Analysis of Recent Monetary Operations & Financial Market Developments

Eoin McCabe and Donal Hayes, Financial Markets Division[1]

Abstract

As the financial crisis continued in 2012, developments in peripheral Europe and the ECB's monetary policy continued to be closely watched by market participants as many banks remained heavily reliant on central bank funding and the level of ECB borrowing increased to record highs. In this article, we review 2012 and the first five months of 2013, examining the main changes to the ECB's operational framework and the evolution of Eurosystem lending, particularly the allotment and subsequent Early Repayment Operations (EROs) related to the two 3-year Longer Term Refinancing Operations (LTROs). The article studies the use of the ECB's standing facilities, while it also reports on the improvement in money markets over the review period. Finally, we also examine the Irish sovereign's return to debt markets before briefly analysing changes in TARGET2 balances over 2012.

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Overview

Financial markets remained volatile in 2012, as the year was segmented by a number of major developments, with peripheral Europe remaining the main focus of market attention. During Q1 2012, market sentiment was generally positive following the ECB rate cut[2] and the announcement of a range of non-standard measures on 8 December 2011. Market conditions worsened in Q2 2012 amid growing concerns about the situation in Greece, extending even to concerns about its continued membership of the Eurozone, and as the outlook for the Spanish banking system worsened. There was a strong reversal of sentiment in H2 2012 following ECB President Draghi's comments on 26 July 2012 that the "ECB is ready to do whatever it takes to preserve the euro"[3] and the subsequent announcement of the Outright Monetary Transactions (OMT) programme[4].

The two 3-year LTROs conducted in December 2011 and February 2012 had a major impact on the liquidity environment in the Eurozone, with a total net addition of €525bn of liquidity, as €1,019bn was allotted across both operations. The increased liquidity provision suppressed initial concerns the markets had about Spain and Italy's ability to refinance debt during 2012, as peripheral yields fell following the 3-year operations. Market reports suggested that funds from the LTRO were used for carry trades, with ECB data subsequently pointing towards an increase in holdings of sovereign debt by Italian and Spanish banks[5].

Tensions resurfaced in Q2 2012 as the failure of a conclusive outcome to the Greek elections and an increase in 'anti-bailout' sentiment increased market expectations of a Greek exit, above those of a purely tail risk event. Developments in Spain also added to the negative sentiment following an initial two notch sovereign downgrade by S&P in late April 2012, which was followed by three notch downgrades by Fitch and Moody's to both the Spanish sovereign and banks. Contagion effects from Spanish and Greek developments were observed across peripheral Europe with increases in both yields and CDS spreads, while perceived 'safe-haven' countries benefitted with the German 2-year yield going into negative territory.

There was a brief relief in market pressure in June 2012 following the formation of a new Government in Greece and the agreement by European leaders on a number of measures to tackle the debt crisis. At their June 2012 summit, the Eurogroup agreed to issue loans to Spain from the European Stability Mechanism (ESM), and allow the ESM to directly recapitalise banks following the formation of a single supervisor. Meanwhile, the Eurogroup statement made specific mention of Ireland stating they would "examine the situation of the Irish financial sector with the view of further improving the sustainability of the well-performing adjustment programme". However, initial optimism over the outcome of the end-June 2012 EU summit faded amid remaining uncertainty about the impact of EU support to Spanish banks.

The ECB cut rates in July 2012 by 25bps, further reducing the main refinancing operation (MRO) rate to 0.75% and the Deposit Facility rate to 0.0%.[6] The rate cut led to a decline in money market rates and to negative General Collateral (GC)[7] repo rates for German, Dutch and French sovereign instruments. It also caused a change in the behaviour of counterparties with respect to the maintenance of minimum reserves, as neither excess reserves held on current accounts

2 Link to ECB press release available at: http://www.ecb.int/press/pr/date/2011/html/pr111208.en.html

3 Link to ECB press release available at: http://www.ecb.int/press/key/date/2012/html/sp120726.en.html

4 Link to press conference text: http://www.ecb.int/press/pressconf/2012/html/is120802.en.html

5 European Central Bank, Statistical Data Warehouse, available at: http://sdw.ecb.eu/browseTable.do?BS_COUNT_SECTOR=2100&saf8=4&REF_AREA=190&REF_AREA=143&advFil=y&node=2019174&sfl5=3&saf3=1&sfl2=4&saf4=1&sfl1=3&saf5=4&sfl4=4&saf6=4&DATASET=0&saf7=4&periodSortOrder=ASC

6 The Marginal Lending Facility (MLF) rate also fell to 1.50%.

7 General collateral or GC is the range of high quality and liquid assets that are accepted, at any particular time, as collateral in the repo market by the majority of market intermediaries and at a very similar repo rate - the GC repo rate.

nor funds placed on the deposit facility were remunerated, leading to counterparties being indifferent as to where they placed excess liquidity.[8]

The major turning point in the year was ECB President Draghi's comments on 26 July 2012, which resulted in a strong reversal of risk sentiment across all market segments on rising expectations of an imminent policy action from the European authorities. In the sovereign bond market, 'peripheral' government bond yields fell following the positive sentiment while the 'core' market reversed some of its gains.

Sentiment was further improved following the announcement of the OMT programme (August 2012) and subsequently as the details of the programme were outlined (September 2012). The OMT was received very positively by markets with focus on the fact that there was: 1) no stated quantitative limit on the size of the programme and; 2) the same (pari passu) creditor status for the Eurosystem as for other investors.

Market sentiment remained generally positive for the remainder of 2012, with a rise in risk aversion towards the end of the year amid uncertainty over an agreement on the US fiscal cliff. In early 2013, sentiment continued to remain broadly positive with a larger than expected repayment in the first ERO from the first 3-year LTRO taken as a sign of an improvement in the financial health of European banks. Banks have continued to repay at subsequent EROs and on 31 May 2013 the total amount of Eurosystem borrowing had reduced by over €300bn since the beginning of the year. However, signs of a possible re-emergence of problems within the Eurozone as a result of the uncertainty over the Cypriot bailout programme, together with a number of weak economic sentiment data releases and low inflation expectations resulted in the ECB reducing its main policy rate to a record low of 0.50% at its May meeting.[9]

In Section 1 of this paper, we examine the main changes to the ECB's operational framework over 2012 and in the first five months of 2013. Section 2 discusses money market developments over the same period, while Section 3 looks at overall trends in Eurosystem lending and the use of the ECB's standing facilities. In Section 4 we look at developments in Ireland with regard to ELA provision and Eurosystem lending as well as the Sovereign's return to debt markets. Section 5 examines movements in TARGET2 balances over 2012 and Section 6 describes the focus of financial markets in mid-2013.

1. ECB's Operational Framework/Non-Standard Policy Decisions

As the financial crisis continued into 2012, with liquidity shortages among financial institutions becoming more acute, the ECB and other global central banks undertook a number of non-standard measures to encourage lending to the real economy and restore an appropriate monetary policy transmission mechanism to certain markets. This section summarises some of the main non-standard measures introduced by the Eurosystem throughout 2012 and during the period up to 31 May 2013.

On 9 February 2012, the Governing Council of the ECB approved, for seven national central banks (NCBs), including the Central Bank of Ireland (CBI), measures for the temporary acceptance of additional credit claims as collateral in Eurosystem credit operations. This development followed the decision of the Governing Council of 8 December 2011 to increase collateral availability by allowing Eurosystem NCBs, as a temporary solution, to accept additional performing credit claims as collateral.

On 20 June 2012, the Governing Council of the ECB decided on additional measures to improve the access of the banking sector to Eurosystem operations in order to further support the provision of credit to households and non-financial corporations. The Governing Council reduced the rating threshold and amended the eligibility requirements for

8 Please refer to Annex 1 for a full glossary of terms.

9 The Deposit Facility Rate remained at 0.0% while the Marginal Lending Facility rate reduced to 1.00%.

Box 1: The Framework for Outright Monetary Transactions

(i) Conditionality - A necessary condition for OMTs is strict and effective conditionality attached to an appropriate European Financial Stability Facility/European Stability Mechanism (EFSF/ESM) programme;

(ii) Coverage - OMTs will be considered for future cases of EFSF/ESM macroeconomic adjustment programmes or precautionary programmes. They may also be considered for Member States currently under a macroeconomic adjustment programme when they will be regaining bond market access. Transactions will be focused on the shorter part of the yield curve, and in particular on sovereign bonds with a maturity of between one and three years;

(iii) Creditor treatment - The Eurosystem intends to clarify in the legal act concerning OMTs that it accepts the same (pari passu) treatment as private or other creditors with respect to bonds issued by euro area countries and purchased by the Eurosystem through Outright Monetary Transactions, in accordance with the terms of such bonds;

(iv) Sterilisation - The liquidity created through OMTs will be fully sterilised, i.e. it could be fully offset by conducting liquidity absorbing operations similar to those conducted for the SMP programme; and

(v) Transparency - Aggregate OMT holdings and their market values will be published on a weekly basis.

certain asset-backed securities (ABSs). This broadened the scope of the measures to increase collateral availability which were introduced on 8 December 2011 and which remain applicable.[10,11]

At its press conference on **2 August 2012**, the ECB announced that the Governing Council may undertake outright market operations within its mandate to maintain price stability over the medium term.

On 6 September 2012, the Governing Council announced a programme of secondary market bond purchases known as Outright Monetary Transactions (OMT). The technical features of the OMT are summarised in Box 1.

Following the announcement of the OMT, the Securities Markets Programme (SMP) was terminated. The liquidity injected through the SMP continues to be absorbed as in the past, and the existing securities in the SMP portfolio will be held to maturity.

The Governing Council expanded the collateral framework to also include eligible marketable debt instruments denominated in currencies other than the euro, namely the US dollar, the pound sterling and the Japanese yen, which are issued and held in the euro area. This measure came into effect on 9 November 2012, until further notice, and reintroduced a similar measure that was applicable between October 2008 and December 2010. Appropriate valuation markdowns are applied to such collateral. On **6 September 2012**, the Governing Council also suspended the application of the minimum credit rating threshold in the collateral eligibility requirements for marketable

10 The Eurosystem will now consider certain ABSs with lower ECAI ratings as eligible, including auto loan, leasing and consumer finance ABS, ABS backed by commercial mortgages (CMBSs), residential mortgage-backed securities (RMBSs), and securities backed by loans to small and medium-sized enterprises (SMEs), subject to such ABS satisfying additional requirements. The risk control framework applies higher haircuts to such ABS, which aims to ensure risk equalisation across asset classes and to control the risk profile of the Eurosystem.

11 In the assessment of the credit standard of certain eligible assets pledged as collateral for monetary operations, the Eurosystem takes into account credit assessment information belonging to External Credit Assessment Institutions (ECAIs). ECAIs currently recognised by the Eurosystem include DBRS, Fitch Ratings, Moodys and Standard & Poors.

debt instruments issued or guaranteed by the central government, and credit claims granted to or guaranteed by the central government, of countries that are eligible for OMT or are under an EU-IMF programme. Such countries must comply with the related conditionality, as assessed by the Governing Council.

On 12 September 2012, the ECB extended the liquidity swap arrangement with the Bank of England up to 30 September 2013. The swap facility agreement established on 17 December 2010 had been authorised until the end of September 2011 and then extended until 28 September 2012.

On 31 October 2012, the second Covered Bond Purchase Programme (CBPP2) ended as scheduled. The purchases of covered bonds commenced in November 2011. The initially targeted total nominal amount of purchases was €40bn, and the purchases were expected to have been carried out in full by 31 October 2012. As announced at the press conference of 4 April 2012, the ECB had slowed down the pace of purchases in response both to investors' increasing demand for euro area covered bonds and the decline in the supply of covered bonds. Accordingly, a nominal amount of €16.4bn was purchased on the primary and secondary markets between November 2011 and October 2012.

On 6 December 2012, the Governing Council decided to continue conducting its main refinancing and one maintenance period operations as fixed rate tender procedures with full allotment (introduced on 8 October 2008) for as long as necessary, and at least until 9 July 2013.

On 13 December 2012, the ECB announced the extension of the existing swap arrangements with other central banks. The Bank of Canada, the Bank of England, the US Federal Reserve and the Swiss National Bank announced an extension of the existing temporary US dollar liquidity swap arrangements until 1 February 2014. Previously, these swap arrangements had been authorised until 1 February 2013. These central banks also extended until 1 February 2014 the network of temporary bilateral liquidity swap arrangements that enable the provision of liquidity in each jurisdiction in any of their currencies, should market conditions so warrant. Previously, these bilateral liquidity swap arrangements had been authorised until 1 February 2013.

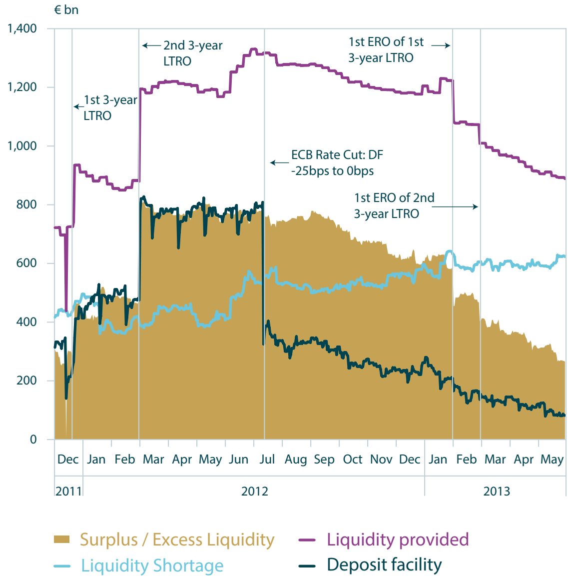
On 2 May 2013, the Governing Council narrowed the interest rate corridor when it decided to lower the interest rate on the main refinancing operations of the Eurosystem by 25 basis points to 0.50%. The rate on the marginal lending facility was reduced by 50 basis points to 1.00% and the rate on the deposit facility remained unchanged at 0.00%. In addition, the Governing Council decided to continue conducting its main refinancing and one maintenance period operations as fixed rate tender procedures with full allotment (introduced on 8 October 2008) for as long as necessary, and at least until 8 July 2014.

2. Money Market Developments

Euro area money markets improved markedly over the course of 2012, strongly influenced by ECB decisions. In the first half of the year, the liquidity injected by the ECB via the two 3-year LTROs had a stabilising effect on the money market and addressed banking refinancing and funding risks in the short to medium term. Following this, the ECB rate cut, the reduction in the deposit facility rate to zero and the announcement of the OMT programme soon after, further eased the difficulties of banks in peripheral countries accessing interbank funding, although this was predominately confined to collateralised markets. Higher excess liquidity[12] in 2012 put downward pressure on money market rates to some extent, particularly following the 3-year LTROs (See Chart 1).

12 Please refer to Annex 1 for a full glossary of terms.

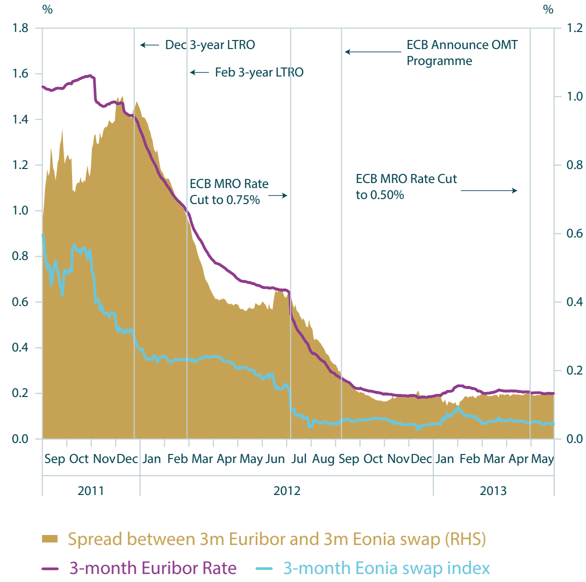
Chart 1: Excess Liquidity - Deposit Facility Usage



*Please refer to Annex 1 for a full glossary of terms.

Sources: ECB, own calculations.

Chart 2: 3-month Euribor-OIS-spread



Source: Bloomberg.

A key measure of money market tension that declined significantly last year was the spread between the 3-month Euribor fixing and Eonia swap rates (Euribor-OIS spread[13]). The Euribor-OIS spread fell from 94bps at the beginning of the year to 12bps at year-end, highlighting the continued easing in euro area money markets. As can be seen from Chart 2 below, the decline in 3-month Euribor was the main driver of this fall.

Following the allotment of the second 3-year LTRO in February 2012, the Eonia rate fell slightly, trading between 31bps and 38bps up until the ECB cut its interest rates on 11 July 2012 (announcement was on 5 July 2012). Following the reduction in the deposit facility rate to zero, the Eonia rate immediately dropped from 32bps to 13bps and continued to gradually decline until year-end, reaching an all-time low of 6bps on 21 December 2012. Interbank trading volumes measured by Eonia volumes increased at the beginning of 2012, reaching a high of €41bn on 27 February 2012 (2 days prior to the allotment of the second 3-year LTRO). However, Eonia volumes declined steadily over the remainder of the year, with the cut in the deposit rate to zero adding to the declines as investors' sought increased returns through extending the term of their investments. Average Eonia volumes traded in 2012 were as follows: €29.5bn in Q1, €25.1bn in Q2, €23.5bn in Q3 and €20.1bn in Q4.

Going forward, there is a risk that Eonia volumes are likely to be adversely affected by the actual and rumoured withdrawals of contributing banks from the Eonia panel. Banks have expressed discomfort in contributing to the money market benchmarks due to increased reporting requirements and possible litigation charges. In addition, the effect of the recent separation of the Eonia and the Euribor panel on volumes has yet to be determined[14]. It is notable that market participants seem to show an increasing

13 The spread between the three-month Euribor interbank rate and the Eonia swap rate, reflecting the spread between unsecured interest rates (Euribor) and the Eonia swap rate (where one party agrees to receive/pay a fixed rate to another party, against paying/receiving Eonia). The spread affects perception of counterparty risk and, therefore, is a measure of market tensions.

14 On 31 May 2013 the Euribor-EBF announced that the Euribor and Eonia panals were to be differentiated, with the goal of encouraging banks to re-join or join the respective reference rate panels according to their level of activity and knowledge in the respective market segments.

interest in the volume-based repo market indicators, such as Eurex repo indices and the newly established ICAP/MTS Repofund Rate Indices.

Over the course of 2012, unsecured money market rates fell and the curve flattened, while money market volumes declined marginally as a consequence of the rate cut and the flatter yield curve. Euribor (unsecured) rates declined significantly over the year, with the 3-month rate declining steadily, from 134bps on 2 January 2012 to 18bps on 31 December 2012. Both 1- and 6-month Euribor followed a similar trend, falling 90bps and 129bps respectively. The fall also reflects the perceived lower credit risk in unsecured money markets.

In secured money markets, the deposit facility rate of zero led to a search for yield as many investors were not prepared to accept zero or negative rates. At first, low and negative yields led investors to seek increased returns in higher-rated assets via maturity extension. However, following ECB President Draghi's comments at the end of July 2012 and the announcement of the OMT programme, improved market risk sentiment benefited lower-rated issuers and assets, as investors were more willing to lend on a collateralised basis to banks in peripheral countries due to the perceived lower credit risk.

This led to a compression of GC repo rates for different collateral types with the spread between German GC and Italian and Spanish GC converging further, especially in term maturities. The improved sentiment was also reflected by the increase in the total volume traded of all overnight transactions in the GC Pooling ECB basket[15], which increased over the second half of 2012. Average volumes rose to €9.2bn in the second half of the year from €7.4bn in the first half. Eurepo (secured) rates also declined significantly over the year, with both 1- and 3-month Eurepo falling to all-time lows of -0.02% and -0.03% respectively.

3. Developments in Eurosystem Outstanding Lending

This section looks at the developments in ECB outstanding lending over the year, as well as the ECB policy responses put in place to mitigate the effects of the crisis.

At the beginning of 2012, Eurosystem outstanding lending stood at €913bn, significantly elevated following the 3-year LTRO in December 2011 (allotment of €489bn). Gross lending increased further after 800 banks borrowed €529.5bn in the second 3-year LTRO on 29 February 2012. Levels began to fall gradually before increasing to a record high of €1,282bn on 28 June 2012 amid escalating concerns about Spain's economic situation and as debt instruments issued or guaranteed by the Greek government regained eligibility for use as collateral in ECB operations.

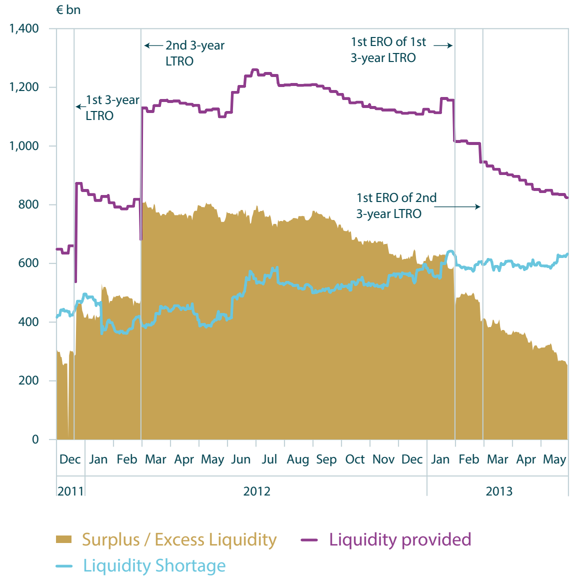
Following an improvement in market conditions in H2 2012, Eurosystem lending declined gradually to finish 2012 at €1,132bn, resulting in a net €220bn increase in lending over 2012. In early 2013, Eurosystem outstanding lending initially increased, but has since fallen sharply as counterparties have availed of the option to repay 3-year LTRO borrowings early, with total lending falling over €300bn in the first five months of 2013 to €825bn on 31 May 2013.

Prior to the allotment of the first 3-year LTRO in December 2011, LTRO borrowings accounted for 52% of total Eurosystem liquidity provision, with MRO borrowings comprising 41% and USD operations the remaining 6%. The maturity profile of open market operations lengthened significantly following the large allotments in the two 3-year LTROs.

In early March 2012, following the allotment of the second 3-year operation, LTROs accounted for 93% of Eurosystem lending, while MROs made up 5% and USD operations 2%. LTRO borrowings continued to dominate

15 The GC Pooling ECB basket is the set of GC that are on the Eligible Assets Database and thus eligible as collateral in all ECB open market operations.

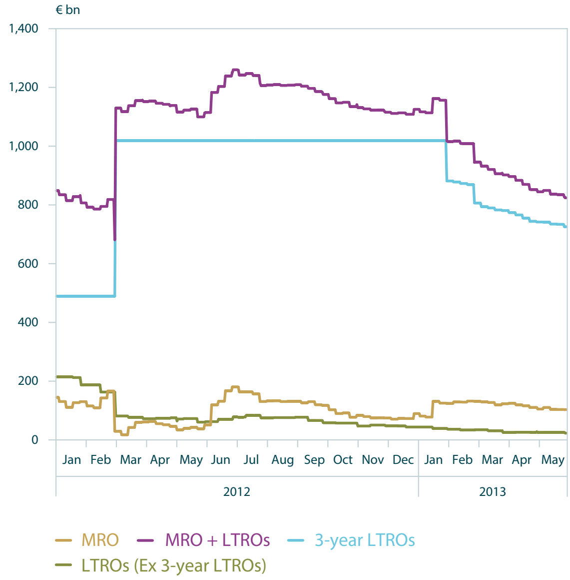
Chart 3: Eurosystem Outstanding Lending



*Please refer to Annex 1 for a full glossary of terms.

Sources: ECB, own calculations.

Chart 4: MRO and LTRO Borrowings



*Please refer to Annex 1 for a full glossary of terms.

Sources: ECB, own calculations.

the composition of Eurosystem borrowing for the remainder of 2012, and at year-end LTRO borrowings accounted for 91% of total borrowing, MRO borrowings 8% and USD borrowings had fallen to 1% of overall borrowings[16]. Chart 4 illustrates MRO and LTRO borrowings since January 2012.

3.1 3-Year Longer Term Refinancing Operations (LTROs)

The major changes in Eurosystem lending over the last 18 months have been dominated by the allotment[17] and subsequent repayment of the 3-year LTROs. The first 3-year LTRO was conducted in December 2011 with 523 bidders allotted €489bn, above the median Reuters poll estimate of €310bn, while the second 3-year was conducted on 29 February 2012 with 800 bidders allotted €530bn, again above the median estimate Reuters poll of €500bn. In total, €1,019bn was allotted in the two 3-year LTROs, with a net liquidity addition of €525bn, as some counterparties switched from shorter dated operations. The large amount allotted across both of these operations kept outstanding liquidity at historically elevated levels for the remainder of 2012.

Market reaction to the 3-year operations was largely positive, with the general belief that the increased level of liquidity in the system would reduce funding risks for banks, particularly as they faced large debt redemption pressures in 2012 (reportedly €230bn in Q1). However, others interpreted the large participation in the operations as a sign that banks expected the distressed borrowing conditions to continue. Reports also suggested that the high take-up could allow banks to engage in carry trades in which they would use the Eurosystem funds to purchase higher yielding government bonds, particularly shorter dated issues which would closely match the maturity term of the operation.

16 Pre-crisis, the main source of liquidity in ECB OMOs was through the MRO (73% of the total borrowings in 2006). However since the crisis, banks now have a preference for longer term funding.

17 The two 3-year LTROs were conducted as fixed rate full allotment operations and were indexed to the average MRO rate over the lifetime of the operation.

The terms of the 3-year operations gave counterparties, after one year[18], the option to repay[19] any part of the amount they were allotted in either 3-year operation. As funding conditions in the Eurozone improved in H2 2012, many banks that had access to public debt markets indicated their intention to wean themselves from central bank funding. In January 2013, the first opportunity for counterparties to repay funds, 278 counterparties chose to repay €137bn of borrowings or 28% of the total allotment of the first 3-year LTRO, which was above the expected repayment amount of €84bn from a Bloomberg poll. The larger than expected allotment in the first Early Repayment Operation (ERO) was received positively by markets as a sign of improvements in the strength of the Eurozone banking system.

However, the reaction to the first ERO of the second 3-year LTRO on 27 February 2013 was less positive, as counterparties decided to repay €61.1bn, or 12% of the total €530bn borrowed. The repayment amount was below a median forecast of €130bn from a Reuters poll. Many market analysts attributed the lower than expected repayment to heightened uncertainty in the region ahead of closely-fought Italian general elections.

At end May 2013, counterparties had repaid €195bn, or 40% of the total allotment from the first 3-year LTRO, while in the second 3-year LTRO, a total of €101bn or 19% of the total allotment had been repaid.

Some market commentators noted that it was understandable for some banks to repay the LTRO borrowings as they had an abundance of liquidity from other sources, and had been placing surplus funds back with the Eurosystem on the deposit facility at 0%. However, analysts noted that some banks, even though not in a particularly strong liquidity position, could have been tempted to pay back symbolic amounts so as to avoid appearing weak in comparison to their rivals.

Although the ECB does not release a breakdown of individual country or counterparty repayments, many counterparties have indicated plans surrounding the repayment of ECB borrowings. Some indicated they had begun to repay their borrowings, whilst others signalled an intention to repay some but also a plan to retain a portion as an "insurance policy" in the event of a renewed escalation of interbank tensions.

3.2: Weekly SMP Liquidity Absorbing Operation

Following the announcement of the technical features of OMT on 6 September 2012, the SMP was terminated. However, in order to neutralise the effect of the additional liquidity supplied to the system through the SMP, the ECB continues to withdraw this liquidity through the use of liquidity absorbing Fine Tuning Operations (FTOs), and continues to hold the existing securities in the SMP portfolio to maturity.

The ECB reported limited SMP purchases in 2012 with total purchases of €7.4bn in 2012, resulting in the intended absorption size of the SMP related FTOs increasing to €219.5bn in February 2012 before decreasing to €208.7bn at year-end, following bond maturities and revaluations.

At the end of 2012, the composition of the SMP portfolio was €99bn in Italian, €30.8bn in Greek, €43.7bn in Spanish, €21.6bn in Portuguese and €13.6bn in Irish debt[20].

An interesting aspect of the SMP FTOs, in late 2011 and over 2012, was the fall in the weighted-average rate in the operation. Due to the large amount of excess liquidity in the system, particularly after the two 3-year operations and the cut in the deposit facility rate to zero in July 2012, the weighted-average allotment rate in SMP FTOs dropped to an average of only 1bp above the deposit

18 The first date for early repayments from the December 2011 3-year LTRO was 30 January 2013. The first date for early repayments from the February 2012 3-year LTRO was 27 February 2013.

19 Counterparties were given the option to repay any portion of their 3-year LTRO borrowings at weekly Early Repayment Operations.

20 Link to press release available at: http://www.ecb.int/press/pr/date/2013/html/pr130221_1.en.html facility in 2012. However, in 2013 with the falling levels of excess liquidity, as a result of the repayments from the 3-year operations, the marginal and weighted average rates in the SMP FTOs have moved upwards away from the deposit facility rate, with the bid-to-cover ratios in the operations also falling.

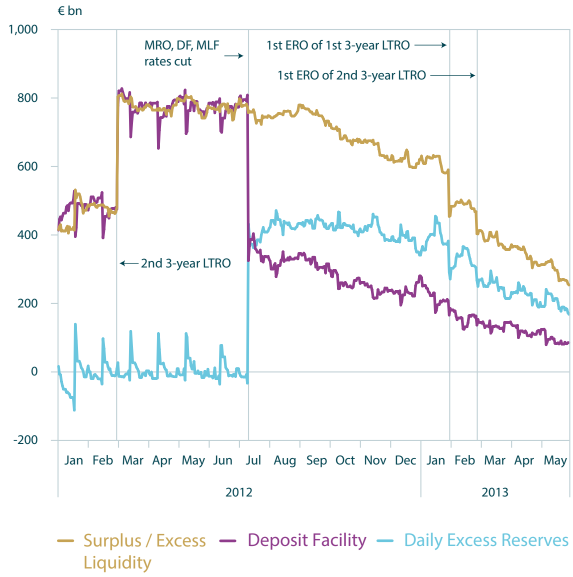
3.3: Fulfilment of Minimum Reserve Requirements

During 2012, the majority of counterparties maintained the practice of frontloading reserve requirements at the beginning of each maintenance period and then reducing the surplus towards the end of the maintenance period. Actual reserve requirements declined significantly in 2012 falling from €207bn at end December 2011 to €106bn at end 2012. On average, reserve account balances held in 2011 were €208.3bn, compared to an average of €110.7bn for 2012. This decline was largely attributable to the decision taken by the Governing Council on 8 December 2011[21] to temporarily reduce the reserve requirement from 2% of a bank's short term liabilities to 1%.

3.4: Standing Facilities: Deposit Facility

In the first 3 months of 2012, deposit facility usage averaged approximately €580.9bn. This compares with an average of €150.6bn in the second half of 2011[22]. The increase in deposit facility usage was in line with the increased excess liquidity following a reduction in the reserve requirement (as above) and increased borrowings in ECB operations supplied in the 3-year LTRO in December 2011. Following the settlement of the 3-year LTRO on 1 March 2012, deposit facility usage increased sharply and spiked to an-all time high of €827.5bn in early March 2012 (See Chart 5). This trend of strong deposit facility usage continued for a number of months. The sharp drop seen in Chart 5 in July 2012 reflected the reduction of the deposit facility rate to 0%. As a result of this interest rate reduction, use of the deposit facility

Chart 5: Deposit-Facility Usage and Excess Reserves



*Please refer to Annex 1 for a full glossary of terms.

Sources: ECB, own calculations.

fell by more than 50% falling from €809bn on the final day of MP6 (10 July 2012), to €325bn on the first day of MP 7 (11 July 2012 when 0% rate applicable), as banks no longer had an opportunity cost of keeping excess reserves on the current account. Since the beginning of 2013, deposit facility usage has declined significantly and stood at €85.6bn on 31 May 2013, down from €280.2 on 1 Jan 2013[23].

The use of the deposit facility averaged €675bn over the first half of 2012, and fell to an average of €314bn for the second half of 2012, a daily average of €494bn for the year. This compares to an average use of €102bn in 2011 and €146bn in 2010.

While usage of the facility has fallen since the rate on the deposit facility was reduced to zero (effective on 11 July 2012), usage of the facility averaged €286.2bn daily up to the end of 2012. Given that excess liquidity stood at

21 Link to press release available at: http://www.ecb.int/press/pr/date/2011/html/pr111208_1.en.html

22 Excess liquidity in the Eurosystem reached a high of €811.9bn in March 2012, remaining at an elevated level throughout 2012, but gradually declining to €620.7bn at year-end.

23 It should be noted that counterparties currently hold large amounts of excess funds on their current accounts, due to the fact that they are both carrying the same interest rate.

just under €621bn at end-December 2012 it is clear that counterparties continue to display a preference for holding significant amounts on their current accounts. Current account holdings stood at €447bn on 31 December 2012 relative to required reserves of €106bn. As such average fulfilment of reserves stood at 420%.

3.5: Standing Facilities Marginal Lending Facility

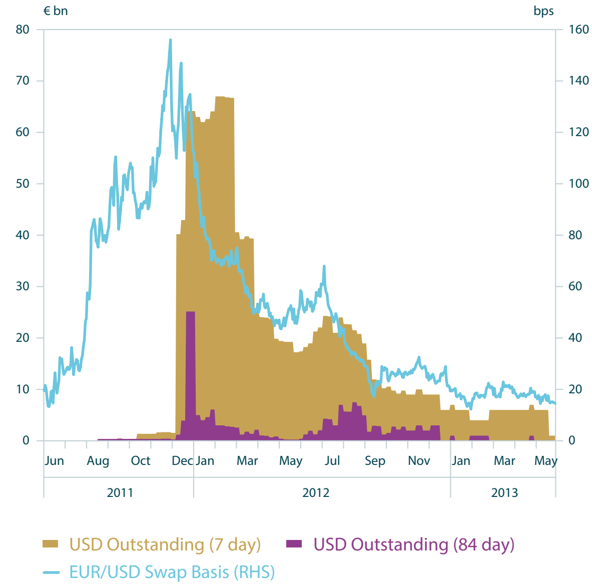
Use of the marginal lending facility averaged at €1.93bn over 2012, a slight increase when compared to the €1.8bn annual average for 2011. However, some prominent spikes were observed in 2012 most notably in January, March and December.

The use of the facility averaged €2.2bn daily over the first half of the year, falling to €1.6bn in the second half. This compares to an average of €1.4bn in the first half of 2011 and €2.3bn in the second half of 2011. In July 2012, the ECB reduced the marginal lending facility rate by 25bps to 1.5%. In the run up to end-2012, Eurosystem counterparties borrowed €16.3bn from the facility, the highest amount since December 29, 2011. On 8 May 2013, the marginal lending facility rate was further reduced to 1%.

3.6: USD funding developments

In H2 2011, amid the on-going European sovereign debt crisis, European banks found it increasingly difficult to access dollar funding in interbank markets. A measure of the tensions in the dollar funding market, the euro-dollar basis swap[24] increased steadily in H2 2011 and peaked in November 2011, reaching its highest level since October 2008 (156bps) as market conditions for European banks continued to worsen (See Chart 6). In response to stressed funding market conditions for US dollars in the eurozone, the ECB reintroduced 84-day US

Chart 6: USD Borrowings (Euro-Equivalent) & 3-month EUR/USD Basis Swap Spread



Sources: ECB, Bloomberg.

dollar operations in September 2011. Despite the increased dollar funding costs, banks did not begin to use the USD operations for a significant amount until December 2011, when the ECB reduced the cost[25] of the operations.

Participation in USD operations jumped significantly following the reduction in the cost of the operations with total USD borrowings from the ECB peaking at approximately $90bn (approx. €67bn) in February 2012. However, borrowing in USD operations then declined over the remainder of 2012 in line with a reduction in the euro-dollar basis swap from 113bps to 21bps over the course of the year. Borrowing in USD operations stood at approximately $9bn (approx. €7bn) at the end of 2012, having fallen from around $85bn (approx. €64bn) at the beginning of the year. USD operation participation has continued to fall in 2013, dropping to less than $2bn (approx. €1bn), a level last seen in

24 The spread between the cost of indirect borrowing in dollars using FX swaps and the rate that US banks pay for borrowing directly in dollars.

25 The cost of US dollar liquidity swaps through the ECB was reduced by 50 basis points, from USD OIS plus 100bps to USD OIS plus 50bps, and the initial margin for 84-day US dollar operations was reduced from 20% to 12% (with a weekly rebalancing for currency movements).

October 2011, before the 3-year LTROs were introduced.

On 13 December 2012, the ECB announced an extension of the existing temporary US dollar liquidity swap arrangements with the US Federal Reserve until 1 February 2014. The ECB Governing Council also decided, until further notice, to continue to conduct regular US dollar liquidity-providing operations with maturities of approximately one week and three months.

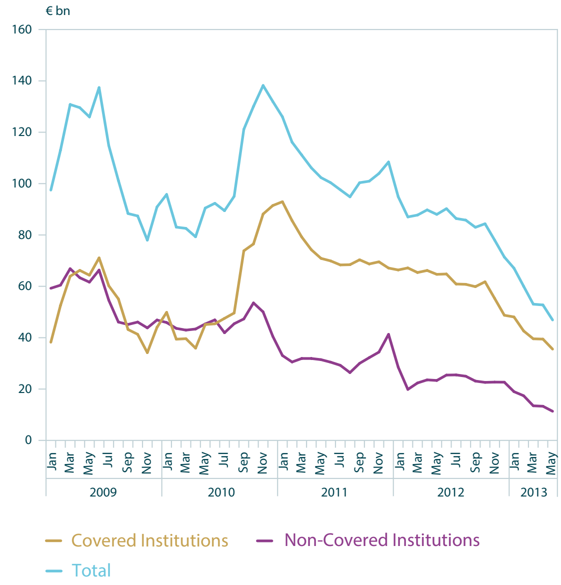
4. Ireland Overview

In response to the on-going financial market turmoil, the CBI, on behalf of the Eurosystem, continued to supply substantial liquidity support to the Irish banking system during 2012. Total Eurosystem monetary policy lending stood at €1.1trn at end-December 2012, (including US dollar operations), of which €71bn was being provided, via the CBI, to Irish domiciled institutions (including the Irish Financial Services Centre (IFSC) based counterparties). This compares with a total of €913bn at end 2011, of which €108bn was provided to Irish counterparties. The number of counterparties eligible to participate in operations via the CBI at the end of 2012 was 40, down from 41 in 2011.

With regard to the Irish covered banks[26], total Eurosystem borrowings dropped by €18.4bn in 2012 to €48.7bn or 4.6% of the Eurosystem total at year end, and fell by a further €13.2bn in 2013 to stand at €35.6bn or 4.3% of the Eurosystem total at end May 2013.

In relation to the Irish non-covered banks, total Eurosystem borrowings fell by €18.6bn to €22.7bn at end 2012. Since January 2013 outstanding Eurosystem borrowings for Irish non-covered banks has reduced by a further €11.3bn to stand at €11.4bn at end May 2013.

Chart 7: Irish Covered and Non-Covered Banks Eurosystem Borrowings



Source: CBI.

The CBI also provided Exceptional Liquidity Assistance (ELA), which was deemed necessary for financial stability purposes and amounted to €40.4bn at 2012 year-end, down from €42.4bn in 2011. On 7 February 2013 the liquidation of IBRC resulted in the removal of ELA[27].

Over 2012, a combination of deleveraging, asset sales, increased deposit flows and a return of AIB, BOI and PTSB to international funding markets has allowed the Irish covered banks to reduce dependence on central bank funding. The removal of the Irish Eligible Liabilities Guarantee (ELG) scheme, which was effective from 28 March 2013, is another positive step in the normalisation of the Irish banking system.

26 The covered banks are AIB Group (including EBS Building Society), Bank of Ireland Group, Permanent TSB and IBRC (until liquidation on 7 February 2013) who were guaranteed by the Irish government pursuant to the Credit Institutions ELG Scheme, which expired on 28 March 2013. The non-covered banks are the remaining Irish domiciled counterparties, and include IFSC-based counterparties.

27 Page 20 of the Central Bank of Ireland Annual Report 2012 available at: http://www.centralbank.ie/publications/Documents/Central%20Bank%20Annual%20Report%202012.pdf

Table 1: Recent Irish T-bill Auctions

Date	€ bn	Maturity	Bid/cover	Yield
16-May-13	0.5	3-month	3.6	0.129
18-Apr-13	0.5	3-month	4.8	0.195
21-Mar-13	0.5	3-month	3.4	0.24
21-Feb-13	0.5	3-month	3.3	0.24
17-Jan-13	0.5	3-month	3.8	0.20
15-Nov-12	0.5	3-month	4.1	0.55
18-Oct-12	0.5	3-month	3.6	0.70
13-Sep-12	0.5	3-month	3.0	0.70
05-Jul-12	0.5	3-month	2.8	1.80
23-Sep-10	0.3	6-month	4.1	1.91

Source: National Treasury Management Agency.

4.1: Ireland's return to debt markets in 2012

In July 2012, the National Treasury Management Agency (NTMA) announced it would recommence Treasury bill (T-bill) auctions for the first time since the EU/IMF Financial Support programme in November 2010. Since then, there have been a number of well received 3-month T-bill auctions (see Table 1).

In addition to the issuance of T-bills, the NTMA also initiated a return to the bond markets and held a bond switch and sale in July 2012 where investors committed a total of €5.2bn into longer-dated bonds maturing in 2017 and 2020. Some €4.2bn consisted of new funds issued, with two longer-term bonds on offer - a new 5-year bond maturing in October 2017 and an existing bond maturing in October 2020. A further €1.0bn of investors' holdings of the shorter dated 2013 and 2014 bonds were exchanged into the 2017 and 2020 bonds.

New issuance continued in August 2012 and for the first time the NTMA sold sovereign amortising bonds with maturities of between 15 and 35 years. The NTMA sold a total of €1.0bn and reports suggested the domestic pension fund sector was likely the major buyer, with amortising bonds matching their maturity/duration and cash flow requirements.

In January 2013, the NTMA raised €2.5bn through the sale of a syndicated tap of its Treasury bond which matures in October 2017. In March 2013, the Agency raised a further €5bn through the sale of a new benchmark Treasury bond at a yield of 4.12% maturing in March 2023. This marked the NTMA's first new 10-year issuance since January 2010. Following the auction, the NTMA announced that it had met 75% of its total funding target of €10bn for 2013[28]. Demand for issuance in 2013 was spread across a wide range of international investors.

In terms of debt issuance, the NTMA is in a relatively comfortable position thus far in 2013. The improved funding conditions for both the Irish sovereign and banks has been welcomed by the Troika, where they noted in their concluding statement in May 2013 that "significant progress on financial sector repair and restoring sustainability to the public finances" has been made.

A possible upgrade to the Irish sovereign credit rating will be in focus, with recent positive sentiment towards Ireland leading S&P to affirm its long and short-term ratings

28 Link to press release available at: http://www.ntma.ie/news/result-syndicated-tap-2017-bond/

on Ireland at BBB+/A-2 and revise its rating outlook to stable from negative in March 2013. Meanwhile, Moody's reaffirmed Ireland's Ba1 sovereign rating with negative outlook, maintaining its rating three notches below S&P and Fitch, citing Ireland's perceived vulnerability to euro area event risks. In addition, Moody's commented that it "would consider raising Ireland's rating outlook and eventually upgrading the country's Ba1 government bond rating if the government's financial balance, excluding interest payments, were to move into a surplus large enough for the country's debt-to-GDP ratio to stabilise and then begin to decline".

4.2: Covered Bond and Other Debt Issuance

Evidence of improved sentiment towards Ireland was also seen in corporate bond markets, with Bank of Ireland, Allied Irish Banks (AIB), the Electricity Supply Board (ESB) and Bord Gais all issuing bonds with reports of strong demand from international investors in November 2012.

Bank of Ireland issued a €1bn covered bond, maturing in November 2015 at 270bps over mid-swaps. This was the first public bond market issue for Bank of Ireland since it sold €750mn of state-guaranteed notes in October 2010. AIB also issued a €500mn 3-year covered bond (also at mid-swaps + 270bps) in its first public ACS issuance since June 2007. The issue was four times oversubscribed. In other bond issuance, the ESB sold a €500mn 7-year bond on 12 November 2012 at a yield of 4.43%. On 21 November 2012, Bord Gais sold a €500mn 5-year bond at an average yield of 3.66% which had a bid to cover of 13.

Bank of Ireland was also active in raising further funds in December 2012, issuing €250mn from the sale of lower tier two 10% coupon December 2022 bonds.

On 9 January 2013, the State sold €1bn of its Bank of Ireland Contingent Capital Bonds (Cocos) which met with strong demand of €4.8bn, almost five times the amount offered, with a yield of 9.61%. Meanwhile, Irish Life completed, for the first time, the sale of a sovereign annuity bond[29] with a value of roughly €20mn to a defined benefit pension scheme.

On 22 January 2013, AIB Mortgage Bank sold a €500mn 3.5-year covered bond, with the issue priced at mid-swaps + 185bps. On 15 March 2013, Bank of Ireland concluded its sale of €500mn of new 5-year covered bonds, backed by Irish residential mortgages, the issue priced at mid-swaps +190 bps which equates to a 2.825% yield.

More recently (29 May 2013) Bank of Ireland issued a 3-year €500mn senior unsecured bond, the issue priced at mid-swaps plus 220bps which equates to a yield of 2.80%. Market analysts noted that the issue was the first significant benchmark deal by an Irish bank since September 2009.

4.3: Stress Testing

Commercial bank stress tests were due to take place later this year but their timing is now more uncertain. On 13 June, the Department of Finance published its new Memorandum of Understanding (MoU) with the EU/IMF, showing that bank stress tests, will now take place in 2014 within 6-8 weeks of broader European stress tests. However, a balance sheet assessment will be completed by end-November, ahead of Ireland's exit from the EU/IMF programme.

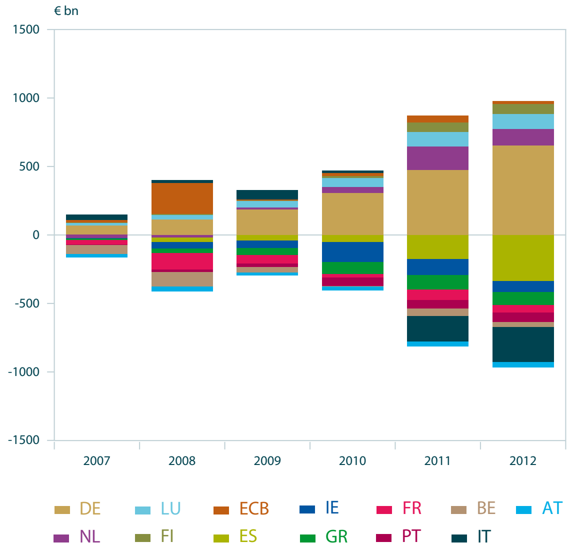
29 Sovereign annuities are a new product linked to long dated bonds issued by the NTMA and offer higher yields than are available from the German and French bonds which traditionally underpin annuity products.

5. TARGET2 balances

TARGET2[30] (T2) is the payment system of the euro that is operated by the central banks of the Eurosystem. All payments are settled in central bank money (that is to say they are booked on the accounts that banks hold with their central bank) and are settled in real time. The payments are primarily between banks, between banks and ancillary systems (e.g. security settlement systems, central counterparties, retail payment systems) as well as payments as part of Eurosystem operations [such as open market operations (OMOs) (i.e. MRO, LTRO, FTOs) and outright operations].

The T2 balances of national central banks (NCBs) reflect cross-border euro transfers. When a national central bank has a T2 claim, it implies that there has been an inflow of euro funds to that country's banking system, whereas a T2 liability balance implies that an outflow has taken place. The settlement of such cross-border transfers between banks in the euro area in T2 thus results in intra-Eurosystem balances. As a result, some NCBs have a T2 claim (asset) and others a T2 liability vis-à-vis the ECB.

Chart 8: T2 balance per selected NCB from 2007 to 2012



Source: ECB.

5.1: The main changes in T2 balances in 2012

T2 imbalances in the Eurosystem increased significantly in the first half of 2012, before receding later in the year. The most notable changes were on the balance sheets of the German and Spanish NCBs. Over the course of 2012, the German T2 claim increased by €181bn to €656bn, while the Spanish T2 liability rose by €162bn to €337bn. The Dutch T2 claim fell by €49bn to €121bn and the Irish T2 liability fell by €40bn to €79bn, while the Italian and French liabilities also fell by €72bn and €23bn respectively (See Chart 8).

During the first half of 2012, funds moved from the periphery to core countries, in part related to safe-haven flows. However, comments by ECB President Draghi in July 2012, and the subsequent announcement of OMT in August 2012 helped ease tensions and narrow T2 imbalances in the later stages of the year. It should also be noted that this trend has continued into 2013.

Ireland's T2 liability fell by €40bn to €79bn over the course of 2012, and further to €62bn as at end-May 2013. From a wider time perspective, Ireland's T2 liability has more than halved from €146bn at the end of 2010.

The €40bn reduction in Ireland's T2 liability in 2012 results from a number of different factors, but a major reason for the reduction is the decrease in Eurosystem borrowings from non-domestic counterparties of the CBI. Such non-domestic counterparties traditionally borrowed in the ECB's OMOs via Ireland repatriating borrowings to their parent and creating a T2 liability for Ireland/T2 claim for the other Eurosystem NCB where the parent is located. Over the course of 2012, Irish non-domestic counterparties gradually reduced Eurosystem borrowing via the CBI, and in doing so, decreased the CBI's T2 liability and reduced the claim of the NCB where the parent is located.

30 TARGET2 stands for Trans-European Automated Real-time Gross settlement Express Transfer system 2.

Other factors which contributed to the reduction in the CBI's T2 liability over the longer term include the inflow of programme funds from the EU/IMF; the sale of sovereign debt to foreign investors; deleveraging receipts; and an increase in Irish banks' access to international funding market. In the first five months of 2013, the €17bn reduction in Ireland's T2 liability is a reflection of the sovereign and domestic banks' increasing access to international markets, as well as the impact of 3-year LTRO repayments.

6. Market Focus mid-2013

In Europe, macroeconomic adjustments and structural reforms in peripheral countries will continue to be the main focus of market participants in 2013. Despite the considerable progress made on this front in 2012, concerns have heightened somewhat again in the first half of 2013. Developments on the European policy front will also be a key factor in the year ahead, with ESM bank recapitalisation, the single supervisory mechanism and the OMT programme all likely to be in focus. From a monetary policy and money markets perspective, the on-going weekly repayments of the two 3-year LTROs and any ECB decisions will be closely watched by market participants. Excess liquidity in the Eurosystem has fallen quite considerably from its peak in H1 2012, and is approaching levels which analysts believe could prompt a move towards a normalisation of money markets.

On the wider international front, global central bank policy is having a major impact on financial markets. In the US, markets reacted sharply to Fed Chairman Ben Bernanke's press statement following the FOMC's June meeting[31] in 2013. The Fed Chairman indicated that bond purchases could be moderated later this year, which prompted a significant sell-off in most asset classes, with markets concerned about the possibility of an earlier than anticipated tapering of the US Quantitative Easing programme. In Japan, 2013 has seen the Bank of Japan (BoJ) undergo significant change, with the newly appointed Governor Kuroda, increasing monetary stimulus in order to meet the new inflation target of 2%. Meanwhile, the Bank of England's policy stance will be closely watched by investors, as Mark Carney takes over as governor in July 2013.

In Ireland, banking sector developments remain a key focus in 2013, with banking sector reform, the mortgage arrears issue, the removal of the ELG and debt issuance by the domestic banks all in focus. Meanwhile, the growth outturn for Ireland's main trading partners will be critical for continuing progress in meeting Ireland's fiscal targets in 2013.

31 Link to press conference text: http://www.federalreserve.gov/mediacenter/files/FOMCpresconf20130619.pdf

Annex 1: Glossary of Terms

Eonia (Euro Overnight Index Average) is a market index computed as the weighted average of overnight unsecured lending transactions undertaken by a representative panel of banks.

Euribor (Euro Interbank Offered Rate) is the rate at which interbank term deposits are offered by one prime bank to another prime bank. This is often the reference rate for maturities of one, two and three weeks, and for maturities of one to twelve months.

Excess liquidity arises when the supply of liquidity (as provided via ECB open market operations and the marginal lending facility), exceeds the demand for liquidity (as dictated by minimum reserve requirements and autonomous factors outside the direct control of individual NCBs), there is said to be **excess liquidity** in the banking system. In this situation, the excess will likely end up being deposited with the ECB via deposit facility usage or via the weekly fine-tuning operation.

Excess Reserves: Current account holdings in excess of the average minimum reserve requirements.

Liquidity Provided: The net amount of liquidity provided by the ECB through its open market operations.

Liquidity Shortage: This is determined by the minimum reserve requirements and autonomous factors outside the direct control of individual NCBs.

Maintenance period (MP): The period over which compliance with reserve requirements is calculated. The MP begins on the settlement day of the first MRO following the policy meeting of the Governing Council.

Minimum reserves are determined on the basis of the institutions' average daily reserve holdings (calculated on the basis of certain balance sheet liabilities) over a maintenance period of about one month. Each bank in the Eurosystem is required to maintain a balance with their respective NCB. The required reserve holdings are remunerated at a level corresponding to the average interest rate over the maintenance period of the MROs of the Eurosystem.

Open Market Operations (OMO's) include Main refinancing operations, Longer-term refinancing operations, Fine-tuning operations and structural operations, as defined below.

(i) Main refinancing operations (MRO) are regular liquidity-providing reverse transactions with a frequency and maturity of one week. The MRO rate is currently 0.50%

(ii) Longer-term refinancing operations (LTRO) are liquidity-providing reverse transactions that are regularly conducted with a monthly frequency and a maturity of three months. Longer-term refinancing operations are conducted at irregular intervals or with other maturities, e.g. the length of one maintenance period, six months, twelve months or thirty-six months are also possible.

(iii) Fine-tuning operations (FTO) can be executed on an ad hoc basis to manage the liquidity situation in the market and to steer interest rates. In particular, they aim to smooth the effects on interest rates caused by unexpected liquidity fluctuations. Fine-tuning operations are primarily executed as reverse transactions, but may also take the form of outright transactions, foreign exchange swaps and collection of fixed-term deposits. Since May 2010, a weekly FTO has been held to absorb the liquidity provided through the Securities Markets Programme (SMP), which involved purchases of sovereign debt in the secondary market.

(iv) Structural operations are executed by the Eurosystem mainly in order to adjust the structural liquidity position of the financial sector vis-à-vis the Eurosystem. They can be carried out through reverse transactions, outright transactions and the issuance of debt certificates.

Standing facilities aim to provide and absorb overnight liquidity, signal the general monetary policy stance and bound overnight market interest rates. Two standing facilities, which are administered in a decentralised manner by the NCBs, are available to eligible counterparties on their own initiative:

(i) **Marginal lending facility (MLF):** Counterparties can use the MLF to obtain overnight liquidity from the NCBs against eligible assets. The interest rate on the MLF is currently 1.00% (50bps above the MRO rate) and normally provides a ceiling for the overnight market interest rate.

(ii) **Deposit facility (DF):** Counterparties can use the deposit facility to make overnight deposits with the NCBs. The interest rate on the deposit facility is currently 0.0% (50bps below the MRO rate) and normally provides a floor for the overnight market interest rate

Variable rate allotment: In normal circumstances, the Eurosystem, when conducting its OMO's, assesses the total liquidity need of the banking sector and, in competitive tenders, allots this amount. Usually these tenders are conducted as **variable rate tenders**, meaning that banks pay the interest rate that they offer when they make their bids.

The Eurosystem may also execute its tenders in the form of **fixed rate tenders**, where the interest rate is specified in advance and banks bid the amount of money they wish to transact at the fixed interest rate.

In exceptional circumstances, the ECB may decide in advance to allot the full amount of liquidity that banks request, i.e. to accommodate all bids, at a fixed interest rate (known as **fixed rate full allotment**). The ECB currently operates a fixed rate full allotment policy for all refinancing operations.