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Research

Implications of the European stress test

- **Only 7 of 91 banks failed the European stress tests published by the Committee of the European Banking Supervisors (CEBS) on Friday. While it put into question the severity of the stress test it is close to markets expectations based on what has been leaked from the National Supervisors in recent weeks.**
- **The amount of disclosure was the positive surprise. Most banks except a few German banks have released detailed information about their sovereign debt exposure. This might aid further in the market to a larger degree starting to differentiate risks between banks**
- **However, we do not expect the stress to be the big game changer in Europe. With the apparent weakness of the stress tests, financial markets has probably not yet been convinced that European bank as a whole have sufficient capitalisation.**
- **In Europe the confidence in the banking sector and confidence in the sustainability of public finances are highly interwoven and it that sense restoration of confidence in particularly peripheral countries will still be dependent on Europe's ability to convince the market, that a sovereign default is unlikely to happen .**
- **. Market reaction in U.S. trade Friday evening was slightly positive after some initial jitters. EUR strengthened slightly and European banks traded in the US ADR market gained modestly. As a direct consequence of the release of the stress test the Bund future lost around 30cents (around 3-4bp in 10y yields).**
- **On balance we regard the stress test as slightly positive, but a significant near-term reduction in the risk premium levied on the single currency appears unlikely. The market impact could be slightly positive for risky assets including peripherals government bonds.**

Stress test: Part of the healing process, but not a cure

Committee of European Banking Supervisors (CEBS) on Friday released the results of its EU-wide stress test on 91 European banks, representing 65% of the European market in term of total assets.

The stress were conducted over a 2-year horizon, until the end of 2011 and the stress was done on the bank's balance sheet as of the end of 2009. The stress test was done on two scenarios, which we have shortly described below. For a complete description of the stress tests results and the assumptions behind the stress tests please see *CEBS Summary report*

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Senior Analyst
Flemming J. Nielsen
+45 45128535
flemm@danskebank.dk

Senior Analyst
Gustav Smidth
+45 45 13 07 89
gusm@danskebank.dk

Senior Analyst
Kristian Myrup Pedersen
+45 45 12 85 19
kripe@danskebank.dk

Double dip scenario

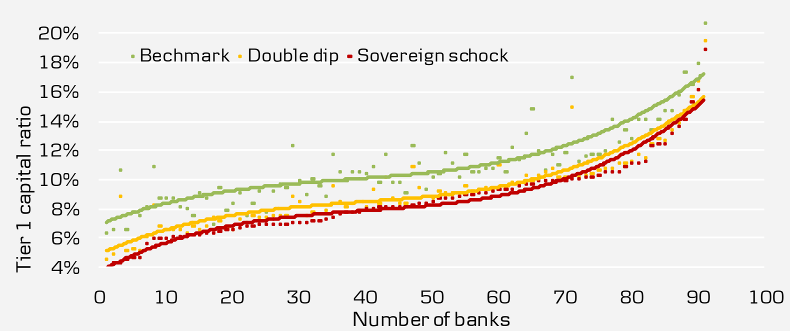
In this scenario GDP in the Euro Area continues to contract in both 2010 and 2011 following the sharp contraction in 2009. With contraction three year in a row a accumulated GDP loss close to 6% this is a relatively severe contraction. For some of the peripheral countries the contraction is particularly severe. For Greece for example GDP is assumed to contract more than 4% in both 2010 and 2011 and the accumulated output loss since 2008 is assumed to be around 10%. The main problem with the macroeconomic is that there are wide differences in the assumptions for property price development, partly because the assumed property price development has been delivered by national supervisory authorities

Sovereign shock scenario

In this "sovereign shock" has been added to the "double dip recession." This is basically done by assuming sharp country specific increases in government bond yields and these bond yields are then converted into haircuts that are used in the mark-to-market valuation of government bonds in the trade book. Importantly the this scenario does not assume a sovereign default. Hence, the direct negative impact from government debt will be mainly trading losses on sovereign debt and an indirect impact from impairment of private debt stemming from higher interest rates.

In total aggregate impairment and trading losses under the "double dip" and "sovereign shock" scenario amounts to EUR566bn over the years 2010-2011. Impairment and trading losses includes EUR329bn from the benchmark scenario, an additional EUR170 bn impairment and trading loss from the "double dip recession" and finally EUR67bn from the "sovereign schock" of which only about 40% is trading losses on holdings of government bonds. As seen in the chart below, there only is a modest decline in the Tier 1 capital ratio by adding the "sovereign shock" to the "double dip" scenario.

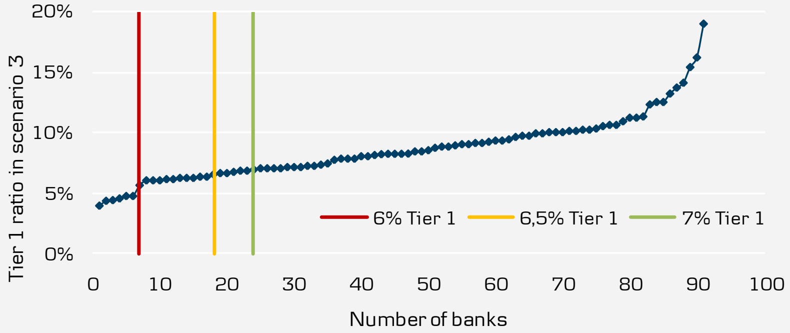
Impact on Tier 1 capital ratio from different from different scenarios



Source: CEBS and Danske markets. Note: Line

On the aggregate level the Tier 1 capital ratio, used as a common measure of banks resilience to shocks, would increase to 10.3% in 2009 to 9.2% by the end of 2011. Of the 91 banks covered by the stress test only 7 banks "fail" the stress test in the sense that the Tier 1 capital ratio decline below the 6% benchmark (regulatory minimum requirement for Tier 1 is 4%). These banks are Agricultural Bank of Greece Hypo Real Estate of Germany and Diada, Cajasur, Unim, Banca Civica and Espiga all of Spain. For comparison 10 of 19 banks failed the stress test, when the U.S. regulatory authorities its stress test in the spring 2009.

How many banks failsthe stress test?



Source: CEBS and Danske Markets

Is the stress test severe enough?

With only seven banks failing the stress test, it will probably many will probably regard the stress test as not being severe enough. However, when comparing it to the U.S. stress test it should be remembered that the European stress teste U.S. have been done after considerable public support has been extended to the banking sector through both capital injection and guarantees, while the U.S stress test was done close to the peak of the global financial crisis with the purpose to evaluate the need to inject capital into the financial sector.

In our view the macroeconomic assumptions used in the "double dip" scenario is not unreasonable, not least in light of encouraging economic data for the euro-zone recently. About 72% of the new impairment and trading losses in the combined "double dip" and "sovereign shock" is generated by the "double dip" alone. That said a concern in the macroeconomic scenario is wide differences in assumptions about the development in property prices. For example commercial property prices are expected to plunge 35% and 30% in 2010 and 2011 in Spain, while they are only expected to drop 5% and 2% in Greece. For further details on the macroeconomic assumptions, please see CEBS *Summary report* .

Stress test of sovereign shock of limited value

On the other hand the value of "sovereign shock" scenario looks questionable. Only about 18% of new impairments and trading losses in the stress test of the combined scenarios is due to the "sovereign shock" and less than half of this is due to banks sovereign debt exposure. Most losses in this scenario is actually generated by impairments on the private loan book due to impact from higher interest rates.

There are several weaknesses in the stress tests of the "sovereign shock"

- First, the trading loss on sovereign debt is modest and in some case non-existent because most of sovereign debt is included in the bank book and assumed held to maturity. Valuation of this debt will not have to be market-to-market and for that reason the "haircuts" will not have to be applied to this part of the debt. To illustrate close to 90% of Greek government bonds are on average held in the banking book. In addition there appears to be wide differences both within and between countries to what degree sovereign debt is placed in the bank book, which makes comparisons extremely difficult. The general impression is that Greek, German and Irish banks place a larger share on the bank book than French, Italian and larger Spanish banks.

- Second, the "haircuts" used in the stress test is arguably not that stressed for particularly Greece For example the assumed 23% haircut used on Greek sovereign debt held by the end of 2009 is actually not far from what is implied indirectly current Greek government bond yields currently trading (see table below) . In that sense there really is no additional stress compared to the current situation in the "sovereign shock" scenario. for further discussion upon the classification of sovereign exposure in trading books and banking books, see forthcoming pape

- Finally, many will probably argue that the "sovereign shock" scenario should really have tested a government default instead of what is basically just the market risk from significant higher government bond yields. An obvious case would be a Greek default which would most likely involve a haircut on Greek government debt that is substantially higher than 23%. In addition a sovereign default would to a larger degree impair the sovereign debt kept in the banking book. The CEBS argument for not stress testing a sovereign default is that that by setting up the European Financial Stability (EFSF) earlier this year the policy strategy has been to not allow a sovereign default and for that reason it will not be logic to use public money to capitalize banks to be resilient to a sovereign default.

Table 1. CEBS stress test on sovereign exposure is not really a "stress" scenario for holding of Greek government bonds…

Country	Bond	Price End-2009	Lowest price since end-2009	Max decline since end-2009 Price	Max decline since end-2009 Percent	Used haircut end-2011	Current price	% decline from end-2009	Haircut-current decline (%)
Greece	3.7% Jul'15	93.343	61.824	31.519	33.8%	23.1%	72.395	22.4%	0.7%
Portugal	3.35% Oct'15	100.19	87.784	12.406	12.4%	14.1%	94.673	5.5%	8.6%
Ireland	4.6% Apr'16	103.32	97.42	5.9	5.7%	12.8%	100.558	2.7%	10.1%
Spain	4.4% Jan'15	106.614	102.02	4.594	4.3%	12.0%	105.346	1.2%	10.8%
Italy	3.75% Aug'15	103.564	101.811	1.753	1.7%	7.4%	104.169	-0.6%	8.0%

Source: Danske Markets, CEBS

The amount of disclosure is the big positive surprise

The positive surprise in connection with the release of the stress tests was the amount of disclosure. Particularly important all banks except a few German banks have revealed their sovereign debt exposure, including its distribution on different countries and the bank book and trading. This is positive and to some degree should counters the criticism that an actual sovereign default has not been stress tested. Basically the market now have enough information to calculate a scenario implying a sovereign default and at least some degree it will be transparent who use the bank book extensively to "hide" trading losses on sovereign bonds. To illustrate only one of the six Greek banks would pass the stress test, according to our calculations, if the 23% haircut was applied on Greek government debt in both the trading book and the bank book.

Part of the healing process, but not the cure

Where do we go from here? It is important to remember that the reason that the U.S stress-test was mainly successful in re-establishing confidence in the banking sector, because it was supplemented by a clear plan on how to capitalize banks if needed. This is to a less degree the case in the European stress tests. First, it is the responsibility of the national supervisory authorities, not CEBS to decide whether additional capital needs to be injected. If we look at the seven banks, that failed the stress test there is no imminent problem. In Germany Hypo Real Estate has already been taken over by the government and is in a recapitalization process. In Greece ATE is government owned. And finally in Spain the government is restructuring the Cajas and has set aside a fund to support this process albeit more money may be needed.

However, what about the banks that just scrapped through the process (see table). The markets might start to question the strength of these banks, particularly if the stress test is regarded as severe enough. In addition as long as what the market really fear is a Greek government default, confidence in Greek banks will not be restored even though they most of them formally got a thumbs up in connection with the stress test. That said it is very positive that three of the vulnerable banks National Bank of Greece, Slovenia NLB (just passed) and Civica (one of the five that did not pass in Spain) announced they would raise additional capital just after the stress tests were published.

Overall we regard the publication of ass moderate as moderately positive, but it is not going to be the big game changer in the short run. That only few banks failed the stress test is no major surprise. This result was broadly on line with what had been "leaked" to the press in the weeks up to the publication. In other words expectations were very modest. On the other hand the amount of disclosure and transparency was a positive surprise. This might aid further in the market to a larger degree starting to differentiate risks in the interbank market. However, in Europe confidence in the banking sector and confidence in the sustainability of public finances are highly interwoven and it that sense restoration of confidence in particularly PIIGS banking sector will still be dependent on Europe's ability to convince the market, that a sovereign default is unlikely to happen.

Table 2. The most vulnerable banks

		Tier 1 ratiO
SP	Diada	3.90%
SP	CajaSur	4.30%
GR	ATEbank	4.36%
SP	Unnim	4.50%
GER	Hypo Real Estate Holding AG	4.70%
SP	Banca Cívica	4.70%
SP	Espiga	5.60%
GR	Piraeus	6.00%
SP	Banco Pastor, S.A.	6.00%
SP	Caja Sol	6.00%
SP	Caja3	6.10%
SP	Banco Guipuzcoano, S.A.	6.10%
GER	Norddeutsche Landesbank	6.20%
IT	Monte dei Paschi di Siena	6.20%
SP	Colonya - Ciaxa D'Estalvis de Pollensa	6.20%
SP	Jupiter	6.30%
SLO	Nova Ljubljanska Banka	6.30%

Source: CEBS Danske Markets

Market implications

The market reaction in U.S. trading Friday evening was slightly negative immediately after the release of the stress tests at 18:00 CET, but later turned positive as the market turned their attention to the amount of disclosure. EUR strengthened slightly and European banks traded in the US ADR market gained modestly. In addition bund yields increased modestly

In the **fixed income market**, we believe that the impact on sovereign spreads will be modest. First of all, the overall results of the stress test was more or less in line with what have been "leaked" in the press in the weeks leading up to the release of the results. As widely perceived in the market the sovereign stress scenario were not that harsh as the 23.1% haircut on 5y GGBs more or less is priced in the market since end-2009. On the positive side, a lot of information was disclosed by the majority of banks in the test and market participants are now able to make their own stress scenario of e.g. a Greek default. However, it would have been more useful if a little more information about sovereign holdings where disclosed, i.e. divided into trading books, available for sale and held-to-maturity portfolios. But overall, we are positively surprised by the detailed information provided.

We believe that the market impact would be slightly positive for risky assets including peripherals government bonds as some uncertainties should be removed from current risk premiums. For instance, we are now able to see for a majority of banks how much sovereign exposure there is "hidden" in non-trading books. As a direct consequence of the release of the stress test the Bund future lost around 30cents (around 3-4bp in 10y yields) following the release on Friday. We see limited scope for further impact on 10y German government bond yields on the back of the test results. All in all, the additional market impact should be modest as the stress test is not a big "game changer" and the overall results of the test were widely expected by the market.

Even though the stress test is close to a non-event in the **covered bond market**, we actually find the test results slightly positive for Spanish Cédulas compared to German Pfandbriefe. The reasons are that the market for a long time have had a lot of distrust of the Spanish banking sector, and that all the new published information can help restoring a higher level of trust. The most likely effect from these stress results is that we will see a more differentiated Spanish covered bond market going forward, as these new information will help market participant differentiate between the risk levels in different parts of the Spanish banking sector. This is of course negative for the weaker players, but for the Spanish banking as a whole this is positive. However, we do not expect any significant price reactions on the back of these test results, as the Cédulas market is very illiquid and dislocated. Turning back to Germany, we observe that German banks have been more reluctant in publishing bank exposures towards Greece, which from an information perspective is negative. Some market participants will undoubtedly interpret this negatively and conclude that some Greek exposure have been hidden. However, in terms of Pfandbriefe, we do not expect this to cause any significant price movements either, as the strong domestic investor has traditionally not been that focused on credit fundamentals in the pricing of Pfandbriefe. All in all, the stress test reveals important information, but it is close to a non-event in the covered bond market.

While the **FX market** had eagerly awaited the results of the European banking sector stress test, the reaction following their publication was muted and after some initial jitters, EUR/USD ended the day largely unchanged. Overall, the stress test was probably not stressful enough to reassure investors and the fact that seven institutions failed highlights the risk for the European banking sector. As a result, a significant near-term reduction in the risk premium levied on the single currency appears unlikely. According to our preferred short-term model, the EUR continues to command a risk premium of about 10 figures versus the dollar. Nevertheless, the fact that the assumptions and some of the calculations underlying the stress test results have been disclosed does add to transparency, which could increase the trust in for example the Spanish banking sector. Thus, while the results of the stress test itself may do little to reassure investors, the fact that country exposure has been published for individual banks could help reduce uncertainty and, on balance, be moderately EUR positive.

Disclosure

This research report has been prepared by Danske Research, which is part of Danske Markets, a division of Danske Bank. Danske Bank is under supervision by the Danish Financial Supervisory Authority. The authors of this report are Flemming J. Nielsen, Gustav Smidth and Kristian Myrup Pedersen, Senior Analysts.

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