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The flow of credit in the UK economy and the availability of financing to the corporate sector

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#### **European Commission**

Directorate-General for Economic and Financial Affairs

# The flow of credit in the UK economy and the availability of financing to the corporate sector

Daniel Monteiro

#### **Abstract**

This paper analyses the flow of credit in the UK economy in the years before and after the 2008 financial and economic crisis, with particular emphasis on the corporate sector and the SME segment. It carries out a comparative flow-of-funds analysis highlighting the parallelisms and differences between the sterling and euro currency areas. It also reviews the characteristics of UK funding markets and, based on an analysis of available surveys and other evidence, discusses the extent to which credit supply and demand factors have been at play in driving the marked retrenchment in credit observed in the post-crisis period. The conclusions are complemented by econometric evidence from an estimated SVAR model identifying a long period of negative credit supply and demand shocks from 2008 to 2012. The paper also discusses how competition in the UK banking industry was impaired in the post-crisis period and how to harness the current UK institutional framework for kick-starting an SME securitisation market. Finally, a review is made of the main initiatives taken by the UK authorities to improve access to finance. Overall, the paper details the supporting evidence underlying the 2011, 2012 and 2013 country-specific recommendations addressed to the UK by the Council of the European Union to the effect that the UK authorities continue to take steps to foster access to finance, to improve bank competition and to promote the non-bank lending channel.

JEL Classification: C32, E44, E51, E52, E58, G21, G28

**Keywords:** access to finance, UK, SME, credit easing, flow-of-funds, monetary policy, non-bank lending, bank competition, sign restrictions, SVAR

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#### Introduction

The flow of credit in European economies has been hindered since the onset of the global financial crisis in 2008 and, particularly, in the wake of the vulnerabilities that the crisis exposed in several banking groups since the collapse of the Lehman Brothers investment bank in September of that year. While the financial and banking crisis has differed in magnitude across countries, economies with larger, more leveraged and globally-integrated financial sectors, of which the United Kingdom is an example, were often more severely affected.

The disruption of the flow of credit that accompanied the financial and economic crisis in the UK has threatened to dampen the recovery prospects of the economy and has contributed negatively to a secular trend of low investment rates. These aspects have motivated country-specific recommendations emitted by the Council of the European Union at the conclusion of the 2011, 2012 and 2013 European Semesters to the effect that the UK continue to take action to improve access to finance<sup>1</sup>.

**Section 1** of this note starts by placing the flow of credit in perspective by analysing and comparing recent macroeconomic trends and developments in both the UK and the euro area, according to a 'flow-of-funds' approach. The section also discusses the investment performance of the UK and the effectiveness of monetary policy transmission in the wake of the crisis.

The broad macroeconomic picture laid out in the first section is then reviewed in more detail in Section 2, which analyses the two main private recipients of credit: the household and the non-financial corporation sectors. Emphasis is given to the corporate sector, where access to finance has an important role to play in fomenting the UK's economic recovery and in supporting investment. In this regard, particular attention is devoted to the small and medium enterprises segment, where a number of surveys and indicators have highlighted on-going difficulties in access to credit. A blueprint to kick-start an SME debt market from the demand-side is also presented in this section.

An important issue for understanding the credit crunch that has historically characterised economic and financial crisis in developed economies is the relative importance of negative supply and demand shocks in driving the reduction in the amount of credit offered in the economy. **Section 3** explores this issue for the UK economy, where a number of factors have been at play in the retrenchment in credit that followed the financial crisis. Complementing the analysis of the relative role of credit supply and demand, **Section 4** provides econometric evidence from an estimated SVAR model corroborating the idea that negative shocks to both loan demand and supply were crucial in driving credit developments in the UK during the crisis period.

**Section 5** presents and assesses the main initiatives undertaken by the UK authorities to re-establish lending in the economy and **Section 6** concludes by recapitulating the main findings.

<sup>&</sup>lt;sup>1</sup> "The Council of the European Union (...) hereby recommends that United Kingdom should take action within the period 2013-2014 to (...) improve the availability of bank and non-bank financing to the corporate sector, while ensuring that the measures primarily target viable companies, especially SMEs. Reduce barriers to entry in the banking sector, lower switching costs and facilitate the emergence of challenger banks through a divestiture of banking assets. Effectively implement the Financial Policy Committee's recommendations on prudent assessment of bank capital requirements and on addressing identified capital shortfalls.. Council of the European Union (2013).

#### 1. THE FLOW OF CREDIT IN THE UK ECONOMY IN PERSPECTIVE

The UK economy has historically had one of the lowest investment rates among the 28 EU countries. The comparatively poor **investment performance** of the UK is a structural characteristic of the economy. As Table 1 shows, the UK had the lowest average investment rate from 1995 to 2012 which, at 16%, is 5 pp. below EU average. This trend continued throughout the crisis period, which saw most EU countries drop their investment levels from 2007 figures. Nevertheless, the UK remained one of the worst performers with an average rate of 15% throughout 2008-2012, the second-lowest during that period.

Table 1

Investment rates <sup>1</sup> for the UK and EU 28										
	2005	2006	2007	2008	2009	2010	2011	2012	2008-2012	1995-2012
UK	17%	17%	18%	17%	15%	15%	14%	14%	15%	16%
EU 28 <sup>2</sup>	23%	23%	24%	24%	20%	19%	19%	19%	20%	21%
UK's Rank	28	28	28	28	28	27	27	25	27	28

Source: AMECO, own calculations

A UK's investment performance cannot be fully accounted for by the large weight that the services sector has in its economy. In fact, the gross value added by the services sector as a percentage of the UK economy stood at 77% in 2012, a value on the high side when compared to the EU 27 average of 71%, but which ranked just between 8<sup>th</sup> and 5<sup>th</sup> in recent years when compared with the other EU countries<sup>2</sup>.

Nor can the low investment ratio be fully explained by low government investment. In fact, although the investment rate of the UK general government is again on the low side (an average of 1.9% during the last decade versus an EU average of 3.2%) and is a driver of low investment in the economy, there are a number of EU countries showing a weaker performance in this respect<sup>3</sup>. A similar conclusion could also be reached with respect to the saving rate: while again on the low side, there are a number of EU countries displaying a lower rate.

While a combination of factors appears to drive the low UK investment rates<sup>4</sup>, difficulties in access to finance are likely to aggravate this result and to thwart the rebalancing the economy towards investment and exports. In fact, difficulties accessing funding not only constrain corporate investment decisions<sup>5</sup> but also hinder the reallocation of resources to the most the productive sectors in the economy, which is particularly relevant in the context of the structural changes and rebalancing needs confronting the UK economy in the post-crisis period<sup>6</sup>.

The remainder of this section provides an overview of the flow of credit in the UK economy, both before and during the current financial crisis, based on a comparative analysis of the effectiveness of monetary transmission and of 'flow-of-funds<sup>7</sup>' developments vis-à-vis the euro area.

<sup>1)</sup> Investment rates defined as gross fixed capital formation/GDP

<sup>2)</sup> The EU 28 rate is calculated as the simple average of the 28 EU countries.

<sup>&</sup>lt;sup>2</sup> The share of services was calculated as gross value added by the services sector divided by the sum of gross value added by all economic branches, at current prices (AMECO data).

<sup>&</sup>lt;sup>3</sup> For comparison, from 2008 to 2012, the average government investment rate in the UK ranked 22<sup>nd</sup> among the EU 27 countries.

<sup>&</sup>lt;sup>4</sup> Besides the aforementioned factors, additional explanations of the low investment rate in the UK may include measurement issues, in particular as regards investment in intangibles, low inflation, or deflation, in investment goods with particular importance for UK companies (e.g., IT equipment) as well as other structural characteristics of the UK industry.

<sup>&</sup>lt;sup>5</sup> According to the LSE Growth Commission (2013) the 'low levels of private investment and innovation in the UK are a reflection of capital market failures. Over-reliance on bank finance along with problems of bank concentration and short-termism are constraining firm growth, especially of dynamic and innovative SMEs.'

<sup>&</sup>lt;sup>6</sup> For a discussion of how problems in the banking system and in access to finance may be keeping less-than-viable firms in

operation and effecting the rebalancing of the UK economy towards net exports, see European Commission (2013b). 
<sup>7</sup> Flow-of-funds analysis is based on the financial accounts section of the system of national accounts. Financial accounts present, for a given period, both the financial flows and stocks of the institutional sectors of an economy.

A properly functioning **monetary transmission** mechanism allows the monetary authority to control inflation and market interest rates, as well as to influence the monetary aggregates and the flow of credit in the economy. Equations 1 and 2 below propose a way of analysing the effectiveness of the monetary transmission mechanism by relating the degree of leverage in an economy to monetary policy variables. In particular, equation 1 factorizes the degree of 'financial leverage' in an economy into a portfolio shift effect and a leverage ratio, the latter being further decomposed in equation 2 into two monetary policy factors:

$$\frac{\text{Financial Assets}}{\text{GDP}} = \frac{\text{Financial Assets}}{\text{Loans}} \times \frac{\text{Loans}}{\text{GDP}} \times \frac{\text{Loans}}{\text{(equation 1), where}} \times \frac{\text{Loans}}{\text{GDP}} = \frac{\text{Loans}}{\text{Money}} \times \frac{\text{Money}}{\text{GDP}} \times \frac{\text{Money}}{\text{GDP}} \times \frac{\text{Money}}{\text{COP}} \times$$

Combining the two equations, we obtain the following decomposition of the degree of 'financial leverage' in an economy:

$$\frac{Financial \, Assets}{GDP} = \frac{Financial \, Assets}{Loans} \times \frac{Loans}{Money} \times \frac{Money}{GDP}.$$
Box 1 further elaborates on these equations.

#### **Box 1: MONETARY POLICY AND FINANCIAL LEVERAGE**

$$\frac{\text{Financial Assets}}{\text{GDP}} = \frac{\text{Financial Assets}}{\text{Loans}} \times \frac{\text{Loans}}{\text{Money}} \times \frac{\text{Money}}{\text{GDP}}$$

The equation GDP Loans Money GDP proposes a decomposition of the degree of 'financial leverage' into a portfolio shift effect and two monetary policy factors. The meaning of the different ratios is as follows:

#### Financial Assets

• GDP measures the degree of 'financial leverage' in an economy, where data on total financial assets is obtained from ESA financial accounts, excluding financial derivatives;

#### Financial Assets

• Loans is the inverse of the share of loans in total financial assets; it describes a portfolio shift effect by capturing the relative value, as well as the relative preference for loans (obtained from ESA financial accounts) vis-à-vis the other financial assets in the economy;

#### Loans

• GDP measures the degree of 'credit leverage' in an economy and captures information on credit availability and on potential credit crunches;

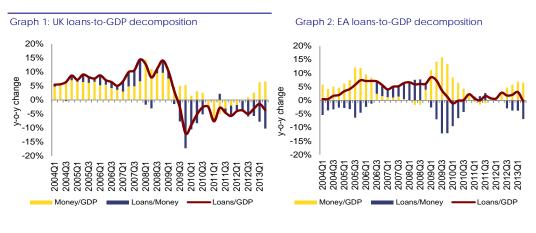
#### Loans

• Money can be understood as a loan multiplier, capturing the extent to which money (as measured by the M1 monetary aggregate) is transformed into loans to the economy;

#### Money

• GDP is the inverse of the velocity of money, which measures the speed at which money changes hands in order to transaction GDP over a given year. The velocity of money tends to change slowly in the long run, being mainly driven by innovations in the payments system, financial institutions, etc. Short-run movements in this ratio can capture monetary policy (a change in the ratio brought about by a change in GDP can also be construed as monetary policy, as the monetary authority decides not to re-establish the historical ratio through a change in the money supply).

Graphs 1 and 2 depict the evolution of the **loans-to-GDP ratio** decomposed according to equation 2, for the UK and the euro area (EA). As can be observed, the pre-crisis period running from 2004 to 2008 was characterised by an overall increase in total loans as a multiple of GDP in both the euro area and the UK. This period of loose credit policies was more pronounced in the UK and came to an end in 2008, the year of the collapse of the Lehman Brothers investment bank, being followed by a period of credit containment in the euro area and of credit retrenchment and deleveraging in the UK.



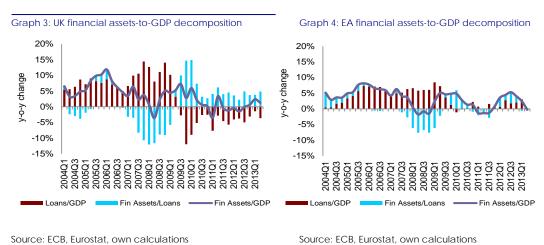
Source: ECB, Eurostat, Bank of England, own calculations

Source: ECB, Eurostat, own calculations

The Bank of England appears to have taken an aggressive monetary policy stance early on, injecting more money into the economy and increasing the money-to-GDP ratio in 2007, at the onset of the sub-prime crisis in the USA. The European Central Bank arguably followed a more conservative policy in the run-up to the crisis and during its early stages, but also started injecting liquidity into the system in 2008, in the wake of the collapse of the Lehman Brothers bank. Mounting inflationary pressures, especially in the UK, have possibly meant a more conservative monetary policy (as measured by the money-to-GDP ratio) from 2010 to 2012.

As depicted in the previous charts, the crisis period witnessed a breakdown of the loan multiplier as measured by the loans-to-money ratio. It started to show its first weaknesses in the first half of 2008 in the UK and went on to become the driving factor in the retraction in loans in the UK and the euro area from 2009 onwards. This happened notwithstanding an aggressive monetary policy stance, which can possibly be understood as a consequence of the difficulties of monetary policy to stimulate the economy near the zero interest rate lower bound as well as the effects of an on-going credit crunch.

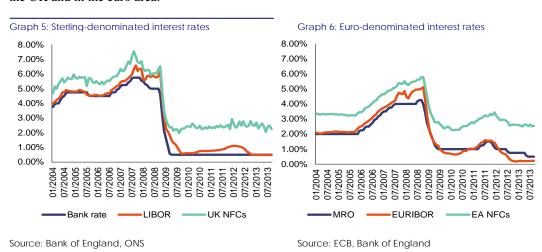
Graphs 3 and 4 plot the evolution of the **financial-assets-to-GDP ratio** for the UK and the euro area according to the factor decomposition of equation 1. As can be observed, the years from 2004 to 2007 were characterized by a sustained growth in 'financial leverage' in both currency areas (as measured by the Fin Assets/GDP ratio) on the back of laxer credit policies, as reflected in the continuous increase of the loans-to-GDP ratio.



The level of "financial leverage" appears to have become less sustainable when the 2007-08 crisis set in, with both currency areas experiencing periods of contraction in total financial assets. This was brought about by a drop in the financial-assets-to-loans ratio until mid-2009 and, from 2009 onwards, by credit restraint in the euro area and credit retrenchment in the UK. The drop in the FA/L ratio

observed in the first quarters of the crisis period was mainly driven by losses in total financial assets, equity in particular, vis-à-vis total loans, whose value is considerably more stable over time and, possibly, by a relative preference for less riskier assets such as loans in a context of heightened instability. In the fourth quarter of 2009 and in the first quarter of 2010 the Fin Assets/Loans ratio surges in the UK due to a rebound in the equity market from previous year minima. From 2009 onwards, the observed drop in the financial-assets-to-GDP ratio in the UK was mainly driven by a retrenchment in credit.

An alternative way of assessing the effectiveness of monetary transmission is by analysing how closely are changes in the reference interest rate (as set by the monetary authorities) transmitted to market interest rates. Graphs 5 and 6 show the dynamics of **interest rate transmission** for the UK and the euro area by plotting the evolution of i) the official bank rate of the Bank of England and the equivalent main refinancing operations (MRO) rate of the European Central bank, ii) the 3-month LIBOR for the UK interbank market and the equivalent EURIBOR for the euro area and iii) average interest rates charged by monetary and financial institutions to non-financial corporations (NFCs) in the UK and in the euro area.



As can be seen from the graphs, monetary policy dynamics have been largely analogous in both geographical areas. After a period of relative stability, reference rates began leaning against the wind in 2006, as imbalances began to mount, and then dropped abruptly after September 2008 when Lehman Brothers declared bankruptcy (in particular, in the last quarter of 2008 and the first quarter of 2009) in order to support the economy and the flow of credit as the financial crisis unravelled, remaining at historically low levels since then.

The Bank of England reacted more aggressively at the onset of the crisis, dropping the official rate by 4.5 pp. between September 2008 and March 2009, to a historically low 0.5%. The European Central Bank dropped the MRO rate by approximately 3pp. in the first months of the crisis, keeping it mostly at 1% from mid-2009 to mid-2012. In July 2012, it nudged the MRO down to 0.75%, and then to 0.5% and 0.25% in May and November of 2013, respectively.

The LIBOR and EURIBOR followed suit, but whereas their spread with respect to the reference rates had been mostly in the 0.1-0.3 pp. range up until mid-2007, interbank rates decoupled from reference rates in 2007-2008 and remained somewhat unstable during much of the post-crisis period, signalling interbank tensions and a frailer monetary transmission mechanism<sup>8</sup>. LIBOR spreads remained significantly higher than EURIBOR's until the second half of 2012, but have since closed in on the reference rate supported by liquidity provision measures of the Bank of England, notably the Funding for Lending scheme.

<sup>&</sup>lt;sup>8</sup> An apparent anomaly occurred in 2009-2010 and again in 2012-13, when EURIBOR spreads turned negative. This may be due to banks expecting the EURIBOR to drop in the future or to a contraction in demand for funds in the interbank market as banks tighten their lending to the economy.

NFC interest rate spreads with respect to official rates, which averaged 1.1% in the UK and 1.3% in the euro area from 2004 until September 2008, have since surged, averaging 1.9% in the UK and 1.8% in the euro area from mid-2009 to late 2013. As discussed in section 3, the increase in the spreads of loans to the real economy suggests a credit crunch driven by a negative shock to credit supply.

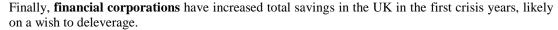
Overall, both an analysis of interest rate spreads and of money-to-loan transformation ratios show that the monetary transmission mechanism has been weakened with the onset of the financial and economic crisis in both the euro area and the UK, with the UK appearing to have been more severely hit by the ensuing credit crunch.

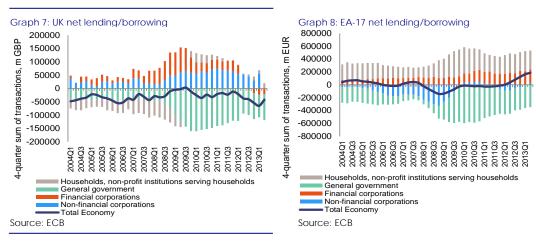
Further insight into the flow of financing in the UK may be obtained from an analysis of the financial accounts of the European System of Accounts. Graphs 7 and 8 show the breakdown of **net lending and borrowing** in the UK and in the euro area according to institutional sectors in recent years.

**General government** has borrowed continuously in both areas, with deficits increasing after 2008 due to the financial and economic crisis which, besides having increased expenditure with social transfers and decreased tax revenues, saw the UK government nationalise the Northern Rock bank and acquire large stakes in the Royal Bank of Scotland and Lloyds banking groups.

Both areas also saw the **household sector** increase its precautionary savings and start deleveraging with the outset of the crisis, which in the UK meant moving from a net borrowing to a net lending position.

Non-financial corporations have traditionally been net savers in the UK and net lenders in the euro area<sup>9</sup>. The continuously high net saving position of UK corporations is somewhat odd among major economies and correlates with the observed low investment level. Irrespective of the reasons which dictate the long-run trends in net savings<sup>10</sup>, the current crisis has led corporations to increase savings in both geographical areas, propelling them to a balanced position in the euro area and to historically high total savings in the UK. This increase in corporate savings may constitute a rational response in a context of heightened uncertainty and fewer growth opportunities. More worrisomely from an economic policy point of view, it may also suggest that some companies have difficulties accessing external finance, which could curb investment levels and drive companies to increase the saving rate for precautionary reasons or to be able to fund investment projects trough retained earnings.

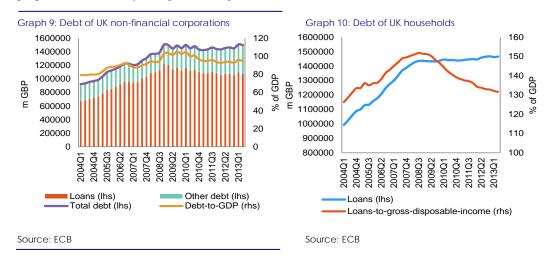




<sup>&</sup>lt;sup>9</sup> Savings in the corporate sector are identical to retained earnings.

Among the several possible reasons for the high net savings of UK corporations are those associated with the low investment rates, the fact that the UK is home to a large number of multinational companies (which benefit from the earnings of foreign participated companies and subsidiaries), particularities of oil industry companies, precautionary saving and the need to capitalise pension funds.

Graphs 9 and 10 take a closer look at the debt level of UK corporations and households in recent years. As can be observed, debt and loans had been on the increase up until year-end 2008 as easy access to credit, favourable expectations regarding future income streams and asset appreciation propelled the economy to higher leverage ratios.



Since then, the growth in loans and debt of non-financial corporations has come to a halt and the debt-to-GDP ratio has stabilised at moderately high levels<sup>11</sup>, falling slightly in recent years on the back of mostly inflation-driven increases in nominal GDP.

Household debt levels witnessed a sharp increase in the run-up to the crisis as the housing market overheated, nominal house prices doubled from 2000 levels and mortgage-to-income ratios hit historically high levels. The loans-to-gross-disposable-income ratio has begun the necessary deleverage since 2008 but, at 132% in the second quarter of 2013, still remains at relatively high levels 12.

Overall, the UK experienced high private debt levels in the pre-crisis period, which have been slowly unwinding since 2008<sup>13</sup>. Section 2 further analyses recent developments in the household and corporate sectors and, especially, in the small and medium enterprises segment.

<sup>11</sup> Whereas the level of the debt-to-GDP of UK NFCs in the second quarter of 2013 was 95%, the euro area ratio peaked slightly above 80% during the financial crisis.

<sup>&</sup>lt;sup>12</sup> By comparison, the euro area ratio remained below 100% throughout the heating-up period.

<sup>&</sup>lt;sup>13</sup> The private debt indicator of the Macroeconomic Imbalances Procedure (MIP) scoreboard stood at 179% in 2012 for the UK, a figure significantly above the 133% MIP threshold. The high levels of household debt in the UK have been identified as a macroeconomic imbalance following the 2012 and 2013 in-depth reviews of the UK economy under the MIP.

### 2. THE FINANCING OF THE UK PRIVATE SECTOR: HOUSEHOLDS AND CORPORATIONS

This section takes a closer look at the financing of the household and corporate sector. Special attention is devoted to the issue of credit availability to non-financial corporations (NFCs), and to the SME segment in particular, which has been especially hit by the post-crisis credit crunch.

The corporate sector has an important role to play at the current conjuncture as the need to unwind the relatively high levels of debt accumulated by households and general government, as well as persistently negative real household pay growth, mean that government and household consumption and investment levels may remain constrained in the future. The prospects for a sustained recovery in UK are thus significantly linked to the behaviour of investment and exports. Graph 11 evidences the comparatively large role that households have played in driving the increase in private debt, as well as the marked slowdown in household debt accumulation in recent years.

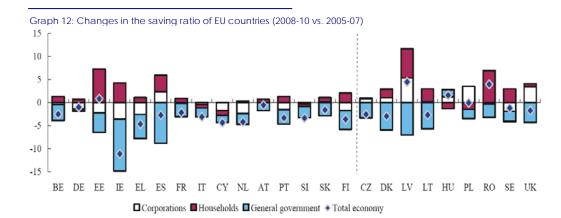


Graph 11: Contribution of lending to growth in UK private sector debt

Source: Bank of England, own calculations Note: private sector debt defined as household debt plus private NFC debt

As shown in Graph 12, the corporate sector was the principal positive contributor to the change in the saving ratio from pre-crisis (2005-07) levels in the UK. In fact, when compared with other EU countries, the UK's corporate sector offered one of the largest percentage contributions to savings during the crisis, on par with Poland and only behind Latvia, a country under a European Commission balance-of-payments assistance programme in 2009-2011. Contrastingly, the household sector had offered a significant negative contribution to the saving ratio and a positive one to the investment ratio in the decade to the crisis <sup>14</sup>. As such, corporations have, at present, more leeway than households to promote investment.

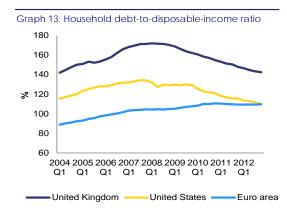
<sup>&</sup>lt;sup>14</sup> European Commission, 'Developments in and prospects for saving and investment trends across the European Union', *Spring Forecast 2011*, Part 1, chapter 3.



Source: Commission services

#### 2.1. THE HOUSEHOLD SECTOR

As mentioned at the end of Section 1, UK households underwent a deleveraging process from historically high debt-to-income ratios in the wake of the crisis. This ratio increased markedly in the UK during the heating up period when compared with the USA and the euro area, and has been adjusting in an equally pronounced manner in recent years as depicted in Graph 13.

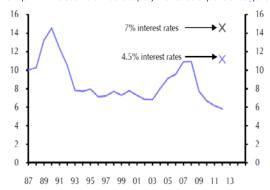


Source: European Central Bank, Office for National Statistics, Thomson Reuters and Bank of England calculations

Given the high nominal debt levels, if interest rates or unemployment were to rise, a significant number of households would possibly default on their mortgages. As Graph 14 suggests, if the official bank rate were to revert to historical averages 15, the interest burden of households would increase to levels that, in the early 1990s, were consistent with high numbers of defaults and repossessions.

<sup>&</sup>lt;sup>15</sup> It should be noted that the base rate is unlikely to rise in the absence of a sustained economy recovery, which in itself would provide support to household finances.

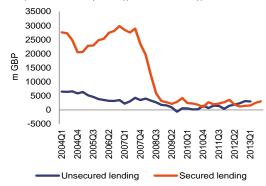
Graph 14: Household interest payments as a percentage of income



Source: Capital Economics, Thomson Datastream

Credit granted to households may be divided into credit secured on dwellings (i.e., mortgages) and unsecured credit (i.e., credit cards and other consumer credit). Graph 15 depicts the evolution of net lending in these two categories. As can be observed, UK households swiftly accumulated secured debt until 2008, when net flows came to a near halt, having remained checked ever since. A similar evolution, albeit on a much smaller scale, can be noted in the net flows of unsecured lending: the positive net credit inflows observed until 2008 mostly petered out in 2009-2011.

Graph 15: Quarterly changes in net lending to individuals



Source: Bank of England

Note: seasonally-adjusted data

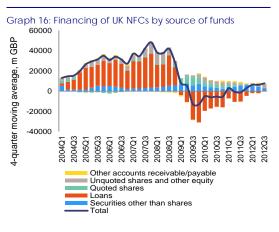
Overall, mortgage markets seem to have stabilised since the sub-prime crisis. The current challenges in the housing market appear to be concentrated on the supply side. In fact, constraints in the supply of housing drove a marked appreciation in house prices in the run-up to the crisis, and a concomitant rise in the level of mortgage loans taken by households. House prices have generally recovered since the peak of the crisis and remain at a high level, notwithstanding a weaker demand, suggesting that an increase in the supply of housing (which can be brought about, e.g., by further relaxing the strict UK planning laws and reforming the recurrent property taxation framework to encourage the release onto the market of underutilised property) remains a challenge in the stabilisation of the housing market <sup>16</sup>.

#### 2.2. THE CORPORATE SECTOR

As previously seen in Section 1 and in Graph 11, the pre-crisis years saw the UK non-financial companies increase their net borrowing while the ensuing years have been characterised by negative credit flows and some degree of deleveraging. Graph 16 breaks down the **change in liabilities of NFCs by source of funds**. Up until year-end 2008 loans were clearly the most important category, but have since contributed to shrink corporate balance sheets, especially in 2009 and 2010. Securities

<sup>&</sup>lt;sup>16</sup> For a discussion of the UK housing market and its links to household debt, see European Commission (2013b).

other than shares (i.e., bonds) appear to have reinforced their positive contribution from the second half of 2008 onwards, with bond issuance partly offsetting the post-crisis decrease in loans.



Source: ECB

The post-crisis period from late 2008 to 2010 saw equity, both quoted and unquoted, become the prime source of financing for corporations. On aggregate, equity has remained an important source of funding in post-crisis years, with quoted equity playing a larger role in 2009-10 when compared to the period running from 2004 through 2008. Unquoted equity has contributed somewhat more modestly when compared to the pre-crisis period, possible reflecting the difficulties of smaller businesses in accumulating earnings and raising own capital in an unfavourable economic environment.

The UK **financial services market** is a well-developed and sophisticated one. Table 2 summarises the UK's relative standing with respect to selected survey-based indicators on access to bank and non-bank finance.

Table 2

Selected indicators on access to financial services from the Global Competitiveness Report									
	Availability of financial services	Affordability of financial services	Financing through local equity market	Ease of access to loans	Venture capital availability				
Average EU 28	5.0	4.6	3.5	2.8	2.8				
Best performer EU 28	6.1	6.0	4.8	4.2	4.3				
Performance UK Rank UK (in EU 28)	6.1 1st	5.3 3rd	4.8 1st	2.7 15th	3.5 4th				

Source: The Global Competitiveness Report 2013-2014
Note: measured from 1 (worst) to 7 (best)

The selected indicators from the Global Competitiveness Report<sup>17</sup> suggests that the UK is a strong performer in areas such as venture capital and equity markets, and that it has a diversified and affordable financial services offer. However, in line with other evidence presented in this paper, the UK displays a much poorer performance in terms of ease of access to loans. In fact, the related survey indicator has deteriorated markedly in the UK from a value of 4.8 in 2007-2008 to its current value of 3.1. Even though most countries saw their access to loans indicator drop from pre-crisis levels, the UK's dip has been more pronounced than most.

The fact that the loans market appears to perform more poorly in comparative terms can hardly be attributed to the UK's legal framework. In fact, the World Bank's Doing Business indicators place the UK in top position with respect to "getting credit". This indicator assesses the strength of credit-related legal rights in the concerned countries, as well as the availability and ease of access to information on potential borrowers. It should be noted that the Doing Business indicator does not

<sup>17</sup> World Economic Forum (2012).

<sup>&</sup>lt;sup>18</sup> This indicator is based on executive survey responses to the following question: *How easy is it to obtain a bank loan in your country with only a good business plan and no collateral?* 

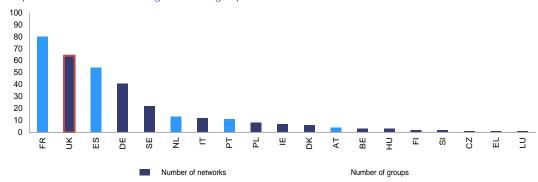
assess the actual functioning of the UK's credit market, but only selected legal and informational aspects of the underlying institutional framework.

Graphs 17 and 18 take a closer look at **venture capital financing** in EU countries that are members of the OECD. Confirming the findings of Table 2, the UK displays relatively high levels of venture capital investment and a well-developed business angel network.



Source: OECD



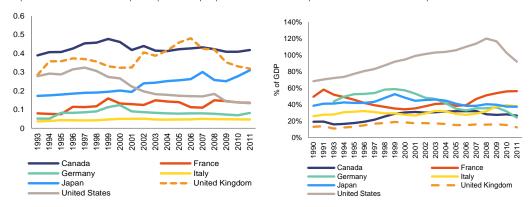


Source: OECD

Consistent with the previous evidence on the performance of UK equity markets, Graph 19 shows that the UK has a comparatively high number of listed companies relative to its population. However, the **private bond market** in the UK appears relatively undeveloped when compared with other G7 countries, as depicted in Chart 20. Compared with the United States, the leading G7 country, UK companies are less likely to be rated. In fact, only approximately one third of the FTSE350 companies possessed a public rating in 2009, whereas approximately 6 in 10 US companies figuring in the S&P 1500 had a public rating from at least one of the three leading international rating companies in the same period 19. Also, the percentage of issuing companies in the UK bond market was significantly lower when compared with the USA, even when controlling for company size (approximately 20 pp. less).

<sup>&</sup>lt;sup>19</sup> HM Treasury (2010).

Graph 19: Number of listed companies per 10 000 people in G7 countries Graph 20: Private bond market capitalisation in G7 countries



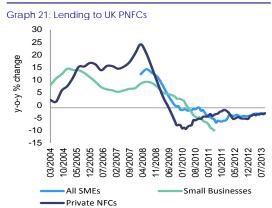
Source: World Bank's financial structure dataset 2013 Source: World Bank's financial structure dataset 2013 Note: the series for Canada were corrected for a break in 2002 for comparison purposes

The recent trend of negative credit flows and deleveraging observed in the UK corporate sector has displayed different dynamics according to **firm size**. As shown in Graph 21, private non-financial corporations (PNFCs) have seen, on aggregate, a marked drop in lending, with net credit flows remaining negative from 2009 onwards. Lending to smaller enterprises, although dropping with a lag, also followed the overall trend. The following section examines in more detail the SME segment.

#### 2.3. THE SME SEGMENT

Small and medium enterprises<sup>20</sup> in the United Kingdom represent more than 99% of the total number of firms, account for approximately half of the value added by the corporate sector and employ more than half of private sector workers.

This important segment may display specific lending and borrowing dynamics which are not fully captured when the corporate sector is considered aggregately. Graph 21 highlights the continued retraction in lending to SMEs in recent years. Graphs 22 and 23 show that not only have lending volumes decreased but pricing developments have also less than favourable for smaller companies. The survey evidence based on lenders' perceptions depicted in Graph 22 suggests that, in general, credit costs have evolved less favourably for medium or smaller firms than for large ones since the last quarter of 2009. Additionally, the hard data in Graph 23 shows an increase in SME interest rate spreads vis-à-vis the base rate when compared with November 2008, particularly for smaller businesses.

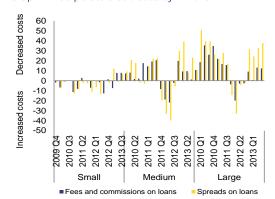


Source: Trends in Lending April 2012 (Bank of England, British Bankers' Association and Department for Business Innovation and Skills) for data up until February 2012; Bank of England for data from April 2012 onward.

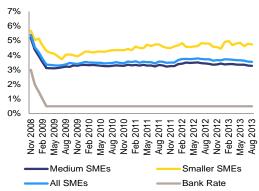
Note: the private NFC and SME series are subject to a break in March 2012 due to a new data collection by the BoE; the small businesses series was terminated in June 2011

<sup>&</sup>lt;sup>20</sup> Although there is no unique definition of SME, the concept is usually applied to independent companies with less than 250 employees.

Graph 22: Corporate credit costs by firm size



Graph 23: Medium interest rates charged to SMEs



Source: Bank of England's Credit Conditions Survey and Bank of England calculations Note: net percentage balances of lenders' responses; a negative value indicates increased lending costs over the preceding 3 months Source: Department for Business, Innovation and Skills, Note: interest rates are indicative medium rates on new SME variable-rate facilities

The relative opacity of the SME segment and the evidence suggesting that the financial crisis left a significant share of small companies credit constrained has motivated a number of access to finance surveys of this particular segment. The Annex presents a review and analysis of the available survey evidence from which a number of common conclusions may be drawn:

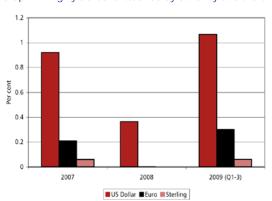
- The crisis years saw a marked increase in the rejection (and partial rejection) rates of credit applications and the UK appears to be one of the EU countries were the post-crisis credit crunch was more pronounced.
- Rejection rates in the post-crisis period have been particularly high, ranging from two in ten to over four in ten applications, depending on the survey considered.
- Rejection (and partial rejection) rates tend to be higher the smaller the size of the applying SME.
- Not all SMEs borrow and larger SMEs tend to apply more often for a loan.
- The financial crisis saw difficulties in access to finance being increasingly pointed out as the main reason preventing business success, although the most important obstacle was the poor economic situation and outlook.
- Financing of working capital and day-to-day funding has become more pressing since the outset of the crisis.
- A significant percentage of SMEs did not apply for financing because of discouragement or issues with the application process.
- The percentage of banks refusing to grant a loan because of insufficient collateral/security increased significantly in the UK, also with respect to European averages. Likewise, the percentage of banks not providing a reason for refusing a loan also increased significantly and is high in comparison with other EU countries.

Overall, notwithstanding the fact that SMEs face weaker financial conditions and have fewer investment opportunities, survey evidence suggests that a significant share of small businesses is prevented from accessing finance largely due to constraints in credit supply.

#### 2.4. SME ACCESS TO NON-BANK FINANCE

Large corporations are able to finance themselves directly with prospective investors by, e.g., issuing bonds and other securities in well-established capital markets. This provides large businesses with alternative sources to bank financing which impose competitive pressure on the banking channel and permit these companies to continue to have access to funding even when bank lending markets dry up.

Smaller companies do not generally have easy access to non-bank lending. This follows naturally from the fact that information on the creditworthiness of smaller companies, which are generally more opaque than large companies and do not publish accounts, is more easily gathered by banks than by capital markets due to the closer and on-going commercial relationship that retail banks establish with SMEs. This monitoring role of banks has long been recognised in the corporate finance literature as a justification for the very existence of financial intermediation<sup>21</sup>. Another reason why SMEs are put at a disadvantaged when accessing capital markets is the fact that securities issuance carries important fixed costs (e.g., legal and administrative costs and costs related to the assessment of creditworthiness), which may render small issues uneconomical. As it stands, high-yield bond issuance in the UK appears to be on the low side when compared with the US and euro area averages (Graph 24.) Additionally, fewer companies are credit rated in the UK than in the US<sup>22</sup>.



Graph 24: High yield bond issuance by currency as a share of local GDP

Source: Barclays Capital, PIMCO, Office for National Statistics, Bureau of Economic Analysis and Eurostat

Enhancing SME access to non-bank lending appears especially important at the current juncture and could work to fundamentally improve the way UK credit markets function in the long run. There are, however, clear challenges in promoting SME access to non-bank lending when banks themselves seem to play a crucial role in facilitating the flow of funding that runs from private savers and investors to small businesses. Innovative policies aimed at **promoting SME access to non-bank lending** can, nevertheless, be envisaged. The diagram in Graph 25 exemplifies one such policy. The approach formulated hereby seeks to leverage three key instruments that are available in the UK economy, namely:

- 1. The firm-specific knowledge possessed by UK retail banks,
- 2. The Basel II/III framework and
- 3. The quantitative easing programmes of the Bank of England.

The policy is based on an originate-to-distribute model whereby banks assess the risk and provide loans to UK SMEs that are then securitised and distributed to final investors.

-

<sup>&</sup>lt;sup>21</sup> See Diamond (1984) for the original exposition of the delegated monitoring theory.

<sup>&</sup>lt;sup>22</sup> See HM Treasury (2010).

Supervision Authority Central bank phases out of the market Supervisory Review of Internal Credit Risk Central Rating Bank Banks Other Securitisation Loans **SMEs** Rating Information Rating Rating Market infrastructure companies Origination Distribution

Graph 25: A market for SME debt securities

The main parts of the process can be described as follows:

- 1. Credit rating of UK SMEs. Credible credit ratings are crucial for the effective implementation of any initiative seeking to promote lending to SMEs. As discussed, banks are in a privileged position to assess the creditworthiness of small businesses. Therefore, the first phase of the originate-to-distribute process may rely on the credit ratings provided by retail banks. The accurateness of the rating process is guaranteed by the supervisory review carried out by the competent banking supervision authority. This supervisory process is, in fact, already in place in the context of the Basel II and III framework which requires that credit risk models be validated internally by the financial institution and reviewed by the supervision authority for all the institutions following the internal ratings-based approach. Therefore, if a rating process is deemed adequate for internal use, it should also arguably be adequate for external uses, and no sizeable additional costs should be incurred by the institution or the supervision authority. Credit ratings may also be provided by specialised rating companies. In any case, it is essential that the party responsible for the credit rating be clearly identified by market participants and that the associated reputational risk be clearly attributed, so as to keep proper incentives for an accurate risk assessment. Firmly anchoring credit decision on creditworthiness criteria is also crucial for preventing credit from following to less than viable companies<sup>23</sup>.
- 2. Loan origination and securitisation. The loans granted by the financial intermediary are then securitised and passed on to final investors. This allows banks to remove these loans from their balance sheets for the most part<sup>24</sup>, thereby aiding them to deleverage without hurting lending to the real economy and to meet capital ratios in transition to Basel III. A successful placement of the securitised loans requires that the underlying credit risk be assessed in a credible and accurate manner. In fact, collateralised debt obligations (CDO), which have been used in the past in this type of operations, fell into disrepute with the onset of the current financial crisis when it was revealed that the credit risk underlying the different CDO tranches had been underestimated.
- 3. Primary and secondary markets for SME debt securities. The quantitative easing program of the Bank of England can be used to kick-start the SME debt securities market from the demand side. The

<sup>&</sup>lt;sup>23</sup> For a discussion of the possible effects of monetary and credit easing policies in sustaining less-than-viable companies in the UK, see European Commission (2013b)

<sup>&</sup>lt;sup>24</sup> It may be desirable that the financial intermediaries retain a share of the loans and of the associated risk on their balance sheets to ensure the right incentives for risk assessment.

central bank <sup>25</sup> can undertake to purchase large amounts of SME securities, thereby fulfilling the dual purpose of channelling credit to small- and medium-sized companies and of developing the non-bank lending channel. The stimulus provided by the central bank injects liquidity and critical mass into the SME debt market and can encourage banks and market participants to incur in the fixed costs necessary for its proper functioning. These include, inter alia, the costs of bettering the SME rating methodology, of improving the available databases, of putting in place the necessary trading and settlement infrastructures, of developing proper harmonisation, standards and regulations and general administrative and legal costs. After the market has been established, the Bank of England could gradually phase out its participation in the market.

The amount of SME-backed securities is increasing in the UK, from approximately GBP 4.4 bn in the first quarter of 2010 to little over GBP 7 bn by mid-2013, according to data from the Association for Financial Markets in Europe <sup>26</sup>. This increase, however, is from a comparatively low base and by mid-2013 SME-backed securities in the UK still represented less than 2% of the total balance outstanding of collateralised securities, according to the same source (for comparison, SME securities represented more than 9% of the European total figure). The framework proposed above is arguably ambitious in its objective of fundamentally improving the SME debt securities market, but any policy aimed at structurally changing the non-bank lending channel for medium and small businesses is likely to be so. The UK, as a global leader in financial market development and innovation, is particularly well placed for considering and putting forth ground-breaking policies in the area of non-bank lending.

SME debt securitisation is not the only venue for improving access to non-bank funding. For example, peer-to-peer lending has been growing in the UK, although from an embryonic stage. According to the Bank of England (2012a), there were around GBP 150 m of outstanding loans across the largest UK peer-to-peer lenders in 2012. Likewise, crowdfunding for corporations has also been growing fast from low levels, and asset finance firms and invoice finance firms have been taking a greater role in lending to SMEs. Finally, the Alternative Investment Market (AIM) and the order book for retail bonds (OBR) of the London Stock Exchange (LSE) can also help in assisting smaller companies accessing funding. The AIM, launched in 1995, provides access to equity for growth companies while the OBR, launched in 2010, is an electronic trading platform for bonds which includes issues from smaller companies.

Overall, SMEs can benefit from a diversified funding landscape and the aforementioned initiatives, although still displaying a comparatively small scale, carry a significant potential to improve access to funding for SMEs. One obstacle confronting their expansion, however, is the aforementioned difficulties in accessing the creditworthiness or financial prospects of smaller companies, especially where specific expertise is lacking or investors hold only a small stake in the firms concern and have therefore only a small incentive in investing in financial monitoring, as in the case of crowdfunding or peer-to-peer initiatives.

<sup>6</sup> See, e.g., AFME (2013).

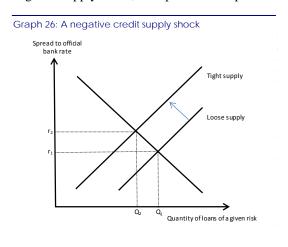
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<sup>&</sup>lt;sup>25</sup>Alternatively, the funds made available by quantitative easing can be managed by a separate entity allowing for the government, rather than the central bank, to take on the associated credit risk.

#### 3. CREDIT SUPPLY VERSUS CREDIT DEMAND SHOCKS

This section seeks to assess the relative importance of credit demand and supply shocks in explaining the noticeable credit retrenchment that has taken place in the UK economy since 2007. Whereas a contraction in the demand for credit may be economically rational and constitute an appropriate response of corporations and households to an adverse economic environment, a contraction in the supply of credit stemming from circumstantial or structural problems in the financial sector can slow down the UK's economic recovery and may lend itself to policy intervention aimed at alleviating these constraints.

The basic argument identifying a negative credit supply shock follows from simple microeconomic principles. As referred in Section 1, the quantity of loans observed in the market has decreased whereas its price, as measured by interest rate spreads<sup>27</sup>, has increased. This is consistent with a negative supply shock, as depicted in Graph 26.



The main issue with this argument, however, is that its comparative statics rely on a *ceteris paribus* assumption, which may not be verified (for example, because risk levels may have changed). As such, while keeping in mind the insight of Graph 26, this section considers a comprehensive set of demand- and supply-side explanations to account for the observed drop in the credit supplied to corporations, and to SMEs in particular.

From a **demand-side** perspective, possible explanatory factors for the observed retrenchment in credit are:

- Lower growth and investment opportunities;
- Higher perceived risk which decreases the net present value of investment projects;
- A wish to deleverage given the uncertain economic environment;
- Disparagement about the ability to access credit, which curtails demand.

From a **supply-side** perspective, possible drivers are:

<sup>&</sup>lt;sup>27</sup> Spreads are often taken as the price of credit, instead of base or quoted interest rates. From a supply point of view, changes in base or quoted rates may have an ambiguous relation with profitability, as changes in base rates increase the cost of funding and changes in quoted rates may be driven by changes in base rates. From a demand point of view, changes in quoted rates may be driven by changes in the base rate in connection with movements in the economic cycle. Focusing on spreads allows to abstract to some extent from cyclical effects and countervailing monetary policy reactions, and to unify supply and demand under a single price variable.

- Higher perceived risk and poorer collateral due to weaker corporate balance sheets;
- A wish to deleverage by banks due to a riskier business environment and the need to fulfil capital requirements in transition to Basel III;
- Higher funding costs and difficulties in obtaining funding of an adequate maturity;
- Lack of competition leading to a sub-optimal provision of credit.

Also from a supply-side perspective, **SME-specific** drivers may additionally include:

- Higher risk presented by smaller firms;
- Costs with administrative procedures and risk analysis, which can be proportionally more
  expensive in this segment due to the opacity of smaller firms and to the fact that they bring
  in less business:
- The SME segment being less competitive, as SMEs seek loans in markets with a regional
  geographical dimension, have less access to non-bank forms of finance and have lower
  bargaining power when compared with larger corporations negotiating bigger loans, for
  which banks have a higher incentive to compete.

This section analyses in turn the main aforementioned arguments based on qualitative evidence presented in the previous and current sections. Section 4 concludes the analysis by presenting the results of an econometric estimation of the impact of credit supply and demand shocks in recent years for the UK.

#### 3.1. DEMAND-SIDE FACTORS

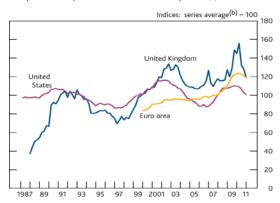
The crisis undoubtedly dampened expectations regarding future growth in the UK economy, which would tend to reduce demand for credit<sup>28</sup>. From the perspective of a standard accelerator model of investment, **lower growth prospects** decrease current investment levels and, therefore, credit demand by corporations. Also, from a capital budgeting perspective, lower expected returns and higher risk<sup>29</sup> lower the net present value of investment projects, possibly leading firms to place some investments on hold or discard them altogether.

There may also be a general **wish to deleverage** on the part of corporations, notably in order to lower their credit risk and probability of failure in a context of heightened uncertainty and, in some cases, of cumulated losses. As seen in Graph 16, it has indeed been the case that companies have resorted to equity as the preferred means of funding in recent years (although this may also reflect difficulties in access to credit). In fact, deleverage from historically-high debt-to-profits ratios took place since 2010, according to Graph 27.

<sup>&</sup>lt;sup>28</sup> While the growth rate of potential UK GDP implicit in the Commission forecast of autumn 2007 averaged 2.4% per year for the 2008-2012 period, the same figure estimated at the time of the 2013 spring forecast had dropped to 0.9%.

<sup>&</sup>lt;sup>29</sup> The effect of the current economic environment on capital budgeting discount rates is not clear-cut. On the one hand, a lower risk-free rate, as set by the Bank of England, lowers the discount rate. On the other hand, in times of financial and economic agitation, the market premium tends to rise. If, additionally, payoffs of new projects become more risky, the net effect on discount rates may not be straightforward.

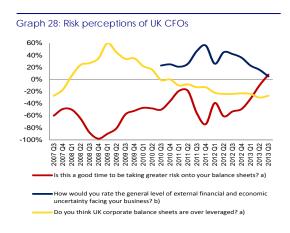
Graph 27: Corporate debt relative to profits (a)



Source: European Central Bank, Office for National Statistics, Thomson Reuters and Bank of England calculations.

- (a) defined as debt net of liquid assets, relative to a four-quarter moving sum of gross operating surplus
- (b) in-period averages have been normalised to 100

Data from surveys of Chief Financial Officers (CFO) sheds further light on the **risk perceptions** of large enterprises in recent years. As evidenced in Graph 28, the crisis years saw UK companies shying away from taking greater risk onto their balance sheets, with a majority of CFOs considering until the third quarter of 2010 that UK corporate balance sheets were over-leveraged. Until the beginning of 2013, a significant share of CFOs considered that external financial and economic uncertainty was high or very high, with the percentage soaring in Q3 2011 likely due to the uncertainties surrounding the resolution of the sovereign debt crisis in the euro area. However, given the marked improvement in outlook for the UK economy that took place over the course of 2013 as well as the gradual resolution of euro area uncertainties, risk perceptions eased significantly and by the third quarter of 2013 a thin majority of CFOs was again considering taking greater risk onto their balance sheets.



Source: Deloitte's CFO Survey

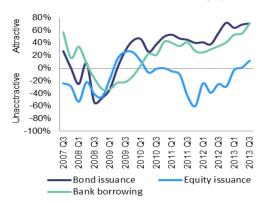
Note: The survey gathers the opinions of over 300 CFOs, mainly from FTSE 350 companies.

a) Net balance of positive answers

b) Percentage answering high or very high. Series only available from 2010 Q3

As can be seen from Graph 29 on **attractiveness of corporate funding by source**, equity issuance became more attractive during the first years of the crisis, but lost its appeal in 2011 and 2012, before recovering somewhat in 2013. After a period of relative unattractiveness, bank borrowing has again become an appealing source of finance for large UK firms since early 2010. However, contrary to the pre-crisis trend, bond issuance remained a more attractive source than bank borrowing from 2009 to 2013.

Graph 29: Attractiveness of corporate funding by source



Source: Deloitte's CFO Survey

Note: Net balances calculated as the percentage of respondents reporting that a source is 'attractive' minus the percentage reporting that it is 'unattractive'

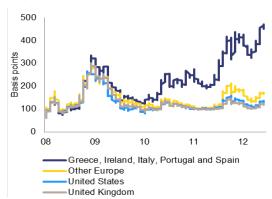
Overall, evidence suggests that, on aggregate, large corporations reduced their demand for credit in the wake of the financial crisis on a wish to deleverage and in response to a more uncertain economic environment. This happened to some extent independently of tighter credit conditions, although the latter likely played a role in the early years of the crisis, as evidenced, for example, by the low attractiveness of bank borrowing (namely vis-à-vis bond issuance) in 2009-2010.

As seen in Section 2, **SMEs face a different borrowing experience** from that of their larger counterparts. In fact, survey evidence referred in Section 2.3 and detailed in the Annex shows that a large number of SMEs became significantly credit-constrained during the crisis period, with a portion of them no longer seeking to obtain bank funding due to disparagement.

#### 3.2. SUPPLY-SIDE FACTORS

Turning now to the possible factors driving a decrease in the supply of credit in the economy, heightened **risk of UK corporations** can offer a natural justification for reluctance to lend. However, as the data on credit default swaps presented in Graph 30 suggest, the risk of large UK corporations has decreased and stabilised since a peak in year-end 2008 and appears to be slightly lower than that of large corporations of 'core' EU countries.

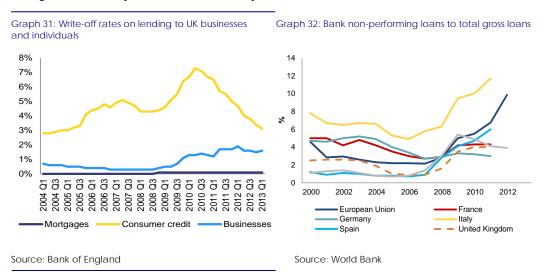
Graph 30: Cost of default protection for corporations



Source: Thomson Reuters, Datastream and Bank of England calculations
Note: calculated using the geometric mean of five-year CDS premia of non-financial corporations; other Europe consists
of Austria, Belgium, Finland, France, Germany and the Netherlands

Graph 31 presents a wider view of corporate risk by considering the write-off rates on lending to private non-financial corporations (NFCs). As expected, write-offs of NFCs rose somewhat after

2008 and appear to have since stabilised between 1% and 2%. As larger corporations tend to be more stable, this increase may have been driven to some extent by smaller enterprises. It is interesting to note that the risk appetite in the consumer credit segment has not been as affected (as can be seen, e.g., in Graph 15), notwithstanding the fact that it displays the highest write-off rates, a fact which can be understood in view of the high interest rates charged in this segment. Likewise, evidence from the European Commission/ECB survey analysed in the Annex shows that the financial conditions of borrowing SMEs worsened, on average, in the post-crisis period. From an international perspective, however, the rate of non-performing loans in the UK is seen to have remained relatively contained throughout the crisis period, as shown in Graph 32.



In conclusion, large corporations do not seem to present a significantly heightened credit risk, although SMEs are probably somewhat riskier than they were before 2008.

Regarding banks' need to deleverage and to reduce risk exposure, it is uncontroversial that the financial liberalisation trend of the 1990s and the years in the run-up to the crisis saw the banking sectors of many developed countries taking on greater risk. Graph 33 shows the evolution of the bank Z-score for the UK and G7 countries, a rough measure of the risk of bankruptcy. The Z-score can be interpreted as the number of standard deviations a bank's return on assets would have to drop from its mean value in order for bankruptcy to occur. Therefore, a lower value signals higher risk of failure. As can be observed, the UK banking sector appears to have significantly increased its risk level from 2003 to 2008, decreasing it thereafter.

Due to more demanding regulatory requirements and as a reaction to a riskier economic environment, UK banks have significantly strengthened their core tier 1 **capital ratio** since 2007, both through capital injections and by reducing their risk-weighted assets as shown in Chart 34.



Graph 33: Bank Z-score

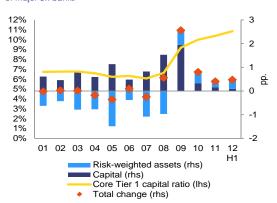
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Graph 34: Contributions to the changes in the core Tier 1 capital ratios of major UK banks



Source: World Bank's Financial Structure dataset 2013

United Kingdom

G7 average (exc. UK)

Source: Bank of England, published accounts and Bank of England calculations

Note: the Z-score is calculated as the sum of the return on assets (ROA) and the equity-to-assets ratio, divided by the standard deviation of the ROA; the G7 average is the simple average of the G7 countries' Z-score (excluding the UK).

The stability of the UK's banking system was attested by the European Banking Authority (EBA) in December 2011<sup>30</sup> in the context of the temporary bank recapitalisation exercise launched by the European Council. According to the EBA analysis, the UK was one of the European countries whose banks did not need to establish an additional capital buffer against sovereign debt exposures. In fact, the exposure of UK banks to the sovereign debt of countries under market stress was small (although exposure to their private-sector debt was higher).

More recently, the Financial Policy Committee (FPC) noted that current capitalisation levels, though nominally adequate, may not reflect a sufficiently prudent calculation of risk weights and provisions for expected losses<sup>31</sup>. While the aggregate core tier 1 capital ratio of the UK banking sector compares favourably with other countries (Graph 35) and credit default swap spreads have remained contained (Graph 36), there is evidence of bank forbearance in the post crisis-period, with respect to both corporate and household debt<sup>32</sup>. Overall, it does not seem that UK banks need to deleverage much further and whatever capital shortfalls may subsist, it should be possible to address them without hindering lending to the economy, as recommended by the FPC.

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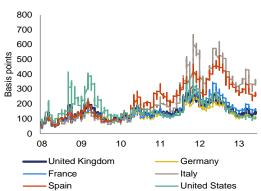
<sup>&</sup>lt;sup>30</sup> EBA Recommendation on the creation and supervisory oversight of temporary capital buffers to restore market confidence, 8 December 2011

<sup>8</sup> December 2011.
31 See the Financial Policy Committee's statement from its policy meeting of 19 March 2013.

<sup>&</sup>lt;sup>32</sup> See European Commission (2013b).

Graph 35: Tier 1 capital ratios 14% 12% 10% 8% 6% 4% 2% 0% United Kingdom **2008** 2009 2010 **2011 2012** 

Graph 36: Cost of default protection for banking systems



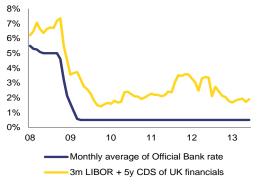
Source: SNL Financial, published accounts and Bank of England calculations

Source: SNL Financial, Datastream and Bank of England calculations

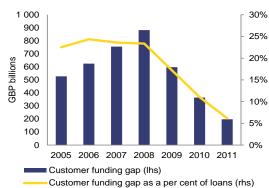
Note: average 5-year CDS premia from selected banks and financial institutions, weighted by assets  $\,$ 

As regards **banks' access to funding**, it may seem peculiar that UK banks could face difficulties in obtaining funding when the Bank of England's reference rate is at a very low 0.5%. However, central banking lending facilities typically provide credit with short maturities <sup>33</sup> and require the posting of collateral that is subject to haircuts. With onset of the crisis, monetary authorities have sought to provide liquidity to financial institutions and generally facilitate the flow of credit through of series of monetary policy measures, as discussed in Section 5. In particular, the Bank of England's Funding for Lending scheme introduced in mid-2012 has already contributed to significantly lower bank funding costs (Graph 37), as proxied by the sum of the 3-month LIBOR rate and the 5-year credit default swap rate of UK banks. Also the contraction in bank lending that took place since 2008 has meant that the customer funding gap (the difference between loans granted and deposits) has decreased significantly, as shown in Graph 38. Therefore, the need of UK banks to obtain wholesale funding has decreased as well.

Graph 37: Wholesale funding costs of UK banks



Graph 38: Major UK banks' customer funding gap



Source: Bank of England, SNL Financial, Thomson Reuters Datastream, BoE calculations and own calculations Source: published accounts and Bank of England calculations

<sup>&</sup>lt;sup>33</sup> E.g., the European Central Bank's main refinancing operations normally have a maturity of one week, whereas the long-term refinancing operations normally have a maturity of three months.

#### 3.3. COMPETITION IN THE UK BANKING INDUSTRY

Concentration in the UK banking system rose in the wake of the financial crisis due to the mergers and acquisitions that have since taken place, the failure of a number of small lenders, as well as due to the exit from the market of some foreign operators. As a result, in 2013 the UK banking industry was dominated by a few large players (HSBC, Royal Bank of Scotland, Lloyds, Barclays and, in some markets and to lesser extent, Santander), operating arguably under an oligopoly market structure. The UK banking industry is not alone in its move towards higher concentration, a trend which is also explained by higher international competition in some segments of the banking market. However, the crisis period saw an important government-led consolidation wave aimed at ensuring the solvency and stability of the UK banking system. Overall, as shown in Table 3, the UK banking system appears to be significantly concentrated by international standards.

Table 3

Bank concentration in G7 countries

	Canada	France	Germany	Italy	Japan	UK	US	Average
Bank concentration 2009 a)	0.59	0.52	0.77	0.46	0.65	0.88	0.37	0.61
Bank concentration 2006 a)	0.56	0.62	0.68	0.32	0.39	0.50	0.32	0.48
Banks per million persons b)	2.95	7.90	22.60	12.49	6.66	8.50	31.70	13.26

a) Assets of 3 largest banks as a share of assets of all commercial banks; source: World Bank's Financial Structure dataset 2010

b) Source: Bankscope, IMF, Bank of England calculations (Posen, 2009)

Concentration can have an impact on access to finance if it leads to decreased competition among credit providers. Under the structure-conduct-performance paradigm and in line with basic microeconomic principles normal strategic interactions among banks should lead to a provision of credit which decreases with the degree of concentration in the credit market<sup>34</sup>. Additionally, more concentrated markets increase the probability of firms engaging in cooperative behaviour, which would increase interest rates and lower the supply of credit. Finally, in less-than-competitive markets, firms will tend to pass on to final consumers only a fraction of the gains obtained from lower input costs<sup>35</sup>. Although industry consolidation can happen due to a market-based selection of the most efficient firms, the fact that in the case of the UK banking industry it was mainly brought about by financial stability reasons makes this development a cause for added concern from a competition point of view.

Even though the UK's investment banking industry is exposed to international competition, the retail banking industry retains an essentially national or regional dimension and has become significantly concentrated. Graph 39 shows the evolution of the concentration levels for a number of relevant retail banking markets, as measured by the Herfindahl-Hirschman Index (HHI)<sup>36</sup>.

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<sup>&</sup>lt;sup>34</sup> A standard result from, e.g., Cournot models or Bertrand models with differentiation. Additionally, the significant entry and exit costs in the banking industry mean that banking markets are not easily contestable which, taking also into account that there is some degree of differentiation and customers face switching costs, implies that concentration should be a significant driver of the degree of competition in the market.

<sup>&</sup>lt;sup>35</sup> As seen in Section 1 and Graph 5, UK banks have not fully passed on to borrowers the 2008 drop in the official bank rate, as spreads have increased from pre-crisis levels. However, there can be several possible reasons for this development including an increase in bank funding costs due to factors other than the base rate, or increased riskiness of borrowers.

<sup>&</sup>lt;sup>36</sup> The Herfindahl-Hirschman Index is calculated as the summation of the squared market shares of the (independent) firms operating in a given market. Higher values of the HHI denote therefore higher concentration levels. The HHI ranges from a maximum value of 10000 (or 1, depending on the chosen normalisation) for the case of single monopolist company, to a value of 0 for the theoretical case of an infinitude of firms, each operating in the market with a negligible share.

Graph 39: Concentration in retail banking as measured by the Herfindahl-Hirschman Index

Source: Competition Commission, TNS, Charterhouse, GfK FRS and Independent Banking Commission analysis.

As can be observed, concentration increased significantly in all the analysed markets and by year-end 2010 the HHI was above the reference level of 1000 in all 6 identified retail markets, denoting them as "concentrated markets" according to the Office of Fair Trading (OFT) and Competition Commission guidelines. Additionally, concentration in some markets such as "SME banking" and "main personal current accounts" (PCA) approached the HHI threshold of 2000, which would place them in the category of highly concentrated markets, according to the OFT. In fact, in 2011, the largest four banks accounted for 77% of the PCA market and 85% of the SME banking segment, according to the Independent Commission on Banking<sup>37</sup>. Concentration in the last two markets is particularly worrisome as, regarding "SME banking", smaller companies have little access to nonbank finance and are often constrained to seek finance from their regional bank branches, and, as regards PCA, it is a market that constitutes a gateway to other financial products and a retail bank that does not manage to secure a foothold on the PCA market may face significant difficulties in expanding and competing effectively in other markets. The high degree of concentration in the PCA market led the OFT to conduct a review of the market in 2012 where it concluded that concentration had increased since its last review in 2008 and that account switching rates remained low<sup>38</sup>.

The degree of competition in a given market is only partially captured by its degree of concentration. Other variables, such as the strength of barriers to entry, the level of transparency and the importance of switching costs also play an important role. However, the performance of the UK retail banking sector seems to be sub-optimal on account of all these variables, as summarised in a recent report by the Parliamentary Commission on Banking Standards (2013): "retail banking is characterised by high market concentration and substantial barriers to entry. The limited switching between providers can be seen as a symptom of this. There is insufficient market discipline on banks to reduce prices and improve service. This lack of competition, compounded by generally low levels of customer understanding of financial products and services, is an important reason why banks can sustain poor standards of conduct and do not seem to feel the same pressure to respond to reputational damage as would be the case in many other industries." Overall, measures aiming at promoting competition should help in facilitating access to finance. This can be achieved through a dual approach, both by increasing the number of competitors as well as by increasing competition between the different market players.

As previously mentioned, the crisis period saw a marked consolidation in the UK banking industry. A major player in this consolidation trend was the UK Government itself, who intervened in the market to help to bail out a number of financial institutions. As of 2013, Government held a controlling interest in the Royal Bank of Scotland (81%) and is a controlling shareholder of the Lloyds banking group, though it began reducing its stake from 39% to 33% in September 2013<sup>39</sup>. A small degree of

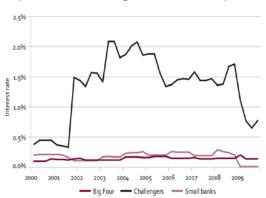
<sup>&</sup>lt;sup>37</sup> Independent Commission on Banking (2011).

<sup>&</sup>lt;sup>38</sup> Office of Fair Trading (2013a).

<sup>&</sup>lt;sup>39</sup> Before bailing out Lloyds, the Government had pushed through its takeover of HBOS, an ailing banking and insurance company.

de-consolidation has since taken place. In January 2012, Northern Rock, which had been bailed out and acquired by the Government, was sold to Virgin Money. However, the divestiture carries limited potential to improve competition in the short term as Northern Rock is a comparatively small bank.

The single most impactful measure to fundamentally change the current banking market structure is likely the one proposed by the Independent Commission on Banking (ICB)<sup>40</sup>, in line with EU state aid decisions, to the effect that the UK Government take action to create a new challenger bank, namely by means of a divestiture of Lloyds's assets. As the ICB pointed out, for a new bank to inject competitive pressure into the market, it should have sufficient scale and financial backbone to act as a challenger bank. In the past, only banks with a sufficiently high share in the PCA market seem to have been able to grow and act as challengers to the incumbents. In fact, the OFT analysis of the PCA market "observed effective competitor banks as occupying a market share of roughly 5 to 14 per cent (...). This range has been observed in the context of the PCA market but there is good reason to believe that a similar market share range (albeit slightly lower) might apply to the market for banking services to the smallest SMEs, given that their demands will, to a certain degree, not differ radically from PCA customers"<sup>41</sup>. Graph 40 illustrates how banks identified as "challengers" have exerted much greater competitive pressure than smaller banks in the past, namely by quoting higher interest rates on PCA deposits. Also, in order for the new bank to be financially stable, its loans-todeposit ratio should not be higher than that of the incumbent banks, otherwise the entrant might behave less aggressively by deleveraging and contracting its loan book. Finally, the creation of a new challenger bank should acknowledge the geographical dimension of the relevant banking markets. As pointed out by the Treasury Select Committee in an investigation into bank competition, "competition and choice may improve in certain areas whilst other areas will benefit much less from new entry into the market. This is an issue of particular importance given evidence we have received that concentration levels and so-called 'regional monopolies' are higher in areas like Scotland and Northern Ireland or certain English regions than in other parts of the country"42.



Graph 40: Estimated average interest rates on deposits for standard personal current accounts

Source: Individual bank data, GfK FRS, Defaqto and Independent Banking Commission analysis.

The divestitures of banking assets belonging to Lloyds and the Royal Bank of Scotland (RBS) are bound to happen according to EU state aid rules. In September 2013 a preliminary steps towards Lloyds' divestiture was concluded when it re-launched 631 branches under a separate TSB brand and structure, which it expects to sell in the future. Progress towards the RBS divestiture was slow to materialise, with the plans to sell part of its branches to Santander collapsing in 2012. However, in September 2013 RBS announced it was selling 314 branches to a consortium backed by the Church of England. Overall, the magnitude of the divestitures involved may fall short of the required to ensure that the resulting banks inject a marked degree of competitive pressure. As noted by the OFT<sup>43</sup>, "in the past, effective competitor banks were able to compete successfully (that is, to win additional business and grow market shares) with (...) a branch network of around 700 branches or

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<sup>&</sup>lt;sup>40</sup> Independent Commission on Banking (2011).

<sup>&</sup>lt;sup>41</sup> Office of Fair Trading (2013b).

 $<sup>^{42}\,</sup> Treasury\, Committee, \textit{Ninth Report - Competition and choice in retail banking}, 24^{th}\, March\, 2011.$ 

<sup>&</sup>lt;sup>43</sup> Office of Fair Trading (2013b).

*more*"; similarly, the ICB (2011) advise a share of the PCA market of at least 6% for a new bank to act as a challenger, which is higher than what will result from the Lloyds' divestiture, according to the OFT (2013b).

The other aspect of the aforementioned dual approach is based on **improving competition under the current market structure**, namely by lowering switching costs, increasing transparency for consumers and by decreasing barriers to entry. In fact, as mentioned by the previously-mentioned Treasury Committee "a focus on tackling concentration without tackling these issues would do little to promote a more competitive market. New and expanding entrants will only succeed in growing in key markets, such as the current account and SME markets, if impediments to their expansion—primarily problems with switching and the lack of transparency and comparability—are tackled".

As regards **barriers to entry**, the OFT carried out an investigation in 2010<sup>44</sup> that concluded that while regulatory requirements and access to the necessary inputs were not overly important sources of barriers to entry, entrants still faced difficulties in expanding their market shares due to switching costs, the high level of brand loyalty and the importance of having a sufficiently large local branch network. Capital requirements may also have disproportionally penalised small banks in the past due to their concentration on fewer clients and business areas and their usage of the less sophisticated "standard" approach for calculating capital requirements. This is expected to change to some extent in the future, as the Basel III framework introduces added capital charges for large, systemically important banks.

As regards transparency and switching costs, the ICB proposed a number of positive initiatives in this regard that the UK Government has welcomed in principle. These included the introduction of a seamless redirection service for PCAs and SME accounts and the requirement for banks to provide customers with information on interest foregone in current account statements. In September 2013, a 7-day account redirection service was introduced, with 89,000 switches taking place during the first month of operation of the service, a figure which is moderately higher than the 80,000 switches that had taken place during the comparable 2012 period<sup>45</sup>. Facilitating the process of bank account switching appears well justified. According to survey data 46, only 6% of customers had switched their PCA in the year of 2011, nearly one quarter of the switching customers experienced problems with the process and one tenth of the customers said they would like to switch but feared the process would be too risky or would take too long. The observed levels of switching are not likely due to very high levels of customer satisfaction. Another survey 47 found that UK banks had the worst customer relationships across the surveyed countries. Switching costs may be particularly relevant for SMEs, who depend more on bank loans and may have an incentive to establish long-term relationships in order to build up reputation and reduce the monitoring costs of their lenders. The UK authorities have left open the possibility of introducing full account portability in the future after assessing its potential costs and benefits, a measure which has greater potential for reducing switching costs and promoting competition than the current account redirection service <sup>48</sup>.

<sup>&</sup>lt;sup>44</sup> Office of Fair Trading, Review of barriers to entry, expansion and exit in retail banking, November 2010.

<sup>&</sup>lt;sup>45</sup> Payments Council (2013).

<sup>&</sup>lt;sup>46</sup> Accenture survey, January 2012.

<sup>&</sup>lt;sup>47</sup> Forrester, European Bank Customer Advocacy Rankings, January 2012.

<sup>&</sup>lt;sup>48</sup> The Parliamentary Commission on Banking Standards (2013) has also defended an independent assessment of the introduction of full account portability, noting their concerns with respect to the fact that "the largest banks object very strongly to bank account portability. While there is some evidence that individual banks may have done some work on the costs of account portability, this does not appear to have been accompanied by a comprehensive consideration of all the benefits of portability. This gives the impression that their objections are instinctive and, arguably, that they are opposed to any reform that could encourage competition."

## 4. THE RELATIVE ROLE OF SUPPLY AND DEMAND: EVIDENCE FROM A STRUCTURAL ECONOMETRIC MODEL

The fact that both supply and demand factors have been at play in driving the observed credit crunch makes it more difficult to assess their relative importance. The few econometric analyses of the UK experience during the crisis period have generally ascribed a significant role to contractions in credit supply, while acknowledging the possible role of other shocks, including shocks to demand. In this vein, Bell and Young (2010) present the results from a structural vector autoregression (SVAR) model including standard macroeconomic and financial variables, where investment-grade corporate bond spreads are taken as a proxy for credit spreads. They find that real M4 lending growth was negatively affected from 2008 through the first half of 2010 by negative credit supply shocks, even as other shocks appear to have contributed positively in 2009. Although caution is given as to the uncertainty underlying the estimates, the authors point out that the results for 2009 and the first half of 2010 indicating a negative credit shock appear to be relatively robust, as the entire range of reasonable values for the shocks is negative. Armstrong et al (2013) use micro data from SME access to finance surveys 49 to estimate a probit model of loan application success and find that, controlling for changes in firms' characteristics and risk profiles, rejection rates for SMEs increased significantly in 2008-09 and, especially, in 2010-12. Interestingly, the authors find that it was low and average-risk SMEs that appeared to have been most affected by the crisis, while rejection rates for high-risk firms were broadly unchanged. The authors also find a similar evolution for interest rate margins, which rose significantly for SMES after 2008, even when controlling for heightened risk. These results are in line with those of an earlier study by Fraser (2012) based likewise on an econometric analysis of SME survey evidence.

The present section proposes and estimates a structural macroeconomic model for assessing shocks in the demand and supply of loans to UK non-financial corporations (NFCs) in recent years. The underlying SVAR model is kept parsimonious to reduce the number of estimated coefficients and is of the form

$$B_{0}\begin{bmatrix}\ln(PMI)_{t}\\\ln(HICP)_{t}\\\ln(loans)_{t}\\spread_{t}\end{bmatrix} = C + B_{1}\begin{bmatrix}\ln(PMI)_{t-1}\\\ln(HICP)_{t-1}\\\ln(loans)_{t-1}\\spread_{t-1}\end{bmatrix} + \begin{bmatrix}\varepsilon_{AS_{t}}\\\varepsilon_{AD_{t}}\\\varepsilon_{LS_{t}}\\\varepsilon_{LS_{t}}\\\varepsilon_{LD_{t}}\end{bmatrix}.$$

The first equation of the model captures the "aggregate supply" (AS) dynamics in the economy, where activity levels are measured by the composite PMI, a close tracker of GDP available at monthly frequency. Likewise, the second equation captures "aggregate demand" (AD) dynamics. The third and fourth equations describe NFC loan supply (LS) and demand (LD), respectively, where the interest rate spread for NFCs is measured with respect to the Bank of England's base rate. The shocks corresponding to the 4 structural equations are denoted by  $\epsilon$  and collected in the error vector.

Due to identification problems arising from simultaneity in the equations, the SVAR model is estimated as a reduced-form VAR(1) model. The data sources used are Markit for the composite PMI, Eurostat for the HICP and the Bank of England for NFC lending and spreads. The lending series is taken as monetary financial institutions' sterling net lending to private NFCs (excluding securitisations) and the spread is calculated as the difference between the sterling weighted average interest rate for new advances on a floating rate to private NFCs and the Bank of England base rate. The sample runs from January 2004<sup>50</sup> to September 2013 and the lending and interest rate series were corrected for a break in August 2005 and January 2011, respectively.

The reduced-form VAR is estimated by OLS and the structural relations are recovered through an identification strategy whereby sign restrictions are imposed on the parameter values. The intuition for this approach can be seen in Graph 26. As depicted in the chart, a loan supply shock will shift the

<sup>&</sup>lt;sup>49</sup> The authors rely, in particular, on the SME Finance Monitor presented in section A.2 of the Annex for 2011 and 2012.

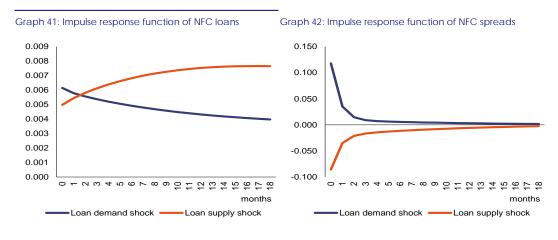
<sup>&</sup>lt;sup>50</sup> This is the year when the Bank of England began collecting the average NFC interest rates series.

supply curve, decreasing total loan amounts and increasing spreads in the case of a negative shock, or leading to more loans being offered at a lower spread, in the case of a positive shock. Differently, a loan demand shock pushes loan quantities and prices in the same direction (upwards in the case of a positive shock and downwards in the case of a contraction in demand). For a full identification, and in line with macroeconomic theory, (positive) AS shocks are assumed to increase economic activity and decrease the price level while (positive) AD shocks increase both activity and the price level. In all cases, we impose that the sign of the effects persists for at least 6 months. The identification strategy is agnostic with respect to the effects of the four shocks on the other remaining variables.

In order to obtain the structural shocks and impulse response functions, the reduced-form shocks from the VAR estimation are linearly-recombined by multiplying them by the triangular matrix resulting from the Cholesky decomposition of their covariance, which ensures that the resulting "base set" of shocks are linearly independent<sup>51</sup>.

The aforementioned procedure produces one candidate model that can be checked against the imposed sign restrictions. In order to produce several candidate models producing different impulse response functions, we draw several times from a random normal matrix and obtain a corresponding number of orthogonal matrices Q via QR decompositions. The Q matrices are then multiplied by the base set of shocks to arrive at different candidate models. The draws are continued until more than 1000 models satisfying the sign restrictions have been found. We consider the medium of the impulse responses across the models as a reasonable representation of the effect of the structural shocks on our variables and, as in Fry and Pagan (2010), we select the best-matching medium-target (MT) model as the one that minimizes the quadratic differences with respect to the medium impulse responses across the different variables.

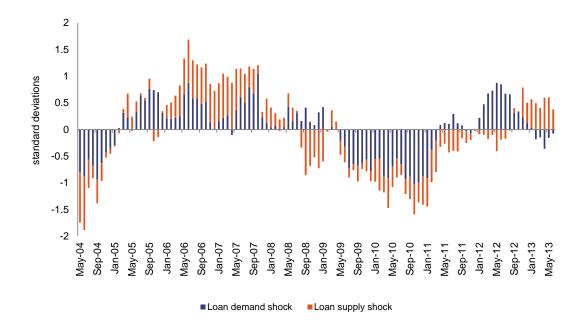
Graphs 41 and 42 plot the impulse response functions of loans and spreads (as obtained from the MT model) to positive shocks in credit supply and demand. Both shocks contribute to increase loan amounts, with the increase over the first 6 months being a direct consequence of the imposed sign restrictions. The effects of credit supply and demand shocks on interest rates are fairly symmetrical and tend to dissipate over time.



Graph 43 shows the estimated structural credit supply and demand shocks for the UK from 2004 to 2013.

<sup>&</sup>lt;sup>51</sup> As per the modelling assumptions, the structural shocks must be independent of each other.

Graph 43: Supply and demand shocks to loans to UK NFCs



Note: the volatility inherent in the shock series was smoothed through (centred) moving averages over 6 months; each shock is measured in units of its standard deviation

The profile of the shocks suggests a period of financial exuberance from 2005 to 2007 characterized by positive shocks in both credit supply and demand. The positive credit supply and demand shocks slow down in the second half of 2007, a year which saw the collapse of Northern Rock (September 2007) and during which the US subprime crisis became increasingly evident. Credit supply is forcibly hit in the second half of 2008 following the bankruptcy of Lehman Brothers (September 2008), which inaugurates a long period characterized by large negative supply and demand shocks that would last until the second half of 2011. This was a time when the euro area crisis intensified and when concentration in the UK banking industry rose markedly (see Graph 39 for the sharp increase in 2009).

Starting in 2011, credit demand begins to register positive shocks, which intensify in 2012. Credit supply, however, does not follow suit and only after the summer of 2012 do positive shocks start to emerge, following the introduction of the Funding for Lending Scheme by the Bank of England, the announcement of the outright monetary transactions program by the ECB and the gradual resolution of tensions in the euro area. Positive supply shocks continued into 2013, possibly aided by a brighter macroeconomic outlook for the UK that began to materialise in the second quarter of the year.

The evidence from the econometric model suggests that both credit demand and supply played an important role in driving the observed contraction in credit. The negative contributions from credit supply, however, appear to have started earlier and to have lasted longer, with credit demand starting to normalise already in 2011. The identified negative credit shocks can be due to several reasons including, as discussed in 3.2 and 3.3, deteriorating bank funding conditions, lessened competition, balance sheet problems and higher perceived risk. Overall, the econometric evidence appears to corroborate the analysis in Section 3.

#### 5. MEASURES TAKEN BY THE UK AUTHORITIES

The UK authorities have devised and implemented a number of measures to restore lending to the economy. Among these are the several monetary policy measures which, although not designed exclusively to restore the flow of credit can, nevertheless, help to improve it. As seen in Section 1, the sharp decrease in reference rates was among the first measures taken to tackle the crisis. As looser monetary policies brought reference interest rates close to zero thereby depleting the capacity of standard monetary policy to deliver further stimulus, central banks such as the ECB, the Federal Reserve and the Bank of England have engaged in unorthodox monetary policy measures such as quantitative easing, soft commitments to keep interest rates low in the future, or explicit "forward guidance". In particular, the Bank of England began its quantitative easing programme in March 2009 and ended its third round of asset purchases in 2012, by which time a total of GBP 375 bn had been injected into the economy. Other unorthodox measures introduced by the Bank of England include the activation of the extended collateral term repo facility in 2012 whereby the range of collateral accepted by the Bank of England in refinancing operations was temporarily relaxed, the introduction of the Funding for Lending Scheme (FLS) in the summer of 2012 and the adoption of forward guidance in August 2013 whereby a future increase in the official bank rate was made dependent on a the unemployment rate dropping below 7% (allowing for certain 'knockouts' related to inflation and financial stability conditions). Likewise, unorthodox policies have also been implemented by the ECB, including the temporary extension of the term of refinancing operations from weeks and months to several years, alleviating the associated collateral requirements and the introduction of the outright monetary transactions programme. Even though unorthodox monetary policies have not sufficed to restore lending in the economy, they may facilitate the flow of credit, namely by reducing bank funding costs and aligning the maturity of funding with banks' needs. As it stands, the Bank of England still disposes of monetary policy instruments to further stimulate lending. Such a policy mix may include easing liquidity provisions in the vein of the ECB's aforementioned initiatives, further quantitative easing, further cuts in the current 0.5% reference rate, setting a negative interest rate on (excess) reserve deposits held by banks, temporarily expanding the collateral base for refinancing operations or applying lower haircuts.

Besides the aforementioned monetary policy measures, the UK authorities have also devised specific initiatives to improve access to finance for corporations. Table 4 describes the main initiatives that are currently underway and provides a short assessment of their implementation<sup>52</sup>.

Table 4: Main initiatives to improve corporate access to finance

Measure Funding for Lending Scheme (FLS): Under the Scheme, launched in July 2012, banks and building societies that increase lending to UK households and businesses are able to borrow from the Bank of England against eligible collateral at a lower cost than institutions that scale back on lending. Participating banks and building societies are able to borrow up to 5% of their stock of existing lending to the real economy, plus any net expansion of lending during a reference period. The Scheme was extended in April 2013 to incentivise lending to SMEs by offering banks the equivalent of ten times their net lending to SMEs in FLS funding (down to five times in 2014). At the same time,

According to November 2013 data, 42 institutions representing more than 80% of the lending stock to households and non-financial corporations had signed up for the scheme. By the end of the third quarter of 2013, roughly one year after the introduction of the FLS, the cumulative net lending by participating institutions remained negative, although the Scheme appears to have been effective in reducing bank funding costs (see Chart 37). During its first year of operation, the Scheme was more successful in boosting lending and reducing the cost of credit for households and large businesses than in supporting lending to SMEs.

**Implementation** 53

<sup>&</sup>lt;sup>52</sup> Although the FLS can be appropriately included under the heading of monetary policy measures, it is included in the table as it was designed specifically to promote bank lending.

53 Implementation data for some of the initiatives is partly derived from National Audit Office (2013).

the Scheme was prolonged by one year, to January 2015.

**Business Bank:** A new government-backed business bank is being created to diversify and promote the provision of financing to SMEs in collaboration with existing financial institutions. The bank is expected to eventually support up to GBP 10 bn of lending to SMEs and to bring existing access to finance initiatives under its tutelage.

The government has committed GBP 1 bn to be invested in the bank. Investments will phased in and the bank should be fully operational by the end of 2014. Overall, the business bank can help plug the gaps in SME access to finance and contribute to increase competition in the banking industry. It can also help in consolidating under a single institution the numerous government initiatives promoting access to finance.

Enterprise Finance Guarantee (EFG): The EFG provides banks with a government guarantee on loans to SMEs that lack the security or track record for a commercial loan. The guarantee is set at 75% of the outstanding balance of a loan while default payments are capped at 15% of the total lending amount.

The EFG allows for up to GBP 2 bn of guaranteed lending between 2011-12 and 2014-15. By the end of 2012-13, approximately 21,000 companies had benefitted from the scheme, with the utilisation rate averaging approximately 60% of the total guaranteed lending capacity.

**Start-up loans**: The scheme provides loans and mentoring to young entrepreneurs of start-up companies that would have difficulties obtaining a commercial loan due to a lack of track record or assets.

GBP 120 m of funding has been committed from 2012-13 to 2014-15, with approximately 7,500 new business having benefitted from the scheme by September 2013.

Business Finance Partnership (BFP): In the BFP the government co-invests alongside private sector participants in order to increase the provision of non-bank funding to SMEs. The BFP is composed of two strands, one investing in funds that lend to medium-sized businesses and the other investing in non-bank forms of lending for small businesses.

The small business strand of the BFP has GBP 100 m of available funding from 2012-13 to 2014-15. By the end of July 2013, approximately 880 loans had been granted representing a total of GBP 50 m in lending, of which GBP 12.5 had been provided by the government. The medium-sized business strand had committed GBP 863 m to help create six new lending funds as of September 2013. Of this amount, GBP 159 had been drawn down which, coupled with private sector contributions, enabled GBP 827 m of lending to 18 businesses over the first 6 months of operation of the BFP<sup>54</sup>.

Enterprise Capital Funds (ECF): The ECF are risk capital funds co-invested by the government and the private sector that provide equity finance to early stage companies.

In July 2013 there were 12 funds investing approximately GBP 400 m in 149 fast-growing businesses, with the government providing approximately 60% of the total investment amount.

**Breedon report**<sup>55</sup>: The government commissioned the Breedon report to inquire into alternatives to bank funding for businesses.

The report was published in March 2012 identifying a business funding gap of up to GBP 191 bn over the following 5 years and presenting a series of recommendations to promote alternative sources of funding, which were generally welcomed by the Government. Non-banking financing via crowdfunding and peer-to-peer lending has been growing in the UK, although from a small base.

The previous table is non-exhaustive and a number of other initiatives have also been implemented by the authorities, often in collaboration with private sector investors. These include i) the Business Growth Fund proving equity finance to high growth potential SMEs, ii) the Business Angel Co-Investment Fund supporting business angel investments in early-stage, high-growth SMEs, iii) the UK Innovation Investment Fund investing in technology-based businesses and iv) a number of

55 Breedon Taskforce (2012).

 $<sup>^{54}\,</sup>$  Data for the medium-sized business strand taken from HM Treasury (2013).

investment tax reliefs, namely via the Enterprise Investment Scheme, the Seed Enterprise Investment Scheme and the Venture Capital Trusts. Devolved administrations have also implemented their own initiatives. There are also policy measures that have since been discontinued or superseded, notably the National Loan Guarantee Scheme (NLGS) and Project Merlin. The NLGS, introduced in March 2012, sought to help firms access cheaper finance by reducing the cost of bank loans to businesses with turnover of up to £250 million by 1 percentage point through government guarantees on unsecured borrowing by banks. The introduction of the FLS largely superseded the NLGS. Finally, Project Merlin was an agreement finalised in February 2011 between the government and the major UK banks setting gross lending targets for 2011. Although the gross lending targets were broadly met by the participating banks, net corporate lending flows remained negative in 2011, partly due to specification issues with the targets themselves (e.g., the lending measure was set in gross rather than net terms and included undrawn amounts and lending to public corporations).

Overall, the several government initiatives, though generally positive, were not game-changers and have not sufficed to reverse the negative lending trends described in the previous sections. Given the myriad of existing initiatives and the partial take-up witnessed in some cases (e.g., Enterprise Finance Guarantee) consolidating them under one institution such as the Business Bank would likely grant them more visibility and make them easier to navigate, especially by SMEs<sup>56</sup>. As regards the FLS, it did not manage to move corporate net lending into positive territory over its first year of operation, although it probably prevented lending from dropping faster. The reduction in net lending was driven by the three largest banks participating in the FLS (Lloyds, Royal Bank of Scotland and Santander) for which the Bank of England identified capital shortfalls in 2013<sup>57</sup>, suggesting that the weakness in lending is linked to the on-going balance sheet strengthening in these institutions. Also, given that mortgage lending products are more standardised and offer higher security due to the associated real estate collateral, it is likely that financial institutions have prioritised the FLS funds to support lending in this segment. It is important that credit-easing measures aimed at the household sector do not contribute to further reallocate credit away from the corporate sector and to crowd out productive investment. This is a potential risk of the Help to Buy scheme introduced in April 2013 which entails government-backed equity loans and mortgage guarantees to support housing demand and stimulate the housing market.

<sup>&</sup>lt;sup>56</sup> As mentioned in BDRC Continental (2013b), "Whilst awareness of the Funding for Lending Scheme has also increased, knowledge of other schemes available to help and support SMEs to access finance remained flat, which may mean that some SMEs are not as well equipped as they could be to take advantage of future opportunities."

<sup>57</sup> See Section 3.2 and footnote 31.

# 6. CONCLUSIONS

The economic and financial crisis severely affected the flow of credit in the UK. As seen in Section 1, while the pre-crisis period was characterized by dynamic and continued increases in the loans-to-GDP ratio, 2008 marked a reversion in this trend. In fact, notwithstanding unprecedented monetary activism exemplified by the sharp drop in base rates and the introduction of unconventional policies, a breakdown in the loans-to-money transformation ratio has meant a marked retrenchment in loan amounts in the post-crisis period. The UK experience is not unlike the euro area's, and several parallelisms can be drawn. However the pre-2008 financial exuberance and the subsequent backlash appear to have been significantly more pronounced in the UK, a fact which is confirmed both by an analysis of the evolution of macro-financial variables and ratios in the two currency areas, as well as by comparative survey evidence on ease of access loans.

The credit retrenchment that took place in the UK since 2008 can be partially explained by an economically-rational intent of corporations and households to deleverage in face of unfavourable growth prospects and a more uncertain economic environment. On the other hand, insufficiencies in credit supply have also meant that some businesses, notably SMEs, were prevented from accessing finance even when wishing to do so.

The deleveraging trend of the household sector appears well justified given the very high level of debt, notably mortgage debt, which UK households accumulated in the run-up to the crisis (Section 2.1). However, a similar deleveraging trend in the corporate sector can hinder the recovery prospects of the UK economy as, at the current juncture, non-financial corporations represent the institutional sector with the greatest leeway to take on more financing and to drive growth through investment and exports (Section 2.2). This makes it particularly important that the viable corporations that are seeking finance be able to obtain it. The combined results of a number of different surveys show, however, that loan rejection rates increased markedly in the post-crisis period for small and medium companies, something which does not appear entirely justified on the basis of changes in the characteristics of the loan applicants (Section 2.3 and Annex).

The crisis years saw the banking sector become more reluctant in lending to corporations that do not offer sufficient security and collateral. As discussed in Section 3, while this increased reluctance can be partly understood as a reaction to a riskier environment, new regulatory requirements and the need to boost capital ratios, forbearance and the comparatively low degree of competition in the UK banking sector may also mean that credit is not being allocated in a fully efficient manner.

Both a qualitative and quantitative analysis of credit supply and demand factors suggest that the observed retrenchment in credit can be understood as a combination of negative shocks to demand and supply. In particular, econometric evidence from a SVAR model presented in Section 4 suggests that the UK corporate credit market experienced a bout of sustained negative supply shocks starting at around the time of the collapse of the Lehman Brothers bank in September 2008 and which lasted until mid-2012 (Graph 43). Demand shocks were also mostly negative throughout this period, but turned positive already in 2011. The second half of 2012 and 2013 witnessed the re-emergence of positive supply shocks, possibly on account of further unorthodox measures, such as the Funding for Lending Scheme and the outright monetary transactions programme, as well as an improvement in economic outlook in the euro area and in the UK.

Notwithstanding some recent positive signs, the looser monetary policy followed by the Bank of England throughout the crisis period (Section 5) has not been sufficient in itself to re-establish lending in the economy, in particular for SMEs, who continued to experience negative credit flows and increased spreads in 2013. While monetary authorities still dispose of a mix of non-standard policies which may be implemented or stepped up to ease funding and liquidity restrictions faced by banks other, more structural, measures should continue to be considered and implemented by the authorities.

As discussed in Section 3.3, the UK banking industry experienced a government-led consolidation wave in the wake of the 2008 financial crisis which reinforced its oligopolistic structure and made it significantly concentrated by international standards. Initiatives aimed to increase banking competition should have a positive effect on access to finance and the UK authorities have so far considered or implemented a number of measures improving market structure and functioning. The creation of new challenger banks by means of divestitures of assets belonging to government-intervened banks, a key measure proposed by the Independent Commission on Banking and required by EU state aid decisions, is underway. However, in order to inject significant competitive pressure into the market it is crucial that the resulting new banks be financially balanced, operationally sound and dispose of sufficient assets and size. Also, the introduction of full bank account portability would likely have a significant impact in lowering customer switching costs. In general, improving bank competition seems particularly pertinent for the SME segment, which has fewer alternatives of non-bank financing and is otherwise inherently less competitive.

The UK authorities have currently in place several initiatives aiming at promoting financing to the economy, as reviewed in Section 5. While these initiatives have been generally positive and have helped to alleviate the negative effects of the post-crisis credit crunch, they have not been successful in reversing the negative financing trends. Also, some recent initiatives may result in rechanneling funding to mortgages rather to corporations and to SMEs. Finally, the myriad of existing initiatives makes them harder to navigate by firms and consolidating them under one institution, such as the future Business Bank, appears to be desirable in order to increase their visibility and take-up.

While large firms can finance themselves directly in wholesale markets and profit from the well-developed financial services offer of the UK (Section 2.2), SMEs largely rely on banks to obtain their external funding. There is, however, creative scope for new policies to be envisaged that promote the non-bank lending channel for SMEs (Section 2.4). For instance, the Bank of England transmits its policies of quantitative easing by purchasing government bonds or those of large and highly creditworthy companies, which face no difficulties in accessing finance. Unorthodox measures could be devised to kick-start a market for securitised SME loans from the demand side by harnessing the existing credit rating expertise of banks, the Basel II/III framework and the funds of the quantitative easing programme.

The flow of credit in the UK economy may be close to turning a corner in connection with recent improvements in the macroeconomic outturns and outlook, and as banks finish adapting to a new regulatory environment. Improving access to finance for firms and SMEs is set to remain a crucial element for driving the desirable rebalancing of the UK economy, fomenting investment and fostering the reallocation of resources to the most productive sectors of the economy throughout the on-going recovery.

# ANNEX: REVIEW OF ACCESS TO FINANCE SURVEYS

This annex carries out a review and analysis of the major surveys commissioned to assess the impact of the financial crisis on SME access to finance. Three of these surveys allow for a comparative analysis of the pre- and post-crisis periods as a comparable vintage of date is available for 2007. They are the joint European Commission and European Central Bank Survey on the Access to Finance of Small and Medium-sized Enterprises (A.1), BDRC Continental's SME Finance Monitoring (A.2) and BIS's Small Business Survey 2010 (A.3). The Eurostat survey allows additionally for cross country comparisons. Another recent survey is presented in subsection A.4 (FSB's Voice of Small Business) confirming the conclusion that access to finance problems continued to be relevant throughout 2013.

## A.1. Survey on the Access to Finance of Small and Medium-sized Enterprises

The European Commission and the European Central Bank coordinated two surveys of non-financial SMEs in 20 Member States, one before the crisis (2007) and another one more recently (2010), covering approximately 25,000 businesses employing 10 to 250 workers<sup>58</sup>.

Table A.1

Selected results from Eurostat's 2010 access to finance survey

	Success rate	s in obtaining lo	an finance				
		2010			2007		Change in 'no
	No success	Partial success	Success	No success	Partial success	Success	success' 10-07
Country average	13%	16%	71%	3%	7%	90%	10 pp.
UK	21%	15%	65%	6%	6%	88%	15 pp.
UK's rank (out of 20)	6th	12th	12th	5th	13th	12th	6th

	Top reasons	presented by ba	anks for Ioan r	efusal			
	Insufficient collateral or guarantee	Already too many loans or debt	Lack of own capital	Poor credit rating	No reason given	Other reasons	Insufficient/risky potential of the business
Country average	11%	10%	8%	6%	8%	7%	5%
UK	14%	5%	8%	8%	8%	16%	7%
UK's rank (out of 20)	4th	15th	13th	12th	10th	3rd	4th

Source: Survey on the Access to Finance of Small and Medium-sized Enterprises

Note: the sum over the percentages in the second panel does not add up to 100% in Eurostat's database, possible reflecting the fact that not all companies answered this part of the query

An analysis of the raw data of the 2010 survey, as available from Eurostat's database, reveals the following findings for the UK:

- In 2010, one in five loan applications in the UK were non-successful, whereas the participating countries' simple average was 13%, ranking the UK 6th in terms of the highest frequency of loan rejections. This figure was up from 5.6% in 2007 for the UK.
- Driving the UK's high loan rejection rates are the service sectors <sup>60</sup>, where the UK ranked 2<sup>nd</sup> in rejection levels. This may be due to the fact that the services industry generally possesses poorer collateral, which could suggest a flight to security by UK creditors.
- Companies reported a worsened financial situation all over Europe, with the UK broadly in line with cross-country averages, suggesting that supply-side factors might have been comparatively more relevant in the UK.

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<sup>&</sup>lt;sup>58</sup> I.e., micro-businesses with less than 10 employees were excluded.

<sup>&</sup>lt;sup>59</sup> Belgium, Bulgaria, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Slovakia, Spain, Sweden and the United Kingdom.

<sup>&</sup>lt;sup>60</sup> An exception is 'section M' (professional, scientific and technical services).

- Respondents all over Europe considered that difficulties in obtaining finance had increased.
   A large number of UK businesses had no opinion as to this question but those who did painted a somewhat more pessimistic picture than businesses from other countries.
- Access to equity became somewhat more difficult across the surveyed countries, but appears
  to have deteriorated less in the UK. All equity sources considered, the UK shows a good
  comparative performance.
- A similar pattern emerges when considering financing sources other than bank loans or equity (e.g., leasing, factoring, overdrafts, credit lines, etc.) where survey data points to a strong and resilient performance of the UK when compared with other European countries.
- The reasons presented by UK banks for refusing a loan are generally in line with European averages. However, it stands out from a comparative analysis that a large number of respondents said that the banks invoked other (non-specified) reasons for refusing credit. It also stands out that, on average, UK banks considered less often that 'too many previous loans' was the main reason for refusing to grant a new loan.
- The reasons for UK SME businesses to refuse an offered loan are very much in line with EU averages. It is interesting to note, however, that there are some mixed findings with respect to the effect of interest rates on the decision to accept a loan. On the one hand, high interest rates were pointed out by UK firms refusing a loan as the main reason in 36% of the cases (34% on average across countries), a high figure given the very low reference rates, which suggests that they were not being adequately transmitted to the market by high-street banks (as discussed in Sections 1 and 2). On the other hand, this reason had been chosen by 45% of UK respondents refusing a loan in 2007 and has thereby dropped significantly in the 2010 survey, showing the positive effects of looser monetary policy. Interest rates, however, are not the only type of borrowing costs. In fact, the importance of 'unacceptable non-interest-rate related conditions' rose from 13% to 23% in 2010.
- According to UK businesses, the main reason limiting growth was the general economic outlook (24% of responses), followed by price competition/small margins (17%) and limited demand in local markets (13%). Not enough financing was chosen as the main reason by approximately 4% of SMEs.

# A.2. BDRC Continental's SME Finance Monitor

BDRC Continental has produced a series of independent reports on access to finance since 2011 commissioned by the Business Finance Taskforce<sup>61</sup>. The reports are based on quarterly interviews covering 5 000 SMEs at a time. The main findings for 2012 as a whole are summarised in Table A.2.

<sup>&</sup>lt;sup>61</sup> The taskforce is composed of the CEOs and senior representatives of the six largest UK banks: Barclays, HSBC, Lloyds Banking Group, Royal Bank of Scotland, Santander and Standard Chartered.

Table A.2

#### Selected results from BDRC Continental's SME Finance Monitor Q4 2012

Outcome of applications: n	ew or rene	wal of load	n	
Total	0 emps	1-9 emps	50-249 emps	2007 a)
45%	43%	46%	71%	85%
12%	9%	16%	20%	11%
9%	10%	7%	3%	11%
34%	38%	31%	7%	4%
	Total 45% 12% 9%	Total         0 emps           45%         43%           12%         9%           9%         10%	Total         0 emps         1-9 emps           45%         43%         46%           12%         9%         16%           9%         10%         7%	45%         43%         46%         71%           12%         9%         16%         20%           9%         10%         7%         3%

	Outcome of applications: new or renewal of overdraft				
	Total	0-9 emps	1-9 emps	50-249 emps	2007 a)
Offered wanted overdraft and took it	61%	49%	62%	85%	75%
Partial Got overdraft after issues with request	12%	10%	16%	10%	15%
rejection Took other funding after issues with request	2%	2%	3%	1%	15%
No overdraft after issues with request	24%	29%	18%	4%	10%

	Unfulfilled wish to borrow (loans and overdrafts)				
	Total	0 emp	1-9 emps	10-49 emps	50-249 emps
Has applied	21%	18%	28%	28%	27%
Did not apply but wanted to	7%	7%	7%	4%	2%
Neither applied, nor wanted to apply	73%	75%	65%	68%	71%

	Main reasons for not applying	ng when wished to
	Loans	Overdrafts
	Total	Total
Discouraged	34%	39%
Issues with process of borrowing b)	45%	36%
Issues with principle of borrowing c)	13%	8%
Economic climate	7%	9%

Note: total percentages are obtained using population rather than sample weights, due to stratified sampling

- Four in ten SMEs were using external finance by year-end 2012, down from approximately half of all interviewed SMEs in the first half of 2011. The percentage of borrowing SMEs shows important variations with respect to company size, ranging from 37% in the case of zero-employee businesses to 68% for those with 50 to 249 employees.
- There is a discrepancy in self-reported risk assessments and external risk assessments<sup>62</sup>.
   Self-assessments, as measured by 'credit issues' (e.g., bounced checks and missed loan repayments) that SMEs report to have experienced in the past do not vary markedly with company size, whereas external risk ratings are much more unfavourable for smaller companies.
- Approximately 1 in 3 SMEs applying for a loan do not manage to obtain the desired facility either because they were turned down or because of other issues with the offer. Additionally, approximately 1 in 5 applicants managed to obtain funding only after going through issues with the offer. Smaller companies were much more likely to be declined than medium-sized ones. This may be due to several reasons, including the higher perceived risk of smaller companies, poorer collateral, other supply-side issues as discusses in Section 3, or the fact that lower financial literacy of smaller enterprises may lead them to apply for a loan even when they do not gather the conditions for success. Loan refusals are also seen to correlate with poorer external risk assessments and with the age of the business (start-ups and younger companies being much more likely to be rejected than established businesses).
- Loan rejection rates have increased markedly from 2007 (from 4% to 34%). Rejection rates for overdraft applications have also increased, but less markedly.

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a) Data from the Centre for Business Research's 'Financing UK Small and Medium Sized Enterprises' report.

b) E.g., companies think that banks would agree but process would be too expensive, time consuming, etc.

c) i.e., companies feared they might lose control of their business, or preferred to seek alternative sources of funding

<sup>&</sup>lt;sup>62</sup> As supplied by rating companies D&B and Experian.

- The main purposes of SMEs applying for an overdraft in 2012 were to finance working capital, to use it as a safety net or to finance short-term funding gaps. The main purposes of SMEs applying for a loan were to buy fixed assets (29%), including motor vehicles and premises, to fund expansion in the UK (25%) and to develop new products or services (15%).
- Some SMEs (7%) have not applied for funding, although they wished to do so. Discouragement and issues with the process of borrowing account for approximately 79% of the reasons for this.

## A.3. BIS's Small Business Survey 2010

The Small Business Survey by the UK's Department for Business, Innovation and Skills (BIS) interviewed 3 817 SMEs between July and September 2010 on a number of questions, including access to finance. The following table compares the main findings of this survey with the results from the pre-crisis Annual Survey of Small Businesses:

Solasted results from RIS's Small Business Survey 2010

Selected results from bio 5 Small busine	ess Survey 2010				
	Eventual outco	me of applica	ation for fi	inance	
	All	1-9 emps	10-49 emps	50-249 emps	2007/08
Obtained all they needed:	68%	67%	68%	76%	89%
- From first source	56%	55%	61%	66%	80%
- From another source	11%	12%	6%	10%	8%
Obtained some, but not all	6%	6%	6%	7%	2%
Obtained none	21%	22%	19%	11%	8%
Don't know/refused	5%	5%	7%	6%	2%

	Main reasons for applying for	or finance
	2010	2007/08
Working capital, cashflow	56%	43%
Capital equipment or vehicles	21%	27%
Buying land or buildings	10%	10%
Improving buildings	9%	8%
Research & development	2%	4%
•		

	Reasons for difficulties arranging finance			
	2010	2007/08		
No reason given	24%	12%		
Insufficient security	20%	13%		
Business sector too risky	9%	8%		
Recession/current credit climate	6%	0%		
Poor business credit history	6%	6%		
Didn't meet criteria	5%	5%		
Rejected terms of finance offered	5%	2%		
No credit history/not been in business long enough	2%	8%		
Applied for too much	2%	4%		
Business too small/too new	2%	2%		
No security	2%	4%		
Other	14%	36%		
Don't know/refused	10%	4%		

Source: BIS's Small Business Survey 2010 and Annual Survey of Small Businesses 2007/08

Note: total percentages are obtained using population rather than sample weights, due to stratified sampling

• More SMEs have sought finance in 2010 (26%) than in the pre-crisis survey of 2007/8 (23%), suggesting a supply-side element to the observed contraction in credit. Larger firms

and firms in the primary sector were the ones that sought finance the most (45%) whereas the business services sector was the one that sought finance the least (22%).

- Of those SMEs applying for finance in 2010, 21% did not manage to obtain it while 6% were partially successful. Approximately 2 in 3 enterprises obtained all they needed, but 11% only obtained it from sources other than the first one approached. As in the SME Finance Monitor survey, rejection rates were higher among smaller SMEs. Success rates were down from 2007: the percentage of companies obtaining all the funding they needed dropped from 89% to 68%.
- In 2010, SMEs applied more to obtain financing for working capital and less for capital
  investment, when compared with 2007/08. This suggests that the financing of day-to-day
  operations became more pressing, whereas long-term investment became less important in a
  context of low expected growth.
- Banks offered no reasons for refusals in 24% of the cases (12% in 2007/08). The most commonly offered reason was insufficient security (20% versus 13% in 2007/08).
- Of those companies not applying for finance, 8% thought that they would be rejected or that
  it would be too expensive. Only 5% said it was because they didn't want to take on more
  risk.
- Access to finance was not considered the main obstacle to business success, although its importance rose with the crisis (from 3% of answers in 2007/08 to 8% in 2010). As in the Eurostat survey, the adverse general economic conditions were pointed out as the major obstacle to success (33% of answers in 2010 versus 16% in 2007/08).

# A.4. FSB's Voice of Small Business survey

The Federation of Small Businesses publishes each quarter the Voice of Small Business Index based on SME survey data assessing, inter alia, credit conditions. The Index report for the third quarter of 2013 covered 2 686 respondents as its main conclusions were:

- Slightly over 20% of SMEs had applied for credit. Of these, 47% had been turned down (the decision was still pending in 11% of the cases).
- Approximately two thirds of SMEs considered that credit availability was either "quite poor" or "very poor" and more than half considered that credit was quite or very unaffordable. However, the cost of credit appears to have fallen and credit availability increased with respect to the previous year, with approximately a third of successful applicants reporting being offered interest rates of 4% or lower.

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