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How Much Capital do European Banks Need? Some Estimates

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At the recent October Summit, European leaders agreed on a recapitalisation package for European banks. Unfortunately, they specified required capital as a ratio (capital divided by risk-weighted assets) instead of a EUR amount. As a result banks are now deleveraging instead of seeking fresh capital. A credit crunch is currently on its way. Moreover, the required recapitalisation falls short at what is needed to restore confidence.

The European banking system is freezing up. Several banks are not able to fund themselves in the market. The lack of market confidence in European banks is fed by the ongoing uncertainty about euro area sovereign debt (as well as real estate) to which these banks are exposed. We cannot afford a banking crisis with a detrimental impact on bank lending (real economy) and public finances (further rescues). A strong recapitalisation of the European banking system is crucial; the earlier October recapitalisation has not been decisive. Dealing with the banking system problems is a necessary condition for fostering European growth, but not a sufficient condition as the sovereign debt problems also need to be addressed.

Aim

The aim is to raise market confidence in European banks by a strong and mandatory recapitalisation package in order to

- a) avoid a negative impact on the real economy (no “credit crunch”);
- b) withstand shocks from possible sovereign debt restructuring (absorb potential sovereign debt losses).

How would a good recapitalisation look like?

Strong recapitalisation

The purpose of on a EU-wide recapitalisation of the banking system is to regain market confidence. The central idea is to recapitalise all European banks up to a high standard. On the one end, we can take the strongest banks (such as HSBC and Rabobank) that have the full trust of markets as benchmark. For this objective, an amount in the range of EUR 500 billion would be needed. On the other end, we can take a benchmark that is well above the regulatory minimum. If we take an extra of say 33% over the minimum, we come to an amount in the range of EUR 200 billion. The calculations are shown below. Well-capitalised banks will have full

access to funding and will thus be able to satisfy the borrowing needs of governments, firms and households avoiding a credit crunch in Europe. The October recapitalisation package of EUR 106 billion falls short of this range.

Preference for market solution

Preferably, banks should raise the extra capital in the market. That can be done by a deeply discounted rights issue. Current shareholders have then the right to buy the newly issued shares. They will have an incentive to do so as the new shares are underpriced (deeply discounted). If they do not have the necessary cash, current shareholders can sell the new shares. We trust that most European banks can refinance themselves in the private market, as the American banks did after the stress test in 2009. UniCredit has recently announced plans to raise EUR 7.5 billion of fresh capital in the market.

But fiscal backstop needed

For those banks that fail to raise the extra capital privately, there should be a fiscal backstop by the national governments. If necessary, governments could finance themselves from the EFSF. Governments should take an equity stake, so that they can also profit from the upside potential. As the shares are issued at a deep discount, governments will buy the shares below market prices. The October package provides for this fiscal backstop.

Analysis

Reducing uncertainty about sovereign debt outcomes

It is important that the uncertainty about euro-area sovereign debt is reduced. The approach to sovereign debt, however, is beyond the remit of our contribution. The aim of the recapitalisation is to ensure that European banks can absorb potential losses from sovereign debt restructuring. If sovereign (and real estate) losses do not materialise, banks can return the extra capital to shareholders in dividend. The recapitalisation is thus a “no regret” approach: if losses materialise, banks are better able to absorb them; if not, the capital may be returned.

Evidence of interbank problems

As outlined in the introduction, the European banking system is freezing up. Figure 1 illustrates the EURIBOR-OIS spread using 4 maturities - 1m, 3m, 6m, 1y over 1 year. The large spreads indicate the problems on the term interbank market starting in July 2011. The funding problems are a sign of the dysfunctional European banking system. Even banks themselves do not trust each other and withhold lending. This is usually a precursor to a full-blown crisis with credit crunch and general loss of intermediation.

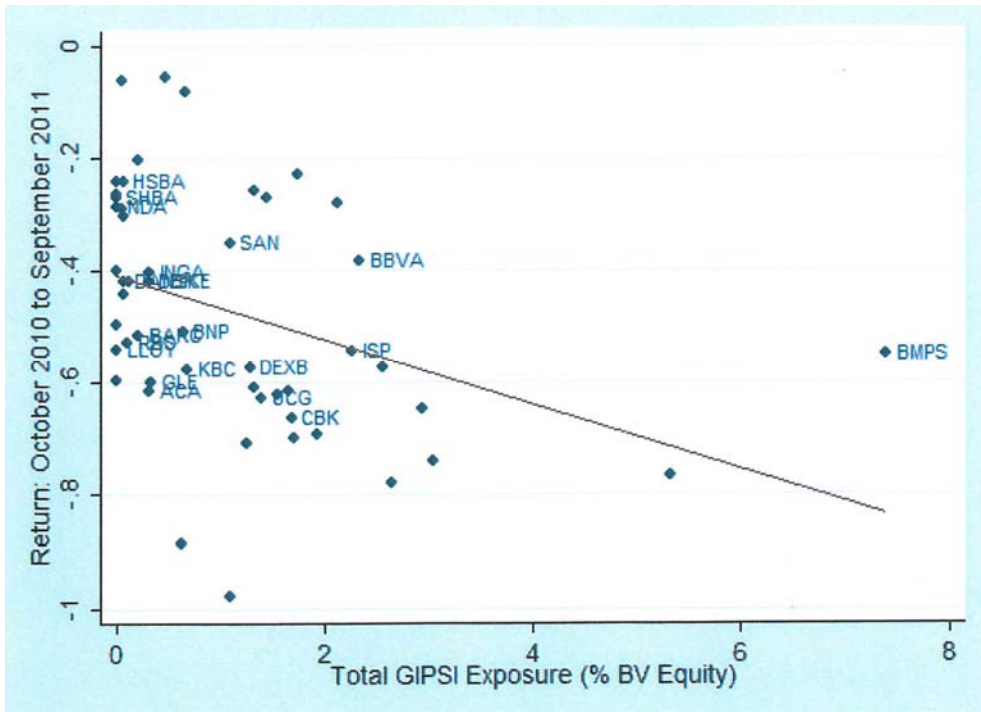
Markets have identified the problem banks

Bank shares have collapsed since July. But do markets distinguish between good and bad banks? Figure 2 illustrates that banks with a higher exposure to Greece, Ireland, Portugal, Spain and Italy (total GIPSI exposure as % of book value of equity) have experienced a larger decline in share price up to 90% (measured from Oct 2010 to Sept 2011). So, markets have singled out the problem banks and are asking for substantial capital against GIPSI exposure, even if regulatory capital requirements have not yet reflected the risk.

Figure 1. EURIBOR-OIS spread



Figure 2. Total return versus GIPSI exposure



Benchmark for restoring bank capitalisation levels

Which banks have the full trust of markets and can thus finance themselves without any problem? Examples are well-capitalised banks such as HSBC, JP Morgan and Rabobank. These banks operate on a leverage ratio of about 6% (Common Equity/Total Assets). That is twice the new Basel leverage ratio of 3%. A less extreme benchmark would be to recapitalise banks well beyond the minimum of 3%. For illustrative purposes, we take an extra 33% above the buffer amounting to a leverage ratio of 4%.

Two scenarios are calculated for these benchmarks.

1. Using BOOK value of equity and assets, the less stringent benchmark is a leverage ratio (Book Value of Equity/Total Assets) of 4% and the more stringent benchmark is a 6% ratio.
2. Using MARKET value of equity instead, the less stringent benchmark is a leverage ratio (Market Value of Equity/Total Assets) of 4% and the more stringent benchmark is a 6% ratio.

Further we have to consider that not all banks have already taken the full loss on their sovereign holdings. Even if they report on a fair value basis, this is not necessarily reflected in income. Since the official EBA stress test results give holdings as of December 2010 and given that most banks have agreed to share some economic losses as part of the second Greece rescue package in July 2011, we collected the most recent sovereign debt holdings from semi-annual reports of all banks and the impairments that have already been recognised.

Overall, we found that most banks have only impaired the “eligible” part of their Greek bond holdings, i.e., holdings with a maturity of less than 2020 without recognizing that the remaining exposure is also worth less in market value terms. Next, most of the banks have only written-off 21% of their eligible exposure. Consequently, only EUR 8bn have been written off in the second quarter 2011 on holdings that have not already been recorded at fair value through profit and loss. We correct for further haircuts and impairments on the sovereign holdings. In the calculations, we assume a haircut of 60% for Greece, 47% for Ireland, 45% for Portugal, and 25% for Spain and Italy. The haircut for Greece is within the range of what European regulators are considering in their approach to renegotiate the July 2011 bailout package. We take the relative increase in sovereign risk as reflected also in the increase of the sovereign CDS spreads since the official EBA stress tests into account when applying the haircuts for the remaining GIPSI countries.

Estimates for extra capital needs

We indicate the capital shortfall for 84 of the banks used in the European banking stress tests in October. These are among the largest based on their assets. 49 out of these banks have publicly traded equity and can be subjected to the second scenario.

A total of EUR 189 billion (at 4%) and EUR 605 billion (at 6%) are required in additional capital injection for the 84 banks under the first scenario. The raised capital should be utilised over time to reduce bank liabilities, especially short-term funding.

Under the more stringent market benchmark for recapitalisation (the second scenario), the total required capital for 49 publicly traded banks is close to EUR 443 billion (at 4%) and EUR 865 billion (at 6%).

The numbers are large, but could grow larger as things get worse due to lack of resolution of uncertainty on sovereign debt. A swift resolution of the undercapitalisation of banks and the uncertainty on sovereign debt is warranted.

Comparing benchmarks

We acknowledge that the indicated benchmarks are not based on existing regulation, but we present them as being informative about the required orders of magnitude if banks are to reach the levels of safety of those banks that seem to be regarded as properly capitalised by the markets.

The chosen benchmarks are inspired by the new Basel leverage ratio of 3%. To put our figures for required capital in perspective, we apply the 3% leverage ratio to the numbers on Book Value of Equity/Total Assets. In the scenario of 3% leverage, 16 banks would have a shortfall amounting to only EUR 27 billion. That illustrates that this regulatory benchmark does not succeed in instilling market confidence.

As clarified by Figure 2, using risk-weighted assets which attach zero risk weights to several sovereigns is not an appropriate benchmark. While imperfect, un-weighted assets – as employed in the Basel leverage ratio – is under the circumstances, far superior in our view to risk-weighted assets. Dexia provides a good illustration of the deficiency of the risk-weighted approach. Dexia reports 10.4% on the Core Tier 1 Capital Ratio in July 2011. This is twice the minimum of 5% used as benchmark in the July 2011 stress test. On our leverage measure, Dexia scores 1.34% on BV/TA and 0.49% on MV/TA. These figures are well below the future regulatory benchmark of 3% as well as our indicative benchmarks of 4% and 6%.

Legal challenges

A government-imposed recapitalisation raises several legal issues that need to be addressed. First, can the government use funds in the required magnitude for this purpose? Second, is there a legal basis for the government to impose the proposed recapitalisation, which goes beyond the regulatory minimum? The first component is mainly political and can be handled by new legislation. The second component interferes with the protection of private property. However, lack of sufficient legislation should not stand in the way of averting systemic risks. There are many laws interfering with private property in order to protect the community from externalities.

How much is needed and when?

The aim is to restore market confidence in European banks *now*. So, the capital shortfall should be raised over a short time span. Banks could get, say, one month to raise the required amount privately. If they fail to do so, the fiscal backstop is provided (for instance, using the EFSF). There will be no choice for banks; the regulators have to force all banks with a projected shortfall to recapitalise. We acknowledge the difficulties of dealing with the fiscal-banking interdependence (recapitalising banks would worsen the fiscal position). A solution for this problem needs to be found. One possibility is to grant governments in need financial assistance from the EFSF. The current deadline of end June 2012 is far too long in the future. Governments and banking supervisors are advised to get the required capital in place well before Christmas.

Next, the required amount to be raised by each bank should be presented as an EUR amount and not as a ratio. Banks have to raise that amount to keep up their lending (the ultimate aim of the recapitalisation). When presented as a ratio, banks may be tempted to cutting down assets instead of raising capital. On this measure, the October recapitalisation package has been wrong. By presenting the recapitalisation as a ratio (capital is 9% of risk-weighted-assets) and extending the deadline till mid-2012, banks have ample opportunity to deleverage. We see that now happening in practice (in particular Southern European bonds are off-loaded). The European Banking Authority (EBA) attempted to present a EUR amount by applying the 9% capital ratio to the 30 September 2011 positions. That amounts to the capital shortfall of EUR 106 billion. Instead of requiring the banks to seek fresh capital of EUR 106 billion before Christmas, the EBA allows banks to deleverage until June 2012 in order to meet the 9% capital ratio.

The EBA acknowledges that the level of recapitalisation they require is insufficient to fully restore market confidence. As banks need to refinance a substantial amount of debt in 2012, they suggest a public guarantee scheme to revitalise the term funding market. Public guarantee schemes were indeed many times over the size of capital injections during the 2007 – 2009 financial crisis. Our estimates of the shortfall would in this case be relevant to understand the implicit burden being taken on by sovereigns while providing such guarantee schemes.

Finally, raising system-wide capital may expand values beyond what is attempted to be created, but one cannot rely on this positive externality. That would be a bonus. Moreover, recapitalisation increases the amount of equity and thus decreases the amount of debt in the banking system. Mounting debt levels (banks and sovereign) are at the heart of the current crisis.