

Actuarial Report

(11th)

Supplementing the Actuarial Report on the

OLD AGE SECURITY PROGRAM

As at 31 December 2009



Office of the Superintendent of
Financial Institutions Canada

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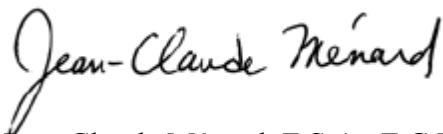
18 July 2012

The Honourable Diane Finley, P.C., M.P.
Minister of Human Resources and Skills Development Canada
House of Commons
Ottawa, Canada
K1A 0G5

Dear Minister:

In accordance with section 4 of the *Public Pensions Reporting Act*, which provides that the Minister shall cause the Chief Actuary to conduct an actuarial review when an amendment is made to the *Old Age Security Act* that affects the cost of benefits, I am pleased to submit the 11th Actuarial Report on the Old Age Security Program.

Yours sincerely,

A handwritten signature in black ink that reads "Jean-Claude Ménard". The signature is written in a cursive, flowing style.

Jean-Claude Ménard, F.S.A., F.C.I.A.
Chief Actuary

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I. Executive Summary

This is the 11th Actuarial Report on the Old Age Security (OAS) Program since the inception of the *Old Age Security Act* in 1952. It has been prepared in compliance with section 4 of the *Public Pensions Reporting Act* (PPRA), which provides that:

“Where an amendment is made to a pension plan referred to in subsection 3(1) and the amendment affects the cost of benefits or creates an initial unfunded liability, the Minister shall cause the Chief Actuary to conduct an actuarial review of the plan as of the effective date of the amendment.”

The previous actuarial report on the OAS Program, the 10th Actuarial Report Supplementing the Actuarial Report on the Old Age Security Program as at 31 December 2009, was prepared pursuant to section 4 of the PPRA to show the effect of the top-up of the Guaranteed Income Supplement (GIS) and Allowance benefits, effective 1 July 2011, on the long-term financial status of the OAS Program. The 10th Actuarial Report was tabled in the House of Commons on 4 November 2011. Pursuant to section 4 of the PPRA, this 11th Actuarial Report has been prepared on the basis of the 10th Actuarial Report to show the effect of Part 4 of Bill C-38 on the long-term financial status of the OAS Program.

Bill C-38, *An Act to implement certain provisions of the budget tabled in Parliament on March 29, 2012 and other measures*, was tabled in the House of Commons on 26 April 2012 and received Royal Assent on 29 June 2012. Part 4 of Bill C-38 amends the *Old Age Security Act* to gradually increase the age of eligibility for the basic OAS pension and GIS benefits from 65 to 67, commencing 1 April 2023 with full implementation by January 2029. The ages at which the Allowance and Allowance for the Survivor benefits are provided will increase in line with the eligible age for the OAS pension and GIS benefits, from between 60 and 64 to between 62 and 66, starting in April 2023.

To improve flexibility and choice in the OAS Program, the Government will also allow for the voluntary deferral of the OAS pension, for up to five years, starting on 1 July 2013. This will give individuals the option to defer take-up of their OAS pension to a later time and subsequently receive an actuarially-adjusted higher pension. For example, individuals could continue to work longer and defer taking up their OAS pension beyond age 65, resulting in a higher annual pension starting in a subsequent year. The deferred pensions will be actuarially adjusted upward by 0.6% per month for each month after the first eligible age. GIS and Allowance benefits will not be provided on an actuarially adjusted basis.

In addition, the Government will improve services for seniors by putting in place a proactive enrolment regime that will eliminate the need for many seniors to apply for the OAS pension and the GIS. This measure will reduce the burden on seniors of completing application processes and will reduce the Government's administrative costs. Proactive enrolment will be implemented in a phased-in approach from 2013 to 2016.

A. Main Findings

- Prior to the increase to the age of eligibility, projected total Program expenditures are respectively \$32 million and \$102 million lower in 2013 and 2022 than under the 10th OAS Program Actuarial Report. During this period, it is assumed that 5 percent of individuals turning 65 will voluntarily defer receiving their OAS pension in exchange for an actuarially-adjusted higher pension. As such, this will result in initial net savings to the OAS Program, which will be offset in the future by higher costs associated with providing a higher pension to those who deferred.
- Between 2023 and 2030, as a result of the gradual increase in the age of eligibility from 65 to 67 and the voluntary deferral, the projected total Program expenditures will be reduced by \$526 million in 2023 and \$10.8 billion in 2030 as compared to the 10th OAS Program Actuarial Report projections.
- By 2030, the projected numbers of OAS and GIS beneficiaries are respectively lower by about 1 million and 230,000 compared to the 10th OAS Program Actuarial Report.
- By 2030, it is projected that between 550,000 and 1.1 million beneficiaries will be receiving a higher OAS pension as a result of the voluntary deferral, with corresponding increases in their pensions of between \$475 million and \$967 million.

II. Introduction

This report has been prepared in compliance with section 4 of the *Public Pensions Reporting Act*, which provides that:

“Where an amendment is made to a pension plan referred to in subsection 3(1) and the amendment affects the cost of benefits or creates an initial unfunded liability, the Minister shall cause the Chief Actuary to conduct an actuarial review of the plan as of the effective date of the amendment.”

The previous actuarial report on the OAS Program, the 10th Actuarial Report Supplementing the Actuarial Report on the Old Age Security Program as at 31 December 2009, was prepared pursuant to section 4 of the PPRA to show the effect of the top-up of the GIS and Allowance benefits, effective 1 July 2011, on the long-term financial status of the OAS Program. The 10th Actuarial Report was tabled in the House of Commons on 4 November 2011. Pursuant to section 4 of the PPRA, this 11th Actuarial Report has been prepared on the basis of the 10th Actuarial Report to show the effect of Part 4 of Bill C-38 on the long-term financial status of the OAS Program.

III. Description of Part 4 of Bill C-38

Bill C-38, *An Act to implement certain provisions of the budget tabled in Parliament on March 29, 2012 and other measures*, was tabled in the House of Commons on 26 April 2012 and received Royal Assent on 29 June 2012. Part 4 of Bill C-38 amends the *Old Age Security Act* to gradually increase the age of eligibility for the basic OAS pension and GIS benefits from 65 to 67, commencing 1 April 2023 with full implementation by January 2029. The ages at which the Allowance and Allowance for the Survivor benefits are provided will increase in line with the eligible age for the OAS pension and GIS benefits, from between 60 and 64 to between 62 and 66, starting in April 2023.

To improve flexibility and choice in the OAS Program, the Government will also allow for the voluntary deferral of the OAS pension, for up to five years, starting on 1 July 2013. This will give individuals the option to defer take-up of their OAS pension to a later time and subsequently receive an actuarially-adjusted higher pension. For example, individuals could continue to work longer and defer taking up their OAS pension beyond age 65, resulting in a higher annual pension starting in a subsequent year. The deferred pensions will be actuarially adjusted upward by 0.6% per month for each month after the first eligible age. GIS and Allowance benefits will not be provided on an actuarially adjusted basis.

In addition, the Government will improve services for seniors by putting in place a proactive enrolment regime that will eliminate the need for many seniors to apply for the OAS pension and the GIS. This measure will reduce the burden on seniors of completing application processes and will reduce the Government's administrative costs. Proactive enrolment will be implemented in a phased-in approach from 2013 to 2016.

Table 1 presents the scheduled increase in the ages of eligibility for OAS Program benefits.

Table 1 Increase in OAS Program Ages of Eligibility

Basic OAS Pension and GIS					
Month of Birth	Year of Birth				
	1958	1959	1960	1961	1962
January	65	65 + 5 mo	65 + 11 mo	66 + 5 mo	66 + 11 mo
February – March	65	65 + 6 mo	66	66 + 6 mo	67
April – May	65 + 1 mo	65 + 7 mo	66 + 1 mo	66 + 7 mo	67
June – July	65 + 2 mo	65 + 8 mo	66 + 2 mo	66 + 8 mo	67
August – September	65 + 3 mo	65 + 9 mo	66 + 3 mo	66 + 9 mo	67
October – November	65 + 4 mo	65 + 10 mo	66 + 4 mo	66 + 10 mo	67
December	65 + 5 mo	65 + 11 mo	66 + 5 mo	66 + 11 mo	67
Allowance (Regular and Survivor)					
Month of Birth	Year of Birth				
	1963	1964	1965	1966	1967
January	60	60 + 5 mo	60 + 11 mo	61 + 5 mo	61 + 11 mo
February – March	60	60 + 6 mo	61	61 + 6 mo	62
April – May	60 + 1 mo	60 + 7 mo	61 + 1 mo	61 + 7 mo	62
June – July	60 + 2 mo	60 + 8 mo	61 + 2 mo	61 + 8 mo	62
August – September	60 + 3 mo	60 + 9 mo	61 + 3 mo	61 + 9 mo	62
October – November	60 + 4 mo	60 + 10 mo	61 + 4 mo	61 + 10 mo	62
December	60 + 5 mo	60 + 11 mo	61 + 5 mo	61 + 11 mo	62

IV. Financial Status

A. Data, Assumptions, and Methodology

The financial projections presented in this report are based on OAS beneficiaries data provided by Service Canada and the same actuarial assumptions and methods as per the 10th Actuarial Report Supplementing the Actuarial Report on the Old Age Security Program as at 31 December 2009. The projections were then modified to reflect changes to the OAS Program included in Part 4 of Bill C-38.

For each month of deferral, an OAS pension will be increased by an actuarial adjustment factor of 0.6% up to a maximum increase of 36% over the maximum deferral period of five years (up to the maximum age of 70).¹ Following the increase to the age of eligibility, individuals will still be able to defer their OAS pension for up to 5 years beyond the age of eligibility. Once the age increase is fully implemented by 1 January 2029, the maximum age for the deferral will be 72. Table 2 shows pension increases for voluntary pension deferrals based on different first ages of eligibility.

The actuarial adjustment factor of 0.6% per month was derived to achieve actuarial neutrality for the OAS Program based on an aggregate approach and taking into account demographic and economic factors such as life expectancies and long-term interest rates. Actuarial neutrality is discussed further in the section B – Results of this report.

Table 2 Increases to the OAS Pension for Voluntary Pension Deferrals

Take-up Age	Age of Eligibility is 65	Age of Eligibility is 66	Age of Eligibility is 67
65	0.0%	n/a	n/a
66	7.2%	0.0%	n/a
67	14.4%	7.2%	0.0%
68	21.6%	14.4%	7.2%
69	28.8%	21.6%	14.4%
70	36.0%	28.8%	21.6%
71	36.0%	36.0%	28.8%
72	36.0%	36.0%	36.0%

The assumptions regarding OAS Program pension take-up rates have been modified to reflect the introduction of the voluntary deferral of the OAS pension. As shown in Table 3, it is assumed that the OAS pension take-up rates will decrease by 5 percentage points at the first eligible age. With the voluntary deferral, take-up at the first eligible age is assumed to be 91.5%, compared to 96.5% without this initiative (as outlined in the 10th OAS Program Actuarial Report). Furthermore, as a result of the voluntary deferral, it is assumed that the

¹ Those individuals who qualify for a partial OAS pension and choose to defer take-up will receive the maximum of their actuarially adjusted pension and the amount of the partial pension determined at the time their application is approved.

take-up rate increases by 2.5 percentage points one year after the first eligible age, 1.5 percentage points two years after, and by 1 percentage point three years after the first eligible age.

A five percentage point shift in the take-up rates is similar to the post-65 take-up rates observed for both the Canada Pension Plan and Québec Pension Plan. In addition, deferral of pension take-up reflects that labour force participation rates of both males and females aged 65 to 69 have significantly increased over the past ten years. However, there remains uncertainty about how many individuals will defer their benefit past the first age of eligibility. The actual effect of voluntary pension deferral on OAS pension take-up rates will be observed after this option becomes effective in July 2013. Accordingly, the assumption regarding the change in benefit take-up rates due to pension deferrals will be revised in future actuarial reports.

As the eligible age for the OAS pension increases, all other individuals (those who do not defer) are assumed to either start their benefits at their new eligible age or wait to start their pension for other reasons, such as to accumulate additional years of residency and thereby qualify for a full pension. Table 3 shows the assumed take-up rates based on the age of eligibility.

Table 3 Assumed OAS Pension Take-Up Rates

Take-up Age	As per 10 th OAS Program Actuarial Report	Modified Take-Up Rates Due to Pension Deferrals		
	(Age of Eligibility is 65)	Age of Eligibility is 65	Age of Eligibility is 66	Age of Eligibility is 67
65	96.5%	91.5%	n/a	n/a
66	0.6%	3.1%	91.5%	n/a
67	0.4%	1.9%	3.1%	91.5%
68	0.4%	1.4%	1.9%	3.1%
69	0.3%	0.3%	1.4%	1.9%
70+	1.8%	1.8%	2.1%	3.5%

The proactive enrolment regime will remove the requirement for many seniors to apply for their OAS and GIS benefits. Seniors who are eligible for proactive enrolment will be notified, while others who cannot be enrolled will be sent applications. For the purpose of this report, it is assumed that proactive enrolment will have no effect on benefit take-up rates or expenditures, since it is assumed that those seniors who are eligible for proactive enrolment would have otherwise applied for their benefits. In addition, in the absence of information regarding the costs associated with implementing the regime, no associated administrative costs are assumed. Once the proactive enrolment regime is implemented and as experience develops, the assumptions regarding the impact on benefit take-up rates and total expenditures will be reviewed and revised accordingly in future actuarial reports.

As was assumed under the 10th OAS Program Actuarial Report, administrative expenses are assumed to be 0.35% of total annual benefit payments. As a result of the decrease in

expenditures, largely due to the increase to the age of eligibility, it is projected that administrative expenses will also decrease.

B. Results

For comparison purposes, Table 4 shows the financial status of the OAS Program as it is presented in the 10th OAS Program Actuarial Report. Tables 5 to 9 show the financial statuses and impacts of implementing an increase in the age of eligibility and voluntary OAS pension deferrals as given in Part 4 of Bill C-38. The financial status of the Program after implementing an increase in the age of eligibility and its impact relative to the financial status before any amendments are shown in Tables 5 and 6, respectively. Next, the financial status of the amended Program including voluntary pension deferrals and the impact relative to no deferrals (increasing the eligible age only) are shown in Tables 7 and 8, respectively. Lastly, Table 9 presents the total impact of both amendments on the financial status of the Program.

As shown in Table 6, increasing the age of eligibility only without any voluntary pension deferrals results in expenditures reducing by \$474 million in 2023 (the first year of the transition) and by \$10.9 billion in 2030 (after the transition has completed), relative to the projections under the 10th OAS Program Actuarial Report.

Table 8 shows the impact of voluntary pension deferrals over and above increasing the age of eligibility. Initially, expenditures decrease by \$32 million in 2013 and then further decrease until 2016 (by \$210 million). Thereafter, the higher benefits received due to deferrals start to offset the reduction in expenditures from delaying pension take-up. As a result, the reduction in expenditures becomes less, with the change in expenditures eventually becoming positive by 2024.

Table 8 shows how voluntary deferrals affect the Program's projected expenditures. The actual expenditures will depend on the exact ages at which beneficiaries choose to start receiving their pensions. The actuarial adjustment factor of 0.6% per month was derived such that the lifetime benefits received by a cohort of individuals would be the same regardless of the age at which they all start their benefit. However, as individuals will opt for their benefits at different ages (i.e., all individuals in a cohort may not start their benefits all at the same age), actuarial neutrality for the Program in respect of voluntary deferrals will be achieved over a different period of time.

Considering both the increasing age of eligibility and voluntary pension deferral amendments together (as shown in Table 9), the projected total impact on the financial status of the Program is a decrease in expenditures of \$32 million in 2013, thereafter further reducing to \$526 million in 2023 and \$10.8 billion by 2030 as compared to the projections of the 10th OAS Program Actuarial Report.

Table 4 Financial Status before Amendments⁽¹⁾

Number of Beneficiaries (thousands)				Expenditures (\$ million)					Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽²⁾	GDP (\$ billion)	
2013	5,289	1,886	86	33,141	9,857	570	151	43,719	1,770	2.47
2014	5,482	1,957	84	35,022	10,391	568	160	46,141	1,834	2.52
2015	5,679	2,028	82	36,987	10,939	571	168	48,666	1,900	2.56
2016	5,882	2,106	81	39,048	11,562	576	178	51,365	1,971	2.61
2017	6,087	2,185	81	41,225	12,211	586	188	54,209	2,049	2.65
2018	6,307	2,264	80	43,614	12,879	596	198	57,287	2,134	2.68
2019	6,539	2,352	80	46,219	13,639	605	210	60,673	2,226	2.73
2020	6,782	2,431	79	49,018	14,388	611	222	64,239	2,322	2.77
2021	7,025	2,511	79	51,913	15,173	622	235	67,943	2,421	2.81
2022	7,277	2,595	78	54,982	16,016	631	249	71,877	2,516	2.86
2023	7,531	2,677	78	58,182	16,863	640	263	75,948	2,613	2.91
2024	7,784	2,761	77	61,490	17,762	650	278	80,179	2,714	2.95
2025	8,043	2,849	76	64,967	18,703	655	293	84,618	2,820	3.00
2030	9,302	3,260	61	83,981	23,748	589	376	108,694	3,442	3.16
2040	10,507	3,576	52	118,525	32,232	615	526	151,899	5,191	2.93
2050	11,282	3,580	50	159,723	40,202	731	698	201,353	7,702	2.61

(1) 10th Actuarial Report Supplementing the Actuarial Report on the Old Age Security Program as at 31 December 2009.

(2) Components may not sum to totals due to rounding.

Table 5 Financial Status After Increasing the Age of Eligibility

Number of Beneficiaries (thousands)				Expenditures (\$ million)					Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽¹⁾	GDP (\$ billion)	
2013	5,289	1,886	86	33,141	9,857	570	151	43,719	1,770	2.47
2014	5,482	1,957	84	35,022	10,391	568	160	46,141	1,834	2.52
2015	5,679	2,028	82	36,987	10,939	571	168	48,666	1,900	2.56
2016	5,882	2,106	81	39,048	11,562	576	178	51,365	1,971	2.61
2017	6,087	2,185	81	41,225	12,211	586	188	54,209	2,049	2.65
2018	6,307	2,264	80	43,614	12,879	596	198	57,287	2,134	2.68
2019	6,539	2,352	80	46,219	13,639	605	210	60,673	2,226	2.73
2020	6,782	2,431	79	49,018	14,388	611	222	64,239	2,322	2.77
2021	7,025	2,511	79	51,913	15,173	622	235	67,943	2,421	2.81
2022	7,277	2,595	78	54,982	16,016	631	249	71,877	2,516	2.86
2023	7,416	2,653	78	57,801	16,788	623	261	75,474	2,613	2.89
2024	7,513	2,705	78	59,860	17,466	640	271	78,236	2,714	2.88
2025	7,606	2,760	78	61,936	18,165	640	281	81,021	2,820	2.87
2030	8,305	3,029	68	74,822	22,010	646	339	97,817	3,442	2.84
2040	9,638	3,390	52	108,878	30,476	611	487	140,451	5,191	2.71
2050	10,256	3,376	51	145,746	37,791	738	641	184,916	7,702	2.40

(1) Components may not sum to totals due to rounding.

Table 6 Impact of Increasing the Age of Eligibility on Financial Status⁽¹⁾

Difference in Number of Beneficiaries (thousands)				Difference in Expenditures (\$ million)					Difference in Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽²⁾	GDP (\$ billion)	
2013	0	0	0	0	0	0	0	0	1,770	0.00
2014	0	0	0	0	0	0	0	0	1,834	0.00
2015	0	0	0	0	0	0	0	0	1,900	0.00
2016	0	0	0	0	0	0	0	0	1,971	0.00
2017	0	0	0	0	0	0	0	0	2,049	0.00
2018	0	0	0	0	0	0	0	0	2,134	0.00
2019	0	0	0	0	0	0	0	0	2,226	0.00
2020	0	0	0	0	0	0	0	0	2,322	0.00
2021	0	0	0	0	0	0	0	0	2,421	0.00
2022	0	0	0	0	0	0	0	0	2,516	0.00
2023	-115	-24	1	-381	-75	-17	-2	-474	2,613	-0.02
2024	-271	-56	0	-1,630	-296	-10	-7	-1,943	2,714	-0.07
2025	-437	-89	1	-3,031	-538	-15	-12	-3,597	2,820	-0.13
2030	-997	-231	6	-9,159	-1,738	57	-38	-10,877	3,442	-0.32
2040	-869	-186	0	-9,647	-1,756	-4	-40	-11,448	5,191	-0.22
2050	-1,026	-204	1	-13,977	-2,411	7	-57	-16,437	7,702	-0.21

(1) Differences taken between Table 5 and Table 4.

(2) Components may not sum to totals due to rounding.

**Table 7 Financial Status of Amended Plan
(increasing age of eligibility and voluntary pension deferrals)**

Number of Beneficiaries (thousands)				Expenditures (\$ million)					Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽¹⁾	GDP (\$ billion)	
2013	5,269	1,886	86	33,110	9,857	570	151	43,687	1,770	2.47
2014	5,453	1,957	84	34,879	10,391	568	159	45,997	1,834	2.51
2015	5,646	2,028	82	36,791	10,939	571	168	48,469	1,900	2.55
2016	5,847	2,106	81	38,839	11,562	576	177	51,155	1,971	2.60
2017	6,052	2,185	81	41,030	12,211	586	187	54,013	2,049	2.64
2018	6,271	2,264	80	43,432	12,879	596	198	57,105	2,134	2.68
2019	6,501	2,352	80	46,050	13,639	605	209	60,503	2,226	2.72
2020	6,743	2,431	79	48,865	14,388	611	222	64,086	2,322	2.76
2021	6,985	2,511	79	51,785	15,173	622	235	67,814	2,421	2.80
2022	7,236	2,595	78	54,879	16,016	631	249	71,775	2,516	2.85
2023	7,380	2,653	78	57,750	16,788	623	261	75,422	2,613	2.89
2024	7,485	2,705	78	59,905	17,466	640	271	78,282	2,714	2.88
2025	7,588	2,760	78	62,130	18,165	640	281	81,216	2,820	2.88
2030	8,265	3,029	68	74,933	22,010	646	339	97,928	3,442	2.84
2040	9,600	3,390	52	109,430	30,476	611	488	141,005	5,191	2.72
2050	10,212	3,376	51	146,486	37,791	738	643	185,658	7,702	2.41

(1) Components may not sum to totals due to rounding.

**Table 8 Impact of Voluntary Deferrals on Financial Status
 (relative to increasing age of eligibility)⁽¹⁾**

Difference in Number of Beneficiaries (thousands)				Difference in Expenditures (\$ million)					Difference in Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽²⁾	GDP (\$ billion)	
2013	-20	0	0	-31	0	0	0	-32	1,770	0.00
2014	-29	0	0	-143	0	0	-1	-144	1,834	-0.01
2015	-34	0	0	-196	0	0	-1	-197	1,900	-0.01
2016	-34	0	0	-209	0	0	-1	-210	1,971	-0.01
2017	-35	0	0	-195	0	0	-1	-196	2,049	-0.01
2018	-36	0	0	-182	0	0	-1	-182	2,134	0.00
2019	-38	0	0	-169	0	0	-1	-170	2,226	-0.01
2020	-39	0	0	-153	0	0	-1	-153	2,322	-0.01
2021	-40	0	0	-128	0	0	0	-129	2,421	-0.01
2022	-41	0	0	-103	0	0	0	-102	2,516	-0.01
2023	-36	0	0	-51	0	0	0	-52	2,613	0.00
2024	-28	0	0	45	0	0	0	46	2,714	0.00
2025	-17	0	0	194	0	0	1	195	2,820	0.01
2030	-40	0	0	111	0	0	0	111	3,442	0.00
2040	-38	0	0	552	0	0	2	554	5,191	0.01
2050	-44	0	0	740	0	0	3	742	7,702	0.01

(1) Differences taken between Table 7 and Table 5.

(2) Components may not sum to totals due to rounding.

Table 9 Total Impact of Amendments on Financial Status⁽¹⁾

Difference in Number of Beneficiaries (thousands)				Difference in Expenditures (\$ million)					Difference in Expenditures as a Percentage of GDP	
Year	OAS	GIS	Allowance	OAS	GIS	Allowance	Admin. Expenses	Total ⁽²⁾	GDP (\$ billion)	
2013	-20	0	0	-31	0	0	0	-32	1,770	0.00
2014	-29	0	0	-143	0	0	-1	-144	1,834	-0.01
2015	-34	0	0	-196	0	0	-1	-197	1,900	-0.01
2016	-34	0	0	-209	0	0	-1	-210	1,971	-0.01
2017	-35	0	0	-195	0	0	-1	-196	2,049	-0.01
2018	-36	0	0	-182	0	0	-1	-182	2,134	0.00
2019	-38	0	0	-169	0	0	-1	-170	2,226	-0.01
2020	-39	0	0	-153	0	0	-1	-153	2,322	-0.01
2021	-40	0	0	-128	0	0	0	-129	2,421	-0.01
2022	-41	0	0	-103	0	0	0	-102	2,516	-0.01
2023	-151	-24	1	-432	-75	-17	-2	-526	2,613	-0.02
2024	-299	-56	0	-1,585	-296	-10	-7	-1,897	2,714	-0.07
2025	-455	-89	1	-2,837	-538	-15	-12	-3,402	2,820	-0.12
2030	-1,036	-231	6	-9,048	-1,738	57	-37	-10,766	3,442	-0.32
2040	-907	-186	0	-9,095	-1,756	-4	-38	-10,894	5,191	-0.21
2050	-1,070	-204	1	-13,237	-2,411	7	-54	-15,695	7,702	-0.20

(1) Differences taken between Table 7 and Table 4.

(2) Components may not sum to totals due to rounding.

V. Uncertainty of Results

This actuarial report on the OAS Program is based on the projection of its expenditures over a long period of time. The information required by statute, which is presented in section IV Financial Status of this report, has been derived using best-estimate assumptions regarding future demographic and economic trends. Given the length of the projection period and the number of assumptions required, it is unlikely that actual future experience will develop precisely in accordance with the best-estimate assumptions that underlie the actuarial estimates.

Due to the uncertainty as to how many individuals will choose to defer their pensions and thereby receive higher benefits, one sensitivity test has been prepared assuming a different change in pension take-up rates for pension deferrals other than the best-estimate assumption. In comparison to the best-estimate assumption, the test shows the effect of a decrease of 15 percentage points as opposed to 5 percentage points in the take-up rate at the first eligible age.

Table 10 summarizes the number of beneficiaries in 2030 who will receive a higher pension due to voluntary deferrals and the total corresponding increase in expenditures under the best-estimate and sensitivity test scenarios. Under the best-estimate scenario, there would be about 550,000 beneficiaries in pay receiving higher pensions due to having deferred their pensions beyond their first age of eligibility. For these beneficiaries, the total projected increase in benefit expenditures in 2030 would be about \$475 million, resulting from the maximum of an actuarial adjustment applied and additional years of residency accrued (for those with less than 40 years). These figures differ from those shown in Table 8, since Table 8 reflects that there are fewer beneficiaries in any given year compared to the Program without deferrals. Under the sensitivity test with a greater shift in pension take-up rates, it is projected in 2030 that 1.1 million beneficiaries would receive higher pensions due to deferrals with a corresponding total increase in expenditures of \$967 million.

Table 10 Sensitivity Test – Number of Beneficiaries Receiving a Higher Pension due to Voluntary Pension Deferrals

Assumptions	Scenario	Number of Beneficiaries Receiving a Higher Pension due to Pension Deferrals in 2030 (thousands)	Total Increase in Benefit Expenditures due to Pension Deferrals in 2030 (\$ million)
Individuals not in receipt of the GIS choose to defer their OAS pension.	Best-Estimate: 5 percentage point (pp) drop in take-up rates at first eligible age; subsequent increases of 2.5 pp, 1.5 pp, and 1 pp at next higher ages, respectively.	548	475
Individuals not in receipt of the GIS choose to defer their OAS pension to twice the extent than under the best-estimate scenario.	Sensitivity Test: 15 pp drop in take-up rates at first eligible age; subsequent increases of 7.5 pp, 4.5 pp, and 3 pp at next higher ages, respectively.	1,144	967

VI. Conclusion

- Prior to the increase to the age of eligibility, projected total Program expenditures are respectively \$32 million and \$102 million lower in 2013 and 2022 than under the 10th OAS Program Actuarial Report. During this period, it is assumed that 5 percent of individuals turning 65 will voluntarily defer receiving their OAS pension in exchange for an actuarially-adjusted higher pension. As such, this will result in initial net savings to the OAS Program, which will be offset in the future by higher costs associated with providing a higher pension to those who deferred.
- Between 2023 and 2030, as a result of the gradual increase in the age of eligibility from 65 to 67 and the voluntary deferral, the projected total Program expenditures will be reduced by \$526 million in 2023 and \$10.8 billion in 2030 as compared to the 10th OAS Program Actuarial Report projections.
- By 2030, the projected numbers of OAS and GIS beneficiaries are respectively lower by about 1 million and 230,000 compared to the 10th OAS Program Actuarial Report.
- By 2030, it is projected that between 550,000 and 1.1 million beneficiaries will be receiving a higher OAS pension as a result of the voluntary deferral, with corresponding increases in their pensions of between \$475 million and \$967 million.

VII. Actuarial Opinion

In our opinion, considering that this 11th OAS Program Actuarial Report was prepared pursuant to the *Public Pensions Reporting Act*:

- the data on which this report is based are sufficient and reliable;
- the assumptions used are, individually and in aggregate, reasonable and appropriate; and,
- the methodology employed is appropriate and consistent with sound actuarial principles.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada, in particular, the General Standards of Practice of the Canadian Institute of Actuaries.



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Ottawa, Canada
18 July 2012

Appendix A – Detailed Tables

Table 11 Beneficiaries (Projected)⁽¹⁾

Year	Number of Beneficiaries			Recipient Rates		
	OAS	GIS	Allowance	OAS	GIS	Allowance
	(thousands)	(thousands)	(thousands)	(%)	(%)	(%)
2013	5,269	1,886	86	97.9	35.1	4.1
2014	5,453	1,957	84	97.8	35.1	3.9
2015	5,646	2,028	82	97.8	35.1	3.7
2016	5,847	2,106	81	97.9	35.3	3.5
2017	6,052	2,185	81	98.0	35.4	3.4
2018	6,271	2,264	80	98.1	35.4	3.3
2019	6,501	2,352	80	98.1	35.5	3.2
2020	6,743	2,431	79	98.2	35.4	3.1
2021	6,985	2,511	79	98.2	35.3	3.0
2022	7,236	2,595	78	98.3	35.3	3.0
2023	7,380	2,653	78	96.9	34.8	2.9
2024	7,485	2,705	78	95.2	34.4	2.9
2025	7,588	2,760	78	93.4	34.0	2.9
2026	7,671	2,795	76	91.5	33.3	2.9
2027	7,758	2,844	75	89.8	32.9	2.9
2028	7,844	2,890	73	88.2	32.5	2.9
2029	8,028	2,950	71	87.8	32.2	2.9
2030	8,265	3,029	68	88.2	32.3	2.8
2031	8,494	3,104	64	88.9	32.5	2.7
2032	8,704	3,171	61	89.7	32.7	2.6
2033	8,874	3,225	59	90.2	32.8	2.5
2034	9,012	3,268	58	90.4	32.8	2.4
2035	9,134	3,299	56	90.5	32.7	2.4
2036	9,247	3,327	55	90.6	32.6	2.4
2037	9,355	3,352	54	90.8	32.5	2.3
2038	9,455	3,371	53	91.1	32.5	2.2
2039	9,534	3,383	52	91.2	32.4	2.1
2040	9,600	3,390	52	91.1	32.2	2.1
2045	9,878	3,388	52	90.7	31.1	1.9
2050	10,212	3,376	51	90.2	29.8	1.8

(1) The projected basic OAS pension recipient rates and number of beneficiaries are on a gross basis; that is, before application of the OAS Recovery Tax. The GIS and Allowance benefit recipient rates and number of beneficiaries account for Tax-Free Savings Accounts (TFSA's).

Table 12 Expenditures and Average Annual Benefits (Projected)⁽¹⁾

Year	Expenditures (\$ million)					Average Annual Benefit (\$)		
	OAS	GIS	Allowance	Administrative Expenses	Total ⁽²⁾	OAS	GIS	Allowance
2013	33,110	9,857	570	151	43,687	6,284	5,226	6,626
2014	34,879	10,391	568	159	45,997	6,397	5,310	6,776
2015	36,791	10,939	571	168	48,469	6,517	5,395	6,930
2016	38,839	11,562	576	177	51,155	6,642	5,490	7,084
2017	41,030	12,211	586	187	54,013	6,779	5,589	7,239
2018	43,432	12,879	596	198	57,105	6,926	5,688	7,408
2019	46,050	13,639	605	209	60,503	7,083	5,798	7,590
2020	48,865	14,388	611	222	64,086	7,247	5,918	7,756
2021	51,785	15,173	622	235	67,814	7,414	6,042	7,915
2022	54,879	16,016	631	249	71,775	7,585	6,172	8,084
2023	57,750	16,788	623	261	75,422	7,825	6,328	7,939
2024	59,905	17,466	640	271	78,282	8,004	6,456	8,244
2025	62,130	18,165	640	281	81,216	8,188	6,582	8,248
2026	64,183	18,817	658	291	83,949	8,367	6,731	8,605
2027	66,360	19,517	672	301	86,850	8,554	6,862	8,936
2028	68,629	20,216	670	311	89,826	8,750	6,994	9,130
2029	71,179	20,993	663	323	93,157	8,866	7,117	9,318
2030	74,933	22,010	646	339	97,928	9,066	7,265	9,530
2031	78,784	23,028	625	356	102,793	9,275	7,419	9,746
2032	82,605	24,026	605	373	107,610	9,490	7,576	9,965
2033	86,162	24,953	597	388	112,100	9,709	7,737	10,164
2034	89,528	25,822	596	403	116,349	9,934	7,901	10,364
2035	92,838	26,635	598	417	120,488	10,164	8,073	10,578
2036	96,167	27,439	598	432	124,636	10,400	8,248	10,803
2037	99,554	28,244	598	446	128,843	10,642	8,427	11,043
2038	102,916	29,030	597	461	133,004	10,884	8,611	11,289
2039	106,235	29,766	602	475	137,078	11,143	8,798	11,519
2040	109,430	30,476	611	488	141,005	11,399	8,991	11,758
2045	126,220	33,962	679	559	161,420	12,777	10,024	13,074
2050	146,486	37,791	738	643	185,658	14,345	11,194	14,560

(1) The projected basic OAS pension expenditures and average benefits are on a gross basis; that is, before application of the OAS Recovery Tax. The GIS and Allowance expenditures and average benefits account for TFSAs. All expenditures include benefits paid outside of Canada.

(2) Components may not sum to totals due to rounding.

Table 13 Expenditures as a Percentage of GDP (Projected)

Year	Gross Domestic Product	Expenditures as % of Gross Domestic Product ⁽¹⁾				Total ⁽²⁾
		OAS	GIS	Allowance	Administrative Expenses	
	(\$ billion)	(%)	(%)	(%)	(%)	(%)
2013	1,770	1.87	0.56	0.03	0.01	2.47
2014	1,834	1.90	0.57	0.03	0.01	2.51
2015	1,900	1.94	0.58	0.03	0.01	2.55
2016	1,971	1.97	0.59	0.03	0.01	2.60
2017	2,049	2.00	0.60	0.03	0.01	2.64
2018	2,134	2.04	0.60	0.03	0.01	2.68
2019	2,226	2.07	0.61	0.03	0.01	2.72
2020	2,322	2.10	0.62	0.03	0.01	2.76
2021	2,421	2.14	0.63	0.03	0.01	2.80
2022	2,516	2.18	0.64	0.03	0.01	2.85
2023	2,613	2.21	0.64	0.02	0.01	2.89
2024	2,714	2.21	0.64	0.02	0.01	2.88
2025	2,820	2.20	0.64	0.02	0.01	2.88
2026	2,932	2.19	0.64	0.02	0.01	2.86
2027	3,051	2.18	0.64	0.02	0.01	2.85
2028	3,175	2.16	0.64	0.02	0.01	2.83
2029	3,305	2.15	0.64	0.02	0.01	2.82
2030	3,442	2.18	0.64	0.02	0.01	2.84
2031	3,583	2.20	0.64	0.02	0.01	2.87
2032	3,733	2.21	0.64	0.02	0.01	2.88
2033	3,889	2.22	0.64	0.02	0.01	2.88
2034	4,053	2.21	0.64	0.01	0.01	2.87
2035	4,223	2.20	0.63	0.01	0.01	2.85
2036	4,400	2.19	0.62	0.01	0.01	2.83
2037	4,587	2.17	0.62	0.01	0.01	2.81
2038	4,782	2.15	0.61	0.01	0.01	2.78
2039	4,983	2.13	0.60	0.01	0.01	2.75
2040	5,191	2.11	0.59	0.01	0.01	2.72
2045	6,343	1.99	0.54	0.01	0.01	2.55
2050	7,702	1.90	0.49	0.01	0.01	2.41

(1) The projected basic OAS pension expenditures are on a gross basis; that is, before application of the OAS Recovery Tax. The GIS and Allowance expenditures account for TFSAs. All expenditures include benefits paid outside of Canada.

(2) Components may not sum to totals due to rounding.

Appendix B – Acknowledgements

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