Bank lending to non-financial corporations (NFCs) in the euro area has been weak for the last few years because adjustments in the banking system curtailed the supply of credit and because the weakness of the economy and the need to deleverage reduced NFCs demand for credit. Nevertheless, the Comprehensive Assessment of the banking system carried out by the ECB last year showed that banks are well capitalised.

Since the announcement and implementation of the ECB's expanded asset purchase program (APP), the cost of capital has declined and there has been an improvement in non-price credit terms. At the same time, improved cyclical prospects have led to higher demand for credit. Historical experience suggests that credit volumes tend to lag the business cycle and that although quantitative easing (QE) tends to influence financial prices rather quickly, its impact on lending volumes takes time to become apparent. [1] Moreover, QE is likely to be more effective in stimulating corporate lending if deleveraging pressures are no longer weighing on credit demand and supply.

Graph 1: **Credit cycles for NFCs**

Source: ECB
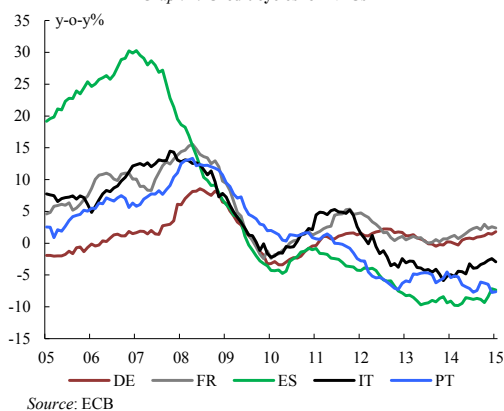
Credit developments in individual countries have been quite different (see Graph 1) and have mainly followed the adjustment needs of the corporate and banking sectors in the aftermath of the financial crisis. [2] Consistent with the notion that lending has been weak over the last few years because of deleveraging, corporate credit growth has been weaker in those countries where it had increased by

most prior to the financial crisis, such as Ireland, Spain and Portugal. This can also be seen in the evolution of credit to GDP ratios in Graph 2 and by the fact that changes in corporate saving ratios have been greatest in those countries where the ratios had been particularly low before 2008 (e.g. Spain, Italy, and Portugal). Differences in the scale of deleveraging by the banking sector are also broadly consistent with bank lending volumes, across the euro area.

Graph 2: **NFCs bank debt to GDP ratio, selected Member States**
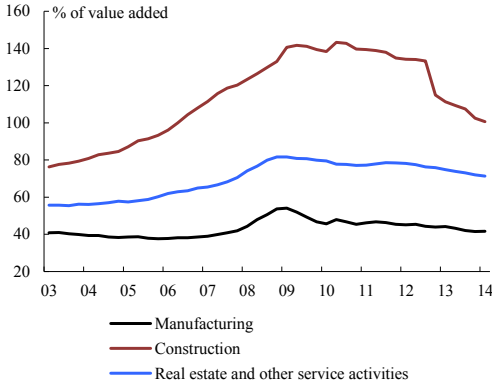

Source: ECB, Eurostat
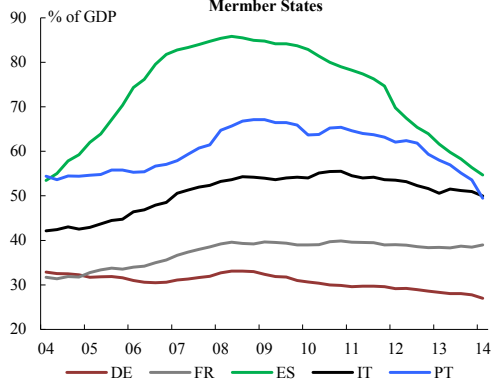
This box highlights a number of economic variables that help to explain how the economies of the euro area have adjusted to deleveraging pressure. The more countries have adjusted, the more they should be able to benefit from QE. Looking at adjustments in both the corporate and the banking sector should help to determine whether credit volumes have been curtailed by demand and/or supply factors. For example, structural sectoral changes may have led to a permanently lower reliance of the economy on bank lending. At the same time, legacy assets from the crisis that banks still hold on their balance sheets may still be impairing their ability to provide new credit.

Lending and adjustment in the corporate sector

The sectoral structures of economies have a strong influence on their corporate sectors' overall reliance on bank lending (see Graph 3). The manufacturing sector is less reliant on bank lending than other sectors. Industrial firms, by generating relatively stable revenues from their sales, are better able to fund themselves internally and rely therefore less on external funding. By contrast, construction firms are often facing one-off projects, which need external financing.

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[1] See IMF Global Financial Stability Report April 2015.

[2] See also Box I.2 ('Financing conditions and credit growth') in European Commission (DG ECFIN), Spring 2014 forecast, *European Economy*, 2014, No 3, pp. 30–33.

Graph 3: **Bank debt to value added ratio, euro area**

Source: ECB, Eurostat

Credit intensity – expressed either as bank credit relative to value added or to total assets – has declined across sectors, but more so in those sectors that are more reliant on bank lending, such as construction. The calculations in Table 1 show that sectoral changes, such as the shrinkage of credit-intensive sectors explain only part of the decline in bank lending since 2008 (see Graph 4). Although this effect is pronounced in countries like Spain and Portugal which had relatively large credit-intensive construction sectors before the crisis, it is less evident elsewhere. In Germany, which has a strong manufacturing sector but a relatively less important construction sector, for example, there, have been no significant sectoral adjustments since 2008. The difference between the actual (Table 1, 1st row) and simulated effects (2nd and 3rd row) indicates that bank lending has declined more than the sectoral adjustments alone would suggest.
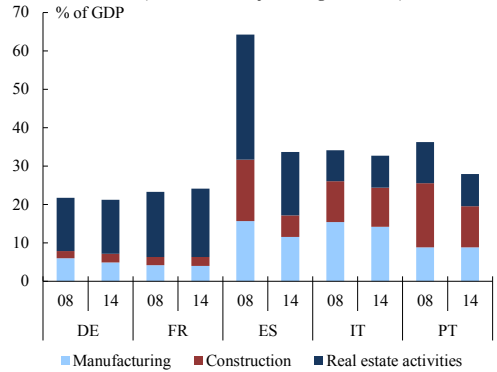
Table 1:

Bank lending and sectoral effect (change 2008 - 2014)

	DE	FR	IT	ES	PT
Actual change in outstanding lending	-1%	11%	-2%	-31%	-13%
- due to changing sectoral size	14%	7%	-2%	-6%	-3%
- due to changing sectoral composition	-2%	-2%	-4%	-2%	-6%

An important determinant of bank reliance, not fully covered by the sectoral decomposition, is the share of SMEs in an economy. As SMEs tend to have no access to capital markets and rely solely on bank lending for their external funding, a higher share of value added from SMEs in total GDP leads to a higher dependency on bank lending. In countries such as Greece, Spain and Italy, SMEs play a significantly larger-than-average role. The smaller share of larger firms in these countries impacts their ability to substitute bank lending for market funding. Research confirms that the development of corporate bond markets is correlated with the share of large firms in an

economy, as well as other factors such as GDP per capita, labour productivity growth and openness. Indeed, access to corporate bond markets has improved in those countries where bond issuance was already high before the crisis. [3]

Graph 4: **Sectoral distribution of bank lending (sectors with major changes 2008-14)**

Source: Eurostat, national central banks.

Table 2 reports key indicators of the corporate sector's reliance on bank lending, relative to the euro area average in selected Member States. [4] The last column summarizes the information into a composite index of relative reliance on bank lending. Based on this unweighted average of the four indicators in Table 2, Spain and Italy still seem significantly more dependent on bank lending than other euro area countries. By contrast, bank dependency is no longer particularly high in those countries that had been exposed to weak credit growth such as Ireland, Greece and Portugal. After years of adjustment, several countries have reduced their previously very high dependency on banks thanks to a sectoral shift and higher corporate savings.

Table 2:

Bank lending dependency indicators (positive numbers signal less

	Corporate debt level (2)	NFCs saving rates	Market funding vs bank lending	Large vs small NFCs (3)	Composite index (average of indicators)
	Standardised difference relative to the euro area				
BE	-0.6	1.5	0.1	-0.2	0.2
DE	0.7	-0.1	-0.4	1.1	0.3
IE	-1.5	0.8	-1.0	1.9	0.0
EL	0.4	3.1	-1.0	-1.8	0.2
ES	-0.3	0.6	-1.1	-0.6	-0.3
FR	-0.1	-0.7	2.1	-0.2	0.3
IT	0.4	-0.2	-0.4	-1.3	-0.4
NL	-0.4	1.3	-0.3	0.6	0.3
AT	0.2	0.7	1.0	0.5	0.6
PT	-0.2	-0.3	0.8	-0.4	0.0
FI	0.0	-0.4	1.1	0.2	0.2

(1) latest available data, (2) % of GDP, (3) share in value added.

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[3] The notable exception is Portugal. Corporate bond issuance over the last years was much higher in Portugal than predicted by the country's starting position before the financial crisis.

[4] SMEs are often considered less credit dependent than larger corporations as they are more likely to fund investments with internal savings.

Lending and adjustment in the banking sector

Besides the structural changes in the corporate sector, the prospects of a rebound in the lending cycle crucially depend on how the banking sector has digested the legacies of the crisis and adapted to the new regulatory environment. It equally depends on banks' responsiveness to ECB's QE. While QE is likely to have a positive overall impact on euro area banks, it remains unclear whether this positive impact will be translated into higher lending to households and companies. Three indicators relating to lending capacity help to shed light on the pace of adjustment in the banking sector and its ability to expand lending to the corporate sector (see Graph 5).

Graph 5: **Banking indicators**
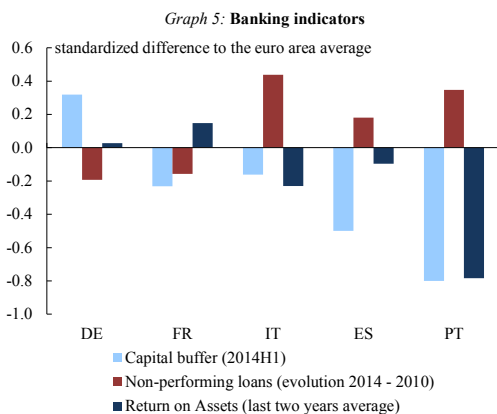
Source: ECB

First, the capital buffer of banks indicates their capacity to withstand loan losses and/or to provide more loans while remaining within regulatory boundaries. [5] Capital buffers can also determine the capacity of banks to replace zero-risk-weight sovereign bonds with lending to the private sector, for which regulatory capital must be held. The higher the capital buffer, the better the potential transmission of the ECB's purchase of sovereign bonds under its QE policy to lending to the private non-financial sector.

Second, non-performing loans (NPL) are a key metric not only for corporate debt distress, but also as a credit supply indicator. Banks usually lend less and at higher interest rates when NPLs are high or rising. The level of NPLs may therefore partly explain the current differences in lending rates and volumes.

Third, the profitability of banks deteriorated during the financial crisis and they have had to scrutinise the viability of their business model. The success of their restructuring efforts should ultimately be visible in a rebound of profitability.

When compared against the euro area average, these indicators point to relatively weaker banking sectors in Italy, Spain, Portugal and Greece. NPLs in these countries have risen by more than the euro area average since 2010 and capital buffers in these countries are also below the euro area average. Moreover, returns on assets are lower, suggesting that structural changes in their banking sectors are still ongoing. Overall, this suggests that the banking systems in these countries will find it harder to provide lending to the private sector.

The French banking system has relatively low capital buffers but it does not need to cover rising levels of distressed loans. The indicators for Germany look particularly favourable with higher-than-average capital buffers and a better-than-average evolution of NPLs.

Synthesis and conclusions

Averaging the different indicators of bank reliance in the corporate sector on the one hand, and of progress with adjustment in the banking sector on the other hand can help identify Member States that could benefit most from the favourable development on financial markets (see Graph 6). Countries with a high reliance on bank lending but whose banks have only limited lending capacity such as Italy and to a lesser extend Spain, are in a rather uncomfortable situation (NW quadrant in Graph 6). Greece and Portugal have banking systems with limited space to increase credit supply but their corporate sectors are less reliant on bank lending than other euro area countries. Finally, although Germany, Ireland, the Netherlands and Finland have banks with relatively large lending capacities, demand for credit appears more limited (SE quadrant in Graph 6).

Overall, the presence of legacy issues from the financial crisis may impair the transmission of the positive impulse set by QE to bank lending. Countries in which the adjustment in the banking sector is more advanced should be better positioned to make use of the additional liquidity provided by QE to banks. Countries, in which corporate deleveraging is still on going, may encounter a

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[5]   The capital buffer used in Graph 5 is defined as banks' total own funds for solvency purposes relative to capital requirements.

limited demand for bank lending even if QE leads to more favourable financing conditions and higher aggregate demand. Whether QE is more effective when corporates' reliance on bank lending is low seems to depend on the reasons for the low reliance. If it is due to corporates making stronger use of market funding, such as corporate bond issuance, QE can be very effective, as the costs of bond issuance have come down considerably. The impact could, however, be limited if firms reacted to past credit constraints by intensifying their use of internal funding, e.g. funding their investments with own revenues, because they want to avoid reliance on external funding sources.

Graph 6: **Corporate reliance on bank lending vs banks' lending capacity (difference from euro area in standardised values)**

Source: ECB, Eurostat