March 2011

Central Bank of Ireland
The Financial Measures Programme Report

Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

The Financial Measures Programme: 31 March 2011

Chapter

1. Foreword

Loan losses, actual and prospective, associated with the collapse of the property market and the severe economic downturn, have weakened large parts of the Irish banking system and left the Irish-owned banks dependent on the State for injections of capital, and on the Eurosystem and the Central Bank of Ireland for liquidity.

The debt crisis of the peripheral euro area countries from mid-2010 was associated with reduced market confidence in Government securities and bank debt. Increasingly, wholesale deposits and bank bonds in domestic institutions began to be withdrawn on maturity, despite being protected by the Government guarantee.

Placing the finances of the banks and of the Government on a much more secure basis, and thereby reducing uncertainty, has become essential, as is recognised in the package of measures agreed as part of the EC-ECB-IMF agreement. The Financial Measures Programme, of which the first details are announced today, represents the banking element of this package.

The strategy implemented in the Financial Measures Programme intensifies existing policy by requiring asset sales, and a much larger increase in capital, sufficient to cover losses going well beyond what has been catered for before. These losses could only occur in an even more stressed macroeconomic environment than already prevails, and on aggressively conservative assumptions about the possible performance of the banks' loans under those conditions.

The Financial Measures Programme also defines a reduction in the size of the banks' overall portfolios sufficient to reach a more viable Loan to Deposit Ratio by 2013. In the first instance the banks have been required to identify segments of their business that are to be treated as 'non-core'. These portfolios will subsequently be disposed of – though avoiding fire-sale losses. This deleveraging will mean a lower need for bank borrowing. It will also help create a clean, appropriately-sized banking system that is in a position to provide new lending to support activities that are essential for economic growth.

In order to arrive at a stressed loan-loss estimate that is fully credible to the international markets, the Central Bank has engaged BlackRock Solutions, a leading specialist in analysing potential loan losses under stressed conditions. It has applied its international experience to the portfolios of the four main Irish-owned deposit banks. Its approach, which is regarded by the Central Bank as conservative, is explained in this paper. It must be emphasised that the lifetime, stress loan-loss estimates are not considered likely to materialise: they are merely an input designed to ensure that the associated capital requirements are fully convincing to the market as being sufficient to cover even extreme and improbable losses.

The Central Bank has made its decision on required recapitalisation based on the loan-loss projections of BlackRock, along with further calculations concerning the prospective income, expenditure, and deleveraging plans of the banks. The Central Bank is publishing extensive details of the information used in building the loan-loss and other estimates that have been used (except where prevented by law).

2. Executive Summary

2. Executive Summary

Background

The Financial Measures Programme ("FMP") implements the Central Bank of Ireland's obligations under the agreement between Ireland and the European Commission ("EC"), European Central Bank ("ECB") and International Monetary Fund ("IMF") (together referred to as the "External Partners").

The Programme aims to place the Irish banking system in a position where it can fund itself and generate capital without undue further reliance on the Irish or European public sectors. The FMP comprises:

- **An independent loan loss assessment exercise** performed by BlackRock Solutions ("BlackRock"), the results of which have informed the calculation of capital requirements under the PCAR.

- **The Prudential Capital Assessment Review ("PCAR") 2011,** an annual stress test of the capital resources of the domestic banks under a given stress scenario, undertaken in order to calculate the cost of recapitalisation required to meet Central Bank-imposed requirements.

- **The Prudential Liquidity Assessment Review ("PLAR") 2011**, which establishes funding targets for banks participating in the PCAR in order to reduce the leverage of the banking system, reduce banks' reliance on short-term, largely central bank funding, and ensure convergence to Basel III liquidity standards over time.

This report describes in detail how the FMP has been executed, and the results of this part of the Programme. The report refers to actions carried out in respect to Allied Irish Banks ("AIB"), Bank of Ireland ("BOI"), EBS Building Society ("EBS") and Irish Life & Permanent ("ILP"). The FMP is a conservative, transparent, and validated approach to assessing the capital needs of the banks while developing effective deleveraging plans.

The basis for assessing capital requirements

The PCAR capital requirements are derived from three exercises:

- The results of BlackRock's independent loan loss assessment exercise;
- The results of the PCAR 2011 stress test; and
- The outputs of the PLAR, in particular banks' plans for deleveraging.

The three are complementary but separate.

The loan loss exercise measures the nominal losses banks might experience under the base and adverse scenarios, over both a three-year and a loan-lifetime horizon, stretching out to 2040. The base scenario is in line with EU forecasts for the Irish economy and the adverse (inter-changeably referred to as the 'stress') scenario represents an unlikely further economic contraction.

These losses are estimated from a bottom-up analysis of loan data. By definition the results of this exercise are severe as they do not take account of banks' existing or future provisions, or future operating profit, and should therefore not be considered in isolation. The BlackRock-derived figures in this report should be read in this context.

The PCAR stress test is a top-down exercise which requires banks to model the impact of certain assumptions on their balance sheets and profit and loss accounts. While distinct from the EBA stress test, the PCAR incorporates much of the methodology and parameters used by the EBA. It is designed to be closely in line with the EBA stress test ensuring that required capital amounts under PCAR will satisfy EBA standards. Results of the separate EBA stress test of Irish banks will be published in June along with results from other European banks.

The PCAR stress test relies heavily on BlackRock's assessment of forecast losses through to the end of 2013. For elements of the income and expenditure accounts, it relies, in part, on the banks' own forecasts

based on Central Bank-specified parameters. Additional buffers to ensure sufficient capital to cover post-2013 events and other contingencies have also been included.

The PLAR is also a top-down exercise and requires banks to meet a range of target funding ratios. The central target is the Loan to Deposit Ratio ("LDR"), which has the explicit purpose of shrinking the balance sheets of the domestic banks. To achieve this target banks will be required to sell assets in a controlled manner between 2011 and the end of 2013. In doing so, they are likely to incur losses relative to book value. An estimate of these losses has been included in the overall assessment of the capital needs of each bank.

A conservative approach to bank capitalisation

Completing these exercises in combination has allowed the Central Bank to model both balance sheet and profit and loss dynamics in a transparent and conservative manner, offering robust reassurance to the market that the resulting capital requirements are based on credible stress modelling. Notably, the incorporation of incremental three-year provisions based on BlackRock-identified lifetime stress loan losses has resulted in a total recapitalisation requirement materially in excess of the stand-alone application of EBA minimum parameters.

The selection of capital targets further adds to the conservatism of the exercise, with the banks participating in PCAR 2011 collectively required to raise €24.0bn in capital in order to remain above a minimum capital target of 10.5% Core Tier 1 in the base scenario and 6% Core Tier 1 in the stress scenario, plus an additional protective buffer. This compares favourably with many banking systems in developed jurisdictions.

This Executive Summary describes: the process used to calculate the final capital requirements; how this requirement was impacted by three-year loan loss projections based on BlackRock forecast loan-life losses; how the exercise was conducted using conservative assumptions and parameters; the inclusion of an additional capital buffer; and, as a result, the final capital requirements calculated under the FMP. In addition, this section details plans agreed with the four institutions to deleverage their balance sheets, thereby beginning to 'right-size' the domestic banking sector.

The calculation method for the capital requirements

The final capital requirements are derived from a series of calculations which, at a high level, have required the following steps:

- The estimation of loan-life and three-year losses under the base and adverse scenarios – the BlackRock exercise;
- The modelling of the impact of these losses on balance sheets and profit and loss accounts; and
- The combination of these two steps to produce a capital requirement for each of the four banks.

The relationship between the first and second steps is essential to understanding why the ‘raw’ BlackRock loan loss estimates do not automatically translate into a capital number – in other words, there is not, nor could there be, a euro for euro translation of BlackRock’s estimates into capital. This is because:

- Losses take no account of existing or future provisions or future bank earnings;
- Losses are calculated over both a three-year and a loan-lifetime basis and have not been discounted back to a present value; and
- The model reports losses in the period in which they are realised.

The link between the BlackRock loan loss assessments and the final capital requirement is made through a calculation of three-year projected losses, inter-changeably referred to as three-year forecast provisions. Provisions are the liabilities banks hold to meet losses. The translation of provisions into capital is a complex process, and although there are long established accounting standards to govern this process, it ultimately turns on judgements about the likelihood and size of losses. In interpreting the BlackRock loan loss estimates, the Central Bank has been careful to apply such judgements in a conservative manner, and have drawn on expert accountants to inform and validate these judgements.

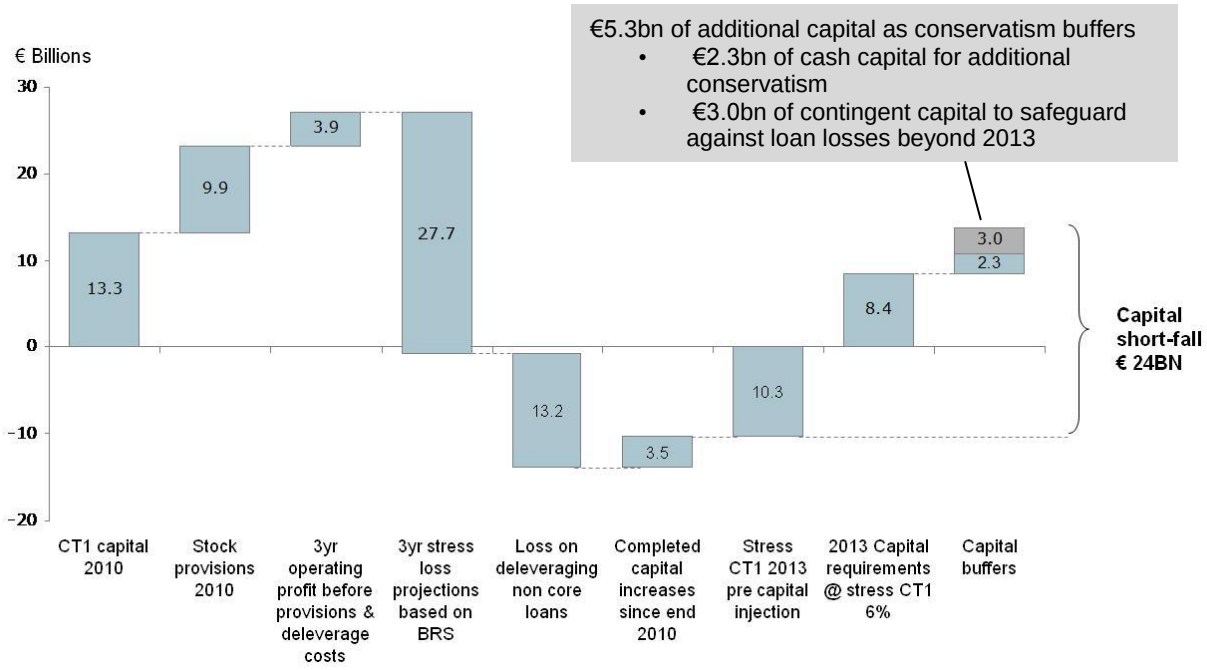
The principal driver of these three-year projected loss calculations in the PCAR is the output of BlackRock’s work. These three-year projected losses comprise:

- Losses from loans that both default and crystallise in 2011-2013;
- Losses from loans that default in 2011-2013 but crystallise after 2013.

The BlackRock-derived three-year projected losses in the stress scenario are significantly more conservative than the banks' own forecast provisions. In part, they are an early recognition of potential losses and serve to add conservatism to the PCAR capital calculations.

Once revised forecast three-year projected losses have been calculated based on BlackRock loan-lifetime loss forecasts, these are combined with forecast operating profit or loss and the losses on asset disposals under deleveraging plans. Once the forecast capital level is calculated, this is compared to Central Bank capital requirements and the deficit or surplus is derived. Chart 1, below, illustrates this relationship.

Chart 1: Process for calculating capital requirements



The calculation illustrated above consists of the following components:

- Calculating existing Core Tier 1 capital (€13.3bn);
- Adding the existing stock of loan loss provisions held by the banks in their accounts at end-2010 (€9.9bn);
- Adding cumulative projected operating profit or loss during 2011-2013 under the adverse scenario (€3.9bn);
- Subtracting the conservative three-year, deleveraging-adjusted projected stress losses calculated by the Central Bank based on BlackRock loan-lifetime loss assessment (€27.7bn);
- Subtracting the book losses associated with disposals under deleveraging (€13.2bn);
- Making other capital adjustments (€3.5bn); and
- Calculating the difference between the Core Tier 1 capital 2013 in the adverse scenario and the requirement of 6% in the adverse scenario

Provisioning for potential future loan losses

The Central Bank's calculation of projected losses under the stress case ensures that banks will hold capital to meet potential future losses (even if they are to occur only in a severely stressed macroeconomic context) at an early stage. This goes well beyond provisions required under existing accounting standards.

The summary of the Central Bank three-year projected losses derived from BlackRock, equalling €27.7bn across the four banks, is detailed in Table 1, below:

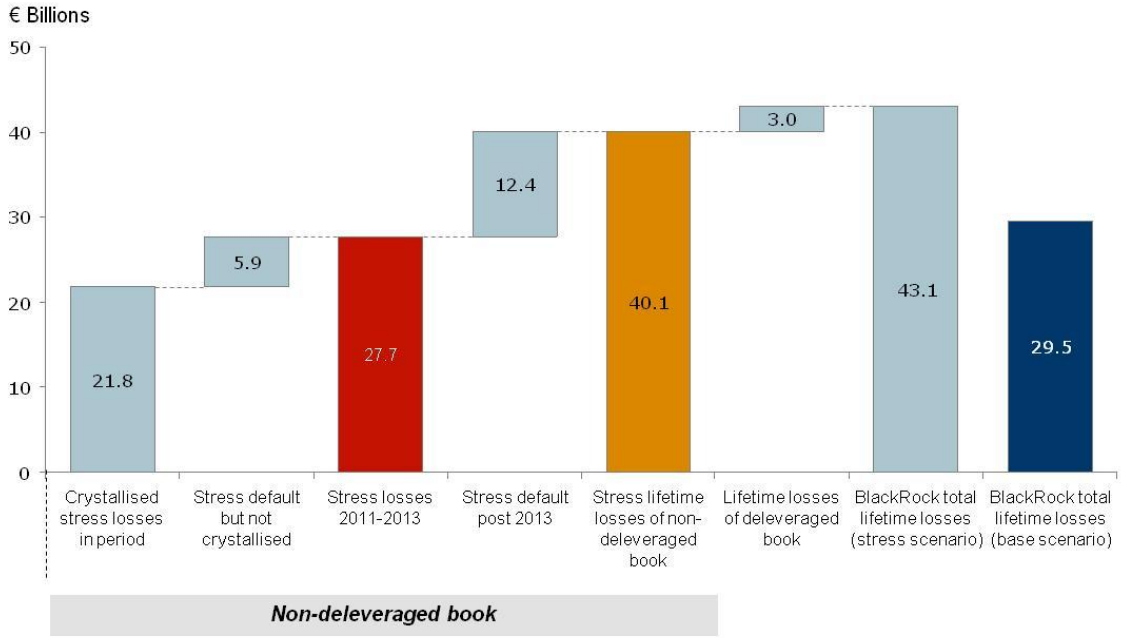
Table 1: Central Bank 2011-2013 projected losses derived from BlackRock and used for capital purposes (€m) - % of nominal portfolio loan balance

	AIB		BOI		ILP		EBS		**Total**	
Product	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**
Residential Mortgages	2,005 *(6.5%)*	3,066 *(9.9%)*	1,361 *(2.3%)*	2,366 *(3.9%)*	1,624 *(4.8%)*	2,679 *(7.9%)*	848 *(5.3%)*	1,380 *(8.7%)*	5,838 *(4.1%)*	9,491 *(6.7%)*
Corporate	564 *(2.7%)*	972 *(4.7%)*	799 *(3.5%)*	1,179 *(5.2%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	1,362 *(3.1%)*	2,151 *(4.9%)*
SME	2,157 *(11.2%)*	2,674 *(13.9%)*	1,445 *(8.4%)*	1,837 *(10.6%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	3,603 *(9.9%)*	4,511 *(12.3%)*
CRE	3,653 *(21.3%)*	4,490 *(26.2%)*	3,148 *(15.4%)*	3,847 *(18.8%)*	231 *(11.3%)*	400 *(19.5%)*	127 *(15.1%)*	197 *(23.4%)*	7,159 *(17.7%)*	8,934 *(22.1%)*
Non-mortgage Consumer and Other	1,167 *(20.8%)*	1,403 *(25%)*	627 *(11.5%)*	891 *(16.4%)*	259 *(15.6%)*	342 *(20.7%)*	0 *(0%)*	0 *(0%)*	2,052 *(16.1%)*	2,635 *(20.7%)*
Total	9,545 *(10.2%)*	12,604 *(13.4%)*	7,380 *(5.9%)*	10,119 *(8%)*	2,114 *(5.6%)*	3,421 *(9.1%)*	975 *(5.8%)*	1,577 *(9.4%)*	20,014 *(7.3%)*	27,722 *(10.1%)*

The diagram below explains how the Central Bank used the adverse (stress) macroeconomic loan loss assessments from BlackRock to build appropriately conservative projected provisions for the banks. The Central Bank has, in total, taken 69% of BlackRock lifetime stress losses (after the impact of deleveraging) into the three-year period for the purpose of capital calculation.

There is no expectation that capital requirements should be set to cover remote lifetime stress losses (which may have offsetting income). However the capital buffers that are in place have been designed to provide comfort concerning post 2013 losses in the years immediately following the assessment period, as an additional layer of conservatism.

Chart 2: Process for calculating three-year projected losses derived from BlackRock projections used for capital purposes; and differences between three-year provisions and crystallised lifetime loan losses[1]



Macroeconomic assumptions in the adverse scenario

The macroeconomic assumptions for the stress case are chosen in agreement with the External Partners.

Table 2: Summary of stress scenario macroeconomic parameters – Ireland (year-on-year figures)

	2010[e]	2011	2012	2013
GDP	-0.2	-1.6	0.3	1.4
GNP	-3.0	-2.6	-0.2	1.2
Consumption	-1.4	-3.9	-1.3	0.1
Investment	-21.1	-11.3	-1.7	-0.3
Government consumption	-2.2	-5.5	-4.3	-2.4
Exports	5.7	2	2.1	2.5
Imports	2.3	-1.1	0.5	1.7
Balance of payments (% of GDP)	-0.9	1.6	3.1	4.3
Employment	-4.0	-2.5	-1.1	0.1
Unemployment rate	13.6	14.9	15.8	15.6
Inflation				
HICP	-1.5	0.1	0.6	1
CPI	-1.0	0.7	0.9	1
House prices	-15.5	-17.4	-18.8	0.5
Commercial property	-13	-22	1.5	1.5
Personal disposable income	-3.2	-3.9	-1.2	0.2

The adverse macroeconomic scenario applied in the Financial Measures Programme and summarised above is not a forecast. The actual macroeconomic outcome is expected to be more favourable than the stress case. In fact, given uncertainties in the current climate, it is improbable that either the base or the

[1] The projected losses for loans defaulting post 2013 are, in part, included within the additional buffer detailed below. It should also be noted that the lifetime economic losses of the disposed books are accounted for as part of projected book losses on asset disposal.

stress scenario will prove to be accurate across the macroeconomic indicators, but using the unlikely adverse scenario ensures that the capital basis of the institutions is appropriately stringent.

To ensure both clarity and consistency, the PCAR scenarios are to a large degree in line with the 2011 EBA stress tests on European banks.

The capital requirements

The consequence of applying conservative assumptions, and of setting demanding capital targets, is to require Irish banks to raise a significant amount of additional capital.

The table below presents the minimum amount of capital the banks will be required to raise, a total of **€18.7bn**, in order to meet the new ongoing target of 10.5% Core Tier 1 ("CT1") in the base and 6% CT1 in the adverse scenario, on the basis of the combined results of the three-year projected stress losses derived from BlackRock and the PCAR analysis, before the addition of a conservative capital 'buffer'. The detailed results of the PCAR are set out later in this report.

Table 3: Gross total capital requirements resulting from PCAR 2011 pre-buffer (€bn)

	AIB	BOI	EBS	ILP	Total
Total capital required 2011-2013 (gross) before 'buffer'	10.5	3.7	1.2	3.3	18.7

An additional capital buffer

In addition to these capital requirements, themselves based on cumulative stress three-year projected losses derived from BlackRock, the Central Bank has added a further capital 'buffer' of €5.3bn across the four banks. This introduces an extra layer of resilience, and recognises the possible, albeit unlikely, emergence of large losses after 2013. The buffer represents a further protective capital layer over and above already conservative provisions, which are themselves based on an even more stressed macroeconomic environment than currently prevails.

Box 1 – Capital Buffer

While the stress test is intended to cover net losses arising up to the end of 2013, it is also reasonable (due to a large legacy of problem loans) to plan that the banks have sufficient capital at end-2013 to meet further losses which, though not evident even then, could be embryonic in the legacy loan portfolio. The BlackRock calculations covering the full lifetime of loans can throw some light on what additional buffer, if any, would be appropriate for this consideration.

In this context, the lifetime loan losses calculated by the BlackRock model on the base case macroeconomic scenario come out close to the same number as the three-year loan losses used in the stress PCAR calculations. A first approximation could be to assume that it is the weakest loans that go into loss status first in the stress scenario, and that these are the same loans as create losses in the base case.

If so, it would be reasonable not to include any additional buffer for remaining embryonic losses in the legacy portfolio after three years of stress. A contrasting extreme case – clearly greatly overstating the situation – would be to assume that all of the losses calculated for post-2013 in the base case need to be added to the 3-year stress losses; a total of €7.5bn.

Besides, any such losses are spread over a quarter century, allowing a lot of time for provisions to be set aside out of normal profits in what would then be a recovered and downsized banking system operating in a non-stressed situation. The proposed cash buffer together with the deferred contingent buffer amounts are therefore ample to deal with this prospect. The capital injection for the buffer will be met partly through equity and partly through contingent capital instruments.

Table 4: Impact of additional buffer on bank capital requirements (€bn)

	AIB	BOI	EBS	ILP	Total
Capital required 2011-2013 pre-buffer	10.5	3.7	1.2	3.3	18.7
Additional capital buffer (equity) imposed by the Central Bank	1.4	0.5	0.1	0.3	2.3
Additional capital buffer (contingent capital) imposed by the Central Bank	1.4	1.0	0.2	0.4	3.0
Total capital required 2011-2013	**13.3**	**5.2**	**1.5**	**4.0**	**24.0**

Table 5: Central Bank estimate of impact of proposed capitalisation on current capital ratios

	AIB	BOI	EBS	ILP
CT1 Ratio (Dec 2010)	3.7%	9.0%	8.0%	10.6%
Pro forma CT1 ratio (assuming immediate capital injection)[2]	21.9%	16.1%	22.6%	32.4%

A transparent approach to 'right-sizing' the Irish banks

A key component of the Financial Measures Programme is the establishment of transparent plans to reduce the Irish banking system to a manageable size and to stabilise its funding base. As of 31 Dec 2010, there were €255.6bn loans in AIB, BOI, EBS and ILP, and €142.1bn deposits – meaning an unsustainable Loan to Deposit Ratio ("LDR")[3] of 180%.

In the past, the gap between loans and deposits was met with wholesale funding. The loss of confidence in the Irish banks by wholesale lenders and corporate depositors resulted in a shortage of liquidity to re-finance maturing obligations and corporate deposit outflows. This precipitated the Irish banking crisis.

The Central Bank has agreed with the External Partners that a sustainable Loan to Deposit Ratio for the aggregate domestic banking system is 122.5%, meaning a surplus of some €70bn of loans. Deleveraging these loans will reduce dependence on wholesale funding and set the foundation for a sustainable banking sector. It will help to create smaller, cleaner banks that are capable of providing the new lending necessary to support economic activity in Ireland.

Consequently, the Central Bank has established target LDRs for each institution to achieve over time. The target ratios for 2013, and the amount of assets consequently designated for deleveraging (the run-off and disposal of non-core loans), is detailed in the following table.

[2] Capital injection includes equity buffer but does not include the contingency capital buffer. These figures include the impact of capital increases to date in 2011

[3] The ratio of a bank's loans to customers, net of provisions, to its customer deposits.

Table 6: Total net loans; and deleveraging plans Dec 2010 – Dec 2013 (€bn)

Bank	Dec 2010	Dec 2013 target	Deleveraging 2010 - 2013[4]
AIB	86.9	67.5	19.4
BOI	115.3	82.7	32.6
EBS	16.4	11.5	4.9
ILP	37.0	21.3	15.7
Total	**255.6**	**185.2**	**72.6**

Banks will implement deleveraging plans agreed with the Central Bank in order to transition to smaller balance sheets and a more stable funding base. They will do this through the separation of assets into 'core' and 'non-core' divisions, and the gradual run-off and disposal, avoiding a fire-sale, of their non-core assets. There is no requirement on the State or the banks to aggressively achieve deleveraging to the point of creating fire-sale situations, as this would result in a significant unnecessary transfer of value to third parties, funded via State capital injections.

The deleveraging of the banking system will give rise to losses which will create a need for further capital. These amounts are included in the overall capital requirement figures (see Chart 1).

The Irish public authorities will collectively oversee the banks' implementation of these plans.

Providing transparency around costs and underlying assumptions

The total additional capital requirement (gross) for the four banks is €24.0bn. This is well within the €35bn provided for this purpose in the Programme agreement. There are measures to reduce the cost to the Government including planned asset sales and Liability Management Exercises ("LME"). These are dealt with separately in the Minister's statement today.

The Central Bank's policy of transparency and the detailed results of the Programme contained within this report seek to begin to re-establish confidence in the Irish banks and set out an appropriate path towards future sustainability.

A validated programme of reform

The validation of the Financial Measures Programme is important in this process of re-establishing confidence in the Irish banks. This work by the Central Bank was a key element of the Ireland's agreement with the EC, ECB and IMF. The stress test criteria and the terms of reference for the diagnostic evaluation of bank assets were developed in consultation with the EC, ECB and IMF at the end of 2010, and these institutions have since monitored progress in the implementation of the Programme.

The Central Bank also contracted international expertise to ensure that the stress testing, loan loss assessment and deleveraging plans set out within this report were subject to expert scrutiny and direction from independent specialists. In addition to this validation, the stress testing exercises have also been subject to a peer review from central bank regulatory colleagues in France and Italy.

In accordance with the FMP, Anglo Irish Bank and Irish Nationwide Building Society were not included in the PCAR and PLAR exercise because their loan books are being wound down. Appendix I provides a comment on these institutions in light of recent developments and the insights gained from the BlackRock assessment process for the four other banks.

The remainder of this report is organised as follows and includes details for:

- The loan loss assessment exercise performed by BlackRock, and the translation of these figures into three-year Central Bank loss forecast used for capital purposes;
- The PCAR stress testing exercise, which was used to calculate capital requirements;

[4] Total asset disposals plus net change in loan assets (across core and non-core)

- The PLAR liquidity review performed by the Central Bank; and
- The deleveraging plans agreed with the domestic institutions in order to reduce their assets and 'right-size' the aggregate balance sheet.

3. Detailed Results

3. Detailed Results

3.1 Loan loss assessment

Overview

Since 2008, the Irish banks have incurred very large loan losses. In a deteriorating macroeconomic environment, the potential for further losses required sizable capital injections into the banks over the last two years.

Against the background of financial market pressures leading to the programme of assistance from the External Partners in November 2010, it became clear that market participants nevertheless regarded the replenished capital amounts as insufficient to cover further larger than anticipated losses. Consequently, as part of the agreement with the External Partners, the Central Bank decided to commission a detailed and data-driven evaluation of the possible losses to the banks in a severe, but not utterly implausible, stress scenario.

In order to enhance the rigour and credibility of this exercise, the Central Bank engaged BlackRock Solutions, an international firm with a strong reputation in the market for its capabilities in assessing losses in credit portfolios. BlackRock was asked to perform as comprehensive a review of the loan portfolios of the PCAR banks as was possible in the three months from January to March 2011. The results of this work are key inputs into the capital requirements identified in PCAR 2011.

BlackRock was selected based on its expertise in the area of loan loss assessment, in part acquired while working on similar stress testing exercises in other jurisdictions. BlackRock's loan loss assessment expertise was supplemented by a number of accountancy firms, legal firms, and credit experts. The Central Bank also appointed The Boston Consulting Group, an international consultancy firm, to provide oversight and challenge to BlackRock's work and to ensure consistency across institutions and portfolios.

Conservatism and disclosure

The Central Bank believes it is important to take a conservative view so that the potential future loan losses facing Irish institutions are addressed comprehensively and robustly. The logic is that a bank holding capital sufficient to meet a conservative and credible stress loan loss projection by BlackRock is likely to be viewed by the market as sufficiently capitalised. As such, the loan loss outputs from this exercise are not to be thought of as a forecast but as one possible (severe) outcome.

In previous economic downturns, Irish banks have endured economic difficulties with more moderate repossessions, foreclosures, and loan losses than have been experienced elsewhere. Consequently BlackRock has estimated what could happen if the macroeconomic stress scenario materialises *and* the banks experience loan-loss consequences of the same order as in other distressed jurisdictions. Thus, the BlackRock calculations do not allow the previously benign Irish experience to colour future loan loss estimates. This conservatism is an important aspect of the exercise by design, and is a major source of the additional capital required.

The time horizon to assess loan losses is the three-year period through to end-2013. This differs from the two-year horizon of the EBA exercise. The Central Bank believes it is important to consider loans which fall into arrears during this period but do not crystallise into loss until subsequent years, and has made an adjustment to bring such losses into the assessment period for the calculation of required capital.

The Central Bank is also publishing lifetime base and stress loan losses to provide a fully transparent view of possible losses beyond the three-year stress assessment period. It is not standard regulatory practice to assess current capital requirements for remote, hypothetical loan losses over such a long time horizon: similar EU and US exercises have not estimated capital requirements on this basis for example. Such lifetime loan loss assessments are inherently more uncertain due to their long-term nature. For example, for residential and commercial real estate, the losses emerge over decades. In addition, offsetting income that would potentially arise and offset losses has not been considered beyond 2013 in this exercise.

Loan loss assessments

Losses are defined as principal losses including enforcement costs at the time of liquidation, insolvency, or balance sheet write-down. They do not include interest which accrues during enforcement as this effect is

captured in the future interest income found in the forecast income statements in the PCAR. The loan loss assessment models cover the following portfolios:

- Residential mortgages
- Corporate lending
- SME (small and medium enterprise) lending
- CRE (commercial real estate) lending
- Non-mortgage consumer and other lending

BlackRock estimated the nominal, undiscounted losses each year over the forecast horizon for all banks and all portfolios. Their approach is close to an "intrinsic value" methodology[5], as opposed to a "mark to market" approach, which would use current market prices. However the loss estimates do not take into account the time value of money, standard accounting practices for the timing of loss recognition, existing provisions, nor the possibility of offsetting income. Importantly, to avoid bias, BlackRock was not privy to the banks' 2011 PCAR loss estimates.

Loan loss assessment models have been custom-built for the banks' portfolios as of 31 December 2010. The primary data sources for these models were the institutions (data tapes as of 31 December 2010, historical data), the Central Bank (macroeconomic assumptions prepared in agreement with External Partners), and third party information sources (for example, Moody's, CBRE, Lisney). With the exception of consumer loans, the models assume that the portfolios run-off naturally through amortisation and prepayment; no growth or even replacement of loan balances is permitted.

The models were informed by the data integrity and verification and asset quality review (including a legal review) exercises conducted in parallel. The sections in this chapter entitled Data Integrity and Verification and Asset Quality Review contain summaries of these workstreams' activities and findings. Additionally, the models incorporated qualitative information gleaned from: interviews with bank management; documentation provided by banks on a range of issues; and the experience and expertise of BlackRock.

Current loan balances

The current loan balances as provided to BlackRock are set out in Table 7 below.

Table 7: Notional loan balances as at 31 December 2010 (€m)[6]

Product	AIB	BOI	ILP	EBS	Total
Residential mortgages	31,014	59,941	33,872	15,891	140,718
Ireland[7]	27,535	27,948	26,329	15,891	97,704
OO[8]	20,179	20,869	19,428	13,961	74,437
Buy-to-Let	7,356	7,080	6,900	1,930	23,267
UK	3,479	31,992	7,543	0	43,014
OO	3,000	20,197	469	0	23,666
Buy-to-Let	479	11,795	7,074	0	19,349
Corporate	20,723	22,815	0	0	43,538
SME	19,229	17,305	0	0	36,534
CRE	17,124	20,414	2,049	841	40,428
Non-mortgage Consumer and Other	5,621	5,444	1,655	0	12,721
Total	93,712	125,919	37,576	16,732	273,938

[5] An asset's "Intrinsic Value", as compared to its Market or Book Value, is defined as its present valuation based upon the future income streams it will produce. BlackRock is estimating the non-discounted intrinsic value of loans.

[6] Volumes quoted are based on BlackRock derived opening Exposure at Default volumes at 31 Dec 2010 for the purposes of the BlackRock loan loss assessment work. Given BlackRock assumptions made these may differ materially from the banks' own volumes in some categories of loans.

[7] Banks' "Ireland" portfolios do not include Northern Irish loans.

[8] "OO" refers to Owner-Occupied properties.

Outputs of the loan loss assessment exercise

Table 8 sets out for comparative purposes the three key outputs of the loan loss assessment exercise:

1. BlackRock lifetime loan losses post-deleveraging: the cumulative lifetime crystallised losses in the base and stress macroeconomic scenarios, assuming that all loan books are to be run-off as estimated by BlackRock with the impact of the deleveraging plans taken into account as calculated by the Central Bank. Percentages in this category reflect the BlackRock lifetime losses post-deleveraging divided by the starting balances laid out in Table 7.
2. "CB three-year projected losses": the cumulative 2011-2013 crystallised losses plus losses attributable to 2011-2013 loan defaults that crystallise later derived from BlackRock. The full methodological explanation of how the BlackRock lifetime loan losses were converted to three-year projected losses can be found in the *Deriving three-year projected losses from BlackRock figures* section; these calculations were performed by the Central Bank using all necessary inputs provided by BlackRock. Percentages in this category reflect the Central Bank three-year projected losses divided by the starting balances laid out in Table 7.
3. Banks' own forecast provisions for 2011-2013: these have been reproduced here to demonstrate the additional level of conservatism built into PCAR 2011. Figures include the banks' 2010 stock of provisions. Percentages in this category reflect the Banks' own forecast provisions divided by the banks' own derived starting balances.

Table 8: Summary loan loss and provision results (€m)

		AIB		BOI		ILP		EBS		**Total**	
Product		**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**
Residential Mortgages	BlackRock lifetime loan losses post-deleveraging	3,100 *(10%)*	4,908 *(15.8%)*	2,388 *(4%)*	4,286 *(7.2%)*	3,026 *(8.9%)*	5,209 *(15.4%)*	1,411 *(8.9%)*	2,495 *(15.7%)*	9,925 *(7.1%)*	16,898 *(12%)*
	CB three-year projected losses	2,005 *(6.5%)*	3,066 *(9.9%)*	1,361 *(2.3%)*	2,366 *(3.9%)*	1,624 *(4.8%)*	2,679 *(7.9%)*	848 *(5.3%)*	1,380 *(8.7%)*	5,838 *(4.1%)*	9,491 *(6.7%)*
	Bank's own forecast provisions	1,430 *(4.6%)*	1,859 *(6%)*	1,391 *(2.3%)*	1,977 *(3.3%)*	1,265 *(3.7%)*	1,718 *(5.1%)*	537 *(3.4%)*	758 *(4.8%)*	4,623 *(3.3%)*	6,312 *(4.5%)*
Corporate	BlackRock lifetime loan losses post-deleveraging	683 *(3.3%)*	1,133 *(5.5%)*	926 *(4.1%)*	1,379 *(6%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	1,608 *(3.7%)*	2,512 *(5.8%)*
	CB three-year projected losses	564 *(2.7%)*	972 *(4.7%)*	799 *(3.5%)*	1,179 *(5.2%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	1,362 *(3.1%)*	2,151 *(4.9%)*
SME	BlackRock lifetime loan losses post-deleveraging	3,224 *(16.8%)*	4,085 *(21.2%)*	2,175 *(12.6%)*	2,871 *(16.6%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	5,398 *(14.8%)*	6,956 *(19%)*
	CB three-year projected losses	2,157 *(11.2%)*	2,674 *(13.9%)*	1,445 *(8.4%)*	1,837 *(10.6%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	3,603 *(9.9%)*	4,511 *(12.3%)*
Corporate + SME[9]	BlackRock lifetime loan losses post-deleveraging	3,906 *(9.8%)*	5,218 *(13.1%)*	3,100 *(7.7%)*	4,250 *(10.6%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	7,006 *(8.8%)*	9,468 *(11.8%)*
	CB three-year projected losses	2,721 *(6.8%)*	3,646 *(9.1%)*	2,244 *(5.6%)*	3,016 *(7.5%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	0 *(0%)*	4,965 *(6.2%)*	6,661 *(8.3%)*
	Bank's own forecast provisions	3,816 *(9.6%)*	4,716 *(11.8%)*	2,253 *(5.6%)*	2,908 *(7.2%)*	132 *(0%)*	162 *(0%)*	60 *(0%)*	76 *(0%)*	6,261 *(7.8%)*	7,861 *(9.8%)*
CRE	BlackRock lifetime loan losses post-deleveraging	3,843 *(22.4%)*	4,717 *(27.5%)*	3,879 *(19%)*	4,950 *(24.2%)*	240 *(11.7%)*	411 *(20.1%)*	152 *(18.1%)*	225 *(26.7%)*	8,114 *(20.1%)*	10,303 *(25.5%)*
	CB three-year projected losses	3,653 *(21.3%)*	4,490 *(26.2%)*	3,148 *(15.4%)*	3,847 *(18.8%)*	231 *(11.3%)*	400 *(19.5%)*	127 *(15.1%)*	197 *(23.4%)*	7,159 *(17.7%)*	8,934 *(22.1%)*
	Bank's own forecast provisions	1,968 *(11.5%)*	2,908 *(17%)*	1,670 *(8.2%)*	2,275 *(11.1%)*	302 *(14.7%)*	413 *(20.1%)*	151 *(18%)*	172 *(20.4%)*	4,091 *(10.1%)*	5,768 *(14.3%)*
Non-mortgage Consumer and Other	BlackRock lifetime loan losses post-deleveraging	1,326 *(23.6%)*	1,674 *(29.8%)*	825 *(15.2%)*	1,332 *(24.5%)*	326 *(19.7%)*	444 *(26.8%)*	0 *(0%)*	0 *(0%)*	2,477 *(19.5%)*	3,450 *(27.1%)*
	CB three-year projected losses	1,167 *(20.8%)*	1,403 *(25%)*	627 *(11.5%)*	891 *(16.4%)*	259 *(15.6%)*	342 *(20.7%)*	0 *(0%)*	0 *(0%)*	2,052 *(16.1%)*	2,635 *(20.7%)*
	Bank's own forecast provisions	1,178 *(21%)*	1,328 (23.6%)	665 (12.2%)	696 (12.8%)	216 (13.1%)	243 (14.7%)	10	17	2,069 (16.3%)	2,284 (18%)
Total	BlackRock lifetime loan losses post-deleveraging	12,176 *(13%)*	16,517 *(17.6%)*	10,191 *(8.1%)*	14,819 *(11.8%)*	3,592 *(9.6%)*	6,064 *(16.1%)*	1,563 *(9.3%)*	2,719 *(16.3%)*	27,522 *(10%)*	40,119 *(14.6%)*
	CB three-year projected losses	9,545 *(10.2%)*	12,604 *(13.4%)*	7,380 *(5.9%)*	10,119 *(8%)*	2,114 *(5.6%)*	3,421 *(9.1%)*	975 *(5.8%)*	1,577 *(9.4%)*	20,014 *(7.3%)*	27,722 *(10.1%)*
	Bank's own forecast provisions	8,392 *(9%)*	10,810 *(11.5%)*	5,979 *(4.7%)*	7,857 *(6.2%)*	1,915 *(5.1%)*	2,535 *(6.7%)*	759 *(4.5%)*	1,024 *(6.1%)*	17,044 *(6.2%)*	22,225 *(8.1%)*

[9] BlackRock did not explicitly model loan losses for a combined Corporate and SME portfolio; the combined figures are presented in this table in order to include banks' own forecast provisions, which were submitted in a combined fashion.

Methodology and results by asset class

Residential mortgages

BlackRock lifetime losses including the impact of deleveraging for residential mortgage portfolios are €9.9bn in the base scenario and €16.9bn in the stress scenario. The total residential mortgage exposure analysed across the banks is €140.7bn. More than 95% of losses in the residential mortgage portfolio are expected to be generated from Ireland residential mortgage loans, which represent only 69% of notional balances (the remainder is in the UK).

As there is a maturity tail of up to 30 years associated with residential mortgages, only a portion of these lifetime losses is included in the Central Bank's three-year projected losses. The Central Bank three-year projected losses derived from BlackRock figures amount to €5.8bn and €9.5bn in the base and stress cases, respectively. They are considerably more conservative than banks' own provisions (see Table 9: Residential mortgages loan loss assessment results). As noted elsewhere, an additional capital buffer is applied for post-2013 losses.

BlackRock estimated losses using a statistical modelling approach incorporating macroeconomic factors such as the (assumed) forward path of house prices and interest rates, as well as lender-specific borrower credit characteristics. Losses are defined as the principal loss amount crystallised at the time of property liquidation. This approach has been applied to all of the mortgage portfolios of the four banks.

The methodology employed a system of econometric behavioural models, calibrated to loan-level data from Ireland and securitisation data from the UK. The objective of the modelling system was to project cash flows and principal losses based on expectations regarding loan amortisation and prepayment, borrower delinquency and default, and loss severity.

The modelling work identified ten factors – including indexed LTV, and loan age and affordability – that are predictive in forecasting delinquency and prepayment. LTV also drove loan losses at default, alongside cost and time to recover. Implicit in the model is the assumption that forbearance of high LTV loans moderately increases losses by increasing time and expense to recovery, while impairing property value through accumulated disrepair. In contrast, the banks' assessment of loan losses places considerable weight on employment as a model input and focuses less on LTV. The banks' own forecasted provisions reflect losses following forbearance measures; as employment data improves over time, loan performance improves regardless of LTV.

Given the lack of re-possession data in Ireland, BlackRock assumed that Irish repossession levels would converge with those in the UK.

BlackRock supplemented the model-based approach described above with individual loan file reviews, real estate valuation "drive-bys," bank management interviews, and the results of the Data Integrity and Verification and Asset Quality Review exercises described in the self-entitled sections. The purpose of the loan file reviews was to enable BlackRock to calibrate their models to current Irish and UK fundamentals. The real estate drive-bys utilised local real estate knowledge and were used to ensure that collateral re-indexation using published house price indices in the UK and the Ireland was effective. They established that re-indexed values based on value at origination were in line with drive-by valuations for properties up to €400K. Bank management interviews shed light on loan administration and servicing practices which in turn informed BlackRock assumptions regarding time and expense to recover.

The BlackRock models are statistically robust and performed well in out-of-time and out-of-sample testing. BCG, in its assessor role, has concluded that the models are appropriate in form, valid in construction, and conservative in output.

Table 9: Residential mortgages loan loss assessment results (€m)

		AIB		BOI		ILP		EBS		Total	
Product		**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**
Ireland	BlackRock lifetime loan losses post-deleveraging	**3,077** *(11.2%)*	**4,846** *(17.6%)*	**2,249** *(8.0%)*	**3,836** *(13.7%)*	**2,993** *(11.4%)*	**5,103** *(19.4%)*	**1,411** *(8.9%)*	**2,495** *(15.7%)*	**9,729** *(10.0%)*	**16,280** *(16.7%)*
	CB three-year projected losses	**1,983** *(7.2%)*	**3,007** *(10.9%)*	**1,255** *(4.5%)*	**2,016** *(7.2%)*	**1,598** *(6.1%)*	**2,594** *(9.9%)*	**848** *(5.3%)*	**1,380** *(8.7%)*	**5,684** *(5.8%)*	**8,997** *(9.2%)*
OO	BlackRock lifetime loan losses post-deleveraging	**1,768** *(8.8%)*	**2,968** *(14.7%)*	**1,104** *(5.3%)*	**2,075** *(9.9%)*	**1,669** *(8.6%)*	**2,975** *(15.3%)*	**1,187** *(8.5%)*	**2,164** *(15.5%)*	**5,729** *(7.7%)*	**10,181** *(13.7%)*
	CB three-year projected losses	**1,139** *(5.6%)*	**1,791** *(8.9%)*	**656** *(3.1%)*	**1,115** *(5.3%)*	**969** *(5.0%)*	**1,598** *(8.2%)*	**700** *(5.0%)*	**1,164** *(8.3%)*	**3,465** *(4.7%)*	**5,668** *(7.6%)*
Buy-to-Let	BlackRock lifetime loan losses post-deleveraging	**1,308** *(17.8%)*	**1,879** *(25.5%)*	**1,145** *(16.2%)*	**1,761** *(24.9%)*	**1,323** *(19.2%)*	**2,128** *(30.8%)*	**224** *(11.6%)*	**331** *(17.1%)*	**4,000** *(17.2%)*	**6,099** *(26.2%)*
	CB three-year projected losses	**844** *(11.5%)*	**1,216** *(16.5%)*	**599** *(8.5%)*	**901** *(12.7%)*	**629** *(9.1%)*	**996** *(14.4%)*	**148** *(7.6%)*	**216** *(11.2%)*	**2,219** *(9.5%)*	**3,330** *(14.3%)*
UK	BlackRock lifetime loan losses post-deleveraging	**23** *(0.7%)*	**62** *(1.8%)*	**139** *(0.4%)*	**451** *(1.4%)*	**34** *(0.4%)*	**106** *(1.4%)*	**0** *(-)*	**0** *(-)*	**195** *(0.5%)*	**619** *(1.4%)*
	CB three-year projected losses	**22** *(0.6%)*	**59** *(1.7%)*	**105** *(0.3%)*	**350** *(1.1%)*	**26** *(0.3%)*	**85** *(1.1%)*	**0** *(-)*	**0** *(-)*	**154** *(0.4%)*	**494** *(1.1%)*
OO	BlackRock lifetime loan losses post-deleveraging	**13** *(0.4%)*	**37** *(1.2%)*	**34** *(0.2%)*	**112** *(0.6%)*	**2** *(0.4%)*	**6** *(1.3%)*	**0** *(-)*	**0** *(-)*	**50** *(0.2%)*	**156** *(0.7%)*
	CB three-year projected losses	**12** *(0.4%)*	**34** *(1.1%)*	**29** *(0.1%)*	**92** *(0.5%)*	**2** *(0.4%)*	**5** *(1.1%)*	**0** *(-)*	**0** *(-)*	**42** *(0.2%)*	**131** *(0.6%)*
Buy-to-Let	BlackRock lifetime loan losses post-deleveraging	**10** *(2.0%)*	**25** *(5.2%)*	**105** *(0.9%)*	**338** *(2.9%)*	**31** *(0.4%)*	**100** *(1.4%)*	**0** *(-)*	**0** *(-)*	**146** *(0.8%)*	**462** *(2.4%)*
	CB three-year projected losses	**10** *(2.0%)*	**25** *(5.3%)*	**77** *(0.7%)*	**259** *(2.2%)*	**25** *(0.3%)*	**79** *(1.1%)*	**0** *(-)*	**0** *(-)*	**111** *(0.6%)*	**363** *(1.9%)*
Residential Mortgages	BlackRock lifetime loan losses post-deleveraging	**3,100** *(10.0%)*	**4,908** *(15.8%)*	**2,388** *(4.0%)*	**4,286** *(7.2%)*	**3,026** *(8.9%)*	**5,209** *(15.4%)*	**1,411** *(8.9%)*	**2,495** *(15.7%)*	**9,925** *(7.1%)*	**16,898** *(12.0%)*
	CB three-year projected losses	**2,005** *(6.5%)*	**3,066** *(9.9%)*	**1,361** *(2.3%)*	**2,366** *(3.9%)*	**1,624** *(4.8%)*	**2,679** *(7.9%)*	**848** *(5.3%)*	**1,380** *(8.7%)*	**5,838** *(4.1%)*	**9,491** *(6.7%)*
	Bank's own forecast provisions	**1,430** *(4.6%)*	**1,859** *(6.0%)*	**1,391** *(2.3%)*	**1,977** *(3.3%)*	**1,265** *(3.7%)*	**1,718** *(5.1%)*	**537** *(3.4%)*	**758** *(4.8%)*	**4,623** *(3.3%)*	**6,312** *(4.5%)*

Corporate Lending

BlackRock lifetime losses including the impact of deleveraging for corporate portfolios are €1.6bn in the base scenario and €2.5bn in the stress scenario. The total corporate exposure analysed across the banks is €43.5bn. Given the relatively short maturity profile of this portfolio, most of these losses are captured in the Central Bank three-year projected losses. All figures are presented in Table 8: Summary loan loss and provision results.

BlackRock loan loss assessments for corporate loans were based on a combination of manual loan file reviews and a more statistical probability of default (PD)/loss given default (LGD) approach. Undrawn balances were included in the analysis as if fully drawn.

BlackRock focused its efforts during the loan file reviews on the largest and/or most impaired loans. These detailed manual file reviews covered 75% (by value) of loans of over €50m. Critical borrower credit metrics considered in the analysis included debt-to-EBITDA, EBITDA-to-interest expense, enterprise value, operating margin, and sustainable cashflow. These metrics, combined with credit expert judgement, formed the basis of a "reunderwriting," meaning a full, fundamental reassessment of the loan. The results of the reunderwriting informed forecasting assumptions for the remaining portfolio. As a result of

differences between reunderwritten and original bank credit grades, BlackRock applied a conservative adjustment to current bank credit grades for all other loans.

BlackRock has substantial in-house knowledge of PDs and LGDs for corporate loans based on historical experience. In addition, BlackRock referenced standard benchmarks. The loss severities were adjusted to reflect macroeconomic assumptions developed by the Central Bank in conjunction with External Partners (see Appendix C).

It is worth noting that banks submitted forecasted provisions for Corporate combined with SME, according to the PCAR instructions. When the Central Bank three-year projected losses are combined across these two portfolios, AIB's forecasted provisions are higher than the Central Bank three-year projections, while the forecasts of BOI are similar to those of the Central Bank.

Small and medium enterprise (SME) lending

BlackRock lifetime losses including the impact of deleveraging for the SME portfolios are €5.4bn in the base scenario and €7.0bn in the stress scenario. The total SME exposure analysed across the banks is €36.5bn.

The banks submitted forecasted provisions for Corporate combined with SME. When the Central Bank three-year projected losses are combined across these two portfolios, AIB's forecasted provisions are higher than the Central Bank three-year projections, while the forecasts of BOI are similar to those of the Central Bank. It is worth noting that that as the BlackRock SME model incorporates a relatively large degree of forbearance into the timing of losses, the BlackRock results in crystallised losses beyond the 2013 horizon for which the banks might have provisioned. The forbearance assumption is further detailed in this section. All figures are presented in Table 8: Summary loan loss and provision results.

BlackRock loan loss assessments for SME were based on quantitative and qualitative analysis and used a ratings-based expected loss approach, which incorporates projected PD and LGD as the main parameters in estimating losses over time.

The PD forecasts by industry based on three years of the banks' own historical rating migration experience. BlackRock rebased the derived default matrices to current GDP and unemployment, and then rolled them forward in line with Central Bank forecasts based on the historical relationship of corporate insolvency rates to GDP and unemployment.

The portfolio LGD assumptions for both Ireland and UK consider among other factors: (i) property-based lending criteria prevailing during the boom; (ii) the decline in commercial real estate values; (iii) the extent of excess leverage; (iv) a severe economic outlook, as defined in the macroeconomic parameters specified by the Central Bank (see Appendix C); and (v) BlackRock and external benchmarks.

Qualitative findings from a sample-based loan file review and bank management meetings helped inform key modelling assumptions and strengthened the robustness of the loss forecasts for each portfolio. The loan file sample was taken by BlackRock across industry sectors, geographies, origination channels, credit quality bands, and exposure sizes. It focused on the most distressed industry sectors, in particular their repayment capacity, excess leverage, and current internal credit rating.

It is worth noting that a considerable number of SME borrowers reviewed as part of the BlackRock loan file review had exposure to distressed CRE. In the majority of cases, such exposures were rated either watchlist or impaired under the banks' internal ratings systems.

For Ireland, BlackRock applied a forbearance overlay to its loss projections to take into account the current and future level of forbearance and the balance sheet restructuring backlog. The overlay assumes a two- to four-year work-out period and impacts the timing of principal losses, but not the amount. From bank management interviews, it was evident to BlackRock that significant additional resources would be required to address the restructuring backlog. Banks' own forecast provisions may not have taken this backlog into consideration to the same extent.

Commercial real estate (CRE) lending

BlackRock lifetime losses including the impact of deleveraging for the CRE portfolio are €8.1bn in the base scenario and €10.3bn in the stress scenario. The total CRE exposure analysed across the banks is €40.4bn. The Central Bank's three-year projected losses take into account the portion of the BlackRock

lifetime losses that crystallise within the three-year period as well as in 2014, taking into account the one-year work-out period assumed for this portfolio. The banks' own forecast provisions are substantially lower than those calculated by the Central Bank. All figures are presented in Table 8: Summary loan loss and provision results.

In order to reach loss estimates for the CRE portfolios, BlackRock performed a bottom-up analysis on the larger facility exposures (~20% of the portfolio) with a view to achieving maximum risk-based coverage. The rest of the portfolio was modelled where data permitted. Part of the portfolio had insufficient data to allow for bottom-up modelling.

As was done for corporate loans, BlackRock "reunderwrote" 75% by value of CRE loans over €50m. An additional 200 individual CRE loans were reviewed. For the rest of the portfolio BlackRock's methodology is deterministic, using property level debt service coverage and loan-to-value to project defaults and subsequent losses given default. The model hinges on current net operating income ("NOI") for the properties securing the facility, as provided by the banks. The model estimates 25-year cashflows and valuations for each property, by integrating forecast NOI growth and capitalisation rates by property type and geography.

The loan loss assessment model for CRE loans was highly data-dependent. This meant that loss estimates required: up-to-date rent rolls, attachment points in capital structures, property values, derived loan-to-value (LTV) ratios, and debt service coverage ratios (DSCR). In most cases this information was available on paper but not electronically. In other instances, data was unavailable, incomplete, or inaccurate. Where critical data was missing for a facility, BlackRock categorised the loan data as insufficient to allow for bottom-up modelling. In these cases, loans were assigned the loss rates of similar modelled loans.

It is worth noting that a considerable number of borrowers reviewed as part of the BlackRock SME loan file review had exposure to distressed CRE. In the majority of cases, such exposures were rated either watchlist or impaired under the banks' internal ratings systems.

Assets designated for transfer to NAMA under NAMA II were not examined by BlackRock. Instead, they were classed as assets to be deleveraged over the time period, and haircuts were applied to their value in line with the haircuts applied under NAMA transfers during 2010 (on average about 60%). At publication, these assets were still scheduled to be transferred to NAMA.

Non-mortgage consumer and other lending

BlackRock lifetime losses including the impact of deleveraging for non-mortgage consumer and other lending portfolios are €2.5bn in the base scenario and €3.5bn in the stress scenario. The total non-mortgage consumer and other exposure analysed across the banks is €12.7bn. Given the relatively short maturity profile of these portfolios, the Central Bank three-year projected losses take into account the majority of these lifetime losses. The Central Bank three-year projected losses are slightly higher than the banks' own forecast provisions. All figures are presented in Table 8: Summary loan loss and provision results.

In cases where "other" loans were similar to asset classes described in other sections, BlackRock employed a modelling approach analogous to the most relevant asset class. For the remainder, in contrast to the other portfolios BlackRock's approach in this segment is top-down, meaning that forecasts are portfolio-level rather than loan-level. The approach forecasts loan delinquency based on a macroeconomic regression model that varies by loan sub-portfolio. In the case of most non-mortgage consumer sub-portfolios, the regression model is driven by a single factor: unemployment. Conservative assumptions on the cure rate and loss given default by sub-portfolio drive ultimate loan losses.

Securities and derivatives

In addition to forecasting loan losses, BlackRock examined banks' securities and derivatives portfolios.

BlackRock analysed a portfolio of €59.8bn in securities across 1,597 individual positions. The majority of the securities at the institutions were used as liquidity instruments for cash management purposes. AIB and BOI also supplied data on small portfolios of more illiquid assets held on their corporate balance sheet. Pricing discrepancies for all positions spot-checked were not material.

BlackRock also performed a high-level review of individual derivatives positions. These instruments were almost exclusively of the type generally used to support hedging and funding programmes, consistent with the institutions' stated objectives. In the time available, the objective was not to conduct a full review of positions. Instead the intent was to provide comfort on the nature of the portfolios by assessing their size and shape and conducting non-statistical spot checks. Spot checks revealed no material differences.

Data Integrity and Verification

As inputs into the loan loss assessment exercise, the Central Bank also conducted a data integrity and verification exercise to ensure robust outputs. BlackRock hired accountancy firms to support this work (see Appendix B for details). The accountancy firms carried out four specific activities:

1. Loan file sampling and testing: the aim was to assess how accurate the data provided by the banks was as compared to their source systems. If data was missing or inaccurate, BlackRock incorporated this into its view of overall data validity. The key findings are:
   - There was no pattern in error or exception rates observed across banks and portfolios, consistent with expectations for financial institutions of these sizes.
   - The data fields with errors or exceptions were not necessarily relevant for loan loss assessment.
   - This work complemented the view on data quality formed by BlackRock during data gathering for the loan loss assessment exercise.
   - The results provided BlackRock with a more detailed understanding of the strengths and weaknesses of the data, and informed the asset quality review and loan loss assessment work in certain cases. The impact of this work is reflected in the conservatism that BlackRock applied in cases of poor quality or missing data.

2. Review of IT systems: this provided insight into how effectively and appropriately the banks' loan systems were operating. The key findings are:
   - AIB systems are multiple and distributed, with programmes in place to address data quality issues.
   - BOI systems are fragmented, but have passed comprehensive internal and external testing.
   - EBS systems rest on a number of legacy IT systems, though these are stable.
   - ILP systems are in line with other European banks.
   - In summary, no material issues surfaced.

3. Review of credit risk monitoring: the objective was to determine if the banks' internal credit risk monitoring systems and processes – including internal credit rating systems and income recognition policies – are in line with expectations outlined by the Central Bank. As an output of this exercise, the contracted accounting firms provided a high level review and summary of processes in place. The review did not uncover any material issues.

4. Data tape to balance sheet reconciliation: this exercise reconciled the gross loan balances from data tapes provided by the banks against the gross loan balances contained in the banks' financial statements. The review found that data tapes for all banks reconciled to unaudited statutory accounts within <0.02% of notional value. The residual amounts were deemed negligible.

Asset Quality Review

As noted in the methodology and results section, BlackRock and its subcontractors conducted in-depth assessments of loan portfolios by reviewing and reunderwriting loan files and, in some cases, work-out capacity. By examining and reviewing loan files, a more accurate assessment of the value of the underlying collateral was possible, enabling a refinement of loan loss assessment assumptions. For example, the banks' existing risk assessment and rating of a given loan were benchmarked to ensure a calibration of internal ratings to an (external) assessor scale.

The loan file reviews focused on large loans and impaired assets. The number of files sampled varied across portfolios and banks and was sufficiently large to allow BlackRock to elicit qualitative and quantitative findings that were subsequently incorporated into their loan loss assessments. In the case of SME and corporate loans, BlackRock reassessed banks' gradings based on conclusions from re-underwritten loans.

Additionally, BlackRock led a legal assessment of collateral enforcement issues in Irish domestic lending by the banks. This effort was carried out by two Ireland-based law firms. The work primarily consisted of

gathering security-related information (including procedures and experiences) and legal documentation from the banks and summarising findings on potential legal issues related to security enforcement, especially those that could inform the BlackRock loan loss assessments.

Among the many issues highlighted by the legal review were findings around undertakings, receiver rights, form mortgages, and missing documents. BlackRock generally considers that the majority of the security enforcement issues highlighted should not have any material adverse impact on their loan losses. However the impact of a minority of identified issues could not be assessed within the scope and timeframe of the review. BlackRock's conclusions are based on a number of factors, including the banks' past and potential ability to remediate many of the enforceability issues.

Independent assessment of BlackRock forecasts

In line with the terms of the MOU, the Central Bank appointed The Boston Consulting Group ("BCG"), an international consultancy firm, to provide an independent assessment on the work performed by BlackRock and its sub-contractors. The assessment covered all aspects of the BlackRock work including loan loss assessments, data integrity and validation, and asset quality review. Based on its experience and expertise, BCG assessed BlackRock's work along four dimensions:

- Scope and methodology: prior to Central Bank sign-off, BCG reviewed and challenged the proposed scope and methodology documents from BlackRock and its sub-contractors to ensure adequate data sources, rigorous analysis, and consistency of approach across banks and sub-contractors.
- People: BCG screened, met, conducted in-depth discussions with, and worked alongside all principal individuals at BlackRock and each of the sub-contractors to assess their capabilities and experience with respect to their appointed tasks.
- Processes: throughout the project BCG met with BlackRock and the sub-contractors regularly (weekly or daily, as appropriate) to determine the depth and rigour of analyses being performed, identify, track and escalate issues and concerns to the Central Bank, and suggest and monitor appropriate remedies.
- Results: as results emerged, BCG conducted in-depth evaluations of outcomes, assumptions, inferences, and judgements to ensure delivery in line with agreed terms. While BCG did not perform full data or model audits, it did provide robust challenge to the methodologies, approaches, and assumptions employed.

In addition, BlackRock hosted numerous sessions for the Central Bank and other government agencies, the External Partners, and the four banks to explain its methodologies, assumptions, and results. BCG attended these sessions to ensure that any questions or concerns raised were appropriately addressed.

Following this detailed assessment BCG believes that the approaches taken by BlackRock were satisfactory, and that the results are appropriately conservative, in line with BlackRock's terms of reference. The assessor report is found in Appendix G.

Deriving three-year projected losses from BlackRock figures

BlackRock has forecast crystallised loan losses for the entire life of the loan portfolios as at December 2010. These losses are defined as principal losses including enforcement costs at the time of liquidation, insolvency, or balance sheet write-down. In contrast, accounting rules require that banks recognise the entire anticipated loss associated with an impaired loan in the accounting period in which the loan becomes impaired. Consequently the conversion of loan loss assessments to three-year projected losses is necessary to enable the inclusion of BlackRock outputs in PCAR. Moreover, since BlackRock loan losses are based on loan portfolios as at December 2010, they do not reflect asset disposals in banks' deleveraging plans (see Section 3.4).

In order to calculate the capital impact of the lifetime loan losses applicable to the 2011 PCAR stress test, the Central Bank must apply two adjustments to BlackRock loan losses:

1. *Isolation of losses attributable to deleveraged exposures:* Remove losses associated with portfolios that are scheduled for disposal between 2011 and 2013.
2. *Converting relevant lifetime losses into three-year projected losses*: Convert the relevant portion of lifetime losses associated with loans becoming impaired between 2011 and 2013 into three-year projected losses.

The remainder of this section describes the Central Bank's methodology for these two adjustments.

It should be noted that the accounting standard for loan provisioning will change from the current incurred loss model (IAS 39) to an expected loss model, under which provisions will be required for those losses that are expected to arise over the life of a portfolio. This change is currently included in an exposure draft, and when finalised will be included in IFRS 9. The current best estimate of the implementation date for IFRS 9 is from 1 January 2013.

Adjustment 1: Isolation of losses attributable to deleveraged exposures

The first required adjustment to BlackRock lifetime loan losses is to remove those losses associated with loans identified for disposal in 2011-2013. The Central Bank stripped out these losses for each year in proportion to disposed RWAs as provided from the banks' deleveraging plans. Where portfolio definitions did not match exactly, the characteristics of the closest match were applied. Losses associated with disposal portfolios for periods before the disposal is expected to take place remain in the analysis. It is worth noting that the BlackRock lifetime loan loss figures in Table 8 and Table 9 reflect the impact of deleveraging.

Adjustment 2: Converting relevant lifetime losses into three-year projected losses

In order to assess the impact of BlackRock loan losses on the future capital adequacy of each bank, the Central Bank converted a portion of the lifetime crystallised losses into three-year which the banks would be required to hold during the PCAR period (2011 to 2013).

The BlackRock loan loss methodologies vary across portfolios and, as a consequence, the three-year projected loss calculation also varies to account for different timing assumptions. The remainder of this section outlines the methodology for each of the following groups of portfolios:

- Residential mortgages.
- Non-mortgage consumer and other, corporate, and SME.
- CRE.

It is worth noting that in order to ensure consistency across banks and portfolios, the Central Bank has defined the trigger point for a loan to be considered impaired as "payment over 90 days past due".

Residential mortgages

BlackRock has modelled future losses by forecasting a monthly stock of over 90 days past due loans, which is consistent with the impairment definition above. This approach does not separately estimate the loans moving into impairment and those moving out of impairment; rather it considers them both as a single stock. This introduces the challenge of separately identifying the flow of new impairments in a given period and their associated losses. As a result, the Central Bank produced a cumulative three-year projected losses based on impairments arising by December 2013 rather than annual loss figures. The Central Bank projected losses were calculated using parameters and model runs provided by BlackRock.

The cumulative three-year projected loss estimates were produced by calculating the sum of:

- Losses that crystallise between 2011 and 2013.
- Lifetime crystallised losses associated with loans in repossession at the end of 2013.
- Expected future losses for the stock of impaired balances not in repossession at the end of 2013.

Once all three components were calculated and aggregated, the Central Bank then allocated the resultant aggregate three-year losses to individual banks and sub-portfolios (owner-occupied and buy-to-let) in proportion to the total lifetime crystallised losses.

Commercial real estate

For commercial real estate, BlackRock modelled defaults and the associated losses with an assumed one-year liquidation period. As a result it was necessary to associate default events occurring in a given financial period with the resultant losses crystallised one year from now in order to determine the Central Bank loss estimate in the given period (in other words, 2011 Central Bank losses are equal to the sum of crystallised losses in 2012).

Non-mortgage consumer and other, corporate, and SME

For the non-mortgage consumer and other, corporate, and SME portfolios, BlackRock modelled three-year projected loan losses using a probability of default (PD) and loss given default (LGD) model wherein Expected Loss = PD x LGD x EAD.

The table below summarises the proportion of BlackRock lifetime loan losses post-deleveraging included in the Central Bank three-year projected losses.

Table 10: Central Bank three-year projected losses as a percentage of BlackRock lifetime losses (€m)

	BlackRock lifetime loan losses post-deleveraging		Central Bank three-year projected losses		CB three-year projected losses / BlackRock lifetime loan losses post-deleveraging **(%)**	
Product	**Base**	**Stress**	**Base**	**Stress**	**Base**	**Stress**
Residential Mortgages	9,925	16,898	5,838	9,491	**59%**	**56%**
Corporate	1,608	2,512	1,362	2,151	**85%**	**86%**
SME	5,398	6,956	3,603	4,511	**67%**	**65%**
CRE	8,114	10,303	7,159	8,934	**88%**	**87%**
Non-mortgage Consumer and Other	2,477	3,450	2,052	2,635	**83%**	**76%**
Total	27,522	40,119	20,014	27,722	**73%**	**69%**

3.2 Prudential Capital Assessment Review (PCAR)

Overview

The Prudential Capital Assessment Review (PCAR) is the Central Bank's annual stress test of the capital resources of the Irish banks to withstand a prescribed adverse ("unlikely/extreme but plausible") macroeconomic scenario of three-year duration. This macroeconomic scenario is consistent with that applied in the 2011 EBA EU-wide stress test and was developed in conjunction with the ECB to ensure appropriate conservatism. Certain aspects of the PCAR stress test go beyond the constraints applied within the EBA stress tests.

To calculate the appropriate capital requirement, the Central Bank required participating banks, AIB, BOI, EBS and ILP, to prepare estimates of key financial information under the stress scenario. As with the EBA EU-wide stress test, this essentially required institutions to translate the severe macroeconomic scenario into financial forecasts. Based on this information, the Central Bank calculated whether a bank had adequate capital to maintain a minimum level of capital if the stress scenario were to materialise.

In order to ensure that capital requirements reflect the full financial picture for each bank, the PCAR required each bank to submit standard information on the following dynamic components:

- The capital impact of planned deleveraging, as described in the Section 3.4 below;
- Future funding and liquidity needs, reflecting the requirements of the PLAR exercise described in Section 3.3 below;
- Loan impairment provisions;
- Operating income projections; and
- Additional stresses on available for sale (AFS) and trading portfolios.

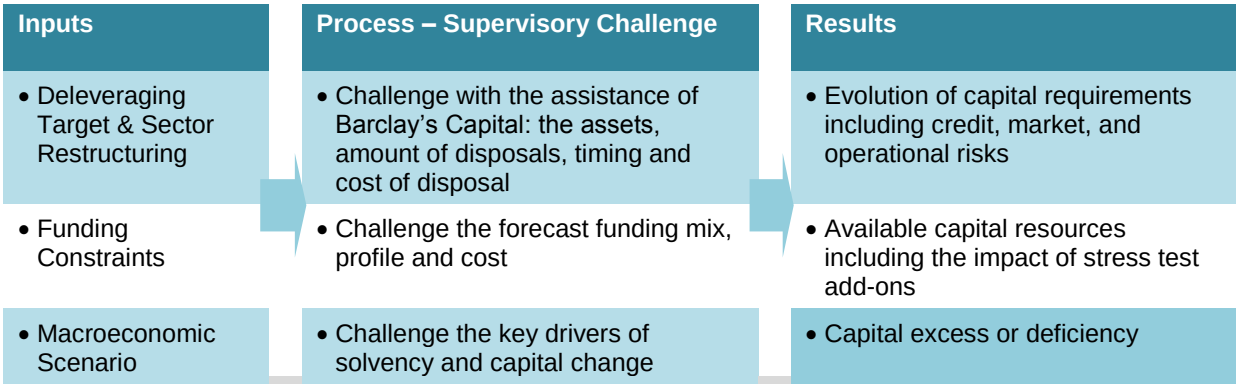
This information was reviewed through a rigorous, iterative process with the Central Bank, included two formal submissions and regular contact between the Central Bank and the institutions participating in the PCAR. Additionally, as described in previous sections, the Central Bank engaged external consultants, BlackRock Solutions, to complete an independent loan loss estimation exercise to supplement the loan loss provisions provided directly by participating banks. The Central Bank has used these results as the determinative loan loss forecast in the 2011 PCAR: loan impairment provisions derived from the BlackRock work have been substituted for those supplied by the banks as part of PCAR and all relevant capital metrics have been updated. This decision is intended to ensure that the forecasts are conservative and credible.

It is important to point out that the PCAR results are not a forecast of what will happen. Rather they are an attempt to estimate the effects of a severe but plausible, macroeconomic scenario, and consequently to size a capital injection that would enable a bank to stay above the minimum level of solvency even in the event that such a scenario arose.

As described in Figure 1, below, the PCAR methodology consisted of three major components:

1. Inputs, which consisted of a comprehensive set of PCAR instructions including deleveraging targets, funding and asset constraints, and macroeconomic scenarios.
2. Supervisory challenge, consisting of additional specific guidance on deleveraging plans, income and expense forecasts, and capital restructuring.
3. Results, which summarise the forecasted capital requirements, available capital resources, and resulting capital excess or deficiency.

Figure 1: PCAR methodology



In addition, in order to further enhance the robustness of the stress testing exercise, the Central Bank engaged with a number of its supervisory peers from across Europe. Central bank regulatory colleagues from France and Italy have commented on the consistency of the stress testing process and have given technical input to ameliorate the framework of the exercise; however, for confidentiality reasons they did not have visibility over the final results. The purpose of this review was to discuss potential areas of improvement in the Irish approach and process. In addition, the Swedish FSA and Swedish Central Bank were consulted on their current methodology and policy based on lessons learned from the Swedish and Finnish crises of the early 1990s and the recent crises in the Baltic States. Both forms of engagement proved enlightening and resulted in improvements to the PCAR exercise.

Inputs

The PCAR instructions prescribed a number of constraints in order to ensure that the banks translate the prescribed macroeconomic scenarios into robust yet conservative forecasts. These constraints also allowed the Central Bank to compare results across banks more easily and to ensure that all forecasting assumptions were realistic and plausible. The constraints focused on balance sheet growth, future funding, and macroeconomic scenarios.

Balance Sheet Growth and Deleveraging

A central assumption in the PCAR was one of zero growth in banks' balance sheets. This is a specification of the 2011 EBA EU-wide stress test and ensures consistency and comparability between different EU banks. This means that maturing exposures are assumed to be replaced with exposures of a similar type, and the balance sheet only reduces when impairments are forecast. This central assumption results in a scenario where an institution's relative riskiness does not change significantly and the management of the institution cannot alter the outcome with assumed management decisions, e.g. a cessation of lending or the opening of a new business.

For the purposes of the PCAR, an exception to the zero balance sheet growth requirement was applied to non-core assets which institutions were required to dispose of or run down under deleveraging plans agreed with the Central Bank (see Section 3.4). Where deleveraging is assumed, the capital gain or loss on disposal of assets, balance run-off, the income foregone, the costs retained, and the reduction in Risk Weighted Assets (RWA) are all fully integrated at the appropriate time horizon into the forecasts of income, profit and loss, loan balances, and capital requirements.

Funding

The PLAR funding assumptions and constraints limit the types and costs of funding that an institution may assume as part of their PCAR forecasts. These constraints include access to debt capital markets and growth rates on liability classes including deposits. In particular, the PCAR prescribed a zero deposit growth, which is a more conservative assumption than required by the EBA stress test.

Macroeconomic scenarios

The Central Bank developed an adverse ("unlikely but plausible") macroeconomic scenario in conjunction with the ECB. This scenario was designed to be consistent with Europe-wide EBA stress and includes factors capturing the following macroeconomic areas:

- Economic growth;
- Employment;
- Government expenditure;
- Personal expenditure;
- Residential and commercial property prices; and
- Interest rates and inflation.

Supervisory challenge

The 2011 PCAR comprised two iterations of bank submissions separated by a thorough review and challenge by the Central Bank. After review of the first submission the Central Bank provided additional guidance to each institution on the parameters and assumptions to be used in the second submission. In addition, the Central Bank conducted a final review of the banks' second submission to ensure the accuracy and consistency of information provided and imposed regulatory adjustments as required. In addition to these mandated reviews, the Central Bank maintained regular interaction with all banks to ensure that the PCAR process was robust and fully understood.

In reviewing PCAR submissions, the Central Bank assessed all components of banks' profit and loss accounts to make sure that capital calculations are grounded in sound assumptions. Where it was deemed necessary, regulatory adjustments were applied to ensure the robustness of the final assumptions. The major areas of review included:

- Interest income;
- Interest expense;
- Other income;
- Administrative and other operating expenses; and
- Loan impairment provisions.

Interest income

The forecast income profile of the Irish banking sector is dominated by net interest income. For the participating institutions, interest income predominantly derives from the loan portfolio. As a result, the PCAR, while cognisant of all interest income sources, focuses significantly on the loan portfolio interest income.

As part of their PCAR 2011 submission, institutions were required to provide detailed forecast interest income information on their average interest earning balances by year and by portfolio. For example, the banks provided the average interest income forecast for Irish owner-occupied residential mortgages for 2011, 2012 and 2013. This allowed the Central Bank to examine and challenge the institutions on their forecast margins and also to require amendments where these margin forecasts seemed overly optimistic, unrealistic or inconsistent with the macroeconomic scenario. Finally, the Central Bank developed a dataset for each institution which included analyst forecasts, historic data and peer group averages. Comparison with these datasets allowed the Central Bank to further 'sense-check' the final results.

Interest expense

Interest expense is a major cost category for Irish banks, and thus a major driver of their 2011-2013 profitability. The PCAR specified a set of constraints and parameters for funding cost and access to funds, which were consistent with those applied in the PLAR.

In the stress case, banks were instructed to calculate their cost of funds on the basis of the swap curves at 31 December 2010, and the funding spreads that applied at that date. An additional funding cost spread of 100bps for ECB borrowing and 125bps for other funding categories was also specified and Banks' assumed access to funding markets was restricted. Banks were not permitted to assume any new

wholesale issuance or roll over in the period to end-2013. A maximum annual growth in deposits of 0% was specified[10], based on a conservative projection of market growth and taking account of the fact that outflows of deposits from less stable foreign and corporate sources had already largely stabilised by the beginning of the forecast period. In addition, banks were assumed to lose substantial amounts of collateral due to the stress case assumption of a further ratings downgrade of the Irish Sovereign in 2011. The forecast reductions in interest expense due to the assumed injection of new capital in 2011 were also factored into the PCAR results.

Other income

Fees and commissions, trading income, and other operating income are the normal contributors of other income for Irish banks. However, these elements do not typically constitute a significant volume of income. The supervisory challenge sought to ensure that there were no unrealistic expectations of income growth from these sources, and that business forecasts were consistent with the macroeconomic scenarios.

Administrative and other operating expenses

In addition to the interest expense, the main outgoings for Irish banks are administrative and other operating expenses. As with interest income, the Central Bank developed a dataset for each institution which included analyst forecasts, historic data and peer group averages of cost-income ratios and trends to ensure that forecast costs were reasonable. Some institutions included an additional burden for restructuring, whereas others maintained their cost base regardless of the loss of income.

The following table summarises final PCAR operating income forecasts for each institution.

Table 11: Central Bank PCAR income and expense allowances (€m)

	BOI			AIB		
	2011	**2011**	**2012**	**2011**	**2012**	**2013**
Net Interest Income	2,083	1,935	1,915	1,421	1,483	1,248
Operating profit	590	783	731	-450	-132	-196
Impairment of financial assets (-)	-2,215	-2,246	-2,206	-2,491	-2,640	-2,522

	EBS			ILP		
	2011	**2011**	**2012**	**2011**	**2012**	**2013**
Net Interest Income	130	161	129	335	476	429
Operating profit	89	30	0	150	90	173
Impairment of financial assets (-)	-362	-334	-342	-834	-850	-890

Loan impairment provisions

As described in Section 3.1 the Central Bank engaged external advisors BlackRock Solutions in the review and challenge of loan loss forecasts and provisions. The Central Bank decided that the BlackRock Solutions loan loss provision forecasts are determinative and the final loan loss provision forecasts for each institution are provided in Section 3.1.

Results

The PCAR results consist of an assessment of the capital adequacy of each institution at the end of 2013 under the adverse scenario to determine if additional capital resources are required. To determine these

[10] (with limited exceptions for example, to reflect the transfer of Anglo Irish Bank and Irish Nationwide deposits in February 2011)

results the Central Bank first set the standard of measure for capital adequacy, which consists of the capital basis and risk tolerance.

On this basis the central bank assessed the institution's forecast future capital requirements and compared them to available capital resources. In addition to the profitability forecasts discussed above, the PCAR also included additional stresses on available-for-sale (AFS), securitisations, and trading book assets. These additional stresses increase conservatism.

Based on these forecasts the Central Bank assessed that the Irish bank system requires an additional €24.0bn of capital, which will consist of a combination of equity (€21bn) and contingent capital (€3bn).

Standard of measure

The standard of measure for capital adequacy consists of:

- Capital basis, which set the definition of required and available capital, and
- Risk tolerance, which sets the minimum required level of capital.

Capital basis

As supervisory authorities and central banks have used stress tests to determine banks' capital needs, it is important to set out the basis for that capital decision in PCAR. Capital basis refers to the set of rules or regulations by which capital adequacy is assessed. In the EU the current set of rules is the Capital Requirements Directive.

The Central Bank applied capital requirement rules and a definition of Core Tier 1 capital as prescribed by the Capital Requirements Directive, which is the prevailing regulatory standard in the EU. To increase conservatism the Central Bank has included all supervisory deductions, including 50:50 deductions[11].

In addition, a new capital standard, commonly known as Basel III, has been established by Basel Committee of Banking Supervisors (BCBS). This new capital standard has a scheduled implementation that will commence with a transitional phase on January 1st, 2013 and come into full effect in 2019. While Basel III has not been used as the capital basis for PCAR 2011, the Central Bank did ensure that all institutions would comply with the proposed scheduled implementation under both the base and stress scenarios.

Risk tolerance

Risk tolerance describes the minimum level of capital acceptable to the Central Bank after the severe scenario has materialised. The level of risk tolerance determines the amounts of capital that a bank must hold to absorb future losses and remain solvent/a going concern.

The EBA stress test for 2011 has a risk tolerance of 5% Core Tier 1 in the stress case. However the Central Bank has applied a more stringent criterion of 6% Core Tier 1 under stress in PCAR 2011. As with the decision in respect of loan loss forecasts to be applied, this decision is also intended to ensure conservatism in the forecasts, and is taken in light of the prevailing market confidence in the Irish banking system. By way of comparison, the Central Bank's required level of minimum capital has increased from 4% Core Tier 1 in the stress case and 8% in the base case in PCAR 2010. In addition, the Central Bank also set a base case risk tolerance of 10.5%.

Set out in the box below is the current position with respect to risk tolerance, vis-à-vis current and future capital ratios, regimes, and requirements.

[11] 50:50 deductions are supervisory deduction for which 50% are removed from tier 1 capital and 50% are removed from tier 2 capital

Box 2 – Developments in Capital Requirements

Current Position The current minimum capital requirements for all Credit Institutions, as per the Capital Requirements Directive[12] (CRD), are 4% Tier 1 and 8% Total Solvency. These have applied since March 2010.

PCAR 2010 On 30 March and 10 September 2010, the Central Bank announced details of the PCAR for AIB, BOI, ILP and EBS[13], which included setting new target capital requirements of 8% Core Tier 1[14], of which 7% must be Equity Core Tier 1, under the base case and 4% Core Tier 1 under the stress case after taking account of expected losses.

New Ongoing Minimum Capital Requirements Covered Institutions subject to PCAR 2011 are required to maintain a new ongoing capital adequacy equivalent to 10.5% Core Tier 1 during standard operation.

Basel III On 12 September 2010, the Basel Committee on Banking Supervision (BCBS) announced details of its proposed capital framework, commonly called Basel III. The new minimums are 7% (4.5% plus 2.5% conservation buffer) Common Equity Tier 1 (CET1), 8.5% (6% plus 2.5%) Tier 1 and 10.5% (8% plus 2.5%) Total Capital. In addition, the BCBS has mandated a countercyclical buffer of between 0% and 2.5% of CET1, which will result in an ongoing minimum of up to 9.5% CET1 following full implementation of Basel III standards in 2019.

Capital Requirements and Risk Weighted Assets (RWA)

Risk weighted assets drive minimum level of capital that must be held against an institutions' credit, market, operational, and other (Pillar 2) risks. Here, the presentation is after translation to capital requirements (capital requirements = 8% of RWA) to be consistent with the CRD. The following table summarises each institutions' capital requirements over the stress test horizon for each major risk type, including:

- Credit risk;
- Market risk;
- Operational risk; and
- Other risks specific to the stress test.

[12] Directives 2006/48 & 49 (as amended), together known as the CRD

[13] Covered Institutions subject to PCAR 2010

[14] Core Tier 1 as per CRD and the Central Bank's 'Alternative Capital Instruments' Regulatory Notice

Table 12: Stress case capital requirements (€m)

	BOI			AIB		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Credit Risk	4,395	3,975	3,623	5,672	4,921	4,702
Market Risk	157	157	157	117	145	149
Operational Risk	373	331	331	508	473	454
Other (specific to stress test)	0	335	335	0	302	302
Total	**4,925**	**4,798**	**4,447**	**6,298**	**5,840**	**5,607**

	EBS			ILP		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Credit Risk	812	677	578	1,067	757	484
Market Risk	0	0	0	2	2	2
Operational Risk	19	24	33	39	36	39
Other (specific to stress test)	0	0	0	0	71	71
Total	**831**	**701**	**611**	**1,107**	**866**	**596**

Credit Risk Capital Requirements

The evolution of credit risk capital requirements in the forecast period is heavily dependent on the underlying assumptions and constraints. For example, the zero balance sheet growth assumption requires that redemptions and repayments are replaced with new lending of an equivalent type, risk and maturity. As a result, the inherent riskiness of the loan portfolio should evolve to reflect the deterioration in the macro scenario rather than as a result of changed lending criteria. Given this constraint, credit grade migration is the primary driver of increased credit risk capital requirements as the portfolio on average migrates to higher levels of Expected Loss (EL) and Unexpected Loss (UL), where the underlying models are 'point-in-time' (PIT). If a model forecasts EL and UL on a 'through-the-cycle' (TTC) basis, a cyclical downturn will be implicitly included in the ongoing model outputs. For institutions which have adopted the Internal Ratings Based Approach (IRB) used the Foundation IRB model (except for retail exposures where PD, LGD & EAD are modelled) with a combination of PIT and TTC parameters. TTC is usually reflected in a downturn Loss Given Default (LGD) model which assumes a certain level of loss regardless of prevailing conditions. This has the effect of 'smoothing' capital requirements through the forecast period although the combination approach will not remove volatility altogether.

The impact of credit grade migration is offset by the effect of deleveraging and defaulting exposures on capital requirements. Where an exposure is assumed to default and an impairment provision is taken, the loss from the credit exposure has been recognised and this exposure is no longer part of the credit exposure of the bank. As defaulted exposures are not assumed to be replaced, Risk Weighted Assets (RWAs) also fall. In addition, the effects of deleveraging are fully integrated into the stress test results.

Credit risk capital requirements for these institutions derive almost exclusively from their loans and receivables. As part of the PCAR, the Central Bank reviewed each institution's approach to credit risk capital requirements from these exposures in particular. As such, detailed information on forecast capital requirements for loans and receivables by year and by granular portfolio was reviewed. For example, the Unexpected Loss (IRB measure of un-weighted exposures and resultant capital requirements) or RWAs for Irish Principal Dwelling residential mortgages for 2011, 2012 and 2013 was provided. This allowed the Central Bank to both examine and challenge the institutions on their forecast capital requirements volatility

and also to require amendment where we believed these forecasts to be overly optimistic, unrealistic or inconsistent with the macroeconomic scenario.

Market Risk Capital Requirements

Market risk capital requirements derive principally from an institution's open position in interest rates, foreign exchange, and commodities. Institutions have a choice of regulatory capital calculation approaches (subject to approval).

The institutions subject to PCAR have limited exposure to market risk and calculate their position risk capital requirements (for both general and specific risk in their trading books) using the standardised approach (SA), rather than an Internal Models Method (IMM) such as regulatory VaR. However, in some instances internal risk management models will also be used to estimate profit and loss impacts.

As part of PCAR, the institutions were required to apply a range of risk factors as a result of an assumed market risk parameter shock, detailed in Appendix C, to their trading book market risk exposures. These parameters were consistent with the EBA EU-wide parameters at the time of application. This process resulted in a change in market risk capital requirements and an estimate of the instantaneous profit and loss impact of the shock. Losses that were the result of more expensive hedges and securitisation exposures within the trading book were also included.

Operational Risk Capital Requirements

The institutions subject to PCAR calculate their operational risk capital requirements using the standardised approach (TSA). This approach relies on applying weighted charges to gross income across a number of standardised business lines.

As part of PCAR, institutions forecast their operational risk capital requirements resulting from the gross income forecasts.

Available capital

Available capital at the end of stress test horizon is determined by the institutions' capital resources at the beginning of the stress test horizon, profits or losses over the period and any new capital raised. However, since raising capital was prohibited for the purpose of the PCAR, the main determinant of available capital is the profit/loss over the period. In addition to the drivers of profit and loss described above (operating income, loan losses, and losses on asset disposals) the PCAR included additional stresses on AFS and trading book assets, which further reduce income. These stressed assets included:

- Available-for-sale (AFS) equities;
- Securitisation exposures; and
- Sovereign exposures – trading book.

The results of these additional stresses are summarised in the table below.

Table 13: Additional stresses impacting income and capital requirements (€m)

	BOI		AIB	
	2011	**2012**	**2011**	**2012**
Trading Book- Market Risk	-11	n/a	-10	n/a
Available for Sale – Equities	-10	-8	-37	-30
Securitisation Exposures	0	-32	0	-61
Sovereign Exposures – Trading Book	0	0	0	0
Total	**-20**	**-40**	**-47**	**-91**

Available For Sale (AFS): Equities

A profit and loss impact consistent with the haircuts in the EBA EU-wide stress test was applied to the institutions' AFS Equity holdings.

Securitisation exposures

The PCAR applied a risk weighting grade migration matrix to those securitised exposures held in the banking book (traditional and synthetic, as well as liquidity lines on securitisation transactions) for which there is significant risk transfer, i.e. the underlying exposures are not already captured by some other risk measurement mechanism such as the credit risk capital requirement. The definition of exposure value is the one provided in the CRD and these exposures were split into two categories: Medium Risk and High Risk. All of the following assets classes were included in the High Risk category: EMEA CMBS, US RMBS, EMEA CDO and US CDO, as well as all re-securitisations. All other asset classes were included in the Medium Risk category and a less severe risk weighting grade migration matrix was applied. The application of the matrix essentially results in a multi-notch downgrade in credit quality.

Sovereign Exposures: Trading Book

As part of the PCAR, Sovereign exposures included exposures held both within the Trading Book and within the Banking Book. Sovereign exposures include inter alia: holdings of central government bonds, holdings of government t-bills or commercial paper, loans to central government, loans or debt issued by non-central government (in other words, local authorities), NAMA bonds, and holdings of promissory notes issued by government. A profit and loss impact consistent with the haircuts in the EBA EU-wide stress tests were applied to the institutions' sovereign exposures held in the trading book. Details of the institutions' sovereign exposures by trading book and banking book, and the portion of which is held as AFS are provided in Appendix E.

Pre-injection available capital

Under the severe macroeconomic conditions and conservative forecasting assumptions of the stress scenario all institutions are forecasted to fully deplete their capital resources by 2013. The table below contains the evolution of available capital for each institution over the stress test horizon.

Table 14: Stress case pre-injection available capital (€m)

	BOI			AIB		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Core Tier 1	4,241	2,640	1,320	6,531	2,124	-2,060
Tier 1	4,720	3,116	1,796	6,531	2,124	-2,060

	EBS			ILP		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Core Tier 1	580	-273	-728	1,047	101	-2,647
Tier 1	580	-273	-728	1,047	101	-2,647

Required capital injection

Based on these estimated capital requirements and the associated available capital resources, the Central Bank determined that €24.0bn of additional capital is required. This additional capital consists of two components

- PCAR equity capital and
- Capital buffers.

PCAR 2010 capital requirements

As described above the Central Bank previously announced additional capital requirements based on PCAR 2010 and new on-going capital requirement. These capital additions totalled €13.4bn. Since these announcements were made the institutions have raised additional capital leaving €6.2bn to be raised at the start of the PCAR 2011. However, as outlined in the table below the PCAR 2011 requirements are greater than the remaining required capital from PCAR 2010 for each institution, so both requirements will be satisfied.

Table 15: Capital requirements from PCAR 2010 (€bn)

	As of 28 November 2010			As of 31 March 2011
	PCAR 2010 outstanding capital	**Additional Capital to get to 12.5% CT1**	**PCAR 2010 New total capital reqmt**	**PCAR 2011 capital raising assumed**
BOI	0.0	2.2	2.2	1.7
AIB	4.5	5.3	9.8	4.2
EBS	0.8	0.4	1.2	0.0
ILP	0.1	0.1	0.2	0.2
Total	**5.4**	**8.0**	**13.4**	**6.2**

Capital deficit

Based on the results of the stress test exercise a deficit of €9.8bn was identified to a Core Tier 1 ratio of 6% in the stress case scenario as illustrated below.

Table 16: Capital excess/deficit (€m)

	BOI			AIB		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Core Tier 1 @ 10.5% (Base)	-285	-791	-967	-590	-3,143	-5,076
Core Tier 1 @ 6% (Stress)	547	-959	-2,015	1,808	-2,256	-6,265

	EBS			ILP		
	2011	**2012**	**2013**	**2011**	**2012**	**2013**
Core Tier 1 @ 10.5% (Base)	-161	-501	-602	106	19	-1,774
Core Tier 1 @ 6% (Stress)	-43	-799	-1,187	216	-549	-3,094

Table 17: PCAR Equity Capital (€bn)

	As of 31 March 2011		
	PCAR 2011 capital raising assumed	**PCAR (2011-2013) capital deficit @ 6% CT1**	**PCAR (2011-2013) total equity capital**
BOI	1.7	2.0	3.7
AIB	4.2	6.3	10.5
EBS	0.0	1.2	1.2
ILP	0.2	3.1	3.3
Total	**6.2**	**12.6**	**18.7**

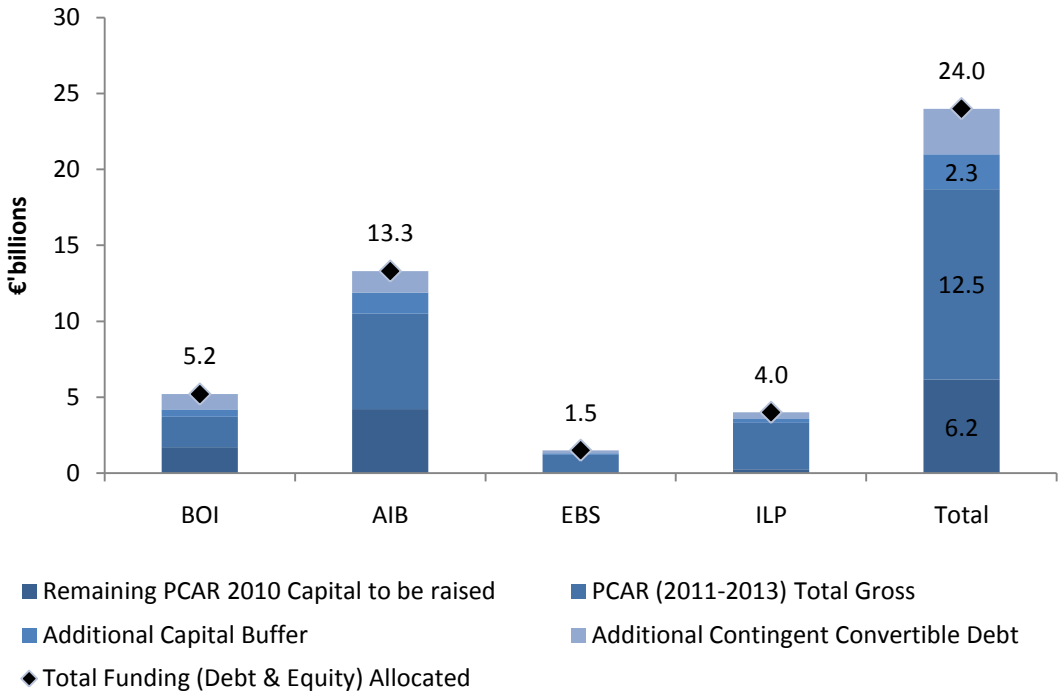
Capital buffers

In light of the current level of market confidence in the Irish banking system the Central Bank has added two additional levels of conservatism into the required capital injections. This 'buffer' is sized to deal with potential capital absorbing events which are outside the parameters of the PCAR stress test. This includes defaults outside the PCAR period, (without taking account of 2014 operating income) and other risks which would affect capital adequacy. In addition to the €18.7bn of required additional capital based on PCAR results the Central Bank has required that the banks raise €2.3bn of equity capital and €3.0bn of contingent capital in for the form of contingent convertible (CoCo) debt as described in the table below.

Table 18: Capital buffers (€bn)

	As of 31 March 2011				
	PCAR (2011-2013)	**Additional Capital buffer**	**Total PCAR (2011-2013) Capital**	**Contingent Capital (CoCo)**	**Total Capital**
BOI	3.7	0.5	4.2	1.0	**5.2**
AIB	10.5	1.4	11.9	1.4	**13.3**
EBS	1.2	0.1	1.3	0.2	**1.5**
ILP	3.3	0.3	3.6	0.4	**4.0**
Totals	**18.7**	**2.3**	**21.0**	**3.0**	**24.0**

Chart 3: Breakdown of total required capital by institution (€bn)



Consideration of Basel III

While the PCAR tolerance levels and capital basis have been set in accordance with the CBI's definition of Core Tier 1, there is much focus internationally on banks ability to meet the Basel III requirements. The recapitalisation of the banks to levels determined by the PCAR will lead to significant progress towards their meeting the full Basel III capital rules. The Basel III rules will come into full effect on the 1st January 2019, with a transitional phase from 1st January 2013, the third year of the PCAR period. It is intended that the rules will further enhance the quality and quantum of capital held within the banking system. It is important to note, that the quality of capital in the Irish banking system has increased significantly as a result of lower tier capital buy backs and Government equity contributions. Whilst it is clear that the Basel III rules impose more conservative deductions than is currently the case, following a recapitalisation to levels determined by the 2011 PCAR, all four banks should comfortably meet Basel III Common Equity Tier 1 ratio on a phase-in basis[15] under both the base case and stress case scenarios. The combined surplus to the minimum phase-in Common Equity Tier 1 under the PCAR base case under PCAR is estimated at circa €13.3bn and €3.7bn under the stress case. Three of the banks would also meet the full 2019 minimum standard in the 2013 base case scenario.

In addition, it is anticipated that there are significant management actions that could be taken to improve Basel III capital ratios before and during the phase in between 2013 and 2018. The Central Bank's early estimates of Basel III results have not been published due to the significant uncertainty around implementation of these new rules. Specifically, the requirements of CRD IV and guidance from the EBA on how CRD IV will be implemented have not yet been finalised.

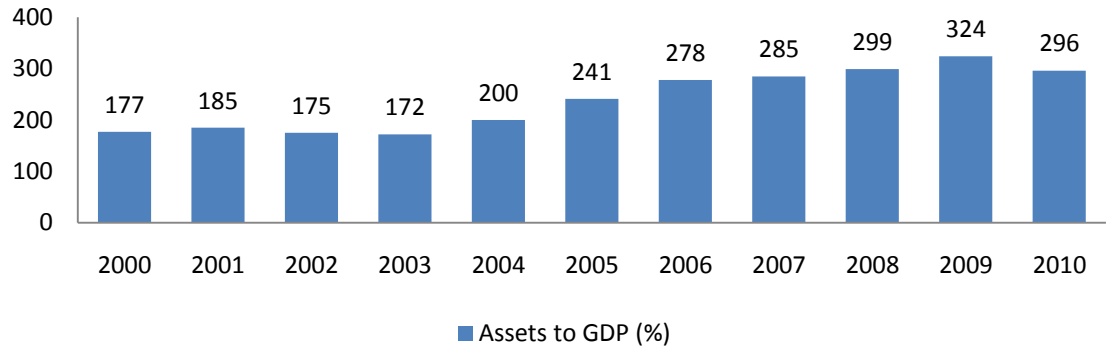
[15] Based on early CBI estimates

3.3 Prudential Liquidity Assessment Review (PLAR)

Background

In the period 2003 to 2007, the assets of the six domestic Irish banks (AIB, BOI, EBS, ILP, Anglo and INBS) rose dramatically on the back of a booming property and construction sector. This asset growth was funded in large part by short-term wholesale and interbank borrowing. The rapid growth in banks' balance sheets relative to the economy as a whole is shown in Chart 1, below.

Chart 4: Six covered banks: Assets to GDP (%) over time[16]



During the period September-December 2010, the six Irish banks lost over €100bn in funding as debt instruments failed to roll and deposits were withdrawn.

Chart 5: Six domestic banks' funding profile changes (€bn)[17]

Category	Dec 08	Dec 09	Jun 10	Dec 10	18 Feb 2011	Change since Dec 08
Retail	152	146	148	136	134	-18
Corp/NBFI	103	80	72	32	30	-73
DCM[18]	140	123	120	69	71	-69
Repo	35	34	34	23	21	-14
Interbank	54	16	14	7	6	-48
Central bank	37	62	58	142	147	+110
Total	**521**	**461**	**446**	**409**	**409**	**-112**

The outflow came mainly from the retreat of corporate depositors and wholesale providers of funds from outside the euro area. These funds had been placed with the Irish banks at a time when the Sovereign and the banks had strong credit ratings.

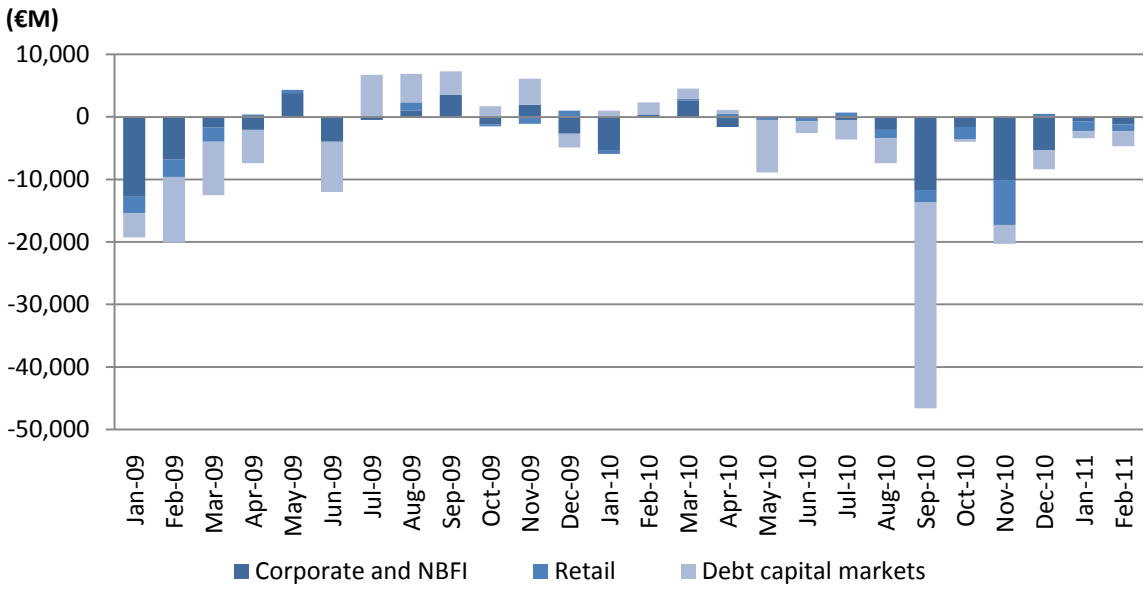
As shown in Chart 6, the level of corporate funding outflows recorded by the six domestic banks escalated from August 2010, having stabilised for some months previously. The expiration of the original Government Guarantee, the Credit Institution Financial Support Act (CIFS) guarantee, in September 2010 led to a substantial amount of debt issuance maturing in that month.

Chart 6: Six domestic banks' monthly flows by category (€m)[19]

[16] Source: Central Bank of Ireland Prudential Statistics

[17] Source: Central Bank Retail Bank Supervision

[18] Debt capital markets



This loss of confidence reflected increased market uncertainty about the creditworthiness of both the Sovereign and the banks, and was punctuated by downgrades of the Sovereign's credit rating.[20]

Overview

It was against this backdrop that the PLAR was conducted, with the objectives of:

- Deleveraging the banking system in a controlled manner;
- Reducing banks' reliance on short term funding; and
- Encouraging convergence to Basel III liquidity standards by the relevant dates.

To these ends, the Central Bank has set targets for liquidity that aim to restore the banks to a more sustainable funding position. The three key target funding ratios are:

1. The Loan to Deposit Ratio ("LDR");
2. The Net Stable Funding Ratio ("NSFR"); and
3. The Liquidity Coverage Ratio ("LCR").

The four institutions, AIB, BOI, EBS and ILP, submitted and iterated deleveraging and funding plans to meet these targets, and will work with the Central Bank until the end of 2013 to execute them. In accordance with the FMP, Anglo Irish Bank and Irish Nationwide were not included in the PLAR exercise because their loan books are being wound down.

Loan to Deposit Ratio

Each of the four institutions must achieve a target LDR of 122.5% by December 2013. The purpose of this target is to begin to return the Irish banks to a more appropriately leveraged and more stable funding position. To ensure satisfactory progress towards this target, the Central Bank has set banks non-public interim six-monthly LDR targets.

In the scenario used in the PLAR, banks have been instructed to assume a maximum of 0% deposit growth between end-2010 and end-2013, with some specific limited exceptions. As a result, the primary driver in the improvement in the LDR will be deleveraging: the reduction of loans through the disposal and run-down of non-core portfolios. Further details of the deleveraging plans are contained in Section 3.4.

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[19] Source: Central Bank of Ireland statistics

[20] Since 2007, the Irish Sovereign has been downgraded seven notches by both Moody's and Fitch and 6 notches by S&P

Net Stable Funding Ratio

The NSFR seeks to ensure that banks fund a greater proportion of their lending activities with stable, long-term funding. Setting target NSFRs will create incentives for banks to improve the stability of their funding by growing customer deposits and lengthening the term of wholesale funding (should market conditions permit), prudently manage the asset side of their balance sheets, and reduce their reliance on central bank funding.

The Central Bank has set each bank a target NSFR for end-2013, and interim half-yearly targets during 2011 to 2013. These will ensure that convergence to Basel III standards occurs by January 2018. The Central Bank has also instructed the banks to produce detailed plans for meeting these targets. It should be noted that the Basel Committee on Banking Supervision and the European Union (via CRD IV) have not yet finalised the format of the NSFR (nor its component definitions and weightings).

Liquidity Coverage Ratio

The LCR aims to ensure banks have sufficient high-quality liquid assets to survive a significant, one-month liquidity stress scenario. Setting a LCR target for December 2013 will encourage banks to strengthen their liquidity buffer once their reliance on central bank borrowing has been reduced to sustainable levels.

The Central Bank has set each bank a target LCR for end-2013 that is designed to ensure that convergence to Basel III standards occurs by January 2015. The initial focus is for the banks to reduce their reliance on central bank funding through the proceeds of deleveraging and any other new sources of funding. Once this has been achieved to an acceptable level, banks will then focus on rebuilding their stock of liquid assets. As with the NSFR, it should be noted that the BCBS and the European Union (via CRD IV) have not yet finalised the format of the LCR (nor its component definitions and weightings).

Box 3 – Liquidity Metrics

Loan to Deposit Ratio ("LDR") The LDR is a measure of deposit funding. It is calculated as gross loans to customers, net of provisions, divided by customer deposits. The ratio is a simple and transparent measure of a bank's liquidity position. It can be readily calculated and tracked from publicly available data, it can be calculated on a comparable basis for most financial institutions (underpinned by International Financial Reporting Standards), and it is frequently monitored by market participants.

Net Stable Funding Ratio ("NSFR") The NSFR is a measure of banks' structural liquidity mismatch. Its objective is to ensure that a bank's long-term assets (on- and off-balance sheet) are funded by stable funding sources, measured by either behavioural or contractual term. It is defined as the ratio of a bank's available stable funding to its required amount of stable funding, in line with the parameters set out by the BCBS in December 2010. Under current Basel III proposals, banks must reach a minimum of 100% NSFR by January 2018.

Liquidity Coverage Ratio ("LCR") The LCR is a measure of short-term contingent liquidity risk. Its objective is to ensure that a bank has sufficient liquidity to meet potential net outflows from both on- and off-balance sheet exposures in a stressed environment. It is defined as the ratio of a bank's stock of high quality liquid assets to its expected net cash outflows in the first 30 days of a specified stress scenario, in line with the parameters set out by the BCBS in December 2010. Under current Basel III proposals, banks must reach a minimum standard of 100% LCR by January 2015.

Ongoing monitoring and compliance

In order to assess progress towards implementing deleveraging plans and meeting targets, the Central Bank will require banks to submit a detailed plan every six months (beginning at the end of June 2011), demonstrating how they will achieve their next interim target. Funding ratios will be calculated and compared against the interim targets established as part of PLAR 2011. In addition to this semi-annual reporting, the Central Bank and other public authorities will interact more regularly with banks to monitor progress towards the disposal of non-core assets.

In the event that a bank's progress towards liquidity targets is considered unsatisfactory, the Central Bank will require specific remedial actions to be taken.

The Central Bank will conduct further PLARs in 2012 and 2013 in accordance with the terms of the MOU. For more details of the assumptions, approach and methodology behind the forecasting of PLAR metrics, see Appendix H.

3.4 Deleveraging Review

Overview

The Deleveraging Review aimed to put in place credible, workable plans for the disposal and run-off of non-core assets to enable each bank to achieve a target Loan to Deposit Ratio ("LDR") of 122.5% by the end of 2013. By reducing the size of the banking system, deleveraging will help to reduce banks' dependence on central bank funding and decouple bank risk from Sovereign risk. In addition, the plans will help to create smaller, cleaner banks that are capable of providing the new lending necessary to support economic activity in Ireland. The deleveraging plans seek to pace asset disposals appropriately, in order to avoid excessive capital losses.

The process of determining how to deleverage the banking system involved the institutions submitting formal deleveraging plans for review by the Central Bank and its advisors. These plans went through a process of iteration and challenge, and resulted in final plans that are considered credible and deliverable.

As a first step in the process, banks were instructed to segregate their loan assets strategically into core and non-core portfolios. The key principle governing the definition of core portfolios was the need to service the retail, SME and corporate banking requirements of the Irish economy, including cross-border trade and investment, acknowledging that some limited element of international business remains essential. In doing so, the banks needed to ensure that at the end of the process a viable core bank, independent of direct or indirect State support and capable of returning to the capital markets in the medium term, would remain.

Having identified the split of core and non-core loan assets, the banks were required to devise a strategic approach to deleveraging the non-core portfolios. This will be achieved through a combination of amortisation across the entire non-core business and targeted asset disposals. The banks were also required to identify the capital and liquidity implications of the deleveraging actions – including prudent estimates of book losses on planned disposals – which were incorporated into the PCAR outputs. This will ensure that following recapitalisation of the banks to meet PCAR requirements, they will have the necessary resources to deliver on their deleveraging plans and further capital shortfalls will not arise.

In addition to this, banks are required to put in place separate, identifiable governance structures to ensure that non-core business is managed in a proactive way to meet LDR targets. Throughout the period of the Programme, a more intrusive regulatory and commercial oversight than has been adopted heretofore by the Central Bank will be in place, alongside the PLAR monitoring. This includes ongoing monitoring of progress to interim bank-specific milestones, with appropriate intervention in the event targets are not met, or forecast not to be met.

Table 19: Dec 2010 and Dec 2013 core and non-core loans and deposits (€bn)[21]

	AIB		BOI		EBS		ILP	
	Dec 2010	**Dec 2013**	**Dec 2010**	**Dec 2013**	**Dec 2010**	**Dec 2013**	**Dec 2010**	**Dec 2013**
Net loans								
Core	61.8	63.3	76.2	73.6	14.1	11.5	26.6	21.3
Non-core	25.1	4.2	39.1	9.1	2.3	-	10.4	-
Total	**86.9**	**67.5**	**115.3**	**82.7**	**16.4**	**11.5**	**37.0**	**21.3**
Deleveraging 2010-2013		*19.4*		*32.6*		*4.9*		*15.7*
Deposits	52.4	55.1	65.4	69.4	9.4	9.5	14.9	17.5
Loan to deposit ratio								
Core	118%	115%	117%	106%	149%	122%	179%	122%
Total	**166%**	**122%**	**176%**	**119%**	**174%**	**122%**	**248%**	**122%**

[21] The above table has been prepared by the Central Bank and the classifications are subject to Irish Government agreement with the EU

Deleveraging to date

The banks have already achieved significant deleveraging since the onset of the financial crisis. In total, approximately €120bn of net loans have been deleveraged since 2008, of which €71bn of gross loans are as a result of NAMA transfers.

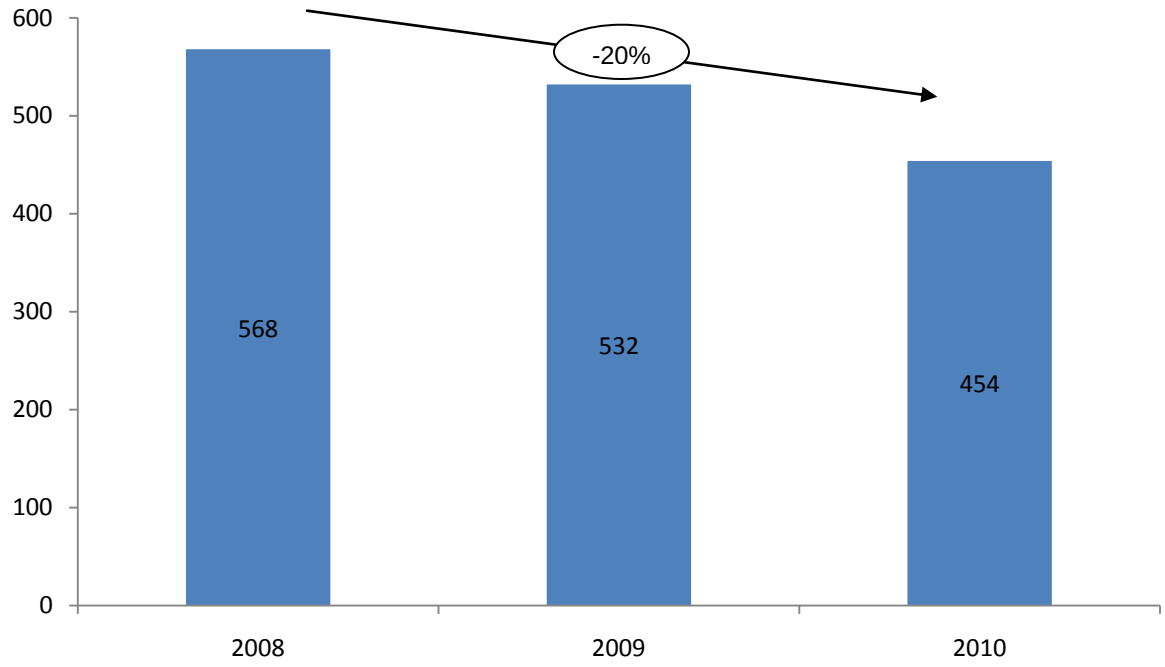
AIB has deleveraged its loan assets by approximately €43bn (including NAMA transfers). This also includes the sale of its Polish operations and its shareholding in M&T Bank Corporation. AIB has also made a number of smaller portfolio disposals including a proportion of Capital Market assets, Structured Securities and European property loans.

BOI has achieved deleveraging to date of approximately €18bn, (including NAMA transfers). This has been realised through reduced relending in its international markets and specific transactions such as the sale of an acquisition finance portfolio in the United States.

ILP has already deleveraged assets of approximately €2bn, principally through the net amortisation of loans. In February 2011, ILP agreed to sell its wholly-owned subsidiary, Irish Life International Ltd ("ILI").

Like ILP, EBS has principally discontinued business lines to execute deleveraging to date. Commercial lending ceased in April 2008 and it no longer provides low-margin tracker or any buy-to-let mortgages.

Chart 7: Deleveraging across six covered institutions to date 2008-2010 (Total Assets €bn)[22]



[22] Source: Financial statements, Bank deleveraging plans; Note: Six covered institutions are AIB, BOI, EBS, ILP, Anglo-Irish and INBS

AIB deleveraging plan

AIB has defined core assets and businesses as those that will serve the banking needs of retail, commercial and corporate customers who are resident in Ireland or overseas entities that have trade and investment links to Ireland. AIB's UK incorporated subsidiary, which includes its Northern Irish operations and is predominantly deposit-funded, is also part of the core business.

AIB's non-core division consists largely of international loan assets across a number of portfolios in the UK, the US and Europe. These assets have been defined as being non-core primarily on the basis of their lesser importance to the Irish economy rather than due to credit quality issues. AIB has established a credible plan for the run-off and disposal of these assets. AIB expects to reduce the balance of non-core loans from €25.1bn at the end of 2010 to €4.2bn by the end of 2013 and that these remaining non-core loans will be run down in due course.

BOI deleveraging plan

As with AIB, BOI has carried out a strategic split of its business into core and non-core. BOI's non-core division consists largely of international loan assets that are spread across a number of portfolios in the UK, the US and Europe. The non-core will reduce from €39.1bn to €9.1bn by 2013. Within the non-core, BOI plans to run off a significant amount of its UK intermediary-originated mortgage book together with a mix of run-off and disposals of other non-core businesses. BOI is well advanced in its planning for the execution of its deleveraging plan and has identified a significant pool of assets. This provides flexibility within the disposal strategy to minimise capital impacts.

BOI is proposing to reduce the size of its balance sheet from €115.3bn at 31 December 2010 to €82.7bn at December 2013. Core businesses are those which focus on Ireland, and its fully deposit-funded UK subsidiary which includes its Northern Irish operations along with its joint venture with the UK Post Office. In addition, BOI will retain as core businesses some of its UK-based, corporate-focused operations and some limited international lending.

EBS deleveraging plan

EBS has refocused its business on core mortgage lending. An element of deleveraging will be achieved over the period of the three years via the natural amortisation of its loan book as forecast mortgage demand is significantly below redemptions during that time. EBS has also identified specific assets to dispose of during the three years of the Programme.

ILP deleveraging plan

ILP has made the strategic decision to re-focus on its core mortgage business. It plans on achieving a significant net reduction in loans as a result of the changed demand dynamic within the Irish market, as redemptions will likely significantly exceed new mortgage lending demand over the next three years.

The primary method of deleveraging for ILP will be through this mortgage amortisation, through the discrete sale of high credit quality UK assets, and through the closure of other non-core Irish business lines with the run-down of associated loans.

The non-core assets total €10.4bn as of December 2010 but will be reduced to zero by December 2013. As with the other banks, ILP was required to quantify the likely capital implications of the deleverage programme. They were however also able to provide information on non-banking assets which are within the ILP Group which when sold would off-set a considerable amount of the capital required relating to disposals. This was also provided by the bank for the complete PCAR assessment.

Appendices

Appendix A: EU-IMF financial assistance package – Ireland

Overview

On 21 November 2010, the Irish Government requested external financial support in order to put in place a wide-ranging reform programme to restore confidence and return the economy to a path of sustained growth and job creation. On 28 November, the Government agreed, on the basis of specified conditions, to an €85bn financial support programme which is being provided by members of the European Union (represented by the European Commission and the European Central Bank) and the International Monetary Fund.

Comprehensive details in relation to the Programme, including the agreed Memorandum of Understanding and the Memorandum of Economic and Financial Policies by the authorities of Ireland, are contained in IMF Country Report No. 10/366 *Staff Report on Ireland.* This report is available at:
http://www.imf.org/external/pubs/ft/scr/2010/cr10366.pdf

Source of funds

External support totalling €67.5bn is available, with €22.5bn from the IMF's Extended Fund Facility (EFF)[23] and €22.5bn from the European Commission's European Financial Stabilisation Mechanism (EFSM). The remainder will come from the European Financial Stability Facility (EFSF) and a series of bilateral loans (€3.8bn from the UK, €400m from Denmark, and €600m from Sweden).

Irish contribution

Ireland's contribution to the Programme's funding will amount to €17.5bn, with €12.5bn coming from the liquid assets of the National Pensions Reserve Fund (NPRF) and €5bn from accumulated Exchequer cash balances. This brings the total size of the Programme to €85bn.

External funding

IMF funds released through the EFF will be issued in the form of Special Drawing Rights (SDRs). SDRs are the unit of account of the IMF, and represent an international reserve asset which can be exchanged for freely usable currencies. SDR values are based on a weighted basket of currencies (euro, Japanese yen, pound sterling and US dollar). Under a non-concessional loan agreement (such as the EFF) the IMF can allocate loans to members as a multiple of their IMF quotas/subscriptions (which are denominated in SDRs).

EFSM bonds are raised by means of the European Commission borrowing on capital markets in its own name, with bonds guaranteed by the EU Budget. The EFSF lends to the Irish Government on behalf of euro area Member States. Bonds issued by the EFSF are backed by government guarantees from euro area Member States (not including Ireland or Greece).

Interest rate

At the outset of the Programme, the average interest rate on the external funding from across the three sources was calculated as 5.82%, on the basis that the average life of the borrowings, which involves a combination of longer and shorter dated maturities, will be seven and a half years. The actual cost will, however, depend on prevailing market rates at the time of each drawdown. The interest rate applying to borrowings from the IMF facility, at the time the Programme was introduced, was calculated to be 5.7%,[24] with a similar rate applying to borrowings from the EFSM. The rates on the EFSF and bilateral loans were estimated, at that time, to be 6.05%.

Further details on the above facilities are set out in a Technical Note on Programme Borrowing rates published by the NTMA

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[23] The Extended Fund Facility was established in 1974 to help countries address longer-term balance of payments problems requiring fundamental economic reforms. Arrangements under the EFF are thus longer than other Fund arrangements.

[24] The average interest rate on Ireland's borrowings under the EFF declined following an increase in Ireland's quota on 4 March 2011.

(http://www.ntma.ie/Publications/2010/TechnicalNoteOnEUIMFProgrammeBorrowingRates.pdf), and a recent derivation of the IMF interest rate is contained in an IMF Media Advisory note issued on 3 March 2011 (see http://www.imf.org/external/np/country/2011/030311.htm). It should be noted that the IMF rate reflects a recent increase in Ireland's IMF quota/subscription. In addition to the surcharges applied, the standard 'rate of charge' on Ireland's funding from the EFF will depend on the prevailing SDR interest rate over the life of the loan.

Agreed policy measures

The Programme outlines a comprehensive set of measures to downsize and reorganise the banking system over time, together with measures to safeguard the public finances and achieve fiscal sustainability. Access to funding will be strictly conditional on the achievement of specific fiscal targets and the implementation of the structural reforms set out in the Memorandum of Economic and Financial Policies (MEFP) (http://www.imf.org/external/np/loi/2010/irl/120310.pdf). Implementation of these targets and reforms will be monitored through a set of benchmarks.

The Programme's Memorandum of Understanding (MoU) (http://www.imf.org/external/np/loi/2010/irl/120310.pdf) also sets out the list of required quarterly actions, with regard to fiscal consolidation, financial sector reforms and structural fiscal reforms, to be implemented between end-December 2010 and the final quarter of 2013.

Funding drawdowns – Quarter 1 2011

An initial €5.8bn[25] of funding was received from the IMF on 18 January 2011. Future disbursements under the EFF are subject to successful quarterly reviews.

Under the EFSM, Ireland drew down €5bn on 12 January 2011, and a further €3.4bn was drawn on 24 March 2011. Under the EFSF, Ireland drew down €4.2bn on 1 February 2011. In the first quarter of 2011, Ireland drew down a total of €18.4bn from the EU and IMF facilities, which was comprised of €12.6bn from the EU facilities and €5.8 billion from the IMF (see footnote). Subsequent drawdowns will be subject to Ireland's needs and to quarterly reviews by the Commission in cooperation with the International Monetary Fund (IMF) and in liaison with the European Central Bank (ECB).

[25] SDR 5bn was valued at an exchange rate of 1 euro = SDR 1.16 on 13 January 2011.

Appendix B: Third-party contractors

To assist with the Financial Measures Programme, the Central Bank engaged a number of expert third-party contractors. Three primary firms were contracted to provide expert support and guidance in the implementation of the measures agreed in the MoU.

Primary third-party contractors in FMP implementation	
Contractor	**Details of role**
Barclays Capital	Expert advice on banking sector reorganisation and deleveraging issues
BlackRock Solutions	Robust loan loss forecasting exercise on the assets of the Irish banks
The Boston Consulting Group	Project management resources across the Financial Measures Programme; assessor of the loan loss forecasting exercise; and expert advice on the PCAR and PLAR

For certain elements of the analysis, the work of third-party sub-contractors was used by BlackRock to complete work or supplement information provided by the banks. The sub-contractors that were used for each workstream are outlined below. All sub-contractors were selected on the basis of (i) task-specific expertise; (ii) local market knowledge; and (iii) lack of conflicts with assigned bank.

Sub-contractors in FMP implementation	
Contractor	**Details of role**
Deloitte	• Data Integrity and Verification for AIB • Data Integrity and Verification for EBS
Ernst and Young	• Data Integrity and Verification for BOI • Asset Quality Review for CRE loans less than €50m for BOI, EBS and ILP
Mazars	• Data Integrity and Verification for ILP • Asset Quality Review for SME lending at AIB and BOI
Clayton Euro Risk Management	• Asset Quality Review for Residential mortgage portfolios across all banks
Situs	• Asset Quality Review for CRE loans greater than €50m at BOI • Asset Quality Review for CRE loans at AIB
Arthur Cox	• Lead law firm for legal review of collateral enforcement issues • Bank-specific legal analysis for AIB and ILP
Matheson Ormsby Prentice	• Bank-specific legal analysis for BOI and EBS

Appendix C: Macroeconomic scenarios

Stress-testing: Macroeconomic scenarios

As part of the Financial Measures Programme, the Central Bank was required to set macroeconomic scenarios for the banks, within which the stress-testing exercise was to take place. Therefore, the Central Bank prescribed a common baseline macroeconomic scenario and an adverse scenario broadly consistent with those being applied for the European Banking Authority ("EBA") 2011 EU-wide stress test. The EBA-prescribed macroeconomic and market variables were applied when performing forecasts.

The baseline was built off a December 2010 EU Commission forecast for Ireland with additional property price assumptions provided by the Central Bank. These assumptions set out the continuation of subdued domestic demand and continued declines in both residential and commercial property prices over the horizon of the exercise.

In the base case, economic growth takes place through an export-led recovery which, in turn, depends on a revival in economic growth in important trading partners within the EU and continued strong global demand generally. The adverse case assumes a decline in EU and global economic growth combined with a further weakening of domestic demand. This resulting overall effect is renewed economic contraction concentrated in 2011-2012 followed by a modest recovery.

The Central Bank is applying a scenario that projects a decline in both commercial and residential property prices in the base and the adverse case. It is important to note that these are not forecasts of outcomes but represent two possible paths from a large range of future outcomes regarding property prices.

In this regard, there is a significant degree of uncertainty surrounding the range of possible future outcomes for the domestic property market. These are related to borrower and bank behaviour, measurement problems in determining the extent of property price declines due the paucity of transactions, the continued unavailability of property price indices, and future demand for residential and commercial property.

In examining house price booms in other OECD countries, some stylised facts could be drawn which can provide some indication as to the likely path of Irish house prices. For example, in the cases of Finland, Sweden and the UK in the early 1990s following periods of significant house price increases, prices tend to follow a pronounced decline for a protracted period. Furthermore, when prices decline they tend to fall below the level suggested by market fundamentals and remains below this fundamental level for some time. Consequently, the scenario regarding property prices in both the base and the adverse scenario should be viewed in this context.

Exhibit 1: General stress-testing instructions issued to banks

Portfolio Timestamp	The PCAR stress test opening balance should be based on the portfolio as of 31December 2010.
Time Horizon	The horizon of the stress test exercise is for the three years to the end of 2013.
Minimum Solvency Ratio	The risk tolerance has been set at 6% in the adverse scenario
Balance Sheet De-Leveraging	The PLAR/PCAR results shall reflect the reorganisation and restructuring of the bank as set out in the Programme agreed in November 2010 including demonstrating, on a forward looking basis, the steps to be taken to implement a steady deleveraging of the balance sheet.
Balance Sheet Zero Growth Assumption	While zero balance sheet growth is to be assumed for balances in general, any significant planned divestments, portfolio restructuring or asset disposals needs to be considered in line with the deleveraging proposals and proposed capital plan.
Liquidity Assumptions	The liquidity assumptions shall be used when forecasting future funding requirements; computing the path to achieving the PLAR liquidity metrics and; when planning any deleveraging of the balance sheet.
Specific Details (Individual Templates, Sector Breakdowns etc)	Please see updated standard results templates and accompanying instructions
PCAR/ PLAR Consistency	Please ensure that there is consistency across the inputs and outputs of the PCAR template (base case) and the PLAR template.

Exhibit 2: Funding and liquidity assumptions issued to banks

Access to Funding Instructions		
	Baseline	**Adverse**
Wholesale Term Funding	• No access to wholesale term funding markets until the 2nd quarter of 2013. • Limited access to wholesale term funding markets from the 2nd quarter of 2013. Access to be consistent with the bank's credit rating, balance sheet size, business model and coordination with the NTMA.	• No access to wholesale term funding markets during 2011, 2012 and 2013.
Ratings	• No rating upgrades to occur in 2011 and 2012.	• Irish Sovereign rating falls to sub-investment grade.
Securitisations	• No securitisations (other than retained) possible during 2011 and 2012. The level of securitisations assumed for 2013 to be consistent with the bank's credit rating, balance sheet size, business model, credit quality of available assets and coordination and scheduling by the NTMA.	• No securitisations (other than retained) possible throughout 2011, 2012 and 2013.
Retail and Corporate	• Growth rates in Irish and UK retail and corporate deposits should be consistent with baseline macro economic projections and the Irish Sovereign and bank credit ratings where appropriate. In particular, underlying year on year growth in closing balances should not exceed 0% (2011), 0% (2012), and 0% (2013) in Ireland and 0% (2011), 0% (2012), and 0% (2013) in the UK. This underlying	• Growth rates in Irish and UK retail and corporate deposits should be consistent with baseline macro economic projections and the Irish Sovereign and bank credit ratings where appropriate. In particular, underlying year on year growth in closing balances should not exceed 0% (2011), 0% (2012), and 0% (2013) in Ireland and 0% (2011), 0% (2012), and 0% (2013) in the UK.

	growth rate should be exclusive of once-off movements in deposits (for example, a reduction caused by the disposal of an asset to which deposits are tied). No gains in share of Irish deposits should be assumed, except in so far as permitted by the limits detailed above	This underlying growth rate should be exclusive of once-off movements in deposits (for example, a reduction caused by the disposal of an asset to which deposits are tied). No gains in share of Irish deposits should be assumed, except in so far as permitted by the limits detailed above
Short Term Wholesale	• Access to short term wholesale (new and rollovers) should be consistent with the baseline macroeconomic and credit rating assumptions provided. Market conditions and levels of wholesale funding of Q4 2010 must be considered the benchmark to which these assumptions are to be applied.	• Access to short term wholesale (new and rollovers) should be consistent with the stress macroeconomic and credit rating assumptions provided. Market conditions and levels of wholesale funding of Q4 2010 must be considered the benchmark to which these assumptions are to be applied.
ELG	• ELG is to be assumed to remain in operation throughout 2011, 2012 and 2013 subject to EU approval	• ELG is to be assumed to remain in operation throughout 2011, 2012 and 2013.
ECB	• Collateral eligibility and haircut assumptions should be consistent with current practice and any known future changes to ECB eligibility criteria.	• Collateral eligibility and haircut assumptions should be consistent with current practice and any known future changes to ECB eligibility criteria.
Foreign Exchange	• FX rates are to be assumed as at 31/12/2010.	• FX rates are to be assumed as at 31/12/2010.
Cost of Funding Instructions		
	Baseline	**Adverse**
Funding Spread (non ECB)	• Funding cost spread in relation to retail, wholesale and corporate funding is to be assumed to be at Q4 2010 levels.	• Funding cost spread increases consistent with stress macro economic projections and the Irish Sovereign and bank credit ratings where appropriate.
ECB Funding	• Assume that the ECB repo curve is the closing EURIBOR swap curve as at 31/12/2010 with a floor of 1%. The additional funding spread is to be determined by the individual bank. Bidding levels should assume that ECB operations will return to variable rate tenders for both main refinancing operations and longer term refinancing operations. Spread levels may vary over the three-year period. • ELA[26] is assumed to be the closing EURIBOR swap curve as at 31/12/2010 with a floor of 1%, plus 200bps.	• Assume that the ECB repo curve is the closing EURIBOR swap curve as at 31/12/2010 with a floor of 1%. The additional funding spread is to be assumed at plus 100bps. • ELA is assumed to be the closing EURIBOR swap curve as at 31/12/2010 with a floor of 1%, plus 200bps.
Money Market Yield Curves < 1 year	• The baseline curves for relevant currencies are to be derived from closing EURIBOR and LIBOR swap prices on 31/12/2010 (together these curves are referred to as the "Assumed Baseline Short Curves"). • Assumed Baseline Short Curves are to be used by the banks to calculate forward short term rates. These forward rates are to be used as the benchmark	• It is to be assumed that stress curves will be derived from the Assumed Baseline Short Curves plus the CEBS stress spread of 125bps (the "Assumed Stress Short Curves"). • Assumed Stress Short Curves are to be used by the banks to calculate forward short term rates. These forward rates are to be used as the benchmark to which the bank's own

[26] ELA lending is at the discretion of the Central Bank of Ireland.

	to which the bank's own funding spread is to be applied per funding category (current accounts, retail deposits, corporate deposits etc.).	funding spread is to be applied per funding category (current accounts, retail deposits, corporate deposits etc.).
Money Market Yield Curves > 1 year (Baseline and Adverse)	Irish Sovereign Yield Curves - assume that rates hold for the entire year at the specified levels	

Year	2011		2012		2013	
	Baseline	Adverse	Baseline	Adverse	Baseline	Adverse
1	4.02%	6.60%	4.13%	6.71%	4.13%	6.71%
2	5.21%	7.79%	5.36%	7.94%	5.36%	7.94%
3	6.41%	8.99%	6.59%	9.17%	6.59%	9.17%
4	6.71%	9.29%	6.91%	9.49%	6.91%	9.49%
5	7.01%	9.59%	7.21%	9.78%	7.21%	9.78%
6	7.27%	9.85%	7.46%	10.04%	7.46%	10.04%
7	7.54%	10.12%	7.73%	10.31%	7.73%	10.31%
8	7.93%	10.51%	8.13%	10.71%	8.13%	10.71%
9	8.34%	10.92%	8.54%	11.12%	8.54%	11.12%
10	8.63%	11.21%	8.83%	11.41%	8.83%	11.41%
11	8.62%	11.20%	8.82%	11.40%	8.82%	11.40%
12	8.61%	11.19%	8.81%	11.39%	8.81%	11.39%
13	8.59%	11.17%	8.79%	11.37%	8.79%	11.37%
14	8.58%	11.16%	8.78%	11.36%	8.78%	11.36%
15	8.57%	11.15%	8.77%	11.35%	8.77%	11.35%

	• The assumed long dated baseline and adverse curves (the" Assumed Long Curves") will be calculated by reference to the above. These are to be used as the benchmark to which the bank's own funding spread is to be applied.
ELG (Baseline and Adverse)	• Fee levels under the ELG are to be assumed to remain at current basis point cost. This cost is to be reported separately in the PCAR P&L Template.

Exhibit 3: Irish macroeconomic scenarios

IE – Ireland	Baseline				Adverse			
	2010[e]	**2011[f]**	**2012[f]**	**2013[f]**	**2010[e]**	**2011[f]**	**2012[f]**	**2013[f]**
GDP	-0.2	0.9	1.9	2.5	-0.2	-1.6	0.3	1.4
GNP	-3.0	-1.5	0.8	1.5	-3.0	-2.6	-0.2	1.2
Consumption	-1.4	-1.9	-1.0	0.5	-1.4	-3.9	-1.3	0.1
Investment	-21.1	-8.9	1.8	4.3	-21.1	-11.3	-1.7	-0.3
Of which construction	-28.9	-15.6	-1.3	2.0				
Equipment	-5.2	1.4	5.8	7.1				
Government Consumption	-2.2	-5.7	-1.8	-2.4	-2.2	-5.5	-4.3	-2.4
Exports	5.7	4.5	4.5	4.6	5.7	2	2.1	2.5
Imports	2.3	0.9	2.7	3.3	2.3	-1.1	0.5	1.7
Balance of Payments (%GDP)	-0.9	1.2	2.2	2.6	-0.9	1.6	3.1	4.3
Employment	-4.0	-0.8	0.5	1.1	-4.0	-2.5	-1.1	0.1
Unemployment Rate	13.6	13.4	12.7	11.5	13.6	14.9	15.8	15.6
Inflation								
HICP	-1.5	0.4	0.6	1.6	-1.5	0.1	0.6	1
CPI	-1.0	0.9	0.8	1.6	-1.0	0.7	0.9	1
House Prices	-15.5	-13.4	-14.4	0.5	-15.5	-17.4	-18.8	0.5
Commercial Property	-13	-2.5	1.5	1.5	-13	-22	1.5	1.5
Personal disposable Income	-3.4	-1.4	0.1	2.4	-3.2	-3.9	-1.2	0.2

Exhibit 4: Non-Ireland macroeconomic parameters

The base macroeconomic parameters for euro-area foreign balances are based on the European economic forecast of autumn 2010, which are available from the European Commission website . Institutions were instructed to use their own estimates for foreign parameters not provided and for 2013 non-Irish parameters in a manner that is consistent with 2011 and 2012 levels provided.

Non-IE Parameters	Adverse		Baseline	
	2011[f]	2012[f]	2011[f]	2012[f]
United Kingdom				
GDP	-0.6	0.9		
Unemployment Rate	9.0	10.5		
HICP Inflation	1.9	-0.7		
House Prices	-7.7	-10.4	0	0
Euro Area				
GDP	-0.5	-0.1		
Unemployment Rate	10.3	10.7		
HICP Inflation	1.3	0.6		
Non Euro Area				
GDP	2.1	2.7		
Unemployment Rate	9.0	10.1		
HICP Inflation	1.9	0.0		
European Union				
GDP	-0.3	0.1		
Unemployment Rate	9.9	10.5		
HICP Inflation	1.5	0.5		
United States				
GDP	0.1	2.1		
Unemployment Rate	10.6	10.2		
CPI Inflation	0.1	-1.8		

Chart 8: GDP base scenario (growth %) – comparison of PCAR 2010 and PCAR 2011

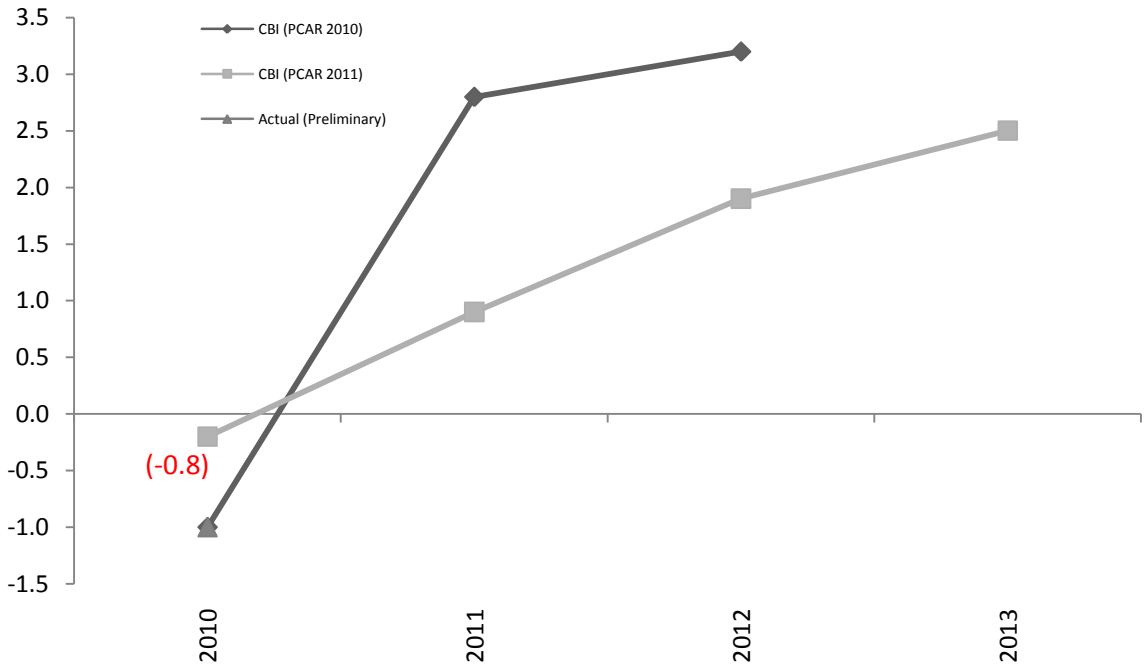
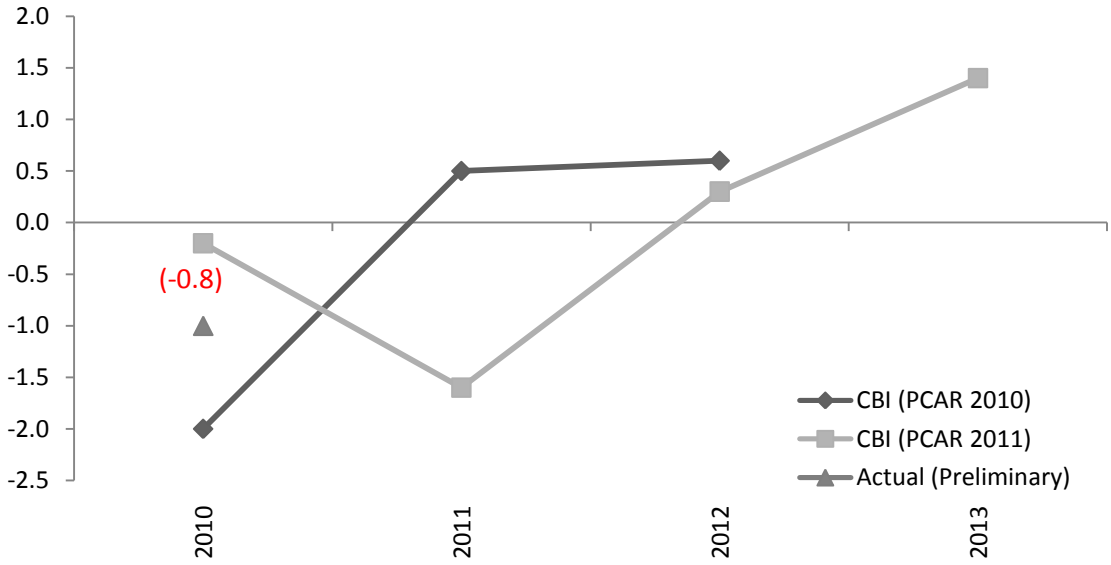


Chart 9: GDP adverse scenario (growth %) – comparison of PCAR 2010 and PCAR 2011



Loan Loss Forecasting: long-term macroeconomic scenarios

For the BlackRock lifetime loan loss forecasting exercise, a crucial input into the PCAR stress-test analysis, the time period over which examination of bank loans were taking place was much greater than three years. BlackRock used the same PCAR instructions that were issued to the banks for the 2011-2013 timeframe, and these were supplemented by assumptions for the longer-term horizon. These long-term macroeconomic scenarios were developed in agreement with the External Partners.

Exhibit 5: Ireland GDP and inflation macroeconomic scenarios 2011-2035 (%)

	GDP		Inflation	
Year	**Base**	**Adverse**	**Base**	**Adverse**
2011	0.9	-1.6	0.4	0.1
2012	1.9	0.3	0.6	0.6
2013	2.5	1.4	1.6	1.0
2014	3.0	1.5	1.8	1.1
2015	3.0	1.6	1.9	1.2
2016	3.2	1.7	1.9	1.3
2017	3.4	1.8	1.9	1.4
2018	3.5	1.9	1.9	1.6
2019	3.3	2.0	1.9	1.7
2020	3.2	2.1	1.9	1.9
2021	3.0	2.2	1.9	1.9
2022	2.9	2.4	1.9	1.9
2023	2.8	2.5	1.9	1.9
2024	2.6	2.5	1.9	1.9
2025	2.5	2.5	1.9	1.9
2026	2.4	2.4	1.9	1.9
2027	2.3	2.3	1.9	1.9
2028	2.2	2.2	1.9	1.9
2029	2.1	2.1	1.9	1.9
2030	2.0	2.0	1.9	1.9
2031	2.0	2.0	1.9	1.9
2032	2.0	2.0	1.9	1.9
2033	2.0	2.0	1.9	1.9
2034	2.0	2.0	1.9	1.9
2035	2.0	2.0	1.9	1.9

Exhibit 6: Ireland and UK 2011-2040 unemployment (%) and house prices (index)

	Unemployment				House Prices			
	Republic of Ireland		UK		Republic of Ireland		UK	
Year	Baseline	Adverse	Baseline	Adverse	Baseline	Adverse	Baseline	Adverse
2011	13.4	14.9	7.9	9.0	74	71	536	495
2012	12.7	15.8	7.5	10.5	64	58	536	443
2013	11.5	15.6	7	9.3	64	58	542	448
2014	10.7	15.0	6.5	8.3	66	58	554	459
2015	10.0	14.5	6	7.4	68	58	571	474
2016	9.0	14.0	5.8	6.6	69	58	597	502
2017	8.0	13.5	5.8	5.9	71	58	617	514
2018	7.0	13.0	5.8	5.8	73	58	635	530
2019	6.0	12.5	5.8	5.8	74	58	649	537
2020	5.8	11.8	5.8	5.8	76	58	658	550
2021	5.8	11.0	5.8	5.8	77	59	667	559
2022	5.8	10.3	5.8	5.8	78	61	676	568
2023	5.8	9.5	5.8	5.8	79	62	686	577
2024	5.8	8.8	5.8	5.8	81	63	696	586
2025	5.8	7.3	5.8	5.8	82	65	705	595
2026	5.8	7.3	5.8	5.8	83	66	715	605
2027	5.8	6.5	5.8	5.8	84	68	725	614
2028	5.8	5.8	5.8	5.8	85	70	735	624
2029	5.8	5.8	5.8	5.8	86	71	746	634
2030	5.8	5.8	5.8	5.8	88	73	756	644
2031	5.8	5.8	5.8	5.8	89	74	767	655
2032	5.8	5.8	5.8	5.8	90	76	777	665
2033	5.8	5.8	5.8	5.8	91	78	788	676
2034	5.8	5.8	5.8	5.8	93	80	799	687
2035	5.8	5.8	5.8	5.8	94	82	810	698
2036	5.8	5.8	5.8	5.8	95	83	822	709
2037	5.8	5.8	5.8	5.8	97	85	833	720
2038	5.8	5.8	5.8	5.8	98	87	845	732
2039	5.8	5.8	5.8	5.8	99	89	857	743
2040	5.8	5.8	5.8	5.8	101	91	869	755

Chart 10: Ireland – unemployment base and adverse scenarios (2011-2040)

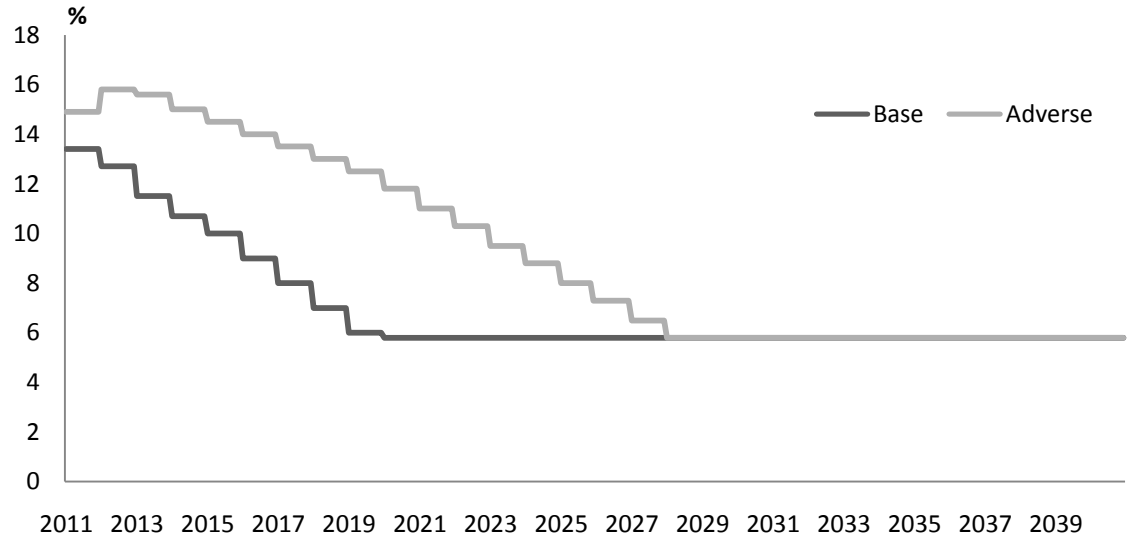


Chart 11: UK – unemployment base and adverse scenarios (2011-2040)

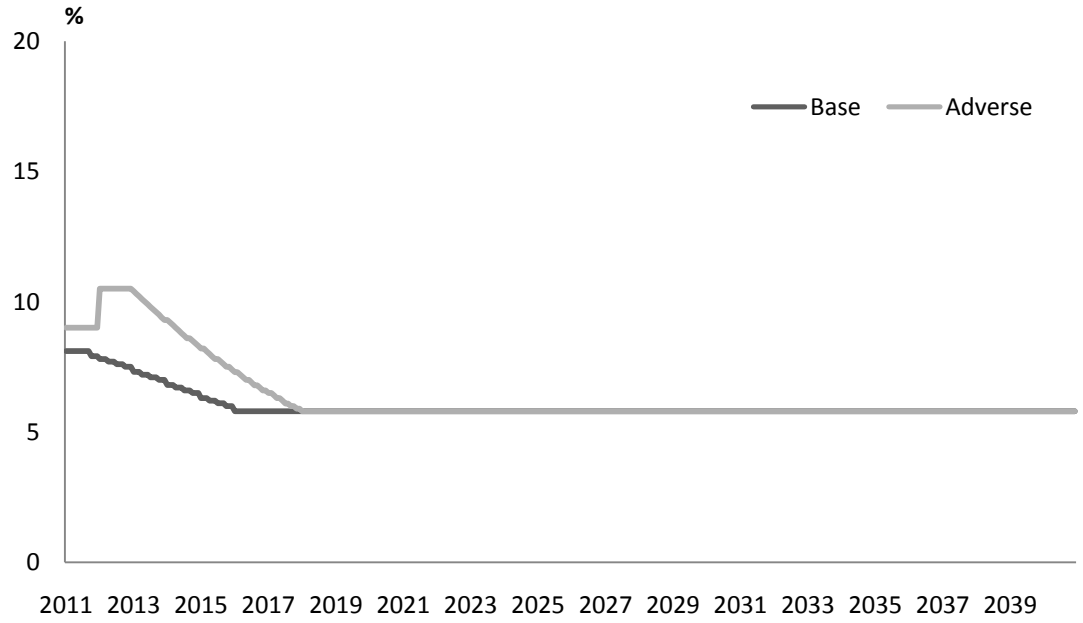


Chart 12: Ireland – house prices base and adverse scenarios (2011-2040)

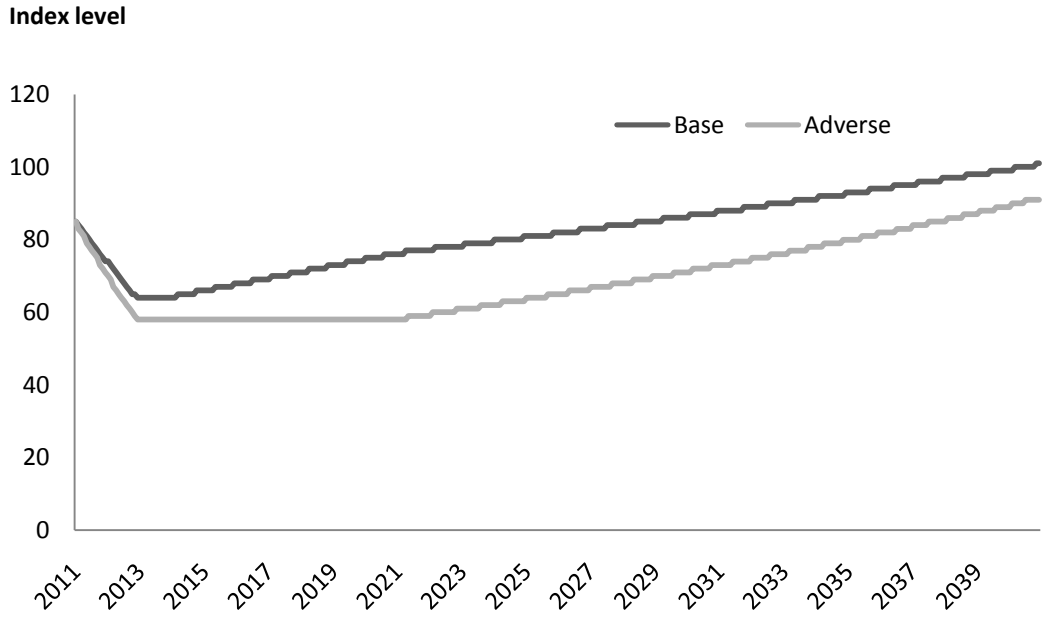


Chart 13: UK – House prices base and adverse scenarios (2011-2040)

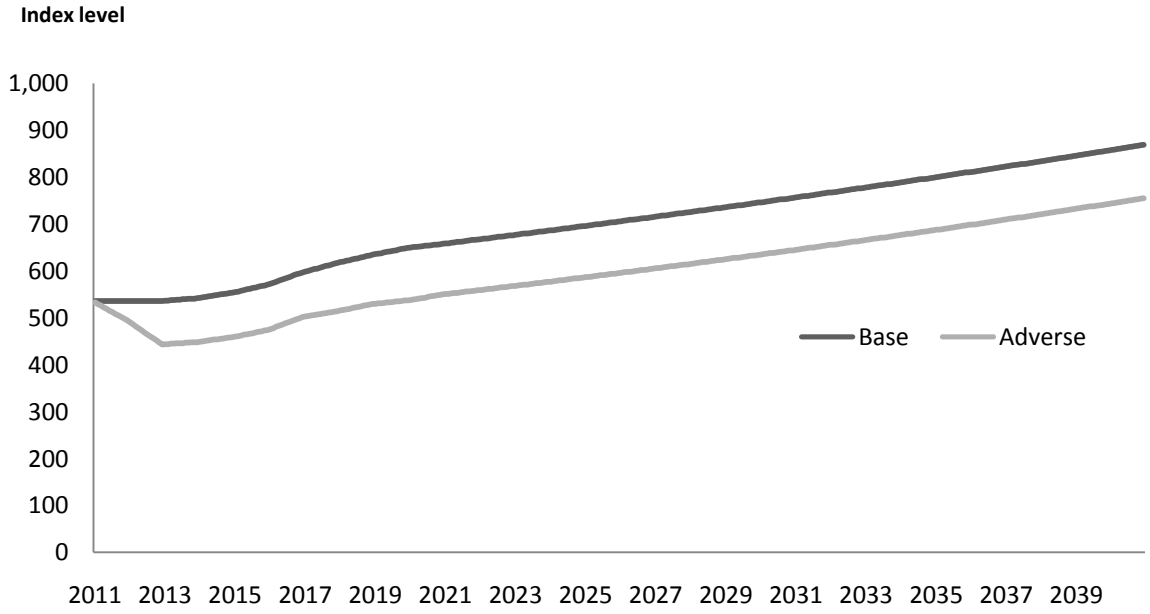


Exhibit 7: Commercial property index Ireland, UK and US 2011-2035 (Index)

	Ireland		UK		US	
	Base	**Adverse**	**Base**	**Adverse**	**Base**	**Adverse**
2011	200	160	549	526	101	95
2012	203	163	560	511	104	92
2013	207	165	568	502	106	93
2014	211	165	571	505	109	94
2015	216	165	576	519	114	96
2016	221	165	585	533	121	99
2017	225	165	602	549	128	103
2018	230	165	615	565	135	107
2019	235	165	620	570	142	112
2020	239	165	622	571	145	114
2021	243	169	631	575	-	-
2022	246	173	639	578	-	-
2023	249	177	648	582	-	-
2024	253	181	656	586	-	-
2025	256	185	665	589	-	-
2026	260	189	674	593	-	-
2027	264	194	683	597	-	-
2028	267	198	692	600	-	-
2029	271	203	701	604	-	-
2030	275	207	711	608	-	-
2031	279	212	720	611	-	-
2032	283	217	730	615	-	-
2033	287	222	740	619	-	-
2034	291	227	750	623	-	-
2035	295	232	760	627	-	-

Chart 14: Commercial property index Ireland (2011-2035)

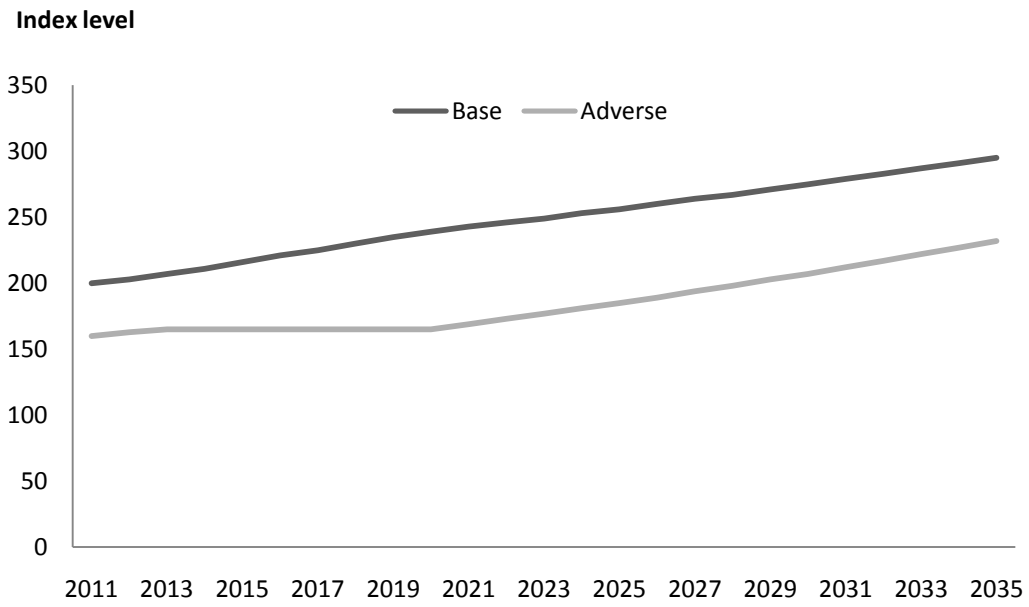


Chart 15: Commercial property index UK (2011-2035)

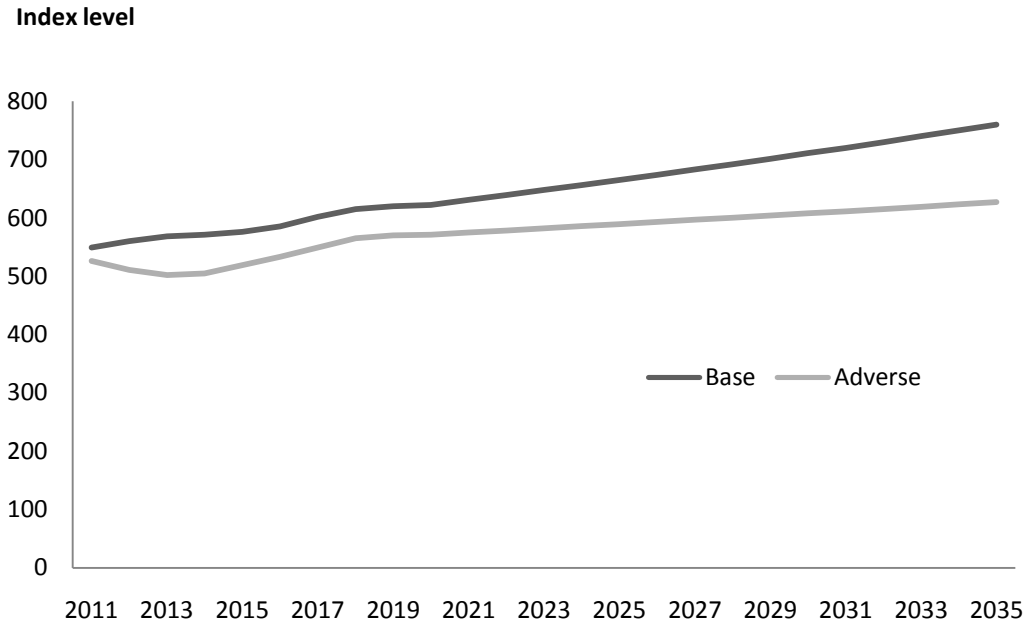
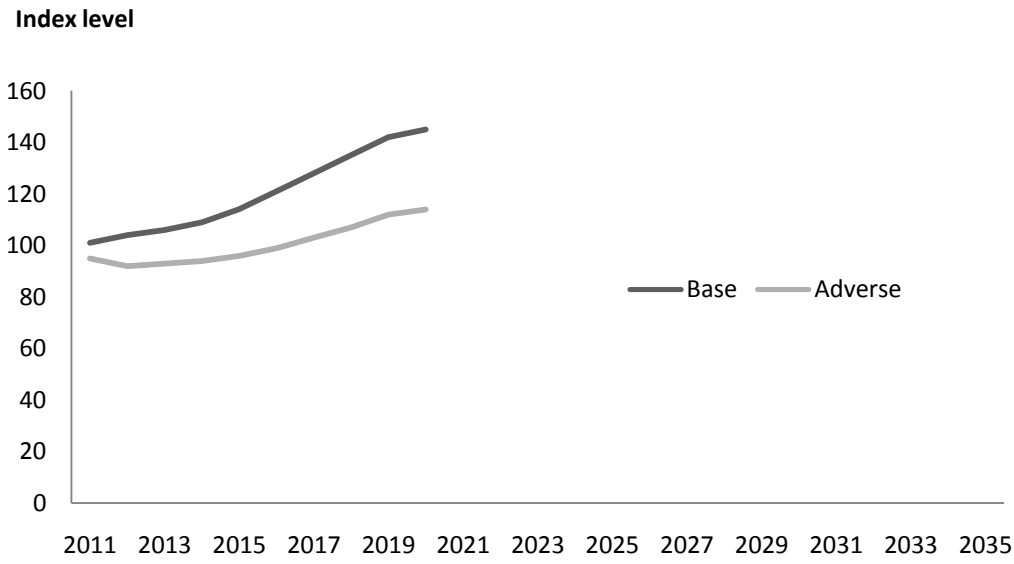


Chart 16: Commercial property index US (2011-2035)



Appendix D: Basel III capital rules

In response to the financial crisis, the Basel Committee on Banking Supervision (BCBS) has proposed significant changes to enhance banking system stability. These changes are now known as Basel III and incorporate new capital, risk-weighted asset, and liquidity requirements (see Section 3.2 above). The Basel III rules will come into full effect on 1 January 2019, with a transitional phase from 1 January 2013, the third year of the PCAR period. Basel III will be implemented in the EU through administering changes to the current CRD legislation, which currently is in preparation.

A number of changes to enhance risk coverage will come into place on 31 December 2011 in relation to re-securitisation and trading books. A further element of risk coverage is increased capital requirements for counterparty credit risk. The quantitative impact study (QIS) to assess the impact of the Basel III changes showed that these changes were minor for the Irish banks and, therefore, these have not been incorporated into the PCAR.

The core capital ratio within Basel III is the Common Equity Tier 1 (CET1) capital ratio. The minimum requirement on full implementation will be 4.5%, with an additional 2.5% capital conservation buffer leading to a 7.0% minimum outside times of stress. In addition to a different minimum level, CET1 differs from the Central Bank's current Core Tier 1 capital in a number of key ways.

Exhibit 8: Differences between CET1 and Central Bank current Core Tier 1 capital

Item	Impact vs. Core Tier 1
Eligible capital is limited to ordinary share capital and related premium	-
Minority interest limited to CET1 from banking subsidiaries before any surplus	-
No pension deficit filter[27]	-
No filter for revaluation reserves or cumulative unrealised gains/losses[28]	-/+
Deferred tax assets that rely on future profitability deducted in full[29]	-
Shortfall of stock of provision to expected losses[30]	-
Non-significant holdings in financial institutions amounting to >10% of CET1 after the deductions above and existing Core Tier 1 deductions	-
Significant investments in financial institutions >10% of CET1 after deductions above	-

By 1 January 2019, banks will also have to meet a minimum Tier 1 capital ratio of 6% (10.5% with the capital conservation buffer), while the instruments eligible as capital are more tightly defined which will remove the eligibility of many hybrid instruments. By the same date, Total capital will have a minimum level of 8% (10.5% including the capital conservation buffer).

The Basel III capital rules will start phased implementation from 1 January 2013. Basel III deductions will have a 20% effect on the 1 January 2014 and will ramp up over the period to 1 January 2018, when they will have full effect. Amounts not deducted will be subject to existing regulatory treatment. Non-eligible Tier 1 and Tier 2 capital instruments will be phased out over a 10-year period, starting from 1 January 2013, with 90% eligible as of 1 January 2013 and reducing by 10 percentage points per annum. Government capital injections remain eligible until 1 January 2018. The phase-in arrangements, as outlined by the BCBS are shown in the table below.

[27] Currently Irish credit institutions add back any net accounting pension deficit and a deduction is taken in relation to 3 years supplementary contributions, which is invariably smaller than the pension deficit.

[28] Except cashflow hedge reserve and cumulative gains and losses due to change in own credit risk on fair valued liabilities

[29] Except those due to temporary differences which are based on a threshold deduction. Currently deferred tax assets are risk weighted by banks and as a result risk weighted assets will reduce by this amount.

[30] Under the current capital approach 50% is deducted from Core tier 1 (except where there is insufficient tier 2 to absorb all 50:50 deductions), while some insurance participations are deducted from total capital.

Exhibit 9: Basel III capital rules phase in arrangements

1 January	2013	2014	2015	2016	2017	2018	2019
Minimum Common Equity capital ratio	3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer				0.625%	1.25%	1.875%	2.5%
Minimum Common Equity plus Capital Conservation buffer	3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)		20%	40%	60%	80%	100%	100%
Minimum Tier 1 capital	4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total capital	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total capital plus Conservation Buffer	8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.50%
Capital instruments that no longer qualify as non-Core Tier 1 capital or Tier 2 capital		Phased out over 10 year horizon beginning 2013					

Appendix E: Sovereign Exposures

In the interests of transparency, the Central Bank is publishing the details of the sovereign exposures of the four domestic institutions subject to PCAR 2011. In the tables below, sovereign exposures as at 31 December 2010 are shown on an accounting gross exposure basis. Sovereign exposures include, though are not limited to, the following categories of assets: holdings of government treasury bills and commercial paper; loans to central government; loans or debt issued by non-central government (for example, local authorities); NAMA bonds; holdings of promissory notes issued by governments.

Exhibit 10: AIB sovereign exposures (€m, 2010)

€m					Trading Book Haircut	
	Maturity	Total	Banking Book	Trading Book	Base	Stress
Ireland (excl. NAMA exposures)	3M	227	225	2	0.1%	0.7%
	1Y	837	837	0	0.4%	3.0%
	2Y	700	700	0	0.9%	6.3%
	3Y	229	229	0	1.2%	8.1%
	5Y	875	875	0	2.0%	12.8%
	10Y	2,464	2,464	0	3.1%	19.1%
	15Y	48	0	48	N/A	N/A
	Total	**5,380**	**5,330**	**50**		
Ireland, of which NAMA exposures	3M	0	0	0	0.0%	0.0%
	1Y	8,036	8,036	0	0.0%	0.0%
	2Y	0	0	0	0.0%	0.0%
	3Y	0	0	0	0.0%	0.0%
	5Y	0	0	0	0.0%	0.0%
	10Y	0	0	0	0.0%	0.0%
	15Y	0	0	0	0.0%	0.0%
	Total	**8,036**	**8,036**	**0**		
United Kingdom	3M	2,997	2,997	0	0.1%	0.2%
	1Y	217	217	0	0.8%	1.2%
	2Y	36	36	0	1.5%	2.0%
	3Y	10	10	0	2.3%	3.1%
	5Y	39	39	0	4.7%	6.5%
	10Y	615	615	0	5.5%	7.6%
	15Y	203	203	0	10.3%	14.1%
	Total	**4,117**	**4,117**	**0**		
Belgium	3M	0	0	0	0.1%	0.3%
	1Y	40	40	0	0.5%	1.5%
	2Y	0	0	0	0.9%	2.5%
	3Y	0	0	0	1.4%	3.9%
	5Y	581	581	0	2.2%	6.0%
	10Y	0	0	0	3.6%	9.8%
	15Y	0	0	0	5.8%	15.2%
	Total	**621**	**621**	**0**		
France	3M	200	200	0	0.1%	0.3%
	1Y	80	80	0	0.5%	1.0%
	2Y	19	19	0	0.9%	1.8%
	3Y	124	124	0	1.3%	2.7%
	5Y	794	794	0	2.0%	4.2%
	10Y	104	104	0	3.6%	7.3%
	15Y	100	100	0	6.5%	13.0%
	Total	**1,422**	**1,422**	**0**		
Germany	3M	58	58	0	0.1%	0.1%
	1Y	50	50	0	0.5%	0.5%
	2Y	79	79	0	0.9%	0.9%
	3Y	16	16	0	1.3%	1.3%
	5Y	148	148	0	2.1%	2.1%
	10Y	261	261	0	3.5%	3.5%
	15Y	0	0	0	6.2%	6.2%
	Total	**612**	**612**	**0**		
Greece	3M	0	0	0	0.1%	0.7%
	1Y	0	0	0	0.5%	3.5%

	2Y	40	40	0	0.9%	6.2%
	3Y	0	0	0	1.3%	8.5%
	5Y	0	0	0	2.0%	12.8%
	10Y	0	0	0	2.8%	17.1%
	15Y	0	0	0	4.1%	23.3%
	Total	**40**	**40**	**0**		
Iceland	3M	0	0	0	0.0%	0.0%
	1Y	0	0	0	0.0%	0.0%
	2Y	0	0	0	0.0%	0.0%
	3Y	0	0	0	0.0%	0.0%
	5Y	0	0	0	0.0%	0.0%
	10Y	0	0	0	0.0%	0.0%
	15Y	0	0	0	0.0%	0.0%
	Total	**0**	**0**	**0**		
Portugal	3M	0	0	0	0.1%	0.7%
	1Y	125	125	0	0.6%	4.0%
	2Y	71	71	0	0.0%	0.0%
	3Y	21	21	0	1.4%	8.8%
	5Y	0	0	0	1.9%	11.8%
	10Y	27	27	0	3.3%	19.8%
	15Y	0	0	0	5.7%	30.2%
	Total	**243**	**243**	**0**		
Spain	3M	0	0	0	0.1%	0.6%
	1Y	26	26	0	0.5%	2.1%
	2Y	163	163	0	0.9%	4.1%
	3Y	145	145	0	1.3%	6.0%
	5Y	0	0	0	2.0%	9.2%
	10Y	0	0	0	3.3%	14.6%
	15Y	0	0	0	5.6%	22.9%
	Total	**335**	**335**	**0**		
Other (Exposure only)	3M	317	317	0	0.0%	0.0%
	1Y	297	297	0	0.0%	0.0%
	2Y	410	410	0	0.0%	0.0%
	3Y	229	229	0	0.0%	0.0%
	5Y	522	522	0	0.0%	0.0%
	10Y	576	576	0	0.0%	0.0%
	15Y	54	54	0	0.0%	0.0%
	Total	**2,405**	**2,405**	**0**		
TOTAL	**Total**	**23,210**	**23,160**	**50**		

Exhibit 11: BOI sovereign exposures (€m, 2010)

€m					Trading Book Haircut	
	Maturity	**Total**	**Banking Book**	**Trading Book**	**Base**	**Stress**
Ireland (excl. NAMA exposures)	3M	212	75	137	0.1%	0.7%
	1Y	189	189	0	0.4%	3.0%
	2Y	580	580	0	0.9%	6.3%
	3Y	523	523	0	1.2%	8.1%
	5Y	703	703	0	2.0%	12.8%
	10Y	1,062	1,062	0	3.1%	19.1%
	15Y	0	0	0	N/A	N/A
	Total	**3,269**	**3,132**	**137**		
Ireland, of which NAMA exposures	3M	0	0	0	0.0%	0.0%
	1Y	5,075	5,075	0	0.0%	0.0%
	2Y	0	0	0	0.0%	0.0%
	3Y	0	0	0	0.0%	0.0%
	5Y	0	0	0	0.0%	0.0%
	10Y	0	0	0	0.0%	0.0%
	15Y	0	0	0	0.0%	0.0%
	Total	**5,075**	**5,075**	**0**		
United Kingdom	3M	408	408	0	0.1%	0.2%
	1Y	145	145	0	0.8%	1.2%
	2Y	0	0	0	1.5%	2.0%

	3Y	0	0	0	2.3%	3.1%
	5Y	0	0	0	4.7%	6.5%
	10Y	0	0	0	5.5%	7.6%
	15Y	0	0	0	10.3%	14.1%
	Total	**553**	**553**	**0**		
Belgium	3M	0	0	0	0.1%	0.3%
	1Y	0	0	0	0.5%	1.5%
	2Y	0	0	0	0.9%	2.5%
	3Y	0	0	0	1.4%	3.9%
	5Y	0	0	0	2.2%	6.0%
	10Y	0	0	0	3.6%	9.8%
	15Y	0	0	0	5.8%	15.2%
	Total	**0**	**0**	**0**		
France	3M	0	0	0	0.1%	0.3%
	1Y	0	0	0	0.5%	1.0%
	2Y	21	21	0	0.9%	1.8%
	3Y	0	0	0	1.3%	2.7%
	5Y	0	0	0	2.0%	4.2%
	10Y	0	0	0	3.6%	7.3%
	15Y	0	0	0	6.5%	13.0%
	Total	**21**	**21**	**0**		
Germany	3M	0	0	0	0.1%	0.1%
	1Y	0	0	0	0.5%	0.5%
	2Y	0	0	0	0.9%	0.9%
	3Y	0	0	0	1.3%	1.3%
	5Y	0	0	0	2.1%	2.1%
	10Y	0	0	0	3.5%	3.5%
	15Y	0	0	0	6.2%	6.2%
	Total	**0**	**0**	**0**		
Greece	3M	0	0	0	0.1%	0.7%
	1Y	0	0	0	0.5%	3.5%
	2Y	0	0	0	0.9%	6.2%
	3Y	0	0	0	1.3%	8.5%
	5Y	0	0	0	2.0%	12.8%
	10Y	0	0	0	2.8%	17.1%
	15Y	0	0	0	4.1%	23.3%
	Total	**0**	**0**	**0**		
Iceland	3M	0	0	0	0.0%	0.0%
	1Y	0	0	0	0.0%	0.0%
	2Y	0	0	0	0.0%	0.0%
	3Y	0	0	0	0.0%	0.0%
	5Y	0	0	0	0.0%	0.0%
	10Y	0	0	0	0.0%	0.0%
	15Y	0	0	0	0.0%	0.0%
	Total	**0**	**0**	**0**		
Portugal	3M	0	0	0	0.1%	0.7%
	1Y	0	0	0	0.6%	4.0%
	2Y	0	0	0	0.0%	0.0%
	3Y	0	0	0	1.4%	8.8%
	5Y	0	0	0	1.9%	11.8%
	10Y	0	0	0	3.3%	19.8%
	15Y	0	0	0	5.7%	30.2%
	Total	**0**	**0**	**0**		
Spain	3M	0	0	0	0.1%	0.6%
	1Y	0	0	0	0.5%	2.1%
	2Y	0	0	0	0.9%	4.1%
	3Y	0	0	0	1.3%	6.0%
	5Y	0	0	0	2.0%	9.2%
	10Y	0	0	0	3.3%	14.6%
	15Y	0	0	0	5.6%	22.9%
	Total	**0**	**0**	**0**		
Other (Exposure only)	3M	0	0	0	0.0%	0.0%
	1Y	0	0	0	0.0%	0.0%
	2Y	0	0	0	0.0%	0.0%

	3Y	0	0	0	0.0%	0.0%
	5Y	0	0	0	0.0%	0.0%
	10Y	36	30	6	0.0%	0.0%
	15Y	0	0	0	0.0%	0.0%
	Total	**36**	**30**	**6**	0.0%	0.0%
TOTAL	**Total**	**8,954**	**8,811**	**143**	**0.0%**	**0.0%**

Exhibit 12: EBS sovereign exposures (€m, 2010)

€m					Trading Book Haircut	
	Maturity	**Total**	**Banking Book**	**Trading Book**	**Base**	**Stress**
Ireland (excl. NAMA exposures)	3M	308	308	0	0.10%	0.70%
	1Y	25	25	0	0.40%	3.00%
	2Y	0	0	0	0.90%	6.30%
	3Y	150	150	0	1.20%	8.10%
	5Y	0	0	0	2.00%	12.80%
	10Y	0	0	0	3.10%	19.10%
	15Y	0	0	0	N/A	N/A
	Total	**483**	**483**	**0**		
Ireland, of which NAMA exposures	3M	0	0	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%
	5Y	0	0	0	0.00%	0.00%
	10Y	321	321	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**321**	**321**	**0**		
United Kingdom	3M	0	0	0	0.10%	0.20%
	1Y	0	0	0	0.80%	1.20%
	2Y	0	0	0	1.50%	2.00%
	3Y	0	0	0	2.30%	3.10%
	5Y	0	0	0	4.70%	6.50%
	10Y	0	0	0	5.50%	7.60%
	15Y	0	0	0	10.30%	14.10%
	Total	**0**	**0**	**0**		
Belgium	3M	0	0	0	0.10%	0.30%
	1Y	0	0	0	0.50%	1.50%
	2Y	0	0	0	0.90%	2.50%
	3Y	0	0	0	1.40%	3.90%
	5Y	0	0	0	2.20%	6.00%
	10Y	0	0	0	3.60%	9.80%
	15Y	0	0	0	5.80%	15.20%
	Total	**0**	**0**	**0**		
France	3M	0	0	0	0.10%	0.30%
	1Y	0	0	0	0.50%	1.00%
	2Y	0	0	0	0.90%	1.80%
	3Y	0	0	0	1.30%	2.70%
	5Y	0	0	0	2.00%	4.20%
	10Y	0	0	0	3.60%	7.30%
	15Y	0	0	0	6.50%	13.00%
	Total	**0**	**0**	**0**		
Germany	3M	0	0	0	0.10%	0.10%
	1Y	0	0	0	0.50%	0.50%
	2Y	0	0	0	0.90%	0.90%
	3Y	0	0	0	1.30%	1.30%
	5Y	0	0	0	2.10%	2.10%
	10Y	0	0	0	3.50%	3.50%
	15Y	0	0	0	6.20%	6.20%
	Total	**0**	**0**	**0**		
Greece	3M	0	0	0	0.10%	0.70%
Greece	1Y	0	0	0	0.50%	3.50%
	2Y	0	0	0	0.90%	6.20%
	3Y	0	0	0	1.30%	8.50%

	5Y	0	0	0	2.00%	12.80%
	10Y	0	0	0	2.80%	17.10%
	15Y	0	0	0	4.10%	23.30%
	Total	**0**	**0**	**0**		
Iceland	3M	0	0	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%
	5Y	0	0	0	0.00%	0.00%
	10Y	0	0	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**0**	**0**	**0**		
Portugal	3M	0	0	0	0.10%	0.70%
	1Y	0	0	0	0.60%	4.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	1.40%	8.80%
	5Y	0	0	0	1.90%	11.80%
	10Y	0	0	0	3.30%	19.80%
	15Y	0	0	0	5.70%	30.20%
	Total	**0**	**0**	**0**		
Spain	3M	0	0	0	0.10%	0.60%
	1Y	0	0	0	0.50%	2.10%
	2Y	0	0	0	0.90%	4.10%
	3Y	30	30	0	1.30%	6.00%
	5Y	0	0	0	2.00%	9.20%
	10Y	0	0	0	3.30%	14.60%
	15Y	0	0	0	5.60%	22.90%
	Total	**30**	**30**	**0**		
Other (Exposure only)	3M	0	0	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	15	15	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%
	5Y	0	0	0	0.00%	0.00%
	10Y	0	0	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**15**	**15**	**0**	0.00%	0.00%
TOTAL	**Total**	**850**	**850**	**0**	**0.00%**	**0.00%**

Exhibit 13: ILP sovereign exposures (€m, 2010)

€m					Trading Book Haircut	
	Maturity	**Total**	**Banking Book**	**Trading Book**	**Base**	**Stress**
Ireland (excl. NAMA exposures)	3M	125	125	0	0.10%	0.70%
	1Y	456	456	0	0.40%	3.00%
	2Y	362	362	0	0.90%	6.30%
	3Y	6	6	0	1.20%	8.10%
	5Y	463	463	0	2.00%	12.80%
	10Y	379	379	0	3.10%	19.10%
	15Y	18	18	0	N/A	N/A
	Total	**1,808**	**1,808**	**0**		
Ireland, of which NAMA exposures	3M	0	0	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%
	5Y	0	0	0	0.00%	0.00%
	10Y	0	0	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**0**	**0**	**0**		
United Kingdom	3M	0	0	0	0.10%	0.20%
	1Y	0	0	0	0.80%	1.20%
	2Y	0	0	0	1.50%	2.00%
	3Y	0	0	0	2.30%	3.10%
	5Y	0	0	0	4.70%	6.50%
	10Y	0	0	0	5.50%	7.60%
	15Y	0	0	0	10.30%	14.10%
	Total	**0**	**0**	**0**		
Belgium	3M	0	0	0	0.10%	0.30%
	1Y	0	0	0	0.50%	1.50%
	2Y	0	0	0	0.90%	2.50%
	3Y	0	0	0	1.40%	3.90%
	5Y	0	0	0	2.20%	6.00%
	10Y	0	0	0	3.60%	9.80%
	15Y	0	0	0	5.80%	15.20%
	Total	**0**	**0**	**0**		
France	3M	150	150	0	0.10%	0.30%
	1Y	0	0	0	0.50%	1.00%
	2Y	0	0	0	0.90%	1.80%
	3Y	0	0	0	1.30%	2.70%
	5Y	0	0	0	2.00%	4.20%
	10Y	0	0	0	3.60%	7.30%
	15Y	0	0	0	6.50%	13.00%
	Total	**150**	**150**	**0**		
Germany	3M	300	300	0	0.10%	0.10%
	1Y	0	0	0	0.50%	0.50%
	2Y	0	0	0	0.90%	0.90%
	3Y	0	0	0	1.30%	1.30%
	5Y	0	0	0	2.10%	2.10%
	10Y	0	0	0	3.50%	3.50%
	15Y	0	0	0	6.20%	6.20%
	Total	**300**	**300**	**0**		
Greece	3M	0	0	0	0.10%	0.70%
	1Y	0	0	0	0.50%	3.50%
	2Y	0	0	0	0.90%	6.20%
	3Y	0	0	0	1.30%	8.50%
	5Y	0	0	0	2.00%	12.80%
	10Y	0	0	0	2.80%	17.10%
	15Y	0	0	0	4.10%	23.30%
	Total	**0**	**0**	**0**		
Iceland	3M	0	0	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%

	5Y	0	0	0	0.00%	0.00%
	10Y	0	0	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**0**	**0**	**0**		
Portugal	3M	0	0	0	0.10%	0.70%
	1Y	0	0	0	0.60%	4.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	1.40%	8.80%
	5Y	0	0	0	1.90%	11.80%
	10Y	0	0	0	3.30%	19.80%
	15Y	0	0	0	5.70%	30.20%
	Total	**0**	**0**	**0**		
Spain	3M	0	0	0	0.10%	0.60%
	1Y	0	0	0	0.50%	2.10%
	2Y	0	0	0	0.90%	4.10%
	3Y	0	0	0	1.30%	6.00%
	5Y	0	0	0	2.00%	9.20%
	10Y	0	0	0	3.30%	14.60%
	15Y	0	0	0	5.60%	22.90%
	Total	**0**	**0**	**0**		
Other (Exposure only)	3M	400	400	0	0.00%	0.00%
	1Y	0	0	0	0.00%	0.00%
	2Y	0	0	0	0.00%	0.00%
	3Y	0	0	0	0.00%	0.00%
	5Y	80	80	0	0.00%	0.00%
	10Y	0	0	0	0.00%	0.00%
	15Y	0	0	0	0.00%	0.00%
	Total	**480**	**480**	**0**	0.00%	0.00%
TOTAL	**Total**	**2,738**	**2,738**	**0**	**0.00%**	**0.00%**

Appendix F: Loan file reviews

Overview

The Asset Quality Review for Residential mortgages, Corporate lending, SME and CRE portfolios included manual file reviews conducted by credit experts, resulting in the re-underwriting of loans for the purposes of the BlackRock loan loss forecasting exercise. These credit experts utilised standardised templates to facilitate this process.

The manual loan file review was carried out by professionals from BlackRock and the sub-contractors detailed in Appendix B on samples of loans from relevant portfolios. An example of a template used for this exercise is shown below.

Exhibit 14: Example loan file review template – Corporate portfolios

CORPORATE UNDERWRITING

Underwriter:

Date Completed:

BORROWER	**LOAN**	**CURRENT STATUS**	**FX**
Bank	Funded Exposure	Covenant each/Reset	(lcl)
Book	Unfunded Exposure	Default	$
Borrower ID	Total Limit (€ MM)	In Restructuring	$/€
Group Name	Origination Date	Provisioned	1.34
Borrower Name	Maturity	Amount (€ MM)	
Industry/Sector	Internal/Mapped Rating		
Country	External Rating		

BUSINESS DESCRIPTION

CAPITAL STRUCTURE ($ MM)

LTM EBITDA (MM)

	Current		**LTM EBITDA**		**Exposure**		
	(lcl)	**%**	**Multiple**	**Maturity**	**(lcl)**	**(€)**	**%**
Capex Facility – drawn							
RCF - drawn							
TL A							
TL B							
TL C							
Total Senior Secured							
Senior Unsecured							
Total Senior Debt							
2nd Lien							
Mezz							
Subordinated Debt							
PIK							
Total Junior Debt							
Total Debt							
Equity							
Drawn Capital Structure							
Capex Facility – Undrawn							
RCF – undrawn							
Total Capital Structure							

COLLATERAL ($ MM)

	Book Value	**Appraised Value**	**BLK Adjusted**	**% Haircut**
Cash				
PPE				
Inventories				
Receivables				
Investment Properties				
Office Building				
[Subcategory 2]				
[Subcategory 3]				
Total Investment Prop.				
Development/Construction				
[Subcategory 1]				
[Subcategory 2]				
[Subcategory 3]				
Total Development Prop.				
Other				
Total Collateral				

FINANCIAL OVERVIEW ($ MM)

	2007 (June YE)	2008 (June YE)	6m '09 (annualised)	BLK PF Sustainable	Comments
Revenues					
% Growth					
Gross Profit					
EBITDA					
% Margin					
- Capex					
- Tax					
-/+ Change in WC					
+ Material Non Cash					
- Material Non Recurring					
Free Cash Flow					
% Margin					
Net Interest Expense					
FCF Interest Cover					
Debt to EBITDA					

DEBT CAPACITY/ RECOVERY ($ MM)

	Multiple
BLK Sustainable FCF	
Financing Term	
Amount Bullet	
Coupon	
Debt Capacity	
Leverage Ratio	
Implied Equity Value	
Enterprise Value	
Expected Debt Amortisation	
Value to Lenders	

	Total Cap Struct	0 (lcl)	% (€)	Recovery
Recovery Senior Secured				
Recovery Senior Unsecured				
Recovery Junior				
Capex Facility Undrawn				
Total Recovery				
Implied Loss				
Total				

RISK OVERVIEW

BLK VALUATION SUMMARY

BLK LOSS PROJECTIONS (£ MM)

Base Case Expected Loss	**0%**
Amount	**0.0**
Timing	**0**

Appendix G: Assessor report

Background

The MoU set out two structural benchmarks related to bank recapitalisation to be completed by the Central Bank by 31 March 2011:

- The Prudential Capital Assessment Review for 2011.
- To support the PCAR, a diagnostic evaluation of the integrity of banks' financial reporting and the credit quality of banks' assets.

To complete these reviews, the MoU specified that the Central Bank should hire an internationally recognised consulting firm to review banks' data and asset quality from the bottom up; and, in addition, an independent, specialised firm to "oversee the consistency and integrity of the exercise". In December 2010, the Central Bank appointed BlackRock Solutions to conduct the bottom-up review, and The Boston Consulting Group to oversee, or assess, the review.

Pursuant to the terms of the MoU, BlackRock reviewed the data and asset quality of four institutions: AIB, BOI, EBS and ILP.

BlackRock's analysis covered the asset portfolios at each of the banks, comprising: Residential mortgages; Commercial real estate loans; Corporate lending; Small and medium enterprise lending; Non-mortgage consumer and other lending (such as auto loans or credit cards); and Securities and derivatives.

BlackRock framework

BlackRock structured its analysis into three streams of work:

1. **Data integrity and verification ("DIV"):** An assessment of the sufficiency, quality, and validity of data housed on bank systems as compared to official books and records.

2. **Asset quality review ("AQR"):** An assessment of the quality of banks' individual assets, and of the processes for establishing and monitoring asset quality.
   - **Legal review:** A review of legal issues related to the enforcement of collateral claims.

3. **Loan loss forecasting ("LLF"):** An estimate of three-year and lifetime annual principal losses in both the base and adverse macroeconomic scenarios.

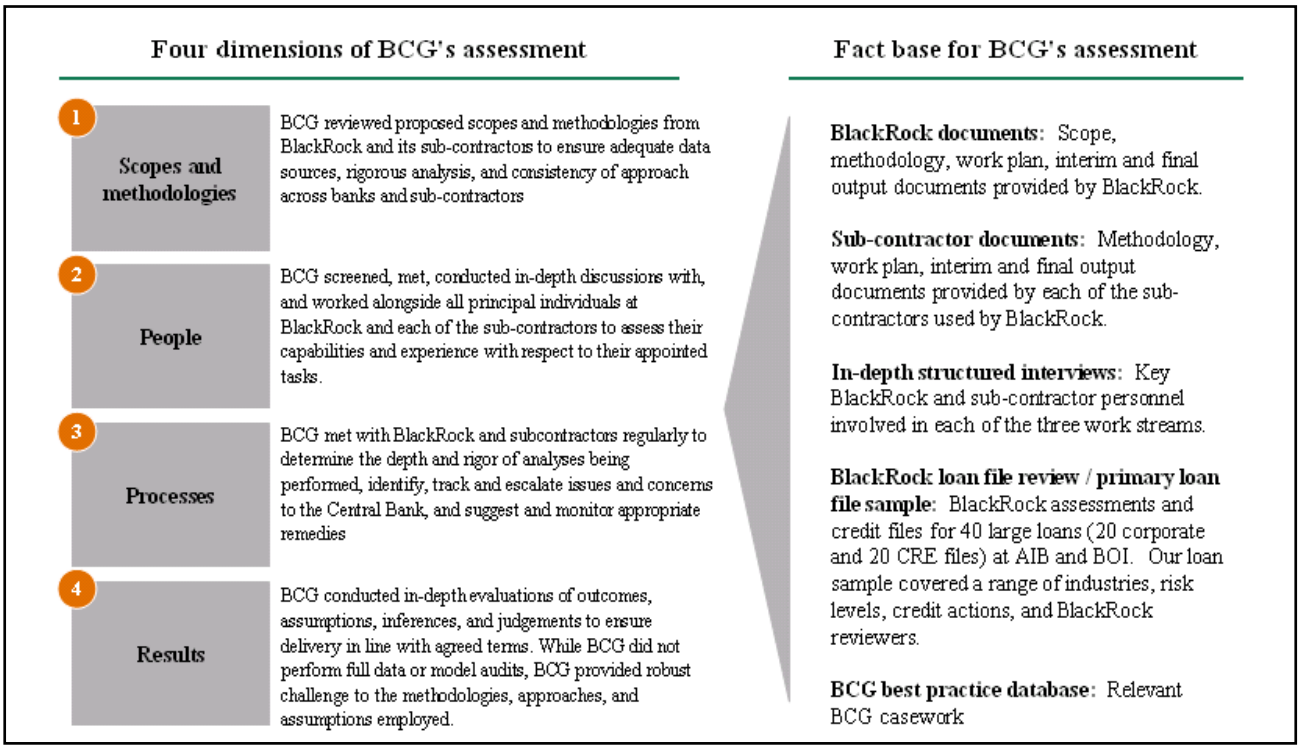
Assessment process

BCG supervised, challenged and provided opinions on the work that BlackRock and its sub-contractors completed within each of the three workstreams, for each of the four institutions. It began its assessment process on 23 December 2010 and concluded on 31 March 2011.

The assessment had four dimensions, which BCG generated from a variety of sources, outlined in the exhibit below.

In addition, BlackRock hosted numerous sessions for the Central Bank and other government agencies, the External Partners and the four banks to explain its methodologies, assumptions and the results. BCG attended these sessions to ensure that any questions or concerns raised were appropriately addressed.

Exhibit 15: Summary of dimensions and fact base used for BCG assessment



Assessment views

1. **Scopes and methodologies:** For DIV, BCG believed that BlackRock's scopes and methodologies needed further revision in terms of (i) granularity of work to be performed and (ii) consistency of approach. BCG worked with BlackRock to revise the documents accordingly. For AQR, BCG believed that the proposed number of primary file reviews should have been larger; however, given the time and resource constraints imposed on this exercise, it was considered that the resultant number of completed reviews was pragmatic. For LLF, BCG only received summary methodology documents for each asset class, which it felt were insufficient to give it a clear understanding of the processes employed by BlackRock. In order to deepen its understanding, BCG had to have several detailed follow-up sessions with BlackRock. Overall, BCG considered that the methodologies provided by BlackRock were satisfactory for the purposes of the assignment.

2. **People:** BCG had in-depth discussions with each of the principal individuals at BlackRock and its sub-contractors. It had no concerns with any of the individuals performing analysis as part of the FMP and, overall, was impressed with the credentials and experience of the relevant individuals. BCG would have preferred higher resourcing levels in the AQR workstream, particularly to enable testing of larger proportions of the portfolios, but it recognised that there were constraints on the numbers of appropriately-qualified staff available.

3. **Process:** While BlackRock largely followed the proposed process, it was consistently behind schedule on submitting key deliverables. BCG maintained close and continuous contact with the BlackRock team throughout the project to ensure that inquiries from the Central Bank and itself were appropriately addressed. BCG recognised that BlackRock encountered many difficulties extracting sufficient quality data from the banks, partly because it needed data in a format that differed from the banks'. However, it was not felt that a better process would in itself have materially altered the outcome of the assessment.

4. **Results:** The DIV results highlighted some areas of potential concern, particularly in the data testing results which showed significant error rates for certain portfolios. The AQR results highlighted areas of material concern, particularly in CRE and SME, where significant portions of data were missing from the individual loan files. For both DIV and AQR, sample sizes were not statistically robust. Where required, BlackRock addressed the concerns raised in the DIV and AQR results by adding a layer of conservatism to its projections (for example, in its treatment of missing data in the CRE and SME

portfolios). For the most part, the findings from the DIV and AQR work were complementary to the findings from the LLF work, rather than raising new issues.

For LLF, BCG noted that other approaches to forecasting losses could have been used. BCG is satisfied that the approaches taken by BlackRock were appropriate given the mandate and time constraints. It was recognised that a comprehensive loan-by-loan approach, such as that used for Residential mortgages, would likely have garnered more accurate results had it been applied across all portfolios, and would have possibly resulted in fewer conservative assumptions. BCG believed the assumptions made by BlackRock were generally both reasonable and conservative. However, it noted that the results were sensitive to some key assumptions and should be viewed in that context.

BCG noted that BlackRock had an internal quality assurance system in place, which effectively identified and remediated issues. BCG believed it unlikely that material errors remained due to the mitigating effects of the DIV and AQR exercises combined with the close examination that the forecasts received from BlackRock, the Central Bank and other government agencies, the banks, and BCG itself. However, BCG cannot completely confirm this as, in line with its mandate, it did not complete an audit of BlackRock's underlying models.

Following its detailed assessment, BCG believed that the approaches taken by BlackRock were satisfactory, and believed that the results were appropriately conservative, in line with BlackRock's terms of reference.

Appendix H: PLAR liquidity targets – assumptions, approach and methodology

Funding Assumptions

In order to inform the setting of target funding metrics, the PLAR required banks to forecast detailed funding profiles to end-2013. To ensure consistent and plausible assumptions around both the sources and costs of funding, the Central Bank provided specific assumptions for banks to reflect in their forecasts. These instructions were consistent across the PLAR and the PCAR. The full details of these assumptions are contained in Appendix C.

A maximum annual growth in deposits of 0% was specified (with specific limited exceptions to reflect, for example, deposit transfers carried out in February 2011), based on a conservative projection of the market growth rate. The primary funding target set for the banks was the Loan to Deposit Ratio, which could be achieved through either loan reduction or customer deposit growth. By ensuring that the assumptions around customer deposit growth were prudent and reflected the limited overall size of the market, the required level of loan deleveraging could be better assessed.

The Central Bank also imposed strict restrictions on assumptions of how much growth could be achieved in wholesale funding markets and how much of this could be term (greater than one year) maturities. This was to reflect the reality of current market conditions and of the banks' credit ratings. From these, more realistic future funding mixes could be forecast.

Instructions provided on cost of funds assumptions were designed to ensure that appropriate interest expense was assumed in both base and stress scenarios. Underlying curve levels were prescribed based on actual market curves, with additional upward shifts specified for the stress scenario. The banks were instructed to assume that funding margins would stay at the elevated levels of Q4 2010 or higher based on their own assessment. A similarly conservative approach was taken to central bank funding both in terms of cost of funds and collateral value.

The combination of the growth and cost assumptions would allow the calculation of the Net Stable Funding Ratio (NSFR) and Liquidity Coverage Ratio (LCR), to inform target setting for these metrics as required by the MoU. It also allowed the more prudent calculation of total cost of funds as an input into the PCAR.

Methodology

Bank submissions

Banks were required to submit detailed half yearly forecasts for their funding profiles to 2013, incorporating agreed deleveraging plans, in a set base case macroeconomic and funding scenario described above. Banks were not required to submit a complete PLAR submission in a stress scenario, analogous to that of the PCAR. This is because the most relevant form of stress scenario in a liquidity risk context is not a general deterioration in macroeconomic conditions, but a short, unexpected, severe liquidity shock. The parameters of the LCR are designed to model precisely this type of scenario.

Iteration Process

The Central Bank established a robust process governing the collection of data from institutions. This process was harmonised across both PLAR and PCAR. It was underpinned by the core principles of regular, structured communications with banks and multiple iterations of submissions to ensure adequate review and challenge. The key milestones in the PLAR were:

- 11 February: First forecast submission by institutions.
- 12–18 February: Central Bank review and challenge of submissions.
- 9 March: Second forecast submission by institutions.
- 10–17 March: Central Bank review and challenge of second submissions.
- 31 March: Completion of the PLAR and publication of results.

Validation of Submissions

The Central Bank also established procedures to ensure the comprehensive review, validation and analysis of all data submitted. These included:

- An assessment of the reasonableness of funding forecasts, by: ensuring consistency with specified scenarios; comparisons with historical trends, market forecasts, and peer banks; detailed review by experts; and other methods.
- Validation of submissions against data reported to the Central Bank and other published data.
- Establishing the completeness and internal consistency of submissions, and their consistency across workstreams through structured cross-workstream reviews and checks.

Project structure

In order to ensure successful delivery, the Central Bank set up robust governance structures within the PLAR workstream, and the Financial Measures Programme as a whole. From the outset, the structures were designed to facilitate efficient cross-functional communication and actions. Weekly bank-by-bank cross-workstream meetings were held to ensure a constant flow of information between the different elements of the project, and to guarantee that developments in one area were quickly and accurately feeding into others. Sitting across the various workstreams was a Project Management Office, run in partnership with The Boston Consulting Group. BCG and Barclays Capital provided technical support to the PLAR.

Inter-dependencies with other aspects of Programme

These governance structures were particularly important because of the inter-relationship between the elements of the Financial Measures Programme. Many of the forecasts which the banks submitted as part of the PLAR were also inputs to the PCAR, and vice versa. In particular, these included forecasts of: the funding mix; the cost of funds; the mix of assets; the contractual cash inflows from maturing assets, interest and other sources; shareholders' equity. PCAR, via loan loss forecasts and their capital implications, also impacted on the calculation of the PLAR funding metric levels.

The PLAR workstream also worked in conjunction with the Deleveraging Review workstream to define the target Loan to Deposit Ratio around which the deleveraging strategy has been constructed. Banks' deleveraging plans were antecedent to the PLAR and PCAR exercises; the deleveraging plans agreed formed the basis of the forecasts banks submitted for these forecasting exercises, and impacted the stress tests results significantly.

Appendix I: Summary of work on Anglo Irish Bank and Irish Nationwide Building Society

The future of Anglo and INBS

Anglo Irish Bank ("Anglo") has historically focussed predominantly on commercial property lending in Ireland, the UK and US. Anglo was fully nationalised on 21 January 2009 following unprecedented market events and mounting loan losses. The Bank has since required substantial State aid.

Irish Nationwide Building Society (INBS) was established primarily as a residential property lender but increased its focus on commercial property lending from 2004-2008. It has required substantial State aid since September 2008 and is now effectively State-owned.

In November 2010, the MoU agreed between Ireland, the EC, the ECB and the IMF mandated swift and decisive action to resolve the position of Anglo and INBS in a way that protected depositors and strengthened the banking system. To this end, a joint restructuring plan for the two institutions was submitted to the European Commission by the Irish authorities in January 2011. This plan proposed the transfer of Anglo and INBS deposits and NAMA senior bonds to third-party institutions, and the merger of the two entities into a single Government-owned banking group focussed on working out legacy commercial property and other loans within 10 years and managing residential property loans for eventual sale.

The first element of this plan was executed in February 2011, when Anglo's and INBS's deposits and NAMA bonds were transferred to AIB and ILP respectively. In 2011, Anglo and INBS will be merged into a single Government-owned banking group which will not be active in new lending or deposit markets. The merged bank will continue to operate independently as a regulated entity with its own Board, governance functions and group management team. The objective of this proposed model is to avoid risk of further losses from new lending and concentrate expertise in managing the work out of loans over a period of years and minimising capital losses in a single banking group. As far as possible, the merged group will seek to place a cap on State aid requirements.

Capital requirements of new entity

The capital requirements of Anglo and INBS were assessed by the Central Bank in September 2010. As a result of this assessment, new capital of €6.42m for Anglo and €2.7m for INBS was injected by the Government in December 2010, bringing the total amount of State capital the two institutions have received since 2009 to €29.3bn and €5.4bn respectively. Anglo and INBS were not included in the stress testing exercise carried out in Q1 2011 as the institutions are in the process of implementing the restructuring plan.

Once merged, it is forecasted that group will have a Total capital ratio of 14.1% and a Core Tier 1 ratio of 12.5%. This will consist primarily of equity already injected by the State. The remaining regulatory capital will consist of the small amounts of preference shares and subordinated debt remaining after recent liability management exercises. The plan submitted to the Commission in January forecasts that this capital level will be sufficient to maintain a Total Capital Ratio above 8% until the loan management exercise is completed, given the planned reduction in the new entity's required capital as its assets are worked out, and the existing levels of provisions on the Anglo and INBS balance sheets.

Future loan losses at Anglo Irish Bank

The Anglo loan book has been subject to a number of third-party reviews over the last year, detailed in Box 4. Based on these reviews, the Central Bank estimates that the current capital levels held by the Bank are adequate to cover future loan losses, in a base scenario.

Loss rates applied to Anglo books are higher than the most severe of those currently forecast by BlackRock for four other Irish banks for similar books, even on a stress lifetime basis. For example, for Anglo's cashflow portfolio the assumed loss rate of 55% is significantly higher than the 21.4% BlackRock estimates as the lifetime loss of the SME portfolio of the worst stress test bank. For personal lending, the assumed Anglo loss rate is 68% while the estimated lifetime loss for consumer and other lending in the worst stress test bank is 29.8%. For CRE, the assumed Anglo loss rate of 42% is higher than the 39.2% lifetime loss estimated for the worst stress test bank.

Significantly, the riskier elements of Anglo book relating to development loans have already been transferred to NAMA. The remaining loans are in relatively less risky categories relating to investment, office and retail, with over 50% in the United Kingdom and the United States.

In addition, 2010 outcomes at Anglo corresponded more closely to the stress test base case scenario, rather than the adverse scenario.

Box 4 – Anglo Loan Book Reviews

PWC provisions assessment (Q2-Q3 2010) PWC's assessment covered a base case loss and stress case loss for the top 100 regulatory group exposures, with Central Bank oversight of the process. These represented 54% of the non-NAMA loan book. The losses were extrapolated to the rest of the portfolio and reported on 27 May 2010. The review increased provisions under the stress test adverse scenario by €3bn to €15.2bn. An updated review was conducted in September 2010 and the provisions figure was increased to €17bn.

Independent Consultancy Provisions Assessment (Q4 2010) In Q4 2010, the Anglo loan book was subjected to a further independent top-down review. Losses were extrapolated until 2020 and added a "loss on disposal amount" to account for disposals until 2020. The independent assessment added €700m to provision levels. Based on a review of these results and applying additional conservatism, the Central Bank increased provision levels by a further €500m.

Central Bank benchmark of BlackRock stress test forecasts (March 2011) As part of the most recent stress test exercise, BlackRock solutions carried out a detailed bottom up forecast losses on the portfolios of four Irish banks (AIB, BOI, EBS, ILP). The Central Bank benchmarked BlackRock's estimates of stress case lifetime losses for the four banks against losses assumed on Anglo's portfolios as part of its most recent capital assessment. The exercise showed that Anglo's assumed loss rates were higher than the estimated lifetime losses on the corresponding portfolios in all stress test banks.

Provisions at Irish Nationwide Building Society

INBS's loan portfolios were also reviewed in late 2010 as part of a full assessment of the Bank's capital requirements.

In March 2011, the Central Bank benchmarked the loss rates assumed for INBS in the 2010 review against an even more conservative stress case lifetime losses for other banks forecast by BlackRock in Q1 2011. This benchmarking exercise showed that, unlike for Anglo, the loan losses assumed for INBS portfolios were slightly lower than the stress lifetime loss of the worst of the four stress test banks.

However, even if loss rates comparable to those of the BlackRock stress case worst bank were realised on all portfolios, the resulting increase in provisions would be relatively small (estimated at up to €195m). Significantly, a large portion of the losses on mortgage portfolios would likely not be realised until after 2015. The Central Bank estimates that by this time, the surplus capital of the new merged entity (in excess of the requirement of an 8% Total capital ratio) would be more than adequate to absorb such additional losses.

Glossary

Asset Quality Review (AQR) An in-depth review of the quality, strength and basis for a given loan. For the purposes of the Financial Measures Programme this included assessment of the quality of a selection of the banks' individual assets, and of the processes employed by the banks for establishing and monitoring asset quality. The AQR workstream also included a review of legal issues related to collateral and security enforcement to provide context and qualitative input into overall asset quality work.

Basel III A global regulatory framework for banks and banking systems, developed by the Basel Committee on Banking Supervision of the Bank of International Settlements (BIS). See Appendix D for further information on Basel III.

Capital In banking, capital comprises mainly share capital, capital contributions, reserves, alternative capital instruments or hybrid instruments. Capital acts as a cushion against losses and a protection for depositors' money, and it can be viewed as a measure of financial strength.

- **Tier 1 capital** This is high quality capital, in terms of both permanence and capacity for loss absorption. It usually comprises share capital, capital contributions, reserves, certain preference shares and certain hybrid or alternative capital instruments. There are two sub-segments of Tier 1 capital which are of particularly high quality: Core Tier 1 capital and

- **Core Tier 1 capital** This is Tier 1 capital excluding certain hybrid or alternative capital instruments. Hybrid or alternative capital instruments are types of instruments with both debt and equity features, for example convertible bonds.

- **Equity Tier 1 capital** The best quality capital a bank can have in terms of loss absorbency as it ranks lowest in seniority of claims and absorbs losses in the first instance. This capital is permanent as there is no provision for redemption, although the holder of the share can sell the share to someone else. Essentially this is Core Tier 1 capital excluding certain preference shares, such as the Government's preference shareholding in AIB and BOI. This capital also has the greatest flexibility in payment obligations as a dividend will only be paid in the event of shareholder

Capital adequacy A measurement of the amount of capital that banks have available to absorb future losses. Measured using a capital adequacy ratio, which places a bank's capital over its Risk Weighted Assets (see definition below). The capital adequacy ratio forms the basis of capital requirement.

Capital basis	Capital basis refers to the set of rules or regulations by which capital adequacy is assessed. In the EU the current set of rules is laid out in the Capital Requirements Directive.
Capital buffer	The amount of capital a financial institution needs to hold above minimum requirements, calculated through an assessment of risks which fall outside the risks evaluated in the capital ratio. In the case of the Financial Measures Programme, the capital buffer provides additional capitalisation against potential capital absorbing events outside the parameters of the PCAR stress test. This includes defaults outside the PCAR period (without taking account of post-2013
Capital requirement	The capital requirement determines the amount of current and future risk an institution must hold within a given regulatory framework. (An example would be 6% Core Tier 1 requirement under stress scenario.) Risk is measured by an institution's capital adequacy ratio (see definition above). Institutions which cannot meet the prescribed capital requirement must find a way to increase their capitalisation or to reduce
Capital Requirements Directive (CRD)	The European law which governs minimum capital requirements for all Credit Institutions in EU Members States. Its provisions reflect, to a large extent, the rules laid down by the Basel Committee on Banking
Core loan portfolios	The loan portfolios identified by the banks as important in the context of supporting the Irish economy and/or important to ensure their ongoing financial viability. These portfolios have been retained by all institutions.
Data Validation	Assessment of the quality of the underlying data that is being used to create loan loss forecasts. For the purposes of the Financial Measures Programme, this included an assessment of the sufficiency, quality, and validity of data housed on bank systems as compared to official books and records.
Deleveraging	The process of reduction of non-core assets over time through asset run-offs and disposals
DSCR	Debt Service Coverage Ratio. The ratio of cash available for debt servicing to interest, principal and lease payments. It is a benchmark used in the measurement of an entity's ability to produce enough cash to cover its debt (including lease) payments.
EBA	European Banking Authority. The European institution which acts as a hub and spoke network for European financial supervisory authorities. It replaced the Committee on European Banking Supervisors (CEBS) in January 2011.

Haircut	A haircut on a loan is the difference between the nominal value of a loan and the purchase price paid by an investor or acquirer. The discount applied is based on the quality of the loan, ability to repay and underlying collateral.
Liquidity	The degree to which an asset can be easily converted into cash without any price discount.
Liquidity Coverage Ratio (LCR)	The LCR is a measure of short-term contingent liquidity risk. Its objective is to ensure that a bank has sufficient liquidity to meet potential net outflows from both on- and off-balance sheet exposures in a stressed environment. It is defined as the ratio of a bank's stock of high quality liquid assets to its expected net cash outflows in the first 30 days of a specified stress scenario, in line with the parameters set out by the BCBS in December 2010. Under current Basel III proposals, banks must reach a minimum standard of 100% LCR by January 2015.
Loan to Deposit Ratio (LDR)	The Loan to Deposit Ratio measures a bank's liquidity by expressing customer loans net of impairment provisions as a percentage of customer deposits. For the purposes of the Financial Measures Programme all banks were required to a reach an LDR of 122.5%. Given that zero deposit growth was a key assumption for the PCAR / PLAR exercise, all banks
Loan Loss Forecasting	An exercise to determine the extent to which loans will be re-paid over a certain time horizon, based upon the probability of each loan defaulting, the extent to which each loan is currently exposed, and the amount that
Loan-To-Value ratio (LTV)	Measures the risk associated with a loan by dividing the amount of a loan provided by a bank by the actual value of the asset. Typically, higher LTV ratios means a higher risk loan.
Loss Given Default (LGD)	The credit loss incurred on a loan if a creditor defaults.
National Asset Management Agency (NAMA)	NAMA is a State agency created in 2009 to improve the credit-worthiness of Irish banking system. Its primary function is to take over distressed commercial loans from Irish banks, providing banks with bonds in return. Assets acquired by NAMA will be resolved through sale or wind down.

Net Stable Funding Ratio (NSFR)	The NSFR is a measure of banks' structural liquidity mismatch. Its objective is to ensure that a bank's long-term assets (on- and off-balance sheet) are funded by stable funding sources, measured by either behavioural or contractual term. It is defined as the ratio of a bank's available stable funding to its required amount of stable funding, in line with the parameters set out by the BCBS in December 2010. Under current Basel III proposals, banks must reach a minimum of 100% NSFR by January 2018.
Non-Core Loan Portfolios	The businesses that the banks have identified as not specifically supporting the Irish economy or not important in the context of their ongoing viability.
Probability of Default (PD)	Probability of Default measures the likelihood that a loan will not be repaid and will fall into default. There are many techniques for estimating the probability of default for a given loan type, including logistic regression, proprietary models or a ratings based approach.
PCAR	Prudential Capital Assessment Review. An exercise that estimates the capital requirements of credit institutions under a given set of macroeconomic variables and/or risk sensitivities.
PLAR	Prudential Liquidity Assessment Review. An exercise to monitor and enforce sound quantitative and qualitative liquidity standards.
Promissory Note	A promissory note is a document issued by a borrower that represents an unconditional promise to repay the lender a specific sum of money at a fixed or determinable future time. The accounting treatment of the promissory note is that it is recognised as an asset on the balance sheet of the institution. The corresponding liability to the asset is recognised as a capital reserve on the balance sheet of the institution. This reserve can be recognised as Tier 1 capital in accordance with the Capital Requirements Directive.
RIP Mortgages	Residential Investment Property Mortgages, also known as buy-to-let mortgages.
Risk Tolerance	Risk tolerance describes the minimum level of capital acceptable to the Central Bank in a particular scenario. The level of risk tolerance determines the amounts of capital that a bank must hold to absorb future losses and remain solvent/a going concern. For the purposes of the Financial Measures Programme, the risk tolerance was set at 6% Core Tier 1 capital for the PCAR stress case.

Risk-Weighted Assets (RWA)	A measure of the amount of a bank's assets, adjusted for risk. This sort of asset calculation is used in determining the capital requirement or Capital Adequacy Ratio, with risk weightings regulated by the local Central Banks or other financial regulators.
Securitisation	Securitisation is a structured finance process that can distribute risk by aggregating loans into a pool, then issues new securities backed by the pool, while also providing funding for the loans. Loans can also be aggregated into securitisation vehicles as a means of obtaining secured funding alone, where no risk transfer occurs.
Solvency	The ability to meet short and long term liabilities and other claims on an institution.
Sovereign Exposures	As part of the PCAR, Sovereign exposures included exposures held both within the Trading Book and within the Banking Book. Sovereign exposures include inter alia: holdings of central government bonds, holdings of government t-bills or commercial paper, loans to central government, loans or debt issued by non-central government (i.e. local authorities), NAMA bonds, and holdings of promissory notes issued by government.
Supervisory Review and Evaluation Process (SREP)	SREP is part of the larger Supervisory Review Process. It is a comprehensive process which supervisors use to review and evaluate risk exposure for relevant institutions.