



## IV SPECIAL FEATURES

### A EU BANK DELEVERAGING – DRIVING FORCES AND STRATEGIES

*Deleveraging by EU banks over the medium term is to be expected owing to funding and capital-related pressures of both a cyclical and especially a structural nature. Major EU banks have already reduced their leverage ratios since the outbreak of the financial crisis, mainly via improving nominal capital levels. Going forward, the deleveraging process is, however, likely to focus primarily on the asset side, given the current difficult conditions in capital markets and the subdued growth outlook. The externalities associated with this process need not necessarily be negative. Deleveraging can reflect a more efficient allocation of financial resources, a correction of over-inflated asset prices or a reduction of debt overhangs, all of which would bring the economy onto a more sustainable growth path. This notwithstanding, authorities need to monitor the process closely to ensure that it occurs in an orderly fashion and thus avoid negative repercussions on the real economy and the financial system more broadly.*

#### INTRODUCTION

Credit cycles are a common feature of financial systems and tend to positively correlate with the business cycle, reflecting fluctuations in borrowers' demand for, and need of, financing. Cycles in credit developments, and thereby implicitly in financial sector leverage (typically measured by asset-to-equity ratios), are typically exacerbated by the inherent pro-cyclical behaviour of financial intermediaries and market participants.<sup>1</sup> Deleveraging is not all bad. To the extent that it reflects a correction of previously inflated asset prices and debt overhangs, it is a necessary process to bring the economy back to a more sustainable equilibrium. In cases where high leverage reflects a misallocation of financial resources, the deleveraging process may result in their more efficient allocation. It may thereby create scope for new lending to finance more profitable business opportunities supporting the recovery of economic activity. However, deleveraging processes can be long and painful, especially in cases where they occur simultaneously with shocks to the financial sector (as, for instance, in Japan in the 1990s and early 2000s<sup>2</sup>). Against this background, this special feature looks in more detail at the deleveraging forces currently affecting the EU banking sector, the deleveraging strategies that banks are likely to adopt and the international dimension of the process.

#### EU BANK DELEVERAGING FORCES

Concerns have recently been raised about the magnitude and potential consequences of EU bank deleveraging. There are several reasons behind EU banks' drive to deleverage their balance sheets. First, a debt overhang had been built up in some EU countries during the pre-crisis period that is currently being corrected. In addition, the financial crisis exposed a number of unsustainable features of some EU banks' business models – such as a heavy reliance on short-term wholesale funding, overly complex group structures and insufficient capital buffers – which banks need to adjust to ensure long-term viability. Finally, the EU banking sector has been hit by a number of

*Deleveraging tends to follow the credit and business cycles...*

*... it can have serious real economic repercussions, but may also represent a sound correction of past imbalances*

*EU bank deleveraging needs are driven by a diverse range of factors*

- 1 For some recent studies, see N. Kiyotaki and J. Moore, "Credit cycles", *Journal of Political Economy*, Vol. 105(2), 1997; F. Allen and D. Gale, "Financial intermediaries and markets", *Econometrica*, Vol. 72, 2004; T. Adrian and H.S. Shin, "Liquidity and leverage", *Journal of Financial Intermediation*, Vol. 19, 2010; M. Brunnermeier and L. Pedersen, "Market liquidity and funding liquidity", *Review of Financial Studies*, Vol. 22, No 6, 2009; A. Fostel and J. Geanakoplos, "Leverage cycles and the anxious economy", *American Economic Review*, Vol. 98, No 4, 2008.
- 2 See T. Sekine, K. Kobayashi and Y. Saita, "Forbearance Lending: The Case of Japanese Firms" *Monetary and Economic Studies*, Bank of Japan, Vol. 21(2), August 2003; R.J. Caballero, T. Hoshi and A.K. Kashyap, "Zombie Lending and Depressed Restructuring in Japan", *American Economic Review*, Vol. 98, No 5, 2008.

recent shocks, notably the US sub-prime crisis and the euro area sovereign debt crisis. This has created uncertainty about the EU banking sector's resilience.

A number of studies have shown that highly leveraged financial institutions and those with a relatively high dependence on wholesale funding were more fragile and experienced more significant declines in share prices during the financial crisis.<sup>3</sup> Accordingly, highly leveraged banks have faced pressure to raise their nominal capital levels and improve their leverage ratios from both regulators and supervisors (such as the Basel III framework and the framework for global systemically important banks or "G-SIBs" and the European Banking Authority's EU-wide stress tests and recent recapitalisation exercise) and from market participants (as reflected, for instance, in the current low price-to-book values of listed EU banks). In addition, the rising credit risk in view of the general economic downturn and the recent shocks to EU banks have led to severe funding and capital-related pressures on bank balance sheets, forcing many EU banks to deleverage.

*Deleveraging can occur both via adjustments to banks' capital and liabilities and via asset reductions*

To counter the funding and capital-related pressures, banks may be expected to reduce assets in order to improve their capital or liquidity positions, or both. The recourse to asset reductions may be lessened by raising capital (via equity issuance, conversion of hybrid debt, or retained earnings) and increasing the use of stable funding sources (e.g. retail deposits and long-term wholesale funding). These measures are, however, typically comparatively costly and/or difficult to implement within a short time span, especially in periods of distress.<sup>4</sup> Furthermore, raising new equity may dilute the value of the shares of existing shareholders and may signal that managers believe that the stock is overvalued, thus leading to negative stock price reactions.<sup>5</sup> Under such circumstances, the only viable option for banks to alleviate pressures on their balance sheets might be to reduce assets. This can be achieved by selling off (non-core) business lines, shedding liquid assets (e.g. securities holdings) and scaling down the loan portfolio (e.g. non-renewal of maturing loans and restricting new lending).

*Banks' deleveraging efforts are likely to reflect specific pressures*

Deleveraging actions and mitigating measures can materialise in different combinations, depending on the specific bank balance sheet pressures that they are meant to address (see Chart A.1). For example, if funding-related pressures are the main concern, banks could be expected to primarily try to shed more liquid and non-core assets that can be sold off within a short time frame or assets specifically linked to funding sources that are no longer available. By contrast, should deleveraging pressures mainly relate to banks' capital positions, the banks have an incentive to shed more capital-intensive assets that provide the largest reduction in risk-weighted assets.

*Small capital shortfalls can give rise to large deleveraging needs*

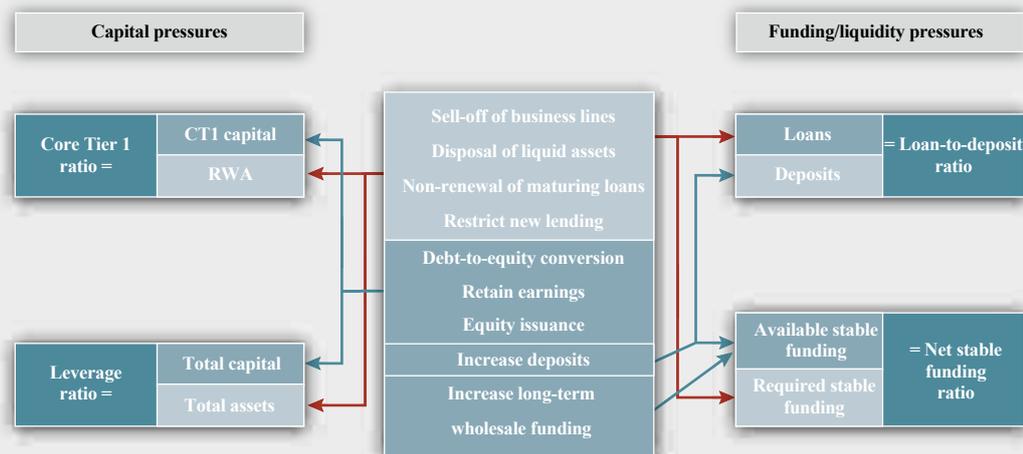
Moreover, owing to a multiplier effect, even a small capital shortfall can result in large deleveraging needs if other mitigating actions, such as raising new equity, are not taken. For example, a capital shortfall of €100 billion could, depending on the extent to which it is covered through changes in liabilities or via asset reductions, require as much as a €1,250 billion reduction of risk-weighted assets and even more in terms of total assets. Deleveraging on account of funding shortfalls is not subject to a multiplier effect, but funding gaps can be more acute and need to be resolved within a short time span to avoid illiquidity turning into insolvency.

3 C. Raddatz, "When the Rivers Run Dry: Liquidity and the Use of Wholesale Funds in the Transmission of the U.S. Subprime Crisis", *World Bank Policy Research Working Paper Series*, No 5203, 2010; and A. Beltratti and R.M. Stulz, "The credit crisis around the globe: Why did some banks perform better?", *Fisher College of Business Working Paper*, No 2010-03-005, 2011.

4 See P. Bolton, and X. Freixas, "Corporate finance and the monetary transmission mechanism", *The Review of Financial Studies*, Vol. 19, 2006.

5 See S.C. Myers, and N.S. Majluf, "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, Issue 2, 1984.

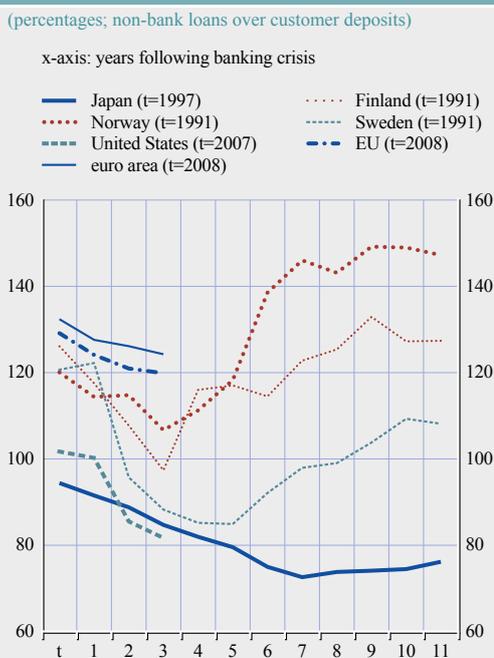
Chart A.1 Deleveraging pressures and means to accommodate them



Source: ECB.  
Notes “CT1 capital” refers to core Tier 1 capital and “RWA” to risk-weighted assets. The “loan-to-deposit ratio” is a proxy for the loan-to-stable funds ratio (owing to measurement problems).

Historical experience shows that leverage (the assets-to-equity ratio) and loan-to-stable funds ratios (proxied by loan-to-deposit ratios, owing to measurement problems) tend to decline significantly when a crisis hits the banking sector. In fact, the loan-to-deposit and leverage ratios of large banks in Europe may have much further to fall as they are well above the levels observed in the aftermath of previous banking crises. Loan-to-deposit ratios in the Finnish and Swedish banking sectors were over 120% at the onset of their respective crises at the beginning of the 1990s and fell by around 30 percentage points within three years (see Chart A.2). The Japanese and Norwegian banking sectors experienced declines of around 20 percentage points; the former from a relatively low level and over a period of seven years and the latter from a relatively high level and within three years. By comparison, the loan-to-deposit ratio of the euro area banking sector has only declined by 6 percentage points since the beginning of the financial crisis and is 44 percentage points higher than the current level for US banks. From a historical perspective, a further downward readjustment of the amount of loans to be funded by non-deposit sources may therefore be expected.

Chart A.2 Evolution of banks’ loan-to-deposit ratios following banking crises



Sources: OECD, Federal Reserve System, financial reports and ECB calculations.  
Notes: Banking crises dates are based on L. Laeven and F. Valencia, “Resolution of Banking Crises: The Good, the Bad, and the Ugly”, *IMF Working Paper*, No 10/146, 2010. Data for euro area and the EU refer to large banking groups.

*Deleveraging often occurs as a response to a financial crisis*

*From a historical perspective, EU bank deleveraging may still have some way to go*

*Since the outbreak of the financial crisis, EU banks have mainly increased capital, though this may be more difficult going forward*

*Prevailing high bank funding costs may lead to disintermediation*

In terms of leverage ratios, both the Japanese and the Norwegian banking sectors had substantial leverage ratios at the onset of their respective crises. These ratios fell dramatically within two years, from 36 to 20 for Japan and from 34 to 17 for Norway. One important difference between the two cases is that in Japan the main adjustment occurred via asset reductions, whereas in the case of Norway it occurred primarily via an increase in capital and reserves. The leverage ratios of the large EU banks have declined more moderately, from 30 at the outbreak of the financial crisis to 21 by 2011 (see Chart A.3). Notably, the leverage ratios of large euro area banks remain relatively high at 25.

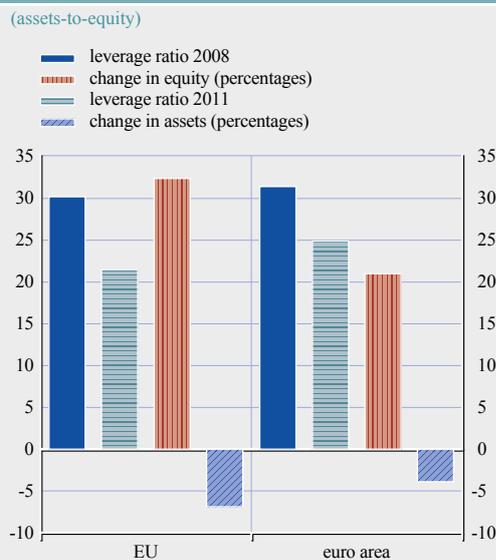
Most of the improvement to date has been achieved via the capital side, either through equity issuance, a conversion of hybrids, capital injections or retained earnings. Overall, between 2008 and early 2012, bank equity increased by almost €400 billion. Some reduction in leverage was achieved via sales and write-downs on the asset side. The ability of EU banks to tap the capital markets has been hampered significantly by the euro area sovereign debt crisis.<sup>6</sup> If the sovereign debt crisis persists and the outlook for earnings remains weak, it will be difficult for banks to reduce their leverage ratios significantly further without targeting assets to a greater extent.<sup>7</sup>

Another key source of deleveraging is the elevated funding costs, particularly on unsecured funding, which may imply that certain banking activities become unprofitable. In fact, the unsecured funding costs of euro area banks and banks' lending rates to non-financial corporations are currently higher than the non-financial corporate bond yields (see Chart A.4). If this situation were to persist for a

6 Equity issuance in 2010 and 2011 was only one-third of the level recorded in 2008 and 2009.

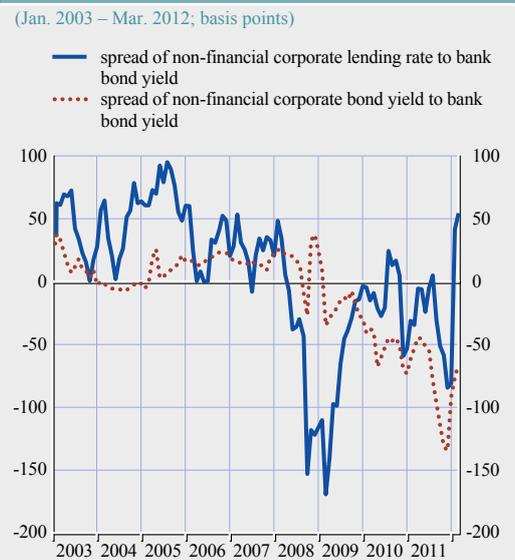
7 The participation of public funds is predicted in cases where solvent banks are unable to find private solutions to meet the increase in capital requirements.

**Chart A.3 Leverage ratios of large EU banks**



Sources: Financial reports and ECB calculations.

**Chart A.4 Spreads of non-financial corporate bank lending rates and non-financial corporate bond yields vis-à-vis bank bond yields in the euro area**



Sources: Bloomberg, Thomson Reuters, ECB and ECB calculations.

prolonged period of time, it could fuel a disintermediation process whereby corporate bank financing would be partly replaced by corporate bonds, in particular in the case of large firms.<sup>8</sup>

### THE SCOPE AND STRATEGIES OF EU BANK DELEVERAGING

In view of these developments and in order to gauge the financial and real economic implications of the deleveraging process, the scope and magnitude of banks' efforts will need to be assessed and monitored.

A number of large EU banks have announced significant medium-term restructuring plans aimed at improving capital ratios and decreasing reliance on wholesale funding. These plans include asset reductions of approximately €1.6 trillion (around €1 trillion for euro area banks) over the next three to four years (see the table below). Although some banks have already made considerable progress in achieving their targets, the potential additional impact on total EU banking assets remains sizeable over the medium term. It should be noted that a bank's plans are considered in isolation; therefore, the impact at the aggregate level will be reduced if the assets are purchased by other EU/euro area banks.

Although the acute funding pressures that were a key driver of recent deleveraging plans have been substantially eased by the Eurosystem's three-year longer-term refinancing operations (LTROs), market intelligence and bank announcements indicate that banks will proceed with their plans. The aim of most banks' plans is to reduce their market funding in response to the difficult environment that they continue to face. Capital requirements are also noted in many banks' plans, with certain banks targeting a reduction of risk-weighted assets in response to the Basel 2.5 and Basel III regulatory standards. Following the EBA's recapitalisation exercise, those banks that were identified as having a shortfall announced plans to build up their capital buffers, most of which had been successfully implemented by the end of 2011, without much recourse to asset reductions.

The magnitude of the deleveraging plans put forward by institutions varies greatly. The most substantial plans were announced by banks that faced severe funding problems, in particular those that had to be rescued by public authorities. In certain instances, these institutions have been required under EU law to sell assets in order to minimise competitive distortions. Banks' plans tend to focus on corporate and investment banking assets and, to a lesser extent, on retail banking.

A number of banks, especially French banks, are targeting dollar-denominated investment banking assets in response to the difficulties in accessing US dollar funding. In addition, investment banking activities have become less profitable and require more capital and liquidity buffers under Basel 2.5 and Basel III. Where retail banking is concerned, asset reductions tend to be minor, except in the case of a few institutions that have sold retail subsidiaries in the United States and in central and eastern

#### Medium-term deleveraging plans announced by EU banks

(EUR millions)

|                         | Estimated impact of plans on total assets |
|-------------------------|---|
| Non-programme countries | 946,900                                   |
| Programme countries     | 34,300                                    |
| <b>Euro area</b>        | <b>981,200</b>                            |
| United Kingdom          | 662,316                                   |
| <b>EU</b>               | <b>1,643,516</b>                          |

Sources: Investor reports and presentations by the various financial institutions.

Notes: Programme countries refer to countries that are the subject of an EU/International Monetary Fund adjustment programme. Banks' plans typically cover the period to the end of 2014, some to 2015. Where banks have announced a decline in risk-weighted assets, the impact on total assets is derived by assuming the risk-weighted asset/total asset ratio will remain stable.

*Banks have announced sizeable restructuring plans...*

*... aiming to alleviate funding and capital-related pressures*

*Plans focus mainly on corporate and investment banking assets and less so on retail banking*

*Difficulties in obtaining US dollar funding has resulted in the need to shed US dollar-denominated assets*

<sup>8</sup> There is some evidence that this disintermediation process is already taking place, as indicated, for example, by the significant – also from a historical perspective – corporate bond issuance by EU non-financial corporations observed in recent months.

*Banks' capital constraints, cyclical and structural funding pressures and restructuring plans would imply that EU banks have non-negligible deleveraging needs...*

Europe. Other banks' plans include some downsizing of mortgage businesses, a reduction in leasing activities and an improvement in loan-to-deposit ratios.

## A QUANTIFICATION OF EU BANK DELEVERAGING NEEDS

A broad assessment of the deleveraging needs of EU banks until the end of 2013 should take into account the range of possible sources of deleveraging presented in Chart A.1.<sup>9</sup>

**Capital constraints:** banks facing a capital shortfall at the end of 2013 under a macroeconomic scenario contingent on the European Commission's Spring 2012 Forecast that affects the amount of their loan losses and their net operating income, and assuming the core Tier 1 capital ratio threshold of 9%,<sup>10</sup> may decide to reduce their risk-weighted assets, instead of raising fresh capital in the markets, to close the gap. The estimated capital shortfall is mitigated by the capital accumulated in the context of the EBA's 2011 EU Capital Exercise (to be completed by the end of June 2012) and by the potential beneficial impact on banks' earnings of the two three-year LTROs conducted by the Eurosystem in December 2011 and February 2012.

**Wholesale funding constraints:** banks may not be able to roll over all their maturing wholesale funding over the two-year horizon.<sup>11</sup> It has been assumed that banks will roll over only 90% of their wholesale debt maturing in 2012 and 2013. The funding constraints will, however, be mitigated by the substantial net take-up of the two three-year LTROs.

**Structural funding constraints:** in addition, some deleveraging needs may arise on account of structural funding pressures that reflect banks' incentives to reduce their reliance on short-term, volatile funding sources.<sup>12</sup> Against this background, country-specific targets for banks' loan-to-deposit ratios were imposed. Those targets are largely based on the assumptions of the EU/International Monetary Fund (IMF) adjustment programmes. For less vulnerable non-programme countries, the targets were assumed to be less severe.<sup>13</sup>

Information on **banks' own restructuring plans** was incorporated in the assessment to the extent that the estimated deleveraging needs were assumed to be at least as large as those announced in the restructuring plans.<sup>14</sup>

9 The sample includes 70 large and medium-sized EU banks, corresponding to the sample of banks used in the EBA's 2011 EU Capital Exercise. The data are at the consolidated banking group level.

10 This is a more stringent requirement than the prevailing minimum capital requirements, but may reflect the buffer in excess of the regulatory minimum that EU banks are currently targeting, on average. It is also in line with the threshold set in the EBA's 2011 EU Capital Exercise.

11 This may be caused either by quantitative restrictions on the total amount of available wholesale funding or by unfavourable pricing.

12 Structural funding constraints have also been put forward by the regulatory community; for example, those reflected in the planned introduction of the net stable funding ratio under the Basel III framework.

13 The targets for loan-to-deposit ratios were linked to the vulnerability of the bank's home country, as measured by external credit ratings, and range between 110% and 150%. The reason for using sovereign ratings as a criterion for the stringency of the loan-to-deposit ratio targets is to be found in the larger and more immediate need for banks in countries with lower credit ratings (and thus higher funding costs) to reduce their reliance on wholesale funding sources. At the same time, it should be noted that using a loan-to-deposit ratio to gauge the extent of the deleveraging needed can be biased, given that banks in some countries rely on other stable sources of funding such as bonds subscribed to by retail customers and long-term covered bonds.

14 The scale of the plans was capped at 75% in order to reflect potential implementation risks, implying that it may not be possible for banks to complete the plans to the full extent announced and within the two-year horizon. Moreover, it is important to note that most of the plans were announced in the second half of 2011, a period of severe distress; hence, it is not unlikely that at least some of the plans will be watered down as market conditions improve.

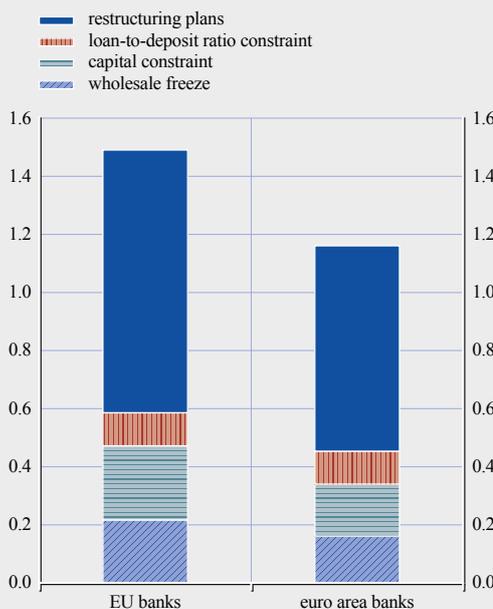
Overall, these constraints imply an estimated total deleveraging of EU banks in the order of €1.5 trillion by the end of 2013; and €1.2 trillion if only euro area banks are included (see Chart A.5).<sup>15</sup>

A key concern for policy-makers as regards EU banks' deleveraging is that the credit supply to the real economy will be restricted, with adverse implications for the economic recovery. In particular, given their relatively short-term nature, non-financial corporate loans could be vulnerable to a forced or rapid deleveraging process.<sup>16</sup> Bank credit is especially important for small and medium-sized enterprises (SMEs),<sup>17</sup> which – unlike larger firms – typically do not have recourse to financial markets and may be dependent on banks renewing their loans.<sup>18</sup> This notwithstanding, it is likely that most of the deleveraging will be carried out via sales of assets and non-core activities to third parties, as corroborated by the restructuring plans announced by banks. The direct impact on the provision of credit to the non-financial sectors, and thus on real economic activity, is likely to be relatively muted.

In addition, in assessing the deleveraging process and addressing the question as to whether it is “excessive” in the sense of reinforcing the business cycle, it is crucial to distinguish between the various underlying factors. Ideally, this requires a disentangling of loan demand and supply factors, which is inherently difficult. Moreover, with respect to the loan supply factors, a distinction should be made between more cyclical factors (such as the firm-specific outlook, collateral values and the general economic outlook) and factors related to the soundness of banks' balance sheets (such as capital and liquidity positions, as well as access to funding markets).<sup>19</sup> As argued above, deleveraging caused by cyclical factors would typically reflect a natural process related to the turn of the business cycle, although financial frictions, such as asymmetric information between banks and borrowers, may amplify the process.<sup>20</sup> Deleveraging triggered by constraints to banks' balance sheets – such as funding and capital pressures, and regulatory changes – would add to the cyclical factors, exacerbate

Chart A.5 EU bank deleveraging estimates

(2012–2013; EUR trillions)



Sources: ECB and ECB calculations.

Note: The sample includes 70 large and medium-sized EU banks, corresponding to the EBA sample for the 2011 Capital Exercise.

... leading to concerns that deleveraging may result in credit supply constraints...

... although asset reductions are also likely to reflect cyclical and demand-driven effects

15 These figures are somewhat lower (by around USD 600 billion) than the estimates reported in the IMF's Global Financial Stability Report of April 2012. This discrepancy is mainly attributable to the more conservative assumptions applied, for example, with respect to the scale of the restructuring plans, the impact of the two three-year LTROs and the wholesale funding constraints. Similar to the IMF calculations, the impact of fire sales in the case of synchronised deleveraging was not accounted for.

16 In the euro area, one-third of the outstanding stock of loans to non-financial corporations is due to mature within a year.

17 SMEs account for 99.8% of the number of firms in the euro area, for 60% of the total turnover and for 70% of total employment.

18 A study on US firms has shown that credit constraints were the most important factor in predicting which small firms went out of business between 2004 and 2008 (see T.L. Mach and J.D. Wolken, “Examining the Impact of Credit Access on Small Firm Survivability”, *Finance and Economics Discussion Series Working Paper*, 2011-35, Federal Reserve Board, 2011).

19 For a discussion of loan supply and demand effects, see ECB, “Monetary policy and loan supply in the euro area”, *Monthly Bulletin*, October 2009.

20 See B.S. Bernanke and M. Gertler “Agency Costs, Net Worth, and Business Fluctuations”, *The American Economic Review*, Vol. 79, No 1, 1989; and B.S. Bernanke, M. Gertler and S. Gilchrist, “The Financial Accelerator and the Flight to Quality”, *The Review of Economics and Statistics*, Vol. 78, Issue 1, 1996.

the process and lead to financial market tensions and credit disruptions. According to the ECB's bank lending survey, both loan supply and loan demand factors currently suggest some deleveraging by euro area banks.

### IS BANK DELEVERAGING AFFECTING OTHER REGIONS?

In situations where a bank is confronted with the need to reduce assets in order to strengthen its capital position, it tends to shed its foreign assets first.<sup>21</sup> The vulnerability of host countries to foreign deleveraging depends on a number of factors, including the prevalence of foreign banks in the home banking sector, foreign bank reliance on funding from outside the host country, the nature of lending (short-term versus long-term loans) and the scope for local or other foreign banks to fill the gap.

One region in which international banks, almost exclusively from the EU, play a prominent role is central, eastern and south-eastern Europe (CESEE) (see Chart A.6).<sup>22</sup> Hence, economies in this region could be comparatively strongly affected by EU banks scaling down their international activities. It may, however, be argued that the impact of deleveraging in these countries would be mitigated if banks take a "regional" rather than a "home" perspective. Moreover, EU banks may treat this region as strategic, owing to its growth and profit potential in the light of the ongoing economic catching-up process. Furthermore, in certain countries, domestic loan-to-deposit ratios are quite low, implying that subsidiaries of foreign banks are using domestic deposits to fund lending. In addition, it is noticeable that EU banks' exposures to CESEE tend to be of a longer-term nature, and thus less prone to abrupt deleveraging, than their exposures to other regions.

The global crisis triggered an unwinding of the internal and external imbalances accumulated in the CESEE countries in the boom years, with claims of EU banks on all CESEE countries except Turkey declining by 3% to 40%. At the same time, lending contracted in those CESEE countries that had the highest domestic loan-to-deposit ratios and that recorded the most marked declines in foreign claims (Latvia, Lithuania and Hungary), while loans still increased in the remaining countries (see Section 1).<sup>23</sup>

Various policy initiatives have been launched with the aim of mitigating the risk of disorderly deleveraging affecting the CESEE region. At the March 2012 meeting of the European Bank Coordination ("Vienna") Initiative, a number of

*There is a potential "home bias" in deleveraging strategies*

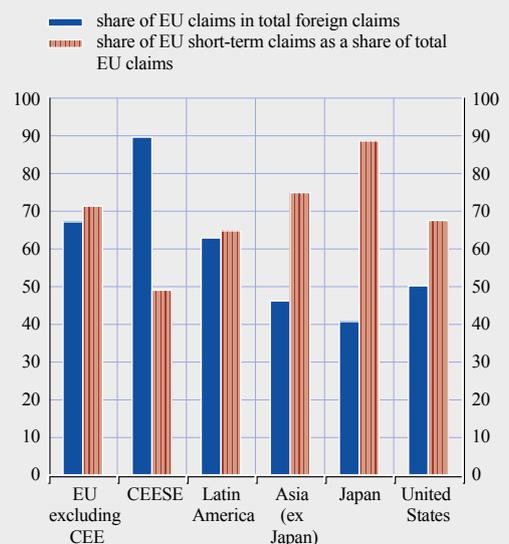
*EU banks' cross-border deleveraging may be particularly severe in CESEE countries...*

*... where EU banks play a predominant role*

*Recent policy initiatives seek to mitigate the impact on CESEE countries*

**Chart A.6 The share of EU bank claims in selected external regions' total foreign claims**

(Q4 2011; percentages)



Sources: BIS and ECB calculations.

21 See S. Herrmann and D. Mihaljek, "The determinants of cross-border bank flows to emerging markets: new empirical evidence on the spread of financial crises", *Working Paper*, No 315, Bank for International Settlements, 2010.

22 This region includes both non-euro area EU Member States and several non-EU countries, e.g. Turkey.

23 In Hungary, the sizeable loan contraction was also a by-product of the government allowing households to repay foreign currency mortgages at very favourable exchange rates.

euro area parent banks and the relevant authorities agreed on a set of principles designed to enhance cooperation and coordination, recognising that the “stability of the financial sector and ensuring orderly credit conditions in emerging Europe are in the shared interest of the private sector and home and host countries”.<sup>24</sup> These developments, however, should not lead to complacency in the region, as country-specific factors may still lead to significant loan deleveraging by parent banks in the future.

24 For further information, see [http://ec.europa.eu/economy\\_finance/articles/governance/2012-03-13-ebci\\_en.htm](http://ec.europa.eu/economy_finance/articles/governance/2012-03-13-ebci_en.htm).

Box

UNDERSTANDING CROSS-BORDER BANKING CLAIMS IN REAL TIME

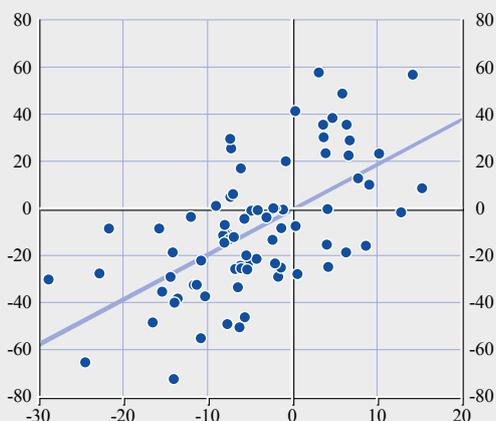
In the absence of timely data, this box assesses current changes in cross-border bank claims by looking at cyclical indicators that are available in real time. The evidence presented in this box suggests that deleveraging pressures on euro area banks may have been somewhat stronger in late 2011 and early 2012 than for those in other advanced economies.

Data to assess the size of international bank deleveraging are scarce and subject to publication lags. The most reliable data come from the Bank for International Settlements (BIS), but are published with a lag of around four months. One way to gauge cross-border bank lending in a timelier manner is to examine its contemporaneous relationship with factors that affect banks’

Chart A Banks’ equity prices and international bank claims

(Q3 2008 – Q2 2009; percentages)

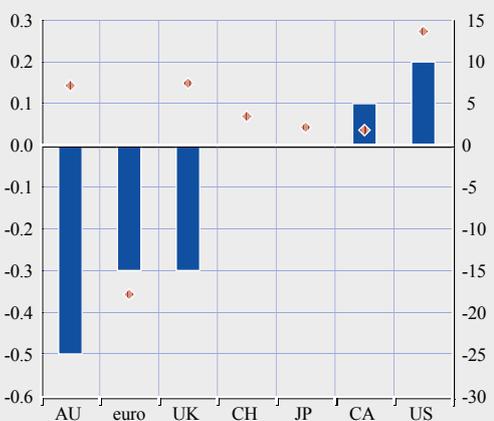
x-axis: international bank claims  
y-axis: bank equity prices



Sources: Thomson Reuters, ECB and ECB calculations.  
Note: Non-MFI sector excluding general government.

Chart B Recent bank equity price performance and 2012 GDP forecast revisions

■ change in GDP forecast (percentage points; left-hand scale)  
◆ change in bank equity prices (percentages; right-hand scale)



Sources: Thomson Reuters and Consensus Economics.  
Notes: The change in GDP refers to the difference between the 2012 annual GDP growth forecasts of December 2011 and May 2012. The bank stock price represents the percentage changes between 31 December 2011 and 15 May 2012.

cross-border lending decisions and to derive projections for cross-border bank activity from these factors. Bank equity prices are one such factor that is a good summary measure for leverage determinants, such as conditions in funding markets and broad macroeconomic prospects.

Chart A confirms that there was a contemporaneous co-movement between banks' equity returns in the creditor country and changes in banks' international claims in late 2008 and early 2009. During this period, banks sharply reduced their leverage as it became more difficult to raise funds in the wholesale and securitisation markets, with pressure on banks' capital positions mounting at the same time.

Chart B shows that bank stock prices in the euro area currently stand well below the levels recorded at the end of 2011, while those of banks in other advanced economies were broadly unchanged. At the same time, the global macroeconomic outlook has worsened. This would suggest that deleveraging pressures on euro area banks are likely to have been somewhat stronger than in other major economies in recent months.

*Concerns about the implications of EU bank deleveraging...*

*... and recent evidence point to tighter credit standards on trade finance...*

*... which is also linked to EU banks' difficulties in securing US dollar funding*

*EU banks have large market shares in global trade finance...*

A concern for non-EU economies regarding EU bank deleveraging is that bank trade finance<sup>25</sup> will be adversely affected, as EU banks account for one-third of the global supply.<sup>26</sup> The results from the annual IMF/BAFT-IFSA Trade Finance Survey<sup>27</sup> indicate that since the outbreak of the crisis global banks, in particular large banks, have significantly tightened their credit standards on trade finance loans and have increased the cost of such credit against a backdrop of increasing demand. Trade finance is an area in which Asian economies, in particular, are quite dependent on EU banks. As trade finance loans tend to be short-term in character, this is an area where EU banks could quickly decrease their exposure. Although the restructuring plans announced by EU banks do not place a disproportionate focus on trade finance, there is evidence that EU banks are indeed reducing their exposure to this form of credit in Asian markets. For example, data from the Hong Kong Monetary Authority for December 2011 show that EU banks decreased their outstanding trade finance loans in Hong Kong by 20% in a single month.<sup>28</sup> There are indications that local banks have stepped in as EU banks have scaled down operations in Asia, but concerns have been raised regarding the scope for further substitution.<sup>29</sup>

Reflecting the heightened difficulties faced by banks in securing US dollar funding, a number of banks are targeting reductions in US dollar assets to alleviate funding strains. The United States accounts for almost a fifth of EU banks' foreign claims. However, the importance of EU banks for the financing of the US economy is modest. In addition, plans to reduce US dollar assets tend to focus on investment banking assets.

## CONCLUDING REMARKS

Deleveraging by EU banks is to be expected over the medium term. There are concerns that the process will adversely affect the supply of credit to the real economy. Such concerns are more

25 Bank trade finance accounted for 35% to 40% of total trade finance in 2008 (World Bank, "Trade Finance During the Great Collapse", 2011).

26 R. Menon, Keynote Address presented at the Investment Management Association of Singapore 13th Annual Conference, 14 March 2012.

27 BAFT stands for Bankers' Association for Finance and Trade and IFSA for International Financial Services Association.

28 This decline can reflect both demand and supply factors, given the deterioration in economic activity.

29 This is attributable to, inter alia, Asian banks' already elevated US dollar loan-to-deposit ratios, risk aversion, technical constraints and counterparty limits (see R. Menon, op.cit.).

relevant for the euro area than for other large economies, owing to the predominant role of banks in the euro area financial system. The non-standard measures introduced by the Eurosystem to ensure an adequate provision of liquidity to the euro area banking system have helped to avoid a rapid and disorderly deleveraging process, thus mitigating the macroeconomic implications. Moreover, it is likely that the real economic impact of EU banks' deleveraging plans will diminish as the assets are sold to third parties and activities are taken up by other financial institutions, such as other banks, insurance corporations and pension funds.

Concerns have also been raised regarding the impact of deleveraging on external economies, given the likelihood that banks will adopt a "pecking order" in asset reductions, focusing on external assets and largely sheltering domestic assets. This view is corroborated by the restructuring plans announced by banks. The impact of European banks' deleveraging plans on external economies, particularly in the CESEE countries, will depend on the ability of local and other foreign banks to "fill the gap". A number of features particular to the regions both increase and mitigate their vulnerability. While European banks have a dominant position in the banking sectors of CESEE countries, most of the loans they supply are long-term, and loans are largely funded by local deposits in many countries. In addition, for strategic reasons, EU banks may be reluctant to significantly scale back their involvement in CESEE countries unless strictly necessary. As regards Asia, in aggregate, these economies are not very dependent on funding from European banks, except in the area of trade finance, which mostly tends to be short-term. The United States accounts for a significant proportion of European banks' foreign claims, and bank restructuring plans tend to target US dollar assets on account of an impaired access to US dollar funding. However, the importance of European banks for the financing of the US economy is quite insignificant and hence the real economic implications should generally be limited.

Policy actions on deleveraging can help to mitigate risks to the real economy. However, the benefits of intervention must be weighed against the cost of interfering with banks' independent business decisions, potentially introducing distortions and delaying a necessary restructuring process. A key risk is that uncoordinated domestic policy actions will trigger financial protectionism. Given the cross-border nature of the current deleveraging process, policy responses should be aimed at mitigating the overall impact. A number of actions aimed at reducing the risks surrounding EU bank deleveraging have been taken thus far. First, the Eurosystem introduced a number of measures in December 2011, including two three-year LTROs, which substantially eased the funding pressures of banks located in the euro area, thereby mitigating the risk of a rapid and disorderly deleveraging process. Second, a European Bank Coordination ("Vienna") Initiative was announced in March 2012 whereby authorities in the home and host countries plan to coordinate policy actions to mitigate the impact of European bank deleveraging on credit conditions in CESEE countries. Finally, plans by EU banks to address the capital shortfalls identified in the EBA's 2011 EU Capital Exercise are being closely monitored by the supervisory bodies to ensure they do not have an adverse impact on the supply of credit, both inside and outside the euro area.

*... but many  
mitigating factors...*

*... and policy  
actions are being  
taken to ensure  
an orderly and  
benign deleveraging  
process*