

Box 5

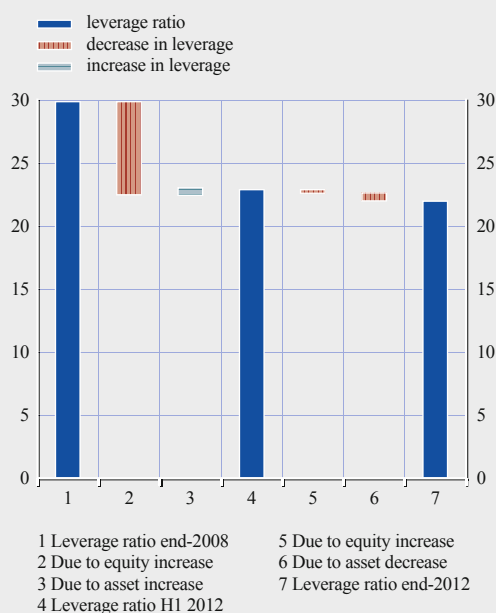
DELEVERAGING BY EURO AREA BANKS

Euro area banks have been reducing their leverage since the outbreak of the financial crisis. This ongoing process is an important component of adapting banks' balance sheets and business models to a post-crisis environment and, if undertaken in a smooth manner, should result in positive externalities. Clearly, both its *scale* and *pace* require close monitoring, not least given its potential impact on the supply of credit to the real economy. In this vein, several estimates have been published by international organisations and market analysts alike, suggesting large aggregate deleveraging needs and limited adjustment by euro area banks to date. This box describes deleveraging efforts made by euro area banks over the crisis period and highlights the considerable uncertainty surrounding deleveraging projections.

The aggregate leverage ratio for euro area large and complex banking groups (LCBGs) has fallen from assets 30 times equity in 2008 to assets 22 times equity by end-2012. Over this period, deleveraging has largely been driven by equity increases (over 35%), as assets at end-2012 were only slightly below 2008 levels (-1%). That equity increases would drive deleveraging is not surprising given that modest capital increases exert a more substantial impact on leverage than large asset reductions: had equity been unchanged over the crisis period, assets would have had to fall by €4 trillion to achieve the same reduction in the leverage ratio. The modest reduction in the aggregate assets of the LCBGs masks

Chart Leverage ratio of euro area LCBGs

(Q4 2008 – Q4 2012; asset-to-equity ratio)



Sources: Financial reports and ECB calculations.
 Note: Leverage ratios refer to assets over shareholder equity.

diverging behaviour across institutions, with substantial reductions by certain banks (up to 29%) being offset by the expansion of others (up to 25%). Recent deleveraging efforts since June 2012 have been driven to a greater extent by asset reductions (-3%), with only a modest increase in capital recorded (1%) (see chart).

Banks' asset reductions to date have largely targeted non-domestic capital-intensive assets. In order to meet capital targets, LCBGs have made significant efforts to reduce their risk-weighted assets (see Box 4). Regarding non-domestic assets, BIS data on all euro area banks indicate they reduced their claims towards all regions except Latin America over the crisis period. From the end of 2008 to the third quarter of 2012 euro area banks' international claims fell by 26% (USD 3.5 trillion). Over half of the reduction was towards other euro area countries, reflecting financial fragmentation and also the high share of claims (42%) towards other Member States. Reductions towards the United States and Asia were also disproportionately high. Claims on the United States fell by 38%¹, perhaps reflecting difficulties securing US dollar funding and efforts to de-risk balance sheets by reducing US dollar-denominated investment banking and trading assets. Withdrawals from Asia (-42%), in particular Japan (-57%), have also been significant perhaps owing to the short-term nature of banks' exposures there.

Developments across the broader euro area banking sector are in line with those of LCBGs, namely while deleveraging over the crisis has largely been driven by equity increases, recent developments show an increased focus on asset reductions. Banks located in the euro area issued €133 billion in quoted shares from December 2008 to March 2013, while assets remain close to 2008 levels.² However, from June 2012 to March 2013 assets of banks located in the euro area fell by €1.3 trillion (-3.8%) with only a modest issuance of shares (€4 billion) recorded. Balance sheet reductions reflect improved confidence as banks reduced deposits held with the Eurosystem and repaid over a quarter of their LTRO debts. Reductions in remaining assets (a category largely composed of derivatives) also accounted for a significant proportion of the decrease. The decline also reflected some reduction in credit to the non-financial private sector, although this has been proportionally low (1.1%). Moreover, one should not consider reductions in the loans on banks' balance sheets as indicative of a reduction of lending to the real economy. For example, since June 2012 on-balance-sheet loans to the euro area non-financial private sector fell by €205 billion, while loans to firms adjusted for sales and securitisations only declined by €66 billion.

A number of large and medium-sized euro area banks have announced plans for asset-side reductions amounting to around €800 billion by the end of next year. The lion's share of this figure – around €600 billion of the total – refers to restructuring agreed between banks and

Euro area bank deleveraging: upper bound and mitigating factors for the period 2013-14

(EUR trillions)

	Lower range	Upper range
Wholesale freeze	0.17	0.20
Deposit outflow	0.01	0.03
Capital constraint	0.46	0.46
Restructuring plans	0.23	0.38
Loan/deposit ratio constraint	0.19	0.32
Net take-up of 3-year LTROs (mitigation)	0.11	0.08
Gross deleveraging	0.95	1.30
Mitigating factors:		
Capital raising/injections	0.40	0.30
Assets taken over by other EU banks	0.23	0.24
Natural run-off/lower demand	0.22	0.32
Effective deleveraging	0.10	0.45
Pecking-order loan impact	0.02	0.07

Sources: ECB, EBA, Dealogic, banks' reports and ECB calculations.

1 Although claims towards the United States only accounted for 17% of international claims at end-2008.

2 According to ECB MFI balance sheet item statistics.

authorities either in the context of state-aid rules or EU/IMF programmes. While the aggregation of such plans is illustrative, it clearly has limitations, as not all banks will publish their planned asset reductions, while others may adjust plans should conditions change. A more encompassing assessment of potential deleveraging requires accounting for a myriad of conditioning factors. Taking into account a subset of these³ leads to an upper bound of €0.9-1.3 trillion by end-2014 (see table) – more “cyclical” funding constraints account for deleveraging needs of €180-230 billion, capital constraints account for another €460 billion, and structural funding constraints amount to some €190-320 billion. For some banks, the imposed funding and capital-related constraints result in deleveraging needs below the banks’ announced asset reduction plans. In those cases, in what follows, the difference between announced plans and imposed constraints is referred to as restructuring plans (which amount to €230-380 billion).

This upper bound, while illustrative, is almost certain to never be met in practice given a number of mitigating factors: banks’ ability to raise new capital, the expansion of other banks, asset-side reduction that might arise due to lower loan demand and positive externalities (e.g. measures aimed at strengthening capital may also reduce reliance on wholesale funding). Taking these factors into account, effective loan deleveraging would be only a fraction of the upper bound – and could even fall to as little as €20-70 billion (or around 0.1-0.6% of the outstanding loan book). These latter calculations reflect four additional assumptions. First, it is assumed that between 50% and 75% of the estimated capital shortfall will be filled by raising (or injecting) new equity.⁴ Second, it is assumed that those banks not facing a need to deleverage will acquire some of the assets to be shed by the deleveraging banks. Third, it is assumed that instead of outright sales of assets (to avoid selling at fire-sale prices) many banks will simply let their assets run off as they mature. Fourth, it seems reasonable to assume that banks will take a pecking-order approach, as seen in the past, to their deleveraging by first shedding non-core and non-domestic assets and only as a last resort cutting back on lending to retail customers.

The calculations in this box illustrate that deleveraging calculations are highly variable and surrounded by considerable uncertainty, and are largely determined by the various (mostly ad hoc) assumptions made. Importantly, any conclusions to be drawn from such deleveraging estimates (especially as regards potential real economic implications) should reflect actions that banks are likely to take to counter the deleveraging pressures. It is to be expected that such mitigating actions will substantially reduce the amount of deleveraging that will effectively take place compared with widely cited gross estimates. Consequently, the real economic implications of bank deleveraging actions over the next couple of years are surrounded by significant uncertainty and may, under some assumptions, turn out to be much more muted than is commonly perceived. Furthermore, significant heterogeneity in deleveraging trajectories can be expected.

3 These include potential cyclical funding constraints (e.g. wholesale funding access and deposit outflows), structural funding constraints (e.g. a loan-to-deposit ratio target) and a capital constraint (e.g. a 9% core Tier 1 capital ratio threshold by end-2014). Specific assumptions on the cyclical funding constraints to arrive at an illustrative figure are calibrated on the basis of the historical distribution of rollover rates observed since 2007 and by allocating banks in different countries according to the sovereign credit rating. Different percentiles of the observed distribution have been applied for the lower and upper ranges, respectively. The capital constraints have been derived with the ECB’s macro-stress-testing framework using the European Commission’s autumn 2012 forecast. Announced restructuring plans were assumed to be either fully completed (upper range) or only partially completed (lower range) as at end-2014. Different degrees of gradualism in complying with imposed loan-to-deposit ratio targets (determined by the sovereign credit rating) were applied for the lower to upper ranges.

4 In view of the predominant role of capital-raising actions in reducing bank leverage ratios since the beginning of the financial crisis, this assumption is likely to be rather conservative. It should furthermore be noted that nominal increases in the level of capital should also help to fill some of the funding gaps. The effects from such positive externalities have not been incorporated and hence the effective deleveraging estimates are likely to be biased upwards.