REPORT ON THE USE AND BENEFITS FROM CENTRAL BANKS' FUNDING SUPPORT MEASURES

EBA EUROPEAN BANKING AUTHORITY

Contents

Executive Summary 3

Introduction 4

Crisis timeline and funding support 6

The crisis timeline and funding support 6

- 2007 6
- 2008 7
- 2009 7
- 2010 8
- 2011-2012 8

Long term funding support measures from ESCB central banks 9

- ECB's 3-year Long term refinancing operations 10
- Danmarks Nationalbank 3-year loan facilities 12
- Hungarian Central Bank's 2-year variable rate collateralized loans 12
- Funding for Lending Scheme in the United Kingdom 13

Long term funding support measures – granted and paid back 14

ECB's 3-year Long term refinancing operations 14

Danmarks Nationalbank 3-year loan facilities 16

Hungarian Central Bank's 2-year variable rate collateralized loans 17

Funding for Lending Scheme in United Kingdom 18

Usage of funding support measures 19

ECB's 3-year Long term refinancing operations 19

Danmarks Nationalbank 3-year loan facilities 21

Hungarian Central Bank's 2-year variable rate collateralized loans 21

Funding for Lending Scheme in United Kingdom 22

Summary 22

Benefits from funding support measures 24

ECB's 3-year Long term refinancing operations 24

Danmarks Nationalbank 3-year loan facilities 26

Hungarian Central Bank's 2-year variable rate collateralized loans 27

Funding for Lending Scheme in United Kingdom 27

Summary 27

Conclusion 29

Appendix 31

Executive Summary

According to Article 161 (9) of Directive 2013/36/EU ("CRD") EBA has been mandated to submit by 1 July 2014 a report on credit institutions' use of and benefits from ESCB central banks longer-term refinancing operations and similar central bank funding support measures.

This report focuses on the 4 direct longer term funding support measures deployed in the EU during the financial crisis: the ECB's 3-year LTRO, the 3-year long-term loans provided by Danish Central bank (Danmarks Nationalbank), the 2-year variable rate loans from Hungarian Central Bank [1] and the Funding for Lending Scheme launched by the Bank of England and HM Treasury in the UK. On the latter, the report focuses on the first phase of the Scheme, which ended at the end of January 2014.[2]

Altogether from December 2011 to December 2013 these funding support measures provided EUR1.080bn. 96% of the funds were provided by the ECB. At the end of 2013 the outstanding amount of the total provided funds stood at EUR624.7bn.

In the euro-area, the 3 year LTROs were settled on two occasions, in December 2011, when EUR490bn was allotted to 523 participants and at the end of February 2012, when EUR530bn was disbursed to 800 banks. Referring to the ECB statements regarding the reasons for the operations they were meant to address the funding pressures arising at the time.

Looking at the aggregate funding usage it is evident that the banks mainly used the funding support measures to replace market funding, whose long term costs had dramatically increased. The benefits of those measures have been mainly the stabilisation of banks' liquidity positions as well as restoring confidence.

Due to the differences in the funding support measures it is difficult to generalise the benefits across the EU. However, the the most frequently cited benefit for the banks was the improvement of liquidity and funding regulatory ratios, which was the result of offered cheaper funding. Cheaper funding also improved the marketable funding possibilities and overall funding costs for the banks. This includes a decrease in yields on the new issued bonds and a decrease of rates on new deposits. Besides establishing the better funding conditions on the market, the cheap funding prevented the banks' fire sale of assets which would have resulted into large losses and the further deterioration of market conditions.

Apart from the Funding for Lending Scheme in the UK, it is difficult to quantify the extent to which these measures have provided incentives for banks to increase lending, even if the authorities mention that this has been one of the drivers for banks. Some banks have also taken advantage of the cheap funding to recover profitability. This was achieved either by subscribing sovereign bonds, which at the time had higher yields than the costs of funding, or own debt buybacks. Subscription of domestic sovereign bonds was a common practice particularly in the banks in vulnerable Euro Area countries. Since it is hard to clearly identify how much of the picked up funds were used in this activity, the quantification of the earnings benefits is not possible.

[1] The Central Bank of Hungary (Magyar Nemzeti Bank) also announced a "Funding for Growth Scheme" in April 2013, which is not a part of this report.

[2] FLS drawings for 2013 Q4 or as at 2013 Q4 shown in relevant tables and in Chart 11 in this report include drawings to end January 2014, when the first phase of the FLS ended.

Introduction

This report identifies credit institutions' use of and benefits from ESCB central banks longer-term refinancing operations and similar central bank funding support measures on the basis of which European Commission will prepare a report for the Council and European Parliament.

According to Article 161 (9) of Directive 2013/36/EU ("CRD") [3] EBA has been mandated to submit by 1 July 2014 a report on credit institutions' use of and benefits from ESCB central banks longer-term refinancing operations and similar central bank funding support measures. Having regards to the report and after consulting the ECB, the Commission will prepare a report for the Council and European Parliament by 31 December 2014 accompanied, if appropriate, with a legislative proposal.

The European Commission has further clarified the scope of this report in a "Call for advice" sent to the EBA in December 2013. The Commission proposed that the report should include four main sets of information in order to clarify the background on the usage of funding support measure.

Firstly, the report should include information about the amount of the liquidity support (two ECB LTROs and other monetary policy operations) granted during 2011 and 2012 broken down by Member State.

Secondly, it should show the amount of the liquidity support (via two ECB LTROs with a maturity of 3 years granted during 2011 and 2012 and other monetary policy operations) paid back during 2011, 2012 and 2013 broken down by Member State.

Thirdly, the report should identify the specific use of the LTRO funding and other monetary policy operations such as investing in sovereign debt, lending to the real economy or general funding.

Finally, a qualitative and quantitative assessment of the benefits for credit institutions due to the use of LTROs and other monetary policy operations through "carry trades" or otherwise should be carried out. Also, due to complexity of the quantification of the benefits, it should complement the qualitative assessment only to an appropriate extent.

This report addresses the request of the Call for Advice subject to the availability of data that the relevant central banks have been able to provide. In particular, sharing the LTRO data broken down by the Member States was opposed by ECB based on the argument that country-specific figures would not be informative – and can be actually misleading – in a single-currency area. Most of the Euro area national central banks[4] also confirmed their inability to provide this data. Therefore the report provides the 3-year LTRO on the Euro area aggregate level.

[3] "/…/By 1 July 2014, EBA shall report to the Commission on credit institutions' use of and benefits from ESCB central banks longer-term refinancing operations and similar central bank funding support measures. Based on that report and after consulting the ECB, the Commission shall, by 31 December 2014, submit a report to the European Parliament and to the Council on the use of and benefits from those refinancing operations and funding support measures for credit institutions authorized in the Union, together with a legislative proposal on the use of such refinancing operations and funding support measures if appropriate./…/"

[4] Central banks from Germany, Spain, Italy, France, Finland and Slovenia were available to share this data.

Similar data constraints have not allowed quantifying the benefits of the public funding, but a qualitative assessment has been provided thanks to a questionnaire addressed to the relevant central banks and supervisors. More generally, given the lack of a counterfactual, it would have been difficult to disentangle the specific effect of the longer-term central bank financing from other determinants of banks’ decisions and investment strategies.

Notwithstanding these difficulties, the report addresses all of the considerations of Article 161 (9) of the CRD and it is divided into four parts focusing on the funding support measures, which have been introduced during 2011 and 2012 and have been directly provided to the banks.

The first part of the report gives a short overview on the funding support measures introduced during the crisis.

Afterwards the report provides information on all long term funding support measures.

The third part covers the usage of the funding instruments.

The institutions’ benefits from the usage are assessed in the last chapter.

Crisis timeline and funding support

To provide context for defining the long-term funding support measures introduced by ESCB central banks, this chapter shortly touches on developments in the financial sector during the crisis, when central banks became extensively involved in interbank intermediation. Thereafter it provides further information on the longer term funding support measures introduced by ESCB central banks during 2011 and 2012: ECB's 3-year long-term refinancing operations; Danmarks Nationalbank 3-year loan facilities; Hungarian Central Bank's 2-year variable rate collateralised loans and the Funding for Lending Scheme in the United Kingdom.

Shortages of interbank intermediation started with the beginning of the US subprime mortgages problems, which also triggered the global financial crisis. Clearly the contraction of the interbank markets intensified after the collapse of Lehman Brothers, when the almost complete dry-up of interbank lending made the central bank intervention unavoidable. However, long term funding support measures, which will be a subject of this report, have been introduced in light of prolonged adverse macro-financial developments, in order to support the economy and reduce "disorderly" bank deleveraging.

In order to understand better the drivers for the introduction of different measures, the chapter is divided into two parts. The first part presents a chronology of the crisis and shows the most important milestones. In particular, it recalls the rationale for introducing the long term funding support measures introduced at the end of 2011 and during 2012 and 2013. The second part dives into the feature of each long term funding support measure.

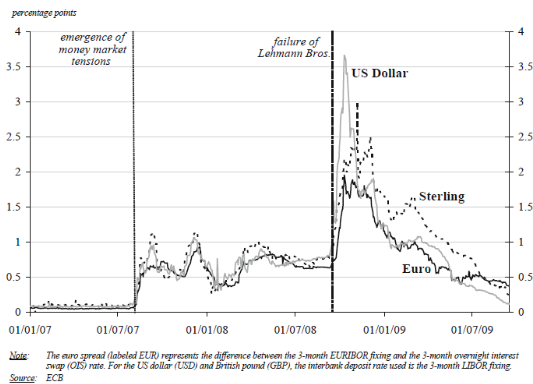
The crisis timeline and funding support

2007

A substantial increase in financial market volatility and a growing risk aversion in the summer of 2007 marked the beginning of the global financial crisis, sparked by the sub-prime crisis in the US as it is also seen in the Chart 3 (page 8). There was a complete dislocation in several important financial markets, including the interbank market. The short term rates have begun rising rapidly (Chart 1, page 7), which alarmed the central banks to take adequate measures. Initially, central banks focused on providing liquidity through various liquidity support operations in order to overcome the escalation of long term and especially short term funding costs.

In December 2007, the ECB, the Bank of England and other major central banks announced measures to address elevated pressures in short-term funding markets. ECB and the Bank of England announced changes to their long-term repo operations, expanding the amount offered at longer maturity (6 and 3 months, respectively) and widening the range of high-quality collateral accepted.

Chart 1: Spread between deposits and OIS rates at 3-month maturity



Source: ECB

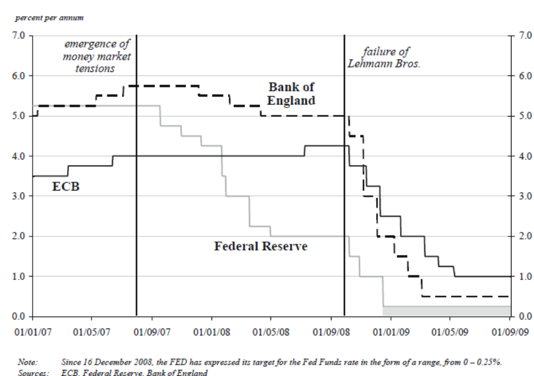
Mainly, the innovations in the operational procedures of the central banks in the early stages of the crisis were designed to support interbank intermediation in the money market and to offer the banks the necessary liquidity, in order to reduce uncertainty of their balance sheet liquidity caused by the accumulation of illiquid assets, notably asset-backed securities.

2008

In April 2008, the Bank of England introduced the Special Liquidity Scheme to improve the liquidity position of the banking system by allowing banks to swap high-quality, but temporarily illiquid, mortgage-backed and other securities for UK Treasury bills for up to three years.

Following the bankruptcy of Lehman Brothers on 15 September 2008, the uncertainty about the financial health of major banks worldwide led to a virtual collapse in activity in many financial market segments. Banks built up large liquidity buffers, while shedding risks from their balance sheets and tightening loan conditions. Given the crucial importance of banks for the financing of overall European economy, clear and fast reaction was needed. The central banks rapidly reduced their key interest rates to historically low levels and further lowered the costs of the permanent liquidity insurance facilities.

Chart 2: Evolution of key policy rates

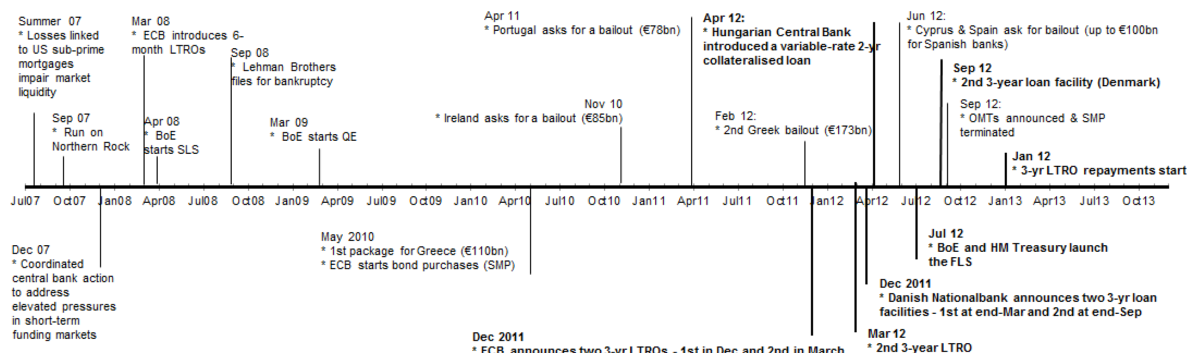


Source: ECB

2009

In March 2009, the Bank of England's Monetary Policy Committee announced the start of its asset purchase programme, known as Quantitative Easing, at the same time as it reduced Bank Rate to 0.5%. Currently, the stock of purchased assets stands at £375bn. The purpose of the purchases was to inject money directly into the economy in order to boost nominal demand.

Chart 3: Crisis timeline



2010

The economic and financial crisis has led to a severe deterioration of public finances across European countries. Governments which already had significant fiscal imbalances ahead of the crisis exited from the recession with the historically high debt-to-GDP ratios recorded in times of peace. After the Greece debt restructuring there was a general deterioration in government bond markets in vulnerable Euro area countries.

2011-2012

In summer 2011, to prevent government bond markets risked becoming dysfunctional the ECB decided to 'actively implement its Securities Markets Programme' (Statement by the ECB President, 7 August 2011) that had been dormant for several months. Significant and sustained interventions at varying intensity in the following weeks temporarily eased the situation in government bond markets.

In autumn 2011, however, the Euro area banking system came increasingly under strain, with the adverse interaction between the sovereigns and banks, including via portfolio exposure to foreign sovereigns. Depressed sovereign bond prices weakened bank balance sheets, markets questioned the viability of a number of banks across a range of euro area countries, and the strained sovereigns were seen as increasingly unable to provide credible backstops. In large parts of the euro area bank funding dried up, the bank issuance of covered bonds was severely constrained, and uncovered issuance virtually closed. Banks lacked funding and their liquidity beyond the immediate horizon was also brought into question. In this context the situation of banks across the EU countries became increasingly differentiated, with some banking systems facing acceleration in net payment outflows. Indeed, their interbank borrowing and debt securities stopped being rolled over and this was sometimes exacerbated by a reduction in client deposits, notably from non-residents. Other banking systems were net recipients of those inflows and faced excess liquidity.

Additionally, due to the prolonged period of recession, many available indicators pointed to a credit crunch coming up for most countries in the European Union, well beyond countries under pressure. In this context and with forecasted negative growth in the area, a response was needed that provided banks not only with a short-term liquidity support but also with a sufficient perspective so that they would maintain credit lines in this very special environment.

ECB was the first to react with new monetary procedures. On 8 December 2011 it announced two LTROs with a maturity of 3

years each. The reaction from the ECB was soon followed by the Danmarks Nationalbank, which supplemented its monetary-policy instruments with a temporary 3-year lending facility. Similarly as the ECB 3y LTROs the facility was offered to the monetary-policy counterparties.

With monthly frequency, starting from April 2012, the Hungarian central bank announced a variable-rate collateralised loan with a maturity of two years. However, for participation in the tenders, the Hungarian Central Bank stipulated specific conditions that prevent a decline in corporate lending.

Over the twelve-months to end-May 2012, the intensification of the euro-area crisis had caused UK bank funding costs to increase, leading to a rise in interest rates on loans and tighter credit conditions. Therefore in July 2012, the Bank of England and HM Treasury launched the Funding for Lending Scheme (FLS), which provided funding to banks for an extended period, at below then-elevated market rates, with both the price and quantity of funding linked to their lending to the UK real economy, similarly to Hungary.

In 2013, the FLS was extended, and in November the terms of the Scheme changed to refocus it towards lending to SMEs from January 2014. This report focuses on the first phase of the Scheme, which ended at the end of January 2014.

Finally in August 2012, ECB announced Eurosystem's Outright Monetary Transactions in secondary sovereign bond markets. Although not used so far, it was aimed at safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy.

Since the second half of 2012, the EU banking sector started slowly to pick up and relaxation of conditions in the funding market was evident.

Long term funding support measures from ESCB central banks

This report defines the long term funding support measures as funding, which is provided to the banks directly via ESCB central bank with the initial or planned maturity of more than 1 year. As such also a survey conducted with the National Supervisory Authorities (NSA), in liaison with the National Central Banks (NCBs), identified four long term funding support measures, as mentioned in the previous: ECB's 3-year long-term refinancing operations; Danmarks Nationalbank 3-year loan facilities; Hungarian Central Bank's 2-year variable rate collateralised loans and the Funding for Lending Scheme in the United Kingdom.

Table 1: Timeline of the four long term funding support measures

Dec-11	**ECB announces two 3-year LTROs - 1st in Dec and 2nd in March (with repayment option after 1 year).** **Danmarks Nationalbank announces 3-year lending facility.**
Jan-12	**Danmarks Nationalbank announces conditions and dates of two offerings of 3-year lending facility - 1st at end-March and 2nd at end-Sept.**
Mar-12	**2nd 3-year LTRO.** **1st 3-year temporary loan facility from Danmarks Nationalbank.**
Apr-12	**Hungarian Central Bank announced a variable-rate 2-year collateralised loan.**
Jul-12	**BoE and HM Treasury launch the FLS.**
Sep-12	**2nd 3-year temporary loan facility from Danmarks Nationalbank.**

Besides these four long-term funding support measures no other similar measure which would be relevant for this report was suggested by NSA.

Table 2 summarizes the main characteristics of the four long term funding schemes, which are more exactly described later in this chapter.

Table 2: Comparing the four long term funding support measures

Long term funding support measure	Area	Institution	Costs of funding	Main characteristics
3-year Long term refinancing operations (LTRO)	Euro Area	European Central Bank	Interest rate fixed at the average rate of the main refinancing operations (1% p.a. at the time)	Full allotment of the bids. ECB decided to increase collateral availability by allowing national central banks to accept as collateral additional performing credit claims (i.e. bank loans) that satisfy specific eligibility criteria. Also, in addition to the ABSs that were already eligible for Eurosystem operations, the ECB started to accept as eligible collateral certain ABSs with a second best rating at issuance and over the lifetime of A- or above.
3-year loan facilities	Denmark	Danmarks Nationalbank	Fixed interest rate equalling 7-day monetary policy lending rate (0.70% p.a. in March 2012 and 0.20% p.a. in September)	Full allotment. Collateral base unchanged, however the collateral base was expanded end of September 2011.
2-year variable rate collateralized loans	Hungary	Hungarian Central Bank	Average of monetary policy base rate over the life of the operation (in April 2012 the rate was 7% p.a. currently 2.4% p.a.). Additionally, in case the average monthly outstanding amount of adjusted domestic non-financial corporate loans of a credit institution for a given half-year decreases below the outstanding amount on 30 June 2012, the credit institution will have to pay a penalty fee of 50 basis points, increasing by additional 50 basis points for every 1 percentage point decrease. The maximum penalty is 250 basis points.	Full allotment with a variable rate (average monetary policy base rate over the life of the operation). Hungarian Central Bank stipulated specific conditions that prevent a decline in corporate lending.
The first phase of the Funding for Lending Scheme (FLS)	United Kingdom	Bank of England and HM Treasury	For banks that expanded their net lending (compared to end-June 2012), all borrowing from the FLS was at the lowest available fee of 25bps per year – a sizeable funding cost discount compared to then-elevated market rates. But banks that contracted their stock of loans had to pay an additional 25bps for each percentage point fall in their lending up to a maximum of 150bps for those that contracted their lending by 5% or more.	Both the price and quantity of funding provided linked to banks' performance in lending to the UK real economy. The FLS offered Treasury bills in exchange for eligible collateral. The Treasury bills obtained could be then used to raise cash in a number of ways. The term of borrowing is four years from the date of the drawdown, with early repayments possible.

ECB's 3-year Long term refinancing operations

During the last quarter of 2011, credit developments to the private sector were exceptionally weak. The annual growth rate of banks' credit to the private sector decreased and was comparable with those prevailing in 2008-2009. In particular, the rate of growth of loans to households declined, reflecting both demand-side factors (such as a deterioration in the prospects for the economy, and notably the housing market) and supply-side factors (such as increasing funding difficulties for banks). Incidentally, these developments masked significant cross-country

heterogeneity, as few countries saw an increase in flows supported by government measures aimed at the housing market. The annual growth rate of loans to non-financial corporations declined as well, reflecting particularly weak quarterly flows. There was considerable cross-country heterogeneity in this case too.

This picture of monetary developments was confirmed by the results of the Bank Lending Survey for the fourth quarter of 2011. Euro area banks tightened credit standards compared with the previous quarter for both loans to non-financial corporations and loans to households, and to a lesser extent for loans for consumer credit. Furthermore, survey participants expected a further tightening of credit standards in the first quarter of 2012.

Although it is inherently difficult to disentangle supply-side from demand-side factors, banks explained their changes in credit standards mainly by primarily referring to increased funding costs and funding uncertainties, and balance sheet constraints, which were compounded by a rapidly deteriorating economic environment. The funding situation of euro area credit institutions worsened noticeably in the second half of 2011, as shown by the rise in withdrawals of deposits held by non-euro area residents with euro area banks and difficulties in issuing longer-term debt securities. This caused a part of the banking system to make greater recourse to Eurosystem operations.

The decline in credit to the private sector was accompanied by an increasing reluctance on the part of the euro area private sector to invest in financial assets; it severely hampered banks' access to financing via the secured money market, due to an increase in haircuts and a deterioration of the available collateral.

While market-based funding was becoming ever scarcer for banks in the euro area (as investors were growing increasingly nervous about the escalation of the sovereign crisis), banks were also facing regulatory and market pressures to strengthen their capital position.

Faced with this critical situation, the Eurosystem adopted a two-pronged strategy. First, it offered ample liquidity at very long maturity to prevent funding issues from igniting a potentially destructive deleveraging process. Second, it widened the eligible collateral to facilitate access to the liquidity and the provision of credit to SMEs. Specifically, on 8 December 2011, the ECB announced the following initiatives[5].

First, the ECB announced two longer-term refinancing operations with a maturity of 36 months. The LTROs were conducted on 21 December 2011 and 29 February 2012 as fixed-rate tender procedures with full allotment, with the interest rate fixed at the average rate of the main refinancing operations (1% p.a. at the time) over the life of the respective operation.[6] To increase the flexibility of the operations and to cater for different liquidity needs, counterparties were offered the option to repay after one year any part of the allotted amounts.

Second, the ECB decided to increase collateral availability by allowing national central banks to accept as collateral additional performing credit claims (i.e. bank loans) that satisfy specific eligibility criteria. Also, in addition to the ABSs that were already eligible for Eurosystem operations, the ECB started to accept as eligible

[5] See ECB Press Release of 8 December 2011 on "ECB announces measures to support bank lending and money market activity".

[6] In other words, the remuneration rate on a bank's borrowed amount under a three-year LTRO is determined as the average of the rate prevailing on the main refinancing operations during the period under the maturity or reimbursement of the three-year LTRO. Hence, the cost of borrowing through the three-year LTROs is approximately the same as that of borrowing on a rolling basis through the ECB's other open market operations, including the main refinancing operations or the maintenance period operations or the regular three-month operations.

collateral certain ABSs with a second best rating at issuance and over the lifetime of A- or above. These measures aimed at ensuring that counterparties do not face too tight collateral constraints when the two three-year LTROs were conducted.

Danmarks Nationalbank 3-year loan facilities

Like the ECB, Danmarks Nationalbank supplemented its monetary-policy instruments with a temporary 3-year lending facility. Again, the idea was to provide the banks with sufficient medium-term liquidity and bring down the elevated long-term funding costs.

Danmarks Nationalbank offered the first 3-year loans on 30 March 2012. The 3-year loans made up almost the entire volume of outstanding monetary-policy loans at the time. Utilization of this arrangement was determined by demand among the banks and was identical to the ECB full-allotment policy. The rate of interest on the 3-year loans was variable, mirroring Danmarks Nationalbank's 7-day monetary policy lending rate (0.70% in March 2012 and 0.20% in September) plus an interest premium. The interest premium was set at zero until 31 July 2013. However, if after this date, Danmarks Nationalbank would find that the access to funding in the money and capital markets has normalised, the premium would have increased. The loans had an option, which allowed the counterparty redeem them on a weekly basis six months after being raised.

Hungarian Central Bank's 2-year variable rate collateralized loans

Very similar situation as in some of the distressed Euro area countries happened in Hungary, which also suffered a significant deterioration in its public finances. Besides that the country's banking sector witnessed a decline in the capital buffer caused, on the one hand, by the early repayment scheme of foreign currency denominated mortgage loans and the deteriorating portfolio quality, on the other hand, by the FX liquidity tensions. Furthermore, in spite of the considerable balance sheet adjustment since the outset of the crisis, no improvement took place in the maturity mismatch between the asset and liability sides, while the financial tensions that were expected to be temporary proved to be persistent (apart from some milder periods), which was reflected in expensive long-term loans and much more cautious bank behaviour.

Therefore Hungarian Central Bank contributed to the strengthening of lending activity by using new instruments to support the liquidity of credit institutions. With monthly frequency, starting from April 2012, the Hungarian central bank announced a variable-rate collateralised loan with a maturity of two years; its interest cost equals the central bank base rate prevailing during the maturity and can be prepaid by the debtors after one year. What differentiated the Hungarian central bank's long term facility from the previously two mentioned were the constraints in granting the loans. Namely, for participation in the tenders, the Hungarian Central Bank stipulated specific conditions that prevent a decline in corporate lending.

In case the average monthly outstanding amount of adjusted domestic non-financial corporate loans of a credit institution for a given half-year decreases below the outstanding amount on 30 June 2012, the credit institution will have to pay a penalty fee of 50 basis points, increasing by additional 50 basis points for every 1 percentage point decrease. The maximum penalty is 250 basis points. The penalty fee is due on a semi-annual basis and has to be paid on the first Wednesday (business day) of the second month of the following half-year. The penalty fee is imposed on the difference of the monthly average outstanding amount of adjusted domestic non-financial corporate loans of a credit

institution for a given half-year and that outstanding on 30 June 2012.

Funding for Lending Scheme in the United Kingdom

In July 2012, the Bank of England and HM Treasury launched the Funding for Lending Scheme (FLS) in order to encourage lending to UK households and companies. At the time of the FLS's announcement in the middle of 2012, UK output had been broadly flat over the preceding two years, with bank lending to UK households and firms broadly flat for over three years despite the extremely accommodative stance of monetary policy. And as noted above, the intensification of the euro-area crisis had caused UK bank funding costs to increase.
At that time, funding costs seemed likely to remain elevated and impair the flow of credit from banks to households and firms for a considerable time. Therefore FLS was introduced as a direct policy response to elevated bank funding costs – a key determinant of the interest rate banks charge on loans.

The FLS was designed to incentivize real economy lending by providing low-cost funding to banks and building societies (hereafter 'banks') for an extended period, with both the price and quantity of funding provided linked to banks' performance in lending to the UK real economy. In the first phase, the drawdown period lasted 18 months until the end of January 2014. There was no upper limit in the Scheme regarding the amount of funding banks could access, provided a participant had sufficient collateral. The FLS offered Treasury bills in exchange for eligible collateral. The Treasury bills obtained could be then used to raise cash in a number of ways. The term of borrowing is four years from the date of the drawdown, with early repayments possible.

The price of funding from the FLS varied depending on each lender's net lending (compared to end-June 2012). For banks that expanded their net lending, all borrowing from the FLS was at the lowest available fee of 25bps per year – a sizeable funding cost discount. But banks that contracted their stock of loans had to pay an additional 25bps for each percentage point fall in their lending up to a maximum of 150bps for those that contracted their lending by 5% or more.

Long term funding support measures – granted and paid back

This chapter provides an overview of the developments in the outstanding amounts of long term funding support measures from ESCB central banks provided to the banks. The overall scope includes granted and repaid support between 2011 and 2013.

Table 3: Long term funding support measures – granted and paid back

Long term funding support measure	Granted Amount	Paid back Amount	Outstanding Amount at end-2013
3-year Long term refinancing operations (LTRO)	EUR 1,018.7 bn	EUR 446.4 bn	EUR 572.3 bn
3-year loan facilities	DKK 55.9 bn (EUR 7.5 bn)	DKK 46.3 bn (EUR 6.2 bn)	DKK 9.6 bn (EUR 1.3 bn)
2-year variable rate collateralized loans	HUF 122 bn (EUR 0.43 bn)	HUF 10 bn (EUR 0.04bn)	HUF 112 bn (EUR 0.39 bn)
Funding for Lending Scheme (FLS)	GBP 43.8 bn (EUR 53 bn)	GBP1.9 bn (EUR 2.3 bn)	GBP 41.9 bn (EUR 50.7 bn)
TOTAL	**EUR 1,079.6 bn**	**EUR 454.9 bn**	**EUR 624.7 bn**

ECB's 3-year Long term refinancing operations

After the Governing Council decision the two LTROs were carried out within an interval of two months. The first operation was settled on 22 December 2011 (replacing the 12-month LTRO which was planned to be allotted on that date and had been announced on 6 October 2011) with a maturity of 1134 days up to 29 January 2015. The second operation, slightly shorter, was settled on 1 March 2012 and fixed with a maturity of 1092 days up to 26 February 2015.

The first operation allotted on 21 December 2011 attracted bids of EUR 489.2 billion. The number of participants was 523, the highest for an LTRO since the first 1-year LTRO in June 2009 that attracted 1121 bidders. The amount allotted was higher than at that time, but the net injection of liquidity was however lower, at EUR 210 billion, taking into account the reduction both in the MRO and the 3-month LTRO, and the shift from the previous one-year LTRO as illustrated in Table 1. The total amount of liquidity provided by the ECB refinancing operations reached at that time EUR 724 billion, with excess liquidity over reserve requirements standing at EUR 477 billion.

Table 4: First three-year LTRO: net liquidity (EUR bn)	
Reduction in MRO	-122.6
Reduction in 3-month LTRO	-111.0
Shift from the 1-year LTRO*	-45.7
Total shift=	**-279.2**
3-year LTRO	489.2
Net liquidity provision	**210.0**

Source: European Central Bank
** Counterparties were permitted to shift all of the outstanding amounts received in the 1-year LTRO allotted in October 2011 into the first LTRO allotted on 21 December 2011. See ECB Press Release of 8 December 2011.*

The second three-year LTRO, allotted on 29 February 2012, provided even a higher amount of liquidity with bids reaching EUR 529.5 billion, the highest amount allotted for a LTRO since the inception of the euro. The

number of participants increased to 800. Taking into consideration the maturing MRO and LTRO operations allotted on the same day, the net injection of liquidity on this date amounted to EUR 314 billion (see table 2), which was higher than the net injection of liquidity following the first LTRO but still lower than the net injection of liquidity following the first one-year LTRO in 2009 (EUR 450 billion).

Table 5: Second three-year LTRO: net liquidity (EUR bn)	
Reduction in MRO	-133.9
Reduction in 3-month LTRO	-81.5
Total shift=	**-215.5**
3-year LTRO	529.5
Net liquidity provision	**314.0**

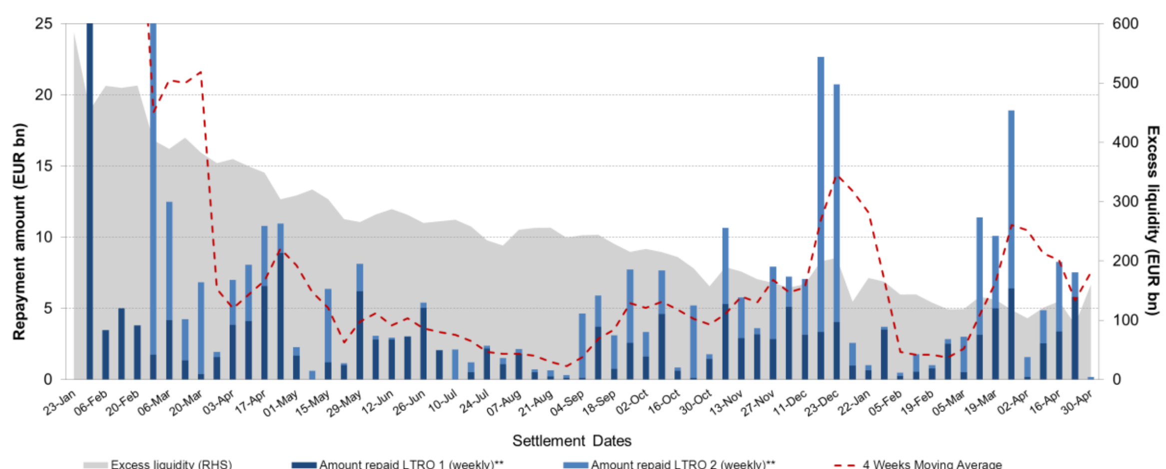
Source: European Central Bank

Overall, the amount allotted by these two operations reached EUR 1,018.7 billion, whereas the net liquidity injection was EUR 524 billion, increasing the liquidity provided by the Eurosystem refinancing operations on 1 March 2012 at the level of EUR 975 billion with an excess liquidity over the minimum reserve requirements of EUR 803 billion.

In the following months, excess liquidity declined gradually from these levels up to a minimum of EUR 80 billion on 9 May 2014. By 30 April, it increased again to EUR 160 billion after significant increases in the main refinancing operation that day. The main changes in liquidity were caused by a decline in the outstanding LTROs (amounts repaid and reduction in other LTROs) by EUR 593 billion and an increase in autonomous factors of EUR 245 billion since then. The reduction due to maturing bonds in the outstanding amounts of the Covered Bond Purchase Programme by EUR 13 billion had a more residual impact on liquidity. Conversely, on the providing liquidity side, the MRO is at higher levels than at the settlement of the second LTRO (+EUR 143 billion).

On 30 January 2013, following the initial decision of the Governing Council, the first repayment of the first 3-year LTRO took place for EUR 137 billion (28% of the total amount) with a large number of repaying banks (278 banks) involved. It was larger than expected by analysts and seen as a positive sign of normalization in market conditions. As a result, excess liquidity in the euro area declined that day from EUR 590 billion to EUR 454 billion (see chart 1). Since then, scheduled weekly repayments for this LTRO have taken place, but on a lower scale.

Chart 4: Weekly evolution of the repayments and the excess liquidity



(**) Please note that the first repayments of LTRO1 and LTRO2 are out of scale (EUR 137 bn and EUR 1 bn).

On 27 February 2013, the first repayment of the second 3-year LTRO took place: it amounted to EUR 61.1 billion (12% of the total amount). It was smaller but came from a larger number of banks than the initial repayment of the first LTRO (356 banks). Excess liquidity at this point fell to EUR 404 billion from EUR 468 billion.

Since these significant initial repayments, counterparties have continued to repay both three-year LTROs on a weekly basis due to significant improvement in market access by most counterparties and, occasionally, due to a shift from LTRO to MRO, especially after the LTROs maturities declined below one year. At the end of December 2013 and at the end of the first quarter of 2014 (see chart 1) more significant volumes were repaid due to balance sheet cleaning considerations ahead the presentation of their financial statements and in view of the Assets Quality Review.

Apart from the repayments, some banks were forced to repay their outstanding amounts before the window repayment possibility was opened in 2013. Around EUR 28 billion were repaid before the first repayment date, mainly because certain banks stopped being eligible counterparties for Eurosystem monetary policy credit instruments. (When banks are no longer eligible for monetary policy credit instruments, they must immediately repay their outstanding amounts borrowed). As of 30 April 2014, and with a maturity of less than a year for both operations, three-year LTRO repayments amounted to EUR 535 billion in total (EUR 305 billion in the first LTRO and EUR 230 billion in the second LTRO). The repaid amount corresponded to 54% of total borrowings and 102% of the initial net injection. The total outstanding amount still to be repaid stood at EUR 456 billion at that date.

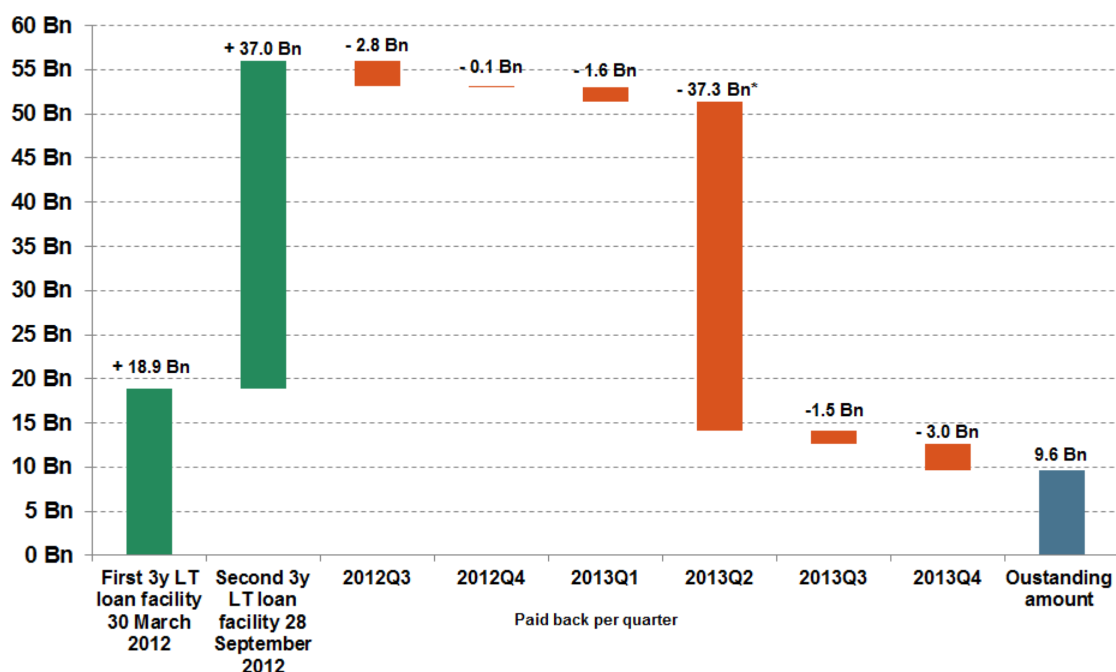
Danmarks Nationalbank 3-year loan facilities

Danmarks Nationalbank offered the first 3-year loans on 30 March 2012, when the banks and mortgage banks raised loans for DKK19 billion. Second 3-year loans were offered on 28 September 2012. Loans totalling DKK37 billion were raised, bringing the outstanding volume of 3-year loans to DKK53 billion at the time or approximately 3 per cent of the Danish GDP. The loans could be redeemed on a weekly basis six months after they have been raised.

First repayments took place in the second half of 2012, when banks repaid DKK2.9bn, almost all of it in 2012Q3. They paid back DKK1.6bn in the first quarter of 2013. The repayments peaked in the second quarter of 2013, when the funding support was lowered by DKK37.3bn. This might have been due to the fact that the premium for central bank's lending could increase from zero from July 2013. Later that year banks paid back DKK1.5bn and DKK3bn in Q3 and Q4, respectively.

Final outstanding amount of the 3 year facilities at the end of 2013 stood at DKK9.6bn, which is scheduled to mature by the end of September 2015, if not repaid before.

Chart 5: Quarterly evolution of the repayments of 3-year LT loan facilities (in DKK)



Source: Danmarks Nationalbank

Hungarian Central Bank's 2-year variable rate collateralized loans

From April 2012, the Hungarian central bank announced a variable-rate collateralized loan with a maturity of two years, which was offered to the banks on a monthly basis. Out of 13 tenders, which have been offered in one year time, the banks placed bids only on three occasions. At the first tender in April 2012 banks raised HUF56bn of funds. Similarly, in the second tender in May 2012 banks were granted HUF53bn of 2 year loans. The final bids for the 2 year loan facilities were placed at the 4th tender in July 2012, when the banks were allotted with HUF13bn. If the amounts are quarterly aggregated, the banks have been granted with HUF109bn of 2 year loans in the 2012Q2 and with HUF13bn in the 2012Q3.

Overall, the banks picked up HUF122bn (approximately EUR428m) and mainly held the funds until maturity. Early repayments were made only in Q32013, when the banks repaid HUF10bn. HUF109bn have been repaid as normal repayment after maturity in the second quarter of 2014, while the remaining HUF3bn is due in Q32014.

Table 6: 2-year collateralized loans tenders and allotment

Type of loan tender operation	Time for submission of bids		Time of result announcement		Settlement date	Maturity date	Total bid amount (HUF billion)	Total amount alloted (HUF billion)
Tender of the 2-year base rate-indexed collateralised loan	02/04/2013	09:30 - 10:30	02/04/2013	11:00	03/04/2013	01/04/2015	0	0
Tender of the 2-year base rate-indexed collateralised loan	12/03/2013	09:30 - 10:30	12/03/2013	11:00	13/03/2013	11/03/2015	0	0
Tender of the 2-year base rate-indexed collateralised loan	05/02/2013	09:30 - 10:30	05/02/2013	11:00	06/02/2013	04/02/2015	0	0
Tender of the 2-year base rate-indexed collateralised loan	08/01/2013	09:30 - 10:30	08/01/2013	11:00	09/01/2013	07/01/2015	0	0
Tender of the 2-year base rate-indexed collateralised loan	04/12/2012	09:30 - 10:30	04/12/2012	11:00	05/12/2012	03/12/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	06/11/2012	09:30 - 10:30	06/11/2012	11:00	07/11/2012	05/11/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	02/10/2012	09:30 - 10:30	02/10/2012	11:00	03/10/2012	01/10/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	04/09/2012	09:30 - 10:30	04/09/2012	11:00	05/09/2012	03/09/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	07/08/2012	09:30 - 10:30	07/08/2012	11:00	08/08/2012	06/08/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	03/07/2012	09:30 - 10:30	03/07/2012	11:00	04/07/2012	02/07/2014	13	13
Tender of the 2-year base rate-indexed collateralised loan	05/06/2012	09:30 - 10:30	05/06/2012	11:00	06/06/2012	04/06/2014	0	0
Tender of the 2-year base rate-indexed collateralised loan	08/05/2012	09:30 - 10:30	08/05/2012	11:00	09/05/2012	07/05/2014	53	53
Tender of the 2-year base rate-indexed collateralised loan	03/04/2012	09:30 - 10:30	03/04/2012	11:00	04/04/2012	02/04/2014	56	56
							122	122

Source: Hungarian Central bank

Funding for Lending Scheme in United Kingdom

The FLS was launched in July 2012 and 46 'FLS groups'[7] participated in the Scheme. Table 4 lists quarterly gross drawdowns, repayments and net drawings. Overall, outstanding net aggregate drawings were GBP41.9bn over the period of the scheme (see appendix for bank-by-bank data).

Table 7: Net FLS granted funds[8]

In GBP million	**2012Q3**	**2012Q4**	**2013Q1**	**2013Q2**	**2013Q3**	**2013Q4**	**Aggregate**
drawdown	4,360.0	9,472.0	2,621.0	2,018.0	5,524.0	19,809.0	43,804.0
repayment	0.0	0.0	0.0	-900.0	0.0	-1,025.0	-1,925.0
net	**4,360.0**	**9,472.0**	**2,621.0**	**1,118.0**	**5,524.0**	**18,784.0**	**41,879.0**

Source: Bank of England

[7] FLS Group is defined as all monetary financial institutions (MFIs) and specialist mortgage lenders within a group that are required to report the relevant lending data to the Bank of England.

[8] See appendix for bank by bank data.

Usage of funding support measures

This part of the report provides information on the usages of funding support measures.

It is hard or almost impossible to trace the usage of funds picked up by the banks. Indeed, it is not possible to track the specific use of the central bank funding against other funding sources, being fungible. Therefore, for drafting this report, it was decided to focus on a qualitative assessment and require information from the national supervisors. A survey[9] has been conducted and the NSA have provided the information on the usage of picked up funds supported by their long term observations, research and information from the banks.

Hungarian, Danish and UK NSAs returned the complete answers concerning the country's funding support measures. 10 of the Euro area NSAs returned a complete questionnaire. Total number of received answers was 14 for the 3-year LTROs (including Swedish, Czech, Norwegian and UK NSA[10]). Overall, the total number of received answers altogether was 18.

When analysing the results of the survey the relative frequency of the answers was computed as a number of the NSA, which answered positively ("YES"), from the total number of answers. It should be noted that the answers do not concern quantities of the usage, but only perceptions on how public funding support has been used.

[9] See the survey in the appendix.

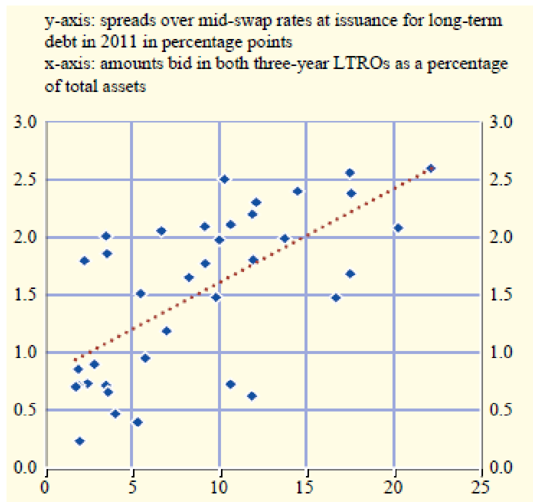
[10] The UK questionnaire was based on banks' public disclosure and commentary about their intended use of the three-year LTROs, where such information was volunteered by the banks.

ECB's 3-year Long term refinancing operations

It has been identified that the banks have used the LTROs mainly to replace the market funding, whose costs have risen significantly during 2011. Analysis, combined with anecdotal information provided by banks, suggests that funding considerations played a major role in banks' bidding behaviour in the three-year LTROs.

Chart 6 shows a positive relationship between spreads on bank bonds at issuance (considering both secured and unsecured bonds) and the amounts bid by banks in both three-year LTROs as a percentage of their total assets. However, a substantial number of banks bidding in the three-year LTROs did not issue debt securities in 2011. The chart suggests that even if a bank had been able to obtain longer term funds in the bond market, it could still have had a strong incentive to borrow from the Eurosystem owing to the lower cost involved. At the same time, these financing conditions render banks' investment and lending opportunities more attractive. This supports the Governing Council's view that these measures helped to remove impediments to the accessing of finance by the real economy.

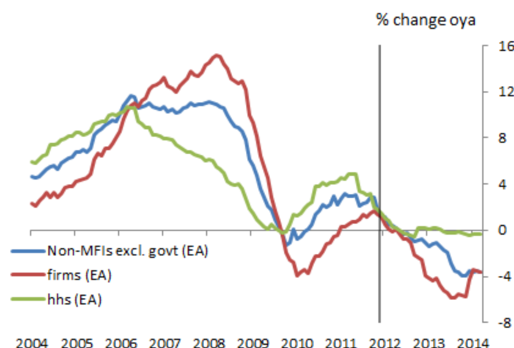
Chart 6: Banks' risk premia and bidding behaviour (for banks with market access in 2011)



Source: ECB, Fitch Ratings and DCM Dealogic

This view is also shared by the most of NSAs, which have agreed that the LTROs were used for lending to the economy. Nevertheless, the term "lending to the economy" was extensively used in the NSAs' answers in connection with the prevention of disorderly deleveraging, which is also confirmed by the empirical data on the developments in loan stocks in Euro area (Chart below).

Chart 7: Developments in Euro Area aggregate loan stocks



Source: ECB

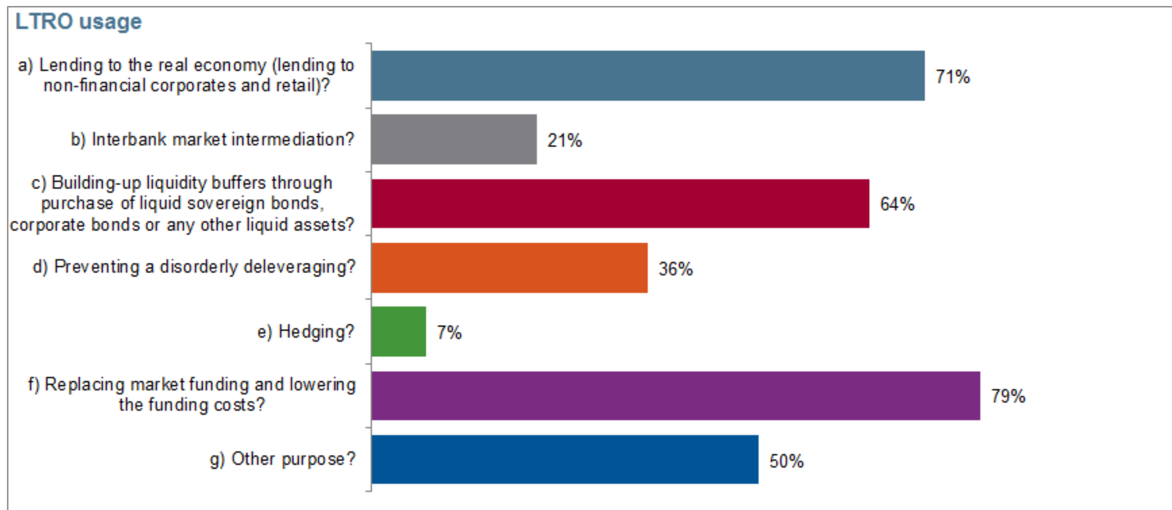
Banking sectors were undergoing a process of structural balance sheet deleveraging, due to the excessive indebtedness in some of the sectors. The total assets of the banking sector decreased between 1Q2011 and 3Q2013 greatly due to a reduction in the net loans portfolio. The fact that some banks have been decreasing the credit stock while resorting to Eurosystem refinancing does not mean that they did not channel Eurosystem financing to the real economy, but rather that the banks were undergoing a process of structural balance sheet deleveraging. Therefore, Eurosystem funding has not been used to expand banks' balance sheets, but rather to replace other sources of funding. Eurosystem funding increased mainly as a result of the need to fund maturing wholesale market funding, which became unavailable at sustainable prices.

In the specific case of the two 3y LTRO, these operations were used mainly to extend the maturity of already existing Eurosystem funding, by replacing operations of shorter maturity. The LTROs have granted banks time to gradually renovate their credit portfolio and gradually build up the deposit base, averting the need for disruptive measures aiming to reduce assets in the balance sheet.

At the same time that total credit has been decreasing, banks have been gradually reorienting their balance sheets by increasing their exposure to the most productive sectors of the economy at the expense of a reduction in exposures to sectors like construction and real estate.

According to the survey, building-up liquidity buffers through purchase of liquid sovereign bonds, corporate bonds or any other liquid assets was the third most common response from the NSAs, when concerning the usage of LTROs. Namely, LTRO financing contributed to shore up existing reserves and added a stable baseline for banks to start the convergence process towards future regulatory objectives on liquidity (LCR trajectory build-up and HQLA poll contribution). Additional assets then progressively replaced LTRO financing after the crisis period passed, but those enabled banks to start the convergence process in an orderly manner.

Chart 8: Usage of LTROs according to the questionnaire



Source: NSA surveys[11]

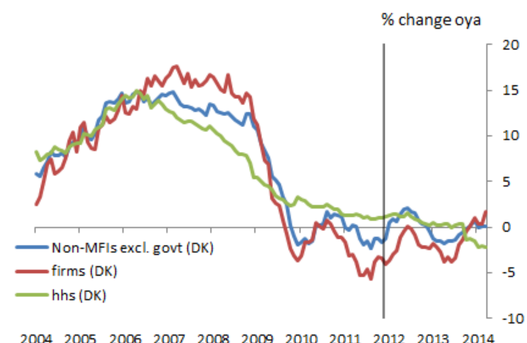
Danmarks Nationalbank 3-year loan facilities

According to the Danish National supervisor's data on the precise use of LTRO funds of individual institutions is sparse. The use of 3Y LTRO funds is not earmarked. Hence, some funds may have been used in order to ease the transition from funding based on government guaranteed bond issuances, while others may have used this as a supplementary funding tool. This again shows that the funds were mainly used for replacing the market funding.

Funds have in some cases also been used to build up liquidity buffers by sovereign bond, corporate bond or other liquid assets purchases. Another use of funds, also seen with ECB LTROs, was to support stable lending to the real economy (see Chart below for loan stock developments). However, the exact allocation of funds is not known, and no quantitative study has to date been performed hereon in Denmark.

[11] Based on 14 survey responses (NSAs from Czech Republic, Norway, Sweden, United Kingdom and 10 Euro Area countries).

Chart 9: Developments in Denmark's aggregate loan stocks



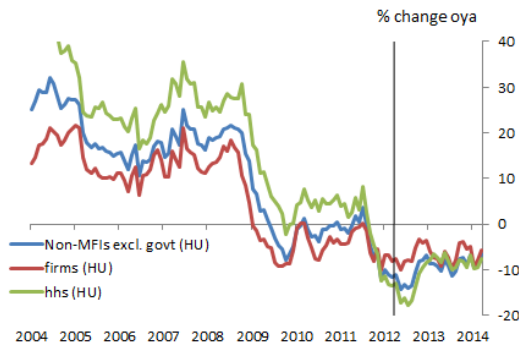
Source: ECB

Hungarian Central Bank's 2-year variable rate collateralized loans

Specific conditions of the facility were set to prevent decline in corporate lending. The main usage from the participants in the facility was therefore to increase their credit portfolio according to the Hungarian NSA. They did this despite of a drop in lending at the whole Hungarian banking sector (see Chart below). Besides, the utilization of the refinancing operation improved the maturity mismatch and strengthened the participants'

balance sheet, which prevented disorderly deleveraging.

Chart 10: Developments in Hungary's aggregate loan stocks



Source: ECB

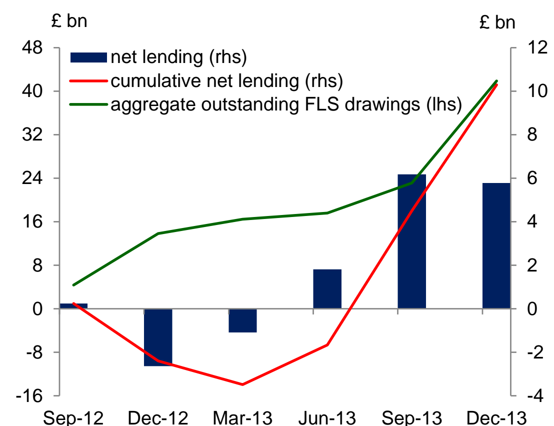
In addition to credit expansion banks extended their liquid security holdings. So the long term support scheme contributed to the stability of the financial system and restoring banks' lending capacity, thus providing a safety net against a possible unfavourable liquidity shock.

Obviously the banks used the facility instead of using more expensive market funding. Additionally, some of the participants benefited from the facility by repurchasing own bonds or lowering interbank exposure. This replacement of marketable funding was also in some cases seen as decreasing reliance on external funding and increasing role of domestic funds.

Funding for Lending Scheme in United Kingdom

As noted above, the FLS aimed to boost the incentive for banks to lend to the UK real economy. Outstanding aggregate drawings in the first part of the Scheme by FLS participants stood at £41.9bn (Chart 11). Funding is fungible and so it is not possible to say precisely what that funding has been used for. But the incentives in the Scheme have been designed such that banks are incentivized to use the funds to increase lending. Cumulative net lending by FLS participants totalled £10.3bn over the 18 months from 2012 Q3 to 2013 Q4 (Chart 11). And while it is impossible to know what lending would have done in the absence of the Scheme ('the counterfactual'), the Bank judged at the outset of the Scheme that lending was more likely to decrease than increase.

Chart 11: Net lending by FLS participants and aggregate outstanding FLS drawings



Source: Bank of England. Notes: Net flows of £ lending to UK households and private firms. Data from 2013 Q2 for RBS and Santander include lending related to non-bank credit providers – as allowed by the April 2013 FLS extension.

Overall, it is probable that the FLS helped to reduce bank funding costs and, more generally, boosted lending to the real economy over the period of its operation.

Summary

Looking at the aggregate funding usage it is evident that the banks mainly used the funding support measures to replace the market funding, whose long term costs have dramatically increased and were in a lot of cases also impossible to refinance.

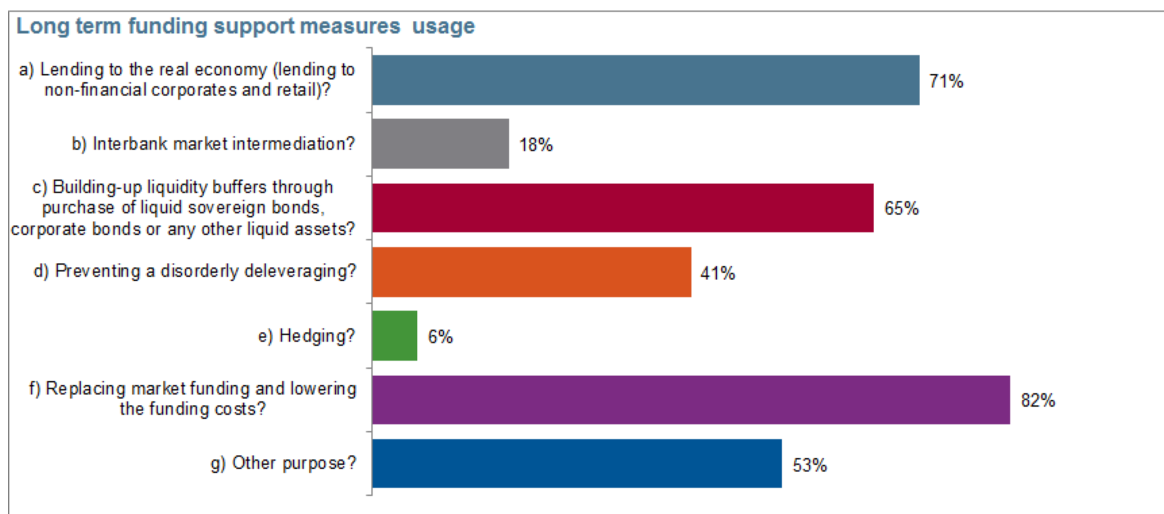
Second most common usage of the funding support measures according to the NSAs was lending to the real economy, which was a consequence of the below market funding costs provided by the funding support measures. Even though the banks' loan

portfolios have been decreasing during 2012 and 2013 this was mainly due to structural deleveraging. The banks have been significantly decreasing the specific distressed portfolios (CRE loans), while modestly increasing other more prosperous sectors. However, in order to undertake this structural change banks needed cheaper funding.

Survey identifies that some banks have also used the funds to build-up liquidity buffers through purchase of various liquid assets. In more distressed areas banks were extensively been investing into the sovereign bonds. Financing contributed to shore up existing reserves and added a stable baseline for banks to start the convergence process towards future regulatory objectives on liquidity (LCR trajectory build-up and HQLA poll contribution). On the other hand with receiving new funds the banks were provided a safety net against a possible unfavourable liquidity shock.

The survey also shows that the banks also used the funds for other purposes. In some cases the funds were used for supporting the interbank market intermediation, which increased the interbank borrowings. In other cases it was used to hedge the assets in the currency of funds. There were also some cases that the banks took the funds to explicitly use them for "carry trade".

Chart 12: Usage of funding support measures according to the questionnaire



Source: NSA surveys[12]

[12] Based on 17 survey responses (NSAs from Czech Republic, Denmark, Hungary, Norway, Sweden, United Kingdom for both LTRO and FLS, and 10 Euro Area countries).

Benefits from funding support measures

This final chapter of the report identifies the benefits for the banks which have used the long term funding support measures during 2011 and 2013. Similarly as the previous chapter, an overview of benefits for banks using for each of funding support measures is presented and at the end of the chapter a conclusion is made for all of the measures together.

Due to the fact that the money is fungible it has not been possible to disentangle the benefits from funding support measures from those linked to other funding sources. Therefore the benefits were also identified through a survey[13] addressed to the NSAs and NCBs. Their responses were supported by their long term observations, research and information from the banks.

ECB's 3-year Long term refinancing operations

Even though the assessment of policy measures is always obscured by the lack of a counterfactual, the effectiveness of the two LTROs is evident in the significant decline in the volatility of very short term interest rates following the two operations, as well as in the decline of spot money market rates – both secured and unsecured – to levels close to that of the Eurosystem's deposit facility rate. In addition, by reducing uncertainty over liquidity conditions in the short to medium term, the two operations managed to contain the volatility of forward rates and thus effectively reduced term premia. As a result, the injection of central bank liquidity through the two LTROs contributed to the anchoring of the forward money market curve to levels consistent with the desired monetary policy stance with positive implications for the long-end of the yield curve and, as such, bank lending rates. In addition, the operations managed to successfully counteract the adverse liquidity and funding shocks affecting euro area banks at the time, which could have otherwise led to more severe financial contagion and, as such, further impairment of the transmission mechanism. More specifically, participation in the two operations was notably higher for banks with greater concentration of maturing liabilities over the short to medium term and lower deposit inflows from the non-financial private sector. Hence, banks participating in at least one of these operations were buffering some of the anticipated decline both in the maturity and, potentially, in the outstanding amount of senior unsecured debt, which allowed them to wait for an improvement in issuance conditions.

Banks' funding difficulties at the time were further aggravated by the prevalence of significant strains in the euro area interbank market which hindered the efficient redistribution of liquidity across jurisdictions. By providing liquidity over the medium term against eligible collateral the two LTROs alleviated maturity mismatches in the balance sheets of banks thus smoothing their inter-temporal demand for liquidity and improving the functioning of the interbank market.

More broadly, together with the reform efforts made in several euro area countries

[13] See usage for interpreting the survey's results. See the survey questions in the appendix.

and progress towards a stronger euro area governance framework, the operations helped bring about an improvement in the euro area financial environment in the first few months of 2012, which in turn helped the euro area economy. The alleviation of money market strains and the more general easing of bank funding conditions also improved the transmission of monetary policy through a decrease in bank funding costs, which in turn made a positive contribution to the availability of credit for the real economy. In particular, econometric studies consistently find a beneficial effect – of economically meaningful size – from the three-year LTROs on credit extension to non-financial corporations in several euro area jurisdictions, including stressed countries.

From a financial stability perspective, the two LTROs were also effective in reducing some of the considerable "tail risks" that had built up in the course of the second half of 2011, as markets and regulators became increasingly concerned about the balance sheet strength of euro area banks.

Specifically, the three-year LTROs targeted deficiencies in bank term funding markets and played a crucial role in support of financial stability by bringing market stress down from the heights reached towards the end of 2011, as for example indicated by the sharp decline of the so-called Composite Indicator of Systemic Stress in the first half of 2012.[14]

Concretely, the operations contributed to reducing liquidity stress in the interbank market, with for instance lower spreads between unsecured money market rates and corresponding measures of risk-free rates (e.g. the OIS rate). Moreover, following the announcements of the two LTROs, a decline of the implied volatility in euro area money, bond and equity markets was also observed. This illustrates the decisive role played by the policy measures in curbing the risk of extreme events and, more generally, uncertainty. These developments were also reflected in the tightening of spreads on senior unsecured debt and covered bonds that declined by up to 100 basis points in the first quarter of 2012.15

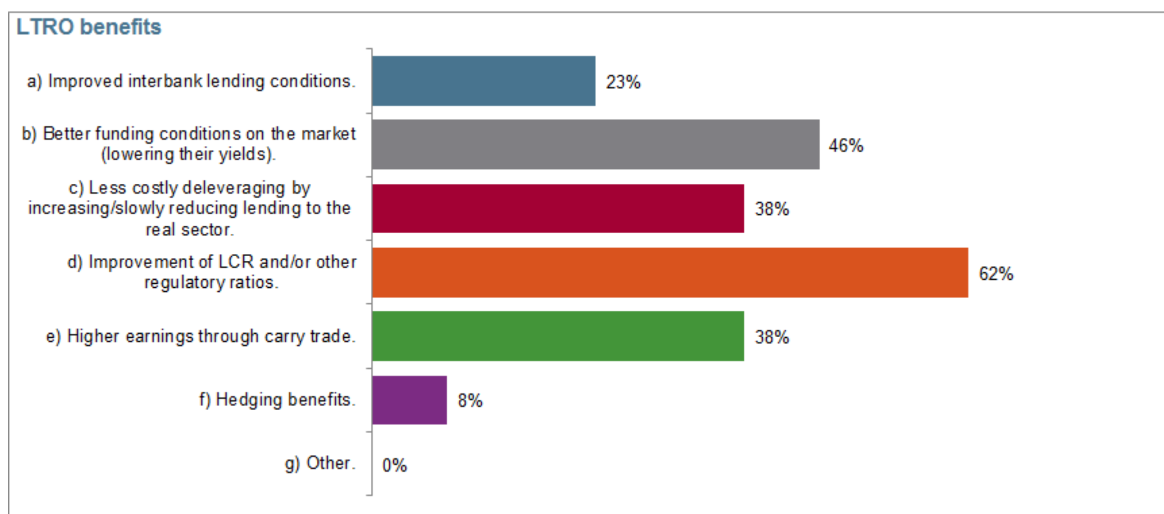
The long-term liquidity providing operations should also be viewed against the backdrop of a demanding bank recapitalisation exercise, coordinated by the EBA and aiming to address concerns about bank solvency positions. At the time, that called for policy measures meant namely to prevent a disorderly deleveraging that could have led to a credit crunch. The two LTROs contributed to ensuring that a "tail event" involving a collapse in lending activity was prevented.

Ultimately, the introduction of the LTROs mitigated the likelihood of potential liquidity-induced solvency strains to otherwise viable financial entities. This, in turn, allowed banks to adjust towards more viable business models at a reasonable pace, avoiding any disorderly deleveraging through fire-sales that would have further depleted the market price and liquidity of respective assets. Hence, by giving them breathing space to retain and build up capital buffers as well as by lengthening the maturity of their funding structure, the operations allowed euro area banks to maintain their intermediating function for the economy and, not least, to avert a credit crunch.

[14] See page 44 of the ECB Financial Stability Review, December 2012. The Composite Indicator of Systemic Stress (CISS) is a broad-based measure of stress across key financial market segments, such as the equity market, the foreign exchange market, the bond market and the money market.

[15] See e.g. page 70 of the ECB Financial Stability Review, December 2012.

Chart 13: Benefits from LTROs according to the questionnaire



Source: NSA surveys[16]

The subsequent improvement in market conditions brought a number of additional side benefits. In particular, between Q4 2011 and the beginning of 2013, large and complex euro area banking groups (LCBG) on average increased their Core Tier 1 capital ratios from around 9.5% to more than 11%.[17] It was also observed that total assets increased slightly (2%) for the group of euro area LCBGs in the course of 2012.[18] Thus, notwithstanding the clear and targeted objective of the specific policy measure, its benefits have spread well beyond the banking sector and into the broader financial system. This stemmed from its positive impact over market confidence and more specifically its effect of removing the "tail risk" of an extreme event occurring in the economic and financial environment.

Danmarks Nationalbank 3-year loan facilities

According to the Danmarks Nationalbank the data on the precise use of LTRO funds of individual institutions is sparse. The use of 3-year LTRO funds is not earmarked therefore it is hard to assess what the benefits for the banks really were.

Hence, some funds may have been used in order to ease the transition from funding based on government guaranteed bond issuances, which had expired during 2012 and 2013, and provided sufficient flexibility for the banks in their adjustment to a business model that is viable in the long run. However, banks may have used the funds only as a supplementary funding tool.

Funds have in some cases been used to build up liquidity buffers since 3-year loans can be included as stable funding when calculating the Danish Financial Supervisory Authority's funding ratio, if the remaining term to maturity is more than 1 year. The funding ratio reflects the relation of lending on the one hand and working capital less bonds maturing in less than 1 year on the other, where working capital comprises deposits, issued bonds, subordinate loan capital and equity capital. With effect from end-2012, non-observance of the limit values of the supervisory diamond may result in a

[16] Based on 14 survey responses (NSAs from Czech Republic, Norway, United Kingdom and 10 Euro Area countries).

[17] See e.g. page 52 of the ECB Financial Stability Review, May 2013.

[18] See page 61 of the ECB Financial Stability Review, December 2012.

supervisory response. In addition, the funds obtained from the 3-year loans, may be used to improve the overall liquidity position of the institution, and thereby increase their liquidity reserves.

The exact allocation of funds is not known, and no quantitative study has to date been performed hereon in Denmark.

Hungarian Central Bank's 2-year variable rate collateralized loans

When looking at the Hungarian Central bank's 2-year loan facilities the aggregated influence of the funding was modest due to low utilization; however the support scheme provided a safety net against an adverse liquidity shock and unfavourable lending conditions, through its below market funding rates. Also, the participating credit institutions improved the maturity mismatch of their balance sheets.

However, some credit institutions purchased government bonds and other eligible securities improving their liquidity position, building up liquidity buffer and realizing positive earnings through "carry trade" (the yields of the purchased securities were higher than the yield of central bank loan + IRS financing strategy).

Funding for Lending Scheme in United Kingdom

As noted above, the FLS encourages banks to lend to the real economy by linking the price and quantity of the funds available from the Bank to banks' individual lending performance. But it takes time for these incentives to filter through into the real economy.

Outstanding aggregate drawings in the first part of the Scheme by FLS participants stand at £41.9bn.

Between the launch of the FLS and the end of 2013, bank funding costs fell sharply, leading to an easing in credit conditions for households and firms.[19] The loosening in credit conditions resulted in an increase in net lending to the real economy. Positive lending between 2012 Q2 and 2013 Q4 compares with an expected fall in lending ahead of the introduction of the FLS. Cumulative net lending by FLS participants totalled £10.3bn over the 18 months from 2012 Q3 to 2013 Q4.

As well as providing a cheap source of funding, the FLS has acted as a 'backstop': assuring banks access to cheap funding if market funding costs should rise. While not quantifiable, banks have alluded to this benefit in the regular rounds of meeting with the Bank of England.

Summary

Overall, the most frequently cited benefit for the banks according to the survey was the improvement of liquidity and funding regulatory ratios, which was the result of offered cheaper funding. On one hand the LCR increased due to higher amount of cash and liquid assets available and on the other the NSFR improved due to extended funding maturity profile.

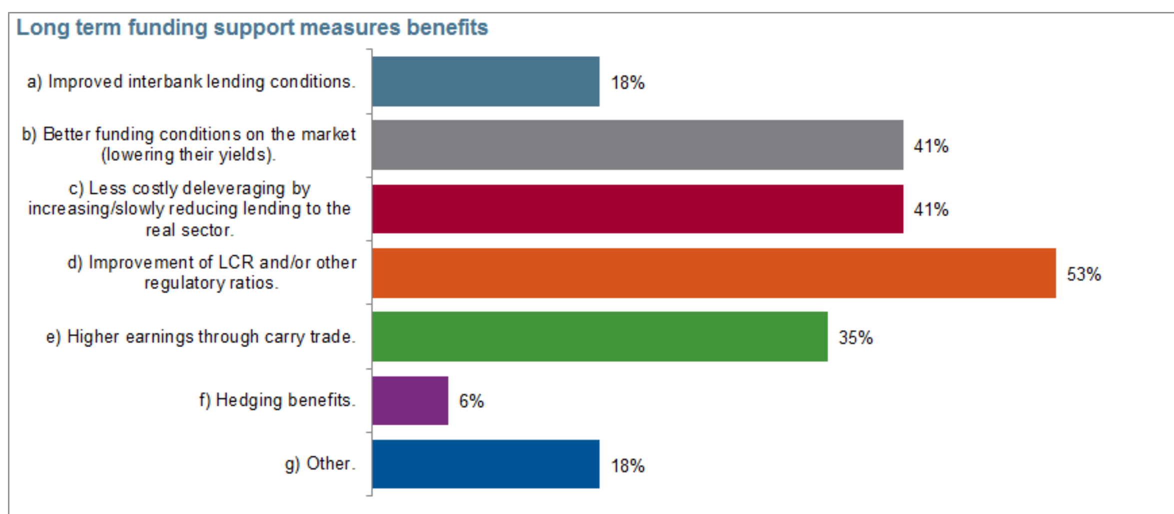
NSAs stress that the cheaper funding also improved the marketable funding possibilities and overall funding costs for the banks. This includes a decrease in yields on the new issued bonds and a decrease of rates on new deposits. Besides establishing the better funding conditions on the market,

[19] For the latest on UK banks' indicative longer-term funding spreads, please see Chart 3 in the "2014 Q1 Usage and Lending data" News Release. http://www.bankofengland.co.uk/publications/Pages/news/2014/084.aspx

the cheap funding prevented the banks' fire sale of assets which would result in big losses for them. Additionally, a slower reduction of assets also meant a lower decrease in revenues, which than had less negative implications on the earnings.

Nevertheless, some banks have taken advantage of the cheap funding to even increase profitability according to the survey. This was done either through "carry trade" or through own debt buybacks. The first was mainly done by buying sovereign bonds, which at the time had higher yields than the costs of funding provided to the banks. This was an often practice particularly in the banks in vulnerable Euro Area countries. Since it is hard to clearly identify how much of the picked up funds were used in "carry trade", the quantification of the earnings benefits is impossible.

Chart 15: Benefits from funding support measures according to the questionnaire



Source: NSA surveys[20]

[20] Based on 17 survey responses (NSAs from Czech Republic, Denmark, Hungary, Norway, Sweden, United Kingdom for both LTRO and FLS, and 10 Euro Area countries).

Conclusion

In autumn 2011 the Euro area banking sector came increasingly under strain as the adverse interaction between the sovereigns and the national banking systems, including via portfolio exposure to foreign sovereigns, took hold. In large parts of the European banking system funding dried up, the bank issuance of asset backed securities and covered bonds was severely constrained, and uncovered term issuance virtually closed. Central banks had to react in to support the refinancing of their banking systems and one of the ways was to directly lend to the banks. There were 4 such direct funding support measures identified in EU. These were the ECB's 3-year LTRO, 3-year long-term loans provided by Danmarks Nationalbank, 2-year variable rate loans from Hungarian Central Bank and the Funding for Lending Scheme provided by HM Treasury and the Bank of England.

Altogether from December 2011 to December 2013 these funding support measures provided EUR1.080bn. 96% of the funds were provided by the ECB. At the end of 2013 the outstanding amount of the total provided funds stood at EUR624.7bn. Banks, which have used LTROs have paid back the largest amounts of the funding in the first half of 2013, when the repayment process was actually allowed. Similarly, banks which used the Danish 3-years long term loans repaid most of these, when the increase in the costs was scheduled, which was also in the first half of 2013. Other two schemes were provided specifically to incentivise lending to the real economy. Therefore early repayments were not expected and also they did not happen in large amounts.

Looking at the aggregate funding usage it is evident that the banks mainly used the funding support measures to replace the market funding, whose long term costs have dramatically increased and were in a lot of cases also impossible to refinance.

Survey conducted with the NSAs and NCBs show that the second most common usage of the funding support measures was lending to the real economy. Even though the Euro area banks' loan portfolios have been decreasing during 2012 and 2013 this was mainly due to structural deleveraging. The banks have been significantly decreasing the specific distressed portfolios (CRE loans), while modestly increasing other more prosperous sectors. However, in order to undertake this structural change banks needed cheaper funding.

Some NSAs stress that some banks have also used the funds to build-up liquidity buffers through purchase of various liquid assets. In more distressed areas banks were extensively been investing into the sovereign bonds. Financing contributed to shore up existing reserves and added a stable baseline for banks to start the convergence process towards future regulatory objectives on liquidity (LCR trajectory build-up and HQLA poll contribution). On the other hand with receiving new funds the banks were provided a safety net against a possible unfavourable liquidity shock.

Banks also used the funds for other purposes according to the survey. In some cases the funds were used for supporting the interbank market intermediation, which increased the interbank borrowings. In other cases it was used to hedge the assets in the currency of funds. There were also cases that the banks took the funds to explicitly use them for "carry trade".

Overall, the most frequently reported benefit for the banks was the improvement of liquidity and funding regulatory ratios, which was the result of offered cheaper

funding. On one hand the LCR increased due to higher amount of cash and liquid assets available and on the other the NSFR improved due to extended funding maturity profile.

Cheaper funding also improved the marketable funding possibilities and overall funding costs for the banks. This includes a decrease in yields on the new issued bonds and a decrease of rates on new deposits. Besides establishing the better funding conditions on the market, the cheap funding prevented the banks' fire sale of assets which would result into big losses for them. Additionally, a slower reduction of assets also meant a lower decrease in revenues, which than had less negative implications on the earnings.

Nevertheless, some banks have also taken advantage of support measures to recover profitability, through "carry trade" or own debt buybacks. Carry trade was a common practice, even if difficult to quantify, particularly in the banks in vulnerable Euro Area countries.

Appendix

Bank by bank data on the FLS (Source: Bank of England)

FLS Group	Quarterly net FLS T-Bill drawings (drawings less repayments) (£mn)						Aggregate outstanding FLS drawings as at 31/01/2014 (£mn)
	Q3 2012	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013[1]	
TOTAL	4 360	9 472	2 621	1 118	5 524	18 785	41 876
Aldermore	-	205	270	10	-	-	485
Arbuthnot Latham	-	-	-	-	16	40	56
Bank of Ireland	-	-	-	250	-	- 250	-
Barclays	1 000	5 000	-	-	-	6 000	12 000
Bath Investment & Building Society	-	-	-	-	2	11	13
Buckinghamshire Building Society	-	-	-	7	6	7	20
Cambridge Building Society	-	-	5	10	40	25	80
Clydesdale	-	-	-	-	-	-	-
Co-operative	-	-	900	-	-	-	900
Coventry Building Society	-	100	400	-	850	-	1 350
Cumberland Building Society	-	5	-	10	15	70	100
Dudley Building Society	-	-	-	-	-	14	14
FirstRand Bank	-	-	-	-	-	67	67
Furness Building Society	-	-	-	-	-	50	50
Hinckley & Rugby Building Society	-	-	-	5	10	20	35
Ipswich Building Society	-	-	-	-	10	11	21
Julian Hodge Bank	-	18	-	-	-	-	18
Kleinwort Benson	-	-	-	-	11	8	19
Leeds Building Society	100	100	50	-	-	-	250
Leek United Building Society	-	-	-	-	-	-	-
Lloyds Banking Group	1 000	2 000	-	-	3 000	4 150	10 150
Manchester Building Society	-	-	-	-	-	-	-
Mansfield Building Society	-	-	3	3	5	11	21
Market Harborough Building Society	-	-	-	-	-	23	23
Marsden Building Society	-	-	-	-	-	25	25
Melton Mowbray Building Society	-	-	-	10	-	11	21
Metro Bank	-	29	67	79	19	272	465
Monmouthshire Building Society	-	5	10	-	5	5	25
National Counties Building Society	-	-	-	-	-	30	30
Nationwide Building Society	510	1 500	500	-	-	6 000	8 510
Newbury Building Society	-	-	1	5	14	25	45
Newcastle Building Society	-	-	-	-	-	-	-
Nottingham Building Society	-	-	25	80	120	150	375
OneSavings Bank	-	-	-	-	-	98	98
Principality Building Society	-	-	-	105	102	143	350
Progressive Building Society	-	-	-	-	-	-	-
Royal Bank of Canada	-	-	-	-	-	250	250
RBS Group	750	-	-	-	-	- 750	-
Santander	1 000	-	-	- 900	-	-	100
Shawbrook Bank	-	-	-	-	50	- 25	25
Skipton Building Society	-	-	360	50	-	390	800
Teachers Building Society	-	-	-	4	5	21	30
Tesco Bank	-	-	-	600	594	145	1 339
Virgin Money	-	510	-	300	350	-	1 160
West Bromwich Building Society	-	-	30	40	-	137	207
Yorkshire Building Society	-	-	-	450	300	1 600	2 350

[1] Includes net drawings to end January 2014.

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Questionnaire on the usage and benefits of funding support measures

I. Usage of the long term refinancing operations funding support or other long term support schemes

Question 1: Were the long term refinancing operations funding support or other long term support schemes, which were granted to the credit institutions in your financial system used for:

a) Lending to the real economy (lending to non-financial corporates and retail)? (Yes/No)
b) Interbank market intermediation? (Yes/No)
c) Building-up liquidity buffers through purchase of liquid sovereign bonds, corporate bonds or any other liquid assets? (Yes/No)
d) Preventing a disorderly deleveraging? (Yes/No)
e) Hedging? (Yes/No)
f) Replacing market funding and lowering the funding costs? (Yes/No)
g) Other purpose? (Yes/No)

Question 2: Considering that all the possible uses of the LTRO and similar measures could be overlapping and that the use of these funds could be used for different purposes at the same time or its use could change over time, please provide an overview of the use that banks have made of these funds.

II. Benefits for the credit institutions, due to usage of long term funding support measures

Question 1: The benefits for the credit institutions (in your financial system), due to usage of long term refinancing operations funding support or other long term support schemes were:

a) Improved interbank lending conditions. (Yes/No)
b) Better funding conditions on the market (lowering their yields). (Yes/No)
c) Less costly deleveraging by increasing/slowly reducing lending to the real sector. (Yes/No)
d) Improvement of LCR and/or other regulatory ratios. (Yes/No)
e) Higher earnings through carry trade. (Yes/No)
f) Hedging benefits. (Yes/No)
g) Other. (Yes/No)

Question 2: Considering that banks could have different benefits at the same time or their benefits could change over time, please provide an overview of the benefits that banks have enjoyed from the usage of these funds.

For those benefits that you answered "yes", please provide detailed explanation as well as qualitative or quantitative support (at least in percentages or other kind of relative terms).

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