ACTUARIAL REVIEW OF THE SOCIAL INSURANCE FUND

AS AT 31 DECEMBER 2005

Undertaken by Mercer Human Resource Consulting on behalf of the Department of Social and Family Affairs





2007

Actuarial Review of the Social Insurance Fund

as at 31 December 2005



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Réamhfhocal

Tá an-áthas orm fáilte a chur roimhe seo, Athbhreithniú Achtúireach 2005 den Chiste Árachais Sóisialta.

Is píosa oibre fíor-luachmhar é an foilseachán seo a chuirfidh go mór le forbairt leanúnach polasaí árachais sóisialta in Éirinn.

Leagann an tAthbhreithniú Achtúireach amach staid an Chiste Árachais Sóisialta amhail ag 31 Nollaig, 2005, agus déantar nuashonrú ar an Athbhreithniú a rinneadh cúig bliana ó shin – go háirithe maidir le tionchar na n-athruithe déimeagrafacha agus polasaí le déanaí. Soláthraíonn sé creatlach inar féidir measúnú a dhéanamh ar dhúshláin dóchúla na todhchaí atá os comhair an Ciste.

Feidhmíonn córas árachais sóisialta na hÉireann, a bunaíodh ar dtús i 1953, trí an gCiste Árachais Sóisialta seo. Íoctar ranníocaíochtaí árachais sóisialta (nó ÁSPC) isteach sa Chiste a dhéanann maoiniú ar réimse leathan íocaíochtaí agus tairbhe faighte ag na glúine d'oibrithe in Éirinn astu – sochair lena n-áirítear máithreachais, iarrthóra poist, sochar cúramóra nó breoiteachta sealadaigh, pinsin agus íocaíochtaí eile. Tá an Ciste Árachais Sóisialta tar éis a bheith ina léiriú dáiríre ar dhlúthpháirtíocht eatarthu siúd ag obair agus iad siúd atá imithe ar scor, breoite no dífhostaithe.

Ar feadh an chuid is mó den am ó bhunú an Chiste, tá an Státchiste tar éis ranníocaíocht a dhéanamh chuig an gCiste chun freastal ar an mbearna idir ioncam ranníocaíochta agus caiteachas sochair. Mar sin féin, ó 1996, mar thoradh ar fheidhmíocht eacnamaíoch láidir tá ranníocaíochtaí tar éis caiteachas a shárú agus tá farasbarr sa Chiste. Mar sin féin, ní chiallaíonn sé seo nach gcuirfidh an Státchiste leis an gCiste sa todhchaí. Déanann athbhreithniúcháin dá leithéid seo forbairt ar ár dtuiscint de na himpleachtaí atá ag athrú sóisialta agus eacnamaíoch ar an gCiste Árachais Sóisialta agus, dá réir sin, soláthrófar príomh-bhunús dár gcuid iarrachtaí chun forbairt a dhéanamh ar chóras cosanta sóisialta na hÉireann sna blianta atá amach romhainn.

Martin Cullen, T.D. Aire Gnóthaí Sóisialacha agus Teaghlaigh



Foreword

I am delighted to welcome this, the 2005 Actuarial Review of the Social Insurance Fund.

This publication is a valuable piece of work that will contribute to the ongoing development of social insurance policy in Ireland.

The Actuarial Review sets out the position of the Social Insurance Fund as at 31 December, 2005, and updates the previous Review undertaken five years ago – particularly in relation to the impact of recent policy and demographic changes. It provides a framework within which the likely future challenges facing the Fund can be estimated.

First established in 1953, Ireland's social insurance system operates through this Social Insurance Fund. Social insurance (or PRSI) contributions are paid into the Fund which finances a broad range of payments that generations of workers in Ireland have benefited from – benefits including maternity, jobseeker's, carer's benefit or temporary illness; pensions and other payments. The Social Insurance Fund has been a genuine demonstration of solidarity between those at work and those who are retired, ill or unemployed.

For most of the time since the Fund's establishment, the Exchequer has made a contribution to the Fund to meet the shortfall between contribution income and benefit expenditure. However, since 1996, strong economic performance has resulted in contributions exceeding expenditure and the Fund going into surplus. However, this does not mean that the Exchequer will not contribute to the Fund in the future. Reviews such as this one develop our understanding of the implications of social and economic change for the Social Insurance Fund and, as such, will provide a key basis for our efforts to develop the Irish social protection system over the coming years.

Martin Cullen, T.D. Minister for Social and Family Affairs.

Note from Consultants

8 June, 2007

To: The Minister for Social and Family Affairs The Department of Social & Family Affairs Aras Mhic Dhiarmada Store St Dublin 1.

Subject: 2005 Actuarial Review of the Social Insurance Fund.

We have pleasure in enclosing our report setting out our findings on the 2005 Actuarial Review of the Social Insurance Fund.

During the course of this review, we received considerable input and support from many individuals from your own Department, the Department of Finance, the Central Statistics Office and the Central Record Service. We want to thank all who have helped us throughout.

We also wish to acknowledge the significant contribution made in setting the economic assumptions by Mr. Jim Power. Mr. Power's input was invaluable to us.

Finally, we wish to thank the members of the Steering Committee for their guidance and advice throughout the review.

Yours faithfully,

Anne Kesha

Anne Kershaw, F.S.A.I.

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Liam Quigley, F.S.A.I.

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Executive Summary & Conclusions

Executive Summary & Conclusions

- The Social Welfare (Consolidation) Act, 2005, requires regular actuarial reviews of the financial condition of the Social Insurance Fund. This report, which sets out the results of the second such review, has an effective date of 31 December, 2005. The key objectives of the review are to project future contribution income to, and benefit outgo from, the Fund. The review also considers the adequacy or otherwise of the current contribution rates to the Fund, the impact of a number of possible changes to the Fund's benefit/ contribution terms, and the value-for-money provided by the Fund in a range of individual circumstances.
- 2. The review covers a 56-year period from 2006 to 2061 inclusive. The core output of the review is a series of projections of the Fund's expected income and expenditure, based on an agreed set of assumptions.
- 3. The Fund's finances are critically affected by the structure of the population and the labour force and how these are expected to develop in the future. A particularly important factor now affecting Ireland is the unprecedented high level of net inward immigration to the country. Materially, this affects both population and labour force and, as a consequence, has significant implications for the Fund's financial future.
- 4. The population projections carried out for the review indicate that the number of people aged 65 or over is expected to increase dramatically over the period to 2061, rising by 285% from 472,000 in 2006 to just over 1.8 million by 2061. In striking contrast, the expected growth in those of working age is much less marked, with projected growth of only 24% over the projection period. The net effect of this is that the Pensioner Support Ratio (i.e. the number of people of working age

for each person aged 65 or over) is projected to fall from 5.6 in 2006 to 1.8 in 2061.

- 5. As the Fund continues to be financed on a payas-you-go basis, the expected progress of the Pensioner Support Ratio is clearly a key issue as, under such a system, broadly speaking, contributions by and on behalf of working people, and general taxation as necessary, finance the benefits of those over the pension age.
- 6. In recent years, contribution income has exceeded benefit outgo and the Fund had accumulated assets of some €2.4 billion at the end of 2005. Whilst this clearly is a material asset, it is very small in the context of the annual flows of benefits and contributions and, as a result, we have not taken it into account in the majority of our analysis.
- 7. The main conclusion of the review is that, while total income to the Fund is projected to equal or exceed benefit outgo in the period to 2010, thereafter the Fund's net cashflow position is projected to decline rapidly. The Fund's surplus is projected to be exhausted by 2016, on the basis of the central economic assumptions and benefits indexed in line with earnings. By 2021, the yearly shortfall is projected to be €2.8 billion (in real terms) or 1.1% of GNP, increasing thereafter to over €35 billion by 2061 (or 6.4% of GNP). The shortfall stabilises (as a % of GNP) in the last 10 years of the projection period.

The deteriorating financial position of the Fund can be traced almost entirely to the increase in benefit outgo under the long-term schemes. The cost of short-term benefits is projected to remain stable. **Table E1 overleaf** illustrates the results of the core projections.

Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%
2011	8.6	8.7	(0.1)	0.0%
2021	11.7	14.5	(2.8)	(1.1%)
2031	14.8	23.2	(8.4)	(2.7%)
2041	18.0	35.1	(17.1)	(4.6%)
2061	25.2	60.5	(35.3)	(6.4%)

Table E1: Summary of Fund Projection Results in real terms

'Total Income' as referred to in the above table includes investment income received each year. However, as the table is based on annual cashflows, it does not take account of the existence of a surplus in the Fund at the outset. If the surplus were to be used to meet the shortfall of income below benefits from 2011, then, as already mentioned, the surplus is projected to be exhausted by 2016.

- 8. We have also considered the sensitivity of the main projections to some of the critical economic parameters. In particular, we have modelled the impact of lower economic growth, lower migration and higher unemployment. In each case, the shortfall of contributions below benefits increased progressively over the review period, when expressed as a percentage of GNP.
- **9.** We have developed equalised contribution requirements over various, 5, 10 and 20 year periods and over the full review period, with and without Exchequer subvention. By equalised contribution rates, we mean the multiple of current contribution rates that would be required to balance income and expenditure (without allowing for the current Fund surplus).

Table E2 below sets out the results in the form of multiples of the current contribution rates. This table shows that, over the 5 years commencing in 2008, contributions are only marginally in excess of benefit outgo. However, as the periods increase, the contribution shortfall increases significantly.

Starting	No Subvention	Subvention of	Subvention of							
		25% Benefits	33% Benefits							
Equalised Contributions for 5-year period										
2008	101%	76%	68%							
	Equalised Contributions	for 10-year periods								
2008	105%	79%	71%							
2018	129%	97%	86%							
2028	162%	121%	108%							
2038	202%	151%	135%							
2048 ¹	238%	179%	160%							
	Equalised Contributions	for 20-year periods								
2008	118%	88%	79%							
2028	182%	136%	122%							
2048 ²	238%	179%	160%							
	Equalised Contributions	for whole projection per	iod							
2008	174%	130%	116%							
2028 2038 2048 ¹ 2008 2028 2048 ² 2048 ²	162% 202% 238% Equalised Contributions 118% 182% 238% Equalised Contributions 174%	121% 151% 179% for 20-year periods 88% 136% 179% for whole projection per 130%	108% 135% 160% 79% 122% 160% iod 116%							

Table E2: Summary of Equalised Contribution Rates

1. These rates are for the period from 2048 to the end of the projection period.

2. These rates are for the period from 2048 to the end of the projection period.

- 10. The review has considered five alternative future benefit/contribution indexation policies as follows:
 - Indexation of benefits in line with projected future wage inflation (current position)
 - Indexation of benefits in line with projected future price inflation
 - An increase in the State Pension (Transition and Contributory) to 40% of projected Gross Average Industrial Earnings (GAIE) over a 10 year phase-in period; indexation beyond this date in line with earnings inflation.
 - An increase in the State Pension (Transition and Contributory) to a level of 50% of projected GAIE, again with phasing as outlined above.
 - Uprating of benefits to ensure that payments are at a minimum level to avoid the risk of poverty as measured by the EU Survey of Income and Living Conditions (the 'SILC Index'); indexation in the future in line with assumed earnings inflation.

While the review has considered each of these possibilities, this does not mean that there is any commitment from the Government to adopt any of these alternatives.

11. Chart E3 below summarises the results of these projections, with the required pay-asyou-go contribution rates to balance income and expenditure (taking no account of the existing assets of the Fund) expressed as percentages of GNP.

- 12. It is clear from the chart that, except for the scenario where benefits are uprated in line with prices, contribution rates would have to increase substantially if the Fund's income is to be adequate to support the benefit outgo.
- 13. We have also reviewed the impact on the Fund's finances of increasing the State retirement age, using several possible approaches. Most of the variations we considered do lead to some improvement in the expected financial position of the Fund going forward, relative to the current arrangements. However, none of the alternatives considered in isolation indicate that a significant increase in contributions can be avoided in the future, all else being equal.
- 14. Finally, we were also asked to look at a range of 'value-for-money' measures to assess the extent to which individuals receive value-formoney from the Fund for their own and their employer's contributions. It is clear that, based on current contribution and benefit levels, while certain individuals benefit more than others, there are very limited circumstances in which excellent value-for-money is not achieved.
- 15. The review has been carried out using a range of different assumptions and over an exceptionally long projection period. It is therefore to be expected that the actual experience of the Fund could quite easily turn out to be different, perhaps materially, from that indicated by this review.

Chart E3: Summary of shortfall of projected income to expenditure (expressed as % of projected GNP) under various scenarios set out above



PART 01

Introduction

Introduction

- 1.1 The Irish social welfare system covers three schemes - social insurance, means-tested social assistance and a universal Child Benefit payment. The social insurance system operates through the Social Insurance Fund and contributions (PRSI) are paid into the Fund to finance a range of contributory social insurance benefits, pensions and other payments. There is also provision for the Exchequer to make a subvention to the Fund if expenditure exceeds income (and allowing for any accumulated surplus). The social assistance arrangements are on a means-tested basis and do not form part of the Social Insurance Fund. The Child Benefit payment also does not form part of the Social Insurance Fund.
- 1.2 This Actuarial Review, which has an effective date of 31 December, 2005, is made under the provisions of the Social Welfare (Consolidation) Act, 2005. The review covers the Social Insurance Fund only and does not cover any means-tested benefits.
- 1.3 The Fund provides a wide range of benefits and covers the majority of the working population of Ireland. A description of the benefit and contribution structure of the Fund, including details of recent and known forthcoming changes, is set out in Appendix A. The accounts of the Fund over the five years since the last review at 31 December, 2000, are summarised in Appendix B.
- 1.4 The Fund operates on a 'pay-as-you-go' basis whereby today's contributions are used to pay

the benefits of current recipients. There is thus an intergenerational dependency in the sense that today's recipients of benefits from the Fund are reliant on the contributions of today's workers and their employers.

- **1.5** The review covers the period from 2006 to 2061 inclusive. Its key objectives are:
 - to determine the extent to which the existing assets of the Fund, together with the current contribution rates, if these continue, may be expected in the longer term to meet the demands on the Fund in respect of benefit outgo;
 - to investigate the impact on the Fund of increasing benefit rates and contribution limits in line with prices and with earnings, as well as a number of other possible scenarios with regard to uprating social welfare payments, and
 - to investigate the impact on the Fund of a number of specific possible changes to benefit/contribution terms in the future and, in particular, the impact of extending future working years.
- 1.6 The review aims to provide information to the Government to inform policy development in relation to the social insurance system generally. It will also feed into discussion on the Green Paper on Pensions promised in 'Towards 2016'.

1.7 This report is structured as follows:

Part 2	Summarises recent developments in social welfare benefits and contributions. It also provides
	background information on the very significant changes in migration experience in recent years.
Part 3	Discusses the data used for the review, its sources and the validations and adjustments made.
Part 4	Discusses the main assumptions and methodology used in the review.
Part 5	Gives the results of the population and labour force projections.
Part 6	Provides the core results of the review.
Part 7	Provides the results of the analysis of the impact of the requested changes in benefit/
	contribution terms.
Part 8	Provides an analysis of the value-for-money provided by PRSI contributions for various
	individuals.

PART 02

Recent Developments

Recent Developments

2.1 Current Financial Position of the Fund

- 2.1.1 The previous review of the Fund was carried out at the end of 2000 and covered the projection period 2001 to 2056. At that time, the Fund had accumulated an excess of contributions received over benefits paid out, such that the Fund's assets at the end of 2000 were €855 million.
- 2.1.2 Over the five years since the last review, the Fund's income, by way of contributions, has continued to exceed expenditure, such that at the date of the current review (31 December, 2005), the Fund's accumulated net assets had increased to €2,400 million. While this is clearly a material asset, it is very small in the context of the annual flows of benefits and contributions. Appendix B summarises the income and expenditure of the Fund over the 5 years since the last review.

2.2 Benefit and Contribution Levels

- 2.2.1 The projections used for this review are based on the benefit and contribution levels effective from January, 2007.
 Appendix A provides more details of these benefits.
- 2.2.2 In addition, allowance has been made for the increase in the Maternity Benefit period to 26 weeks in 2007 as well as changes to the contribution conditions required to qualify for State pensions from 2012 onwards.
- **2.2.3** The Homemaker's Scheme was introduced in 1994 to help people who provide care

to qualify for pension benefits. Any gap in their contribution record relating to a period of homemaking will be ignored when calculating the average number of weeks to determine their benefit.

2.2.4 In general, benefit levels have increased significantly over the review period. In particular, the State Pension (Transition & Contributory) has increased from €147.30 per week in 2002 to €209.30 per week in 2007. Other benefits have also increased materially over the review period.

2.3 Recent Migration Experience

- 2.3.1 A very material change in the migration patterns affecting Ireland has occurred in recent years. For the previous review, net inward migration was assumed to be at 15,000 per year in 2001, declining to zero by 2017, and remaining at zero thereafter.
- 2.3.2 For many reasons, not least of all the financial prosperity of Ireland relative to other countries (particularly the new EU Accession States), the actual experience over recent years has seen far more migrants to Ireland than the previous review anticipated. This is a highly material issue for the Fund and is covered in more detail in **Part 5** of this report.

2.4 Longevity Improvements

2.4.1 At the last review of the Fund, allowance was made for future expected improvements in mortality experience. It is now generally agreed that the improvements forecast at the time have understated the actual improvements that the population has experienced and is expected to experience in the future.

This is a phenomenon affecting populations globally and is not unique to Ireland. **Part 5** of this report provides more detail on this issue.

2.5 Government Policy on Pensions

2.5.1 Pension provision – including social welfare pensions as well as second tier provision (both public and private sector) – is a highly topical issue at present.

As promised in 'Towards 2016', a Green Paper on pensions is imminent and this review should provide valuable input to that process in terms of understanding the likely future cost implications of a number of different policy options with regard to State pension provision.

PART 03

Data Used for the Review

Data Used for the Review

3.1 Population Data

 3.1.1 Data on the population was provided by the Central Statistics Office (CSO) in the 'Population and Labour Force Projections, 2006-2036' (Population Projection). The baseline data used in the report was the 2002 Census data.

> However, more recent grouped data was provided in the CSO's 'Population and Migration Estimates, April 2006'.

3.1.2 The CSO also provided an extended population projection for 2056, split by age and gender, as validation for our model. This comparison supported the accuracy of our model.

3.2 Benefit Recipient Data

- **3.2.1** We were provided with comprehensive data in relation to benefit recipients from the Fund for the calendar year of 2005. The data included the number of recipients, sub-divided by gender and age, for each of the material benefits provided by the Fund.
- 3.2.2 In addition, for long-term benefits, data on new claims starting in 2005 and average weekly benefit payments were supplied. For the Widow's/Widower's (Contributory) Pension, details of claims starting each year since 2002 were supplied. For pension recipients, the data was further split by benefit amount e.g. full pension, 98% pension, etc.
- 3.2.3 For short-term benefits e.g. the Jobseeker's Benefit – a snapshot of the recipients at two points during 2005 was provided, with details of benefit amounts, dependant allowances and claim durations

at that time. For some benefits, average claim amounts were provided.

- **3.2.4** For the Treatment Benefits, a breakdown of payments by age and payment type was provided for 2005. For less material benefits, summary data provided in the 'Statistical Information on Social Welfare Services 2005'³ was used as the base data.
- **3.2.5** The benefit data was validated by comparing recipient numbers and total benefit amounts paid with the details provided in the aforementioned 2005 statistics report and the Fund's accounts for 2005. Where gaps in the data were identified, information from the statistics report was used to supplement the data supplied appropriately.
- **3.2.6** Fund accounts for the five years ending with the year to 31 December, 2005, were also provided with details of cashflows and year-end balance sheets.

3.3 Contribution Data

3.3.1 A breakdown of PRSI contributors and contributions split by age, gender, earnings band and contribution class was provided for 2005. Earnings were split by €1,000 bands for earnings levels up to €100,000 per annum and €5,000 bands thereafter. The self-employed data for 2005 was incomplete, so 2004 data was provided and adjusted appropriately. The contribution amounts data provided included the health and training levies; however, these were removed before projecting contribution amounts.

3.3.2 A small proportion of the overall

3. Source: Department of Social and Family Affairs.

contribution data – in respect of younger workers, those aged 66 years and over and incomplete records - was aggregated with other contributor data. This was not material to the overall projection of future contribution income.

3.3.3 We also obtained a 1% sample of contributor records from the Central Record Service in order to assist our projections. However, as details of records prior to 1979 were not recorded for many contributors, the sample was of limited use and was not used in the final analysis.

3.4 Other Data

3.4.1 Details of the current arrangements for investing the Fund's assets were provided. The current mandate is to invest all assets in short- to medium-term financial instruments.

PART **04**

Methodology and Assumptions

Methodology and Assumptions

4.1 Introduction

4.1.1 The review was carried out on the basis of economic scenarios prepared by Mercer – having taken input from Mr. Jim Power (independent economist) and the Department of Finance. The projections were also undertaken on a number of alternative economic scenarios developed in conjunction with the Project Steering Committee.

4.2 Population & Labour Force Projection

4.2.1 The population was projected to 2061 from the 2002 base data in the Population Projection - with an adjustment based on the preliminary output from the 2006 Census. Further details of the population and labour force projections are included in Part 5 of this Report.

4.3 Principal Economic Assumptions

4.3.1 The key assumptions - price inflation, real earnings growth, real GNP growth, employment growth and investment returns - are outlined in **Table 4.3 below.** In addition, we have modelled a number of alternative economic scenarios - reflecting both a lower growth environment and a combination of lower growth and higher unemployment. Details of the assumptions used in these alternative scenarios are set out in **Appendix F**.

We have adopted an assumed real rate of investment return on the accumulated Fund of 2% per annum.

4.4 Contribution Projections

- **4.4.1** Contributions were projected based on the distribution (age, gender, earnings and social insurance class) of contributors in the 2004 and 2005 data as well as the projected labour force in the future.
- **4.4.2** New contributors in the future are assumed to join either PRSI Class A (employed) or Class S (self-employed). We have assumed that the proportion of the labour force in PRSI Class S will remain constant over time.
- 4.4.3 PRSI Classes B, C and D (public servants employed prior to April, 1995) were grouped together and, as they are closed, are expected to decline in number gradually until 2033. New hires in the public sector since then are PRSI Class A contributors. A number of financially immaterial social insurance classes were grouped with PRSI Class A contributions for simplicity.

	2006	2007-2010	2011-2015	2016-2020	2021-2061			
Price Inflation	4.0%	2.5%	2.0%	2.0%	2.0%			
Real Earnings	1.0%	2.3%	2.0%	2.0%	1.5%			
Real GNP	5.7%	4.5%	3.5%	3.0%	2.0%			
Employment	4.4%	2.2%	1.5%	1.0%	0.5%			

Table 4.3: Economic Assumptions for Central Scenario

METHODOLOGY AND ASSUMPTIONS

4.4.4 In projecting future contribution income, average earnings within each band, contribution ceilings and thresholds were increased annually at the assumed earnings growth rate. The current PRSI contribution rates (excluding health and training levies) were assumed to remain constant.

4.5 Benefit Projections

4.5.1 For each of the benefit types, the benefit amount and number of claimants were projected separately. Except where alternative growth rates are stated, benefits are projected to increase in line with assumed earnings growth from a base of the rates in force in 2007.

4.5.2 State Pension Benefits

Firstly, existing State Pension (Contributory) beneficiaries are assumed to continue to receive pensions at the prevailing levels for the remainder of their lives. The absence of reliable information relating to contribution histories makes it difficult to project the numbers qualifying for the State Pension (Contributory) and the level thereof in the immediate future.

However, the data provided for 2005 gives us a snapshot of the picture at the current time.

Our core central economic projection provides for relatively high levels of participation in the labour force, which, when taken in conjunction with the Homemaker's Scheme, can be expected to result in a sharp increase in both the numbers qualifying and the level of State Pension (Contributory) for which they qualify in the medium-term. In the longer term, incidence rates and benefit levels would be expected to plateau as a high proportion of the labour force qualifies for the full or 98% pension levels.

We have, based on the assumed labour force participation rates, projected the numbers qualifying for each of the four State Pension (Contributory) levels in the long-term. As previously mentioned, the data provided for 2005 gives us a snapshot of the picture at the current time and we have interpolated between the current and long-term positions to derive rates for the interim period. **Table 4.5 (a) below** provides summary details of the rates assumed.

The very significant increase in the proportions entitled to the full or 98% State Pension (Contributory) levels over the 20 year period to 2035 reflects the buoyant economy and high levels of employment underlying the central economic scenario.

		Men		Women			
	2005	2025	2035+	2005	2025	2035+	
Full Pension	43.4%	67.8%	80.0%	9.4%	41.1%	57.0%	
98% Pension	6.8%	10.0%	11.0%	2.3%	6.1%	12.0%	
75% Pension	9.7%	14.1%	1.5%	7.6%	20.2%	2.0%	
50% Pension	2.8%	4.1%	3.5%	3.0%	8.1%	4.5%	
Mixed ⁴	8.3%	Nil	Nil	13.2%	4.5%	4.5%	
Other ⁵	8.2%	2.4%	2.2%	22.0%	9.0%	8.1%	
No Pension ⁶	20.8%	1.6%	1.8%	42.5%	11.0%	11.9%	
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 4.5(a): Pension Payment Rates as a % of Population aged 66

4. This relates to those who qualify at rates other than those outlined above - e.g. mixed-class contribution histories. For women, it includes beneficiaries of qualified adult allowances.

5. This consists of Invalidity and Widow's/Widower's Pensions.

6. This includes those eligible for State Pension (Non-Contributory).



Graph 4.5(b): State Pension (Transition) as % Population aged 65

This environment gives rise to a significant increase in the proportion of the workforce with an adequate contribution history for entitlement to the higher levels of State pension.

The number of State Pension (Transition) recipients in 2005 was used to derive the proportion of the population aged 65 who avail of this benefit at the current time. In projecting future recipients, the proportion of the population who avail of this benefit was assumed to increase in a manner consistent with the projected increase outlined above for those qualifying for the full or 98% State Pension (Contributory) in the future. As no data split between full pension and 98% pension levels was provided, both categories were amalgamated in this projection. **Graph 4.5 (b) above** shows the projected proportions of those aged 65 who are expected to receive State Pension (Transition) in the future.

Dependant allowances are paid in respect of 'qualified adults'. The data available in respect of qualified adults was not split by gender, so we have assumed that they would be predominantly female. We also assumed that the proportions qualifying for this benefit in the future will decline as more people qualify for a State Pension (Contributory) in their own right. The extent of the decline is primarily driven by the increase in the labour force participation rates for both men and women in the future. Graph 4.5 (c) below illustrates the projected relationship between qualified adult beneficiaries and the female population aged 66 or over.



Graph 4.5(c): Qualified Adults Beneficiaries for Pension Recipients



Graph 4.5(d): Widow's/Widower's (Contributory) Pension incidence rates

4.5.3 Widow's/Widower's (Contributory) Pension Current recipients of the Widow's/ Widower's (Contributory) Pension are assumed to continue to receive this benefit for the remainder of their lives.

> In order to project the numbers qualifying for this benefit in the future, we have firstly examined the data for recent years to determine the proportion of deaths that give rise to a Widow's/Widower's (Contributory) Pension. We have assumed that this incidence rate will remain stable for the future.

Graph 4.5 (d) above illustrates the assumed proportion of the female/male population commencing the Widow's/Widower's (Contributory) Pension - respectively.

The incidence rate for Widow's/Widower's (Contributory) Pensions in the postretirement period was determined by projecting the proportion of State pension recipients who, at the time of death, are survived by a spouse who is not in receipt of a State pension in his/her own right. This has resulted in the reduction in new claims in respect of spouses age 66 and over.

4.5.4 Invalidity Pension

Current pensioners in 2005 and new claimants in later years are assumed to receive this benefit for the remainder of their lives. Claimants aged 66 and over were switched to the full rate State (Contributory) Pension with effect from 2006.

The incidence of future new invalidity benefit claimants was derived from incidence rates recorded in 2005. We have assumed that these incidence rates will remain stable for the future.

4.5.5 Illness Benefit

Data on recipients in 2005, split by age and gender, was provided and used to derive incidence rates and average benefit levels for the future. These rates were assumed to remain stable throughout the projection period. Claims were projected, on average, to last for 12 months.

4.5.6 Jobseeker's Benefit

Future recipients were projected based on the unemployment rates set out in the economic scenarios. Data was provided in relation to the proportion of the unemployed in receipt of the Jobseeker's Benefit - including the proportion in receipt of Qualifying Adult and Dependent Children's Allowances in 2005 - and this ratio was assumed to remain constant throughout the review period.

4.5.7 Maternity Benefit

Future recipients were projected by reference to the expected number of births to labour force participants. The average

benefit payable was estimated from the 2005 data. Allowance was made for the increase in duration up to 26 weeks from 2007.

4.5.8 Deserted Wife's Benefit

This benefit is no longer available to new claimants. The number of existing beneficiaries was projected to decline. The assumed outstanding duration of existing claims was derived from data contained in the statistics report.

4.5.9 Redundancy and Insolvency Benefits

Data for 2005 was used to derive incidence rates for redundancy benefit claims. We assumed that these rates would change in line with changes in unemployment rates generally. An average weekly benefit amount of €600 was assumed in conjunction with an average of 19 weeks per claim.

4.5.10 Household Benefits Package

The number of recipients of the Household Benefits Package in the future is projected to remain stable as a percentage of the total number of pensioners, Widow's/ Widower's and Invalidity claimants.

4.5.11 Other Benefits

The remaining benefits have a less material impact on the overall position of the Fund. They were modelled by linking the current recipient numbers to either the change in the labour force or the population depending on the pre-requisite conditions for payment. Benefits were assumed to increase in line with earnings growth.

4.5.12 Administration Costs

Administration costs are currently running at around 3.7% of benefit outgo but this has declined in recent years (e.g. from 4.5% in 2001). For the purposes of this review, we have assumed that this trend will continue as the number of beneficiaries increases. More specifically, we have assumed that administration costs will increase from their 2005 level by 0.5% per annum in addition to the assumed earnings growth rate. On this basis, administration costs are projected to decline as a percentage of benefit payments to around 1.2% by the end of the review period.

PART 05

The Future Population and Labour Force of Ireland

The Future Population and Labour Force of Ireland

Table 5.4(a): CSO Immigration Projections

	Net Immigration Levels (per annum)						
	Continuing at a high level and then	Continuing at more moderate					
2002 – 2006	+ 30,000	+ 30,000					
2007 - 2011	+ 30,000	+ 20,000					
2012 - 2016	+ 30,000	+ 10,000					
2017 - 2026	+ 20,000	+ 5,000					
2027 - 2036	+ 15,000	+ 5,000					

This projection period ends in 2036, well before the end date of our current projections.

5.1 Future Population

5.1.1 The starting point for this review is to prepare a projection of the future population of Ireland, taking account of the various parameters - namely migration, fertility and mortality - that affect it.

5.2 Future Labour Force

5.2.1 Overlaid on the population projection is a projection of the labour force - the key determinant of which is the rate of participation of individuals in the labour market. Participation rates are affected by factors such as the extent to which people (particularly at the younger ages) remain in full-time education and, especially, the extent to which married females now participate in the labour market.

5.3 Base Population Data

5.3.1 The base population data that provides the starting point for our projection is the data derived from the Central Statistics Office 2004 publication "Population and Labour Force Projections 2006 – 2036", based on the 2002 Census data (the "CSO projections"). In addition, we have used the CSO's "Population and Migration

Estimates", April 2006, to realign the earlier detailed CSO projections with the more up-to-date data now available.

5.4 Migration

5.4.1 As mentioned already in Part 2, migration patterns in Ireland have changed materially in recent years. Future migration is extremely difficult to predict with any degree of certainty.

The two published assumptions within the CSO projections are shown in **Table 5.4 (a) above.**

5.4.2 Actual levels of net immigration experienced over the years 2002 to 2006 have been far higher than these projected figures, as follows:

Table 5.4(b): Actual Net Immigration since 2002

	Actual Net Immigration
2002	41,300
2003	29,800
2004	31,600
2005	53,400
2006	69,900 ⁷

7. Source: CSO 'Population and Migration Estimates'; September, 2006.

5.4.3 To ignore this known recent experience would clearly be inappropriate given the material differences between the CSO projections and the actual experience.

We have therefore adopted a central migration assumption, as follows:

Table 5.4(c): Central Migration Assumptions

	Net Inward Migration (per annum)
2006	70,000
2007 – 2010	40,000
2011 – 2015	30,000
2016 - 2025	20,000
2026 - 2061	15,000

We have also carried out a sensitivity analysis on the impact on the results of this review by using a lower migration scenario. These results are covered in **Appendix F.**

5.5 Mortality

5.5.1 Current and future mortality rates are the key determinant of how long people will draw pension benefits from the Fund. With advances in medical science and improved social and environmental conditions, mortality rates have, in recent times, declined more rapidly than historic norms or indeed forecasted levels. Accordingly, people are now living longer than ever before with associated implications for the Fund. Further, there is international consensus that the improvements in mortality experienced over recent decades will continue into the future. The CSO projections include projections of life expectancy to 2036 by extrapolation of recent improvements, as set out in Table 5.5 below. We have extended this

table to 2061 - assuming that the rate of improvement in longevity halves over this period compared with the assumed rate over the period prior to 2036.

5.6 Fertility

5.6.1 The CSO projections also provide projections of the future fertility rate of the population. In our central projections, we have used the medium (F2) assumption adopted by the CSO – this assumes that the total fertility rate would reduce from 1.98 in 2003 to 1.85 by 2011 and would stabilise at that level until 2036. By interpolation, the 2006 fertility rate has thus been taken to be 1.93 in 2006, reducing to 1.85 in 2011. We have assumed that the rate of 1.85 would be maintained at this level until the end of the projection period in 2061.

5.7 Projection of Future Labour Force

5.7.1 The labour force participation rates were again taken from the CSO projections, adjusted for known experience to 2006. For the period beyond 2016 (the end of the CSO projection period), participation rates were assumed to remain constant - except at the older ages, where participation rates were projected to increase.

The increase is particularly significant for females.

5.7.2 Assumptions were also provided by the CSO on marriage rates and proportions of university students. These were assumed to remain constant from 2016 and were used to build the projected labour force.

Table 5.5: Life Expectations under Assumed Mortality

	Life Expectancies		
	2006	2036	2061
From Birth – Male	76.0	82.5	84.6
From Birth – Female	81.1	86.9	89.0
From Age 65 – Male	15.9	20.6	22.3
From Age 65 – Female	19.3	23.8	25.6

Table 5.7: Sample Labour Force Participation Rates

	Age	2006	2016	2026	2046	2061
Males	25-45	93%	93%	93%	93%	93%
	55	77%	79%	81%	85%	88%
	60	57%	61%	65%	73%	79%
Married	25	69%	71%	71%	71%	71%
Females	35	66%	74%	74%	74%	74%
	45	64%	71%	74%	74%	74%
	55	43%	52%	56%	64%	70%
	60	24%	30%	34%	42%	48%
Single	25	83%	85%	85%	85%	85%
Females	35	80%	82%	82%	82%	82%
	45	73%	75%	77%	81%	82%
	55	54%	58%	62%	66%	66%
	60	38%	41%	43%	47%	50%
Males	Average	80%	81 %	81%	82%	83%
Females	Average	60%	63%	64%	65%	67 %

5.7.3 The rate of unemployment (or proportion of unemployed in the labour force) was set in conjunction with Mr. Jim Power and the Steering Committee at 4.4% throughout the projection period. This rate reflects the current economic environment. Appendix F examines the impact of a higher rate of unemployment in conjunction with lower migration. Sample labour force participation rates used in our review are illustrated in Table 5.7 above.

5.8 Results of Projections

5.8.1 Table 5.8 (a) below summarises the results of the population projection.

More detailed results are presented in **Appendix D** together with the emerging population under the alternative scenarios contemplated.

- 5.8.2 The trend identified at the last review in 2000, where the population over pension age was projected to grow rapidly, is now even more striking. The population aged 65 and over is projected to increase by 59% to 2021 and by a further 142% to 2061, although the rate of growth of this section of the population slows down markedly in the final decade of the projection period.
- **5.8.3** The growth in the working population is projected to be steady over much of the projection period but is clearly far less marked than the growth in the population over pension age. In the latter years of the projection period, there is a slight fall in the working population. Reduced fertility rates (offset by the impact of assumed immigration) are the explanation for the pattern seen.

	Summary of Population Projection (000s)						
Age Group	2006	2011	2021	2031	2041	2051	2061
Children (0-19)	1,165	1,242	1,408	1,372	1,316	1,366	1,367
Working Ages (20-64)	2,644	2,880	3,120	3,318	3,411	3,238	3,287
Over Pension Age (65+)	472	538	750	1,019	1,337	1,733	1,815
Total	4,281	4,660	5,278	5,709	6,063	6,337	6,469
Pensioner Support Ratio	5.6	5.4	4.2	3.3	2.6	1.9	1.8
Total Support Ratio	1.6	1.6	1.5	1.4	1.3	1.0	1.0

Table 5.8(a): Population Projection on Central Basis



Table 5.8(b): Projected Pensioner Support Ratio on Central Scenario

- 5.8.4 An inevitable consequence of the changes in the older and working populations shown by the projections is the relatively rapid and severe decline in the Pensioner Support Ratio (i.e. the ratio of the number of people of working age to the number of people over pension age) from 5.6 in 2006 to 1.8 in 2061. The Total Support Ratio (i.e. the ratio of the number of people of working age to the total number of children plus those over pension age) falls less sharply from 1.6 in 2006 to 1.0 in 2061.
- **5.8.5** The Pensioner Support Ratio is a key measure of the ability of the Fund to meet its obligations in the future as contributions by and on behalf of the working population, plus general taxation as necessary, largely finance the benefits paid to the retired population in the absence of any material level of prior funding.

Table 5.8 (b) above compares the projectedPensioner Support Ratio with thatprojected in the previous review.

5.8.6 Scenario Analysis

While, in our opinion, the projections given earlier in this Section represent a reasonable central view of the likely future population of Ireland, it is worth noting the impact that adopting different rates of migration and/ or fertility would have on the projections. The results of this scenario analysis are summarised in **Part 6**, with more detailed output given in **Appendix F. Table 5.8 (c) below** shows the impact of these scenarios on the Pensioner Support Ratio.

As expected, lower assumed migration (with or without a lower fertility assumption), is projected to result in a decline in the Pensioner Support Ratio relative to the Central scenario.

	Pensioner Support Ratio						
Scenario	2006	2016	2021	2031	2041	2051	2061
Central Scenario	5.60	4.72	4.16	3.26	2.55	1.87	1.81
2000 Actuarial Review	5.40	4.42	3.86	3.03	2.37	2.00	1.81 ⁸
Lower Migration	5.60	4.50	3.88	2.93	2.21	1.57	1.58
Lower Fertility and Migration	5.60	4.50	3.88	2.91	2.15	1.50	1.47

Table 5.8(c): Projected Pensioner Support Ratios on Various Bases

8. Extrapolated from the rates at 2056 in the 2000 Review.
PART **06**

Core Results of the Review

Core Results of the Review

6.1 Introduction

- **6.1.1** In this Section, we set out the main results of the review, which include the following:
 - Projections of the Fund's income and expenditure and annual surpluses or deficits. This analysis is undertaken on the basis of a number of different approaches to the indexation of benefits in the future as well as a number of different economic scenarios;
 - A comparison of the outcome of this review with the last one from 2000;
 - An analysis of breakeven or equalised contribution rates over different periods - with and without Government subventions in the future, and also assuming a number of different future investment scenarios;
 - A sub-division of the Fund's benefit outgo between the various benefits - in particular, between short- and long-term benefits, and
 - The present capitalised value of the net liabilities of the Fund over various time horizons.

6.2 Projected Contribution Income and Outgo

6.2.1 We have, on the basis of the methodology and the central scenario assumptions set out earlier, projected the contribution income to and benefit and expense outgo from the Fund in the period to 2061. The results are presented in summary form in Table 6.2 (a) below and the detailed results are set out in Appendix E of this report. All numbers are shown in 2006 real price terms.

'Total Income' referred to in the table includes investment income received each year. However, as the table shows annual cashflows, it does not take account of the existence of a surplus in the Fund at the outset.

6.2.2 The table shows projected income and outgo separately on an annual basis to 2011 and, thereafter, at five and ten year intervals. The results confirm that income to the Fund is projected to equal or exceed outgo in the period to and including 2010. However, the

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Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%
2007	7.2	7.1	0.1	0.1%
2008	7.6	7.5	0.1	0.1%
2009	7.9	7.9	0.0	0.1%
2010	8.3	8.3	0.0	0.0%
2011	8.6	8.7	(0.1)	0.0%
2016	10.1	11.3	(1.2)	(0.5%)
2021	11.7	14.5	(2.8)	(1.1%)
2031	14.8	23.2	(8.4)	(2.7%)
2041	18.0	35.1	(17.1)	(4.6%)
2051	21.0	49.6	(28.6)	(6.3%)
2061	25.2	60.5	(35.3)	(6.4%)

Table 6.2(a): Projected Income and Expenditure in Real Terms (Central Outcome)

	2005 Review			2000 Review		
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)
2006	6.9	6.4	0.5	6.3	6.1	0.2
2011	8.6	8.7	(0.1)	7.7	7.8	(0.1)
2016	10.1	11.3	(1.2)	8.7	10.0	(1.3)
2021	11.7	14.5	(2.8)	9.7	12.5	(2.8)
2026	13.2	18.4	(5.2)	10.6	15.3	(4.7)
2031	14.8	23.2	(8.4)	11.7	18.6	(6.9)
2041	18.0	35.1	(17.1)	13.6	26.3	(12.7)
2056	22.9	55.5	(32.6)	16.0	38.4	(22.4)
2061	25.2	60.5	(35.3)	-	-	-

Table 6.2(b): Comparison Between Reviews in 2006 terms

projected excess is small relative to either annual income or outgo. From 2011 onwards, outgo is projected to exceed income - with the shortfall growing continuously over the period in real terms, such that the Fund's surplus is projected to be exhausted by 2016. The previous review of the Fund projected the Fund's smaller surplus at the time to be exhausted by 2015.

- 6.2.3 The shortfall also grows continuously when expressed as a % of GNP, although the rate of increase slows considerably in the last 10 years of the projection period. By 2061, Fund outgo is projected to exceed income by €35 billion or 6.4% of GNP.
- **6.2.4** The results confirm a considerable change in both income and expenditure compared with the corresponding projections in the last review, as shown in **Table 6.2 (b) above.**
- 6.2.5 In order to align the results from the previous review with the current results, the previous results have been uprated by price inflation to 2006 (at the assumed rate of inflation in the 2000 review). A comparison with the outcome of the 2000 review confirms a modestly improved net cashflow position at the current time. However, this is projected to deteriorate rapidly over time and, by 2056, the shortfall of income to outgo is now projected to be over €10 billion more than the corresponding projection in 2000.

- **6.2.6** While we do not have sufficient information available to us to undertake a detailed analysis of the changes in the meantime, in broad terms, the principal reasons for the changes are as follows:
 - The increase in contribution income at the current time may be traced primarily to increases in the population and labour force participation rates relative to those projected in 2000. In the 2000 study, the population at working age (20-64) was projected to be 2.44 million in 2006 whereas the current estimate is 2.64 million. This outcome is primarily the result of materially higher actual migration in recent years coupled with the favourable economic environment and associated buoyant labour market.
 - The current review also allows for a materially higher level of net inward migration in the future than did the last. This was discussed in detail in Part
 5 of the report. Clearly, this, coupled with higher labour force participation rates, accounts for higher projected contribution income in the future.
 - In the medium-term, higher net inward migration has the impact of improving the dependency ratio marginally relative to the 2000 projections. However, in the long-term, the ratio reverts to very similar levels to those projected in the last review, as migration rates are projected to tail off.

- Increases in recent years in payment rates have increased Fund outgo at the current time relative to the 2000 projections. In the 2000 review, the State Pension (Transition & Contributory) was projected to be approximately €190.00 per week in 2007, whereas the actual rate in 2007 amounted to €209.30 per week - more than 10% higher than was projected. Increases in other benefit payment rates have also been higher than projected.
- The increase in benefit outgo in the future is mainly driven by the projected increase in the number of people receiving pension benefits over time. We anticipate that, in 2007, circa 0.4 million people will be in receipt of State pensions and this is projected to grow to circa 1.8 million by 2061. The number of projected beneficiaries has increased relative to the 2000 review, reflecting structural changes in the population coupled with the impact of declining mortality rates.
- **6.2.7** We have separately undertaken a sensitivity analysis of the above projections to a number of alternative long-term scenarios identified in 5.8.6 above. Separate projections are modelled for lower expected migration, lower economic growth and a combination of lower economic growth with higher

unemployment. The results of this analysis are presented in detail in **Appendix F** and summarised in **Graph 6.2 (c) below**.

Clearly, each of these scenarios would result in a less favourable projected financial outcome for the Fund in the long-term. As expected, the equalised contribution rates – which are set out in **Appendix F** - are projected to rise under each of these scenarios.

6.2.8 We have also been asked to indicate the level of the Fund's projected expenditure relative to GNP, which is outlined as follows:

	Projected Fund Expenditure as % Projected GNP
2006	4.3
2016	5.2
2061	11.0

6.3 Equalised Contribution Rates

6.3.1 We have calculated 'equalised' or 'breakeven' contribution rates over various time horizons. These rates, which are expressed as a percentage of current contributions, are the rates required to ensure that the aggregate contributions exactly match benefits for the periods in question. We



Graph 6.2(c): Net Cost as a % of GNP under various scenarios



Graph 6.3(a): PAYG Contribution Rates as % of Current Rates

have shown these rates separately over a number of time horizons, as follows:

- on an annual or Pay-As-You-Go basis;
- over the five year period commencing in 2008;
- over successive ten year periods commencing in 20089;
- over successive 20 year periods commencing in 2008⁹, and
- over the full review period.

Where contributions relate to a period other than a single year, we have assumed that the excess of contributions over benefits in the early years would be invested at a real yield of 2% per annum and ultimately used to defray the rising cost of benefits in later years.

We have ignored the current accumulated surplus in this exercise because, as already discussed, it is not material in the context of the magnitude of the Fund's benefit and contribution flows.

6.3.2 Graph 6.3 (a) above confirms the increasing contribution requirement over time to break even. At the current time, contributions exceed benefit outgo by approximately 7% and net cashflow is projected to remain positive until 2008 (2010 if investment income is included). The equalised contribution rates then rise steeply until around 2051 and plateau from there to the end of the review period.

The projections suggest that, by 2061, contribution income would need to be increased by 138% to meet benefit outgo.

- **6.3.3** We set out in **Table 6.3 (b) overleaf** breakeven contribution rates separately over successive 10 and 20 year periods and also over the whole projection period. We have shown the outcome separately on the basis of:
 - no Exchequer subvention;
 - an annual Exchequer subvention of 25% of the benefits paid, and
 - an annual Exchequer subvention of 33% of the benefits paid.
- 6.3.4 The table demonstrates that, while contributions at the current levels may be almost adequate in the short-term, they are clearly inadequate in the long-term. In the period from 2008 2017, an increase of 5% in contribution rates is projected to be adequate to meet benefit outgo but, thereafter, more significant step changes in contributions would be required the corresponding increase for the period 2048 2061 is 138%. Over the entire projection period, an increase of 74% in contribution rates would be required to meet benefit outgo.

9. Note: the last period covers the remaining period to 2061.

Starting	No Subvention	Subvention of 25% Benefits	Subvention of 33% Benefits				
	Equalised Contributions for 5-year period						
2008	101%	76%	68%				
	Equalised Contrib	utions for 10-year periods					
2008	105%	79%	71%				
2018	129%	97%	86%				
2028	162%	121%	108%				
2038	202%	151%	135%				
204810	238%	179%	160%				
	Equalised Contributions for 20-year periods						
2008	118%	88%	79%				
2028	182%	136%	122%				
204811	238%	179%	160%				
	Equalised Contributions for whole projection period						
2008	174%	130%	116%				

Table 6.3(b): Equalised Contribution Rates

10. These rates are for the period from 2048 to the end of the projection period.

11. These rates are for the period from 2048 to the end of the projection period.

- 6.3.5 The level of increase is obviously proportionately less with Exchequer subvention at the levels shown. The projections suggest that with subventions at the 25% or 33% level, the Fund would be projected to remain in surplus for the next 20 years. Over the full projection period, additional contributions of 30% and 16% of current contribution levels, respectively, would be required at the 25% and 33% subvention levels, respectively.
- **6.3.6** We have also considered the potential impact on the Fund of a number of alternative investment scenarios. Clearly, any investment strategy can only have a material impact in circumstances where there are meaningful surpluses to invest and a reasonable time horizon in which to accumulate returns. The primary outcome of the review projects that the Fund will continue to enjoy annual surpluses until 2008 (2010 if investment income is included) and that the accumulated Fund will be exhausted by 2016. However, the surpluses involved are relatively small (in the context of the Fund) and the time horizon short, so the potential for any alternative investment strategy to have a meaningful impact on the Fund - as it stands at present - is negligible.
- **6.3.7** The impact of alternative investment scenarios is perhaps more meaningfully demonstrated in the context of an equalised contribution rate funding environment where annual surpluses are more significant in early years and time horizons longer. At present, the accumulated Fund is invested in a range of short-term fixed interest investments with a running real yield of approximately 1% per annum. Clearly, alternative investment strategies could be employed that might be expected to deliver a higher rate of investment return. These strategies, which are generally only suited to the long-term, might typically involve investment in asset classes other than conventional bonds, such as equities or property.
- **6.3.8** While a detailed consideration of the potential risks and rewards associated with such strategies is beyond the scope of this report, we have nevertheless modelled the impact on the equalised contribution rates of real rates of investment return of 3.5% per annum and 5% per annum.

The results are presented in Table 6.3 (c) overleaf.

	Real Rate of Investment Return				
Starting	2% per annum	3.5% per annum	5% per annum		
	Equalised Contrib	utions for 10-year periods			
2008	105%	105%	105%		
2018	129%	128%	128%		
2028	162%	161%	161%		
2038	202%	201%	201%		
2048	238%	238%	238%		
	Equalised Contributions for 20-year periods				
2008	118%	117%	116%		
2028	182%	180%	178%		
2048	238%	238%	238%		
	Equalised Contributions for whole projection period				
2008	174%	163%	153%		

Table 6.3(c): Equalised Contribution Rates with higher investment return





6.4 Long-Term vs Short-Term Benefits

6.4.1 We compared short-term and long-term benefits against projected contributions. At the current time short-term benefits absorb approximately 23% of contribution income. This is projected to rise to approximately 27% over time.

> In contrast, long-term benefits currently absorb 67% of contribution income but this is projected to increase much more rapidly - culminating at 210% by 2061. The relationship between payments in respect of short-term and long-term benefits is outlined in the **Graph 6.4 above.**

6.5 Net Contingent Liabilities of the Fund

6.5.1 We have defined the Net Contingent Liabilities of the Fund as the present value of the difference between projected contribution income and benefit outgo over the period in question and have included the accumulated surplus of the Fund at the start of the period. In calculating these net present values, we have used a real discount rate of 2% per annum that is broadly consistent with prevailing real interest rates (relative to Eurozone inflation). On the basis of the forgoing, the Net Contingent Liabilities of the Fund are outlined in **Table 6.5 overleaf**.

Table 6.5: Net Present Value of Deficit at1st January 2006

	Net Contingent Liabilities
5 years	(€3 Billion)
10 years	(€1 Billion)
20 years	€19 Billion
30 years	€66 Billion
Full Period	€331 Billion

6.6 Alternative Benefit Indexation Policy Options

- **6.6.1** We have projected the benefit outflows from the Fund on the basis of a number of alternative benefit indexation formulae suggested by the Department as set out below. We have compared these with projected benefit outflows on the basis that the current policy of indexing benefits in line with wage inflation is maintained indefinitely. The alternative benefit indexation policies considered are as follows:
 - Indexation of benefits and contribution thresholds in line with projected future price inflation;
 - An increase in the State Pension (Transition & Contributory) to 40% of projected Gross Average Industrial Earnings (GAIE), with the progression

to this level completed over a 10-year phase-in period. Indexation beyond this date is in line with earnings inflation;

- An increase in the State Pension (Transition & Contributory) to a level of 50% of projected GAIE again with phasing, as outlined above;
- Uprating of benefits initially to ensure that payments are set at a minimum level to avoid the risk of poverty as measured by the EU Survey of Income and Living Conditions (the 'SILC Index'). Indexation in the future is in line with assumed earnings growth rates, and
- Allow for other policy proposals ("Additional Proposals"), namely to extend eligibility for Carer's Benefit to those aged 65 and over by removing the conditions relating to ceasing employment and the level of contributions paid in the relevant tax year, to uplift Qualified Adult Allowances to the State Pension (Non-Contributory) level and fix Child Dependant Allowance at the current level.
- 6.6.2 The results of the projections are presented in summary in the tables below and overleaf (and separately in more detail in the tables in Appendix E).

			Central Outcome		
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.1	0.5	0.4%	0.0%
2016	10.2	9.5	0.7	0.5%	(0.5%)
2021	11.8	11.1	0.7	0.5%	(1.1%)
2031	14.9	15.3	(0.4)	0.1%	(2.7%)
2041	17.9	20.1	(2.2)	(0.5%)	(4.6%)
2051	20.6	24.5	(3.9)	(0.9%)	(6.3%)
2061	24.5	25.9	(1.4)	(0.3%)	(6.4%)

Table 6.6(a): Price Inflation

		Pension increased to 40% GAIE				
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)	
2006	6.9	6.4	0.5	0.4%	0.4%	
2011	8.6	9.0	(0.4)	(0.2%)	0.0%	
2016	10.1	12.1	(2.0)	(0.9%)	(0.5%)	
2021	11.7	15.7	(4.0)	(1.6%)	(1.1%)	
2031	14.8	25.5	(10.7)	(3.5%)	(2.7%)	
2041	18.0	38.8	(20.8)	(5.6%)	(4.6%)	
2051	21.0	55.4	(34.4)	(7.6%)	(6.3%)	
2061	25.2	67.6	(42.4)	(7.7%)	(6.4%)	

Table 6.6(b): Pension increased to 40% GAIE

Table 6.6(c): Pension increased to 50% GAIE

			Central Outcome		
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure as (% of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	9.4	(0.8)	(0.4%)	0.0%
2016	10.1	13.5	(3.4)	(1.5%)	(0.5%)
2021	11.7	18.0	(6.3)	(2.5%)	(1.1%)
2031	14.8	29.5	(14.7)	(4.8%)	(2.7%)
2041	18.0	45.6	(27.6)	(7.4%)	(4.6%)
2051	21.0	65.7	(44.7)	(9.9%)	(6.3%)
2061	25.2	80.2	(55.0)	(10.0%)	(6.4%)

6.6.3 Price Inflation - Table 6.6 (a)

We have assumed, for the purposes of this projection, that both contribution thresholds and benefit levels are indexed in the future in line with price inflation. **Table 6.6 (a) on page 44** confirms that, on this basis, contribution income can broadly be expected to match or exceed benefit outgo in the first half of the projection period. While the Fund is projected to experience a shortfall of contributions to benefits in the latter half of the period, the magnitude is small compared to the projected outcome with benefits indexed to earnings inflation.

6.6.4 Pension Increased to 40% GAIE - Table 6.6 (b) Clearly, the financial position of the Fund is projected to deteriorate further with pensions increased to 40% GAIE. By 2061,

the shortfall of contribution income to benefit outgo is projected to reach 7.7% GNP.

- 6.6.5 Pension Increased to 50% GAIE Table 6.6 (c) If the State Pension (Transition & Contributory) increased to 50% GAIE and was maintained at that level thereafter, the shortfall of contribution income below benefit outgo is expected to rise to 10% of GNP by 2061.
- 6.6.6 Benefits Set to SILC Minima Table 6.6 (d) With the very significant increase in benefits in recent times, this proposal would not result in a particularly significant increase in benefit outgo in the future compared with the present position.

Table 6.6(d): Benefits set to SILC minima

		Central Outcome			
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2016	10.1	11.7	(1.6)	(0.7%)	(0.5%)
2021	11.7	15.0	(3.3)	(1.3%)	(1.1%)
2031	14.8	23.8	(9.0)	(2.9%)	(2.7%)
2041	18.0	35.9	(17.9)	(4.8%)	(4.6%)
2051	21.0	50.4	(29.4)	(6.5%)	(6.3%)
2061	25.2	61.5	(36.3)	(6.6%)	(6.4%)

Table 6.6(e): Other options

		Additional Policy Proposals				
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)	
2006	6.9	6.4	0.5	0.4%	0.4%	
2011	8.6	8.9	(0.3)	(0.1%)	(0.0%)	
2016	10.1	11.4	(1.3)	(0.6%)	(0.5%)	
2021	11.7	14.7	(3.0)	(1.2%)	(1.1%)	
2031	14.8	23.5	(8.7)	(2.8%)	(2.7%)	
2041	18.0	35.6	(17.6)	(4.7%)	(4.6%)	
2051	21.0	50.3	(29.3)	(6.5%)	(6.3%)	
2061	25.2	61.4	(36.2)	(6.6%)	(6.4%)	

6.6.7 Other options - Table 6.6 (e)

Based on analysis contained in the 2002 Census data, we have assumed that 2% of the population aged 65 and over would receive Carer's Benefit in addition to any benefits currently received from the Fund. The adjustment to the eligibility conditions for the Carer's Benefit, while being a very material extension of that benefit, was not significant in the context of the overall projected outgo from the Fund.

6.6.8 Graph 6.6 (f) below demonstrates the projected increase in payments to Carers over time.





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6.6.9 Graph 6.6 (g) below provides a comparison of the impact of each of the options on the annual deficit of the Fund. The most adverse impact on the deficit is to uplift

pensions to 50% of GAIE, whilst increasing benefits at price increase levels would have the least adverse impact on the deficit.



Graph 6.6(g): Summary of shortfall of projected income to expenditure (expressed as % of projected GNP) under various scenarios set out above

PART **07**

Supplementary Projections

Supplementary Projections

7.1 Introduction

- 7.1.1 This Section sets out the results of a number of additional projections undertaken as part of the review. The main purpose of these projections is to provide an input to policy considerations relating to a number of potential benefit changes that are under consideration. The additional output covers the following:
 - A number of potential options for the extension of working years;
 - The extension of the Fund to cover a number of specifically identified additional benefits, including:
 - (a) the introduction of Invalidity Pensions for the self-employed;
 - (b) the introduction of Paid Parental Leave, and
 - (c) the introduction of a Jobseeker's Benefit for part-time employees.

7.2 Extension of Working Years

7.2.1 Firstly, we have projected the implications of changing retirement age on a calendar year basis, as outlined in Table 7.2 (a) above, starting from 2014 and with each increase phased in uniformly over each relevant 2 year period. For example, we have assumed

that over the period from the start of 2014 to the end of 2015, the retirement age will increase on a phased basis from age 65 to age 66. In practice, this means that the retirement age is being increased by 1 year for every 10 years into the future.

Table 7.2(a): Retirement by Calendar Year

Calendar Year	Retirement Age – Option A
Up to 2013	65
2014 -2015	65 – 66
2016 - 2023	66
2024 – 2025	66 – 67
2026-2033	67
2034-2035	67-68
2036-2043	68
2044-2045	68-69
2046-2053	69
2054-2055	69-70
2056+	70

Secondly, we have considered the implications of changing retirement age on a year-of-birth basis in accordance with **Table 7.2 (b) below.** We have contemplated two alternatives, the first starting in 2016 and the second starting in 2026. This approach is consistent with that adopted in the National Pensions Review.

Table 7.2(b): Entry Cohort methods of increasing the retirement age

	Retirement Age				
Year of Birth	Option B -Starting 2016	Option C - Starting 2026			
Up to 1950	65	65			
1951-1960	66	65			
1961-1970	67	66			
1971-1980	68	67			
1981-1990	69	68			
1991-2000	70	69			

- 7.2.2 Projections are based on the central economic scenario with benefits assumed to increase with earnings. In general, we have assumed no other changes to benefits with the exception that we have included an additional Option B1 that combines the impact of changing retirement age in accordance with Option B with the impact of increasing the basic State pension to 50% GAIE.
- **7.2.3** Increasing retirement age impacts upon both State benefits and working lifetimes. In each of the scenarios above, we have modelled the impact on the labour force by extending the labour force participation rates for those currently at or around retirement age to the later years.
- 7.2.4 In relation to pre-retirement benefits, we have extrapolated the incidence rates for the various schemes to the later ages. The rates are generally consistent with those applied in the main projection with the exception that we have allowed for an increase in the incidence of invalidity and illness. In the absence of any statistical information, we have allowed for increases on a scenario basis, with both sets of rates to increase by 5% per annum for later years from the rates in force at age 65. For example, for Illness Benefit, the rate of claims for men would increase from 4.9% of the eligible labour force at age 64 to 6.3% at age 69.

The results are presented in **Tables 7.2 (c)**, **7.2 (d)**, **7.2 (e) and 7.2 (f) below and overleaf** and are all based on the central economic scenario, with benefits increasing in line with earnings.

		Option A Every 10 years Central Outcome				
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)	
2006	6.9	6.4	0.5	0.4%	0.4%	
2011	8.6	8.7	(0.1)	(0.0%)	0.0%	
2016	10.2	11.0	(0.8)	(0.4%)	(0.5%)	
2021	11.8	14.2	(2.4)	(1.0%)	(1.1%)	
2031	15.1	22.1	(7.0)	(2.3%)	(2.7%)	
2041	18.6	32.6	(14.0)	(3.8%)	(4.6%)	
2051	22.0	45.1	(23.1)	(5.1%)	(6.3%)	
2061	26.4	55.8	(29.4)	(5.3%)	(6.4%)	

Table 7.2(c): Increasing working years - Option A

Table 7.2(d): Increasing working years - Options B

	(Option B Entry Cohort Starting 2016			
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.7	(0.1)	(0.0%)	0.0%
2016	10.2	11.0	(0.8)	(0.4%)	(0.5%)
2021	11.8	14.2	(2.4)	(1.0%)	(1.1%)
2031	15.1	22.1	(7.0)	(2.3%)	(2.7%)
2041	18.6	32.6	(14.0)	(3.8%)	(4.6%)
2051	22.0	45.1	(23.1)	(5.1%)	(6.3%)
2061	26.4	55.7	(29.3)	(5.3%)	(6.4%)

	0	Option B Option B with Pension Uplift				
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)	
2006	6.9	6.4	0.5	0.4%	0.4%	
2011	8.6	9.4	(0.8)	(0.4%)	0.0%	
2016	10.2	13.1	(2.9)	(1.3%)	(0.5%)	
2021	11.8	17.5	(5.7)	(2.3%)	(1.1%)	
2031	15.1	27.8	(12.7)	(4.2%)	(2.7%)	
2041	18.6	41.5	(22.9)	(6.1%)	(4.6%)	
2051	22.0	58.0	(36.0)	(7.9%)	(6.3%)	
2061	26.4	72.1	(45.7)	(8.3%)	(6.4%)	

Table 7.2(e): Increasing working years - Options B1

Table 7.2(f): Increasing working years - Central and Option C

	Option C Entry Cohort 2026				Central Outcome
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.7	(0.1)	(0.0%)	0.0%
2016	10.1	11.3	(1.2)	(0.5%)	(0.5%)
2021	11.7	14.5	(2.8)	(1.1%)	(1.1%)
2031	15.0	22.5	(7.5)	(2.5%)	(2.7%)
2041	18.4	33.3	(14.9)	(4.0%)	(4.6%)
2051	21.7	46.2	(24.5)	(5.4%)	(6.3%)
2061	26.2	56.7	(30.5)	(5.5%)	(6.4%)

The tables above set out projected annual income and expenditure for various future years as well as the projected shortfall in monetary terms and as a percentage of GNP.

- 7.2.5 It is clear that increasing retirement age has the potential to contain, to some degree, the extent of the projected rise in benefit outgo. Under Options A and B, the projected shortfall falls to 5.3% of GNP by 2061 from 6.4% on current conditions. Under Option C, the corresponding shortfall is 5.5%. Option B1 combines later retirement age with a higher level of State pension. The shortfall under this scenario is projected to be 8.3% of GNP by 2061, compared with 10% of GNP with no change in retirement age.
- **7.2.6** Closer scrutiny of the tables above show no difference between Options A and B. In essence, this is because retirement age is the same under each of these Options in the years shown on the tables. The methods do, however, differ in terms of the timing of the change which occurs slightly earlier under Option A.
- 7.2.7 We have also projected breakeven contribution rates for the full projection period under each of the alternatives above and the results are set out in Table 7.2 (g) overleaf. The rates shown represent the percentage of the current contribution rates required to provide for the benefits over the full period assuming that there is no Exchequer subvention.

Table 7.2(g): PAYG Contribution Rates - Breakeven Rates

Central Scenario – Benefits Increase at Earnings	174%
Option A - Increased Retirement Age Every 10 Years	159%
Option B - Increase Retirement Age - Entry Cohort 2016	160%
Option C - Increase Retirement Age - Entry Cohort 2026	164%
Option B1 - Option B with Pension Uplifted to 50% GAIE	201%

7.2.8 Whilst most of these possible changes go some way to improving the finances of the Fund in the longer term, there still remains a very material shortfall of projected contribution income below projected benefit outgo in the absence of any other changes.

7.3 Introduction of Invalidity Benefit for the Self-Employed

7.3.1 We have modelled the introduction of Invalidity Benefit for the self-employed

with effect from 2008. As it is a longterm benefit, the number of recipients is projected to grow over a 10-year period until the recorded incidence reaches an assumed 4%¹² of the self-employed labour force. We have assumed that the incidence level will remain constant at this level thereafter. The results are presented in **Table 7.3 below.**

- 7.3.2 The table sets out projected income and expenditure for the Fund as a whole for selected years within the projection period together with the shortfall in monetary terms and as a % of GNP. The results indicate that the change is material in terms of the cost of Invalidity Benefit increasing projected expenditure for the benefit by approximately 11% in 2061, equivalent to some €0.3 billion in 2006 terms. However, at the overall Fund level, the impact is marginal.
- 7.3.3 We have modelled a variation on this benefit alteration by limiting eligibility to those earning €40,000 per annum or less in today's terms. The impact of this would be to reduce expenditure marginally.

12. As no data for the self-employed exists, we have used 4%, which is consistent with the data available for the employed labour force.

		Invalidity for Self Employed			Central Outcome
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.8	(0.2)	(0.1%)	0.0%
2016	10.1	11.4	(1.3)	(0.6%)	(0.5%)
2021	11.7	14.6	(2.9)	(1.2%)	(1.1%)
2031	14.8	23.4	(8.6)	(2.8%)	(2.7%)
2041	18.0	35.3	(17.3)	(4.6%)	(4.6%)
2051	21.0	49.9	(28.9)	(6.4%)	(6.3%)
2061	25.2	60.8	(35.6)	(6.4%)	(6.4%)
Break-eve	n contribution rate			174.9%	173.7%

Table 7.3: Extension of Invalidity Benefit to the Self-Employed

	Parental Leave Benefit – same rate as Maternity Benefit Central Outcor				
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.9	(0.3)	(0.1%)	0.0%
2016	10.1	11.5	(1.4)	(0.6%)	(0.5%)
2021	11.7	14.7	(3.0)	(1.2%)	(1.1%)
2031	14.8	23.4	(8.6)	(2.8%)	(2.7%)
2041	18.0	35.3	(17.3)	(4.7%)	(4.6%)
2051	21.0	49.9	(28.9)	(6.4%)	(6.3%)
2061	25.2	60.8	(35.6)	(6.4%)	(6.4%)
Break-ever	n contribution rate	S		175.2%	173.7%

7.4 Introduction of Paid Parental Leave

- 7.4.1 We have also modelled the introduction of Paid Parental Leave in accordance with the basis outlined by the Department. In summary, we have assumed that both parents would be eligible to claim paid leave for up to 14 weeks in the period from birth until the child reaches the age of 8 at the same rate as the current Maternity Benefit. We have assumed that 90% of qualifying females would avail of this benefit and 10% of males. We have assumed that 50% of those availing of the benefit would do so as a direct extension to Maternity Benefit – with the remainder spread uniformly over a seven-year period.
- 7.4.2 The introduction of this benefit does not significantly worsen the total deficit of the Fund relative to GNP. However, it would result in a material increase in the overall cost of parental benefits giving an increase in expenditure of approximately 61% of total projected Maternity Benefit expenditure (based on current conditions) by 2061 equivalent to some €0.3 billion in 2006 terms.
- **7.4.3** We have modelled a variation on this proposal by setting the rate of benefit paid at the level of Disability Benefit. This alternative would not materially change the outcome of our analysis.

7.5 Extension of Jobseeker's Benefit to Part-Time Employees

- **7.5.1** We have modelled the extension of Jobseeker's Benefit to part-time employees on the basis of a complex set of qualification criteria, as follows:
 - The benefit would be made available to those working at least 15 hours per week in a period prior to unemployment;
 - The jobseeker would be required to be available for employment for at least 3.5 hours per day and 19 hours per week. Currently the jobseeker must be available for full-time employment;
 - The jobseeker must have incurred a minimum loss of 40% of employment, and
 - The benefit payable would be prorated based on the extent of the loss of employment relative to a 5-day working week.
- 7.5.2 We have been provided with various statistics by the Department relating to the numbers of part-time workers in the labour force and the extent to which they might be expected to meet the criteria above. Beyond that, we have assumed that part-time employees will incur the same levels of unemployment as the population as a whole.

	Unemploy	Unemployment Benefit for Part-Timers (Min 40% Loss) Central Outco			
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	8.9	(0.3)	(0.1%)	0.0%
2016	10.1	11.4	(1.3)	(0.6%)	(0.5%)
2021	11.7	14.7	(3.0)	(1.2%)	(1.1%)
2031	14.8	23.4	(8.6)	(2.8%)	(2.7%)
2041	18.0	35.3	(17.3)	(4.7%)	(4.6%)
2051	21.0	49.9	(28.9)	(6.4%)	(6.3%)
2061	25.2	60.9	(35.7)	(6.5%)	(6.4%)
Break-ever	n contribution rate	S		175.1%	173.7%

Table 7.5: Extension of Jobseeker's Benefit to Part-Time Employees

7.5.3 Table 7.5 above sets out projected income and expenditure for the Fund as a whole for selected years within the projection period - together with the shortfall in monetary terms and as a % of GNP. We have separately included breakeven contribution rates for the full period (without allowance for Exchequer subvention). The introduction of this benefit does not significantly worsen the total deficit of the Fund relative to GNP. However, it would result in a material increase in expenditure, increasing expenditure on Jobseeker benefits by approximately 17% in 2061, equivalent to some €0.4 billion in 2006 terms.

7.6 Combined Benefit Improvements

- 7.6.1 We have combined the total impact of introducing each of the benefits above in Tables 7.3 to 7.5, namely:
 - Invalidity Benefit for the self-employed without retaining an earnings cap;
 - Paid Parental Leave based on the current Maternity Benefit level, and
 - Extension of Jobseeker's Benefit to parttime employees.
- **7.6.2 Table 7.6 below** summarises the overall impact on the Fund of introducing all three benefits.

		Combined Benefit Improvements Central Outcome			
Year	Contribution Income (€ billion)	Expenditure (€ billion)	Contribution Income over Expenditure (€ billion)	Total Income over Expenditure (as % of GNP)	Total Income over Expenditure (as % of GNP)
2006	6.9	6.4	0.5	0.4%	0.4%
2011	8.6	9.1	(0.5)	(0.2%)	0.0%
2016	10.1	11.7	(1.6)	(0.7%)	(0.5%)
2021	11.7	15.0	(3.3)	(1.3%)	(1.1%)
2031	14.8	23.8	(9.0)	(2.9%)	(2.7%)
2041	18.0	35.8	(17.8)	(4.8%)	(4.6%)
2051	21.0	50.5	(29.5)	(6.5%)	(6.3%)
2061	25.2	61.5	(36.3)	(6.6%)	(6.4%)
Break-eve	n contribution rate	S		177.9%	173.7%

Table 7.6: Combination of Benefit Improvements

7.6.3 Whilst each of the benefits on their own does not have a significant impact on the Fund, the combined effect would be to increase the long-term equalised contribution rate from 173.7% to 177.9% of current contribution levels. This is equivalent to an overall increase in expenditure of some €1.0 billion in 2006 terms.

PART 08

Value-for-Money Projections

Value-for-Money Projections

8.1 Value-for-Money Indices

8.1.1 In this Section, we set out to demonstrate the 'value-for-money' provided by the Fund in a range of individual circumstances. In each case, we have developed a 'valuefor-money index' (or VFM index) which is defined as the ratio of the present value of projected benefit payments to the present value of the projected value of contribution payments, as follows:

VEN Index 13 -	Present Value of Projected Benefit Payments
VFM Index." =	Present Value of Projected Contributions

The assumptions used to determine the various values may be summarised as follows:

- The VFM Indices generally relate to a person who has joined the workforce for the first time at the age of 25.
- The projected benefit payments include both long-term pension benefits and short-term benefits. Contributions include all PRSI contributions to the Fund other than the health levy and the training levy.
- Benefits and contributions are projected using the assumptions underlying the central economic scenario. The demographic assumptions, including the projected incidence of the various benefit contingencies and the associated probability of making contributions, are also consistent with the central scenario. All benefits, contributions and thresholds

are indexed in line with general earnings inflation.

- Actuarial present values of the various projected benefit payments and contributions each are determined using a real discount rate of 2% per annum.
- **8.1.2** The individual circumstances we have considered cover the following:
 - We have determined indices separately for males and females and for those with and without dependants.
 - We have shown indices for the employed on the basis of employee contributions only and also on the basis of the combination of employer and employee contributions. We have also shown indices for the self-employed.
 - We have considered a range of earnings levels from the minimum wage up to and including 3 times the Gross Average Industrial Wage.
 - We have also demonstrated how the following individuals might expect to fare under the system:
 - Those who avail to the full extent of the Homemaker's Scheme.
 - Part-time employees.
 - Those who accumulate less than full contribution credits.
 - Those who might emigrate and export their accrued entitlements to another jurisdiction.

The results are presented in tabular form on page 59.

^{13.} A VFM Index of 1 means that, for the individual in question, the present value of projected benefit payments expected to be received from the Fund in the future is equal to the present value of contributions expected to be paid to the Fund in the future.

	Minimum Wage		GAIE		2 x GAIE		3 x GAIE	
	М	F	М	F	М	F	М	F
Single	6.1	8.4	1.8	2.4	0.9	1.3	0.7	0.9
Married with Qualifying Adult	10.7	13.0	3.1	3.8	1.6	1.9	1.2	1.4
Maternity Leave for 2 Children	N/A	9.3	N/A	2.7	N/A	1.4	N/A	1.0
20 yrs of Homemaker Disregards	12.9	19.3	3.7	5.6	1.9	2.9	1.4	2.1

Table 8.1(a): VFM Indices for Employees with Full Contribution Records – Total Contributions (Employer + Employee)

Table 8.1(b): VFM Indices for Employees with Full Contribution Records – Employee Contributions only

	Minimum Wage	GAIE		2 x GAIE		3 x GAIE	
	Both	М	F	М	F	М	F
Single	N/A	7.4	10.2	4.4	6.0	4.4	6.0
Married with Qualifying Adult	N/A	13.0	15.8	7.7	9.3	7.7	9.3
Maternity Leave for 2 Children	N/A	N/A	11.3	N/A	6.7	N/A	6.7
20 yrs of Homemaker Disregards	N/A	15.6	23.5	9.2	13.9	9.2	13.9

Table 8.1(c): VFM Indices for Self-Employed with Full Contribution Records

	Minimum Wage		GAIE		2 x GAIE		3 x GAIE		
	М	F	М	F	М	F	М	F	
Single	11.8	14.6	5.8	7.2	2.9	3.6	1.9	2.4	
Married with Qualifying Adult	21.0	22.1	10.3	10.9	5.1	5.4	3.4	3.6	
Maternity Leave for 2 Children	N/A	16.3	N/A	8.0	N/A	4.0	N/A	2.7	
20 yrs of Homemaker Disregards	24.6	32.1	12.1	15.8	6.0	7.8	4.0	5.3	

In **Table 8.1 (b) above**, for those on the Minimum Wage, no employee contributions are payable as they earn below the current minimum threshold. For those earning over 2 or 3 x GAIE, because of the earnings ceiling, the VFM Indices do not differ for the different earnings levels.

It is clear from the three tables above that, irrespective of whether value-for-money is considered relative to total contributions or employee contributions alone, in almost all circumstances, working people receive very good value-for-money from the Fund, based on the current benefit and contribution levels. **8.1.3** We have also calculated indices based on different contribution histories derived by reference to the minimum requirements to qualify for a reduced level of State pension benefit, for a single person with no dependents.

Table 8.1 (d) below demonstrates that, notwithstanding their reduced contributionrecords, in general, those with shortercontribution histories obtain the bestvalue-for-money from the Fund.

	Minimum Wage		GAIE		2 x GAIE		3 x GAIE	
	М	F	М	F	М	F	М	F
Full Contributions	6.1	8.4	1.8	2.4	0.9	1.3	0.7	0.9
Average 48 weeks	6.5	9.0	1.9	2.6	1.0	1.3	0.7	1.0
Average 20 weeks	14.1	19.0	4.1	5.5	2.1	2.8	1.5	2.1
Average 15 weeks	14.4	19.3	4.2	5.6	2.2	2.9	1.6	2.1
Average 13 weeks	11.3	15.3	3.3	4.4	1.7	2.3	1.2	1.6

Table 8.1(d): VFM Indices for Employees with Reduced Contribution Records – Total Contributions

Table 8.1(e): VFM Indices for Employees with Reduced Contribution Records – Employee Contributions only

	Minimum Wage	GAIE		2 x GAIE		3 x GAIE	
	Both	М	F	М	F	М	F
Full Contributions	N/A	7.4	10.2	4.4	6.0	4.4	6.0
Average 48 weeks	N/A	7.9	10.9	4.7	6.4	4.7	6.4
Average 20 weeks	N/A	17.1	23.1	10.1	13.6	10.1	13.6
Average 15 weeks	N/A	17.5	23.5	10.3	13.9	10.3	13.9
Average 13 weeks	N/A	13.7	18.5	8.1	10.9	8.1	10.9

Table 8.1(f): VFM Indices for Self-Employed with Reduced Contribution Records

	Minimum Wage		GAIE		2 x GAIE		3 x GAIE	
	М	F	М	F	М	F	М	F
Full Contributions	11.8	14.6	5.8	7.2	2.9	3.6	1.9	2.4
Average 48 weeks	12.8	15.9	6.3	7.8	3.1	3.9	2.1	2.6
Average 20 weeks	30.0	37.3	14.8	18.3	7.3	9.1	4.9	6.1
Average 15 weeks	30.6	38.1	15.1	18.7	7.5	9.3	5.0	6.2
Average 13 weeks	23.6	29.3	11.6	14.4	5.7	7.1	3.9	4.8

The results of our analyses for those with reduced contribution histories also indicate that, in almost all circumstances, working people receive very good value-for-money from the Fund at present.

8.1.4 The rules relating to part-time employees mean that, depending on the nature of the part-time arrangement, individuals could accumulate a full or partial contribution record depending on the number of weekly contributions paid each year. For example, a person working as little as one day per week could accumulate a full 52-week average contribution credit. In contrast, a job-sharer, perhaps working on a week onweek off basis, would accumulate a slightly reduced record - with the number of contributions paid in each year depending on the day the PRSI week commences. In years where the PRSI week coincided with the actual week worked, the person would receive credit for 26 weeks of contributions and, in other years, the person would receive a full 52-week credit. In general, a person with this arrangement might,

over a full career, expect to accumulate an average contribution credit of the order of 40 weeks.

Table 8.1 (g) below calculates VFM Indices for an employee working on a week on-week off basis for a full career. The pay rates shown are full-time equivalent earnings. The results are comparable to the outcome for a single employed person - as previously outlined in Tables 8.1(a) and 8.1(b).

- **8.1.5** In overall terms, the VFM Indices clearly demonstrate the very considerable value-for-money provided by the Fund in nearly all circumstances.
- **8.1.6** The tables may also be used to draw more aggregate conclusions in relation to the redistributive nature of the Fund. In particular, it is notable that:
 - Those on lower incomes fare considerably better than those on higher incomes. In particular, those earning less than the GAIE currently pay 35% of contributions whilst receiving 66% of benefits.

	Minimum Wage		GAIE		2 x GAIE		3 x GAIE		
	М	F	Μ	F	Μ	F	Μ	F	
Total Contributions	11.1	15.0	3.7	5.0	1.7	2.3	1.2	1.6	
Employee Contributions Only	N/A	N/A	17.6	23.8	7.7	10.4	6.3	8.5	

Table 8.1(g): VFM Indices for Part-Time Employees

- Those with dependants fare better than those without.
- Those with short contribution histories have the potential to fare better than those with full contribution histories.
- The Fund provides better value to female than to male contributors.
- The Fund tends to favour the selfemployed over the employed – when the comparison includes both employer and employee contributions in respect of the employed person.

8.2 Exported Benefits

- 8.2.1 We were asked to consider how individuals who export benefits from Ireland might fare under the Fund. Typically, this situation relates to individuals who have worked for a period in Ireland and subsequently emigrate. The most common situations relate to:
 - where a person emigrates to another EU member or Accession State or to a State that has entered a bilateral agreement with Ireland, and
 - where a person emigrates to a State other than those covered above.

In general, State pension benefits will be paid from Ireland to or in respect of those who work for a period in Ireland and subsequently emigrate to, and retire in, a State covered by the first category mentioned above.

- 8.2.2 Based on the data available, it has not been possible at this stage to analyse how individuals who export benefits from Ireland might fare under the Fund. We have set out below the key data that might be useful for any future investigation into this matter:
 - Data on the age/gender profile of emigrants who leave Ireland.
 - Data on the destination of emigrants after leaving Ireland.
 - Data on the period of time spent in Ireland for emigrants.

- Data on the number of emigrants with contribution records.
- Earnings data and contribution records for emigrants while in Ireland.
- Data relating to the future work patterns of emigrants after they leave Ireland.



Appendices

Appendix A Summary of Benefits & Contributions of the Fund

The Social Insurance Fund provides benefits that are earned on the basis of entitlements from a person's Pay-Related Social Insurance (PRSI) record. In addition to minimum contribution requirements, each benefit has specific criteria that need to be satisfied before the benefit can be paid. This summary does not include social assistance benefits - which are means-tested.

Benefits can be split between long- and short-term benefits, as follows:

- a) short-term benefits include jobseeker's, maternity, adoptive, illness, carer's, health and safety, redundancy and insolvency, the guardian's payment, the bereavement grant, the widowed parent grant and treatment benefits, and
- b) long-term benefits include the State pension (transition and contributory), widow's/widower's, deserted wife's, invalidity, and occupational injury benefits such as injury, disablement, medical expenses and death benefits.

The household benefits package (gas/electricity, telephone allowances and free television licence) may be payable in addition to these payments.

As details of the benefit and contribution levels for the 2007 tax year are available at the time of the review, they have been used and are detailed below.

Contributions

PRSI contributions are payable by employees, employers and the self-employed. Some lowincome workers are, however, exempt from PRSI liability. Contributions are payable as a percentage of weekly earnings above a threshold and include a health levy - although the health levy is not attributable to the Social Insurance Fund.

Credits for benefit entitlements are granted in respect of each weekly contribution made. However, some contribution classes are not eligible for all of the benefits. Under certain conditions, voluntary contributions can be paid to purchase credits for some of the long-term benefits.

The main PRSI contribution classes are as follows:

- Class A: People in industrial, commercial and service-type employment who are employed under a contract of service with reckonable pay of €38 or more per week, as well as Civil and Public Servants recruited from 6 April, 1995. Contributions count towards entitlement to all social insurance benefits.
- Classes B, C and D: Permanent and pensionable Civil Servants recruited prior to 6 April, 1995 (including Gardai, Commissioned Army Officers, members of the Army Nursing Service and Registered Doctors and Dentists employed in the Civil Service. Contributions count towards entitlement to the Widow's/Widower's (Contributory) Pension, the Guardian's Payment (Contributory), the Bereavement Grant, Carer's Benefit and, except for Class C, certain Occupational Injuries Benefits.
- Class H: NCOs and enlisted personnel of the Defence Forces. Contributions count towards entitlement to all social insurance benefits except for Occupational Injuries Benefits.
- Class J: People with reckonable earnings of less than €38 per week from all employments plus a small number of employees - irrespective of how much they earn (e.g. those above the age of 66 or in subsidiary employment). Contributions count towards entitlement to Occupational Injuries Benefits only.
- Class S: Self-employed people, including certain company directors, people in business on their own account and people with income from investments and rents. Contributions count towards entitlement to the Widow's/Widower's (Contributory) Pension, the Guardian's Payment (Contributory), Maternity Benefit, Adoptive Benefit, the Bereavement Grant and the State Pension (Contributory).

		PRSI contribu	ition rates	payable			
Weekly earnings	Cla: A ai	sses nd H	C B,	classes C and D	Cla		
	Employee	Employer		Employer			All
€38 - €339	Nil	8.5% Class A 10.05% Class H	Nil	2.01% Class B 1.85% Class C 2.35% Class D	Nil	0.5%	3.0%
€339.01 - €356	4% Class A 3.9% Class H	8.5% Class A 10.05% Class H	0.90%	2.01% Class B 1.85% Class C 2.35% Class D	Nil	0.5%	3.0%
€356.01 - €480	4% Class A 3.9% Class H	10.75% Class A 10.05% Class H	0.90%	2.01% Class B 1.85% Class C 2.35% Class D	Nil	0.5%	3.0%
0ver €480	4% Class A 3.9% Class H	10.75% Class A 10.05% Class H	0.90%	2.01% Class B 1.85% Class C 2.35% Class D	Nil	0.5%	3.0%
PRSI-Free Allowance	€127	N/A	€26	N/A	N/A	N/A	N/A

Other contribution classes are K, M, P and E. Contribution amounts for these classes, however, are minor relative to total contributions.

Each of the contribution classes has different earnings thresholds and PRSI contribution rates payable.

The rates applicable for the 2007 tax year (excluding the Employee's Health Contribution and the Employer's National Training Fund Levy) are set out in the **table above**.

Notes

- All employees and the self-employed pay an additional 2% as a Health Contribution on all weekly earnings or self-employed income above €127. An additional 0.5% was introduced in 2007 on earnings exceeding €1,925 per week.
- **2.** Employers and the self-employed pay contributions on all earnings.
- No employee contributions are payable on the PRSI-Free Allowance of €26 or €127, as appropriate, or on earnings above the annual cumulative earnings ceiling (€48,800 for 2007).

Benefit Rates

Most benefits are payable weekly, although some may be one-off payments (e.g. the Bereavement Grant). There is usually a standard payment rate for the qualifying recipient, which may be reduced depending on their eligibility, and additional allowances in respect of dependants. The main allowances are:

- a) Qualified Adult: if a current or former spouse or partner satisfies the conditions that qualify that person as a qualified adult, an extra increase can be claimed for him/her. The increase is means-tested.
- **b)** Child Dependant: an increase may be claimed for qualifying children aged up to 18, or 22 if in full-time education.
- c) Living Alone: an increase payable from age 66 for people who live alone; from 2001, this increase has been extended to invalidity pensioners under the age of 66.
- d) Over Age 80: this increase is paid on attaining age 80 to those who are entitled to a pension in their own right.

The maximum weekly rates of benefit for the 2007 tax year are shown in the following tables.

Long-Term Benefits, € per week									
Type of Payment	Personal	Qualified Adult (QA)		Living Alone	Over Age 80				
State Pension (Transition & Contributory)	209.30	139.50 QA under 66 173.00 QA 66 or over	22.00	7.70	10.00				
Widow's/Widower's (Contributory) Pension & Deserted Wife's Benefit	191.30 if under 66 209.30 if 66 or over	N/A	22.00	7.70	10.00				
Invalidity Pension	191.30 if under 65 209.30 if 65 or over	136.50 QA under 66 173.00 QA 66 or over	22.00	7.70	N/A				

Occupational Injury Benefits, € per week (unless otherwise stated)								
Type of Payment	Personal	Qualified Adult (QA)	Qualified Child					
Injury Benefit	185.80	123.30	22.00					
Disablement Benefit	216.90 for over 90% disa 43.40 to 195.20 p.w. for d Lump sum of a maximum to 19%	blement isablement between 20% n of €15,180 may be payal	and 90% ble for disablement up					
Death Benefits (Survivor's Benefits)	213.70 for a widow(er) ur 223.70 if aged 80 or over	22.00						

Othe	r Short-Term Benefits, € per v	Other Short-Term Benefits, € per week (unless otherwise stated)									
Type of Payment	Personal	Qualified Adult (QA)	Qualified Child								
Maternity Benefit	80% of earnings with a maxim	um benefit of 280.00 an	d a minimum of 207.80								
Adoptive Benefit	80% of earnings with a maxim	num benefit of 280.00 and	d a minimum of 207.80								
Jobseeker's Benefit	185.80	123.30	22.00								
Illness Benefit	185.80.	123.30	22.00								
Guardian's Payment	158.00 p.w. per orphan	N/A	N/A								
(Contributory)											
Health and Safety	185.80	123.30	22.00								
Benefit											
Carer's Benefit	200.70 if caring for 1	N/A	22.00								
	301.10 if caring for more										
Bereavement Grant	€850 lump sum	N/A	N/A								
Widowed Parent	€4,000 lump sum	N/A	N/A								
Grant											

The State pension is also payable in reduced amounts of 98%, 75% and 50% of the full pension amount, depending on the beneficiary's contribution history. may be less, depending on the insured person's contribution record or his/her earnings directly prior to claiming benefits.

2. The Qualified Adult increase is generally subject to a means-test based on the "means" of the qualified adult. The Qualified Child increase is paid at half-rate if no Qualified Adult increase is paid.

Notes

1. The above figures are the maximum rates of benefit payable. The actual amount payable

Rate	January 2002	January 2007	Change (%)					
State Pension (Transition and Contributory)								
Personal Rate	€147.30	€209.30	42					
Qualified Adult (66 or over)	€113.80	€173.00	52					
Child Dependent	€19.30	€22.00	14					
Widow's/Widower's (Contributory) Pension								
Personal Rate (66 or over)	€144.80	€209.30	45					
Personal Rate (under 66)	€123.30	€191.30	55					
Child Dependent	€21.60	€22.00	2					
Invalidity Pension								
Personal Rate	€123.30	€191.30	55					
Qualified Adult (under 66)	€88.00	€136.50	55					
Child Dependent	€19.30	€22.00	14					

Summary of Benefit Changes since 2002

The changes to the maximum weekly benefit rates of payment for some of the most important long-term benefits since 2002 are summarised **in the table above.**

Note

The rates quoted above exclude possible increases for those over the age of 80 or living alone. The living alone increase has remained fixed at \in 7.70 from January, 2002, until 2007, but the over age 80 allowance increased from \in 6.40 in January, 2002, to \in 10.00 in 2007.

Summary of the Main Qualifying Conditions

This Section sets out the main conditions that must be satisfied before benefits can be paid. It is based on the conditions as at January, 2007, and is not intended to be a definitive description of the benefit rules - so only the main features have been described.

Long-Term Benefits

- a) State Pension (Transition)
 - Payable from age 65.
 - Retired from insurable employment.

- Started paying PRSI contributions before age 55.
- Paid at least 260 full-rate PRSI contributions, broadly Classes A or H (from April, 2012, at least 520 full-rate contributions are required).
- A yearly average of at least 48 paid or credited full-rate contributions since 1979, or a yearly average of at least 24 paid or credited full-rate contributions since 1953 or from date of entry into social insurance, if later.
- A yearly average of 48 contributions gives entitlement to a maximum pension. However, a yearly average of 24 contributions gives entitlement to the minimum personal rate of 98% full pension.
- Payable until age 66.
- b) State Pension (Contributory)
 - Age 66 or over.
 - Started paying PRSI contributions before age 56.
 - Paid at least 260 full-rate PRSI contributions (broadly Classes A, H or S). From April, 2012, at least 520 full-rate contributions are required.
 - A yearly average of at least 48 paid or credited full-rate contributions since 1979, or a yearly average of at least 10 paid or credited full-rate contributions since 1953 or from date of entry into social insurance, if later.
 - A yearly average of at least 10 contributions gives entitlement to the minimum personal rate of pension - which is 50% of the full pension. A yearly average of 48

contributions gives entitlement to the full pension, with tiered steps between the minimum and the maximum rate.

Recipients of the maximum Invalidity Pension or State Pension (Transition) will automatically transfer to the State Pension (Contributory) upon reaching age 66, and the amount of pension will not change.

When calculating the yearly average to determine entitlement to a pension, homemakers (i.e. people caring for children under age 12 or for incapacitated adults) may have gaps in their contribution record (since 1994) disregarded.

c) Widow's/Widower's (Contributory) Pension

- Widowed or divorced from late spouse and not cohabiting or remarried.
- Paid at least 156 weeks' PRSI contributions and a yearly average of 39 weeks' contribution paid or credited over the last 3 or 5 years (whichever is more beneficial) before the date of death of the spouse or the date that pension age was reached.
- Alternatively, a yearly average of at least 24 weeks' paid or credited PRSI contributions between first starting work and the date of death and pension age.
- These conditions may be satisfied based on either the recipient's or the late spouse's PRSI record.
- If the late spouse was in receipt of a State Pension (Transition or Contributory) which included an increase for the widow(er) as a qualified adult, then the PRSI conditions above do not apply.

d) Invalidity Pension

- Recipient must have been incapable of work for at least 12 months prior to the claim and unlikely to be able to work for at least one year from the date of claim, or permanently incapable of work, or over the age of 60 and suffering from a serious illness or incapacity.
- 260 weeks' PRSI paid in total and 48 weeks' paid or credited in the last tax year prior to the claim.
- Payment continues as long as the beneficiary is incapable of work until age 66, when they are transferred to the State Pension (Transition). Pension will cease

if any pension other than a Disablement Pension is awarded.

e) Deserted Wife's Benefit

New claims were discontinued in 1997, but those then in receipt of the benefit retained their entitlement, which is paid until the earlier of death, remarriage or cohabitation.

f) Household Benefits Package

Gas/electricity and telephone allowances, as well as a free television licence, paid to recipients of certain social insurance and social assistance benefits and available to all age 70 and over.

g) Injury Benefit

- Unfit for work due to illness as a result of an accident at work or a prescribed occupational disease.
- The illness must last for at least 4 days (excluding Sundays).
- Payment can be made for up to 26 weeks, if the incapacity lasts that long.
- Half-rate benefit is paid if the claimant is in receipt of certain other benefits (including the Widow's/Widower's (Contributory) Pension and the Deserted Wife's Benefit).

h) Disablement Benefit

- Suffered a loss of physical or mental ability as a result of either an accident at work, a prescribed disease or a commuter accident on a direct route between home and the workplace.
- Normally paid after Injury Benefit ceases.
- Payment depends on the assessed degree of disablement. For assessments of less than 20% of ability, a lump sum can be paid
 otherwise a pension is paid.

i) Death Benefit

- Payment is made to the dependants where the deceased was in receipt of a Disablement Pension assessed at 50%, or if an insured person died as a result of an accident at work or a prescribed occupational disease.
- The benefit includes a Widow's/Widower's (Contributory) Pension, the Guardian's Payment (Contributory), the Dependant Parent(s) Pension and the Funeral Grant.

j) Medical Care

Medical expenses not covered by the Health Services Executive (HSE) or the Treatment Benefit scheme will be met where they were incurred as a result of either an accident at work or contracting a prescribed occupational disease.

Short-Term Benefits

a) Maternity Benefit

- For the employed: at least 39 weeks' PRSI paid in the 12-month period before the first day of Maternity Leave (or other similar conditions).
- For the self-employed: 52 weeks' PRSI paid at Class S in either of the last 2 tax years before the year in which leave commences.
- Benefit is payable continuously for a maximum of 26 weeks.

b) Jobseeker's Benefit

- Unemployed for at least 3 days in 6 days and have suffered a substantial loss in employment.
- Aged under 66, capable of work, available for full-time work and genuinely seeking work.
- At least 52 weeks' PRSI paid since first starting work and at least 39 weeks' PRSI paid or credited in the second last complete tax year before the claim date (or at least 26 weeks contributions in both of the last 2 complete tax years).
- Payments for low earners are reduced based on their relevant earnings.
- Payment is made for up to 6 months if under age 18, up to 15 months if between ages 18 and 65, or up to age 66 if aged 65 or over and not claiming the State Pension (Transition).

c) Illness Benefit

- Incapable of work due to illness and under age 66.
- At least 52 weeks' PRSI paid since first starting work and 39 weeks' PRSI paid or credited in the second-last complete tax year before the date of claim - of which 13 must be paid contributions (or at least 26 weeks contributions in both of the last 2 complete tax years).

- Payments for low earners are reduced based on their relevant earnings.
- Half-rate benefit is paid if the claimant is in receipt of certain benefits (including a Widow's/Widower's (Contributory) Pension or the Deserted Wife's Benefit).
- Payment is made for up to 52 weeks if between 52 and 259 weeks' PRSI have been paid, or for as long as the individual is unfit to work and under the age of 66 if 260 or more weeks' PRSI contributions have been paid.

d) Guardian's Payment (Contributory)

- Payable to the guardian of a child who is either under 18 or under 22 if in full-time education, provided that both parents are deceased (or have otherwise failed to provide for the child).
- At least 26 weeks' PRSI paid at any time and on the insurance record of either of the orphan's parents (or step-parents).
- The person claiming the payment must be the guardian or the person with responsibility for care of the orphan, or the orphan - if aged 18 or over and not in the care of a guardian.

e) Carer's Benefit

- Payable to an insured person who leaves employment to provide for a person in need of full-time care and attention.
- Carer must have been in full-time employment for at least 8 of the 26 weeks immediately prior to the commencement of the benefit and have paid at least 156 PRSI contributions since entry into insurance, and
 - 39 paid contributions in the relevant tax year, or
 - 39 paid contributions in the 12 months before Carer's Benefit starts, or
 - 26 paid contributions in the relevant tax year and 26 paid contributions in the tax year before that.
- For a subsequent claim, the PRSI requirements are waived - provided that the previous claim ceased not more than 26 weeks prior.
- Carer must not be in any other employment for more than 15 hours per week.
- Payable for up to 2 years for each person being cared for.

f) Treatment Benefit

- Contribution towards the cost of dental and optical treatment and assistance with the cost of contact lenses and hearing aids.
- The insured person is covered together with a dependent spouse or widow/er.
- In general, at least 260 weeks' PRSI must have been paid - with 39 weeks paid or credited in the tax year before the year of claim. Different requirements apply to those under age 25 or over age 65.
- If the conditions are satisfied when the insured person reaches age 60 or the State pension age, they remain qualified for life.

g) Other Benefits

- Bereavement Grant Lump sum paid on the death of an insured person or their spouse.
- Widowed Parent Grant Lump sum paid to a widow/er with at least one qualified child.
- Health and Safety Benefit Allowance paid during pregnancy where the woman cannot continue to work for safety reasons.
- Adoptive Benefit Similar to Maternity Benefit but paid upon the adoption of a child.
- Redundancy and Insolvency 60% of an employer's statutory redundancy payments are met from the Fund - with the remaining 40% paid in cases of employer insolvency.

Appendix B Summary of Accounts Between 1st January, 2001, and 31st December, 2005

	2005 (€)	2004 (€)	2003 (€)	2002 (€)	2001 (€)
FUND AT START OF YEAR	1,905,875	1,528,798	1,273,463	1,486,144	854,920
Receipts					
Contribution Income	6,109,880	5,614,572	5,047,795	4,747,117	4,261,129
Receipts from Investments	49,012	34,594	40,718	51,015	45,754
Other Receipts	126	454	19	111	19
Total	6,159,018	5,649,620	5,088,532	4,798,243	4,306,902
Payments					
Long-Term Benefits					
State Pension (Transition)	1,060,052	983,706	898,981	803,413	697,432
State Pension (Contributory)	1,152,849	1,050,348	946,902	868,529	716,516
Widow(er)'s (Contributory) Pension	998,524	906,449	826,135	761,539	672,959
Invalidity Pension	548,285	487,375	440,263	403,617	354,459
Deserted Wife's Benefit	90,620	89,749	89,234	88,150	84,877
Free Schemes	182,052	171,713	158,236	135,270	104,746
Occupational Injury Benefits					
Treatment Benefit	65,497	70,454	63,348	60,796	56,505
Occupational Injuries Benefits	88,078	82,657	78,757	77,018	70,496
Short-Term Benefits					
Illness Benefit	540,245	479,611	433,455	385,297	329,889
Maternity Benefit	132,412	121,571	107,336	99,129	78,933
Jobseeker's Benefit	418,085	455,586	477,129	423,487	290,689
Adoptive Benefit	709	609	532	578	260
Health & Safety Benefit	293	143	213	217	209
Guardian's Payment (Contributory)	7,516	9,659	8,895	11,694	9,447
Carer's Benefit	9,588	7,698	6,943	5,807	2,457
Redundancy & Insolvency	150,348	147,643	97,636	58,713	32,951
Bereavement Grant	13,572	13,190	12,288	12,224	12,577
Widowed Parent Grant	3,304	3,068	2,867	2,971	1,312
Equal Treatment	-	1	5	17	56
Other Payments					
Administration Expenses	202,580	191,313	184,042	177,458	158,910
National Training Fund	-	-	-	-	-
Total	5,664,609	5,272,543	4,833,197	4,375,924	3,675,678
Excess of Receipts over Payments	494,409	377,077	255,335	422,319	631,224
Transfer to the Exchequer	-	-	-	(635,000)	-
FUND AT END OF YEAR	2,400,284	1,905,875	1,528,798	1,273,463	1,486,144

Notes

- 1. The fund value at the end of 2005 includes current assets in respect of agent's balances that are held to paid ongoing benefits and are not invested by the Fund. Therefore, the fund value and investment income derived by the Fund exclude these current assets.
- **2.** The accounts for the year ending 2000 were converted from Punt to Euro at the rate of $\in 1 = \pm 0.787564$.
Appendix C Summary of Key Data Provided for the Review

Pension Benefits

Below is a table summarising the data received for pension benefits, followed by charts showing age distribution for each benefit.

	2005 Data	Summary	
	Male	Female	Average Weekly Benefit
Full Pension	76,626	28,016	€181.46
98% Pension	13,961	6,715	€177.83
75% Pension	16,590	10,164	€136.10
50% Pension	4,709	3,320	€90.73
Other Pensions	31,244	14,304	€71.08
Dependants - U66	*	22,633	€123.95
Dependants - 66+	*	30,898	€113.53

Male Pensioners





Female Pensioners

Other Benefits

Below is a table giving a summary of recipients in respect of other benefits with a table giving an age breakdown where possible for each of the benefits.

	2005 Data	a Summary	
	Male	Female	Average Weekly Benefit
Invalidity	29,528	28,823	€180.66
Illness	21,396	40,447	€169.00
Jobseeker's	34,264	37,120	€120.23
Maternity	N/A	32,842	€223.98
Widow's/Widower's	12,828	96,285	€175.97
Deserted Wife's	N/A	10,180	€171.20

	Inva	lidity	Disa	bility	Widow's/	Widower's	Deserted Wife's	Maternity
Age	М	F	М	F	М	F	F	F
<20	0	0	61	64	0	0		323
20-24	5	2	907	943	1	1	0	2,839
25-29	46	36	1,154	2,042	12	26	0	7,431
30-34	166	298	1,296	3,347	45	197	15	13,573
35-39	401	905	1,204	2,999	151	574	252	7,482
40-44	1,108	2,142	1,336	2,669	423	1,240	1,146	1,161
45-49	2,180	3,189	1,579	3,219	781	2,289	1,964	33
50-54	3,939	4,241	1,952	4,149	1,338	3,837	2,322	0
55-59	6,652	5,562	2,304	4,391	2,120	6,428	2,108	0
60-64	9,495	6,990	2,150	2,697	2,592	9,301	1,335	0
65-69	4,082	3,814	209	259	1,931	12,272	324	0
70-74	1,077	1,193	N/A	N/A	1,388	15,117	324	0
75-79	286	309	N/A	N/A	965	16,730	324	0
80-84	46	71	N/A	N/A	541	14,137	65	0
85-89	46	71	N/A	N/A	541	14,137	0	0
90+	0	0	N/A	N/A	0	0	0	0

Appendix D Population and Labour Force Projections

This Appendix sets out the population projections under different migration scenarios and gives projected Pensioner and Total Support Ratios also. We have also included a table of projected numbers of recipients for each benefit using the central economic assumptions.

Central Scenario

This is derived from April, 2006, census data, together with net migration outlined in **Table 5.4(c) on page 33,** together with fertility rates based on the F2 (medium) basis detailed in the CSO projections. Mortality is based on current population experience - with allowance for improvements as outlined in **5.5.1 (page 33).** Labour force participation rates are trended from 2016 as detailed in **5.7.1 (page 33).**

Central Scenario with Lower Migration

This is based on similar assumptions to the Central Scenario - except that lower net migration is assumed as detailed in **Appendix F.**

Central Scenario with Lower Migration and Lower Fertility (Low Growth)

This is based on similar assumptions to the Central Scenario with Lower Migration - except that fertility rates are based on F3 (low) basis detailed in the CSO projections. Labour force participation rates are assumed to remain constant from 2016.

APPENDIX D

Central Scenario									
Age Group	2005	2006	2011	2016	2021	2031	2041	2051	2061
0-4	299,907	308,357	346,639	358,443	346,765	310,276	333, 239	340,266	321,761
5-9	281,813	289,943	323,528	359,044	368,375	330,540	326,881	350,822	339,336
10-14	273,866	273,726	298,744	330,656	364,685	361,359	323,799	346,778	353,823
15-19	291,696	293,439	272,980	296,808	327,787	370,301	331,873	328,246	352,167
20-24	323,951	353,382	291,826	263,224	282,422	342,862	339,137	301,740	324,675
25-29	344,173	393,679	402,928	328,244	288,978	331,192	370,770	332,565	329,013
30-34	332,038	346,956	432,689	433,941	352,406	327,343	382,191	378,571	341,404
35-39	304,775	319,417	367,992	448,934	446,277	323,353	362,038	401,404	363,489
40-44	291,266	298,647	330,754	376,515	454,818	369,957	343,426	397,914	394,415
45-49	263,688	274,065	304,739	335,240	379,493	454,258	331,981	370,520	409,741
50-54	242,631	247,421	277,325	306,829	336,346	457,640	374,243	348,464	402,776
55-59	222,618	227,309	247,701	276,829	305,709	379,147	453,835	334,279	372,920
60-64	172,965	183,175	224,385	244,552	273,365	332,283	452,903	372,660	348,344
65-69	141,935	144,683	176,677	216,644	236,918	295,454	369,442	443,877	329,654
70-74	116,847	118,966	133,028	163,886	202,424	252,692	312,573	429,422	356,451
75-79	91,252	92,899	101,209	115,119	144,169	201,691	259,920	330,004	401,573
80-84	63,543	64,259	69,025	77,119	89,883	147,073	194,242	246,798	347,283
85-89	31,315	35,347	38,178	42,596	49,278	78,957	119,830	161,547	212,599
90-94	11,626	12,744	15,342	17,549	20,577	31,432	58,381	82,628	110,883
95-99	2,207	2,851	3,600	4,754	5,874	9,483	18,355	30,271	44,320
100+	341	0	453	668	966	1,876	3,698	7,807	12,459
Total	4,104,453	4,281,267	4,659,742	4,997,593	5,277,548	5,709,168	6,062,756	6,336,580	6,469,086
Population Summary									
0-19	1,147,281	1,165,466	1,241,890	1,344,951	1,407,612	1,372,476	1,315,792	1,366,112	1,367,086
20-64	2,498,106	2,644,052	2,880,338	3,014,308	3,119,815	3,318,034	3,410,523	3,238,116	3,286,778
65+	459,066	471,749	537,514	638,334	750,121	1,018,658	1,336,441	1,732,353	1,815,222
Total Labour Force	1,975,199	2,108,712	2,336,752	2,486,721	2,595,630	2,806,645	2,928,716	2,933,890	3,039,453
Dependancy Ratios									
Pensioner	5.44	5.60	5.36	4.72	4.16	3.26	2.55	1.87	1.81
Dependancy Ratio									
Support Ratio	1.56	1.61	1.62	1.52	1.45	1.39	1.29	1.05	1.03

ACTUARIAL REVIEW OF THE SOCIAL INSURANCE FUND

Central Scenario with I	Lower Migration								
Age Group	2005	2006	2011	2016	2021	2031	2041	2051	2061
0-4	299,907	308,357	339,332	334,182	305,306	254,292	272,330	260,850	226,808
5-9	281,813	289,943	318,970	344,901	338,638	273,645	265,776	277,763	246,471
10-14	273,866	273,726	295,975	321,973	347,218	312,162	261,230	279,282	267,823
15-19	291,696	293,439	270,538	290,894	316,387	335,377	270,525	262,692	274,671
20-24	323,951	353,382	276,427	242,091	259,494	310,160	275,290	224,560	242,577
25-29	344,173	393,679	380,672	280,967	241,308	284,214	303,280	238,733	230,973
30-34	332,038	346,956	419,525	392,053	289,333	267,217	317,787	283,148	232,689
35-39	304,775	319,417	360,617	424,863	395,675	254,063	296,781	315,757	251,657
40-44	291,266	298,647	326,456	362,804	425,710	295,077	273,287	323,516	289,226
45-49	263,688	274,065	302,179	327,139	362,789	396,957	257,175	299,667	318,637
50-54	242,631	247,421	275,346	301,388	325,983	424,249	296,189	275,005	325,025
55-59	222,618	227,309	246,170	272,628	298,532	359,212	394,352	257,418	299,831
60-64	172,965	183,175	223,103	241,182	267,743	319,384	417,777	293,603	273,593
65-69	141,935	144,683	175,622	213,859	232,417	286,274	348,178	384,159	252,763
70-74	116,847	118,966	132,462	162,081	199,146	245,891	299,112	394,871	279,864
75-79	91,252	92,899	100,941	114,241	142,264	197,038	251,160	310,336	346,797
80-84	63,543	64,259	68,874	76,697	89,017	144,304	188,696	235,860	319,005
85-89	31,315	35,347	38,124	42,425	48,940	77,758	116,930	155,996	199,812
90-94	11,626	12,744	15,315	17,487	20,460	31,075	57,238	80,257	105,993
95-99	2,207	2,851	3,598	4,741	5,850	9,402	18,072	29,540	42,830
100+	341	0	453	667	662	1,864	3,657	7,656	12,117
Total	4,104,453	4,281,267	4,570,699	4,769,262	4,913,207	5,079,615	5,184,825	5,190,669	5,039,162
Population Summary									
0-19	1,147,281	1,165,466	1,224,815	1,291,949	1,307,549	1,175,475	1,069,861	1,080,587	1,015,773
20-64	2,498,106	2,644,052	2,810,495	2,845,115	2,866,568	2,910,532	2,831,919	2,511,406	2,464,208
65+	459,066	471,749	535,390	632,198	739,090	993,607	1,283,044	1,598,675	1,559,181
Total Labour Force	1,975,199	2,108,712	2,279,680	2,345,067	2,382,262	2,461,986	2,444,342	2,319,238	2,311,388
Dependancy Ratios									
Pensioner	5.44	5.60	5.25	4.50	3.88	2.93	2.21	1.57	1.58
Dependancy Katio									
Support Ratio	1.56	1.61	1.60	1.48	1.40	1.34	1.20	0.94	0.96

APPENDIX D

Age Group	2005	2006	2011	2016	2021	2031	2041	2051	2061
0-4	297,839	308,357	321,797	304,752	278,497	232,573	239,680	218,347	188,073
5-9	281,813	289,943	318,970	327,379	309,224	251,054	240,060	238,047	205,774
10-14	273,866	273,726	295,975	321,973	329,702	285,372	239,522	246,647	225,337
15-19	291,696	293,439	270,538	290,894	316,387	306,012	247,969	237,013	235,011
20-24	323,951	353,382	276,427	242,091	259,494	292,705	248,591	202,923	210,044
25-29	344,173	393,679	380,672	280,967	241,308	284,214	274,026	216,256	205,380
30-34	332,038	346,956	419,525	392,053	289,333	267,217	300,411	256,565	211,142
35-39	304,775	319,417	360,617	424,863	395,675	254,063	296,781	286,691	229,321
40-44	291,266	298,647	326,456	362,804	425,710	295,077	273,287	306,279	262,854
45-49	263,688	274,065	302,179	327,139	362,789	396,957	257,175	299,667	289,819
50-54	242,631	247,421	275,346	301,388	325,983	424,249	296,189	275,005	307,952
55-59	222,618	227,309	246,170	272,628	298,532	359,212	394,352	257,418	299,831
60-64	172,965	183,175	223,103	241,182	267,743	319,384	417,777	293,603	273,593
65-69	141,935	144,683	175,622	213,859	232,417	286,274	348,178	384,159	252,763
70-74	116,847	118,966	132,462	162,081	199,146	245,891	299,112	394,871	279,864
75-79	91,252	92,899	100,941	114,241	142,264	197,038	251,160	310,336	346,797
80-84	63,543	64,259	68,874	76,697	89,017	144,304	188,696	235,860	319,005
85-89	31,315	35,347	38,124	42,425	48,940	77,758	116,930	155,996	199,812
90-94	11,626	12,744	15,315	17,487	20,460	31,075	57,238	80,257	105,993
95-99	2,207	2,851	3,598	4,741	5,850	9,402	18,072	29,540	42,830
100+	341	0	453	667	666	1,864	3,657	7,656	12,117
Total	4,102,385	4,281,267	4,553,165	4,722,311	4,839,469	4,961,694	5,008,865	4,933,136	4,703,312
Population Summary									
0-19	1,145,214	1,165,466	1,207,280	1,244,998	1,233,811	1,075,010	967,231	940,054	854,195
20-64	2,498,106	2,644,052	2,810,495	2,845,115	2,866,568	2,893,077	2,758,590	2,394,406	2,289,935
65+	459,066	471,749	535,390	632,198	739,090	993,607	1,283,044	1,598,675	1,559,181
Total Labour Force	1,975,199	2,108,712	2,279,680	2,345,067	2,357,488	2,365,947	2,248,060	2,053,036	1,954,656
Dependancy Ratios									
Pensioner	5.44	5.60	5.25	4.50	3.88	2.91	2.15	1.50	1.47
Dependancy Ratio									
Support Ratio	1.56	1.61	1.61	1.52	1.45	1.40	1.23	0.94	0.95

Central Scenario with Lower Migration, Lower Fertility and Participation Rates not Trended

ACTUARIAL REVIEW OF THE SOCIAL INSURANCE FUND

Number of Recipients for E	ach Benefit	- Central :	Scenario									
Benefit	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
State Pension (Contributory)	227,778	232,055	237,202	244,207	252,394	261,764	332,065	430,350	713,997	1,032,637	1,391,530	1,475,496
State Pension (Transition)	3,959	4,309	4,927	5,386	5,858	6,631	8,890	11,348	18,611	25,692	28,094	21,902
Widows'/Widowers' (Contributory) Pension	112,959	116,589	120,019	123,277	126,379	129,352	142,723	153,943	167,785	165,972	158,166	154,931
Jobseeker's Benefit	78,170	80,231	82,196	84,114	86,012	87,670	94,410	99,707	110,325	115,911	116,115	120,293
Deserted Wife's Benefit	9,717	9,272	8,843	8,430	8,033	7,650	5,943	4,540	2,420	1,017	262	27
Maternity Benefit	34,843	35,769	36,715	37,649	38,532	39,194	41,416	37,576	34,158	38,091	37,918	35,376
Health and Safety Benefit	311	319	328	336	344	350	369	335	305	340	338	316
Bereavement Grant	22,839	23,456	23,517	23,592	23,683	23,791	24,574	25,894	30,455	37,912	46,359	54,616
Widowed Parent Grant	1,225	1,247	1,254	1,256	1,257	1,256	1,213	1,168	1,057	962	788	704
Death Benefit Pension	678	695	712	726	739	750	790	817	867	900	860	861
Carers Benefit	891	908	930	955	982	1,015	1,206	1,417	1,924	2,525	3,273	3,430
Redundancy and Insolvency	24,043	24,617	25,160	25,685	26,202	26,643	28,353	29,595	32,001	33,393	33,452	34,655
Adoptive Parent Benefit	207	213	218	223	227	231	243	248	247	241	247	245
Illness Benefit	65,581	68,106	70,620	73,177	75,764	78,214	89,058	97,792	112,779	122,712	117,471	123,025
Invalidity Benefit	52,554	54,497	56,478	58,384	60,212	61,795	69,842	79,167	100,847	124,228	112,661	113,943
Household Benefits	205,466	210,397	215,667	221,764	228,350	235,351	281,797	342,323	505,663	680,293	854,280	896,032
Package												
Treatment Benefit	882,353	901,782	921,528	941,583	962,328	980,631	1,057,936	1,110,174	1,199,241	1,271,635	1,293,376	1,303,613
Guardian's Payment (Contributory)	1,225	1,227	1,232	1,239	1,252	1,265	1,343	1,415	1,416	1,359	1,387	1,401
Injury Benefit	19,082	19,568	20,016	20,468	20,925	21,317	22,980	24,033	25,664	26,665	25,979	26,759
Disablement Benefit	10,728	11,065	11,413	11,762	12,126	12,479	14,353	16,334	20,427	24,275	27,153	29,484
Total Recipients	1,754,609	1,796,323	1,838,973	1,884,214	1,931,600	1,977,349	2,219,504	2,468,174	3,080,189	3,706,760	4,249,708	4,397,112

Note: Some individuals may be receiving benefit under more than one heading above - e.g. Household Benefits and State Pension.

APPENDIX D

Appendix E Fund Projections

This Appendix includes detailed fund projections using the central economic scenario, based on various different benefit uprating formulae, as described in the main body of the report.

Each table includes projected annual benefit outgo, contribution income and investment income with fund values at the start and end of the relevant periods. The tables also show the projected contribution surplus or deficit over benefit payments for each period as well as the % increase in current contribution levels that would be required to 'breakeven' on a pay-as-you-go basis.

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,958	3,093	3,194	3,252	3,248	931	0	0	0	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,117	6,352	7,511	8,669	11,016	13,391	15,569	18,718
Employee	1,386	1,428	1,494	1,562	1,632	1,695	2,002	2,309	2,929	3,559	4,138	4,975
Self-Employed	426	445	466	486	508	526	619	709	890	1,078	1,253	1,507
Total Contributions	6,891	7,220	7,558	7,902	8,256	8,573	10,132	11,687	14,836	18,028	20,959	25,199
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,884	3,040	3,216	3,405	4,756	6,710	12,676	21,549	33,812	41,993
State Pension (Transition)	77	50	58	65	72	84	124	174	330	529	672	608
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,301	1,368	1,435	1,499	1,829	2,172	2,760	3,179	3,524	4,019
Jobseeker's Benefit	510	574	602	630	629	685	815	945	1,214	1,480	1,721	2,069
Deserted Wife's Benefit	95	98	96	93	91	88	76	64	41	21	9	-
Maternity Benefit	175	218	235	247	258	268	312	311	329	425	491	532
Health and Safety Benefit	0	0	0	0	0	0	-	-	-	-	-	-
Bereavement Grant	15	19	20	20	21	22	25	28	39	56	80	109
Widowed Parent Grant	က	ŋ	Q	Q	2	2	9	9	9	7	9	7
Death Benefit Pension	7	8	8	6	6	10	11	13	16	19	21	24
Carers Benefit	11	11	12	13	13	14	18	24	37	57	86	104
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	-	-	-	-	-	2	2	2	2	က	S
Illness Benefit	640	729	774	820	869	915	1,155	1,395	1,843	2,307	2,580	3,124
Invalidity Benefit	536	909	642	679	716	750	936	1,165	1,723	2,463	2,592	3,042
Household Benefits Package	213	264	276	291	306	322	426	568	974	1,521	2,216	2,698
Treatment Benefit	72	75	79	82	86	60	107	124	156	195	234	277
Guardian's Payment (Contributory)	6	10	10	10	11	11	13	15	18	19	23	27
Injury Benefit	16	18	19	20	21	22	26	30	37	45	50	90
Medical Care	0	0	0	0	0	0	0	-	-	-	-	_
Disablement Benefit	77	86	91	96	102	107	136	170	245	337	436	550
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,114	7,517	7,907	8,324	8,741	11,284	14,497	23,163	35,082	49,590	60,503
Contribution Surplus (Contributions less Benefits)	452	106	41	-4	-68	-167	-1,152	-2,810	-8,327	-17,054	-28,631	-35,304
Investment Income	119	101	136	140	143	127	37	0	0	0	0	0
Net Expenditure	571	207	177	136	75	-40	-1,115	-2,810	-8,327	-17,054	-28,631	-35,304
Asset Value at Year End	2,958	3,093	3,194	3,252	3,248	3,144	0	0	0	0	0	0
PAYG Contribution Multiple	93.4%	98.5%	99.5%	100.1%	100.8%	102.0%	111.4%	124.0%	156.1%	194.6%	236.6%	240.1%

Benefits Increased at Earnings Growth

APPENDIX E

Benefits Increased at Price Inflation

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,959	3,096	3,372	3,770	4,333	8,058	12,655	17,837	9,193	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,138	6,374	7,562	8,778	11,185	13,662	15,917	19,168
Employee	1,386	1,428	1,512	1,575	1,663	1,720	2,012	2,283	2,801	3,196	3,469	3,795
Self-Employed	426	445	466	486	507	526	617	706	886	1,072	1,245	1,496
Total Contributions	6,891	7,220	7,575	7,915	8,307	8,620	10,191	11,768	14,872	17,929	20,631	24,459
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,819	2,905	3,004	3,118	3,945	5,066	8,246	12,078	16,330	17,476
State Pension (Transition)	44	50	57	62	68	77	103	131	215	297	324	253
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,272	1,307	1,340	1,372	1,517	1,640	1,795	1,782	1,702	1,673
Jobseeker's Benefit	510	574	588	602	616	627	676	714	790	830	831	861
Deserted Wife's Benefit	95	98	93	89	85	81	63	48	27	12	က	0
Maternity Benefit	175	218	235	247	258	268	294	267	243	271	269	251
Health and Safety Benefit	0	0	0	0	0	0	0	0	0	0	0	0
Bereavement Grant	15	19	20	20	20	20	20	21	25	31	38	45
Widowed Parent Grant	က	2 2	Ð	Q	2	2	Q	Q	4	4	က	က
Death Benefit Pension	7	8	œ	ω	6	6	6	10	10	10	10	10
Carers Benefit	11	11	12	12	12	13	15	18	24	32	41	43
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	, 	-		, -	-	2	2	2	2	2	2
Illness Benefit	640	729	756	784	811	838	958	1,053	1,199	1,293	1,246	1,300
Invalidity Benefit	536	909	628	649	699	687	776	880	1,121	1,380	1,252	1,266
Household Benefits Package	213	264	270	278	286	295	353	429	634	852	1,070	1,123
Treatment Benefit	71	73	75	76	78	79	86	60	98	106	109	111
Guardian's Payment (Contributory)	6	10	10	10	10	10	11	11	11	11	11	11
Injury Benefit	16	18	19	19	20	20	22	23	24	25	24	25
Medical Care	0	0	0	0	0	0	0	0	0	0	0	0
Disablement Benefit	77	86	89	92	95	98	113	128	160	189	211	229
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,112	7,360	7,582	7,818	8,062	9,478	11,115	15,343	20,075	24,515	25,938
Contribution Surplus (Contributions less Benefits)	452	108	216	332	485	558	713	653	-472	-2,146	-3,884	-1,478
Investment Income	119	101	136	148	166	170	316	496	700	361	0	0
Net Expenditure	572	209	352	480	655	728	1,029	1,149	228	-1,785	-3,884	-1,478
Asset Value at Year End	2,959	3,096	3,372	3,770	4,333	4,976	8,929	13,556	17,716	7,228	0	0
PAYG Contribution Multiple	93.4%	98.5%	97.2%	95.8%	94.1%	93.5%	93.0%	94.5%	103.2%	112.0%	118.8%	106.0%

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,958	3,093	3,144	3,093	2,914	0	0	0	0	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,117	6,352	7,511	8,669	11,016	13,391	15,569	18,718
Employee	1,386	1,428	1,494	1,562	1,632	1,695	2,002	2,309	2,929	3,559	4,138	4,975
Self-Employed	426	445	466	486	508	526	619	709	890	1,078	1,253	1,507
Total Contributions	6,891	7,220	7,558	7,902	8,256	8,573	10,132	11,687	14,836	18,028	20,959	25,199
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,920	3,116	3,338	3,579	5,345	7,668	14,572	24,831	39,033	48,458
State Pension (Transition)	44	50	59	67	76	89	142	202	384	616	781	707
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,315	1,397	1,481	1,564	2,019	2,430	3,096	3,572	3,976	4,552
Jobseeker's Benefit	510	574	602	630	629	685	815	945	1,214	1,480	1,721	2,069
Deserted Wife's Benefit	95	98	96	94	92	89	80	71	47	24	7	-
Maternity Benefit	175	218	235	247	258	268	312	311	329	425	491	532
Health and Safety Benefit	0	0	0	0	0	0	-	-	-	-		-
Bereavement Grant	15	19	20	20	21	22	25	28	39	56	80	109
Widowed Parent Grant	က	Q	2	Q	Q	2	9	9	9	7	9	7
Death Benefit Pension	7	8	ω	6	6	10	11	13	16	19	21	24
Carers Benefit	11	11	12	13	13	14	18	24	37	57	86	104
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	-	-	-		-	2	2	2	2	က	က
Illness Benefit	640	729	774	820	869	915	1,155	1,395	1,843	2,307	2,580	3,124
Invalidity Benefit	536	909	642	679	716	750	936	1,165	1,723	2,463	2,592	3,042
Household Benefits Package	213	264	276	291	306	322	426	568	974	1,521	2,216	2,698
Treatment Benefit	72	75	79	82	86	60	107	124	156	195	234	277
Guardian's Payment (Contributory)	6	10	10	10	11	11	13	15	18	19	23	27
Injury Benefit	16	18	19	20	21	22	26	30	37	45	50	90
Medical Care	0	0	0	0	0	0	0	-	-	-	<u> </u>	-
Disablement Benefit	77	86	91	96	102	107	136	170	245	337	436	550
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,114	7,567	8,014	8,497	8,987	12,084	15,748	25,455	38,846	55,374	67,600
Contribution Surplus (Contributions less Benefits)	452	106	6-	-112	-240	-413	-1,952	-4,061	-10,619	-20,818	-34,415	-42,401
Investment Income	119	101	136	138	136	114	0	0	0	0	0	0
Net Expenditure	571	207	127	26	-104	-299	-1,952	-4,061	-10,619	-20,818	-34,415	-42,401
Asset Value at Year End	2,958	3,093	3,144	3,093	2,914	2,558	0	0	0	0	0	0
PAYG Contribution Multiple	93.4%	98.5%	100.1%	101.4%	102.9%	104.8%	119.3%	134.7%	171.6%	215.5%	264.2%	268.3%

Benefits Increased at Earnings Growth with Pension Uplifted to 40% GAIE

APPENDIX E

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Benefits Increased at Earnings Grow

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,958	3,093	3,068	2,851	2,398	0	0	0	0	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,117	6,352	7,511	8,669	11,016	13,391	15,569	18,718
Employee	1,386	1,428	1,494	1,562	1,632	1,695	2,002	2,309	2,929	3,559	4,138	4,975
Self-Employed	426	445	466	486	508	526	619	709	890	1,078	1,253	1,507
Total Contributions	6,891	7,220	7,558	7,902	8,256	8,573	10,132	11,687	14,836	18,028	20,959	25,199
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,973	3,232	3,528	3,856	6,373	9,376	17,949	30,678	48,335	59,977
State Pension (Transition)	<u>44</u>	50	09	70	81	67	173	252	480	770	977	884
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,336	1,442	1,554	1,668	2,351	2,890	3,695	4,272	4,783	5,500
Jobseeker's Benefit	510	574	602	630	629	685	815	945	1,214	1,480	1,721	2,069
Deserted Wife's Benefit	95	98	96	94	93	91	89	83	59	30	6	-
Maternity Benefit	175	218	235	247	258	268	312	311	329	425	491	532
Health and Safety Benefit	0	0	0	0	0	0	-	<u> </u>	-	—	-	-
Bereavement Grant	15	19	20	20	21	22	25	28	39	56	80	109
Widowed Parent Grant	က	2	Q	Q	Q	Q	9	9	9	7	9	7
Death Benefit Pension	7	8	8	6	6	10	11	13	16	19	21	24
Carers Benefit	11	11	12	13	13	14	18	24	37	57	86	104
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	-	-	-	-	-	2	2	2	2	c	S
Illness Benefit	640	729	774	820	869	915	1,155	1,395	1,843	2,307	2,580	3,124
Invalidity Benefit	536	909	642	679	716	750	936	1,165	1,723	2,463	2,592	3,042
Household Benefits Package	213	264	276	291	306	322	426	568	974	1,521	2,216	2,698
Treatment Benefit	72	75	79	82	86	60	107	124	156	195	234	277
Guardian's Payment (Contributory)	6	10	10	10	11	11	13	15	18	19	23	27
Injury Benefit	16	18	19	20	21	22	26	30	37	45	50	90
Medical Care	0	0	0	0	0	0	0	-	-	-	-	_
Disablement Benefit	77	86	91	96	102	107	136	170	245	337	436	550
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,114	7,643	8,179	8,766	9,378	13,484	17,978	29,538	45,553	65,680	80,244
Contribution Surplus (Contributions less Benefits)	452	106	-85	-277	-509	-804	-3,352	-6,291	-14,702	-27,525	-44,721	-55,045
Investment Income	119	101	136	135	125	54	0	0	0	0	0	0
Net Expenditure	571	207	51	-142	-384	-710	-3,352	-6,291	-14,702	-27,525	-44,721	-55,045
Asset Value at Year End	2,958	3,093	3,068	2,851	2,398	1,640	0	0	0	0	0	0
PAYG Contribution Multiple	93.4%	98.5%	101.1%	103.5%	106.2%	109.4%	133.1%	153.8%	199.1%	252.7%	313.4%	318.4%

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,958	3,093	2,916	2,677	2,355	0	0	0	0	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,117	6,352	7,511	8,669	11,016	13,391	15,569	18,718
Employee	1,386	1,428	1,494	1,562	1,632	1,695	2,002	2,309	2,929	3,559	4,138	4,975
Self-Employed	426	445	466	486	508	526	619	709	890	1,078	1,253	1,507
Total Contributions	6,891	7,220	7,558	7,902	8,256	8,573	10,132	11,687	14,836	18,028	20,959	25,199
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,884	3,040	3,216	3,405	4,756	6,710	12,676	21,549	33,812	41,993
State Pension (Transition)	44	20	58	65	72	84	124	174	330	529	672	608
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,335	1,403	1,472	1,537	1,873	2,221	2,817	3,242	3,584	4,078
Jobseeker's Benefit	510	574	680	712	745	774	921	1,068	1,372	1,673	1,945	2,338
Deserted Wife's Benefit	95	98	104	101	98	95	80	67	41	21	9	1
Maternity Benefit	175	218	235	247	258	268	312	311	329	425	491	532
Health and Safety Benefit	0	0	0	0	0	0	-	-	-	-	-	1
Bereavement Grant	15	19	20	20	21	22	25	28	39	56	80	109
Widowed Parent Grant	က	ŋ	Q	Q	Q	Q	9	9	9	7	9	7
Death Benefit Pension	7	8	8	6	6	10	11	13	16	19	21	24
Carers Benefit	11	11	12	13	13	14	18	24	37	57	86	104
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	-	-	-	-	-	2	2	2	2	c	S
Illness Benefit	640	729	864	915	970	1,021	1,289	1,556	2,059	2,580	2,883	3,492
Invalidity Benefit	536	909	704	744	785	822	1,025	1,277	1,888	2,699	2,840	3,334
Household Benefits Package	213	264	276	291	306	322	426	568	974	1,521	2,216	2,698
Treatment Benefit	72	75	79	82	86	60	107	124	156	195	234	277
Guardian's Payment (Contributory)	6	10	14	14	14	15	17	20	23	26	31	36
Injury Benefit	16	18	22	23	24	25	29	34	42	50	57	68
Medical Care	0	0	0	0	0	0	0	-	-	-	-	-
Disablement Benefit	77	86	91	96	102	107	136	170	245	337	436	550
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,114	7,795	8,199	8,630	9,060	11,670	14,953	23,770	35,858	50,440	61,508
Contribution Surplus (Contributions less Benefits)	452	106	-237	-296	-374	-486	-1,537	-3,266	-8,934	-17,830	-29,480	-36,309
Investment Income	119	101	136	128	118	92	0	0	0	0	0	0
Net Expenditure	571	207	-101	-168	-256	-394	-1,537	-3,266	-8,934	-17,830	-29,480	-36,309
Asset Value at Year End	2,958	3,093	2,916	2,677	2,355	1,915	0	0	0	0	0	0
PAYG Contribution Multiple	93.4%	98.5%	103.1%	103.8%	104.5%	105.7%	115.2%	127.9%	160.2%	198.9%	240.7%	244.1%

Benefits Uplifted to SILC Index and Increased at Earnings Growth

APPENDIX E

ACTUARIAL REVIEW OF THE SOCIAL INSURANCE FUND

	2006	2007	2008	2009	2010	2011	2016	2021	2031	2041	2051	2061
Fund Value at Start of Year	2,387	2,958	3,093	3,070	2,998	2,859	0	0	0	0	0	0
Contributions (€ million)												
Employer	5,080	5,347	5,598	5,854	6,117	6,352	7,511	8,669	11,016	13,391	15,569	18,718
Employee	1,386	1,428	1,494	1,562	1,632	1,695	2,002	2,309	2,929	3,559	4,138	4,975
Self-Employed	426	445	466	486	508	526	619	709	890	1,078	1,253	1,507
Total Contributions	6,891	7,220	7,558	7,902	8,256	8,573	10,132	11,687	14,836	18,028	20,959	25,199
Benefits Payable												
State Pension (Contributory)	2,506	2,717	2,884	3,040	3,216	3,405	4,756	6,710	12,676	21,549	33,812	41,993
State Pension (Transition)	44	50	58	65	72	84	124	174	330	529	672	608
Widows'/Widowers' (Contributory) Pension	1,126	1,235	1,300	1,366	1,433	1,496	1,822	2,162	2,742	3,158	3,502	3,993
Jobseeker's Benefit	510	574	601	628	657	682	808	934	1,194	1,451	1,682	2,020
Deserted Wife's Benefit	95	98	96	93	90	88	75	64	41	21	9	-
Maternity Benefit	175	218	235	247	258	268	312	311	329	425	491	532
Health and Safety Benefit	0	0	0	0	0	0	-	-	-	-	-	-
Bereavement Grant	15	19	20	20	21	22	25	28	39	56	80	109
Widowed Parent Grant	က	IJ	D	Q	IJ	D	9	9	9	7	9	7
Death Benefit Pension	7	œ	œ	6	6	10	11	13	16	19	21	24
Carers Benefit	11	11	140	147	154	163	213	276	434	661	666	1,210
Redundancy and Insolvency	169	168	176	184	192	199	234	268	336	407	474	570
Adoptive Parent Benefit	-	-	, -	-	-	, -	2	2	2	2	c	က
Illness Benefit	640	729	773	818	865	911	1,144	1,377	1,814	2,268	2,528	3,058
Invalidity Benefit	536	909	641	678	714	747	930	1,155	1,701	2,426	2,549	2,988
Household Benefits Package	213	264	276	291	306	322	426	568	974	1,521	2,216	2,698
Treatment Benefit	72	75	79	82	86	60	107	124	156	195	234	277
Guardian's Payment (Contributory)	6	10	10	10	11	11	13	15	18	19	23	27
Injury Benefit	16	18	19	20	21	22	26	30	37	77	20	59
Medical Care	0	0	0	0	0	0	0	-	-	-	-	-
Disablement Benefit	77	86	91	96	102	107	136	170	245	337	436	550
Administration	214	220	226	232	239	245	277	311	379	462	562	685
Total Benefits	6,439	7,114	7,641	8,034	8,455	8,876	11,447	14,698	23,471	35,559	50,343	61,412
Contribution Surplus (Contributions less Benefits)	452	106	-83	-132	-198	-302	-1,315	-3,011	-8,635	-17,531	-29,384	-36,213
Investment Income	119	101	136	135	132	112	0	0	0	0	0	0
Net Expenditure	571	207	53	e	-67	-190	-1,315	-3,011	-8,635	-17,531	-29,384	-36,213
Asset Value at Year End	2,958	3,093	3,070	2,998	2,859	2,613	0	0	0	0	0	0
PAYG Contribution Multiple	%7 86	98.5%	101 1%	101 7%	102 4%	103 5%	113.0%	125.8%	158.2%	197.2%	240.2%	243.7%

Appendix F Sensitivity Analysis

This Appendix sets out details of the key assumptions underlying each of the economic scenarios discussed in the report. The central scenario is the basis of the core of the report's results, with sensitivity analysis being carried out on the other scenarios. The detailed results of these sensitivity analyses are also included in this Appendix; in each case, the sensitivity analysis assumes benefit levels uprated in line with earnings.

		2007-	2011-	2016-	2021-	2026-
		2010	2015	2020	2025	2061
	Net Migration	40,000	30,000	20,000	20,000	15,000
	Labour Force	CSO Base	CSO Base	Trended	Trended	Trended
Central	Real GNP Growth	4.5% p.a	3.5% p.a.	3.0% p.a.	2.0% p.a.	2.0% p.a.
Scenario	Employment Growth	2.2% p.a.	1.5% p.a.	1.0% p.a.	0.5% p.a.	0.5% p.a.
	Unemployment Rate	4.4%	4.4%	4.4%	4.4%	4.4%
	Net Migration	25,000	5,000	Nil	Nil	Nil
Central	Labour Force	CSO Base	CSO Base	Trended	Trended	Trended
Scenario	Real GNP Growth	4.1% p.a.	2.7% p.a.	2.3% p.a.	1.4% p.a.	2.0% p.a.
Migration	Employment Growth	1.8% p.a.	0.7% p.a.	0.3% p.a.	-0.1% p.a.	-0.1% p.a.
	Unemployment Rate	4.4%	4.4%	4.4%	4.4%	4.4%
	Net Migration	25,000	5,000	Nil	Nil	Nil
	Labour Force	CSO Base	CSO Base	Constant	Constant	Constant
Low Growth	Real GNP Growth	3.8% p.a.	2.2% p.a.	1.2% p.a.	0.5% p.a.	0.5% p.a.
Scenario	Employment Growth	1.8% p.a.	0.7% p.a.	0.2% p.a.	-0.5% p.a.	-0.5% p.a.
	Unemployment Rate	4.4%	4.4%	4.4%	4.4%	4.4%
Low Growth	Net Migration	25,000	5,000	Nil	Nil	Nil
Scenario with	Labour Force	CSO Base	CSO Base	Constant	Constant	Constant
Higher	Real GNP Growth	3.8% p.a.	2.1% p.a.	1.0% p.a.	0.5% p.a.	0.5% p.a.
Unemployment	Employment Growth	1.8% p.a.	0.6% p.a.	Nil	-0.5% p.a.	-0.5% p.a.
Rate	Unemployment Rate	4.4%	5.0%	6.0%	8.0%	8.0%

Table F.1: Key Assumptions Varied for Sensitivity Analysis

		Central So	cenario			Central Scer	nario with	
	Income ¹⁴ (€ billion)	Expenditure (€ billion)	Deficit ¹⁵ (€ billion)	Net Cost ¹⁶ (as % of GNP)	L Income ¹⁴ (€ billion)	Expenditure (€ billion)	Deficit ¹⁵ (€ billion)	Net Cost ¹⁶ (as % of GNP)
2006	6.9	6.4	0.5	0.4%	6.9	6.4	0.5	0.4%
2007	7.2	7.1	0.1	0.1%	7.2	7.1	0.1	0.1%
2008	7.6	7.5	0.1	0.1%	7.5	7.5	0.0	0.1%
2009	7.9	7.9	0.0	0.1%	7.8	7.9	(0.1)	0.0%
2010	8.3	8.3	0.0	0.0%	8.1	8.3	(0.2)	(0.0%)
2011	8.6	8.7	(0.1)	(0.0%)	8.4	8.7	(0.3)	(0.1%)
2016	10.1	11.3	(1.2)	(0.5%)	9.6	11.1	(1.5)	(0.7%)
2021	11.7	14.5	(2.8)	(1.1%)	10.7	14.1	(3.4)	(1.5%)
2031	14.8	23.2	(8.4)	(2.7%)	13.0	22.2	(9.2)	(3.5%)
2041	18.0	35.1	(17.1)	(4.6%)	15.0	32.9	(17.9)	(5.9%)
2051	21.0	49.6	(28.6)	(6.3%)	16.6	44.7	(28.1)	(8.2%)
2061	25.2	60.5	(35.3)	(6.4%)	19.2	51.4	(32.2)	(8.1%)

Table F.2: Income and Expenditure – Lower Migration Assumption (Benefits - Earnings Uprating)

Under the Central Scenario with Lower Migration, the decrease in migration impacts the labour force over the period of the review and hence decreases contribution income. This results in a larger deficit as a % of GNP by more than the decrease in benefit outgo, albeit smaller in absolute terms.

		Low Growth	Scenario		Low	Growth Scena Unemplo	rio with Hig yment	her
	Income ¹⁴ (€ billion)	Expenditure (€ billion)	Deficit ¹⁵ (€ billion)	Net Cost ¹⁶ (as % of GNP)	Income ¹⁴ (€ billion)	Expenditure (€ billion)	Deficit ¹⁵ (€ billion)	Net Cost ¹⁶ (as % of GNP)
2006	6.9	6.4	0.5	0.4%	6.9	6.4	0.5	0.4%
2007	7.2	7.1	0.1	0.1%	7.2	7.1	0.1	0.1%
2008	7.4	7.5	(0.1)	0.1%	7.4	7.5	(0.1)	0.1%
2009	7.7	7.8	(0.1)	0.0%	7.7	7.8	(0.1)	0.0%
2010	8.0	8.2	(0.2)	(0.0%)	8.0	8.2	(0.2)	(0.0%)
2011	8.2	8.5	(0.3)	(0.1%)	8.2	8.7	(0.5)	(0.2%)
2016	9.1	10.6	(1.5)	(0.8%)	9.0	10.9	(1.9)	(1.0%)
2021	9.7	12.9	(3.2)	(1.5%)	9.3	13.7	(4.4)	(2.1%)
2031	10.9	19.1	(8.2)	(3.8%)	10.5	20.1	(9.6)	(4.5%)
2041	11.5	26.8	(15.3)	(6.7%)	11.0	27.8	(16.8)	(7.5%)
2051	11.6	34.7	(23.1)	(9.7%)	11.1	35.7	(24.6)	(10.4%)
2061	12.2	37.7	(25.5)	(10.1%)	11.7	38.8	(27.1)	(10.9%)

Table F.3: Income and Expenditure – Alternative Economic Scenarios

14. Contribution Income.

15. Contribution Income over Expenditure.

16. Total Income (including Investment Income) over Expenditure.

Under both low growth scenarios, benefits and contributions fall, therefore the deficit amount falls relative to the Central Scenario. However, as GNP growth has also fallen, the deficit is a higher proportion of GNP than under the Central Scenario.

Net Contingent Liabilities of the Fund

The Net Contingent Liabilities of the Fund are calculated as the present value of the difference between projected contribution income and benefit outgo (Central Assumptions) over the period in question. On the basis of the forgoing, the Net Contingent Liabilities of the Fund are as follows:

	Present Value of Future Deficit	Year Current Fund Exhausted
Central - Earnings Growth	€331 Billion	2016
Central with Lower Migration Assumption	€339 Billion	2015
Low Growth Scenario	€287 Billion	2015
Low Growth Scenario with Higher Unemployment	€318 Billion	2014

Table F.4: Net Present Value of Deficit and Period until Fund Exhausted

Break-Even Contribution Rates

We have projected the increase or reduction in the current contribution rates that would be required over the period 2008 to 2061 to ensure that the aggregate contributions exactly match benefits for the periods in question. We have ignored the current accumulated surplus in this exercise and assumed that any future excess of contributions to benefit outgo would be invested at a real yield of 2% per annum.

Table F.5: PAYG Contribution Rates – Break-Even Rates

	Contribution Rate
Central - Earnings Growth	174%
Central with Lower Migration Assumption	187%
Low Growth Scenario	191%
Low Growth Scenario with Higher Unemployment	203%

It will be noted from **Tables F.4 and F.5 above** that, under the Low Growth Scenario, the present value of the future deficit is smaller than under the Central Scenario, while, at the same time, the break-even contribution rate is higher. This is due to the fact that, under the Low Growth Scenario, the projected population and labour force is smaller and earnings growth is lower than under the Central Scenario. The smaller population/ labour force will result in lower benefits being paid, and the smaller labour force and lower earnings growth will also reduce contributions. The reduction in both earnings and contributions reduces the nominal deficit amount and hence gives a lower present value of future deficit. However, although benefits, contributions and deficits are lower under the Low Growth Scenario, the benefit outgo has decreased by less than the contributions - so the contribution multiple required increases relative to the Central Scenario.

Appendix G Project Steering Committee

Department of Social and Family Affairs

- David Dillon (Chairperson)
- Kevin Coady
- JP Dunham
- Maeve Harold
- Siobhán Lawlor
- Seán McGarry
- Paul Morrin
- Seán Reilly
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- John Bohan
- Edna Dowling
- Aodhnait Doyle
- Pat McDonnell
- Denise Murphy
- Seámus Tuohy

Department of Finance

- John McCarthy
- Loretta O'Sullivan

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