M&T Bank and Bank Zachodni WBK, and the AIB UK business), and the large residual required capital raise. Figure 35 shows the potential disposal values of these three businesses (at current prices). Together these could raise E2.3bn in capital, with the E9bn fall in RWAs contributing an effective E600m, requiring a net raise of E4.4bn (excluding the AIB UK run-off), compared with E2.9bn raised by BKIR since March.

Figure 35: AIB could raise capital via disposals

	Price (E's)	Market cap (E'm)	AIB stake	Market value of stake (E'm)	AIB book value (E'm)	Market value - book value (E'm)	Goodwill / Other adjustments in book value (E'm)	Addition to core tier 1 from sale at market	Risk-weighted asset allocation (E'm)	Addition to core tier 1 from sale
Bank Zachodni WBK	47.73	3,488	70.4%	2,455	1,400	1,055	0	1,055	9,000	1.35%
M&T Bank	69.87	8,305	22.8%	1,894	1,282	612	670	1,282	0	1.06%
Bulgarian American Credit Bank	5.26	66	49.9%	33	60	-27	0	-27	0	-0.02%
Total		**11,859**		**4,382**	**2,742**	**1,640**	**670**	**2,310**	**9,000**	**2.39%**

Source: Deutsche Bank. Priced at close 23rd July 2010.

French Banks

Key points

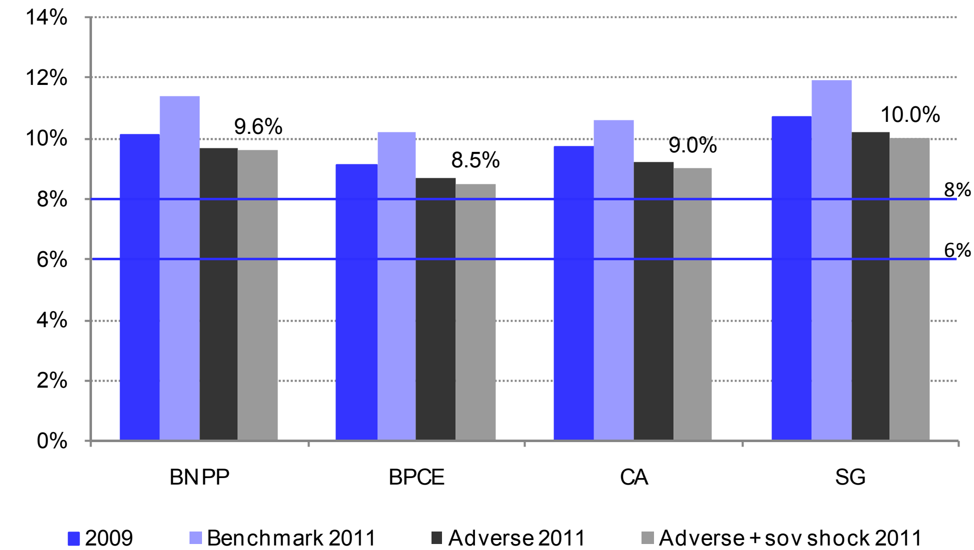
- Four banks took the stress test in France: BNP Paribas, Credit Agricole, Societe Generale and BPCE (BPCE is not a listed company and is not covered by DB). **All of them passed**.
- **No capital shortfall appeared** from the test in France and no reactivation of the existing SPPE is needed. On the contrary, the 4 French banks tested report an aggregated excess capital of Euro 69bn or 330bps of RWA above the 6% threshold.
- We believe that there is a risk in Europe that banks below 6% may be forced by the market to recapitalise to 8% to create a cushion, and that "near-misses" between 6% and 8% could also come under pressure to raise capital. The good news is there would have been **no capital shortfall in France in the event of a stricter 8% tier 1** ratio target as the weakest result in France came in at 8.5% from BPCE.
- The macro assumptions used in France for the adverse scenario are substantially weaker than DB forecast but not as tough as 2009. However the **loss rates, banking book impairments, trading losses and pre-provision profit estimates are** more **conservatives** than 2009 which gives a serious credibility to these assumptions.
- Even if no capital shortfall appeared, the SPPE (Société de Prise de Participation de l'Etat) was nevertheless available to recapitalize French banks if needed. The SPPE has been created by the French State in 2008. It can invest up to Euro 39bn in banks' capital. Its maximum investments reached Euro 15bn in September 09 and went down to a current residual investment of Euro 7bn in BPCE.
- Out of the 4 bank stress tested in France, we cover BNP Paribas, Credit Agricole and Societe Generale. All of them passed with respectively 9.6%, 9.0% and 10.0% tier 1 ratio in the adverse scenario with sovereign shock. Only Credit Agricole Group ended with a lower ratio than the European average of 9.2%. But no test covered market conditions to which French banks are very sensitive due to their investment banking activity. More specifically **Credit Agricole has been tested at the Group level only**, which should not ease market's concern regarding Credit Agricole SA's capital quality. However BNP Paribas and Societe Generale went through the exercise with above average capital buffers, which should reassure the market.
- All **French banks we cover pass the test if we apply a haircut on sovereign risk in banking** book in line with the haircut applied on trading book in the stress test.
- The stress test results in France reflect our recommendations: Societe Generale is our top pick (Buy, TP Euro 53), we have a Buy recommendation on BNP Paribas (TP Euro 63), and we have a Hold on Credit Agricole (TP Euro 13) confirmed by the stress test.

The stress test for French banks: the results

Results: positive surprise for French banks

The stress test results came with no big surprise for French banks: they all passed by large. In the adverse scenario with sovereign shock, BNPP, BPCE, CA and SG respectively obtain a tier 1 ratio of 9.6%, 9.0%, 8.5% and 10.0% (cf. Figure 36). This generates an excess capital of Euro 69bn over 6% for the 4 French banks tested, and still Euro 27bn over a higher 8% threshold (cf. Figure 37) in this adverse scenario with sovereign shock.

Figure 36: French banks' tier 1 ratio in the different stress test scenarios



Source: Deutsche Bank, CEBS, company data

The only real surprise is that French banks perform slightly better than peers in Europe in this adverse scenario with sovereign risk (9.3% versus 9.2%). We think it should reassure investors after months of concern on the relative capitalisation of French banks.

Figure 37: Result of stress test – tier1 and excess capital in adv scen + sov shock

Euro m	BNPP	CA	SG	BPCE	Total
RWA adverse scenario	690,042	600,210	359,757	460,848	2,110,857
Tier 1 ratio sov shock	**9.6%**	**9.0%**	**10.0%**	**8.5%**	**9.3%**
Implied T1 cap sov shock	66,244	54,019	35,976	39,172	195,411
Excess Tier 1 ratio above 6%	3.6%	3.0%	4.0%	2.5%	3.3%
Excess capital on 6% T1	**24,842**	**18,006**	**14,390**	**11,521**	**68,759**
Excess Tier 1 ratio above 8%	1.6%	1.0%	2.0%	0.5%	1.3%
Excess capital on 8% T1	11,041	6,002	7,195	2,304	26,542

Source: Deutsche Bank, CEBS

Sovereign debt: less exposure to Po/Ir/It/Gr/Sp than expected

All French banks have disclosed the detailed exposure to sovereign debt. This disclosure was an option. BNP Paribas' Euro 23bn of Italian sovereign bonds may come as a surprise to investors. However in Figure 38 we show that 1/ there is no large gap between the figures published by the companies and our estimates and that BNPP's exposure to Italy was expected, and 2/ **French banks are slightly less exposed to Greece, Ireland, Italy, Portugal and Spain than our estimates**.

Figure 38: French banks' exposure to sovereign bonds

Euro m	CEBS reported figures					DB estimates			Gap		
	BNPP	CA	SocGen	BPCE	Total	BNPP	CA	SocGen	BNPP	CA	SocGen
Greece	5,005	854	4,225	1,540	11,624	5,000	1,250	3,000	0	-396	1,225
Ireland	559	929	464	524	2,476	1,270	589	585	-711	340	-121
Italy	23,196	12,347	5,149	7,493	48,185	22,732	10,534	5,231	464	1,813	-82
Portugal	2,526	1,478	404	456	4,864	1,203	558	554	1,323	920	-150
Spain	3,021	2,286	901	384	6,592	7,889	3,656	3,631	-4,868	-1,370	-2,730
Total Gr/Ir/It/Po/Sp	**34,307**	**17,894**	**11,143**	**10,397**	**73,741**	**38,096**	**16,587**	**13,000**	**-3,794**	**1,307**	**-1,857**
as % of total	**36%**	**34%**	**26%**	**22%**	**31%**						
France	18,087	25,407	15,105	34,903	93,502						
Other	61,643	34,698	31,344	37,188	164,873						
Total	**95,950**	**52,592**	**42,487**	**47,585**	**238,614**						

Source: Deutsche Bank, company data, CEBS

Macro assumptions: harsh from current starting point but not a stress test

The macro-economic assumptions used for the adverse stress testing of France are summarised in Figure 39.

- The GDP assumptions used in the test are substantially more conservative than DB estimates and the unemployment rate is not far from the highest level ever reached in France;
- But the real estate price contraction, as well as the GDP assumptions are actually softer than the evolutions seen in 2009.

We conclude that the exercise realised in France at the macro level is a harsh scenario from the current starting point but not an absolute stress test compared to the tough economic conditions seen in 2009.

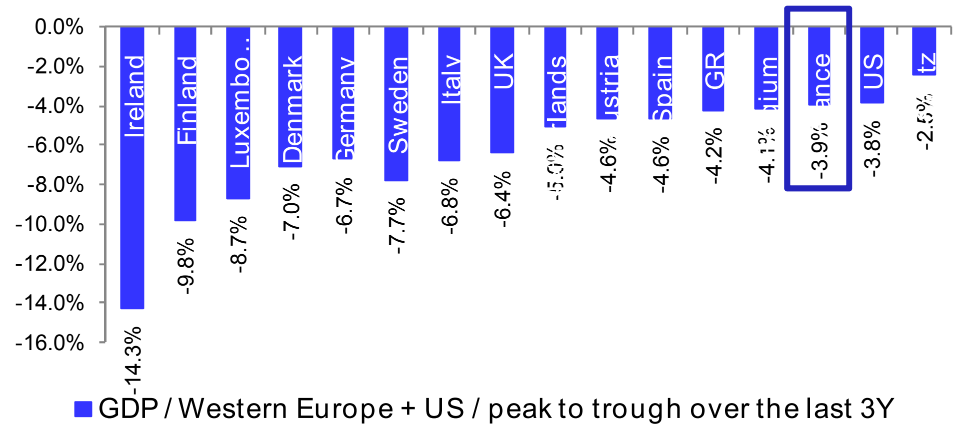
Figure 39: Adverse scenario vs. worst 20Y and DB forecast – Not a worst case scenario but tough conditions from current starting point

Adverse scenario	2010	2011	Worst last 20Y	DB 2010E	DB 2011E
GDP growth (%)	0.7	-0.1	-2.5	1.1	1.0
Unemployment (%)	10.2	10.5	10.9		
Commercial real estate prices (%)	-5	-5			
Residential real estate prices (%)	-5	-5	-9		

Source : Deutsche Bank, Banque de France, INSEE

One may also highlight that the adverse scenario is based on a contraction of the French GDP by only -0.1% in 2011 versus -0.6% for Europe on average. However, we think this approach is justified as the French economy is characterised by less volatility than its peers and less elasticity to the world economy due to a high level of public spending buffer.

Figure 40: French economy has a smaller elasticity to world economy



Source: Deutsche Bank, Datastream

Corporate and retail loss assumptions: credible, BNP Paribas less conservative

2009 was the toughest year faced by French banks in term of corporate and retail credit quality deterioration over the last 15 years. We show in Figure 431 that both **Credit Agricole and Societe Generale have used corporate and retail loss rates worse than 2009** in their adverse scenario with sovereign shock. This is reassuring and gives credibility to their assumptions. However, BNP Paribas is not so conservative on its corporate book and uses a loss rate of 1.64% for the next 2 years which is 40bps lower than 2x the 2009 rate of 1.02%. Admittedly BNPP's 9.4% tier 1 ratio in the adverse scenario with sovereign shock can absorb this 40bps gap.

Focusing on the consistency of the assumptions between CA, BNPP and SG, we think that the loss rates used reflect the relative business mix of each company, apart from the slightly lower corporate loss rate for BNPP. Indeed BNPP and SG have higher retail loss rates than CA as 1/ BNPP has more exposure to consumer finance and 2/ SG is more exposed to Eastern Europe. However, credit quality of corporate exposures should be very close between French banks, and **we would not have expected to see BNP Paribas using a corporate loss rate substantially lower than CA and SG**.

Figure 41: Only BNPP has softer assumption than 2009

	Credit Agricole	BNP Paribas	Societe Generale	BPCE
Actual 2009 rates:				
1 year corporate loss rate %	0.87%	1.02%	1.11%	0.62%
1 year retail loss rate in %	0.78%	1.37%	1.25%	0.72%
Adverse scenario with sovereign shock:				
2 year corporate loss rate %	2.66%	**1.64%**	2.32%	1.50%
2 year retail loss rate in %	**1.69%**	2.89%	2.76%	1.70%
Comparison between "adverse with sovereign" and 2x "actual 2009" rates:				
Gap in 2Y corporate loss	0.92%	**-0.40%**	0.10%	0.26%
Gap in 2Y retail loss	0.13%	0.15%	0.26%	0.26%

Source: Deutsche Bank, company data, CEBS

Losses on financial assets in banking and trading books: assumptions are credible

Over the crisis, BNPP, CA and SG have all been profitable on a yearly basis despite an extremely stressed environment. This means that the pre-provision profit has always been larger than financial asset losses + loan impairments. Since then French banks have started to de-risk their balance sheet, especially the exposure to securitisation.

This means that **even in a stress test, financial asset losses should be lower than 100% of pre-provision profit**. We show in Figure 42 that it is the case and that there is a clear consistency among French banks: BNP Paribas has a slightly lower relative amount of financial asset losses, but the past 3 year track record show that CA and SG can generate higher losses, so we think that lower amount for BNPP is justified.

Figure 42: It's realistic that losses on fin assets are < pre-prov profit as French banks have been profitable throughout the crisis

Euro m	CA	BNPP	SG
CEBS - 2010-2011 cum. Pre-provision profit	22,611	32,001	16,774
CEBS - 2010-2011 cum. loss on fin assets in banking book	-17,808	-20,380	-10,831
CEBS - 2010-2011 cum. loss on fin assets in trading book	-1,611	-3,657	-3,201
CEBS - Total 2010-2011 cum. loss on fin assets	**-19,419**	**-24,037**	**-14,032**
As % of pre-prov profit	**-86%**	**-75%**	**-84%**
Total 2010-2011 cum. losses when doubling trading losses	-21030	-27694	-17233
% of pre-prov profit	-93%	-87%	-103%
Max past bad debt charge over last 5 years x2	-9,380	-16,738	-11,696
CEBS - 2010-2011 cum. banking loss as % of max past prov	**190%**	**122%**	**93%**

Source: Deutsche Bank, company data, CEBS

Pre-provision profit assumptions are conservative

We compare in Figure 43 the CEBS pre-provision profit used in the adverse scenario for BNP Paribas, Credit Agricole and Societe Generale to 1Q10, 2009 and our 2010/2011 forecast. We find the CEBS assumptions quite conservative.

Figure 43: CEBS pre-provision profit assumption versus 09, 1Q10 and DBe 2010/2011

Euro m	CAG	BNPP	SG
CEBS 2010-2011 cum. pre-impairment income	22,611	32,001	16,774
2x annualised 1Q10 PPP	26,440	39,472	20,640
DB 2010 - 2011 cum. PPP forecast	na	34,679	19,220
2009 PPP x2 excluding legacy assets	26,246	34,498	17,648
CEBS / 1Q10	-14%	-19%	-19%
CEBS / DB forecast	na	-8%	-13%
CEBS / 2009	-14%	-7%	-5%

Source: Deutsche Bank, company data, CEBS

Sovereign risk: French banks would pass even with a haircut on banking book

Even in the adverse scenario with a sovereign shock, no loss has been taken into account on the sovereign exposure. So we calculate in Figure 44 what would have been the results if the sovereign risks in the banking books had been stress tested with a haircut like in the trading books. The result is reassuring: BNPP, CA and SG would have still passed with a tier 1 ratio largely above 8%, and even above 9% for Societe Generale.

Figure 44: French banks would pass even with hair cut on sovereign debt in banking book

Euro m	CEBS	Tax	Sovereign bonds in banking book			Impact of banking book haircut		
	haircut		BNPP	CA	SG	BNPP	CA	SG
Total sov expo	9.8%	25%	91,316	36,515	33,804	5,415	1,967	2,396
o.w. Greece	23.1%	25%	4,791	350	2,436	830	61	422
o.w. Ireland	12.8%	25%	473	170	6	45	16	1
o.w. Italy	7.4%	25%	21,840	3,536	3,399	1,212	196	189
o.w. Portugal	14.1%	25%	2,157	1,457	111	228	154	12
o.w. Spain	12.0%	25%	3,021	2,062	746	272	186	67
Port/Ir/It/Gr/Sp	13.9%	25%	32,282	7,575	6,698	2,588	613	690
% from Port/Ir/It/Gr/Sp			35%	21%	20%	48%	31%	29%
RWA adverse scenario						690,042	600,210	359,757
Tier 1 svo shock						9.6%	9.0%	10.0%
Implied Tier 1 capital						66,244	54,019	35,976
Tier 1 capital post test on banking book						60,829	52,052	33,580
Tier 1 ratio post test on banking book						**8.8%**	**8.7%**	**9.3%**
Impact on Tier 1 ratio						-0.8%	-0.3%	-0.7%

Source: Deutsche Bank, company data, CEBS

Company comments

We summarise below a few specific comment for the 3 French banks that we cover:

Societe Generale: best results, our top pick in France

Societe Generale came out of the stress test exercise with the best tier 1 ratio in France in the adverse scenario with sovereign shock at 10.0%. When reviewing the assumptions used by the different French banks, we can't help but notice that SG has been overall slightly more conservative: pre-provision profit assumptions are in line with peers but financial asset losses and loss rates on corporate and retail are more defensive than BNPP and CA. Moreover SG is least exposed to sovereign bonds from Portugal, Ireland, Italy, Greece and Spain among French banks. SG would even be the only French bank having a tier 1 ratio above 9% if we add a haircut on sovereign bonds in banking book to the adverse scenario with sovereign shock.

BNP Paribas: confirmed exposure to peripherals

The stress test result was unsurprisingly reassuring for BNP Paribas with a tier 1 ratio of 9.6% in the adverse scenario with sovereign shock. However, one could highlight that BNPP used slightly softer assumptions than peers in term of corporate loss rate or financial asset losses. The sovereign disclosure also confirms that BNP Paribas is the most exposed to Portugal, Ireland, Italy, Greece and Spain. As a result a haircut on sovereign debt in banking book would reduce the higher tier 1 ratio obtain by BNP Paribas in this stress test compared to Credit Agricole Group. However BNP Paribas does not share with Credit Agricole the negative market sentiment on capital quality.

Credit Agricole SA has not been stress tested

The stress test exercise has covered Credit Agricole Group and not Credit Agricole SA. At 9.0%, Credit Agricole Group was already the weakest French bank under our coverage in France through this stress test, but we believe the result would have been weaker for Credit Agricole SA as the pre-provision profit generation would have been largely lower while the financial asset losses would not have been substantially lower as most of the risky financial assets are held by CA CIB which is 100% consolidated in CA S.A. But no large surprise appeared from the stress test, CA's exposure to weak peripheral countries is close to our estimates and the assumptions used by the company for the stress test are credible and coherent with French peers. Eventually, we think investor's concerns on Credit Agricole SA are linked to the quality of the tier 1. It has not been tested either.

CEBS stress tests versus DB forecasts

Finally we summarise in Figure 45 the actual tier 1 ratio obtained by the French banks we cover compared to our stress test forecast published in the note *"European Banks Strategy - CEBS stress tests: what have we learned (revised)?"* (8 July 2010). **BNP Paribas and Societe Generale did better than we expected**, but we realised a stress test on Credit Agricole SA, not Credit Agricole Group, which does not allow us to compare the results.

Figure 45: Stress test result vs. DB forecast

Tier 1 ratio	BNPP	CA SA	CA Group	SG
DB stress test forecast	9.4%	8.5%		9.5%
CEBS adverse scenario sov shock	9.6%		9.0%	10.0%
Gap	+0.2%	na	na	+0.5%

Source: Deutsche Bank

Belgian Banks

Key points

(Note: DB is restricted on KBC. Figures and comments below are factual elements coming from the bank's communication and do not constitute any opinion or forecast on KBC)

- Two banks took the stress test in Belgium: Dexia and KBC. **Both banks passed**. However Belgian banks have problems of high leverage and dependency to State capital which cannot be tested with a stress test on tier 1 capital.
- **No capital shortfall appeared** from the test in Belgium. Belgian banks benefit from an excess capital of Euro 12bn or 420bps above the 6% minimum tier 1 ratio to pass the test.
- We believe that there is a risk in Europe that banks below 6% may be forced by the market to recapitalise to 8% to create a cushion, and that "near-misses" between 6% and 8% could also come under pressure to raise capital. However, all **Belgian banks went through the test with tier 1 ratios largely above 8%** in the adverse scenario with sovereign shock, generating an excess capital of E6bn above a stricter 8% threshold.
- The macro assumptions used in Belgium are a mix of tough figures on real estate and mild GDP estimates. But micro-assumptions are more relevant in our view. Loss rates on corporate and retail are higher than 2009 and reflect the different business mixes in Belgium. This is credible. However assumptions of **losses on financial assets in trading and banking books represent only half of the 2008-2009 losses**. We think this is justified by painful de-risking and deleveraging realised by Belgian banks over the last 2 years, but it may not reassure investors which are asked to accept that "this is time, it's different".
- No recapitalisation scheme is available in Belgium and the 3 bank bail-out plans implemented in Belgium since 2008 were realised on very different and adhoc basis.
- Out of the 2 bank stress tested in Belgium, Dexia passes the adverse scenario with sovereign shock with a tier 1 ratio of 10.9% and KBC with 9.4% versus 9.2% for European banks on average. However, the uncertainty surrounding the financial asset loss assumption implies that **higher than average tier 1 ratios are expected from Belgian banks**.
- All **Belgian banks pass the test if we apply a haircut on sovereign risk in banking book** in line with the haircut applied on trading book in the stress test.
- We reiterate our Hold recommendation on Dexia after the stress test despite the potential upside to our target price (E4.6).

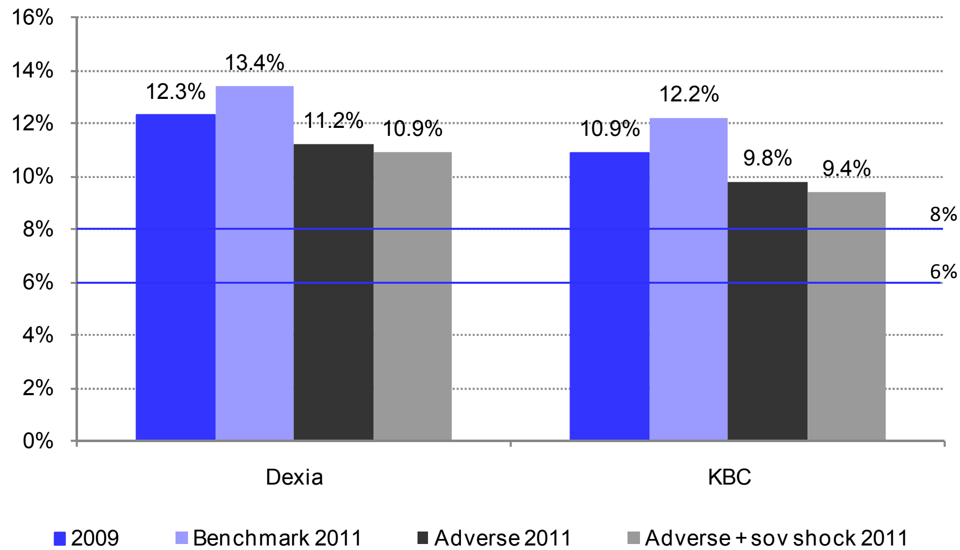
The stress test for Belgian banks: the results

Tier 1 ratio is not the problem

We think that investors did not expect Belgian banks to fail the stress test and indeed they all pass (cf. Figure 46). In particular, Dexia reaches a tier 1 ratio of 10.9% after the adverse scenario with sovereign shock when European peers obtain on average 9.2%.

However, we don't think that investors will likely change their cautious stance on Belgian banks as **regulatory capital is no longer an issue since Belgian banks have been bailed out** by French and Belgian States in 2008 and 2009. Belgian banks are still highly leveraged or dependant on State capital. Getting rid of this problem is part of their current restructuring plans but it is not visible in an analysis of regulatory capital.

Figure 46: Belgian banks' tier 1 ratio in the different stress test scenarios



Source: Deutsche Bank, CEBS, company data

However, Belgian banks showed an excess capital of E12bn on the 6% minimum tier 1 ratio in the stress test, and even E6bn excess on a tougher 8%. No individual bank falls below these thresholds (cf. Figure 47)

Figure 47: Result of stress test – tier1 and excess capital in adv scen + sov shock

Euro m	Dexia	KBC	Total
RWA adverse scenario	152,140	137,215	289,355
Tier 1 ratio sov shock	10.9%	9.4%	10.2%
Implied T1 cap sov shock	16,583	12,898	29,481
Excess Tier 1 ratio above 6%	4.9%	3.4%	4.2%
Excess capital on 6% T1	7,455	4,665	12,120
Excess Tier 1 ratio above 8%	2.9%	1.4%	2.2%
Excess capital on 8% T1	4,412	1,921	6,333

Source: Deutsche Bank, company data, CEBS

Sovereign debt: Dexia 2.5x more exposure to Po/Ir/It/Gr/Sp than expected

Dexia and KBC have both disclosed their detailed exposure to sovereign debt. This disclosure was an option. We highlight both companies' exposure to Portugal, Ireland, Italy, Greece and Spain in Figure 48. The main surprise comes from Dexia's E18bn exposure to Italy which is unexpectedly by far the bank's single largest sovereign exposure. This amount cannot be explained by the business mix as Dexia has no retail banking activity in Italy and they have a public/project finance loan book 34% larger in Belgium than in the Italian subsidiary Crediop. The E2.8bn exposure to Portugal is also unexpected. In total Dexia is 2.5x more exposed to weak peripheral European countries than our forecast.

Figure 48: Belgian banks' exposure to sovereign bonds – Italy is the surprise

Euro m	CEBS report			DB est.	CEBS vs
	Dexia	KBC	Total Belgium	Dexia	DB est.
Greece	3,747	909	4,656	4,900	-1,153
Ireland	147	446	593	335	-188
Italy	17,553	7,641	25,194	2,996	14,557
Portugal	2,817	165	2,982	317	2,500
Spain	1,823	1,707	3,530	2,080	-257
Total Gr/Ir/It/Po/Sp	**26,087**	**10,868**	**36,955**	**10,628**	**15,459**
as % of total	52%	38%	47%		
Belgium	7,905	21,839	29,744		
Other	24,181	18,003	42,184		
Total	**50,268**	**28,871**	**79,139**		

Source: Deutsche Bank, Dexia, KBC, CEBS

Macro assumptions: harsh from current starting point but not a stress test

The macro-economic assumptions used for Belgium in the stress test are mix of harsh and mild conditions (cf. Figure 49):

- GDP: while the peak to trough Belgian GDP contraction reached -4.1%, the stress test is based on -0.3% and -0.6% in 2010 and 2011. This is actually substantially tougher than DB estimates (1.1% and 1.4%) but not a worse case scenario. The unemployment rate of 9.9% compares to a current rate of 8.6%.
- However, Belgium never faced a yearly contraction of -10% of its real estate prices. This assumption seems very harsh to us.

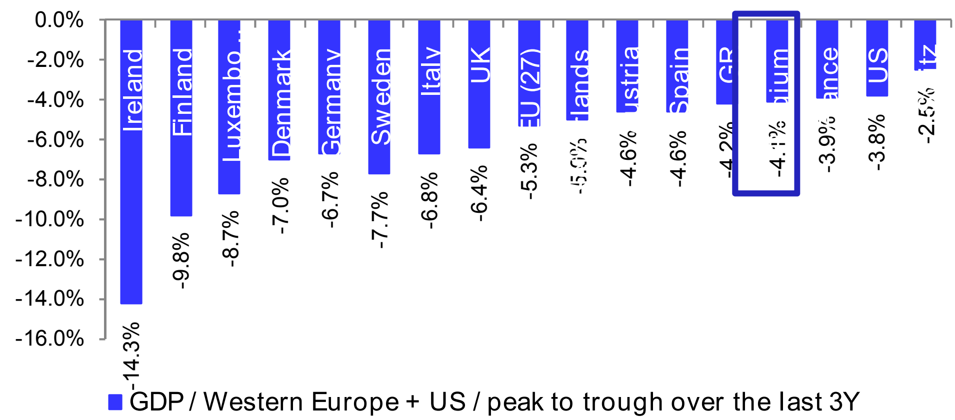
Figure 49: scenario vs. worst 20Y and DB forecast – Crisis assumptions for real estate but stronger GDP than in 2009

Adverse scénario	2010	2011	Worst	DB 2010E	DB 2011E
			last 20Y		
GDP growth (%)	-0.3	-0.6	-4.1	1.1	1.4
Unemployment (%)	9.9	11.1	9.9		
Commercial real estate prices (%)	-10	-10	-2		
Residential real estate prices (%)	-10	-10	-2		
For comparison: Euro area	-0.2	-0.6			

Source: Deutsche Bank, Statbel, Datastream

Interestingly, the GDP assumption are close to the European average used in the stress test (-0.2 in 2010 and -0.6% in 2011) whereas the Belgian economy tends to be more defensive than average in downturns (cf. Figure 50). So on a relative basis, this scenario would be tougher than peers' scenario.

Figure 50: Belgian economy has been less impacted by crisis than EU (27) average



Source: Deutsche Bank, Datastream

Corporate and retail loss assumptions: tougher than 2009

As for their European peers, 2009 has been the toughest year faced by Belgian banks over the last 20 years in term of credit quality and bad debt charge. We pinpoint in Figure 51 that both Dexia and KBC have used in the CEBS stress test corporate and retail loss rates higher than in 2009. This approach is coherent with the credible approach adopted by French banks.

However, KBC and Dexia have used very different absolute loss rates. These differences are already visible in the actual 2009 rates. Indeed KBC is more exposed to Eastern European countries with higher loan loss ratios than Dexia. Central Eastern Europe represents 35% of KBC's retail loan book versus 15% for Dexia in Turkey. Thus, the lower rates used by Dexia is justified by the banks' business mix.

Figure 51: Higher loss rates than 2009 for both banks, but very different absolute levels justified by difference in business mix

	Dexia	KBC
Actual 2009 rates:		
1 year corporate loss rate %	0.43%	1.48%
1 year retail loss rate in %	0.37%	0.78%
Adverse scenario with sovereign shock:		
2 year corporate loss rate %	1.18%	3.76%
2 year retail loss rate in %	1.07%	2.50%
Comparison adverse with sovereign versus 2x 2009 rate:		
Gap in 2Y corporate loss rate	0.32%	0.80%
Gap in 2Y retail loss rate	0.33%	0.94%

Source: Deutsche Bank, Dexia, KBC, CEBS

Losses on financial assets in banking and trading books: lots of uncertainty…

Dexia is short credit quality on 2 securitisations

Before analysing the global figures, it is worth highlighting that **Dexia disclosed a positive figure for 2 yr cumulative losses on the trading book** in the adverse scenario. This is due to the fact that Dexia sold tranches of securitisation called Oak and Wise built with assets from the bank's balance sheet. So that Dexia is partially short credit quality deterioration on these assets.

Coming back to the global picture, Dexia and KBC have generated a cumulated net loss of E7.3bn in 2008 and 2009. This stems from cumulative impairments and losses on financial assets of E19.3bn. These 2 companies have used in the stress test a cumulative loss on trading and banking book of E11.2bn or only 58% of the 2008-2009 figure (cf. Figure 52).

First we think it unlikely that Dexia's financial assets can generate a second round of losses equivalent to those faced in 2008/2009 after the active write-downs and de-risking realised by the bank over the last 2 years. Nevertheless, Dexia's assumptions are certainly less reassuring than its French peers' which have assumed higher losses than in 2008-2009.

Second despite a stress test on financial assets 46% lower than the losses faced in 2008-2009, the residual amount is 1.6x higher than the pre-provision profit used for the exercise. This shows how leveraged and over-invested Dexia's balance sheet still is. For example, all French banks have financial asset losses smaller than the pre-provision profit assumption in their stress test.

Nevertheless, Dexia would be able to face a 2008-2009 scenario. Indeed upgrading the financial assets losses to the 2008-2009 level in the stress test would reduce the tier 1 ratio of the adverse scenario with sovereign risk to 9.2% from 10.9%. This shows that **Dexia's above-par capital base is necessary due to its higher sensitivity to financial asset losses**.

Figure 52: Impact on stress test of 2010-2011 losses on financial assets in line with 2008-2009

Euro m	Dexia	KBC	Total
CEBS 2010-2011 cum. Pre-provision profit	2,424	3,279	5,703
CEBS 2010-2011 cum. banking loss	-3,772	-5,344	-9,116
CEBS 2010-2011 cum. trading loss	-214	-1,877	-2,091
CEBS Total 2010-2011 cum. losses	**-3,986**	**-7,221**	**-11,207**
% of pre-prov profit	**-164%**	**-220%**	**-197%**
2008-2009 cum. loss on fin asset	-4,045	-6,931	-10,976
2008-2009 cum. impairments	-3,303	-5,011	-8,314
2008-2009 total cum. impairments & loss on fin assets	-7,348	-11,942	-19,290
CEBS cum. loss / 2008-2009 cum. loss	**54%**	**60%**	**58%**
Additional impairment to reach 2008-2009 level (pretax)	-3,362		
CEBS RWA adverse scenario with sov shock	152,140		
Tier 1 ratio sov shock	10.9%		
Implied T1 cap sov shock	16,583		
Tier 1 post additional impairment	14,062		
Tier 1 ratio post additional impairment	**9.2%**		

Source: Deutsche Bank, Dexia, KBC, CEBS

Pre-provision profit assumptions: this time, it's different…

In the previous section, we described the fact that Belgian banks used softer assumptions for losses on financial assets in trading and banking books in the stress test than what they faced in 2008-2009.

As a consequence **the stress test pre-provision income after adverse scenario is better than the actual 2008-2009 figure** (cf. Figure 53). The underlying assumptions cannot be challenged because we don't know what part of trading and banking losses disclosed in the stress test is taken in to account in revenue and what part goes below the pre-impairment income to the provision line.

Our overall impression is that the revenue and cost assumptions have been quite realistic but that the entire result is highly correlated to the assumptions of losses on financial assets.

Figure 53: Stress test pre-impairment income versus 2008-2009

Euro m	Dexia	KBC	Total
Adverse scenario			
CEBS 2010-2011 cum. pre-impairment income	2,424	3,279	5,703
Actual 2008-2009 cum. pre-impairment income	1,990	-751	1,239
CEBS / actual 2008-2009 pre-impairment income	122%	-437%	460%

Source: Deutsche Bank, CEBS, Dexia, KBC

Sovereign risk: Belgian banks pass even with a haircut on banking book

Even in the adverse scenario with a sovereign shock, no loss has been taken into account on the sovereign exposure in the banking book. So we calculate in Figure 54 what would have been the results if the sovereign risks in the banking books had been stress tested with a haircut like in the trading book. The result is reassuring: Dexia and KBC still pass with a tier 1 ratio largely above 6%, and specifically largely above 6% for Dexia.

Figure 54: Impact of haircut on sovereign risk in banking book – Belgian passes the test

Euro m	CEBS	Tax	Sov bonds in banking book		Impact of banking book haircut	
	haircut		Dexia	KBC	Dexia	KBC
Total sov expo	9.8%	25%	54,588	45,737	3,530	3,018
o.w. Greece	23.1%	25%	3,678	894	637	155
o.w. Ireland	12.8%	25%	145	383	14	37
o.w. Italy	7.4%	25%	16,417	6,554	911	364
o.w. Portugal	14.1%	25%	2,801	163	296	17
o.w. Spain	12.0%	25%	1,789	1,434	161	129
Port/Ir/It/Gr/Sp	13.9%	25%	24,830	9,428	2,019	702
% from Port/Ir/It/Gr/Sp			45%	21%	57%	23%
RWA adverse scenario					152,140	137,215
Tier 1 svo shock					10.9%	9.4%
Implied Tier 1 capital					16,583	12,898
Tier 1 capital post test on banking book					13,053	9,880
Tier 1 ratio post test on banking book					**8.6%**	**7.2%**
Impact on Tier 1 ratio					-2.3%	-2.2%

Source: Deutsche Bank, Dexia, KBC, CEBS

Company comments

We do not comment the specific results obtained by KBC due to our restriction on the stock.

Dexia: return to the past

Dexia went through the stress with a strong tier 1 capital of 10.9% in the adverse scenario with sovereign shock. But the credibility of Dexia's stress test is linked to the capacity or not for the company to re-live 2008 and 2009. Dexia assumed that its worst case scenario is to generate only half of the financial asset and impairment losses generated in 2008 and 2009. Due to the company's restructuring and deleveraging, we think this assumption is credible, but it means we have to accept that "this time, it's different". We don't think that all investors may feel reassured by that. In any case, it makes challenging Dexia's assumptions more difficult than for peers which have a clean track record throughout the crisis. It also shows that Dexia's strong capital base is necessary to reassure investors due to an uncertain business model and implied risks.

Nordic Banks

Key points

- In the Nordics, Nordea, SEB, Swedbank, Handelsbanken and Danske Bank participated in the CEBS stress test (see our comments on DnB NOR below).
- All Nordic banks participating in the test passed, which was in line with what we expected. There were no "near misses" and sectors' Tier1 range between 8.9% and 10.1% post the adverse scenario, incl. a sovereign debt shock. The full disclosure of exposures to EU risk countries confirm Nordic banks have a very low 4.5% of TBV to these countries.
- The stressed scenario is demanding, but not very tough, in our opinion; Nordic GDP growth is still assumed to be positive, between 0.2% and 0.9%, and interest rates are only 0.5%-1.0% higher in the adverse vs the benchmark scenario. The toughest part is assumptions on real estate prices, which are assumed to fall 5-26% over 2 years. Impairment levels under the stress test is generally at or above the loss levels seen in Nordics during the most resent crisis; Nordic sector LLPs of 80bp/year under worst stress test scenario vs peak sector LLPs at 90bp in 2009.
- Impairment levels vary a lot between banks. On one hand, Swedbank's and Danske Bank's LLPs under stress tests are only 50- 80% of the level seen 2009. Reason is that stress tests are based on lending books "as is" by end-2009, where material write-downs already have been taken. On the other hand, Nordea and SHB's LLPs under the "not so though" stress test is 200-250% of the level seen 2009. In a much tougher scenario, Nordea and SHB would still be adequately capitalised; both banks passed a significantly tougher test carried out by Sveriges Riksbank last year, with no capital need.
- Investment conclusions: We continue to see SEB (Buy, TP SEK59) and Danske Bank (Buy, TP DKK167) as attractive Nordic banks, post announcement of stress tests. We see Nordea as less attractive (Sell, TP EUR5.9), based on valuation, not on stress test results.
- Even in the event of a stricter 8% Tier1, there would not have been any capital shortfall in the Nordic banks (SHB had the lowest Tier1 of 8.9% post the adverse scenario including a sovereign debt shock.)

The stress test for Nordics: Demanding, but not very tough

The stressed scenario is a demanding one, but not very tough, in our opinion; Nordic GDP growth is still assumed to be positive, between 0.2% and 0.9%, and interest rates are only 0.5%-1.0% higher in the adverse vs the benchmark scenario. The toughest part of the test is assumptions on falling commercial/residential real estate prices; Swedish FSA has modeled a 20-26%, Danish FSA a 9% fall and Finnish FSA a 5-20% fall over 2 years. The Danish fall is only half of the Swedish, but the starting point in Denmark is a stressed scenario as house prices already are down 21% from peak. The Swedish/Finnish supervisors have, together with the Spanish and Irish, the harshest assumptions in EU on price drops on real estate.

The impairment levels under the stress test is generally at or above the loss levels seen in banks during the most resent crisis in 2008/2009. Stress tests give Nordic sector LLPs of 80bp/year vs at 90bp in 2009. This is, however, far from impairments in early 1990s when Nordic LLPs peaked at 320bp.

The results for Nordics: No capital shortfall & no near misses

Generally, capital levels are high in Nordic banks post the stress tests, and there is no capital shortfall among Nordic banks and Tier1 range between 8.9% and 10.3% post the adverse scenario, including a sovereign debt shock.

A key strength of Nordics is the high capitalisation levels, and there were no "near misses" among Nordics banks. Even in the event of a stricter 8% Tier1, there would not have been any capital shortfall; SHB had the lowest Tier1 of 8.9% post the adverse scenario and sovereign debt shock.

We note that CEBS use the transitional rules (and not full Basel II), when calculating Tier1 ratios under the stress test. This penalise the Nordic banks over EU peers; Scandinavian banks have 100bp to 450bp higher Tier1 ratios, under full Basel II rules. If we were to use full Basel II, all Nordics would have passed the CEBS test even if the hurdle would have been set at 10% Tier1.

Company comments

Looking into the detailed results of the test, impairment levels vary quite a lot between banks. On the one hand, Swedbank's and Danske Bank's impairments under stress tests are only 50- 80% of the level seen 2009. Reason is that stress tests are based on lending books "as is" by end-2009, where material write-downs already have been taken. This makes sense to us; credits that went bad past two years are likely the credits that will get even worse in a stressed scenario, but if they are already written down, there is less need to take high provisions again.

On the other hand, Nordea and SHB's impairments under the "not so though" stressed scenario are a full 200-250% of the level seen 2009. In a much tougher scenario, impairment levels would likely be 300-400% above the 2009-level, we argue. Nordea and SHB would still be adequately capitalised, however. Both banks passed significantly tougher stress tests carried out by Sveriges Riksbank last year, assuming recession scenarios in Sweden/Nordics, a 15-20% GDP fall in Baltics, several percentage points higher interest rates and taking 15% off bank's pre-provision profits. Nordea's Tier1 at 10.2% and SHB's at 9.1% post adverse scenario.

DnB NOR and Norwegian banks in general, are not part of the stress test. The Norwegian FSA and CEBS had a discussion prior to launch of stress tests. It was then jointly decided that a stress test was not warranted, given Norwegian banks marginal exposure to risk countries and their capital positions.

We do not see any risk that DnB NOR would not pass. DnB NOR's Tier1 was 9.0% Q2 2010, and even assuming LLPs of 500bp, which is 14x our 2010 estimate and above the LLP levels seen in crisis early 1990's, Tier1 would be above 6%.

Investment conclusions: We continue to see SEB (Buy, TP SEK59) and Danske Bank (Buy, TP DKK167) as attractive Nordic banks, post results of stress tests. We see Nordea as less attractive (Sell, TP EUR5.9), based on valuation, not on stress test results.

CEBS stress tests versus DB forecasts

Finally, below we show the detailed results post CEBS stress test for the companies under DB coverage in Nordics. As discussed above, even if this test was not very tough, Nordics look very well capitalized to us, and even if we were to use a significantly tougher scenario, or set the Tier1 hurdle rate as high as 9%, all banks would pass except SHB which would have a Tier1 of 8.9% and would need a marginal SEK0.9bn to pass.

Below, we show LLP levels, for retail and corporate book under the stress test vs. reported LLPs in 2009 (when impairments peaked). LLP levels differ quite a lot between the banks, and as discussed above, reason is the different starting point. Swedbank/Danske Bank have already written down exposures extensively (lower LLPs in stress test vs reported levels 2009). Nordea/SHB has not been through the same crisis/taken extensive write-downs, and have higher LLP levels under the stress test vs 2009 peak levels in.

Nordic banks provide full disclosure of exposure to sovereign bonds in EU risk countries; this confirms our view that exposures are low; on average only 4.5% of TBV. The bank with highest exposure is Danske Bank, with a modest 9.8% of TBV exposure to risk countries.

Figure 55: Impairment levels post CEBS test vs reported LLPs in 2009

	LLPs, bp		LLPs, bp		LLP levels in CEBS test vs reported LLPs 2009	
	Reported 2009		In adverse scen. + sov. debt shock			
	Retail	Corporate	Retail	Corporate	Retail	Corporate
SEB	49	135	75	126	153%	93%
Danske Bank	112	93	95	77	85%	83%
Swedbank	60	382	42	153	70%	40%
SHB	8	23	19	49	238%	213%
Nordea	20	78	42	133	210%	171%
Average	**50**	**141**	**55**	**107**		

Source: Deutsche Bank, company data, CEBS

Figure 56: Nordic Banks exposure to sovereign bonds in EU risk countries (Q1 2010)

	DANSKE BANK, DKKm			SEB, SEKm			NORDEA, EURm			SWEDBANK, SEKm			HANDELSBANKEN, SEKm		
	Banking book	Trading book	Total	Banking book	Trading book	Total	Banking book	Trading book	Total	Banking book	Trading book	Total	Banking book	Trading book	Total
Greece	0	0	0	1,435	0	1,435	249	0	249	0	0	0	0	0	0
Ireland	4,288	655	4,943	0	0	0	0	0	0	0	0	0	0	0	0
Italy	0	4,437	4,437	1,387	0	1,387	393	316	709	0	0	0	0	0	0
Portugal	0	0	0	722	0	722	0	0	0	0	0	0	0	0	0
Spain	0	305	305	1,444	0	1,444	37	0	37	0	0	0	0	0	0
Total EU risk countries	**4,288**	**5,397**	**9,685**	**4,988**	**0**	**4,988**	**679**	**316**	**995**	**0**	**0**	**0**	**0**	**0**	**0**
as % of TBV			**9.8%**			**5.9%**			**5.2%**			**0.0%**			**0.0%**

Source: Deutsche Bank, company data, CEBS

Figure 57: Nordic banks capital positions post CEBS stress tests

		TIER 1					Excess capital (+) / shortfall (-)	
	loc. curr.	Reported (Q4 09) bn	%	Post Adverse scenario	Post Adverse+ sov. debt shock	CEBS Tier1 hurdle	vs 6% hurdle bn (loc curr)	vs 8% hurdle bn (loc curr)
SEB	SEK	101.6	12.4%	10.7%	10.3%	6.0%	35.2	18.8
Danske Bank	DKK	117.9	11.7%	10.8%	10.0%	6.0%	40.3	20.2
Swedbank	SEK	81.7	10.4%	10.5%	9.9%	6.0%	30.6	14.9
SHB	SEK	85.6	9.1%	9.1%	8.9%	6.0%	27.3	8.5
Nordea	EUR	19.6	10.2%	10.2%	10.1%	6.0%	7.9	4.0

Source: Deutsche Bank, compnay data, CEBS

Figure 58: CEBS stress test results for Nordic Banks

CEBS stress tests	Company	Danske Bank	Nordea	SEB	Svenska Handelsbanken	Swedbank
		DKK	EUR	SEK	SEK	SEK
Actual 09 results						
	2009 Tier 1 Capital	117,929	19,577	101,604	85,575	81,689
	Memo: 1 year corporate loss rate %	0.93%	0.78%	1.35%	0.23%	3.82%
	Memo: 1 year retail loss rate in %	1.12%	0.20%	0.94%	0.08%	0.60%
CEBS benchmark scenario						
	2011 Tier 1 capital	122,068	22,091	92,701	95,152	78,147
	2011 RWAs	1,043,809	195,961	782,544	930,839	727,159
	2011 Tier 1 ratio	**11.7%**	**11.3%**	**11.8%**	**10.2%**	**10.7%**
CEBS adverse scenario						
	Tier 1 capital	115,951	21,749	87,077	93,148	74,841
	RWAs	1,074,172	214,005	811,718	1,025,487	710,401
	Estimated tier 1 ratio %	**10.8%**	**10.2%**	**10.7%**	**9.1%**	**10.5%**
	Reduction in Tier 1 from base to adverse	**6,117**	**342**	**5,624**	**2,005**	**3,306**
	Reduction in Tier 1 ratio % from base	**(90bp)**	**(111bp)**	**(112bp)**	**(114bp)**	**(21bp)**
	2010-2011 cum. pre-impairment income	47,010	9,153	25,346	38,409	25,840
	2010 DB estimate pre-impairment income	23,898	3,915	10,643	15,429	13,031
	2011 DB estimate pre-impairment income	26,708	3,865	16,727	15,558	13,293
	2010-2011 DB cum. PPP	50,607	7,780	27,370	30,987	26,324
	Difference (+ve = CEBS is higher)	-3,597	1,373	-2,024	7,422	-484
	Memo: 2 year corporate loss rate %	1.44%	2.51%	2.37%	0.86%	2.93%
	Memo: 2 year retail loss rate in %	1.71%	0.67%	1.36%	0.23%	0.61%
	2 year corporate loss - Gap versus 09	**-0.42%**	**+0.95%**	**-0.33%**	**+0.40%**	**-4.71%**
	2 year retail loss - Gap versus 09	**-0.53%**	**+0.27%**	**-0.52%**	**+0.07%**	**-0.59%**
	2010-2011 cum. LLPs banking book	-42,500	-4,945	-25,033	-12,711	-18,335
	2010-2011 cum. LLPs trading book	-3,974	-634	-238	105	209
	2010-2011 cum. LLPs total	**-46,474**	**-5,579**	**-25,270**	**-12,607**	**-18,126**
	Implied annual impairments	**-23,237**	**-2,790**	**-12,635**	**-6,303**	**-9,063**
	As % of peak imp. year 2006-9	**90%**	**188%**	**102%**	**186%**	**36%**
CEBS adverse + sovereign shock						
	2010-2011 LLPs from additional shock banking book	-3,572	-438	-1,596	-2,423	-2,119
	2010-2011 LLPs additional shock trading book	-7,866	-233	-1,530	-2,879	-3,116
	2010-2011 cum. shock + adverse	**-57,912**	**-6,250**	**-28,396**	**-17,908**	**-23,361**
	Implied annual impairments	**-28,956**	**-3,125**	**-14,198**	**-8,954**	**-11,680**
	As % of peak imp. year 2006-9	**113%**	**210%**	**114%**	**264%**	**47%**
	Memo: 2 year corporate loss rate %	1.54%	2.65%	2.51%	0.98%	3.06%
	Memo: 2 year retail loss rate in %	1.94%	0.84%	1.50%	0.38%	0.84%
	2 year corporate loss - Gap versus 09	**-0.32%**	**+1.09%**	**-0.19%**	**+0.52%**	**-4.58%**
	2 year retail loss - Gap versus 09	**-0.30%**	**+0.44%**	**-0.38%**	**+0.22%**	**-0.36%**
	Estimated tier 1 ratio %	**10.0%**	**10.1%**	**10.3%**	**8.9%**	**9.9%**
	Reduction in Tier 1 ratio % from base	**(169bp)**	**(117bp)**	**(155bp)**	**(132bp)**	**(85bp)**
	Additional capital required	**0**	**0**	**0**	**0**	**0**

Source: Deutsche Bank, company data, CEBS

Spanish Banks and Cajas

Key points

- Based on the assumptions outlined in the announcement, under the "adverse scenario" Bank of Spain estimates a gross impairment from credit and sovereign of Euro 207bn (7.3% of the system's assets and 9.5% of the cajas'). In net terms (after PPP and loan loss provisions) this is Euro 28bn (1% of the system assets). This would bring the system Tier 1 from 9.5% at the end of 2009 down to 8.3% in 2011.
- The system's total capital shortfall stands, under the "adverse + sovereign shock", at Euro 2bn. This figure is incremental to the E14.3bn already injected (E10.5bn by the FROB, E3.7bn by the DGF for CCM), so combined is Euro 16.3bn. This figure falls below DB's estimate of Euro 35bn, the IMF's Euro 22bn and similar figures from other market participants. At the end of this section we present the full detail on listed banks and saving banks.
- Out of the 27 institutions analyzed by Bank of Spain (8 banks and 19 saving banks representing 90% of the Spanish financial system), 5 have failed to have a Tier I ratio above 6% under the most severe assumptions. All 5 institutions are saving banks. Listed names have all passed the tests, with Santander and BBVA standing as the most resilient, and Pastor with a 6% Tier 1 under the "adverse scenario" the weakest.
- We regard the impairment assumptions (both on sovereign and the different credit buckets) as sufficiently severe and consistent. We however are less convinced and have lower visibility about what is included and how the regulator has arrived to some of its forecasts on PPP, capital gains and other "impairment buffers". The latter is particularly relevant as under marginally tougher assumptions, a larger number of institutions would have failed the test (9 instead of 5, with another 6 below 6.5% tier 1), although admittedly the incremental amount of capital is limited to E3.5bn (easily manageable considering the E88bn still at FROB's disposal). Moreover, the stress tests on smaller institutions are run without differentiating the underlying quality of a specific credit bucket amongst institutions, an approach most benefiting weaker players.
- During the presentation held on Saturday in Madrid, when challenged about the need for recapitalizations on institutions with Tier 1 ratios slightly above 6% after the stress test, the Bank of Spain defended its stance arguing that the 6% threshold is already 50% more than the legal requirement, and that the results have been run under a very stressed and unlikely-to-happen scenario.
- How much of a capital shortfall would there have been in the event of a more strict, 8% stated Tier 1 ratio target? From the 27 institutions analyzed in the stress test, 21 are below an 8% Tier 1 ratio. The aggregate capital shortfall would then be Euro 13.2bn as compared with the Euro 2bn shortfall under the 6% threshold.
- Spain's macro outlook is no doubt challenging, and Spanish financial institutions are facing what might be the toughest year in a decade. When added to disappointing stress test results, poor sentiment and visibility may prove to be short-term headwinds. We, therefore, believe a very cautious general approach is necessary, especially with respect to Spanish domestic banks. We still prefer Santander and BBVA based on their undemanding valuations, comfortable capital and funding positions, proven P&L resilience (even under more severe conditions as shown by the stress test results) and attractive earnings diversification.

Figure 59: Estimated capital shortfall under a hypothetical 8% tier 1 threshold

LISTED INSTITUTIONS	Santander	BBVA	Popular	Sabadell	Bankinter	Pastor
Tier 1 ratio at December 2011 after FROB and under "adverse scenario"	10.0%	9.3%	7.0%	7.2%	6.8%	6.0%
bps above/(below) a hypothetical 8% threshold	2.0%	1.3%	-1.0%	-0.8%	-1.2%	-2.0%
Capital require to reach 8%			**-924**	**-466**	**-367**	**-377**
Capital require to reach 8% (accumulated)			**-924**	**-1,390**	**-1,757**	**-2,134**
NON LISTED INSTITUTIONS						
Number of institutions below a hypothetical 8% threshold	17					
Combined amount of capital require to reach 8%	**-11,142**					
Number of institutions above a hypothetical 8% threshold	4					
Grand total capital require to reach 8% (listed and non-listed)	**-13,276**					

Source: Deutsche Bank estimates

The stress test for Spanish financials: the assumptions

Bank of Spain's stress test results template differs from CEBS'. BoS presents the results in three blocks, namely: (1) **Impairment calculations:** Under both scenarios, it provides the expected impairment under different credit book buckets (including lending book and fixed income portfolios different to trading) plus the impairment from a sovereign shock (including trading portfolio and equity portfolios available for sales); (2) **Available resources to absorbed impairments:** The Bank of Spain presents on one hand the on balance sheet loan loss provisions (under CEBS these are deducted straight from impairments) and the expected accumulated pre-provision profit (PPP) in 2010-2011 (under both scenarios); (3) **Impact on Tier 1:** Again under both scenarios, Bank of Spain presents the reconciliation between impairments and "absorbing buffers" to arrive to the stressed Tier 1 capital.

Credit book impairment calculations/assumptions

In the next two Figures we summarize the main loss rates assumed both for the system as a whole and for the saving banks sector in particular. Both under the "benchmark scenario" and the "severe scenario", we regard the assumptions used as sufficient. But we would still make the following comments.

Figure 60: Loss rates: Bank of Spain's forecasts broken down by type of credit

	Total system (banks+cajas)		Saving banks (only)		Santander		BBVA	
	Benchmark	Adverse	Benchmark	Adverse	Benchmark	Adverse	Benchmark	Adverse
	% assets	% assets	% assets	% assets	% assets	% assets	% assets	% assets
Credit book (*)	**-5.2%**	**-6.1%**	**-6.3%**	**-7.7%**	**-4.0%**	**-4.5%**	**-4.5%**	**-4.9%**
o/w financial institutions	-0.6%	-0.7%	-0.9%	-1.1%	-0.7%	-0.9%	-0.3%	-0.3%
o/w corporates	-3.2%	-4.0%	-4.4%	-5.9%	-2.6%	-3.1%	-2.6%	-3.1%
o/w real estate developers and repossessed assets	-14.5%	-17.3%	-14.9%	-18.1%	-13.6%	-15.2%	-10.5%	-11.4%
o/w SME	-6.0%	-7.6%	-6.7%	-8.8%	-5.9%	-6.7%	-3.1%	-3.7%
o/w residential mortgages	-1.6%	-1.7%	-1.6%	-1.8%	-1.2%	-1.3%	-3.1%	-3.4%
o/w other retail	-10.6%	-11.8%	-6.0%	-7.3%	-12.7%	-14.1%	-10.9%	-11.7%

Source: Deutsche Bank estimates and Bank of Spain

Figure 61: Loss rates Bank of Spain's forecasts broken down by type of credit (cont)

	Popular		Sabadell		Bankinter		Pastor	
	Benchmark	Adverse	Benchmark	Adverse	Benchmark	Adverse	Benchmark	Adverse
	% assets	% assets	% assets	% assets	% assets	% assets	% assets	% assets
Credit book (*)	**-7.3%**	**-8.8%**	**-5.9%**	**-7.4%**	**-3.1%**	**-3.8%**	**-7.6%**	**-9.0%**
o/w financial institutions	-0.5%	-0.7%	-0.8%	-0.9%	-0.8%	-1.0%	-1.0%	-1.2%
o/w corporates	-4.0%	-5.5%	-4.1%	-5.6%	-4.4%	-5.8%	-4.7%	-6.2%
o/w real estate developers and repossessed assets	-15.0%	-17.7%	-14.9%	-17.6%	-16.8%	-19.3%	-16.9%	-19.3%
o/w SME	-6.7%	-8.8%	-6.6%	-8.7%	-6.9%	-9.0%	-6.9%	-9.0%
o/w residential mortgages	-1.3%	-1.4%	-0.9%	-1.0%	-0.8%	-0.9%	-1.5%	-1.7%
o/w other retail	-5.6%	-6.8%	-8.3%	-9.5%	-5.8%	-7.1%	-5.8%	-7.1%

Source: Deutsche Bank estimates and Bank of Spain; (*) Includes lending book and fixed income portfolio different to trading and pref shares; (**) "Others" includes trading book and equity portfolios available for sale

- Focusing on Bank of Spain's release (i.e. loss rates before considering loan loss provision), no details (either at sector level or banks individually) have been provided as to what the implied PD (Probability of Default) and LGD (Loss given Default) are in the stress test. The Bank of Spain has explained, however, that for those banks not running IRB models for capital calculation, the starting PD from which it was then assumed the stressed scenarios (with a deterioration trend set by the ECB guides) has been obtained from the Spanish Credit Registry. For the LGD however, Bank of Spain has used historical evidence and has used the models used by some of the listed banks.
- Linked to the previous bullet point, the fact that PD and LGD are the same for a number of institutions (i.e. not contemplating in the stress test, the different underlying quality of a specific credit bucket amongst institutions), raises some concerns about "undesired" effects such as "benefiting" weaker players.
- Under the "adverse scenario" the LGD factors in nominal declines of 25% in finished properties, 50% in unfinished properties and 61% in land prices. All in all, a 28% decline in nominal prices from the peak.
- Within the "real estate developers" bucket, the Bank of Spain has included assets that have been repossessed/acquired by the banks over the past few quarters.
- The real estate developers' book is expected to have a loss rate, under the "adverse scenario", of 17.3% (18.3% for the saving banks). Assuming a PD of 30% (i.e. 2.5-3x today's levels), the Bank of Spain is implying a LGD of 55%, a high level compared to historical standards.
- Real estate developers related impairments represent 40% of all the credit impairments for the system, but 63% on the saving banks. Moreover, 72% of the system's impairment coming from real estate developers are explained by the Cajas, thus consistent with their weaker (credit quality wise) and larger exposure to the sector.
- Under the "adverse scenario", the system's total loss rate for the credit book (which includes also fixed income portfolio different to trading), is 6.1% (7.7% for the saving banks). Assuming a LGD of 40% (above the historical 25-30%), the implied PD is 15.2% (19.2% for the saving banks). Alternatively, if we assume a 50% LGD (implicitly assuming much lower real estate prices and more difficulties in repossessing), the implied PD would be 12.2% (2x above today's level) and 15.4% for the saving banks.
- Comparisons between loss rates provided under the CEBS and Bank of Spain's template are not possible as CEBS' are net of loan loss provisions, whereas Bank of Spain's are gross. In any case, if we compare 2009's loss rates in the corporate and retail book versus the 2-year accumulated loss rates, we arrive to the conclusion that in the corporate book the loss rate (in the "severe scenario") is 2.4x higher than 2009's (Note: we eliminate from the average atypically high numbers from 5 players) and in the retail book c2x higher.

Figure 62: Comparison between loss rates assumptions under CEBS disclosure

	2009 1-year loss rate on corporate exposures	2009 1-year loss rate on retail exposures	2011 2-year loss rate on corporate exposures under adverse scenario	Difference versus 2009's x2	2011 2-year loss rate on retail exposures under adverse scenario	Difference versus 2009's x2
Santander	0.9%	1.4%	2.4%	1.3x	3.6%	1.3x
BBVA	0.7%	2.1%	1.7%	1.2x	3.8%	0.9x
JUPITER (*)	1.3%	0.4%	8.6%	3.3x	1.3%	1.6x
LA CAIXA (*)	1.6%	0.2%	8.3%	2.6x	1.4%	3.5x
BASE (*)	2.7%	0.3%	8.9%	1.6x	1.7%	2.8x
Popular	1.9%	0.4%	9.0%	2.4x	1.8%	2.3x
Sabadell	0.3%	0.2%	6.4%	10.7x	1.0%	2.5x
DIADA (*)	0.3%	0.0%	9.5%	15.8x	1.6%	n.m
BREOGAN (*)	1.6%	0.2%	8.4%	2.6x	1.6%	4.0x
MARE NOSTRUM (*)	1.1%	0.2%	9.4%	4.3x	1.3%	3.3x
Bankinter	1.1%	0.2%	4.6%	2.1x	1.0%	2.5x
ESPIGA (*)	2.7%	0.4%	7.1%	1.3x	1.3%	1.6x
BANCA CIVICA (*)	1.2%	0.3%	7.9%	3.3x	1.3%	2.2x
Ibercaja	1.1%	0.1%	8.1%	3.7x	0.9%	4.5x
UNICAJA (*)	2.3%	0.4%	5.0%	1.1x	0.6%	0.8x
Pastor	3.0%	0.7%	8.1%	1.4x	1.6%	1.1x
Cajasol/Guadalajara	1.7%	0.3%	8.3%	2.4x	2.0%	3.3x
BBK	1.3%	0.3%	5.2%	2.0x	0.7%	1.2x
UNNIM (*)	0.6%	0.0%	10.8%	9.0x	1.4%	n.m
Kutxa	1.9%	0.3%	7.6%	2.0x	-0.1%	-0.2x
CAI/Caja Circulo/Caja Badajoz	1.2%	0.3%	8.3%	3.5x	1.5%	2.5x
CajaSur	5.4%	0.5%	6.9%	0.6x	1.1%	1.1x
Banca March	1.7%	0.6%	5.5%	1.6x	1.0%	0.8x
Banco Guipuzcoano	1.4%	0.6%	7.0%	2.5x	1.2%	1.0x
Vital Kutxa	0.1%	0.0%	9.4%	47.0x	1.8%	n.m
Caixa Ontinyent	1.1%	0.2%	7.5%	3.4x	1.1%	2.8x
Caixa Pollanca	0.9%	0.3%	8.7%	4.8x	1.3%	2.2x
Average	**1.5%**	**0.4%**	**7.4%**	**2.4x**	**1.4%**	**1.8x**

Source: Deutsche Bank; (*) JUPITER (Caja Madrid/Bancaja/Caixa Laietana/Caja Insular de Canarias/Caja Avila/Caja Segovia/Caja Rioja); LA CAIXA (La Caixa/Caixa Girona); BASE (Caja Ahorros del Mediterraneo/Cajastur+Caja Castilla la Mancha/Caja Cantabria/Caja Extremadura); CAM (Caja Ahorros del Mediterraneo/Cajastur+Caja Castilla la Mancha/Caja Cantabria/Caja Extremadura); DIADA (Caixa Cataluña/Caixa Tarragona/Caixa Manresa); ESPIGA (Caja España/Caja Duero); BREOGAN (Caixanova+Banco Gallego/Caixa Galicia); MARE NOSTRUM (Caja Murcia/Caixa Penedes/Sa nostra/Caja Granada); BANCA CIVICA (Caja Navarra/Caja General de Canarias/Caja Burgos); UNICAJA (Unicaja/Caja Jaen); ; UNNIM (Caixa Sabadell/Caixa Terrasa/Caixa Manlleu)

- Not only domestic books have been subject to the stress test, but also those in other geographies.
- Overall, in the context of other stress-tests and financial crisis, Bank of Spain's impairment assumptions look severe enough.

Impact of sovereign risk and others

In addition to credit impairments, Bank of Spain has run a stress test on sovereign exposures (only trading books) and available for sale equity securities. The basic assumptions behind this calculation include: (1) a direct shock on the trading book: classical market risk type shock; (2) an additional haircut for the public debt on the trading book (i.e. long term interest rate increase of 70% since 2009) equivalent to a decrease of 12% in Spanish 5 year bond; and (3) an indirect effect due to an increase in interest: additional increases in PD and LGD.

The impact of the sovereign shock is responsible for a 16% of total potential impairments in 2010-2011 for the total system (19% for savings banks), the rest coming from credit. As a % of total assets it represents 1.2% of total assets under the "adverse scenario" for the system as a whole and 1.8% of total assets for saving banks.

Figure 63: Breakdown of gross impairments between credit and sovereign

	System (banks and saving banks)	Saving banks (only)	Santander	BBVA	Popular	Sabadell	Bankinter	Pastor
% of gross impairment (2010+2011) that is credit-related	83.7%	81.1%	87.9%	80.5%	92.7%	87.5%	78.5%	91.6%
% of gross impairment (2010+2011) that is sovereign-related	16.3%	18.9%	12.1%	19.5%	7.3%	12.5%	21.5%	8.4%

Source: Deutsche Bank estimates and Ban k of Spain

Pre-pprovision profit (PPP) calculations

From the stress test results and the reason why we believe the final capital shortfall has not been larger, we regard the assumptions around the PPP as the most controversial. In the following bullet points, we look in detail at some of the numbers published, the underlying assumptions, and our views.

The first step is to reconcile explain the difference between the 2-year cumulative PPP under the "adverse scenario" provided by the CEBS and the one from Bank of Spain. At the system level (all banks and saving banks) the difference is just around 1.8% or E1.7bn (Bank of Spain being above CEBS'). At an individual level, there are some very significant differences, mainly amongst saving banks.

The Bank of Spain publishes the Spanish institutions' PPP including the capital gains that different institutions may be generating over the next couple of year (a figure that while incorporated by the CEBS, is not disclosed). Whereas for us it is difficult to assess the likelihood of these disposals and the accuracy of the valuation, there is no doubt that without them, some institutions may have not passed the stress test.

Figure 64: Comparison between CEBS/Bank of Spain 2-year cumulative PPP under "adverse scenario"

	BANK OF SPAIN	CEBS		
	2-year cumulative pre-provision profit under adverse scenario	2-year cumulative pre-provision profit under adverse scenario	GAP (in Em)	GAP (in %)
Santander	43,599	45,737	-2,138	-4.7%
BBVA	20,470	21,768	-1,298	-6.0%
Popular	5,548	4,498	1,050	23.3%
Sabadell	2,685	2,085	600	28.8%
Bankinter	1,313	1,018	295	29.0%
Pastor	814	614	200	32.6%
Rest	25,056	21,996	3,060	13.9%
Total	**99,485**	**97,716**	**1,769**	**1.8%**

Source: Deutsche Bank estimates and Bank of Spain)

Secondly, we must assess the severity around PPP under the "adverse scenario". Bank of Spain claims that the average PPP for the period 2010-2011 (under the "adverse scenario") has been stressed by 30% in relation to the figure recorded in 2009 (40% in the case of the saving banks). We are not sure how Bank of Spain arrives at these declines, but according to the data provided, we estimate an average of 16-18% (see Figure below). Our impression is that this may be perceived as insufficient.

Figure 65: Comparison between CEBS/Bank of Spain 2-year cumulative PPP under "adverse scenario" versus 2009

	Pre-provision profit in 2009	2-year cumulative pre-provision profit under adverse scenario - BANK OF SPAIN DEFINITION (incl cap gains)	Difference between 2-year cumulative PPP in adverse and 2009's x2 (BoS definition)	2-year cumulative pre-provision profit under adverse scenario - CEBS definition	Difference between 2-year cumulative PPP in adverse and 2009's x2 (CEBS definition)
Santander	22,960	43,599	-5%	45,737	0%
BBVA	12,308	20,470	-17%	21,768	-12%
Popular	2,762	5,548	0%	4,498	-19%
Sabadell	1,326	2,685	1%	2,085	-21%
Bankinter	599	1,313	10%	1,018	-15%
Pastor	713	814	-43%	614	-57%
Rest	18,808	25,056	-33%	21,996	-42%
Total	**59,476**	**99,485**	**-16%**	**97,716**	**-18%**

Source: Deutsche Bank estimates and Bank of Spain

Finally a quick look at how Deutsche Bank's PPP forecasts for 2010-2011 (listed names only) compare with the Bank of Spain's and CEBS' PPP.

Figure 66: PPP comparison between CEBS/Bank of Spain forecasts and DB estimates

		BANK OF SPAIN		CEBS	
	DB pre-provision profit forecast 2010-2011	2-year cumulative pre-provision profit under adverse scenario	GAP (%)	2-year cumulative pre-provision profit under adverse scenario	GAP (%)
Santander	50,434	43,599	-13.6%	45,737	-9.3%
BBVA	24,205	20,470	-15.4%	21,768	-10.1%
Popular	4,883	5,548	13.6%	4,498	-7.9%
Sabadell	2,379	2,685	12.9%	2,085	-12.4%
Bankinter	1,016	1,313	29.2%	1,018	0.2%
Pastor	953	814	-14.6%	614	-35.6%

Source: Deutsche Bank estimates and Bank of Spain

Tier 1 calculation

Now that we have gone through the impairments (credit and sovereign) and the "buffers" (pre-provision profits and loan loss provisions). In Figure 67 be summarize for the system and the saving banks the Tier 1 reconciliation. Afterwards, we highlight an additional line which could create some noise around results and where we have little visibility.

Figure 67: Tier 1 reconciliation for the system and the saving banks

	System (banks and saving banks)				Saving banks (only)			
	Benchmark	Benchmark	Adverse	Adverse	Benchmark	Benchmark	Adverse	Adverse
	Em	% RWA	Em	% RWA	Em	% RWA	Em	% RWA
Tier 1 at December 2009	181,865	9.5%	181,865	9.5%	78,097	9.2%	78,097	9.2%
+/- net impairment (accumulated 2010-2011)	15,678	0.8%	-28,075	-1.5%	-15,983	-2.0%	-38,636	-4.7%
+/- dividends, unused generic reserves and other items	-13,801	-0.7%	-5,451	-0.3%	4,830	0.6%	5,563	0.7%
Tier 1 at December 2011	183,742	9.6%	148,339	7.7%	66,944	8.2%	45,024	5.5%
FROB support to date	10,991	0.6%	10,991	0.6%	10,991	1.3%	10,991	1.3%
Tier 1 at December 2011 after FROB	**194,733**	**10.2%**	**159,330**	**8.3%**	**77,935**	**9.5%**	**56,015**	**6.9%**
Addition capital required to reach 6% Tier 1 in 2011	**0**	**0.0%**	**2,042**	**0.1%**	**0**	**0.0%**	**2,042**	**0.2%**

Source: Deutsche Bank estimates and Bank of Spain

Starting from the Tier 1, Bank of Spain deducts the credit and sovereign impairments net of provisions, pre-provision profit and capital gains. In addition, the Bank of Spain includes a line containing "dividends, unused generic reserves and other items". The main elements in this line are: (1) estimated dividends payable in the period 2010-2011; (2) variations in reserves originated through valuation of assets at fair value in merger or integration processes in the savings banks; and (3) other impacts such as the issuance net of redemptions of instruments eligible as Tier 1 (carried out or committed from 1 January 2010), impact on total assets of estimated exchange rate movements from the same date and deductions from capital due to the acquisition of holdings in financial institutions, among other things.

As was the case with capital gains within the PPP, it is difficult to assess the impacts included in this line; there is no doubt that without them, some institutions may have not passed the stress test. As seen in Figure 67 above, whereas for the system as a whole this line is a negative figure (driven by the dividends of Santander and BBVA), for the saving banks is a positive E5bn. In the following section we analyze the impact on Tier I if this line were not included.

The stress test for Spanish financials: the results

Bank of Spain estimates a gross impairment from credit and sovereign of E207bn (7.3% of the system's assets and 9.5% of the cajas'), which in net terms (after PPP and loan loss provisions) is E28bn (1% of the system assets). This would bring the system Tier 1 from 9.5% at the end of 2009 down to 8.3% in 2011. The system's total capital shortfall stands, under the "adverse + sovereign shock", at E2bn. Note that the latter figure is incremental to the E14.3bn already injected (E10.5bn by the FROB, E3.7bn by the DGF for CCM), thus a combined cE16.3bn.

Figure 68: Total system (banks and saving banks) stress test results summary

	Benchmark	Benchmark	Adverse	Adverse
IMPAIRMENTS	**Em**	**% assets**	**Em**	**% assets**
Credit book (*)	**-146,608**	**-5.2%**	**-173,619**	**-6.1%**
o/w financial institutions	-1,988	-0.6%	-2,273	-0.7%
o/w corporates	-18,242	-3.2%	-22,904	-4.0%
o/w real estate developers and repossessed assets	-63,679	-14.5%	-76,012	-17.3%
o/w SME	-18,269	-6.0%	-22,968	-7.6%
o/w residential mortgages	-16,884	-1.6%	-15,345	-1.7%
o/w other retail	-30,546	-10.6%	-34,116	-11.8%
Sovereign shock and others (**)	**-10,429**	**-0.4%**	**-33,854**	**-1.2%**
Gross impairment (accumulated 2010-2011)	**-157,037**	**-5.6%**	**-207,473**	**-7.3%**
AVAILABLE RESOURCES TO ABSORB IMPAIRMENTS				
Balance sheet loan loss reserves (end of 2009)	69,918	2.5%	69,918	2.5%
Pre-provision profit + capital gains (accumulated 2010-2011)	107,284	3.8%	99,483	3.5%
Taxes	-4,487	-0.2%	9,998	0.4%
Net impairment (accumulated 2010-2011)	**15,678**	**0.6%**	**-28,075**	**-1.0%**
IMPACT ON TIER 1 CAPITAL	**Em**	**% RWA**	**Em**	**% RWA**
Tier 1 at December 2009	181,865	9.5%	181,865	9.5%
+/- net impairment (accumulated 2010-2011)	15,678	0.8%	-28,075	-1.5%
+/- dividends, unused generic reserves and other items	-13,801	-0.7%	-5,451	-0.3%
Tier 1 at December 2011	183,742	9.6%	148,339	7.7%
FROB support to date	10,991	0.6%	10,991	0.6%
Tier 1 at December 2011 after FROB	**194,733**	**10.2%**	**159,330**	**8.3%**
Addition capital required to reach 6% Tier 1 in 2011	**0**	**0.0%**	**2,042**	**0.1%**

Source: Deutsche Bank estimates and Bank of Spain

Out of the 27 institutions analyzed by Bank of Spain (8 banks and 19 savings banks – representing 90% of the Spanish financial system), 5 have failed to have a Tier I ratio above 6% under the most severe assumptions, and unsurprisingly all these 5 institutions are savings banks. Listed names have all passed the tests, with Santander and BBVA standing as the most resilient and Pastor with a 6% Tier 1 under the "adverse scenario" the weakest.

Figure 69: Spanish banks and saving banks Tier 1 under the different scenarios

		Benchmark scenario	Adverse scenario	Adverse scenario+Sovereign shock		
	Tier 1 ratio at the end of 2009	Tier 1 ratio at the end of 2011	Tier 1 ratio at the end of 2011	Tier I ratio at the end of 2011	Fail/Pass	Total Tier 1 capital required to reach 6%
Santander	10.0%	11.0%	10.2%	10.0%	Pass	
BBVA	9.4%	10.6%	9.6%	9.3%	Pass	
JUPITER (*)	8.6%	8.8%	6.8%	6.3%	Pass	
LA CAIXA (*)	10.3%	10.6%	8.5%	7.7%	Pass	
BASE (*)	9.3%	10.5%	8.4%	7.8%	Pass	
Popular	9.1%	9.2%	7.5%	7.0%	Pass	
Sabadell	9.0%	9.6%	7.7%	7.2%	Pass	
DIADA (*)	6.6%	6.4%	4.5%	3.9%	Fail	1,032
BREOGAN (*)	8.6%	10.1%	7.8%	7.2%	Pass	
MARE NOSTRUM (*)	9.0%	9.7%	7.6%	7.0%	Pass	
Bankinter	7.5%	8.4%	7.6%	6.8%	Pass	
ESPIGA (*)	8.6%	8.2%	6.1%	5.6%	Fail	127
BANCA CIVICA (*)	9.6%	7.6%	5.2%	4.7%	Fail	406
Ibercaja	9.4%	9.1%	7.3%	6.7%	Pass	
UNICAJA (*)	11.8%	11.8%	9.6%	9.0%	Pass	
Pastor	10.5%	8.7%	6.8%	6.0%	Pass	
Cajasol/Guadalajara	10.3%	8.7%	6.6%	6.0%	Pass	
BBK	14.6%	17.4%	14.7%	14.1%	Pass	
UNNIM (*)	7.2%	6.6%	5.1%	4.5%	Fail	270
Kutxa	13.0%	12.6%	11.1%	10.6%	Pass	
CAI/Caja Circulo/Caja Badajoz	9.4%	8.8%	6.6%	6.1%	Pass	
CajaSur	1.8%	6.6%	4.9%	4.3%	Fail	208
Banca March	19.7%	20.8%	19.5%	19.0%	Pass	
Banco Guipuzcoano	9.1%	8.1%	6.6%	6.1%	Pass	
Vital Kutxa	11.3%	9.5%	7.5%	7.0%	Pass	
Caixa Ontinyent	8.9%	8.4%	6.6%	6.6%	Pass	
Caixa Pollanca	9.9%	9.1%	6.6%	6.2%	Pass	

Source: Deutsche Bank estimates and Bank of Spain; (*) JUPITER (Caja Madrid/Bancaja/Caixa Laietana/Caja Insular de Canarias/Caja Avila/Caja Segovia/Caja Rioja); LA CAIXA (La Caixa/Caixa Girona); BASE (Caja Ahorros del Mediterraneo/Cajastur+Caja Castilla la Mancha/Caja Cantabria/Caja Extremadura); CAM (Caja Ahorros del Mediterraneo/Cajastur+Caja Castilla la Mancha/Caja Cantabria/Caja Extremadura); DIADA (Caixa Cataluña/Caixa Tarragona/Caixa Manresa); ESPIGA (Caja España/Caja Duero); BREOGAN (Caixanova+Banco Gallego/Caixa Galicia); MARE NOSTRUM (Caja Murcia/Caixa Penedes/Sa nostra/Caja Granada); BANCA CIVICA (Caja Navarra/Caja General de Canarias/Caja Burgos); UNICAJA (Unicaja/Caja Jaen); ; UNNIM (Caixa Sabadell/Caixa Terrasa/Caixa Manlleu)

Company comments

Whilst the market's focus will be on the overall Spanish system and the Cajas in particular, we also highlight the resilience shown by listed names (with the exception of Pastor which came at the low end of the Tier 1 range – 6%). This does not surprise us if we look back at the stress test exercises that we have run and presented in different pieces of research in the past, namely: *"Spanish Domestic Banks: Challenges persist but are priced in"*, dated 12 April 2010; and *"Santander / BBVA: Standing out from the crowd"*, dated 4 June 2009.

Spanish listed names (Santander, BBVA, Banco Popular, Banco Sabadell and Bankinter) stand out from the stress test as holding a sufficiently comfortable Tier 1 capital ratio (ie. in excess of 6%), even under the most severe of the scenarios. Within our coverage universe, Santander and BBVA stand up as the most solid players, in our view. Pastor on the other hand falls to 6%, and, therefore, looks to be the weakest of the listed names under the "adverse scenario".

CEBS stress tests versus DB forecasts: Has Spain missed an opportunity to restore confidence?

Out of the 22 names that have exceeded the 6% tier 1 threshold, there are 6 below 6.5% and another 3 between 6.5-7%. Our concerns therefore, are not that much related to the size of the capital shortfall (under some tougher hypothetical scenarios the amount would increase only by Euro 3.5bn), but the potentially missed opportunity by Spain to use the stress test as a catalyst to promote a second wave of recapitalizations (especially considering the potential incremental amount would have been easily manageable by the FROB).

Whilst acknowledging that the assumptions in the adverse scenario may never materialize, we fear that the stress test results have left the door open to further concern about some smaller institutions' solvency. This might ultimately interrupt (in light of the last few weeks' market performance) the restoration of market confidence and, more importantly, these institutions' ability to access term debt markets-ultimately the main reason for running the stress tests.

During the presentation held on Saturday in Madrid, when challenged about the need of recapitalizations on institutions with Tier 1 ratios slightly above 6% after the stress test, Bank of Spain defended its stance, arguing that the 6% threshold is already 50% more than the legal requirement and that the results have been run under a very stressed scenario, and one that is unlikely to happen. We regard as unlikely some forced recapitalizations in the medium term. This may be seen as a missed opportunity, in our view.

Italian Banks

Key points

The Stress Test

- The Stress Test has been applied to 5 of the Italian Banks (Unicredit, Intesa, MPS, Banco Popolare and UBI Banca - which account for more than 60% of the total assets of the Italian banking system) and they all passed the test.
- This positive result has, to some degree, been anticipated by the Governor of Bank of Italy in a recent speech and we were largely expecting the results.
- MPS's estimated Tier 1 ratio in the adverse scenario (6.2%) is very close to the 6% threshold, due to an already weak starting point (and not because of peculiar risks in its trading or banking book); for this reason, the market should not consider this outcome as a very relevant surprise. We expect MPS to proceed with some disposals in order to improve its solvency ratios, as already planned, but with a closer monitoring from Bank of Italy. Any solution of its long-lasting capital concerns (even a capital increase) should be ultimately positive for MPS, as it would make its restructuring potential more visible.
- How much of a capital shortfall would there have been in the event of a more strict, 8% stated Tier 1 ratio target? Strictly applying the metrics of the test, we calculate that for Italy, in aggregate, using an 8% Tier 1 ratio target would have led to a total capital shortfall of Euro 4.3bn (as compared with the total capital buffer of Euro 18.6bn under the 6% threshold). We believe that the real capital shortfall would be actually lower, as most of the banks have already approved disposals (branches, custodian business, partnerships, etc) which have not been included in the calculation of the Stress Test and most of the banks included the payment of dividends (for Intesa only, total 2010 and 2011 dividends were Euro 1.3bn in the adverse scenario). Realistically, we believe that mainly the "near-miss" cases, like MPS or even Banco (as they have to repay Tremonti bonds) will have to strictly focus on the capital management moves, in order to reach a safer level of solvency ratios.

Investment case on Italian Banks

- There are essentially two drivers for "normalization" of the profitability of Italian banks: 1. increase of interest rates and 2. improvement in asset quality. The first driver would positively impact net interest income but does not seem realistic as interest rates should remain lower for longer. So, the sole support to an increase of ROTE in 2011E is the decline of the cost of credit. This topic and related data (Euro weakness, trends of exports, demand from Asia and America, etc) will likely remain the most important elements in reading Italian banks' results in the coming quarters.
- Our preferred names in the sector remain Intesa and Unicredit. Also, after the Stress Test, we consider Intesa as the most defensive Italian bank, due to its liquidity and capital profile and to its business mix. Alternatively, the main reason to Buy Unicredit is, in our view, its leverage to the economic recovery, via its presence in Germany, CEE and Italy. Both, Intesa and Unicredit, have a double digit 2011E ROTE (as we assume control of operating costs and decline of provisions on loan losses), so we consider their 2011E P/TE (slightly below 1x) attractive.

The stress test for Italian Banks: the results

The Stress Test has been applied to 5 of the Italian Banks (Unicredit, Intesa, MPS, Banco Popolare and UBI Banca) and they all pass the test.

In the past few weeks, the market only had some concerns about both Banco and MPS, due to their weak starting capital positions, but we do not believe that the fact that they passed the test represents a positive catalyst. Indeed, the result of MPS is a near-miss and, both MPS's and Banco's capital is boosted by Tremonti bonds. So, overall, the market's view on both names should be unchanged, in our view.

Figure 70: Italian Banks – results

Euro m	Banco	MPS	UBI Banca	Intesa	Unicredit
Benchmark scenario					
2011 Tier 1 capital	7,221	9,131	6,503	33,934	45,918
2011 RWAs	92,623	120,347	85,677	345,167	461,455
Estimated tier 1 ratio %	7.8%	7.6%	7.6%	9.8%	10.0%
Adverse scenario					
Tier 1 capital	6,909	8,373	6,105	33,326	38,334
RWAs	93,133	122,630	85,747	377,451	471,173
Estimated tier 1 ratio %	7.4%	6.8%	7.1%	8.8%	8.1%
2010-2011 cum. pre-impairment income	2,230	4,350	2,411	17,782	20,374
DB estimates (GOP 2010+2011)	2,885	4,793	2,700	16,134	24,046
versus DB estimates	-23%	-9%	-11%	10%	-15%
Benchmark scenario - write-downs					
2010-2011 cum. banking book	2,505	4,351	2,739	10,865	21,858
2010-2011 cum. trading book	183	65	8	586	441
Adverse scenario - write-downs					
2010-2011 additional banking book	241	451	298	928	1,200
2010-2011 additional trading book	323	675	70	1,915	1,608

Source: Deutsche Bank, Company data

The Governor of Bank of Italy, Mr Mario Draghi, commented the results of the Stress Test: *"Although the initial capital ratios of the large Italian banks are well above the regulatory minimums, on average they are low by comparison with the other European banks. The gap reflects Italian prudential regulation, which sets more stringent limits on the inclusion of certain instruments in the capital aggregates that are the numerator of the ratios, and large-scale public recapitalization operations that benefited some large European banks. By international comparison the Italian groups stand out for a low degree of financial leverage, as a consequence of their business consisting mainly in traditional intermediation activity. As part of its prudential supervision, the Bank of Italy will carefully evaluate the results of the stress test with each of the groups involved."*[2].

We would highlight two points in this official statement:

- In general, Bank of Italy demonstrated a higher satisfaction towards the level of capitalization of the system (during 2008, the Governor's tone was very different and he never mentioned the more stringent limits of Italian regulation or the low leverage as a "defense" of the capital situations of banks);

[2] http://www.bancaditalia.it/vigilanza/stress_test;internal&action=_setlanguage.action?LANGUAGE=en

- Specifically, the Bank of Italy should closely monitor the situation of those banks that are "border-line" vis a vis the threshold, like MPS.

Figure 71: Italian Banks – potential capital shortfall in the case of 8% T1 ratio target

	Banco	MPS	UBI Banca	Intesa	Unicredit	Total
Tier 1 ratio adverse scenario	7.0%	6.2%	6.8%	8.2%	7.8%	
Capital buffers (Euro m)	931	235	686	8,500	8,245	18,597
New threshold	8.0%	8.0%	8.0%	8.0%	8.0%	
Gap	1.0%	1.8%	1.2%	-0.2%	0.2%	
Additional capital required (Euro m)	931	2,207	1,029	-755	942	4,355

Source: Deutsche Bank Estimates, Company data

Strictly applying the metrics of the test, we calculate that for Italy, in aggregate, using an 8% Tier 1 ratio target would have led to a total capital shortfall of Euro 4.3bn (as compared with the total capital buffer of Euro 18.6bn under the 6% threshold). We believe that the real capital shortfall would be actually lower, as most of the banks have already signed disposals (branches, custodian business, partnerships, etc) which have not been included in the calculation of the Stress Test (as the will be officially recorded in the coming quarters). On this respect, we add some comments on a bank-by-bank basis:

- Banco issued a soft convertible bond, which would generate 110bps of additional capital, more than closing the identified gap (Euro 931m). However, Banco has Euro 1.45bn of Tremonti bonds and should repay them by 2013; in order to do so, it is considering selling branches and/or subsidiaries and, in our view, its stake in the consumer credit company, Ducato.
- The outcome for UBI Banca (Euro 1.0bn capital shortfall) is the most misleading: firstly, UBI Banca has a very low level of hybrids in place, so its Core Tier 1 is actually 93% of its Tier 1 capital; secondly, the Stress Test excludes the effects (Euro ~200m) of already approved actions (Euro 70m cost cutting for the early retirement of employees and Euro 100m revenues increase from carry trades and re-pricing of fee-based services) and disposals (sale of the custodian business for Euro 80m); thirdly, UBI Banca did not take Tremonti bonds and actually issued a Euro 460m soft convertible bond.
- Realistically, the only banks where we might see the need to raise additional capital, if the outcome of their disposals and capital management moves proves not be positive, are MPS and Banco.
- In any context, Intesa appears as the most defensive bank and, actually, its capital buffer is higher than it seems: 1. the Stress Test does not account for a positive impact of 40bps on Tier 1 ratio, coming from capital management moves which have been concluded after December 2009; 2. the bank included the payment of Euro 1.3bn dividends in the adverse scenario (but if needed, it could skip it).
- Due to the above mentioned points, a realistic capital shortfall (assuming an 8% Tier 1 ratio target) would be in the range of Euro 2bn – Euro 3bn (to be covered by soft convertible bonds, disposals, etc or eventually equity raising).

Focus on the metrics of the test

In Figure 72, we compare the assumptions of the Stress Test with the highest historical level of banks' provisions and with the hypotheses that we used in our report "CEBS stress test: what we learn?", published on 8 July, 2010.

Figure 72: Italian Banks – losses on banking books

	Banco	MPS	UBI Banca	Intesa	Unicredit
Corporate – 2009	1.05%	0.98%	1.03%	1.05%	1.49%
Retail – 2009	0.91%	1.01%	0.77%	0.97%	1.20%
Corporate – benchmark	1.41%	1.25%	1.32%	1.41%	1.68%
Delta versus 2009	0.36%	0.27%	0.29%	0.36%	0.19%
Retail – benchmark	1.09%	1.25%	1.00%	1.17%	1.61%
Delta versus 2009	0.18%	0.24%	0.23%	0.20%	0.41%
Corporate – adverse	1.59%	1.39%	1.47%	1.55%	1.78%
Delta versus 2009	0.54%	0.41%	0.44%	0.50%	0.29%
Retail – adverse	1.22%	1.41%	1.16%	1.28%	1.72%
Delta versus 2009	0.31%	0.40%	0.39%	0.31%	0.52%
Total cost of credit (2009)	0.98%	0.99%	0.91%	1.01%	1.40%
Total cost of credit (adverse case test)	1.40%	1.40%	1.33%	1.41%	1.76%
on normalized (x)	2.6	2.3	3.2	2.3	2.2
Memo – DB stress test	1.65%	1.80%	1.23%	1.83%	2.43%
on normalized (x)	3.0	3.0	3.0	3.0	3.0
Total cost of credit – Maximum level	1.44%	0.96%	0.79%	0.99%	1.42%
Delta Adverse case test / Maximum	-0.04%	0.44%	0.54%	0.42%	0.34%

Source: Deutsche Bank, Company data

On average, the simulated cost of credit in the adverse case is 34bps higher than the maximum peak that Italian banks reached. In the case of Banco, the cost of credit in the adverse scenario is very close to its maximum historical level, but Banco recorded 144bps in 2008 only, while, from 1993 to 2009, its average cost of credit was 44bps, with the other maximum peak in 2009, when it recorded a cost of credit of 70bps. Thus, the assumption of the stress test seems reasonable.

We consider that the cost of credit of banks under a stressed scenario could be up to 3.0x their normalized level, setting normalized level close to the historical average, in most cases. The actual Stress Test has a milder approach for all banks (excluding UBI Banca) and assumes an average increase over our normalized level of 2.5x. For instance, the 2.2x multiple applied to Unicredit is not very conservative, because the bank has a higher exposure to investment banking than peers and also a more relevant presence in CEE (the test does not seem to simulate also a worsening of the conditions of some of the Countries where Unicredit is present, which are strongly dependent from the Euro Area, anyway).

Moving to trading assets, Italian banks are advantaged by the application of haircuts to "held for trading" Government bonds only, as 68% of their total Government bonds are in other categories (Q1-10 data). This is partially offset by the fact that the average duration of these portfolios is generally ~2.5 years or less, therefore the metrics of the test for the calculation of the haircuts (based on the reduction of the value of 5 years Government bonds) are penalizing.

Figure 73: Italian Banks – classification of Government bonds

% on total	Banco	MPS	UBI Banca	Intesa	Unicredit	Average
Government bonds held for trading	49%	32%	14%	35%	28%	32%
Other Government bonds	51%	68%	86%	65%	72%	68%
Total trading + banking book	8,524	28,220	6,461	71,400	81,764	
On total assets	6.3%	12.6%	5.3%	11.4%	8.8%	9%
Of which: Italy	97%	98%	98%	89%	47%	86%

Source: Deutsche Bank, Companies data – For MPS, 2009 data for the banking book and Q1-10 data for the trading book

Banco has the lowest percentage of trading assets outside the trading book, but still almost half of them are not included. UBI Banca has the highest percentage of trading asset outside the trading book and it would be even higher if applied to Q2-10 figures, because UBI Banca put in place a carry trade, increasing the level of its AFS Government bonds, by Euro 5.5bn; having said that, it is also true that the weight of UBI Banca's total Government bonds on its total assets (5.3%) is the lowest among Italian banks and the impact of the application of the test to its total portfolio would have been limited.

Not surprisingly, the large majority (86% on average) of Italian banks' Government bonds is represented by Italian securities. For smaller banks, this percentage is very close to 100%. Unicredit differs from other banks, as it has also a sizable portfolio of German Government bonds (Euro 19.9bn, of which Euro 5.8bn are in the trading book).

Figure 74 details the distribution of Italian banks' Government bonds by issuer and by category, focusing on Italy, Greece, Spain, Portugal and Ireland and distinguishing between "held for trading" and other. Excluding Italy, the weight of the bonds of the other mentioned countries is negligible, in most cases.

Figure 74: Italian banks – distribution of Government bonds per country (Q1-10)

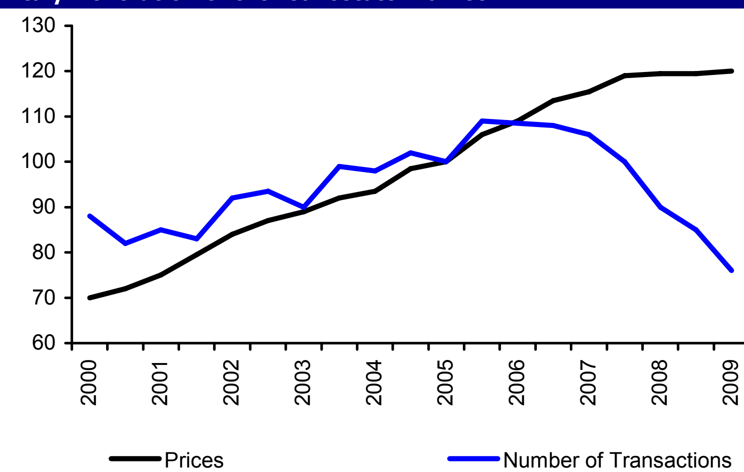
Euro m	Banco	MPS	UBI Banca	Intesa	Unicredit
Italy	8,284	27,756	6,303	63,543	38,832
held for trading	50%	31%	14%	36%	41%
other	50%	69%	86%	64%	59%
Greece	89	35	25	828	801
held for trading	80%	57%	100%	35%	19%
other	20%	43%	0%	65%	81%
Spain	151	116	0	556	537
held for trading	0%	100%	0%	2%	6%
other	100%	0%	0%	98%	94%
Portugal	0	93	0	25	186
held for trading	0%	63%	0%	0%	78%
other	0%	37%	0%	100%	22%
Ireland	0	3	0	156	80
held for trading	0%	100%	0%	0%	25%
other	0%	0%	0%	100%	75%

Source: Deutsche Bank, Companies data - For MPS, 2009 data for the banking book and Q1-10 data for the trading book

After the analysis of the treatment of Italian banks' lending and trading books in the Stress Test, we list below some observations regarding its macro economic assumptions (evolution of GDP, of real estate prices and of interest rates) and its starting point (2009 and Q1-10 figures).

- The Stress Test projects a decline of the Italian GDP of 0.6% in 2010 and 2011 in total (adverse scenario), versus the current estimate of the European Union of a growth of 2.1% in total (benchmark scenario), in the same period. If compared with the -5.1% YoY recorded by the Italian GDP in 2009, these figures seem not capturing well the high swing coming from the further decline of exports, which would be a likely consequence of the poor demand from Italy's main commercial partners.
- Conversely, we consider reasonable the estimates on the evolution of the Italian real estate prices (-0.7% and +0.3% in 2010 and 2011, respectively, in the benchmark scenario and -1.6% and -2% in 2010 and 2011, respectively, in the adverse scenario – both for commercial and residential properties).

Figure 75: Italy – evolution of the real estate market



Source: Deutsche Bank, Bank of Italy

Indeed, even in 2009, real estate prices did not decline in Italy (as there has not been any relevant real estate bubble in the years before the crisis).

- According to the hypothesis of the Stress Test, short-term interest rates should increase to 2.1% in 2010 and to 3.3% in 2011 (under the adverse scenario, while the benchmark scenario foresees an increase to 1.2% in 2010 and to 2.1% in 2011), in the Euro Area. This would represent more than 100bps uplift per year, compared to the current level (ECB rate is at 1% and the 3m Euribor is still below this level, at 0.89% as of 23 July, 2010). Clearly, the Stress Test looks at the negative impact (additional impairments on the banking book) of this trend and Italian banks do not seem to have considered in the same way the positive contribution to revenues (improvement of the liability spread) that they would record in a high-interest-rates environment. For example, we understand that Intesa fully accounted for these benefits, Banco did not. As a reference, we report in Figure 76 guidance on company sensitivity to an increase of 100bps of interest rates.

Figure 76: Italian Banks – Sensitivity to an increase of 100bps of interest rates

Euro m	Intesa	Unicredit	MPS	Banco	UBI	BPM	Credem	Average
Company guidance	184	500	200	170	118	60	37	
as a % of NII	1.8%	3.0%	5.4%	7.2%	4.8%	7.4%	7.7%	3.1%
as a % of NII (no hedges)	3.9%	3.0%	5.4%	7.2%	4.8%	7.4%	7.7%	4.0%
2011E net interest income	10,162	16,639	3,725	2,356	2447	806	480	
Impact on EPS	3.7%	7.9%	17.2%	7.2%	18.3%	20.1%	17.8%	7.9%

Source: Deutsche Bank, Company data

- For Italian banks, 2009 and Q1-10 P&L figures are a penalizing starting point, due to:
  - compressed net interest income – Euribor reached its bottom in Q4-09 and Q1-10;
  - scarce contribution of trading income, compared to European peers (Unicredit partially differs from other Italian banks in this respect);
  - top high level in the cost of credit;
  - increase in the tax rate, as consequence of the above mentioned points.

Company comments

In the following subparagraphs, we describe the results of the Stress Test, bank-by-bank.

Unicredit
Unicredit passed the test, with a Tier 1 ratio of 7.8% in the adverse scenario (which would be a Core Tier 1 ratio of 7.4%). We do not see the test as a catalyst for the stock, as these results are in line with consensus' expectations.

It might be worth pointing out a methodological note, which applies also to Intesa. Looking at their 2011E Tier 1 ratios of the benchmark scenario, both Unicredit and Intesa have better capital positions than what we currently obtain in our public estimates. The three main explanations of this counter-intuitive fact should be: 1. dividends – in the benchmark and adverse scenario, Intesa made different assumptions of earnings retention (in total, Euro 2bn dividends and Euro 1.3bn dividends, in the benchmark and adverse scenario, respectively to be paid in 2010 and 2011, versus Euro 3.1bn in our forecasts) and it could be the same for Unicredit; 2. increase in interest rates – the positive impact on net interest income of high interest rates might be higher than what we factor in our estimates (we forecast the ECB rate to reach 1.5% as of yearend 2011); 3. RWAs growth – we understand that the test is applied on a steady scenario, while our figures assume an expansion of the lending book in 2010 and 2011.

Intesa
Intesa passed the test, with a Tier 1 ratio of 8.2% in the adverse scenario and, in our view, the Stress Test is just a confirmation of its defensive profile.

Intesa's defensiveness can be observed in the results of the test, but also in some elements of the calculation. For example, looking at the expected losses on its banking book (corporate and retail exposure), it maintains a cost of credit constantly below Unicredit and most peers. The impairment on Intesa's Government bonds that are classified as held for trading (35% of the total) are higher than Unicredit and other banks' (due to its bigger portfolio), but the calculation is particularly penalizing, because, as we already pointed out, the haircuts have been derived assuming an average duration of 5 years, while Intesa's Government bonds portfolio (89% Italian Government bonds) has an average duration slightly higher than 1 year, according to the company.

As mentioned above, the Stress Test does not include the effects (40bps in total) of the disposal of Intesa's securities services to State Street (+37bps in Core Tier 1 ratio) and of its branches to Credit Agricole (+20bps in Core Tier 1 ratio), net of the acquisition of branches from MPS (-9bps in Core Tier 1 ratio) and of Intesa Vita (-7bps in Core Tier 1 ratio).

MPS
MPS's final Tier 1 ratio under stress is very close to the 6% theshold, reaching 6.2%. In term of sentiment on the stock, this should not bring important news, as the market has been concerned on MPS's weak capital position, since the acquisition of Antonveneta (November 2007). In other words, MPS's ratios are more "stretched" then other banks', due to its weaker starting point and not because of higher specific risks in its trading or banking book, which have been highlighted following the Stress Test.

The Tremonti bonds (Euro 1.9bn) are included in MPS's equity for the purpose of the Stress Test; without those instruments MPS would record a capital shortfall of Euro 1.3bn (-109bps – we deduct the amount of the Tremonti bonds and we add back their cumulated cost for 2010 and 2011); this could be partially covered by the disposals and capital management moves (~100bps) which we describe in Figure 77.

We think that Bank of Italy will closely monitor MPS's situation and this is not necessarily a negative point. Actually, we believe that the hidden value of MPS's restructuring story may be more appreciated once its long lasting capital issue is solved. The best outcome, we think, would be to solve it with announced disposals, but even a capital increase would be probably welcomed by the market. However, we do not see a capital increase as likely for two reasons: 1. the high likelihood of some of the identified disposals; 2. the current financial position of MPS's main shareholder (MPS's Foundation) and its intention not to dilute its current control of the bank. In any case, the role of Bank of Italy will be crucial, in this respect: we think that Bank of Italy might define a sort of the deadline for the completion of MPS's capital management moves; if, after that deadline, MPS do not managed to conclude them or they are not enough to bring MPS to a safer solvency position, a capital increase or a similar capital enhancement programs (for example, in our report "Upgrade to Buy"[3], we also mentioned the option of Contingent Convertibles) might become necessary.

In its press release, MPS describes and quantifies how it plans to further strengthen its Tier 1 ratio and we summarize its comments in Figure 77.

Figure 77: MPS – capital management moves

Approved actions (*)	Impact	Timing
Disposal of 72 branches	25bps	2010
Agreement on asset management	Positive impact – size depends on final terms of the agreement (**)	2010
Potential actions		
RE disposals	40bps	2010E
Basel II advanced	40-50bps	2010E

Source: Deutsche Bank, Company data (*) they have been approved, but they will be accounted in the coming quarters, so their impact is not included in 2009 figures, which have been used as a starting point. (**) please refer to our alert on MPS and BPM "MPS and BPM: merger of asset management companies", published on 21 July, 2010.

In Figure 78, we show what could be the dilution of a capital increase to reach 7% or 8% Core Tier 1 ratio for MPS (which would correspond to a 7.5% Tier 1 ratio and to a 8.5% Tier 1 ratio, respectively). We include the execution of afore-mentioned disposals, but we take in consideration the impact of the passage to Basel II advanced, only partially (75%).

Both scenarios assume that MPS redeems Tremonti bonds (Euro 1.9bn). In the "7% case", the dilution of the capital increase is lower than the dilution that we previously embedded in our valuation in relation to the cost of the Tremonti bonds, so the capital increase would even be "accretive"; conversely, in the "8% case", which would require a capital increase of Euro 1.6bn, there is a dilution of 13% on our valuation.

In the "7% case", MPS would trade at a 2011E P/TE of 0.7x and P/E of 6.2x and in the "8% case", it would trade at a 2011E P/TE of 0.8x and a P/E of 7.6x. Therefore, we consider that the eventual capital shortfall is mostly priced in.

[3] Published on 16 April 2010.

Figure 78: MPS – impact on DB valuation of a capital increase to match…

Euro m (2012E)	… 7% Core Tier 1 ratio	… 8% Core Tier 1 ratio
Equity	17,070	17,070
Goodwill	7,585	7,585
Tangible equity	9,484	9,484
Capital increase	286	1,649
Average tangible equity	9,490	10,852
Shares	7,112	8,975
Average tangible equity (/s)	1.3	1.2
Adjusted net profit	1,119	1,119
Additional earnings	6	33
Final adjusted net profit	1,125	1,152
Return on Ave. tangible equity	11.9%	10.6%
Free risk	4.5%	4.5%
Market premium	4.0%	4.0%
Beta	1.2	1.2
g	2.0%	2.0%
Discount factor	9.2%	9.2%
Fair P/BV exit multiple	1.4	1.2
Fair Value	1.8	1.4
NPV of Fair value	1.6	1.3
Capital increase (Euro m)	286	1,649
Current price (Euro)	0.97	0.97
Discount	25%	25%
Price of the capital increase	0.73	0.73
New shares	392	2255
Discount/Premium versus target price	10%	-13%

Source: Deutsche Bank estimates

Back to the metrics of the test, we think that the following specific observations have to be taken under consideration, while reading the results of the Stress Test on MPS.

- MPS states the base level assumptions for the stress test exercise (2009 data) included approximately a 25% higher cost of credit than the one currently measured (H1-10). This has also a negative impact on taxes, due to the methodology that is used for the calculation of the taxable income of a regional tax called IRAP[4], whose impact reached one of the highest peaks in 2009.
- The fact that the pre-provision-profit figures are based on inflated Q1-10 level (due to very high trading income) does not apply to MPS, where Q1-10 was a good quarter only for commissions, but it was not exceptional and, actually, was poor on net interest income and trading income (less than 1% of total revenues).
- The simulation of the Stress Test does not consider the positive effects of the increase of interest rates for Italian Banks. The most recent data provided by MPS on its sensitivity to an increase of 100bps in the interest rates is Euro 200m.

[4] For IRAP's taxable income, both staff costs and provisions on loan losses are not tax deductible.

- The stock of Government bonds held by MPS (almost entirely Italian), with maturities in 2010 and 2011, accounts for approximately 70% of the Group's total trading book; therefore, the amount of value adjustments (capital losses) attributable to these securities is "theoretical", as they are expected to be redeemed at par by 2011. MPS's total trading impairments (Euro 675m) would have been Euro 205m, excluding Government bonds expiring within 2011. Including the banking book (99% Italian) in the analysis, MPS would record Euro 451m of additional write-downs, which would bring the final trading write-down figure back to the one reported in the Stress Test.
- The haircuts on Government bonds which are classified as held for trading are based on the average duration of the Government bonds portfolios (5 years). In the case of MPS this is penalizing, because the average duration of its portfolio is around 2 years.

Banco

Banco passed the test with a 7.0% Tier 1 ratio, under the adverse scenario. Clearly, as for MPS, the Tremonti bonds (Euro 1.45bn) are included in Banco's equity; without those instruments Banco would record a capital shortfall of Euro 273m (-29bps – we deduct the amount of the Tremonti bonds and we add back their cumulative cost for 2010 and 2011); this could be more than covered by the conversion of the recently issued soft convertible bond (SCB, Euro 1bn), which has not been taken into account by the metrics of the Stress Test.

Because investors' "requirements" are usually stricter than the threshold of the Stress Test (after the crisis, a Core Tier 1 ratio of 8% is considered a proper level of capitalization for Italian banks), Banco's market valuation has discounted the need to raise (or generate via disposals) additional capital, since the beginning of crisis.

In our calculations, Banco would need to convert its SCB (at least for Euro 870m) and sell its small subsidiary Caripe[5] (Euro ~100m capital loss, selling at 1.6x book value, but cancellation of Euro 120m goodwill) and its 39% stake in Ducato (consumer credit company) in order to completely avoid a capital increase and reach a Core Tier 1 ratio of 8%, after the redemption of the Tremonti bonds. After all, Banco would still trade below its 2011E tangible equity (at a P/TE of 0.77x) and at 9.9x its 2011E EPS; the dilution to our valuation would be 2% only (as we cancel the burden of the cost of the Tremonti bonds) and EPS dilution would be 18%.

Fixing its solvency ratios would be a positive catalyst for Banco, we believe. The potential of its restructuring story should be more visible for the market, if not hidden by concerns around the capital of the bank.

UBI Banca

UBI Banca passed the test with a Tier 1 ratio of 6.8% in the adverse scenario. This result should not be compared with Banco's or MPS's, because it does not include any support from the Tremonti bonds and actually misses the contribution of some already signed and defined actions, like the disposal of the custodian business and the actions on revenues and costs that would boost UBI Banca's profitability in 2011.

2009 starting point is penalizing for all Italian banks, but for UBI Banca this is even truer. The reason is that UBI Banca never booked sizable amounts of trading proceeds, but reached its bottom level of net interest income and its top level of cost of credit in 2009; moreover, the combination of all these elements finally resulted in a very high tax rate, due to some peculiarities of the Italian Fiscal legislations.

[5] On Saturday 24 July 2010, the newspaper Il Sole 24 Ore reports an interview of Banco's CEO, confirming the advanced stage in the disposal of Caripe.

CEBS stress tests versus Deutsche Bank forecasts

Finally, below we show the CEBS stress test data for the companies under DB coverage in Italy. As discussed above, we believe that there are questionable assumptions at the base of the test, most of them "favoring" banks, but some also "penalizing" them. Therefore, the results have some grey area, difficult to be read.

Figure 79: Italian Banks – summary of the Stress Test results versus Deutsche Banks forecasts

T1	2009	Q1-10	Stressed (**)	Pass/Fail (6% threshold)	DB - Stressed	DB - Pass/Fail (6% threshold)
Unicredit	9.5%	9.4%	7.8%	PASS	7.9%	PASS
Intesa	8.4%	8.5%	8.2%	PASS	7.3%	PASS
MPS (*)	7.5%	7.5%	6.2%	PASS	6.5%	PASS
Banco (*)	7.7%	7.7%	7.0%	PASS	7.7%	PASS
UBI Banca	8.0%	8.0%	6.8%	PASS	7.1%	PASS

Source: Deutsche Bank Estimates, Companies data (*) including Tremonti bonds – Note: for MPS, Banco and UBI Banca there has not been an update of capital ratios at Q1-10, so we indicate them equal to Q4-09 level. (**) Adverse scenario.

The Stress Test assumptions are a touch milder than our initial estimates, but broadly in line with them with regards to the real economy losses, as the write-down on loan losses look reasonable. But we expect some controversy over financial market assumptions, especially those related to EU sovereign risk, where default was not considered for banking book exposures (held-to-maturity or AFS), which, on the contrary, were included in our forecasts (with different haircuts, especially for Italian exposures); based on comments by all Italian banks this limit should be "offset" by a penalty in the haircut level. Indeed, most of the banks declared having a portfolio of bonds with an average duration well below 5 years, so the effective haircut applied should have been lower.

Greek & Cypriot Banks

Key points

- Out of the six Greek and two Cypriot banks subject to the EU-wide stress test exercise only ATE bank (Agricultural) failed to pass the CEBS 6% TIER I ratio benchmark. From those that have passed under the "adverse + sovereign shock scenario", Tier 1 ratios range between NBG's revised 8.9% and Piraeus's 6%.
- According to the results the aggregate capital shortfall stood at E243m. Potentially, this shortfall could be adequately covered by the E10bn Hellenic Financial Stability Fund (HFSF) which has been set with the aim to provide capital support to domestic financial institutions.
- In our view, the loan loss rate assumptions incorporated in the CEBS stress test should reassure investors in terms of reflecting further deterioration in domestic macro-economic conditions. Loss rates on corporate and retail exposure on average stood 3.6x and 1.6x higher respectively than in 2009 (itself a high provisioning year for most banks). In contrast, the sovereign shock assumptions will not reassure investors, in our view, as the haircut was confined to trading books, which account for only 7% of the total sovereign debt exposure of Greek & Cypriot banks. Had it been applied to banking books as well we estimate the shortfall would stand at E5.4bn or E3.0bn for the names in our universe – still adequately covered by the HFSF.
- The E243m capital shortfall from ATE bank could potentially be replenished by the E10bn HFSF, although ATE would need to exhaust all alternative options first, including an outright rights issue or a merger, as per HFSF rules.
- How much of a capital shortfall would there have been in the event of a more strict, 8% stated Tier 1 ratio target? From the 8 institutions analyzed in the stress test, 4 are below an 8% Tier 1 ratio (NBG, Agricultural, Marfin Popular bank and Piraeus Bank) and the aggregate capital shortfall would then be E1.9bn as compared with the E243bn shortfall under the 6% threshold. Note that if we considered NBG's revised Tier 1 (ie. if we account for the +55 bps tax shield impact on the trading haircut), the bank's TIER 1 ratio would be exactly 8% (marginal pass) and therefore the aggregate capital shortfall would fall to E1.5bn. Note however, that both National and Marfin Popular took a prudent loan loss rate approach in the corporate books. In such a scenario the Hellenic Financial Stability Fund would still be enough to cover for the additional capital shortfall.
- We keep our ratings unchanged. We believe the stress test results failed to ease investors' worries with respect to Greek and Cypriot banks' exposure to Greek sovereign risks. At the end of Q1 Greek and Cypriot banks in our universe held a total of E40bn in Greek Government bonds, of which only E2.5bn in their trading books.
- The IMF is to conduct an update of the stress tests on Greek banks in September to incorporate the latest development on potential capital injection needs.

The stress test for Greek & Cypriot banks: the results

CEBS stress tests on Greek and Cypriot banks resulted to all but ATE bank meeting the 6% TIER I ratio. ATE bank was the only one to fail, short of E243m (TIER I ratio at 4.4%). National Bank of Greece, Alpha Bank, EFG Eurobank, Hellenic Postbank and the two Cypriot banks (Marfin Popular and Bank of Cyprus) met the 6% TIER I ratio with the reported headroom ranging from 140 bps (NBG) to 400 bps (Postbank). Piraeus bank passed marginally with a 6% TIER ratio. The aggregate E243m capital shortfall could be potentially covered by the E10bn Hellenic Financial Stability Fund, which has been set up in the context of the E110bn EMU/IMF rescue plan for Greece in order to re-capitalize domestic financial institutions if this becomes necessary.

With respect to the stress test assumptions used, our view is that, on average, corporate and retail loan loss rates looked severe enough whereas the sovereign shock assumptions did not. The latter included a 23% haircut on sovereign exposures held in trading books. With Greek and Cypriot banks holding most of the Greek sovereign exposure in AFS and HTM accounts it is more than clear that the sovereign shock implemented was hardly a shock.

The average implied 1-year corporate loss rate in the stress test stood at 2.8% (vs. 2.3% in 2009) while for retail loans the average implied 1-year charge stood at 2.9% (vs. 2.2% charge in 2009). If we strip out ATE from the sample, which took heavy restructuring charges in 2009, the average stress corporate loan loss rate stood at 2.9% (0.8% in 2009) with the average retail loss rate at 3.0% (2.0% in 2009). We think this should reassure the market with respect to the severity of the assumptions, especially if we take into account the front loaded provisioning performed by most Greek and Cypriot banks in 2009. The latter point explains Eurobank's low 1-year retail loan loss rate in the stress-test when compared with 2009 (2.0% vs. 3.2% in 2009).

In contrast, we think the CEBS stress test exercise failed to address the capital impact on Greek and Cypriot banks from a potential haircut on Greek sovereign debt. The 23% haircut was applied only on banks' trading books which at the end of Q1 accounted for only 7% of their total sovereign exposure (E3.8bn out of the total E53.3bn – all banks included). Had the haircut been applied to AFS/HTM sovereign exposures as well we estimate the impact on capital would stand at E9.4bn and the final shortfall at E5.4bn (i.e. adjusted for the E4.0bn capital buffer against the 6% TIER I ratio – all banks included). For the names in our universe we estimate the capital impact would stand at E7.0bn with the shortfall at E3.0bn. Our view is that HFSF could more than cover for these shortfalls.

Looking into each bank we find several inconsistencies when it comes to loan loss rate assumptions. The most notable ones include National's stricter approach on corporates with the 1-year implied loss rate at 4.5% (average at 2.8%), what the bank attributed to its prudent IRB policy. This cost National 90 bps in TIER I terms, according to the bank, which we estimate did not account for the tax shield (24% corporate tax rate) when applying the 23% haircut on its trading book - thus missing another 55 bps. Cypriot banks also took higher than average charged on their retail books, applying a loss rate of 3.8-3.9% (average at 2.9%). Eurobank's adverse retail loss rate at 2.0% is lower than the 3.2% charged in 2009 while ATE's overall loss rates in the adverse scenario are far lower than 2009. We attribute both to the front loaded provisioning implemented in 2009.

Figure 80: Greek & Cypriot banks: stress test results

	2009 TIER 1	2011 benchmark TIER 1	2011 adverse TIER 1	2011 adverse + sovereign shock TIER 1	CEBS TARGET TIER 1	PASS/FAIL
National bank of Greece	11.3%	11.7%	9.6%	7.4%	6.0%	PASS
*National bank of Greece adjusted**	*11.3%*	*11.7%*	*10.5%*	*8.9%*	*6.0%*	*PASS*
Alpha Bank	11.6%	12.3%	10.9%	8.2%	6.0%	PASS
EFG Eurobank	11.2%	11.7%	10.2%	8.2%	6.0%	PASS
Piraeus Bank	9.1%	10.9%	8.3%	6.0%	6.0%	PASS
ATE bank	8.4%	10.7%	8.9%	4.4%	6.0%	FAIl
Hellenic Postbank	17.1%	17.0%	15.0%	8.4%	6.0%	PASS
Bank of Cyprus	10.5%	10.9%	9.4%	8.0%	6.0%	PASS
Marfin Popular Bank	9.4%	10.0%	8.5%	7.1%	6.0%	PASS

*Source: company data | * Adjustments include tax shield on trading book haircut (+55 bps) and CEBS PD on domestic corporate book (+90 bps)*

Capital requirements for the Greek & Cypriot banks following the results

The E243m aggregate capital shortfall stemming from the stress test results on Greek & Cypriot banks could be adequately covered by the E10bn Hellenic Financial Stability Fund, established under Greek law on July 13. The Fund is part of the E110bn EMU/IMF rescue package for Greece and its aim is to provide capital support to domestic financial institutions if necessary.

The E243m shortfall is solely attributed to ATE bank which did not meet the 6% TIER I ratio under the sovereign shock/adverse scenario for 2011. It delivered a TIER I ratio of 4.4%. ATE, which is owned 77% by the Greek state, already announced it has discussed stress test findings thoroughly with the regulator (Bank of Greece) and both agreed on the following:

- ATE will proceed with a capital increase in order to cover its future capital adequacy needs (amount was not quantified).
- ATE will strengthen its regulatory capital through a gradual disengagement from participations in financial entities.
- ATE will proceed with actions to reduce its operating cost base and increase its revenue sources.

We note that in 2009 Greek banks received a total E3.5bn capital support from the Greek government under the Pillar I of the Hellenic Liquidity Support Plan (Law 3723/2008) in the form of preference shares. Cypriot banks, Marfin Popular and Bank of Cyprus, did not take part. ATE bank received E675m of government bonds under this scheme by issuing 938m of preference shares to the state.

Company comments

National Bank of Greece passed the stress test with a reported TIER I ratio buffer of 140 bps (or E1.0bn) while if we adjust for the prudent approach on the corporate book (i.e. apply CEBS PD standard; +90bps) and the tax shield on the trading book haircut (+55 bps) the capital buffer rises by 145 bps to 8.9% (or E2.0bn). National bank also said that it would pass the stress test even if the sovereign shock was to be implemented on its banking book, with the TIER I ratio going down to 6.3% (or 7.1% adjusted for the tax shield) from 7.4% reported (or 8.0% adjusted for the tax shield). According to the bank the GGB portfolio that would be liable for a haircut stands at E10.2bn, which excludes E2.0bn of GGBs with a maturity of less than 3 years (to be covered by the E110bn EMU/IMF rescue plan) and E5.7bn of derivatives (Titlos), which reflect bank's interest in a Special Purpose Entity (established in the UK) for the purpose of the securitization of Greek state loans and receivables (National says this would not be affected in the case of a restructuring on Greek debt).

EFG Eurobank and Alpha Bank reported the higher stress test TIER I ratios, or 8.2% each. On aggregate (corporate and retail), Alpha has accounted for higher loan loss rates than Eurobank in the adverse scenario and at the same time it has half of Eurobank's sovereign exposure. The latter did not affect the stress test results as both banks hold GGBs in their banking books rather than their trading books.

For **ATE bank** the stress test results verified its under-capitalized balance sheet. Management has already declared its intention to raise capital, which we believe should be more than the E243m capital shortfall coming out of the CEBS test as, at the end of Q1 2010, its core TIER I ratio stood at 3.9%, with government preferred shares pushing the TIER I ratio to 8.4%. ATE's options include converting government's preferred shares to common shares and then proceed with a rights issue, which if not fully covered by the state as the bank's major shareholder, would lead the bank to the HFSF. We remind that Piraeus bank has offered to buy ATE bank (together with Hellenic Postbank), although we doubt whether a merger would be enough to stop the bank from seeking capital support from the HFSF.

Finally, on the **Cypriot names**, which both passed the stress tests with a buffer of 100-200 bps, we note that they both took a prudent approach on their retail books with the 1-year implied loss rates at 3.8-3.9%. We believe that part of their success in the test has to do with their significant non-Greek exposure, and particularly with their heavy-weight Cypriot books, as the economy in Cyprus is performing much better than the one in Greece. That said, their aggregate E4.7bn exposure to Greek sovereign debt (E1.9bn for Bank of Cyprus and E2.8bn for Marfin Popular) will likely continue to unease investors, in our view.

Overall, we maintain our ratings on the Greek and Cypriot banks with National, EFG Eurobank, Alpha bank, Bank of Cyprus and Marfin Popular rated a Hold and ATE bank rated a Sell. We believe investors will feel comfortable with the stress imposed on the loan loss rate assumptions but may remain skeptical about the impact that a potential debt restructuring would have on the capital of Greek and Cypriot banks.

CEBS stress tests versus DB forecasts

Finally, below we show the CEBS stress test data for the companies under DB coverage in Greece. As discussed above, we believe that the CEBS stress test should comfort investors with regards to the loan loss rates used, which stand higher than our own initial estimates (0.5% normalized plus 1.5% additional bad debt charge), but will most likely disappoint them on the issue of sovereign haircuts. For Greece our initial estimates called for a 17-30% haircut on sovereign debt across the board (trading and banking books) whereas the CEBS 23% haircut applied to trading books only.

One interesting aspect, in our view, relates to National bank's treatment of E5.7bn of loan and receivables with the state, which have been securitized and overall not included in the bank's sovereign pool that would be liable for a haircut in case the 23% was to be extended to the full book. This alone reduces the bank's sovereign pool to E13.8bn, contrary to market's perception that the total Greek sovereign exposure of the bank -and liable for a haircut- stands at E19.5bn.

Figure 81: CEBS vs. DB test

TIER 1 ratio	2009	Stressed (adverse + sovereign shock)	Pass/Fail	DB stressed TIER 1	DB pass/fail
EFG Eurobank	11.20%	8.20%	Pass	7.20%	Pass
Alpha Bank	11.60%	8.20%	Pass	7.40%	Pass
National Bank of Greece	11.30%	7.40%	Pass	5.60%	Fail

Source: company data and Deutsche Bank estimates

Valuation data

Valuation and key data summary

Below we set out key data for our coverage universe, including:

- Summary Valuation data
- PE and EPS data
- BV and P/BV data
- Balance sheet and capital ratio data
- Performance data

Figure 82: European Banks summary valuation data

Geography	Stock	DB Rec.	Price	Target price	Up/(downside)	Mkt Cap	Adjusted P/E			Dividend Yield			Price : Tangible Book			Return on Avg. Tangible Equity		
			24/07/2010			E'm	2009E	2010E	2011E	2009E	2010E	2011E	2009E	2010E	2011E	2009E	2010E	2011E
Austria	Erste Bank	Buy	30.2	37.0	22.4%	11,428	13.0	12.4	8.0	2.1%	2.1%	2.6%	1.50	1.35	1.18	12.4%	11.4%	15.7%
Benelux	Dexia	Hold	3.3	4.6	39.2%	5,823	6.1	8.6	6.2	6.1%	7.6%	9.1%	0.76	0.59	0.54	19.6%	7.5%	8.9%
France	BNP Paribas	Buy	49.8	63.0	26.5%	59,508	9.6	8.3	7.1	3.0%	3.8%	4.5%	1.23	1.10	0.99	13.8%	14.0%	14.6%
France	Credit Agricole	Hold	9.4	13.0	39.0%	21,700	21.6	7.9	4.7	4.8%	3.6%	8.5%	0.83	0.77	0.67	4.1%	10.1%	15.2%
France	Societe Generale	Buy	38.0	53.0	39.5%	28,113	6.9	7.0	5.6	0.7%	3.9%	6.2%	1.02	0.90	0.78	12.3%	12.5%	14.1%
Germany	Aareal Bank	Hold	15.0	15.5	3.0%	643	25.7	25.2	11.3	0.0%	0.0%	1.3%	0.51	0.50	0.48	2.1%	2.0%	4.4%
Germany	Commerzbank	Hold	6.4	6.1	(5.3%)	7,605	(3.0)	(110.2)	48.0	0.0%	0.0%	0.0%	0.95	0.91	0.88	(27.2%)	(0.8%)	1.9%
Greece	Agricultural Bank of Greece	Sell	1.0	1.2	20.0%	905	50.8	396.2	5.9	0.0%	0.0%	0.0%	1.00	1.00	0.85	2.0%	0.3%	15.5%
Greece	Alpha Bank	Hold	5.0	9.2	83.3%	2,681	7.5	9.7	5.4	0.0%	0.0%	0.0%	0.63	0.58	0.53	8.9%	6.2%	10.2%
Greece	Bank of Cyprus	Hold	3.9	4.7	19.3%	2,339	9.1	9.8	6.8	3.3%	3.6%	4.8%	1.30	1.20	1.07	15.0%	12.8%	16.6%
Greece	EFG EuroBank	Hold	5.7	7.5	31.3%	3,075	11.2	13.7	6.3	0.0%	0.0%	0.0%	0.86	0.82	0.72	8.4%	6.1%	12.2%
Greece	Marfin Popular Bank	Hold	1.7	2.7	62.7%	1,398	8.7	8.2	4.2	0.0%	0.0%	0.0%	0.73	0.67	0.58	8.6%	8.5%	15.0%
Greece	National Bank of Greece	Hold	10.9	21.8	100.0%	6,619	7.3	5.5	4.0	0.0%	0.0%	0.0%	1.12	0.97	0.78	17.4%	18.8%	21.6%
Iberia	Banco de Sabadell	Hold	4.2	4.0	(4.2%)	5,453	14.0	n/a	13.5	5.1%	2.8%	3.2%	1.15	1.10	1.05	8.5%	(0.3%)	8.0%
Iberia	Banco Pastor	Hold	3.9	4.6	18.6%	1,015	8.1	17.5	9.8	3.5%	2.7%	3.6%	0.72	0.69	0.66	9.0%	4.0%	6.9%
Iberia	Banco Popular	Hold	4.8	6.2	30.4%	6,805	15.7	12.7	8.4	6.2%	3.5%	4.7%	0.86	0.82	0.78	5.5%	6.6%	9.5%
Iberia	Banco Santander	Buy	10.1	14.1	39.4%	87,496	9.8	9.5	7.5	5.9%	5.2%	6.7%	1.91	1.74	1.56	21.2%	19.1%	22.0%
Iberia	Banesto	Hold	7.5	10.2	36.7%	5,129	7.5	8.4	6.9	4.4%	5.3%	5.8%	0.97	0.90	0.83	13.1%	11.1%	12.5%
Iberia	Bankinter	Hold	5.6	6.0	7.7%	2,637	9.2	14.9	11.6	4.2%	2.6%	3.4%	1.05	1.03	0.98	12.1%	7.0%	8.6%
Iberia	BBVA	Buy	9.8	14.5	47.4%	38,467	7.1	7.7	6.0	4.3%	5.2%	8.3%	2.19	1.86	1.60	39.6%	27.2%	29.8%
Iberia	BCP	Hold	0.6	0.9	42.2%	2,971	4.9	4.2	4.2	8.2%	9.4%	11.9%	1.11	0.95	0.86	24.7%	24.4%	21.5%
Italy	Banco Popolare	Buy	4.6	6.4	39.6%	2,937	7.5	7.6	6.4	2.2%	2.2%	2.2%	0.48	0.56	0.53	7.2%	6.8%	8.6%
Italy	Banca Popolare di Milano	Hold	3.8	4.3	12.6%	1,584	7.7	16.1	9.5	3.1%	2.6%	6.0%	0.74	0.71	0.69	8.7%	4.5%	7.4%
Italy	Credem	Hold	4.9	4.8	(1.2%)	1,597	16.9	16.0	11.8	1.6%	3.1%	4.2%	1.01	0.97	0.92	6.0%	6.2%	8.0%
Italy	Intesa SanPaolo	Buy	2.4	3.3	37.4%	30,708	11.9	12.9	8.5	3.3%	4.8%	5.3%	1.21	1.12	1.04	10.9%	9.0%	12.8%
Italy	Monte dei Paschi	Buy	1.0	1.5	55.9%	6,465	33.3	13.6	7.4	0.0%	3.4%	3.5%	0.81	0.76	0.72	2.3%	5.8%	10.0%
Italy	UBI Banca	Hold	8.0	9.3	16.3%	5,105	19.3	23.0	10.2	3.8%	2.3%	4.1%	0.74	0.74	0.71	3.9%	3.2%	7.1%
Italy	UniCredito	Buy	2.0	2.7	32.4%	39,365	17.3	19.1	9.1	1.5%	2.4%	5.2%	1.03	1.02	0.96	6.4%	5.7%	10.9%
Nordics	Danske Bank	Buy	124.5	167.0	34.1%	11,675	34.8	16.3	5.9	0.0%	0.0%	3.9%	1.12	1.04	0.88	3.3%	6.6%	16.3%
Nordics	DnB NOR	Hold	75.1	73.0	(2.7%)	15,336	14.0	11.5	11.2	2.3%	3.3%	4.0%	1.34	1.22	1.14	11.0%	11.1%	10.5%
Nordics	Nordea	Sell	7.4	5.9	(19.7%)	29,628	10.3	14.0	13.9	3.4%	3.4%	4.1%	1.52	1.42	1.35	13.6%	10.5%	10.0%
Nordics	SEB	Buy	47.9	59.0	23.2%	11,094	56.7	14.7	10.8	2.1%	3.1%	4.2%	1.26	1.25	1.21	2.5%	8.5%	11.3%
Nordics	Svenska Handelsbanken	Hold	200.0	181.0	(9.5%)	13,179	12.1	12.2	12.3	4.0%	4.3%	4.5%	1.65	1.55	1.46	14.7%	12.7%	12.4%
Nordics	Swedbank	Hold	79.0	87.0	10.1%	9,669	(9.7)	18.4	12.8	0.0%	1.9%	3.8%	1.27	1.18	1.14	(13.7%)	6.7%	9.1%
Switzerland	Credit Suisse Group	Buy	44.3	64.0	44.4%	40,579	7.3	8.4	7.5	4.5%	4.5%	4.5%	1.96	1.67	1.42	29.3%	21.5%	20.4%
Switzerland	EFG International	Buy	14.5	23.0	59.2%	1,570	12.1	11.4	8.9	0.7%	1.0%	1.4%	1.58	1.43	1.27	12.8%	13.2%	15.1%
Switzerland	Julius Baer	Buy	36.1	48.0	33.0%	5,521	15.8	14.1	11.9	1.1%	1.1%	1.1%	3.00	2.75	2.31	22.4%	20.4%	21.1%
Switzerland	UBS	Hold	15.5	22.0	42.2%	43,881	26.7	8.9	7.3	0.0%	0.0%	3.2%	1.97	1.61	1.38	8.3%	19.9%	20.5%
Switzerland	Vontobel	Hold	30.2	28.0	(7.3%)	1,454	12.0	11.0	9.6	4.6%	5.3%	6.0%	1.48	1.31	1.15	10.8%	12.4%	12.6%
UK	Barclays	Buy	302.0	400.0	32.5%	45,958	8.0	10.6	6.7	0.8%	1.7%	3.0%	0.85	0.89	0.81	12.3%	8.9%	13.0%
UK	HSBC	Buy	646.2	800.0	23.8%	139,237	13.4	13.7	10.8	3.4%	3.6%	3.9%	1.78	1.71	1.61	15.0%	12.7%	15.4%
UK	Lloyds Banking Group	Buy	63.5	90.0	41.7%	52,327	(6.3)	30.4	8.3	0.0%	0.0%	157.4%	1.09	1.11	1.00	(12.1%)	3.6%	12.8%
UK	RBS	Hold	45.3	55.0	21.3%	59,655	(8.5)	(117.8)	19.4	0.0%	0.0%	0.0%	0.88	0.90	0.89	(13.5%)	(0.8%)	4.6%
UK	Standard Chartered	Hold	1823.5	1740.0	(4.6%)	45,965	16.1	13.6	12.5	2.3%	2.6%	2.8%	2.99	2.59	2.32	20.7%	20.4%	19.6%
Ireland	Allied Irish Banks	Hold	0.9	1.5	66.7%	1,046	(0.3)	(0.6)	(1.2)	0.0%	0.0%	0.0%	0.12	0.20	0.31	(41.7%)	(24.4%)	(21.7%)
Ireland	Bank of Ireland	Hold	0.7	0.8	1.2%	3,928	(0.3)	(3.9)	(7.8)	0.0%	0.0%	0.0%	0.32	0.88	1.02	(103.6%)	(19.7%)	(12.1%)
Austria						16,519	17.6	14.3	8.0	1.7%	1.8%	2.4%	1.28	1.19	1.05	8.3%	8.6%	13.9%
Benelux						17,237	7.5	9.9	7.1	2.2%	5.0%	5.6%	1.20	0.94	0.85	18.8%	10.1%	11.9%
France						109,320	11.5	8.0	6.1	2.7%	3.8%	5.8%	1.07	0.95	0.84	10.7%	12.6%	14.6%
Germany						8,248	(3.2)	(189.6)	38.3	0.0%	0.0%	0.1%	0.89	0.86	0.83	(23.9%)	(0.5%)	2.2%
Greece						17,018	9.2	8.1	4.9	0.5%	0.5%	0.7%	0.93	0.85	0.73	11.6%	11.0%	15.9%
Iberia						149,974	9.0	9.2	7.1	5.2%	5.1%	6.9%	1.55	1.41	1.28	18.8%	16.0%	18.9%
Italy						87,761	15.4	15.3	8.7	2.1%	3.3%	5.0%	1.05	0.97	0.91	7.2%	6.6%	10.8%
Nordics						90,580	22.9	13.9	10.9	2.2%	2.9%	4.1%	1.46	1.29	1.20	6.8%	9.9%	11.5%
Switzerland						93,004	13.6	8.9	7.6	1.4%	1.6%	3.1%	2.23	1.67	1.44	18.9%	21.3%	20.2%
UK						343,142	63.0	17.9	10.2	1.4%	1.9%	2.2%	1.46	1.29	1.18	2.8%	7.7%	12.1%
UK ex HSBC, STAN						157,940	(27.1)	27.7	9.4	0.1%	0.5%	0.6%	1.06	0.95	0.88	(4.6%)	3.6%	9.7%
Ireland						4,974	(0.9)	(2.3)	(3.3)	0.0%	0.0%	0.0%	0.55	0.51	0.61	(58.2%)	(22.7%)	(17.1%)
DB Universe						**937,777**	**20.9**	**12.6**	**8.5**	**2.3%**	**2.8%**	**3.9%**	**1.37**	**1.21**	**1.10**	**7.4%**	**10.2%**	**13.5%**

Source: Deutsche Bank estimates, company data, pricing from Datastream

Deutsche Bank

Figure 83: European Banks EPS and PE data

Geography	Stock	DB Rec.	Price 24/07/2010	DB Adjusted EPS 2009E	DB Adjusted EPS 2010E	DB Adjusted EPS 2011E	Adjusted P/E 2009E	Adjusted P/E 2010E	Adjusted P/E 2011E	DPS 2009E	DPS 2010E	DPS 2011E	Dividend Yield 2009E	Dividend Yield 2010E	Dividend Yield 2011E	Dividend Cover 2009E	Dividend Cover 2010E	Dividend Cover 2011E
Austria	Erste Bank	Buy	30.2	2.33	2.43	3.78	13.0	12.4	8.0	0.65	0.65	0.80	2.1%	2.1%	2.6%	3.6	3.7	4.7
Benelux	Dexia	Hold	3.3	0.54	0.38	0.53	6.1	8.6	6.2	0.20	0.25	0.30	6.1%	7.6%	9.1%	2.7	1.5	1.8
France	BNP Paribas	Buy	49.8	5.18	6.04	7.02	9.6	8.3	7.1	1.50	1.91	2.27	3.0%	3.8%	4.5%	3.5	3.2	3.1
France	Credit Agricole	Hold	9.4	0.43	1.19	1.99	21.6	7.9	4.7	0.45	0.33	0.80	4.8%	3.6%	8.5%	1.0	3.6	2.5
France	Societe Generale	Buy	38.0	5.40	5.31	6.70	6.9	7.0	5.6	0.25	1.47	2.36	0.7%	3.9%	6.2%	21.6	3.6	2.8
Germany	Aareal Bank	Hold	15.0	0.58	0.60	1.33	25.7	25.2	11.3	0.00	0.00	0.20	0.0%	0.0%	1.3%	n/a	n/a	6.7
Germany	Commerzbank	Hold	6.4	(2.18)	(0.06)	0.13	(3.0)	(110.2)	48.0	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Greece	Agricultural Bank of Greec	Sell	1.0	0.02	0.00	0.17	50.8	396.2	5.9	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Greece	Alpha Bank	Hold	5.0	0.67	0.52	0.93	7.5	9.7	5.4	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Greece	Bank of Cyprus	Hold	3.9	0.43	0.40	0.58	9.1	9.8	6.8	0.13	0.14	0.19	3.3%	3.6%	4.8%	3.3	2.9	3.0
Greece	EFG EuroBank	Hold	5.7	0.51	0.42	0.91	11.2	13.7	6.3	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Greece	Marfin Popular Bank	Hold	1.7	0.19	0.20	0.40	8.7	8.2	4.2	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Greece	National Bank of Greece	Hold	10.9	1.49	1.97	2.71	7.3	5.5	4.0	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Iberia	Banco de Sabadell	Hold	4.2	0.30	(0.01)	0.31	14.0	n/a	13.5	0.21	0.12	0.13	5.1%	2.8%	3.2%	1.4	(0.1)	2.3
Iberia	Banco Pastor	Hold	3.9	0.48	0.22	0.40	8.1	17.5	9.8	0.14	0.11	0.14	3.5%	2.7%	3.6%	3.5	2.1	2.9
Iberia	Banco Popular	Hold	4.8	0.30	0.37	0.56	15.7	12.7	8.4	0.30	0.17	0.23	6.2%	3.5%	4.7%	1.0	2.3	2.5
Iberia	Banco Santander	Buy	10.1	1.03	1.06	1.35	9.8	9.5	7.5	0.60	0.53	0.68	5.9%	5.2%	6.7%	1.7	2.0	2.0
Iberia	Banesto	Hold	7.5	0.99	0.89	1.08	7.5	8.4	6.9	0.33	0.39	0.43	4.4%	5.3%	5.8%	3.0	2.3	2.5
Iberia	Bankinter	Hold	5.6	0.61	0.38	0.48	9.2	14.9	11.6	0.23	0.15	0.19	4.2%	2.6%	3.4%	2.6	2.6	2.5
Iberia	BBVA	Buy	9.8	1.39	1.28	1.63	7.1	7.7	6.0	0.42	0.51	0.82	4.3%	5.2%	8.3%	3.3	2.5	2.0
Iberia	BCP	Hold	0.6	0.13	0.15	0.15	4.9	4.2	4.2	0.05	0.06	0.08	8.2%	9.4%	11.9%	2.5	2.5	2.0
Italy	Banco Popolare	Buy	4.6	0.61	0.60	0.72	7.5	7.6	6.4	0.10	0.10	0.10	2.2%	2.2%	2.2%	6.1	6.0	7.2
Italy	Banca Popolare di Milano	Hold	3.8	0.50	0.24	0.40	7.7	16.1	9.5	0.12	0.10	0.23	3.1%	2.6%	6.0%	4.1	2.4	1.7
Italy	Credem	Hold	4.9	0.29	0.30	0.41	16.9	16.0	11.8	0.08	0.15	0.21	1.6%	3.1%	4.2%	3.6	2.0	2.0
Italy	Intesa SanPaolo	Buy	2.4	0.20	0.19	0.28	11.9	12.9	8.5	0.08	0.12	0.13	3.3%	4.8%	5.3%	2.5	1.6	2.2
Italy	Monte dei Paschi	Buy	1.0	0.03	0.07	0.13	33.3	13.6	7.4	0.00	0.03	0.03	0.0%	3.4%	3.5%	n/a	2.1	3.9
Italy	UBI Banca	Hold	8.0	0.42	0.35	0.79	19.3	23.0	10.2	0.30	0.19	0.33	3.8%	2.3%	4.1%	1.4	1.9	2.4
Italy	UniCredito	Buy	2.0	0.12	0.11	0.22	17.3	19.1	9.1	0.03	0.05	0.11	1.5%	2.4%	5.2%	3.9	2.2	2.1
Nordics	Danske Bank	Buy	124.5	3.58	7.64	21.23	34.8	16.3	5.9	0.00	0.00	4.80	0.0%	0.0%	3.9%	n/a	n/a	4.4
Nordics	DnB NOR	Hold	75.1	5.38	6.53	6.68	14.0	11.5	11.2	1.75	2.50	3.00	2.3%	3.3%	4.0%	3.1	2.6	2.2
Nordics	Nordea	Sell	7.4	0.71	0.52	0.53	10.3	14.0	13.9	0.25	0.25	0.30	3.4%	3.4%	4.1%	2.9	2.1	1.8
Nordics	SEB	Buy	47.9	0.84	3.25	4.42	56.7	14.7	10.8	1.00	1.50	2.00	2.1%	3.1%	4.2%	0.8	2.2	2.2
Nordics	Svenska Handelsbanken	Hold	200.0	16.49	16.33	16.24	12.1	12.2	12.3	8.00	8.50	9.00	4.0%	4.3%	4.5%	2.1	1.9	1.8
Nordics	Swedbank	Hold	79.0	(8.18)	4.29	6.18	(9.7)	18.4	12.8	0.00	1.50	3.00	0.0%	1.9%	3.8%	n/a	2.9	2.1
Switzerland	Credit Suisse Group	Buy	44.3	6.11	5.27	5.90	7.3	8.4	7.5	2.00	2.00	2.00	4.5%	4.5%	4.5%	3.1	2.6	2.9
Switzerland	EFG International	Buy	14.5	1.19	1.27	1.62	12.1	11.4	8.9	0.10	0.15	0.20	0.7%	1.0%	1.4%	11.9	8.5	8.1
Switzerland	Julius Baer	Buy	36.1	2.29	2.56	3.03	15.8	14.1	11.9	0.40	0.40	0.40	1.1%	1.1%	1.1%	5.7	6.4	7.6
Switzerland	UBS	Hold	15.5	0.58	1.73	2.13	26.7	8.9	7.3	0.00	0.00	0.50	0.0%	0.0%	3.2%	n/a	n/a	4.3
Switzerland	Vontobel	Hold	30.2	2.52	2.75	3.15	12.0	11.0	9.6	1.40	1.60	1.80	4.6%	5.3%	6.0%	1.8	1.7	1.8
UK	Barclays	Buy	302.0	37.52	28.44	45.19	8.0	10.6	6.7	2.50	5.00	9.04	0.8%	1.7%	3.0%	15.0	5.7	5.0
UK	HSBC	Buy	646.2	74.23	72.42	92.32	13.4	13.7	10.8	34.00	36.04	38.92	3.4%	3.6%	3.9%	2.2	2.0	2.4
UK	Lloyds Banking Group	Buy	63.5	(10.02)	2.09	7.70	(6.3)	30.4	8.3	0.00	0.00	100.00	0.0%	0.0%	157.4%	n/a	n/a	0.1
UK	RBS	Hold	45.3	(5.30)	(0.38)	2.33	(8.5)	(117.8)	19.4	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
UK	Standard Chartered	Hold	1823.5	175.08	206.57	224.87	16.1	13.6	12.5	63.55	73.43	79.92	2.3%	2.6%	2.8%	2.8	2.8	2.8
Ireland	Allied Irish Banks	Hold	0.9	(3.35)	(1.41)	(0.78)	(0.3)	(0.6)	(1.2)	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Ireland	Bank of Ireland	Hold	0.7	(2.71)	(0.19)	(0.09)	(0.3)	(3.9)	(7.8)	0.00	0.00	0.00	0.0%	0.0%	0.0%	n/a	n/a	n/a
Austria							17.6	14.3	8.0				1.7%	1.8%	2.4%	4.1	4.2	5.6
Benelux							7.5	9.9	7.1				2.2%	5.0%	5.6%	23.6	2.4	3.2
France							11.5	8.0	6.1				2.7%	3.8%	5.8%	5.0	3.4	2.9
Germany							(3.2)	(189.6)	38.3				0.0%	0.0%	0.1%	n/a	n/a	7.3
Greece							9.2	8.1	4.9				0.5%	0.5%	0.7%	25.4	25.1	29.9
Iberia							9.0	9.2	7.1				5.2%	5.1%	6.9%	2.3	2.1	2.2
Italy							15.4	15.3	8.7				2.1%	3.3%	5.0%	3.0	2.5	2.6
Nordics							22.9	13.9	10.9				2.2%	2.9%	4.1%	2.1	2.8	2.5
Switzerland							13.6	8.9	7.6				1.4%	1.6%	3.1%	3.3	3.3	3.2
UK							63.0	17.9	10.2				1.4%	1.9%	2.2%	2.8	2.8	0.0
UK ex HSBC, STAN							(27.1)	27.7	9.4				0.1%	0.5%	0.6%	8.9	6.0	0.0
Ireland							(0.9)	(2.3)	(3.3)				0.0%	0.0%	0.0%	n/a	n/a	n/a
DB Universe							**20.9**	**12.6**	**8.5**				**2.3%**	**2.8%**	**3.9%**	**3.2**	**3.1**	**0.5**

Source: Deutsche Bank estimates, company data, pricing from Datastream

Figure 84: European Banks P/BV and RoE data

Geography	Stock	DB Rec.	Price	Price : Tangible Book			Return on Avg. Tangible Equity			Price : Stated Book			Return on Avg. Stated Equity			Return on Avg. RWAs		
			24/07/2010	2009E	2010E	2011E	2009E	2010E	2011E	2009E	2010E	2011E	2009E	2010E	2011E	2009E	2010E	2011E
Austria	Erste Bank	Buy	30.2	1.50	1.35	1.18	12.4%	11.4%	15.7%	1.04	0.97	0.88	8.0%	8.1%	11.5%	0.6%	0.7%	1.1%
Benelux	Dexia	Hold	3.3	0.76	0.59	0.54	19.6%	7.5%	8.9%	0.60	0.48	0.45	13.5%	6.1%	7.4%	0.6%	0.5%	0.9%
France	BNP Paribas	Buy	49.8	1.23	1.10	0.99	13.8%	14.0%	14.6%	0.96	0.89	0.81	10.4%	11.2%	11.9%	0.9%	1.1%	1.3%
France	Credit Agricole	Hold	9.4	0.83	0.77	0.67	4.1%	10.1%	15.2%	0.48	0.45	0.42	2.2%	5.9%	9.2%	0.3%	0.8%	1.3%
France	Societe Generale	Buy	38.0	1.02	0.90	0.78	12.3%	12.5%	14.1%	0.83	0.74	0.67	9.8%	10.2%	11.9%	0.9%	1.1%	1.4%
Germany	Aareal Bank	Hold	15.0	0.51	0.50	0.48	2.1%	2.0%	4.4%	0.49	0.49	0.48	2.0%	1.9%	4.3%	0.1%	0.1%	0.2%
Germany	Commerzbank	Hold	6.4	0.95	0.91	0.88	-27.2%	-0.8%	1.9%	0.76	0.73	0.71	-23.4%	-0.7%	1.5%	-1.0%	0.0%	0.1%
Greece	Agricultural Bank of Gree	Sell	1.0	1.00	1.00	0.85	2.0%	0.3%	15.5%	0.97	0.97	0.83	2.0%	0.2%	15.1%	0.1%	0.0%	0.9%
Greece	Alpha Bank	Hold	5.0	0.63	0.58	0.53	8.9%	6.2%	10.2%	0.60	0.56	0.51	8.5%	6.0%	9.8%	0.6%	0.5%	1.0%
Greece	Bank of Cyprus	Hold	3.9	1.30	1.20	1.07	15.0%	12.8%	16.6%	1.04	0.98	0.89	11.9%	10.3%	13.6%	1.2%	1.0%	1.4%
Greece	EFG EuroBank	Hold	5.7	0.86	0.82	0.72	8.4%	6.1%	12.2%	0.72	0.69	0.62	6.9%	5.1%	10.3%	0.6%	0.5%	1.0%
Greece	Marfin Popular Bank	Hold	1.7	0.73	0.67	0.58	8.6%	8.5%	15.0%	0.39	0.37	0.34	4.6%	4.7%	8.6%	0.6%	0.6%	1.2%
Greece	National Bank of Greece	Hold	10.9	1.12	0.97	0.78	17.4%	18.8%	21.6%	0.79	0.71	0.61	11.4%	13.5%	16.3%	1.3%	1.7%	2.2%
Iberia	Banco de Sabadell	Hold	4.2	1.15	1.10	1.05	8.5%	-0.3%	8.0%	1.03	1.00	0.95	7.6%	-0.3%	7.2%	0.6%	0.0%	0.7%
Iberia	Banco Pastor	Hold	3.9	0.72	0.69	0.66	9.0%	4.0%	6.9%	0.71	0.69	0.66	8.9%	4.0%	6.8%	0.6%	0.3%	0.5%
Iberia	Banco Popular	Hold	4.8	0.86	0.82	0.78	5.5%	6.6%	9.5%	0.81	0.78	0.74	5.1%	6.3%	9.0%	0.4%	0.6%	0.8%
Iberia	Banco Santander	Buy	10.1	1.91	1.74	1.56	21.2%	19.1%	22.0%	1.27	1.19	1.11	14.2%	12.9%	15.4%	1.7%	1.6%	1.9%
Iberia	Banesto	Hold	7.5	0.97	0.90	0.83	13.1%	11.1%	12.5%	0.97	0.90	0.83	13.1%	11.1%	12.5%	1.0%	0.9%	1.1%
Iberia	Bankinter	Hold	5.6	1.05	1.03	0.98	12.1%	7.0%	8.6%	1.02	1.00	0.95	11.7%	6.8%	8.4%	0.9%	0.6%	0.7%
Iberia	BBVA	Buy	9.8	2.19	1.86	1.60	39.6%	27.2%	29.8%	1.18	1.07	0.98	18.2%	15.2%	17.8%	1.8%	1.7%	2.0%
Iberia	BCP	Hold	0.6	1.11	0.95	0.86	24.7%	24.4%	21.5%	0.57	0.53	0.50	12.3%	13.1%	12.2%	0.9%	0.9%	0.8%
Italy	Banco Popolare	Buy	4.6	0.48	0.56	0.53	7.2%	6.8%	8.6%	0.26	0.28	0.27	3.6%	3.5%	4.3%	0.5%	0.4%	0.5%
Italy	Banca Popolare di Milanc	Hold	3.8	0.74	0.71	0.69	8.7%	4.5%	7.4%	0.56	0.55	0.53	6.8%	3.4%	5.7%	0.7%	0.3%	0.5%
Italy	Credem	Hold	4.9	1.01	0.97	0.92	6.0%	6.2%	8.0%	0.86	0.82	0.79	5.0%	5.2%	6.8%	0.5%	0.6%	0.7%
Italy	Intesa SanPaolo	Buy	2.4	1.21	1.12	1.04	10.9%	9.0%	12.8%	0.60	0.58	0.56	5.1%	4.6%	6.7%	0.7%	0.7%	1.0%
Italy	Monte dei Paschi	Buy	1.0	0.81	0.76	0.72	2.3%	5.8%	10.0%	0.41	0.40	0.39	1.2%	3.0%	5.4%	0.2%	0.4%	0.7%
Italy	UBI Banca	Hold	8.0	0.74	0.74	0.71	3.9%	3.2%	7.1%	0.45	0.45	0.44	2.4%	2.0%	4.4%	0.3%	0.3%	0.6%
Italy	UniCredito	Buy	2.0	1.03	1.02	0.96	6.4%	5.7%	10.9%	0.58	0.61	0.60	3.5%	3.3%	6.7%	0.4%	0.5%	0.9%
Nordics	Danske Bank	Buy	124.5	1.12	1.04	0.88	3.3%	6.6%	16.3%	0.86	0.82	0.72	2.5%	5.2%	13.0%	0.3%	0.6%	1.8%
Nordics	DnB NOR	Hold	75.1	1.34	1.22	1.14	11.0%	11.1%	10.5%	1.24	1.14	1.07	9.9%	10.3%	9.8%	0.8%	1.0%	1.0%
Nordics	Nordea	Sell	7.4	1.52	1.42	1.35	13.6%	10.5%	10.0%	1.32	1.24	1.18	11.8%	9.1%	8.7%	1.2%	1.0%	1.0%
Nordics	SEB	Buy	47.9	1.26	1.25	1.21	2.5%	8.5%	11.3%	1.05	1.05	1.02	2.0%	7.1%	9.5%	0.2%	0.9%	1.2%
Nordics	Svenska Handelsbanken	Hold	200.0	1.65	1.55	1.46	14.7%	12.7%	12.4%	1.50	1.43	1.35	13.3%	11.6%	11.5%	1.0%	1.0%	1.0%
Nordics	Sw edbank	Hold	79.0	1.27	1.18	1.14	-13.7%	6.7%	9.1%	1.02	0.98	0.94	-10.8%	5.4%	7.5%	-1.1%	0.6%	0.9%
Sw itzerland	Credit Suisse Group	Buy	44.3	1.96	1.67	1.42	29.3%	21.5%	20.4%	1.46	1.30	1.15	21.2%	16.4%	16.2%	3.1%	2.6%	2.6%
Sw itzerland	EFG International	Buy	14.5	1.58	1.43	1.27	12.8%	13.2%	15.1%	0.95	0.89	0.83	7.7%	8.1%	9.6%	2.9%	3.1%	3.7%
Sw itzerland	Julius Baer	Buy	36.1	3.00	2.75	2.31	22.4%	20.4%	21.1%	1.78	1.65	1.50	12.3%	12.2%	13.2%	3.9%	4.5%	4.8%
Sw itzerland	UBS	Hold	15.5	1.97	1.61	1.38	8.3%	19.9%	20.5%	1.44	1.24	1.10	5.7%	15.0%	16.1%	0.8%	3.0%	3.2%
Sw itzerland	Vontobel	Hold	30.2	1.48	1.31	1.15	10.8%	12.4%	12.6%	1.32	1.18	1.05	9.7%	11.2%	11.4%	2.5%	2.9%	3.2%
UK	Barclays	Buy	302.0	0.85	0.89	0.81	12.3%	8.9%	13.0%	0.74	0.78	0.71	10.3%	7.8%	11.5%	1.1%	0.9%	1.3%
UK	HSBC	Buy	646.2	1.78	1.71	1.61	15.0%	12.7%	15.4%	1.36	1.33	1.28	11.1%	9.8%	12.1%	1.1%	1.1%	1.5%
UK	Lloyds Banking Group	Buy	63.5	1.09	1.11	1.00	-12.1%	3.6%	12.8%	0.94	0.96	0.87	-10.0%	3.1%	11.2%	-0.8%	0.3%	1.1%
UK	RBS	Hold	45.3	0.88	0.90	0.89	-13.5%	-0.8%	4.6%	0.70	0.71	0.71	-9.9%	-0.6%	3.7%	-1.1%	-0.1%	0.5%
UK	Standard Chartered	Hold	1823.5	2.99	2.59	2.32	20.7%	20.4%	19.6%	2.23	2.01	1.86	14.9%	15.5%	15.5%	1.7%	1.9%	1.9%
Ireland	Allied Irish Banks	Hold	0.9	0.12	0.20	0.31	-41.7%	-24.4%	-21.7%	0.11	0.18	0.26	-37.6%	-21.6%	-18.6%	-2.3%	-1.2%	-0.8%
Ireland	Bank of Ireland	Hold	0.7	0.32	0.88	1.02	-103.6%	-19.7%	-12.1%	0.26	0.79	0.91	-85.9%	-17.1%	-10.8%	-2.6%	-0.7%	-0.6%
Austria				1.28	1.19	1.05	8.3%	8.6%	13.9%	1.02	0.96	0.87	6.3%	6.9%	11.4%	0.5%	0.6%	1.0%
Benelux				1.20	0.94	0.85	18.8%	10.1%	11.9%	0.87	0.73	0.68	12.5%	7.6%	9.3%	0.7%	0.6%	1.0%
France				1.07	0.95	0.84	10.7%	12.6%	14.6%	0.77	0.71	0.65	7.4%	9.3%	11.1%	0.8%	1.1%	1.3%
Germany				0.89	0.86	0.83	-23.9%	-0.5%	2.2%	0.73	0.70	0.68	-20.8%	-0.4%	1.8%	-0.9%	0.0%	0.1%
Greece				0.93	0.85	0.73	11.6%	11.0%	15.9%	0.71	0.66	0.59	8.6%	8.5%	12.7%	0.8%	0.9%	1.4%
Iberia				1.55	1.41	1.28	18.8%	16.0%	18.9%	1.17	1.09	1.01	14.1%	12.2%	14.8%	1.4%	1.3%	1.6%
Italy				1.05	0.97	0.91	7.2%	6.6%	10.8%	0.57	0.55	0.53	3.8%	3.7%	6.2%	0.5%	0.5%	0.8%
Nordics				1.46	1.29	1.20	6.8%	9.9%	11.5%	1.24	1.11	1.05	5.7%	8.4%	9.9%	0.5%	0.9%	1.1%
Sw itzerland				2.23	1.67	1.44	18.9%	21.3%	20.2%	1.62	1.28	1.14	13.2%	16.0%	15.8%	2.0%	3.0%	2.9%
UK				1.46	1.29	1.18	2.8%	7.7%	12.1%	1.18	1.05	0.98	2.1%	6.2%	10.0%	0.2%	0.7%	1.2%
UK ex HSBC, STAN				1.06	0.95	0.88	-4.6%	3.6%	9.7%	0.88	0.80	0.75	-3.6%	3.0%	8.2%	-0.3%	0.4%	1.0%
Ireland				0.55	0.51	0.61	-58.2%	-22.7%	-17.1%	0.48	0.45	0.53	-51.3%	-19.9%	-15.0%	-2.5%	-1.0%	-0.7%
DB Universe				**1.37**	**1.21**	**1.10**	**7.4%**	**10.2%**	**13.5%**	**1.01**	**0.92**	**0.86**	**5.3%**	**7.6%**	**10.4%**	**0.5%**	**0.9%**	**1.2%**

Source: Deutsche Bank estimates, company data, pricing from Datastream

Figure 85: European Banks capital ratios data

Geography	Stock	DB Rec.	Price 24/07/2010	Stated Tier 1 ratio 2009E	2010E	2011E	Tangible Equity Tier 1 ratio 2009E	2010E	2011E	Tang Assets/Tang Book value 2009E	2010E	2011E	Loan to deposit ratio 2009E	2010E	2011E
Austria	Erste Bank	Buy	30.2	9.2%	9.6%	10.1%	6.2%	6.6%	7.2%	26.0	24.0	21.7	115.3%	114.1%	113.6%
Benelux	Dexia	Hold	3.3	12.3%	17.2%	18.8%	5.6%	9.6%	11.1%	71.9	52.5	47.0	292.7%	272.6%	267.2%
France	BNP Paribas	Buy	49.8	10.1%	11.1%	11.7%	7.8%	8.5%	9.1%	42.3	39.7	37.4	112.2%	110.1%	109.0%
France	Credit Agricole	Hold	9.4	9.5%	10.1%	10.7%	8.0%	8.4%	9.3%	59.1	54.4	48.1	78.1%	75.9%	75.2%
France	Societe Generale	Buy	38.0	10.7%	11.1%	11.7%	8.7%	9.5%	10.3%	36.0	32.8	30.1	114.8%	111.6%	108.4%
Germany	Aareal Bank	Hold	15.0	11.0%	10.7%	10.4%	5.8%	5.6%	5.6%	31.1	31.5	30.7	108.5%	109.5%	112.3%
Germany	Commerzbank	Hold	6.4	10.5%	10.1%	9.8%	2.9%	2.9%	2.9%	105.4	101.8	94.7	133.1%	139.7%	131.1%
Greece	Agricultural Bank of Greece	Sell	1.0	10.6%	9.8%	10.0%	5.9%	5.5%	6.0%	34.3	36.7	33.5	105.0%	108.6%	111.6%
Greece	Alpha Bank	Hold	5.0	11.7%	10.2%	11.1%	8.4%	9.0%	9.9%	16.3	15.1	13.7	119.8%	116.5%	110.0%
Greece	Bank of Cyprus	Hold	3.9	11.2%	11.2%	11.2%	8.1%	8.3%	8.5%	20.6	20.2	19.6	86.5%	86.9%	86.3%
Greece	EFG EuroBank	Hold	5.7	11.5%	11.6%	12.4%	7.5%	7.7%	8.5%	23.3	22.1	19.9	119.3%	109.2%	101.4%
Greece	Marfin Popular Bank	Hold	1.7	9.1%	9.2%	9.7%	7.5%	7.7%	8.3%	20.3	19.8	18.3	97.4%	97.7%	97.0%
Greece	National Bank of Greece	Hold	10.9	11.9%	11.9%	12.8%	8.7%	9.4%	10.9%	18.8	16.4	14.0	100.6%	96.0%	96.4%
Iberia	Banco de Sabadell	Hold	4.2	9.1%	8.7%	8.8%	8.0%	8.6%	8.6%	17.4	17.7	17.5	170.0%	163.6%	159.7%
Iberia	Banco Pastor	Hold	3.9	10.6%	10.3%	10.2%	7.5%	7.4%	7.5%	19.2	22.1	22.2	141.4%	138.0%	139.3%
Iberia	Banco Popular	Hold	4.8	9.1%	9.3%	9.2%	8.6%	8.7%	8.7%	16.3	16.0	16.0	158.8%	140.8%	134.7%
Iberia	Banco Santander	Buy	10.1	10.1%	10.3%	10.6%	8.2%	8.5%	8.9%	23.7	22.9	21.8	136.2%	122.3%	120.1%
Iberia	Banesto	Hold	7.5	8.6%	9.3%	9.6%	7.7%	8.4%	8.7%	23.4	21.6	20.8	131.6%	128.5%	128.2%
Iberia	Bankinter	Hold	5.6	7.4%	7.2%	7.3%	8.0%	7.8%	7.9%	21.7	22.3	22.1	180.6%	196.3%	196.0%
Iberia	BBVA	Buy	9.8	9.4%	9.8%	10.2%	5.8%	6.4%	7.1%	30.9	28.1	26.7	127.2%	130.9%	130.9%
Iberia	BCP	Hold	0.6	6.9%	6.8%	6.9%	3.6%	3.8%	4.0%	38.5	36.6	33.9	162.1%	161.9%	151.6%
Italy	Banco Popolare	Buy	4.6	7.7%	8.7%	9.0%	6.4%	6.0%	6.4%	21.8	25.0	24.6	179.3%	166.5%	168.9%
Italy	Banca Popolare di Milano	Hold	3.8	8.6%	8.1%	7.9%	7.3%	7.0%	7.0%	17.4	17.3	17.6	148.4%	145.1%	144.8%
Italy	Credem	Hold	4.9	8.1%	8.2%	8.2%	9.0%	9.3%	9.4%	16.6	16.1	16.2	99.1%	89.0%	89.8%
Italy	Intesa SanPaolo	Buy	2.4	8.4%	9.1%	9.2%	7.0%	7.6%	7.9%	23.7	21.6	20.7	94.4%	92.1%	93.2%
Italy	Monte dei Paschi	Buy	1.0	7.5%	7.8%	7.9%	6.6%	7.0%	7.0%	27.2	25.8	26.9	114.0%	109.6%	108.6%
Italy	UBI Banca	Hold	8.0	8.0%	7.9%	7.8%	8.0%	8.0%	7.9%	17.1	17.3	17.6	185.4%	215.0%	216.4%
Italy	UniCredito	Buy	2.0	8.6%	9.6%	9.4%	7.4%	8.4%	8.4%	27.1	23.0	24.9	94.7%	99.2%	101.6%
Nordics	Danske Bank	Buy	124.5	14.1%	15.0%	16.1%	9.3%	10.1%	11.7%	39.6	33.0	27.6	207.7%	216.0%	216.0%
Nordics	DnB NOR	Hold	75.1	9.3%	9.0%	9.4%	8.6%	8.9%	9.3%	20.0	17.2	16.4	188.9%	185.6%	185.6%
Nordics	Nordea	Sell	7.4	10.2%	9.8%	10.0%	10.1%	9.8%	9.9%	25.9	23.3	22.8	183.9%	188.0%	188.0%
Nordics	SEB	Buy	47.9	12.8%	12.2%	12.5%	10.5%	9.9%	10.5%	27.5	28.7	29.0	148.3%	161.5%	161.5%
Nordics	Svenska Handelsbanken	Hold	200.0	9.1%	9.0%	8.9%	8.1%	8.1%	8.2%	27.9	27.1	26.3	268.7%	255.9%	255.9%
Nordics	Swedbank	Hold	79.0	10.4%	10.6%	10.9%	9.2%	9.9%	10.2%	24.6	22.3	21.7	255.9%	234.2%	234.2%
Switzerland	Credit Suisse Group	Buy	44.3	16.3%	15.7%	16.6%	12.6%	12.0%	13.1%	36.6	33.0	29.7	82.7%	86.9%	88.6%
Switzerland	EFG International	Buy	14.5	13.6%	14.3%	15.6%	23.0%	23.9%	25.5%	14.7	14.9	14.8	52.2%	54.1%	56.1%
Switzerland	Julius Baer	Buy	36.1	24.2%	23.6%	25.6%	22.6%	21.7%	23.9%	16.5	17.0	14.4	38.2%	42.9%	42.9%
Switzerland	UBS	Hold	15.5	15.4%	16.7%	17.5%	14.5%	15.3%	16.2%	44.3	38.5	33.8	74.7%	73.3%	71.9%
Switzerland	Vontobel	Hold	30.2	20.9%	22.5%	24.1%	22.4%	24.3%	26.2%	13.6	13.0	12.6	21.9%	20.5%	19.2%
UK	Barclays	Buy	302.0	13.0%	12.6%	11.2%	10.7%	10.3%	9.4%	33.4	32.8	31.1	130.3%	130.3%	130.3%
UK	HSBC	Buy	646.2	10.8%	11.9%	12.8%	8.7%	9.4%	10.1%	23.7	21.9	20.5	77.3%	77.0%	76.0%
UK	Lloyds Banking Group	Buy	63.5	9.6%	10.1%	11.5%	7.5%	8.0%	9.3%	27.5	25.9	22.4	177.7%	171.2%	161.9%
UK	RBS	Hold	45.3	14.4%	13.1%	12.4%	12.6%	11.7%	11.0%	27.4	26.0	23.3	146.6%	141.6%	128.6%
UK	Standard Chartered	Hold	1823.5	11.5%	11.3%	11.8%	9.0%	9.3%	9.9%	22.2	20.5	19.2	78.9%	78.9%	78.9%
Ireland	Allied Irish Banks	Hold	0.9	7.2%	5.6%	4.7%	5.5%	4.1%	3.2%	26.1	33.8	42.8	146.0%	142.1%	139.0%
Ireland	Bank of Ireland	Hold	0.7	9.8%	11.6%	11.1%	2.4%	5.1%	4.6%	76.6	37.8	43.8	140.8%	111.9%	99.4%
Austria				9.7%	9.8%	10.2%	6.8%	7.1%	7.6%	21.4	20.2	18.6	117.0%	114.9%	114.5%
Benelux				8.5%	11.9%	13.3%	4.8%	7.7%	9.1%	62.5	46.4	40.4	201.9%	190.0%	185.2%
France				10.1%	10.8%	11.5%	8.1%	8.7%	9.5%	44.8	41.4	38.0	101.2%	98.8%	97.3%
Germany				10.6%	10.2%	9.8%	3.1%	3.1%	3.1%	95.2	92.4	86.1	131.3%	137.3%	129.7%
Greece				11.3%	10.9%	11.6%	8.0%	8.4%	9.3%	20.2	18.8	16.9	106.1%	102.5%	99.9%
Iberia				9.5%	9.7%	10.0%	8.1%	8.4%	8.8%	22.0	21.4	20.7	138.6%	131.0%	128.7%
Italy				8.3%	9.0%	9.0%	7.2%	7.8%	7.9%	24.4	22.2	22.9	105.0%	105.9%	107.5%
Nordics				10.9%	10.7%	11.0%	9.4%	9.4%	9.9%	27.5	24.8	23.6	199.8%	201.5%	201.4%
Switzerland				16.1%	16.4%	17.3%	14.0%	14.0%	15.0%	38.5	34.4	30.5	75.7%	76.4%	76.2%
UK				11.7%	11.8%	12.1%	9.6%	9.7%	10.0%	27.2	25.7	23.5	118.7%	116.6%	111.7%
UK ex HSBC, STAN				12.2%	11.9%	11.7%	10.1%	10.0%	9.9%	29.3	28.1	25.6	152.3%	148.2%	140.1%
Ireland				8.4%	8.1%	7.3%	4.1%	4.5%	3.8%	39.3	35.7	43.3	143.4%	127.1%	119.6%
DB Universe				**10.4%**	**10.9%**	**11.2%**	**8.3%**	**8.8%**	**9.2%**	**31.0**	**28.7**	**26.9**	**121.7%**	**119.3%**	**116.8%**

Source: Deutsche Bank estimates, company data, pricing from Datastream

Deutsche Bank

Figure 86: European Banks performance data

Geography	Stock	DB Rec.	Price 24/07/2010	Absolute Performance 1w	1m	3m	YTD	Performance relative to the market 1w	1m	3m	YTD	Performance relative to the sector 1w	4.0%	3m	YTD
Austria	Erste Bank	Buy	30.2	5.6%	7.0%	(10.3%)	16.0%	2.5%	6.6%	(5.9%)	16.2%	1.1%	4.0%	(5.2%)	20.7%
Benelux	Dexia	Hold	3.3	5.3%	2.6%	(20.4%)	(22.4%)	2.2%	2.2%	(16.0%)	(22.3%)	0.8%	(0.3%)	(15.3%)	(17.7%)
France	BNP Paribas	Buy	49.8	5.9%	3.2%	(5.9%)	(10.9%)	2.8%	2.8%	(1.5%)	(10.7%)	1.4%	0.2%	(0.9%)	(6.2%)
France	Credit Agricole	Hold	9.4	4.7%	1.1%	(23.7%)	(24.3%)	1.6%	0.7%	(19.3%)	(24.2%)	0.2%	(1.8%)	(18.6%)	(19.6%)
France	Societe Generale	Buy	38.0	4.7%	3.2%	(11.8%)	(22.4%)	1.6%	2.8%	(7.4%)	(22.2%)	0.2%	0.3%	(6.8%)	(17.7%)
Germany	Aareal Bank	Hold	15.0	3.7%	2.6%	(13.3%)	13.5%	0.6%	2.1%	(8.9%)	13.6%	(0.8%)	(0.4%)	(8.2%)	18.1%
Germany	Commerzbank	Hold	6.4	4.2%	7.6%	5.8%	10.2%	1.1%	7.2%	10.2%	10.3%	(0.3%)	4.6%	10.9%	14.8%
Greece	Agricultural Bank of Greec	Sell	1.0	(13.0%)	(6.5%)	(25.9%)	(48.5%)	(16.1%)	(7.0%)	(21.5%)	(48.3%)	(17.5%)	(9.5%)	(20.9%)	(43.8%)
Greece	Alpha Bank	Hold	5.0	1.0%	14.6%	(16.3%)	(38.8%)	(2.1%)	14.2%	(11.9%)	(38.6%)	(3.5%)	11.7%	(11.3%)	(34.1%)
Greece	Bank of Cyprus	Hold	3.9	3.7%	10.2%	(14.1%)	(20.0%)	0.6%	9.8%	(9.7%)	(19.9%)	(0.8%)	7.3%	(9.0%)	(15.3%)
Greece	EFG EuroBank	Hold	5.7	14.2%	41.7%	1.4%	(27.5%)	11.1%	41.3%	5.8%	(27.4%)	9.7%	38.8%	6.5%	(22.9%)
Greece	Marfin Popular Bank	Hold	1.7	0.8%	7.7%	(11.0%)	(26.8%)	(2.3%)	7.3%	(6.6%)	(26.7%)	(3.7%)	4.8%	(5.9%)	(22.1%)
Greece	National Bank of Greece	Hold	10.9	(0.7%)	13.0%	(5.4%)	(39.8%)	(3.8%)	12.5%	(1.0%)	(39.6%)	(5.2%)	10.0%	(0.3%)	(35.1%)
Iberia	Banco de Sabadell	Hold	4.2	2.1%	12.1%	4.6%	9.8%	(1.0%)	11.6%	9.0%	9.9%	(2.3%)	9.1%	9.7%	14.4%
Iberia	Banco Pastor	Hold	3.9	(1.5%)	(1.3%)	(8.8%)	(19.1%)	(4.6%)	(1.7%)	(4.4%)	(18.9%)	(6.0%)	(4.2%)	(3.7%)	(14.4%)
Iberia	Banco Popular	Hold	4.8	2.3%	4.8%	(12.9%)	(6.0%)	(0.8%)	4.4%	(8.5%)	(5.8%)	(2.2%)	1.9%	(7.8%)	(1.3%)
Iberia	Banco Santander	Buy	10.1	4.6%	10.2%	1.6%	(12.4%)	1.5%	9.8%	5.9%	(12.3%)	0.1%	7.3%	6.6%	(7.8%)
Iberia	Banesto	Hold	7.5	(0.1%)	7.2%	(9.2%)	(12.8%)	(3.2%)	6.8%	(4.8%)	(12.7%)	(4.6%)	4.3%	(4.1%)	(8.2%)
Iberia	Bankinter	Hold	5.6	1.0%	7.5%	(4.8%)	(22.1%)	(2.1%)	7.1%	(0.4%)	(22.0%)	(3.5%)	4.6%	0.3%	(17.4%)
Iberia	BBVA	Buy	9.8	4.6%	7.8%	(7.3%)	(22.7%)	1.5%	7.4%	(3.0%)	(22.6%)	0.1%	4.9%	(2.3%)	(18.0%)
Iberia	BCP	Hold	0.6	3.1%	(3.1%)	(16.3%)	(25.1%)	(0.0%)	(3.5%)	(11.9%)	(24.9%)	(1.4%)	(6.0%)	(11.2%)	(20.4%)
Italy	Banco Popolare	Buy	4.6	0.5%	(1.8%)	(10.1%)	(9.7%)	(2.6%)	(2.2%)	(5.7%)	(9.6%)	(4.0%)	(4.7%)	(5.0%)	(5.0%)
Italy	Banca Popolare di Milano	Hold	3.8	3.2%	6.0%	(16.6%)	(23.3%)	0.1%	5.6%	(12.3%)	(23.2%)	(1.2%)	3.0%	(11.6%)	(18.7%)
Italy	Credem	Hold	4.9	1.5%	(0.7%)	(2.5%)	(9.8%)	(1.6%)	(1.1%)	1.9%	(9.7%)	(3.0%)	(3.6%)	2.6%	(5.2%)
Italy	Intesa SanPaolo	Buy	2.4	0.4%	3.6%	(10.9%)	(23.7%)	(2.7%)	3.1%	(6.5%)	(23.6%)	(4.1%)	0.6%	(5.9%)	(19.1%)
Italy	Monte dei Paschi	Buy	1.0	2.0%	(1.4%)	(16.1%)	(21.7%)	(1.1%)	(1.8%)	(11.7%)	(21.5%)	(2.5%)	(4.4%)	(11.0%)	(17.0%)
Italy	UBI Banca	Hold	8.0	2.1%	7.2%	(20.4%)	(20.4%)	(1.0%)	6.8%	(16.0%)	(20.2%)	(2.4%)	4.2%	(15.3%)	(15.7%)
Italy	UniCredito	Buy	2.0	2.1%	6.8%	(5.4%)	(8.8%)	(1.0%)	6.3%	(1.1%)	(8.6%)	(2.4%)	3.8%	(0.4%)	(4.1%)
Nordics	Danske Bank	Buy	124.5	(1.0%)	(2.7%)	(15.1%)	5.5%	(4.1%)	(3.2%)	(10.8%)	5.5%	(5.4%)	(5.7%)	(10.1%)	10.0%
Nordics	DnB NOR	Hold	75.1	6.8%	11.0%	9.8%	19.6%	5.3%	10.5%	13.0%	24.5%	3.9%	8.0%	13.7%	29.0%
Nordics	Nordea	Sell	7.4	(0.6%)	1.7%	0.9%	(3.6%)	(3.4%)	2.2%	6.6%	4.6%	(4.8%)	(0.4%)	7.3%	9.1%
Nordics	SEB	Buy	47.9	3.1%	7.2%	1.4%	8.0%	0.2%	7.7%	7.1%	17.1%	(1.2%)	5.2%	7.8%	21.6%
Nordics	Svenska Handelsbanken	Hold	200.0	(0.4%)	0.3%	(5.9%)	(2.1%)	(3.2%)	0.7%	(0.3%)	6.2%	(4.6%)	(1.8%)	0.4%	10.7%
Nordics	Swedbank	Hold	79.0	0.3%	3.3%	9.6%	11.3%	(2.6%)	3.7%	15.4%	20.6%	(4.0%)	1.2%	16.1%	25.1%
Switzerland	Credit Suisse Group	Buy	44.3	3.0%	0.1%	(13.9%)	(13.4%)	0.5%	0.4%	(4.1%)	(4.8%)	(0.9%)	(2.1%)	(3.4%)	(0.2%)
Switzerland	EFG International	Buy	14.5	7.8%	(2.4%)	(27.0%)	1.1%	5.3%	(2.1%)	(18.0%)	11.1%	4.0%	(4.6%)	(17.4%)	15.7%
Switzerland	Julius Baer	Buy	36.1	(3.0%)	(7.3%)	(16.9%)	(9.1%)	(5.5%)	(7.0%)	(7.3%)	0.0%	(6.9%)	(9.5%)	(6.6%)	4.6%
Switzerland	UBS	Hold	15.5	2.9%	(0.7%)	(9.8%)	(3.6%)	0.3%	(0.4%)	0.3%	6.0%	(1.0%)	(2.9%)	1.0%	10.5%
Switzerland	Vontobel	Hold	30.2	1.2%	2.0%	(5.3%)	2.2%	(1.4%)	2.4%	5.0%	12.4%	(2.7%)	(0.2%)	5.7%	16.9%
UK	Barclays	Buy	302.0	6.1%	0.4%	(16.6%)	9.4%	4.5%	(1.3%)	(8.4%)	17.0%	3.1%	(3.8%)	(7.8%)	21.5%
UK	HSBC	Buy	646.2	4.0%	(0.9%)	(5.3%)	(8.8%)	2.3%	(2.5%)	3.5%	(2.5%)	1.0%	(5.1%)	4.2%	2.0%
UK	Lloyds Banking Group	Buy	63.5	6.6%	8.2%	(7.2%)	25.3%	5.0%	6.4%	1.4%	33.9%	3.6%	3.9%	2.1%	38.5%
UK	RBS	Hold	45.3	3.7%	(3.0%)	(18.8%)	55.2%	2.1%	(4.6%)	(10.7%)	65.9%	0.7%	(7.1%)	(10.0%)	70.4%
UK	Standard Chartered	Hold	1823.5	6.9%	3.8%	2.1%	15.8%	5.4%	2.1%	11.1%	23.8%	4.0%	(0.5%)	11.8%	28.3%
Ireland	Allied Irish Banks	Hold	0.9	2.3%	(9.8%)	(40.0%)	(25.0%)	(0.8%)	(10.2%)	(35.6%)	(24.9%)	(2.2%)	(12.8%)	(34.9%)	(20.3%)
Ireland	Bank of Ireland	Hold	0.7	7.4%	(1.1%)	(35.2%)	(12.0%)	4.3%	(1.5%)	(30.9%)	(11.9%)	2.9%	(4.0%)	(30.2%)	(7.4%)
Austria				4.9%	3.1%	(11.4%)	6.0%	1.8%	2.7%	(7.0%)	6.1%	0.4%	0.2%	(6.3%)	10.6%
Benelux				3.5%	2.1%	(10.9%)	(0.5%)	0.4%	1.7%	(6.5%)	(0.4%)	(1.0%)	(0.9%)	(5.9%)	4.1%
France				5.3%	2.8%	(11.0%)	(16.5%)	2.2%	2.4%	(6.6%)	(16.4%)	0.9%	(0.1%)	(5.9%)	(11.8%)
Germany				4.1%	7.2%	4.3%	10.4%	1.0%	6.8%	8.7%	10.6%	(0.4%)	4.2%	9.4%	15.1%
Greece				2.3%	16.6%	(8.6%)	(34.1%)	(0.8%)	16.2%	(4.2%)	(33.9%)	(2.2%)	13.6%	(3.5%)	(29.4%)
Iberia				4.1%	8.9%	(2.2%)	(14.4%)	1.0%	8.5%	2.2%	(14.3%)	(0.4%)	6.0%	2.9%	(9.8%)
Italy				1.5%	4.6%	(9.3%)	(16.0%)	(1.6%)	4.2%	(4.9%)	(15.8%)	(3.0%)	1.7%	(4.2%)	(11.3%)
Nordics				1.2%	3.4%	0.3%	4.7%	(1.5%)	3.5%	5.4%	11.5%	(2.8%)	1.0%	6.1%	16.1%
Switzerland				2.6%	(0.7%)	(12.2%)	(8.0%)	0.1%	(0.4%)	(2.3%)	1.1%	(1.3%)	(3.0%)	(1.6%)	5.7%
UK				5.0%	0.9%	(8.4%)	13.3%	3.4%	(0.7%)	0.1%	21.1%	2.0%	(3.3%)	0.8%	25.6%
UK ex HSBC, STAN				5.3%	1.7%	(14.3%)	32.0%	3.8%	0.0%	(6.0%)	41.1%	2.4%	(2.5%)	(5.3%)	45.6%
Ireland				6.3%	(2.9%)	(36.2%)	(14.8%)	3.2%	(3.3%)	(31.9%)	(14.6%)	1.8%	(5.8%)	(31.2%)	(10.1%)
European Banks				**4.5%**	**2.9%**	**(5.1%)**	**(4.7%)**	**1.4%**	**2.5%**	**(0.7%)**	**(4.5%)**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Source: Deutsche Bank estimates, company data, pricing from Datastream

Appendix 1

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Equity rating key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock

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2. Ratings definitions prior to 27 January, 2007 were:

Buy: Expected total return (including dividends) of 10% or more over a 12-month period

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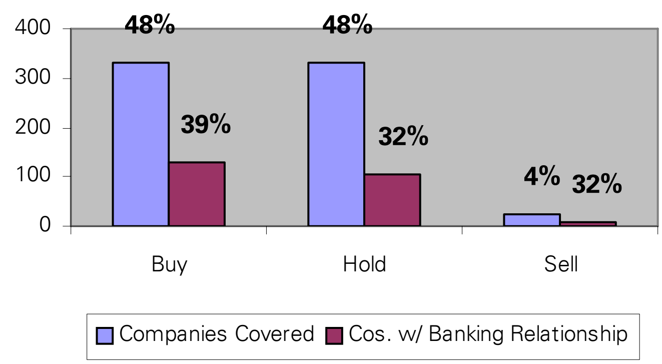
Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships



European Universe

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