Using the Bank Lending Survey to Understand the Recent Disruption to Financial Markets: An Overview

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Abstract

The sharp decline in the growth rate of private sector credit since 2007 coupled with less favourable economic prospects highlight the importance of timely data on credit market conditions. The Euro Area Bank Lending Survey (BLS) contains valuable information in understanding credit market conditions regarding loans to enterprises as well as households. In addition, the survey has benefitted from a number of innovations in recent years. In particular, an expansion to Questions 2 and 3 as well as an increased prominence given to a number of ad hoc questions have provided greater insight to the Governing Council regarding the disruption to wholesale funding markets and its transmission into banks' lending policies more generally. The main focus of this article is to illustrate how the responses to the BLS reflect the disruption to financial markets that dominated the euro area during 2008 and 2009.

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Section 1: Introduction

The Bank Lending Survey (BLS) was established by the Eurosystem in 2003 to provide more detailed qualitative information regarding current and future credit market conditions and their determinants. Given the unique source of information that the BLS provides concerning non-price terms and conditions for loans, the survey results are regularly used as an input into the decision making process concerning monetary policy. The qualitative nature of the survey responses provide an important complement to Money and Banking Statistics on loan growth, new loans issued, and interest rates disaggregated by borrower and loan volume. The survey provides just-in-time qualitative information regarding credit market conditions for loans to enterprises and households which account for over half of euro area private sector lending. Box 1 below summarises how the survey is completed each quarter.

The recent economic slowdown throughout the euro area, which was most acute from late 2008 to 2010, had its origins in the financial services sector where a combination of excessive leverage, increased recourse to complex financial products, and strong credit growth as well as higher levels of private sector indebtedness in recent years gave way to a sudden loss of market confidence triggering a reduction in liquidity and a general re-pricing of risk. The reliance by banks throughout the euro area in recent times on non-deposit sources of funding provided one channel by which this disruption to money markets was transmitted to the euro area economy through a reduction in banks lending capacity and their ability to meet the demand for loans. One of the most visible signs of the slowdown in euro area economic activity can be seen in the growth rate of credit aggregates which dropped from 13.5 per cent and 8 per cent in the case of loans to enterprises and households during the second quarter of 2007 to -2 per cent and 2 per cent respectively in the final quarter of 2010. The deceleration, decrease, and eventual stabilisation in the growth rate of credit aggregates was all the more noticeable considering that private sector loan growth had consistently exceeded the growth rate of most measures of economic activity prior to 2007.

The disruption to wholesale funding markets that materialised in the second half of 2007 registered in the responses to the October 2007 round of the BLS. In this regard, a number of innovations to the questionnaire since 2007 meant that the survey was able to capture more fully, changes in credit conditions associated with the financial crisis. These included a more disaggregated series of responses regarding the change in credit conditions across firm size, as well as the impact of the financial market crisis on banks funding, capital and liquidity position and this is analysed in section 2. Section 3 reviews the research that has emerged in recent years using in part the BLS results. A comparison of the Irish and euro area survey responses is provided in section 4 and section 5 concludes.

Section 2: Using the Survey Responses to Track the Financial Crisis

The second half of 2007 witnessed a sudden disruption to financial markets throughout the euro area as well as the United States that was initially characterised by a marked reduction in banks' willingness to lend to each other and an increase in inter-bank lending rates. This disturbance in wholesale funding markets immediately registered in the responses to the October 2007 round of the BLS where a sudden and previously unexpected tightening of credit standards on loans to enterprises and households was recorded and this is displayed in Figure 1. In addition, the reported tightening of credit standards was partially attributed to banks funding and liquidity constraints – illustrating the transmission of financial market tensions onto banks' lending policies.

Figure 1: Actual and Expected Changes in Credit Standards on Loans to Enterprises and Households: 2007 – 2008

Source: ECB.

Note: The values displayed in Figure 1 are the net percentage of banks reporting a tightening of credit standards across loan category each quarter as well as the net percentage of banks forecasting a tightening of credit standards in the subsequent quarter.

Box 1: Completion of the Bank Lending Survey

The Bank Lending Survey (BLS) is completed over 5 weeks each quarter with the participating institutions returning the completed questionnaire to the National Central Banks (NCB). Throughout the euro area, each NCB nominates certain banks to participate in the survey to try and capture as closely as possible, developments in national credit markets. The response rate is typically 100 per cent, however not all banks answer all questions depending on their business model.

The sample of banks participating in the survey has increased from 82 when the survey was first completed in January 2003 to 120 in the July 2011 round of the survey following the expansion of the single currency area along with the BLS being extended to a greater number of banks amongst the initial group of countries participating in the survey. In April 2007, the survey was first expanded to include Slovenia and again in 2008 when Cyprus and Malta joined the single currency area. More recently, Slovakia and Estonia started to participate in the survey in April 2009 and April 2011 respectively. The participating institutions account for almost 50 per cent of total of euro area bank lending to Non-Financial Corporations (NFCs) and households.

The survey consists of 17 standard questions divided into two parts: the first part examines loans or credit lines to enterprises and the second part examines loans or credit lines to households with some differences between the questions that feature in each part of the survey. Both parts of the questionnaire ask whether or not credit standards have changed over the previous three months, the factors contributing to any such change, and the changes in the terms and conditions governing lending to enterprises as well as households. In other words: whether, why, and how credit standards have changed? The remaining questions ask whether loan demand has changed over the past three months, and what factors account for a change in loan demand, and whether credit standards or loan demand are expected to change over the next three months.

Frequently, the standard questionnaire is supplemented with ad-hoc questions examining topical issues in financial markets. For example, the July 2011 round of the BLS included two supplementary questions examining the likely impact of the Basel III directive on banks' risk weighted assets, capital position, and credit standards.

Box 1: Completion of the Bank Lending Survey

The questionnaire distinguishes between “Large Banks” and “Small Banks” based on loans outstanding although the published responses are not weighted by size of bank. Respondents select from five answers for each question with each of these response options having a value corresponding between 1 and 5 and this is examined in further detail in Box 2.

The euro area responses are calculated as a weighted average of the national responses based on the total amount outstanding of loans to NFCs and households.

The Irish and euro area results are published each quarter along with a summary of the responses and these results can be accessed through the attached weblinks: Bank Lending Survey and Euro Area Bank Lending Survey Responses.

The survey was partially modelled on the Senior Loan Officer survey conducted by the U.S Federal Reserve since 1967 and preceded the Bank of England Credit Conditions survey that commenced in 2007. The responses can be used to gauge the accessibility of credit markets as well as the operation of different transmission channels of monetary policy throughout the euro area. A more detailed account of how the survey is completed each quarter is provided by Mottiar and Monks (2007).

The tightening of credit standards coupled with the sharp drop in loan growth to Non Financial Corporations (NFCs) during 2008 highlighted the reliance of euro area businesses on bank lending as a source of external financing. The ECB structural issues report on corporate finance in the euro area (2007) contrasts the financing patterns of Small and Medium Sized Enterprises (SMEs) and large enterprises. Typically, smaller businesses will encounter greater challenges when attempting to access external sources of funding compared to larger enterprises due to, amongst other factors, greater information barriers, lower levels of available collateral, and limited bargaining power. In addition, the greater challenges SMEs typically encounter when accessing external finance may be compounded by their concentration in certain businesses and economic sectors such as retailing. Consequently, market based funding will typically be limited to larger enterprises and longer established companies.

To the extent that larger enterprises can substitute away from bank financing, a change in credit conditions can be expected to have a different impact on enterprises when firm size is accounted for. Consequently, questions 2 and 3 of the BLS examining the factors affecting credit standards as well as the terms and conditions governing lending to enterprises was expanded in 2008 to provide a more disaggregated set of responses regarding SMEs as well as large enterprises[2].

The strong and unexpected tightening of credit standards on loans to enterprises that was recorded from the second half of 2007 until the end of 2009 would have been expected to impact SMEs to a greater extent than larger enterprises. In contrast, the BLS reported the tightening of credit standards was greater for large enterprises than SMEs and this greater tightening was reflected in ***Cost of Funds and Balance Sheet Constraints*** which is intended to capture the contribution of funding and liquidity pressures on banks’ credit standards and this is represented in Figure 2.

2 The statistic used in the BLS to distinguish between SMEs and large enterprises is turnover. A firm is considered large if its annual net turnover is greater than €50 million.

Figure 2: Changes in, and Factors Affecting Credit Standards on Loans to Small and Medium Sized Enterprises and Large Enterprises 2008:01 – 2009:04

Source: ECB.

Note: Question 1 of the BLS ask banks to report how credit standards changed on loans to enterprises including SMEs and large enterprises and the net percentage of banks reporting a tightening of credit standards is displayed in the left side of Figure 2. Question 2 of the BLS asks banks to evaluate how different factors affected credit standards on loans to enterprises over the previous three months and is divided into three parts: ***Cost of funds and balance sheet constraints*** which includes costs related to banks capital position, banks ability to access market financing, and banks liquidity position; ***pressure from competition*** which includes competition from other banks, competition from non banks, competition from market financing and ***perception of risk*** which includes expectations regarding general economic activity, industry or firm specific outlook, as well as risk on collateral demanded. The net percentage responses displayed in Figure 2 regarding cost of funds and balance sheet constraints, as well as perception of risk are calculated as a simple average of the three underlying factors.

A complete explanation as to the why the tightening of credit standards was greater for large enterprises than SMEs is beyond the scope of this paper. However, one possibility is that banks that have closer relationships with large enterprises have greater reliance on wholesale funding markets. The BLS results show that the tightening of credit standards on loans to enterprises was implemented through price and non-price terms and conditions. However, the greater tightening of credit standards on loans to large enterprises compared to SMEs is reflected in reduced loan volumes and shorter loan maturities.

The BLS captured the initial tightening of credit standards on loans to enterprises and households towards the end of 2007. However, in order to understand more fully the disruption to wholesale funding markets and its impact on banks funding, liquidity, and ultimately their credit conditions, it was decided to supplement the BLS with a number of ad-hoc questions. Since October 2007, thirteen ad-hoc questions have featured in the survey and were regularly updated in response to the changing nature of the crisis. The ad-hoc questions examined, among other factors, the impact of financial market turmoil on banks' credit standards, the extent to which access to wholesale funding markets was hampered across the maturity spectrum, and the need to fund draw-downs on commitments to asset backed commercial paper programmes.

Initially, the challenges European banks encountered in terms of restricted access to wholesale funding markets was associated with their holdings of U.S. mortgage backed securities and other asset categories that were heavily dependent on the U.S. property prices and in particular the sub-prime mortgage market. The decline in U.S. property values during 2007 and 2008 along with the use of Special Purpose Vehicles (SPV) to purchase these assets made it difficult to assess the higher expected loan losses in this asset category. One of the first signs from the ad-hoc questions of money market tensions and lower levels of liquidity was the acceleration during 2008 in the proportion of banks reporting the need to fund draw-downs on commitments to asset backed commercial paper programmes. This reported deterioration coincided with a surge in the proportion of banks selecting the response option “Not Applicable” to the same question suggesting that a substantial proportion of banks may have been completely shut out from this funding source as 2008 progressed.

Since 2007, banks have been asked to evaluate access to market based sources of funding and these responses are represented in Figure 3. The initial disruption to wholesale funding markets was more acute at the longer end of the maturity spectrum reflecting the evaporation of liquidity and ratings downgrades that dominated the securitisation markets such as the market for mortgage backed securities from the start of 2008. As 2008 progressed, and following the bankruptcy of Lehman Brothers on the 15th September 2008, the deterioration in market access increased in intensity and began to spread towards the shorter end of the maturity spectrum.

In an attempt to ascertain how the financial crisis impacted banks’ lending policies, participants were asked to gauge, the extent to which restricted access to wholesale funding markets impacted on the margin at which loans were made along with the quantity of loans banks were willing to make available. The responses to this question are represented in Figure 4 below and suggest that the tensions in the inter-bank unsecured money markets and the markets for debt securities were reflected both in the price and quantity of credit provided but to a greater degree in the former. Alternatively in the case of the securitisation market, the impact of market tension appears to have been evenly transmitted between higher lending margins and lower securitisation volumes.

Following the bankruptcy of Lehman Brothers in September 2008 financial market volatility in the euro-area as measured by the EURIBOR-OIS rate surged as banks were reluctant to lend to each other for anything other than the shortest maturities. In response, several euro area governments announced partial guarantees for domestic banks covering current and future liabilities.

During the first three quarters of 2009, the majority of euro area banks reported that government initiatives regarding recapitalisation support and state guarantees greatly facilitated access to wholesale funding markets and this is represented in Figure 5. At the same time, the proportion of banks reporting a tightening of credit standards started to decelerate. In the case of loans to enterprises, the net percentage of banks reporting a tightening of credit standards decreased from 43 per cent to 3 per cent between the first and final quarter of 2009.

By the end of 2009, the responses to the BLS suggested that the pattern of credit standards tightening that extended back to the third quarter of 2007 was coming to an end. In addition, the proportion of banks reporting a deterioration in access to the inter-bank unsecured money markets as well as the market for debt securities had decreased. The improvement in access to wholesale funding markets which is captured in Figure 6 was interrupted in 2010Q2 when uncertainty about the ability of the Greek Government to roll over short-term debts led to a special funding agreement involving the European Central Bank, the European Commission, and the International Monetary Fund. However, only a small proportion of banks reported an actual deterioration in market access since then suggesting that the reported deterioration is confined to a small number of participating banks.

Figure 3: Access to Wholesale Funding Markets: 2007Q3 – 2009Q3

Source: ECB.

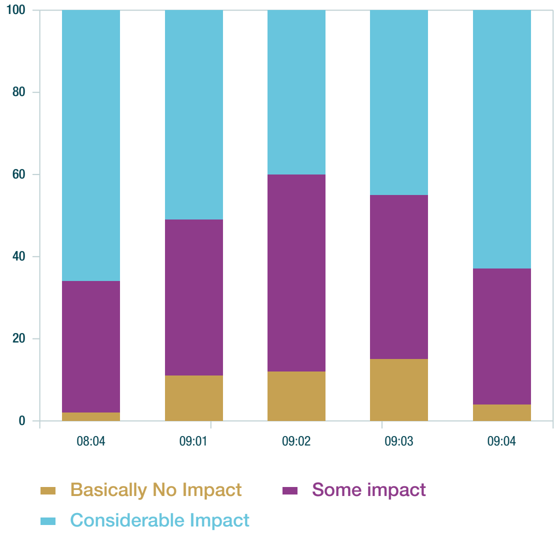
Note: Banks were asked to report using a three point scale ***considerably hampered***, ***somewhat hampered***, ***basically not hampered*** whether market access had been hampered over the previous three months. The values displayed in Figure 3 ignore the responses regarding the funding category credit risk transfer as over half of the participating banks have categorised this funding category as Not Applicable each quarter since this question was first included in the BLS.

Figure 4: Impact of Restricted Access to Wholesale Funding Markets on banks' lending policies – Money Markets & Debt Securities and Securitisation Markets

Source: ECB.

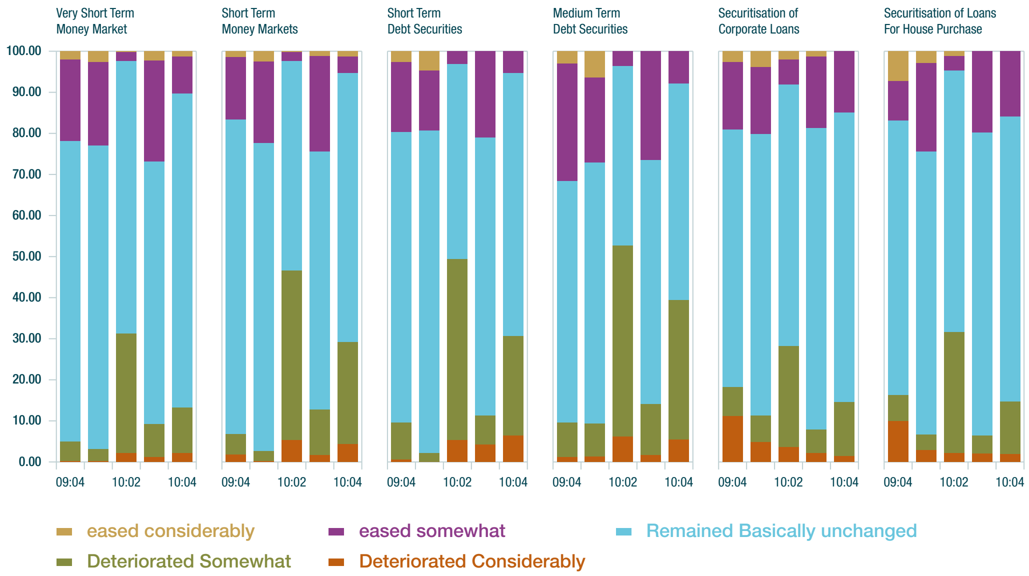
Note: Banks were asked to report using a three point scale: ***considerable impact***, ***some impact***, ***basically no impact*** whether or not restricted access to market funding impacted the quantity of loans banks were willing to make as well as the margin at which these loans were made. The question distinguished between money markets and debt securities as well as securitisation markets. The values displayed in Figure 4 are the sum of the proportion of banks selecting the response option ***considerable impact*** and ***some impact***.

Figure 5: Impact of Government Initiatives Regarding Recapitalisation Support and State Guarantees



Source: ECB.

Figure 6: Access to Wholesale Funding Markets 2009Q4 – 2011Q1[3]



Source: ECB.

Note: Participants banks were asked to report how market access changed over the past three months using a five point scale: eased considerably, eased somewhat, remained basically unchanged, deteriorated somewhat, deteriorated considerably. In addition, banks were asked to report whether or not the ability to transfer credit risk had changed over the previous three months. However, the responses for this funding category are not displayed in Figure 6 as over half of the participating banks have classified credit risk transfer as Not Applicable each quarter.

3 Between the October 2007 and October 2009, banks were asked to report whether access to wholesale funding markets had been hampered across 7 different categories over the previous three months and whether or not it was expected to be hampered over the next three months using the following response options: ***considerably hampered***, ***somewhat hampered***, ***basically not hampered***. A change was made to the response options accompanying this question from the January 2010 round of the survey. Banks' were asked to report whether or not market access had ***changed*** over the previous three months and was expected to change over the next three months using the following response options: ***deteriorated considerably***/ ***will deteriorate considerably***, ***deteriorated somewhat*** / ***will deteriorate considerably***, ***remained unchanged*** / ***will remain unchanged***, ***eased somewhat*** / ***will ease somewhat***, ***eased considerably*** / ***will ease considerably***.

Box 2: Recent Improvements in Data-Metrics

Participating banks select from five possible responses for each of the 17 standard questions in the BLS and this allows one to measure both the magnitude as well as the direction of any change in credit conditions, loan demand, factors affecting loan demand, as well as the expected change in credit standards or loan demand. For example, Question 4 of the survey asks banks to report on whether loan demand from enterprises changed in the previous quarter and the response options to this question along with the value corresponding to each response is represented in Table 1 below.

Table 1: Changes in Loan Demand, Response Options and Corresponding Values

Response Option:	Decreased Considerably	Decreased Somewhat	Remained basically unchanged	Increased Somewhat	Increased Considerably
Value	1	2	3	4	5

The survey results reported each quarter at both a national and euro area level reflect this symmetric range of response options and are based on a simple average of all the responses provided to each question – the ***mean response***, and the difference between the percentage of banks reporting a change in credit conditions in each direction – ***the net percentage responses***. The net percentage responses for each question abstracts from the proportion of banks reporting unchanged credit conditions and, for example, in the case of changes in loan demand from enterprises, is calculated as the difference between the proportion of banks reporting an increase in loan demand and a decrease in loan demand.

The mean responses are bounded between 1-5 reflecting the values assigned to the different response options to each question and don't always capture substantial changes in the survey responses from one quarter to the next.

In contrast the net percentage responses are instead bound between -100% and +100%. For example, the substantial and unexpected tightening of credit standards on loans to enterprises and households during the third and fourth quarters of 2007 was more fully reflected by the net percentage responses compared to the mean responses as Table 2 illustrates.

Table 2: Changes in Credit Standards on Loans to Enterprises: 2007Q2 – 2007Q4

	Mean Responses	Net Percentage Responses
2007Q2	3.03	-2.8%
2007Q3	2.69	31.3%
2007Q4	2.53	40.5%

A feature of the survey responses is that the answers to all of the standard questions tend to be clustered around the response ***remained basically unchanged*** as the response option ***considerably*** is rarely chosen by the participating banks. One potential limitation with the net percentage responses is that equal weight is given to all the response options, i.e. the same weighting is given to a bank reporting that loan demand decreased considerably or decreased somewhat. Since 2009, the euro area results report an alternative complementary measure, the ***Diffusion Index***, which characterises further the distribution of the responses to each question. The Diffusion Index is calculated in a similar way to the net percentage responses except that half the weight is given to the response option ***somewhat*** compared to the response option ***considerably***. Consequently, the reported value of the diffusion index will nearly always be less, in absolute terms, than the net percentage responses.

Section 3: Recent Research on the Bank Lending Survey

3.1 Research on the Information Content of the Bank Lending Survey

Since 2007, a number of research papers have emerged using the historical responses to the BLS. In the main, these papers can be separated into a number of categories: those that use the historical responses to understand the leading indicator properties of the survey, papers that attempt to distinguish shocks to credit growth emanating from shifts in loan supply vis-a-vis loan demand, and papers that use the historical responses to examine the existence of different transmission channels of monetary policy.

The recent research on the BLS mirrors previous research undertaken on the survey properties of the Senior Loan Officer (SLO) survey conducted by the U.S. Federal Reserve. Papers such as Lown et al. (1998) and Lown and Morgan (2006) have identified the historical responses to the SLO as providing important information in helping to forecast commercial bank lending and GDP growth after controlling for past economic conditions and interest rates. More recently, Bassett et al (2010) find that the responses to the SLO help in understanding changes in bank lending between 1992 and 2009.

De Bondt et al. (2008) examine the leading indicator properties of the BLS with respect to bank lending to NFCs and GDP growth and find that credit standards on loans to enterprises along with non-price terms and conditions help explain euro area loan growth and GDP growth. Changes in credit standards as well as loan demand from enterprises and households lagged one to four quarters are statistically significant in explaining loan growth to enterprises and households.

Previous techniques that have been used to try and distinguish shocks to loan supply and loan demand are outlined by Pazarbasiouglu (1997) as well as Peek and Rosengren (1995)[4]. However, distinguishing between shocks to loan supply and loan demand is complicated by the expected co-movement between these two variables and neither of these techniques have enjoyed universal success.

Changes in credit standards on loans to enterprises and households as reported in the BLS are often interpreted as a measure of loan supply as they are designed to capture all factors both qualitative e.g. change in business sentiment, and quantitative e.g. changes in sectoral lending limits, that affect banks' lending criteria. In addition, the survey responses report how the demand[5] for loans from enterprises and households changed each quarter and these proxies are being used in a growing number of papers to try and account more fully for the growth in euro area credit aggregates.

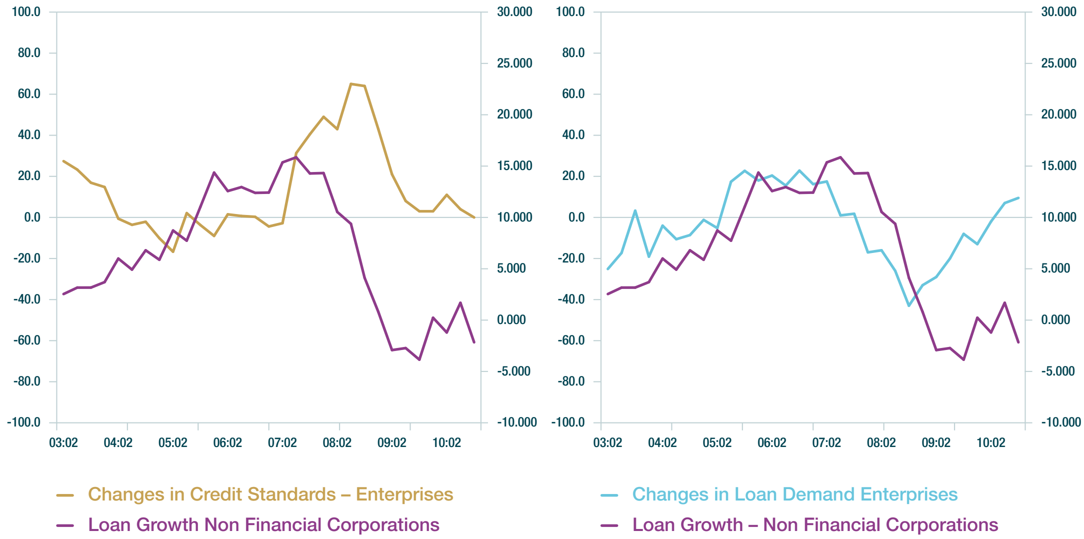
Figure 7 jointly displays changes in credit standards, changes in loan demand and loan growth to NFCs and point to a strong co-movement between the two survey indicators and actual loan growth to enterprises.

A more rigorous examination of the impact of loan supply and loan demand on loan growth is provided by Hempell and Sorensen (2010). The authors implement a cross country panel regression to understand the evolution of euro area loan growth to NFCs and households. They find that changes in credit standards, changes in loan demand, and the terms and conditions governing loans or credit lines help explain loan growth across different lending categories since 2003. In particular, strains on banks' liquidity position as well as their access to market financing were very

4 Pazarbasiouglu (1997) uses Disequilibrium econometrics which consists of a three equation system estimated via maximum likelihood to distinguish shocks to loan supply and loan demand. Alternatively, Peek and Rosengren (1995) use bank level data coupled with certain assumptions as to what shocks are likely to impact loan supply and loan demand.

5 The change in loan demand reported in the BLS is not based on any particular data metric e.g. loan enquiries at branch level, formal loan applications received at branch level, the proportion of loan applications approved at group credit committee level. Instead, the reported change in loan demand is likely to draw on developments in all of these stages of the demand process. However, as the questionnaire is typically completed by somebody at group credit committee level, e.g. senior loan officer, the responses are more likely to reflect developments at group credit committee level and this could be considered as a narrower and more stable measure of loan demand.

Figure 7: Changes in Credit Standards, Changes in Loan Demand and Loan Growth to Non Financial Corporations and Households



Source: ECB.

Note: The values displayed in Figure 7 include the annualised growth rate of lending to Non Financial Corporations along with the net percentage of banks reporting a tightening of credit standards and increase in loan demand.

significant between 2007 and 2009 in helping to explain the drop in loan growth whereas such measures were not significant prior to the crisis.

Giovane and Nobili (2010) use the responses of the Italian banks participating in the BLS and find that the proportion of banks reporting a tightening of credit standards on loans to enterprises is crucial in explaining the evolution of loan growth to NFCs whereas the proportion of banks reporting a decrease in loan demand is much less important. Amongst the factors impacting credit standards, cost of funds and balance sheet constraints is the most significant in helping to explain changes in loan growth.

Finally, Gerali et al. (2010) incorporate the historical Loan-to-Value (LTV) ratios in the case of loans to enterprises as reported in the BLS into a dynamic stochastic general equilibrium specification for the euro area. The authors try to capture the impact of shocks to the supply of credit using LTV ratios and conclude that it played an important part in driving interest rates on lending to NFCs since 2005.

3.2 Research on the Transmission Channels of Monetary Policy Using the Bank Lending Survey.

As far back as the 1960s Brunner and Metzler commented on the importance of financial variables in macro-economic models and this was further emphasised by Bernanke (1983) in explaining the depth and duration of the great recession. More recently, important contributions to the interaction of monetary policy and macro-economic activity have been advanced by Bernanke and Blinder (1988) and Bernanke Gertler and Gilchrist (1996). The ideas formulated in both these papers are more commonly referred to as the credit channel of monetary policy which consists of the Bank Lending Channel and the Balance Sheet Transmission Channel. The interest rate channel concentrates on the relationship between changes in central bank policy rates and deposit and lending rates faced by businesses and households. However, the credit channel emphasises how financial markets are characterised by imperfections. Agency costs associated with imperfect information between lenders and borrowers creates a wedge between the cost of internal and external funds and increase the sensitivity of investment to variables such as cash-flow or net worth.

The bank lending channel, also known as the "narrow credit channel" is based on the imperfect substitutability of loans and other asset classes. It assumes that monetary tightening drains liquidity from the banking system: as a result, bank liabilities are shrinking. Because of this decline in total liabilities banks have to adjust assets accordingly. In addition, the bank lending channel assumes that the decline in the supply of loans affects borrowers as households and small businesses would lack direct access to capital markets. The balance sheet channel emphasises borrowers' financial structure in the propagation of financial shocks. A change in monetary policy can impact the expected net worth of borrowers and this in turn will impact on their borrowing capacity as these changes are reflected in firms external finance premium.

The BLS results are being used in a growing number of empirical papers examining the presence of the different transmission channels[6]. Ciccarelli et al. (2010) using a panel vector autoregression based on the national responses to the BLS find evidence that the credit channel is operational throughout the euro area. After applying different specifications, the authors report the existence of both the bank lending and balance sheet transmission channels. Some of these results are reinforced by Cappiello et al. (2010) who use a very different specification but provide further evidence of a bank lending channel in the euro area.

Section 4: Irish Responses to the Bank Lending Survey

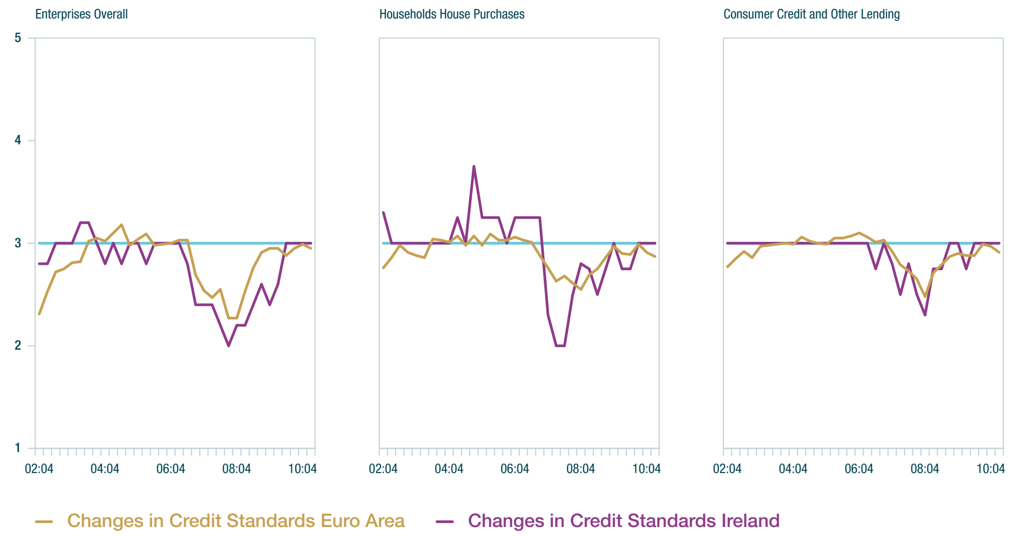
When the survey commenced, five Irish banks were selected to participate based on market coverage of loans to enterprises and households. However, one of the original 5 banks was dropped from the April 2011 round of the survey with a different institution now completing the survey in order to fully capture developments in credit markets.

A significant change has occurred regarding credit intermediation in Ireland since 2007 and the responses to the BLS provide a useful lens for interpreting these developments. The most obvious change concerns the growth rate of credit aggregates to NFCs and households where an annual growth rate of 35.7 per cent and 26.4 per cent was recorded respectively in early 2007 and more recently, a decline of -2.2 per cent and -4.6 per cent for each category was reported in April 2011. In parallel with this change in credit aggregates, a noticeable tightening of credit standards has featured in the Irish responses. Across all loan categories, the tightening of credit standards and decrease in loan demand happened at approximately the same time.

The Irish and euro area responses to the BLS since 2007 show a number of similarities, in particular, the change in credit standards on loans to enterprises and households and this is displayed in Figure 8. However, the tightening of credit standards since 2007 was more acute and longer lasting in Ireland particularly regarding loans to households for house purchases. The tightening of credit standards reported by Irish banks was almost entirely attributed to ***Cost of Funds and Balance Sheet Constraints*** as well as ***Increased Risk Perception*** and has been reflected in both price and non-price terms and conditions including higher loan margins and more restrictive lending conditions.

6 Questions 2, 9, and 11 examine the factors affecting credit standards on loans to enterprises and households and the different factors banks are asked to evaluate are intended to represent the bank lending and balance sheet transmission channels.

Figure 8: Changes in Credit Standards on Loans to Enterprises and Households: Ireland and the Euro Area



Sources: ECB and Central Bank of Ireland.

Note: Banks were asked to report, using a five point scale, how credit standards changed on loans to enterprises as well as households and the mean responses to these questions are represented in Figure 8. A value less than 3 implies a tightening of credit standards, a response equal to 3 represents unchanged credit standards, and a response greater than 3 reflects an easing of credit standards.

One of the most salient features of credit institutions in Ireland up to 2007 was the increased reliance on wholesale funding markets. This increased reliance on wholesale funding was characterised by increased borrowing in money markets and greater issuance of debt securities. In contrast to some euro area banks, there was less reliance on more complex off balance sheet items such as SPV. The responses provided by the Irish banks to the ad-hoc questions show how access to wholesale funding markets came under considerable strain towards the end of 2007 and this trend accentuated towards the end of 2008. More recently, the second major disruption to wholesale funding markets at a euro area level that commenced in the second quarter of 2010 onwards appears to have been more severe for the Irish banks compared to the euro area banks and this is displayed in Figure 9.

Figure 9: Access to Wholesale Funding Markets: Ireland and the Euro Area

Sources: ECB and Central Bank of Ireland.

Note: Banks were asked to report, using a five point scale, how access to market financing changed over the previous three months across 7 different categories. A response less than three represents a deterioration in market access; a response equal to three implies unchanged market access and a response greater than three implies an improvement in market access. The responses displayed in Figure 9 are calculated as a simple average of the mean response for each of these different funding categories.

Section 5: Conclusion

Since its introduction in 2003, the BLS has helped to provide a more complete understanding of developments in credit markets and, by extension, macro-economic activity more generally given the information content of the survey responses. A number of important innovations to the survey since 2007 have occurred and they have provided three main benefits: a new data-metric that emphasises the distribution of the selected responses to each question from one quarter to the next; a more disaggregated set of responses that illuminate the factors affecting credit standards as well as the terms and conditions governing lending across firm size; and an increased prominence given to a group of ad-hoc questions that help in understanding how the rupture to wholesale funding markets in 2007 impacted the funding and capital positions of banks as well as their lending policies.

The sharp slowdown in loan growth and less favourable economic prospects throughout the euro area from 2007 to 2010 highlighted the importance and value of timely data on credit market conditions across loan size. In this regard, the BLS responses continue to illuminate the different transmission channels of monetary policy as well as the importance of supply and demand side factors when accounting for loan growth across lending categories. As the amount of data associated with the BLS increases over the coming years, the opportunities to use the survey responses for empirical research such as testing for the different transmission channels of monetary policy is certain to improve.

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Appendix 1: Ad-Hoc Questions[7]

In a large number of countries in the euro area, loans for house purchase have shown strong growth rates in recent years. This question addresses some of the reasons behind this development, focusing on loans to households secured by real estate and used for purposes other than the acquisition of a principal residence.

Question 1: How does the share of loans to households secured by real estate contracted over the last 12 months for purposes other than the acquisition of a principal residence compare with the share of such loans in the previous 12-month period? – **July 2006**

	Purchase of second homes or homes for investment purposes ("buy-to-let")	Other purposes*
Considerably lower		
Somewhat lower		
Basically unchanged		
Somewhat higher		
Considerably higher		
Not Applicable		

Question 2: On the basis of the information available to you, what share of the volume of the outstanding amount of loans to households secured by real estate currently on the books of your bank do you estimate was used for purposes other than the acquisition of a principal residence? **July 2006**.

As a percentage of all mortgage loans	Purchase of second homes or homes for investment purposes ("buy-to-let")	Other purposes*
Minor (0 to 10 percent)		
Significant (10 to 20 percent)		
Considerable (more than 20 percent)		
Not applicable		

***)** This category covers, for example, consumption, financial investment, and redemption of debt, as well as the situation in which a parent borrows a mortgage for the purpose of transferring the funds to a son or daughter for the purchase of a house.

7 Appendix 1 lists all of the ad-hoc questions that have featured in the BLS since July 2006 when two supplementary questions were included for the first time. The only change to the standard 17 questions since the survey commenced is the expansion of questions 2 and 3 to examine the factors affecting credit standards as well as the terms and conditions regarding loans or credit lines to SME as well as large enterprises. As the 17 standard questions in their original format are outlined by Mottiar and Monks (2007), they are not repeated here.

Question 3: What effect has the situation in financial markets had on your bank's credit standards over the past three months? – **October 2007 – October 2008**

	Loans and credit lines to enterprises		Loans to Households	
	SME's	Large Enterprises	For House Purchase	Consumer Credit and other lending
Contributed considerably to a tightening of credit standards				
Contributed somewhat to a tightening of credit standards				
Basically had no impact on credit standards				
Contributed somewhat to easing of credit standards				
Contributed considerably to an easing of credit standards				
N/A(*)				

Question 4: What effect do you expect the situation in financial markets to exert on your bank's credit standards over the next three months? **October 2007 to October 2008**

	Loans and credit lines to enterprises		Loans to Households	
	SME's	Large Enterprises	For House Purchase	Consumer Credit and other lending
Contribute considerably to a tightening of credit standards				
Contribute somewhat to a tightening of credit standards				
Has basically had no impact on credit standards				
Contributed somewhat to an easing of credit standards				
Contributed considerably to an easing of credit standards.				
N/A(*)				

(*) Please select "N/A" (not applicable) only if your bank does not conduct business in a particular loan category.

Question 5[8]: What effect has the situation in financial markets had on your bank's credit standards for the approval of loans and credit lines to enterprises over the past three months? How do you expect the situation to affect these credit standards over the next three months? Please make a distinction by loan purpose. **October 2007 to October 2008**

	Over the past three months			Over the next three months		
	Fixed Investment	Inventories and Working Capital	M&A and corporate restructuring	Fixed Investment	Inventories and Working Capital	M&A and corporate restructuring
Contributed / will contribute considerably to a tightening of credit standards						
Contributed / will contribute somewhat to a tightening of credit standards						
Basically no impact on credit standards						
Contributed / will contribute somewhat to an easing of credit standards						
Contributed / will contribute considerably to an easing of credit standards						
N/A(*)						

(*) Please select "N/A" (not applicable) only if your bank does not conduct business in a particular loan category.

8 A minor change was made to ad-hoc Questions 3-5 between the October 2007 and January 2008 rounds of the BLS with two additional response options provided to each question that allowed banks to indicate if the situation in financial markets contributed or was expected to contribute either ***somewhat*** or ***considerably*** to an easing of credit standards.

Question 6: As a result of the situation in financial markets, has your market access been hampered when tapping your usual sources of wholesale funding and/or has your ability to transfer credit risk been hampered over the past three months, or are you expecting this access/activity to be hampered over the next three months? Please rate each factor using the following scale.
October 2007 – October 2009[9]

- - = considerably hampered

- = somewhat hampered

O = basically not hampered

N/A = Not Applicable

	Over the past three months			Over the next three months			
	- -	-	O	- -	-	O	N/A*
A) Inter-bank unsecured money market							
- Very short term money market (up to one week)							
- Short-term money market (more than one week)							
B) Debt Securities							
- Short-Term Debt Securities (e.g. certificates of deposit or commercial paper)							
- Medium to Long term debt securities (incl. covered bonds)							
C) Securitisation							
- Securitisation of Corporate Loans							
- Securitisation of Loans for House Purchase							
D) Ability to transfer credit risk off balance sheet							
E) Other markets (please specify)							

9 When ad-hoc question 111 first featured in the October 2007 round of the BLS, **part D) Ability to transfer credit risk off balance sheet** was not included. The format of this question was later changed to facilitate a more symmetric distribution of responses and the new wording of the question along with the new choice of responses is detailed below.

Question 6: As a result of the situation in financial markets has your market access changed when tapping your usual source of wholesale funding and/or has your ability to transfer credit risk changed over the past three months, or are you expecting this access/activity to change over the next three months? Please rate each factor using the following scale: **January 2010 – present**.

- - = deteriorated considerably / will deteriorate considerably
- = deteriorated somewhat / will deteriorate somewhat
O = remained unchanged / will remain unchanged
+ = eased somewhat / will ease somewhat
++ = eased considerably / will ease considerably
N/A = Not Applicable

	Past Three months					Next Three months					N/A
	- -	-	O	+	++	- -	-	O	+	++	
A) Inter-bank unsecured money market											
- Very short term money market (up to 1 week)											
- Short-term money market (more than 1 week)											
B) Debt Securities											
- Short-term debt securities (e.g. certificates of deposit or commercial paper)											
- Medium to long term debt securities (incl. covered bonds)											
C) Securitisation											
- Securitisation of Corporate Loans											
- Securitisation of Loans for house -purchase											
D) Ability to transfer credit risk off balance sheet											
E) Other Markets (please specify)											

Question 7: If you stated in response to the above question that one or more of your usual means of accessing wholesale funding markets were (will be) considerably or somewhat hampered over the past (next) three months, did (will) this have an impact on the quantity that your bank is willing to lend and/or the margin at which funds were (will be) lent over the past (next) three months[10]? **October 2007 – October 2009**.

(a) For money markets, debt securities or other markets (Section A, B, and E of the above question)*

	Over the past three months	Over the next three months
Quantity		
Considerable Impact		
Some Impact		
Basically no impact		
Margin		
Considerable Impact		
Some Impact		
Basically no impact		
N/A(**)		

(**) Please select "N/A" (not applicable) only in case your bank has applied "basically not hampered" or "N/A" to the above question.

(b) For Securitisation (Section C and D of the above question)

	Over the past three months	Over the next three months
Quantity		
Considerable Impact		
Some Impact		
Basically no impact		
Margin		
Considerable Impact		
Some Impact		
Basically no impact		
N/A(**)		

10 A minor change to this Question took place between the October 2007 and January 2008 rounds of the BLS when the question was expanded to look at the impact of restrictions to wholesale funding markets over the previous three months as well as the impact over the next three months.

Question 8: To what extent have (will) needs to fund draw-downs on commitments to asset-backed commercial paper programmes issued by conduits or Structured Investment Vehicles affected (affect) your lending policies over the past (next) three months? **January 2008 – October 2008**.

	Over the past three months	Over the next three months
Quantity		
Considerable Impact		
Some Impact		
Basically no impact		
Margin		
Considerable Impact		
Some Impact		
Basically no Impact		
N/A(+)		

(+) Please select "N/A(+)" only if the funding source is not relevant for your bank.

Question 9: To what extent have the events in financial markets affected the costs related to your bank's capital position and has this constrained your willingness to lend over the past three months and could this constrain your willingness to lend over the next three months? **October 2007 – January 2011**

	Over the past three months	Over the next three months
Considerable impact on both capital and lending		
Considerable impact on capital, and some impact on lending		
Some impact on both capital and lending		
Some impact on capital, but no impact on lending		
Basically no impact on capital		
No reply		

Question 10: What effect has the government's announcement and introduction of recapitalisation support and state guarantees for debt securities issued by banks had on your bank's access to wholesale funding markets over the past three months, and what effect are you expecting over the next three months? **January 2009 – January 2010**

	Over the past three months	Over the next three months
Basically no impact on market access		
Some improvement in market access		
Considerable improvement in market access		
N/A(++)		

(++) Please select N/A (not applicable) only if your government has not announced any of the above-mentioned measures.

Question 11: Since the first quarter of 2008, how has the transition to the Capital Requirement Directive (Directive 2006/48/EC) affected the credit standards for the following loan categories? (The period to be considered is Q1 2008 – Q2 2009) **July 2009**.

	Small and Medium sized enterprises	Large Enterprises	House Purchase	Consumer credit and other lending
Contributed considerably to tightening of credit standards				
Contributed somewhat to tightening of credit standards				
Basically no impact on credit standards				
Contributed somewhat to easing of credit standards				
Contributed considerably to easing of credit standards				
N/A(***)				

(***) Please select N/A (not applicable) only if your bank does not conduct business in a particular loan category.

Question 12: Please indicate how you expect your bank's credit standards as applied to the approval of loans or credit lines, to change over the next twelve months: **January 2010**.

- - = will tighten considerably

\- = will tighten somewhat

O = will remain basically unchanged

\+ = will ease somewhat

++ = will ease considerably

	Over the next twelve months				
Enterprises	- -	-	O	+	++
Overall					
Loans to SMEs					
Loans to Large enterprises					
Households					
Loans for house purchase					
Consumer credit and other lending					

Question 13: Over the next twelve months, how do you expect the following factors to affect your bank's credit standards, as applied to the approval of loans or credit lines, for the respective loan categories? **January 2010**.

- - = will contribute considerably to a tightening
- = will contribute somewhat to a tightening
O = will have basically no impact
+ = will contribute somewhat to an easing
++ = will contribute considerably to an easing
N/A = not applicable

	Over the next twelve months					
	- -	-	O	+	++	N/A
A) Cost of funds and balance sheet constraints						
Enterprises						
Overall						
Loans to SMEs						
Loans to Large Enterprises						
Households						
Loans for house purchase						
Consumer credit and other lending						
B) Pressure from competition						
Enterprises						
Overall						
Loans to SMEs						
Loans to Large Enterprises						
Households						
Loans for house purchase						
Consumer credit and other lending						
C) Perception of Risk						
Enterprises						
Overall						
Loans to SMEs						
Loans to Large Enterprises						
Households						
Loans for house purchase						
Consumer credit and other lending						

Question 14: How have your risk-weighted assets and your capital position changed over the past six months in order to comply with the capital requirements set out in “Basel III”* (or any other specific national regulations concerning banks’ capital that have recently been approved or are expected to be approved in the near future), and how do you expect these to change over the next six months and in 2012?

(Please do not take into account the “mechanical” effects that the implementation of Basel III will have on risk weights and the definition of capital.)

- -	=	decreased / will decrease considerably
-	=	decreased / will decrease somewhat
O	=	remained / will remain basically unchanged
+	=	increased/ will increase somewhat
++	=	increased / will increase considerably
N/A	=	Not Applicable

	Over the past six months					Over the next six months					2012					
	- -	-	O	+	++	- -	-	O	+	++	- -	-	O	+	++	N/A
Risk-weighted assets Of which: Average loans Riskier loans																
Capital Position Of which: Retained earnings Share Issuance																

- See Basel III: A global regulatory framework for more resilient banks and banking systems, Basel Committee on Banking Supervision, Bank for International Settlements, 16 December 2010 (http://www.bis.org/publ/bcbs189.pdf)

Question 15: How have your bank's credit standards for loans changed over the past six months as a result of adjustments implemented and/or planned owing to the new capital requirements set out in "Basel III" (or any other specific national regulations concerning banks' capital that have recently been approved or are expected to be approved in the near future), and how do you expect these to change over the next six months and in 2012?

- - = contributed / will contribute considerably to a tightening of credit standards
- = contributed / will contribute somewhat to a tightening of credit standards
O = had / will have no impact on credit standards
+ = contributed / will contribute somewhat to easing of credit standards
++ = contributed / will contribute considerably to easing of credit standards

		Loans and Credit lines to		Loans to Households	
		Small and Medium sized enterprises	Large enterprises	For House Purchase	Consumer credit and other lending
Over the past six months	- -				
	-				
	O				
	+				
	++				
Over the next six months	- -				
	-				
	O				
	+				
	++				
2012	- -				
	-				
	O				
	+				
	++				