



# Perspectives by Ruth Lea

Economic Adviser to Arbuthnot Banking Group

---



## **EU bank stress tests not a whitewash – but too timid**

### *Introduction: CEBS's stress tests*

On 23 July the Committee of European Banking Supervisors (CEBS) released its report of the EU's 2010 stress test exercise for banks.<sup>1,2</sup> The overall objective was “to provide policy information for assessing the resilience of the EU banking system to possible adverse economic developments and to assess the ability of banks in the exercise to absorb possible shocks on credit and market risk, including sovereign risk”.<sup>3</sup>

This was a relevant exercise as concerns still linger over the health of the European banking system, with the recent sovereign debt crisis threatening to morph into a second Lehmans-style banking crisis. There are two main concerns, which were only partly answered in the CEBS report:

- European banks are not strong enough to withstand a second recession (a “double dip”).
- Many European banks have large exposures to Greece, Portugal and other governments that may default on their sovereign debt.

Specifically the EU devised the stress tests in order to identify which European banks are dangerously vulnerable and need their capital ratios to be strengthened, or even taken over. The exercise included a sample of 91 European banks, which represented 65% of the European market in terms of total assets. The UK's four big banks were examined. In other countries smaller institutions that were still deemed to be of systemic importance were also included. For example, in Spain a total of 27 banks were looked at, including all of the cajas (savings banks), which have large exposures to the collapsed Spanish property market. In Germany, the Landesbanken (state-owned regional banks) were of particular concern. The 91 banks are listed in the annex.

### *The role of the national regulators*

Whilst the CEBS supervised the exercise, the actual testing was done by the national banking regulator in each country. The testing was therefore done by the Financial Services Authority (FSA) in the UK. It is very possible that the individual national regulators interpreted the macroeconomic scenarios differently (see below) when they were testing their own country's banks. This has led to market concerns that the test results may not be comparable across different European countries, with some national regulators more lenient than others.

### *The scenarios*

Three different scenarios for 2010-2011 were analysed. The first two were:

- The “benchmark” scenario based on the European Commission’s Autumn 2009 forecast and the Interim forecast (February 2010). This scenario showed a mild recovery and is in line with current developments. This scenario seems reasonable.
- The “adverse” based on ECB estimates and incorporating a global confidence shock that affects demand worldwide including the US. As can be seen from table 1 below, the EU27 experiences a “double dip” recession and “loses” 1% of GDP growth in 2010 and a further 2% of GDP growth in 2011, making a cumulative GDP loss of 3%. The losses for the euro area are similar. This “adverse” scenario, whilst undeniably gloomy, can be criticised for being inadequately gloomy. Indeed the scenario’s “double dip” represents the mildest of recessions.

**Table 1: Aggregate key macro-economic variables in the scenarios**

	Actual	Benchmark scenario		Adverse scenario	
	2009	2010	2011	2010	2011
EU27:					
GDP (YOY, %)	-4.2	1.0	1.7	0	-0.4
Unemployment (%)	8.9%	9.8%	9.7%	10.5%	11.0%
Euro area:					
GDP (YOY, %)	-4.1	0.7	1.5	-0.2	-0.6
Unemployment (%)	9.4	10.7	10.9	10.8	11.5

Source: CEBS, “Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB”, July 2010.

The third scenario included a “sovereign risk shock”, additional to the “adverse growth” projection, reflecting adverse conditions in financial markets and resulting in a generalised upward shift in the yield curve, supplemented by country-specific upward shocks to long-term bond yields. The exercise included a set of valuation haircuts which were applied to the banks’ outstanding trading book exposures to European sovereign debt. The valuation haircuts are shown in table 2 below.

**Table 2: Valuation haircuts to sovereign debt holdings as applied in the exercise: selected countries**

	Benchmark scenario		Adverse scenario	
	2010	2011	2010	2011
Austria	1.0	2.8	3.1	5.6
Belgium	1.4	3.1	4.3	6.9
France	1.5	3.0	3.7	6.0
Germany	0.1	2.5	2.3	4.7
Greece	3.9	4.3	20.1	23.1
Ireland	1.6	4.2	8.6	12.8
Italy	1.2	2.9	4.9	7.4
Netherlands	1.1	2.5	3.0	5.2
Portugal	2.3	3.7	11.1	14.1
Spain	1.3	4.1	6.7	12.0
UK	5.0	6.9	7.7	10.2
EU average	1.3	3.3	5.2	8.5

Source: CEBS, “Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB”, July 2010.

Thus at the very worst, the haircut for Greece would be just 23.1%, 12.8% for Ireland, 14.1% for Portugal and 12% for Spain by end-2011. These, relatively modest, haircuts have already been met with market scepticism. They seem rather benign. (And note that the ratings agency Moody's has recently downgraded the Irish Republic's sovereign bond rating to Aa2 from Aa1.) The notion of a haircut of 4.7% for German Bunds also looks questionable, given that they are seen as the quality benchmark for sovereign security in Europe.

But more questionable still is that any sovereign defaults were completely excluded from the exercise and the haircuts only applied to the trading books of banks. The ECB offered the following explanation: "The haircuts are applied to the trading book portfolios only, as no default assumption was considered".<sup>4</sup>

In other words, the stress tests omitted any sovereign risks attached to the majority of banks' holdings of sovereign debt after regulators decided to exclude testing securities held in their banking books.<sup>5</sup> Banks only have to write down the value of bonds in their banking book if there is serious doubt about a state's ability to repay its debt in full (default) or make interest payments, otherwise they can value them at 100%. Arguably, the exercise failed to address the true significance of the European banking sector's Achilles heel, its full exposure to sovereign debt.

Default cannot be ruled out: the economies of the eurozone continue to diverge and May's rescue packages, arguably, merely "buy time" before one or more of the eurozone countries leave the eurozone and/or default.<sup>6,7</sup>

#### *Capital stress and the 6% "stress threshold"*

The focus of the stress tests was on capital stress (whether a bank is solvent) rather than liquidity stress (whether it has the financing to operate on day to day basis). Liquidity risks were not directly stress tested. On this score alone, the exercise was limited.

The tests were therefore focused on "capital adequacy", a common measure of banks' resilience to shocks. Unlike borrowing, capital (including ordinary shares) is part of the balance sheet that the bank is not legally obliged to repay its investors. A bank's capital acts as a loss-absorbing cushion for its loss-making loans and investments and helps to maintain the bank as a going concern. If however the losses are so big that the bank's capital is written down to zero, then the bank is of course insolvent. In essence the CEBS's tests were done to see if the banks would remain solvent by estimating bank losses in adverse economic circumstances and their impact on their capital buffers.

The tests took as their starting point the macroeconomic scenarios discussed above – including the "adverse scenario" with the additional "sovereign risk shock". Under these scenarios the likely losses were assessed across a range of the banks' loans and investments for 5 main portfolios: financial institutions, sovereign, corporate, consumer credit and retail real estate. The capital needed to absorb the losses was assessed. Capital adequacy ratios were then calculated for each bank to see if they were at or exceeded the "success threshold". If they did not (if they "failed" and suffered a "capital shortfall") they would need to raise further capital, other things being equal.

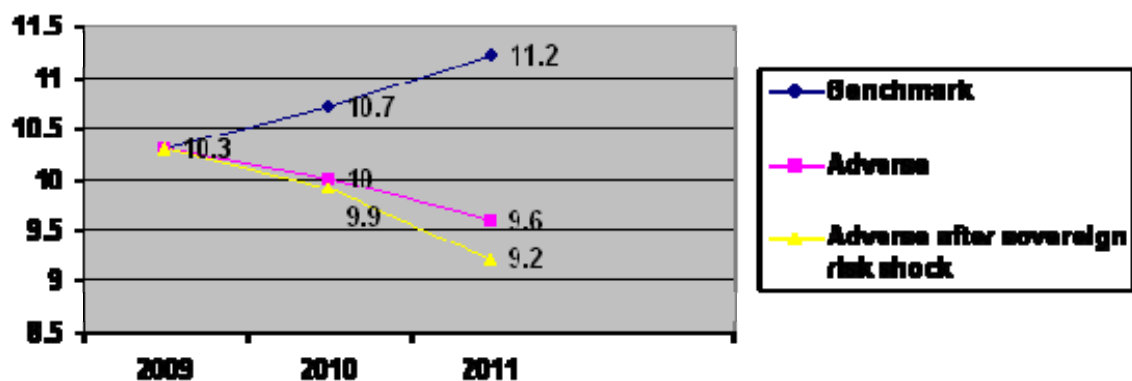
One of the problems faced by the CEBS was the definition of capital. By choice they would have preferred a measure that includes just loss-absorbing equity and retained earnings, often known as “core tier 1 capital”. But the Commission is still in the process of harmonising the definition of core tier 1 capital. If the measure had been used this time a direct comparison of the results across countries could not have been facilitated. But there is an EU harmonised precise legal definition of the components of total “tier 1 capital”, which includes hybrid bonds which failed to absorb losses in a way the regulators thought appropriate during the credit crisis.<sup>8</sup> Total tier 1 capital was therefore used for the exercise despite its tendency to overstate the loss-absorbing ability of banks’ capital. The quality of the capital in the individual banks was not tested.

The exercise’s sole “success threshold” was a minimum total tier 1 capital adequacy ratio of 6%, compared with a minimum 4% in the Capital Requirements Directive.<sup>9,10</sup> Even the 6% threshold is arguably too low.<sup>11</sup> This 6% threshold was used as a benchmark to determine the potential need for recapitalisation of an institution. If the 6% threshold was not met, more capital needed to be raised, other things being equal.

#### *Stress tests: the outcomes*

The CEBS report concluded that the aggregate tier 1 capital ratio under the adverse scenario, after the sovereign risk shock, would decrease from 10.3% (end-2009) to 9.2% by end-2011, comfortably higher than the regulatory minimum of 4% and the 6% chosen “success threshold”. However, these aggregate results depended partly on the continued reliance of government support for 38 of the institutions in the exercise.

#### **3 scenarios: aggregate Tier 1 capital ratio, end years (%)**



Source: CEBS, “Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB”, July 2010.

Concerning individual banks none of the smaller banks would see their tier 1 capital ratios fall below 6% under the benchmark scenario. But under the adverse scenario, and especially after the sovereign risk shock, 7 institutions failed to meet the 6% success threshold by end-2011. These 7 institutions were judged to have a combined “capital shortfall” of €3.5bn.

The banks were (and see the annex table for details on the capital ratios):

- Spain: Diada, CajaSur, Unnim, Banca Civica, Espiga. These are all cajas, exposed to the collapsed property market.
- Germany: Hypo Real Estate, a troubled property lender, nationalised last year.
- Greece: Agricultural bank of Greece (ATE), state-owned.

The CEBS report concluded that “overall the results can be considered rather reassuring for the banks in the sample”. Given the shortcomings of the exercise, this seems rather complacent and self-congratulatory.

### *Overall assessment*

The exercise was not a whitewash – but far too timid, too lenient. As the credit crisis brought on the worst recession in decades, Europe’s banks were badly exposed through traditional lending (especially in real estate and construction); and they have recently experienced the panic in the sovereign debt markets. These EU’s stress tests are part-way to assuring people that Europe’s banks are adequately capitalised and resilient in the face of adverse economic conditions so they can weather economic storms.

But there are some very major reservations about the exercise:

- Some national regulators have probably been more lenient than others.
- The “double dip” recession in the adverse scenario is not so adverse.
- The haircuts under the “sovereign risk shock” look too benign for Greece, Ireland, Spain and Portugal.
- The “sovereign risk shock” specifically excludes default and is only concerned with sovereign bonds on banks’ trading books. This has surely been adopted for political reasons. It is the elephant in the room.
- The tests were confined to credit risk, and excluded liquidity risk.
- Total tier 1 capital was used, rather than core tier 1 capital, despite its tendency to overstate the loss-absorbing ability of banks’ capital.
- The exercise’s sole “success threshold” of a minimum 6% tier 1 capital adequacy ratio is arguably too low.
- Under these circumstances, the tests should be treated with caution.

### **References**

1. The Committee of European Banking Supervisors (CEBS, based in London) is one of the three “level 3” committees in the “Lamfalussy” process, which are supervisory committees facilitating the convergence of regulatory outcomes ([www.fsa.gov.uk](http://www.fsa.gov.uk)). The other two are the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS, based in Frankfurt) and the Committee of European Securities Regulators (CESR, based in Paris).
2. These level 3 Lamfalussy Committees will be upgraded to form three new “micro-prudential” authorities (for banking, insurance and securities) which will constitute the new European System of Financial Supervision (ESFS). Day-to-day supervision of financial firms will remain at the national level, whilst the ESFS will play a largely coordinating role. However, the new authorities will have binding powers over national supervisors on supervisory standards. The ESFS and the “macro-prudential” European Systemic Risk Council (ESRC), which will oversee the financial system as a whole, will comprise the new EU’s new framework for financial supervision.
3. CEBS, “Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB”, [www.c-eps.org](http://www.c-eps.org), 23 July 2010.
4. ECB, “EU Stress Test Exercise: Key Messages on Methodological Issues”, 22 July 2010.
5. Meera Louis and Andrew MacAskill “EU Stress Tests Only Consider Bank Trading Book Bond Losses”, Bloomberg, 23 July 2010, [www.bloomberg.com](http://www.bloomberg.com), reported that, for example, according to a survey by Morgan Stanley analysts, lenders hold about 90% of their Greek government bonds in their banking book and 10% in their trading book.
6. Ruth Lea, “The divergent eurozone: no easy solutions in sight”, *Arbuthnot Banking Group*, 18 January 2010.
7. Ruth Lea, “The eurozone’s rescue package: buying time and postponing the day of reckoning”, *Arbuthnot Banking Group*, 24 May 2010.
8. Reuters, “EU bank stress tests create capital confusion”, 21 July 2010, [www.reuters.com](http://www.reuters.com)

9. The Capital Requirements Directive (CRD) set a regulatory minimum for the overall capital adequacy ratio (CAR) at 8%, with minimum tier 1 capital adequacy ratio set at 4%. The CAR is the ratio of capital over risk-adjusted assets.
10. The CEBS's 6% benchmark was in line with the benchmark used in the US SCAP (Supervisory Capital Assessment Program, May 2009, the Federal Reserve Board).
11. Several member states have opted for higher minimum capital adequacy ratios. For example, in 2008 the FSA set out new capital ratios in an interim capital regime as part of its enhanced supervisory framework. This framework included a minimum core tier 1 ratio of 4% of risk-weighted assets in "stressed economic conditions", with 6-7% for the total tier 1 ratio. In "normal economic circumstances" the minimum total tier 1 ratio is 8%. See FSA, *Financial Risk Outlook*, March 2010.

## Annex

### List of banks covered by the 2010 EU-wide stress test exercise

Country	Name of the institution	Stressed tier 1 capital ratio, end-2011 (end-2009 in brackets)+
Austria (2)	ERSTE GROUP BANK AG	
	RAIFFEISEN ZENTRALBANK OESTERRREICH AG (RZB)	
Belgium (2)	KBC BANK NV	
	DEXIA	
Cyprus (2)	MARFIN POPULAR BANK PUBLIC CO LTD	
	BANK OF CYPRUS PUBLIC CO LTD	
Denmark (3)	DANSKE BANK	
	JYSKE BANK	
	SYDBANK	
Finland (1)	OP-POHJOLA GROUP	
France (4)	BNP PARIBAS	
	CREDIT AGRICOLE GROUP	
	BPCE GROUP	
	SOCIETE GENERALE (SG)	
Germany (14)	DEUTSCHE BANK AG	
	COMMERZBANK AG	
	HYPO REAL ESTATE HOLDING AG (HRE), nationalised in 2009	4.7% (9.4%), failed ("capital shortfall")
	LANDESBANK BADEN-WÜRTTEMBERG (LBBW)	
	BAYERISCHE LANDESBANK (Balaba)	
	DZ BANK AG DT. ZENTRAL-GENOSSENSCHAFTSBANK	
	NORDDEUTSCHE LANDESBANK -GZ- (NordLB)	6.2% (7.5%), scraped through (met the 6% ratio)
	DEUTSCHE POSTBANK AG	6.6% (7.1%), scraped through
	WESTLB AG	
	HSB NORDBANK AG	
	LANDESBANK HESSEN-THÜRINGEN GZ (Helaba)	
	LANDESBANK BERLIN AG (LB Berlin)	
	DEKABANK DEUTSCHE GIROZENTRALE	
	WGZ BANK AG WESTDT. GENO. ZENTRALBK	
Greece (6)	NATIONAL BANK OF GREECE (NBG)	
	EFG EUROBANK ERGASIAS S.A.	
	ALPHA BANK	
	PIRAEUS BANK GROUP	6.0% (9.1%), scraped through
	AGRICULTURAL BANK OF GREECE S.A. (ATE bank)	4.4% (9.4%), failed
	TT HELLENIC POSTBANK S.A.	
Hungary (2)	OTP BANK NYRT.	
	FHB JELZÁLOGBANK NYILVÁNOSAN MŰKÖDŐ RT	
Ireland (2)	BANK OF IRELAND	
	ALLIED IRISH BANKS PLC (AIB)	6.6% (7.1%), scraped through
Italy (5)	UNICREDIT	
	INTESA SANPAOLO	
	MONTE DEI PASCHI DI SIENA	6.2% (7.5%), scraped through
	BANCO POPOLARE - S.C.	
	UNIONE DI BANCHE ITALIANE SCPA (UBI BANCA)	
Luxembourg (2)	BANQUE ET CAISSE D'EPARGNE DE L'ETAT (BCEE)	

	BANQUE RAIFFEISEN	
Malta (1)	BANK OF VALLETTA (BOV)	
Netherlands (4)	ING Bank	
	RABOBANK GROUP	
	ABN/ FORTIS BANK NEDERLAND (HOLDING) N.V	
	SNS BANK	
Poland (1)	POWSZECHNA KASA OSZCZĘDNOŚCI BANK POLSKI S.A. (PKO BANK POLSKI)	
Portugal (4)	CAIXA GERAL DE DEPÓSITOS (CGD)	
	BANCO COMERCIAL PORTUGUÊS BANCO COMERCIAL PORTUGUÊS S.A. (BCP OR MILLENNIUM BCP)	
	ESPÍRITO SANTO FINANCIAL GROUP S.A. (ESFG)	
	BANCO BPI	
Slovenia (1)	NOVA LJUBLJANSKA BANKA (NLB)	6.3% (7.5%), scraped through
Spain (27)	GRUPO SANTANDER	
	GRUPO BBVA	
	JUPITER: CAJA DE AHORROS Y MONTE DE PIEDAD DE MADRID (CAJA MADRID); CAJA DE AHORROS DE VALENCIA, CASTELLÓN Y ALICANTE (BANCAJA); CAIXA DÉSTALVIS LAIETANA; CAJA INSULAR DE AHORROS DE CANARIAS; CAJA DE AHORROS Y MONTE DE PIEDAD DE AVILA; CAJA DE AHORROS Y MONTE DE PIEDAD DE SEGOVIA; CAJA DE AHORROS DE LA RIOJA.	6.3% (8.6%), scraped through
	LA CAIXA: CAJA DE AHORROS Y PENSIONES DE BARCELONA (LA CAIXA); CAIXA DÉSTALVIS DE GIRONA.	
	BASE: CAJA DE AHORROS DEL MEDITERRÁNEO (CAM); CAJA DE AHORROS DE ASTURIAS; CAJA DE AHORROS DE SANTANDER Y CANTABRIA; CAJA DE AHORROS Y MONTE DE PIEDAD DE EXTREMADURA.	
	BANCO POPULAR ESPAÑOL, S.A. (BPE)	
	BANCO DE SABADELL, S.A.	
	DIADA: CAIXA DÉSTALVIS DE CATALUNYA; CAIXA DÉSTALVIS DE TARRAGONA; CAIXA DÉSTALVIS DE MANRESA.	3.9% (6.6%), failed
	BREOGAN: CAJA DE AHORROS DE GALICIA; CAIXA DE AFORROS DE VIGO, OURENSE E PONTEVEDRA (CAIXANOVA).	
	MARE NOSTRUM: CAJA DE AHORROS DE MURCIA; CAIXA DÉSTALVIS DEL PENEDES; CAJA DE AHORROS Y MONTE DE PIEDAD DE LAS BALEARES (SA NOSTRA); CAJA GENERAL DE AHORROS DE GRANADA.	
	BANKINTER, S.A.	
	ESPIGA: CAJA DE AHORROS DE SALAMANCA Y SORIA (CAJA DUERO); CAJA DE ESPAÑA DE INVERSIONES CAJA DE AHORROS Y MONTE DE PIEDAD (CAJA ESPAÑA).	5.6% (8.6%), failed
	BANCA CIVICA: CAJA DE AHORROS Y M.P. DE NAVARRA, CAJA DE AHORROS MUNICIPAL DE BURGOS Y CAJA GENERAL DE AHORROS DE CANARIAS.	4.7% (9.6%), failed
	CAJA DE AHORROS Y MONTE DE PIEDAD DE ZARAGOZA, ARAGON Y RIOJA (IBERCAJA).	
	M.P. Y C.A. DE RONDA, CADIZ, ALMERIA, MALAGA, ANTEQUERA Y JAEN (UNICAJA)	
	BANCO PASTOR, S.A.	6.0% (10.5%), scraped through
	CAJA SOL: MONTE DE PIEDAD Y CAJA DE AHORROS SAN FERNANDO DE HUELVA, JEREZ Y SEVILLA (CAJA SOL); CAJA DE AHORRO PROVINCIAL DE GUADALAJARA	6.0% (10.3%), scraped through
	BILBAO BIZKAIA KUTXA, AURREZKI KUTXA ETA BAHITETXEA (BBK)	

	<u>UNNIM</u> : CAIXA DÉSTALVIS DE SABADELL; CAIXA DÉSTALVIS DE TERRASSA; CAIXA DÉSTALVIS COMARCAL DE MANLLEU.	4.5% (7.2%), failed
	CAJA DE AHORROS Y MONTE DE PIEDAD DE GIPUZKOA Y SAN SEBASTIAN ( <u>KUTXA</u> ).	
	<u>CAJA3</u> : CAJA DE AHORROS Y MONTE DE PIEDAD DEL CÍRCULO CATÓLICO DE OBREOS DE BURGOS (CAJA CÍRCULO); MONTE DE PIEDAD Y CAJA GENERAL DE AHORROS DE BADAJOZ; CAJA DE AHORROS DE LA INMACULADA DE ARAGÓN ( <u>CAI</u> ).	6.1% (9.4%), scraped through
	CAJA DE AHORROS Y MONTE DE PIEDAD DE CORDOBA ( <u>CAJASUR</u> ).	4.3% (1.8%), failed
	BANCA MARCH, S.A.	
	BANCO GUIPUZCOANO, S.A.	6.1% (9.1%), scraped through
	CAJA DE AHORROS DE VITORIA Y ALAVA ( <u>CAJA VITAL KUTXA</u> ).	
	CAJA DE AHORROS Y MONTE DE PIEDAD DE <u>ONTINYENT</u> .	
	<u>COLONYA</u> - CAIXA D'ESTALVIS DE POLLENSA.	6.2% (9.9%), scraped through
Sweden (4)	NORDEA BANK	
	SKANDINAVISKA ENSKILDA BANKEN AB (SEB)	
	SVENSKA HANDELSBANKEN	
	SWEDBANK	
UK (4)	ROYAL BANK OF SCOTLAND (RBS)	
	HSBC HOLDINGS PLC	
	BARCLAYS	
	LLOYDS BANKING GROUP	
Total (91)		

General source: CEBS, “Aggregate outcome of the 2010 EU wide stress test exercise coordinated by CEBS in cooperation with the ECB”, July 2010.

+ Source: *FT*, “Banks find exercise relatively painless”, 24 July 2010, for the stressed tier 1 capital ratios. They are only specified for those banks with a “capital shortfall” by end-2011 (“failed”) and those just meeting the 6% capital ratio target by end-2011 (“scraped through”).

**Ruth Lea, Economic Adviser, Director,**  
**Arbuthnot Banking Group,**  
[ruthlea@arbuthnot.co.uk](mailto:ruthlea@arbuthnot.co.uk),  
**Tel: 07800 608 674**