

# Actuarial Report (13<sup>th</sup>)

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Supplementing the Actuarial Report on the

## OLD AGE SECURITY PROGRAM

As at 31 December 2012



Office of the Superintendent of  
Financial Institutions Canada

Office of the Chief Actuary

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institutions financières Canada

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15 July 2016

The Honourable Jean-Yves Duclos, P.C., M.P.  
Minister of Families, Children and Social Development  
House of Commons  
Ottawa, Canada  
K1A 0G5

Dear Minister:

In accordance with section 4 of the *Public Pensions Reporting Act*, which provides that an actuarial report shall be prepared by the Chief Actuary when an amendment to the *Old Age Security Act* that affects the cost of benefits is introduced in the House of Commons, I am pleased to submit the 13<sup>th</sup> Actuarial Report on the Old Age Security program.

Yours sincerely,

A handwritten signature in cursive script that reads "Jean-Claude Ménard".

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



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## I. Executive Summary

This is the 13<sup>th</sup> Actuarial Report 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*, 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 most recent report made pursuant to section 3 of the *Public Pensions Reporting Act* is the 12<sup>th</sup> Actuarial Report on the Old Age Security (OAS) Program as at 31 December 2012, which was tabled in the House of Commons on 20 August 2014. Therefore, this 13<sup>th</sup> Actuarial Report has been prepared on the basis of the 12<sup>th</sup> Actuarial Report to show the effect of Division 9 of Part 4 of Bill C-15 on the long-term financial status of the OAS program.

Division 9 of Part 4 of Bill C-15, *An Act to implement certain provisions of the budget tabled in Parliament on March 22, 2016 and other measures*, received Royal Assent on 22 June 2016. Starting 1<sup>st</sup> of July 2016, it amends the *Old Age Security Act* to increase the single rate of the Guaranteed Income Supplement (GIS) top-up for the lowest income pensioners by up to \$947 annually.

For the lowest-income individuals who receive the GIS top-up for single seniors, seniors whose spouse is not a pensioner, and persons receiving the Allowance for the Survivor, this amendment more than doubles the maximum GIS top-up and represents a 10 percent increase in the total maximum GIS benefit available to the lowest-income single seniors.<sup>1</sup> The increased top-up will be reduced by 25 cents for every dollar of income in excess of \$2,000 for single individuals and therefore, no top-up is payable for single individuals after the annual income reaches about \$8,400, or combined annual income of \$16,800 for a couple in the case where the spouse is not a pensioner. The increased top-up will be indexed in line with increases in the Consumer Price Index (CPI).

Division 9 of Part 4 of Bill C-15 also repeals section 2.2 of the *Old Age Security Act*, which increases the ages of eligibility for the OAS basic pension and the GIS benefit from 65 to 67 and Allowance benefits from 60 to 62 over the 2023 to 2029 period.

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<sup>1</sup> The increase in the top-up of \$947 on an annualized basis for 2016 corresponds to 10% of the projected maximum annualized GIS single rate of \$9,470 for 2016, as per the 12<sup>th</sup> OAS Program Actuarial Report.

## **Main Findings**

This 13<sup>th</sup> OAS Program Actuarial Report shows the following:

### ***Increasing the GIS Top-Up Benefit***

- The increase in GIS and Allowance expenditures is projected to be \$315 million in 2016 and \$775 million by 2020. GIS and Allowance expenditures are thus projected to be \$3.2 billion higher than under the 12<sup>th</sup> OAS Program Actuarial Report over the period 2016 through 2020.
- The projected number of GIS and Allowance beneficiaries who will receive the full or a partial additional top-up benefit is estimated to grow from 813,000 in 2016 to 925,000 by 2020.
- By 2030, GIS and Allowance expenditures are projected to be \$1.2 billion or 0.03% of the GDP higher than projected under the 12<sup>th</sup> OAS Program Actuarial Report.

### ***Cancelling the Increase in Ages of Eligibility***

- By 2030, cancelling the increase in the ages of eligibility for OAS benefits is projected to increase the number of beneficiaries of the OAS basic pension by 1 million and increase the number of GIS and Allowance beneficiaries by 187,000.
- By 2030, cancelling the increase in the ages of eligibility is projected to increase total program expenditures by \$10.4 billion. This represents an increase of 0.3% of GDP.

### ***All Amendments***

- Taken together, the amendments are projected to increase total program expenditures by \$11.6 billion by 2030, which represents an increase of 0.33% of GDP.



## 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 most recent report made pursuant to section 3 of the *Public Pensions Reporting Act* is the 12<sup>th</sup> Actuarial Report on the Old Age Security (OAS) Program as at 31 December 2012, which was tabled in the House of Commons on 20 August 2014. Therefore, this 13<sup>th</sup> Actuarial Report has been prepared on the basis of the 12<sup>th</sup> Actuarial Report to show the effect of Division 9 of Part 4 of Bill C-15 on the long-term financial status of the OAS program.

## III. Description of Division 9 of Part 4 of Bill C-15

Division 9 of Part 4 of Bill C-15, *An Act to implement certain provisions of the budget tabled in Parliament on March 22, 2016 and other measures*, received Royal Assent on 22 June 2016. Starting 1<sup>st</sup> of July 2016, it amends the *Old Age Security Act* to increase the single rate of the GIS top-up for the lowest income pensioners by up to \$947 annually.

For the lowest-income individuals who receive the GIS top-up for single seniors, seniors whose spouse is not a pensioner, and persons receiving the Allowance for the Survivor, this amendment more than doubles the maximum GIS top-up and represents a 10 percent increase in the total maximum GIS benefits available to the lowest-income single seniors.<sup>1</sup> The increased top-up will be reduced by 25 cents for every dollar of income in excess of \$2,000 for single individuals and therefore, no top-up is payable for single individuals after the annual income reaches about \$8,400, or combined annual income of \$16,800 for a couple in the case where the spouse is not a pensioner. The increased top-up will be indexed in line with increases in the Consumer Price Index (CPI).

Division 9 of Part 4 of Bill C-15 also repeals section 2.2 of the *Old Age Security Act*, which increases the ages of eligibility for the OAS basic pension and the GIS benefit from 65 to 67 and Allowance benefits from 60 to 62 over the 2023 to 2029 period.

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<sup>1</sup> The increase in the top-up of \$947 on an annualized basis for 2016 corresponds to 10% of the projected maximum annualized GIS single rate of \$9,470 for 2016, as per the 12<sup>th</sup> OAS Program Actuarial Report.

## IV. Financial Status

Unless stated otherwise, the financial estimates presented in this report use the same actuarial assumptions and methods as per the 12<sup>th</sup> OAS Actuarial Program Report as at 31 December 2012.

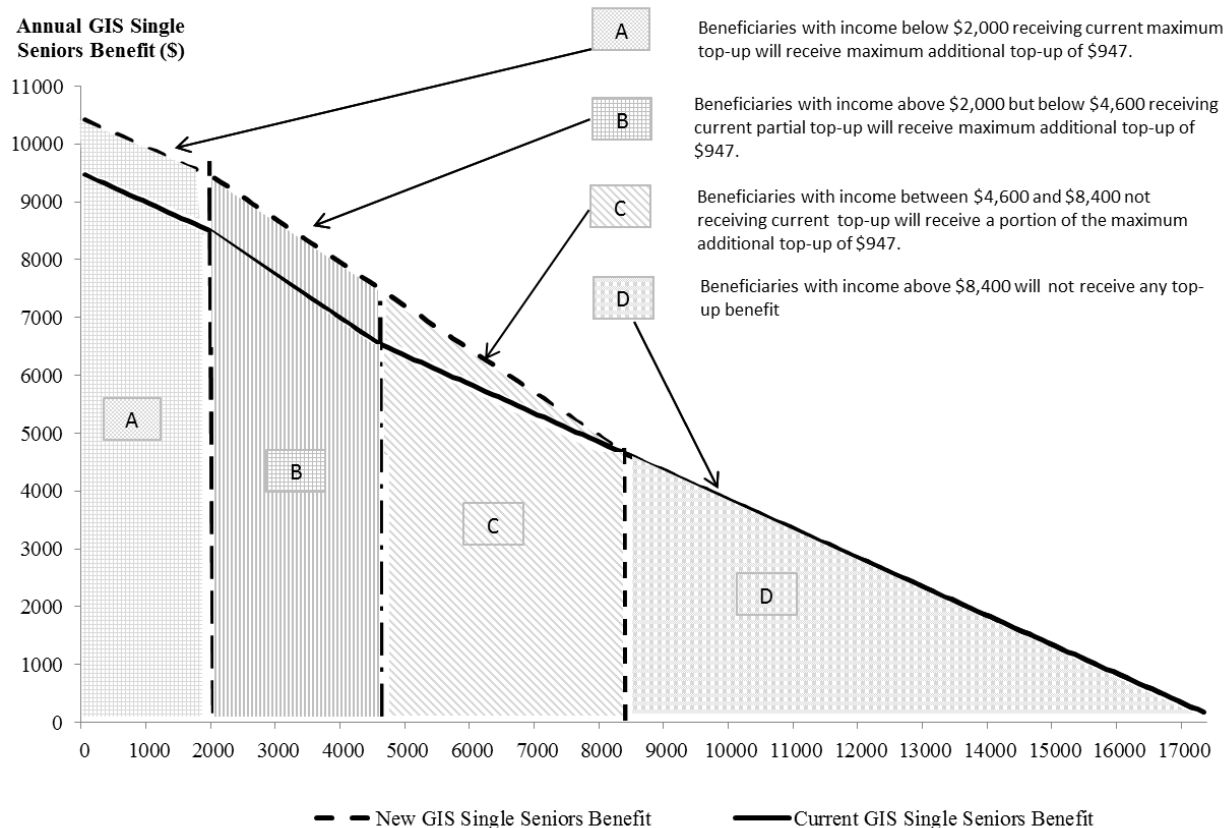
The financial estimates in this report are presented in three sequential steps. First, the impact of increasing the top-up for the single rate GIS and Allowance for the Survivor benefits, effective 1 July 2016, is presented. These estimates are shown relative to the best-estimate projections of the 12<sup>th</sup> OAS Program Actuarial Report. Next, the impact of cancelling the increase in the ages of eligibility for OAS benefits between 2023 and 2029 is presented relative to the increase in the top-up. Finally, the total impact of the amendments is presented relative to the 12<sup>th</sup> OAS Program Actuarial Report.

### 1. Impact of Increasing the GIS and Allowance Top-Up

#### A. Assumptions and Methods

The increase in the top-up benefit in conjunction with keeping the reduction rate at 25% on income above \$2,000 results in an increase in the upper income limit where the top-up benefit ceases to be payable. For example, in the case of the GIS benefit for single seniors, the income limit to receive the top-up increases from about \$4,600 to \$8,400 (see Chart 1). As such, for the purpose of this report, GIS for single seniors, GIS for seniors whose spouse is not a pensioner, and Allowance for the Survivor beneficiaries already projected to receive the current top-up (full or partial) are assumed to all receive the maximum additional top-up of \$947 per year.

**Chart 1 New Income Limits for Top-Up Benefit (GIS for Single Seniors) – 2016**



The overall number of seniors eligible to receive the GIS single rate benefits and Allowance for the Survivor benefit is not projected to change because of the increased top-up. However, the number of such beneficiaries eligible to the top-up is assumed to increase as a result of the increase in the income limit to receive the top-up.

Using our July 2015 OAS beneficiaries database, we have developed assumptions on the proportions of beneficiaries by age, sex and type of benefit who currently do not receive a top-up benefit but who would now become entitled to receive at least a portion of the additional top-up benefit (see Chart 1). The projected average additional partial top-up benefits were also determined for these individuals. Table 1 shows the assumed proportions of male and female beneficiaries becoming entitled to a partial top-up benefit and the average top-up benefit expressed as a percentage of the maximum additional top-up benefit.

**Table 1 GIS and Allowance Beneficiaries Becoming Entitled to a Partial Top-Up Benefit**

<b>MALES</b>								
<b>Benefit</b>		<b>Age</b>						
		<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	<b>90+</b>	<b>All</b>
<b>GIS Single</b>	Proportion of Beneficiaries (%)	19	27	27	23	21	17	24
	Average Top-up Benefit (% of Maximum Additional Top-up)	53	53	51	49	47	46	51
<b>GIS Spouse not a Pensioner</b>	Proportion of Beneficiaries (%)	13	15	19	33	46	46	19
	Average Top-up Benefit (% of Maximum Additional Top-up)	48	52	55	57	58	56	53
		<b>Age</b>						
<b>Allowance for the Survivor</b>	Proportion of Beneficiaries (%)	<b>60</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>All</b>	
	Average Top-up Benefit	20	18	17	18	14	17	
	(% of Maximum Additional Top-up)	48	44	46	50	52	48	
<b>FEMALES</b>								
<b>Benefit</b>		<b>Age</b>						
		<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	<b>90+</b>	<b>All</b>
<b>GIS Single</b>	Proportion of Beneficiaries (%)	20	24	24	24	25	28	25
	Average Top-up Benefit (% of Maximum Additional Top-up)	51	51	48	48	47	52	50
<b>GIS Spouse not a Pensioner</b>	Proportion of Beneficiaries (%)	11	13	16	18	14	12	15
	Average Top-up Benefit (% of Maximum Additional Top-up)	45	51	55	58	59	65	56
		<b>Age</b>						
<b>Allowance for the Survivor</b>	Proportion of Beneficiaries (%)	<b>60</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>All</b>	
	Average Top-up Benefit	24	21	21	22	21	21	
	(% of Maximum Additional Top-up)	48	49	50	47	46	48	

Table 2 presents illustrative impacts on the GIS amounts payable before and after the amendment that increases the top-up for single individuals as they are depicted in Chart 1 above for typical income levels.

**Table 2 Illustrative Impact on GIS Single Benefit Payable<sup>(1)</sup> (2016)**

	Illustrative Impacts for Individuals From Chart 1				
	A	B	C	D	
	Annual Income Level (\$2016)				
	No Income	1,000	3,500	6,500	13,000
<b>GIS Single</b>	<b>Annualized Average GIS (\$2016)</b>				
<b>Base</b>	8,825	8,325	7,075	5,575	2,325
<b>Top-Up</b>	645	645	270	-	-
<b>Total</b>	9,470	8,970	7,345	5,575	2,325
	<b>New Annualized Average GIS (\$2016)</b>				
<b>Base</b>	8,825	8,325	7,075	5,575	2,325
<b>Top-Up</b>	1,592	1,592	1,217	467	-
<b>Total</b>	10,417	9,917	8,292	6,042	2,325
	<b>Annualized Increase in GIS (2016)</b>				
<b>Base</b>	-	-	-	-	-
	-	-	-	-	-
<b>Top-Up</b>	\$947	\$947	\$947	\$467	-
	147%	147%	351%	N/A	-
<b>Total</b>	\$947	\$947	\$947	\$467	-
	10.0%	10.6%	12.9%	8.4%	-

(1) Estimated based on projected GIS Single annualized maximum rate for 2016 for someone receiving the maximum OAS basic pension.

## B. Results

### *Impact on Overall OAS Program Financial Status*

Table 3 shows the financial status of the OAS program as presented in the 12<sup>th</sup> OAS Program Actuarial Report as at 31 December 2012. Table 4 presents the same information but amended for the increase in the GIS and Allowance top-up, while Table 5 presents the change in the financial status due to the increase in the top-up.

Table 5 reveals that over the first five years expenditures are projected to increase from \$315 million in 2016 to \$775 million in 2020. This represents an overall increase in expenditures of \$3.2 billion over that period relative to the 12<sup>th</sup> OAS Program Actuarial Report. By 2030, expenditures are projected to be \$1.2 billion higher than under the 12<sup>th</sup> OAS Program Actuarial Report or 0.03% higher relative to the GDP. The total number of program beneficiaries remains unchanged.

**Table 3 Financial Status of OAS Program before any Amendments<sup>(1)</sup>**

Calendar Year	Number of Beneficiaries (thousands)		Expenditures (\$ million)				GDP (\$ billion)	Expenditures as a Percentage of GDP
	OAS	GIS / Allowance	OAS	GIS/ Allowance	Admin. Expenses	Total <sup>(2)</sup>		
2016	5,896	1,957	38,892	11,010	172	50,074	2,056	2.44
2017	6,110	2,022	41,109	11,586	182	52,877	2,118	2.50
2018	6,335	2,094	43,477	12,211	192	55,880	2,197	2.54
2019	6,574	2,165	46,021	12,824	203	59,048	2,280	2.59
2020	6,824	2,243	48,757	13,523	215	62,494	2,369	2.64
2021	7,072	2,323	51,628	14,265	227	66,120	2,464	2.68
2022	7,329	2,409	54,679	15,071	241	69,991	2,562	2.73
2023	7,480	2,477	57,511	15,834	253	73,599	2,664	2.76
2024	7,591	2,534	59,633	16,477	263	76,372	2,767	2.76
2025	7,700	2,598	61,814	17,176	273	79,263	2,874	2.76
2030	8,396	2,913	74,263	21,001	329	95,592	3,503	2.73
2040	9,796	3,257	107,816	28,937	472	137,224	5,211	2.63
2050	10,513	3,298	144,189	36,293	623	181,105	7,638	2.37

(1) 12<sup>th</sup> OAS Program Actuarial Report as at 31 December 2012.

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

**Table 4 Financial Status of OAS Program after Increase in Top-Up Benefit**

Calendar Year	Number of Beneficiaries (thousands)		Expenditures (\$ million)				GDP (\$ billion)	Expenditures as a Percentage of GDP
	OAS	GIS / Allowance	OAS	GIS/ Allowance	Admin. Expenses	Total <sup>(1)</sup>		
2016	5,896	1,957	38,892	11,325	172	50,389	2,056	2.45
2017	6,110	2,022	41,109	12,249	182	53,540	2,118	2.53
2018	6,335	2,094	43,477	12,911	192	56,581	2,197	2.58
2019	6,574	2,165	46,021	13,558	203	59,782	2,280	2.62
2020	6,824	2,243	48,757	14,297	215	63,269	2,369	2.67
2021	7,072	2,323	51,628	15,083	227	66,938	2,464	2.72
2022	7,329	2,409	54,679	15,938	241	70,858	2,562	2.77
2023	7,480	2,477	57,511	16,743	253	74,507	2,664	2.80
2024	7,591	2,534	59,633	17,419	263	77,314	2,767	2.79
2025	7,700	2,598	61,814	18,160	273	80,247	2,874	2.79
2030	8,396	2,913	74,263	22,216	329	96,808	3,503	2.76
2040	9,796	3,257	107,816	30,659	472	138,946	5,211	2.67
2050	10,513	3,298	144,189	38,500	623	183,312	7,638	2.40

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

**Table 5 Change in Financial Status of OAS Program due to Increase in Top-Up Benefit <sup>(1)</sup>**

Calendar Year	Change in Number of Beneficiaries (thousands)		Change in Expenditures (\$ million)				GDP (\$ billion)	Change in Expenditures as a Percentage of GDP
	OAS	GIS/ Allowance	OAS	GIS/ Allowance	Admin. Expenses	Total		
2016	-	-	-	315	-	315	2,056	0.01
2017	-	-	-	664	-	663	2,118	0.03
2018	-	-	-	701	-	701	2,197	0.04
2019	-	-	-	734	-	734	2,280	0.03
2020	-	-	-	775	-	775	2,369	0.03
2021	-	-	-	818	-	818	2,464	0.04
2022	-	-	-	866	-	867	2,562	0.04
2023	-	-	-	908	-	908	2,664	0.04
2024	-	-	-	941	-	942	2,767	0.03
2025	-	-	-	984	-	984	2,874	0.03
2030	-	-	-	1,216	-	1,216	3,503	0.03
2040	-	-	-	1,722	-	1,722	5,211	0.04
2050	-	-	-	2,207	-	2,207	7,638	0.03

(1) Table 5 is the difference between Tables 4 and 3.

### *Detailed Impact on GIS and Allowance Beneficiaries*

Tables 6 and 7 show the projected number of GIS and Allowance beneficiaries as presented in the 12<sup>th</sup> OAS Program Actuarial Report as at 31 December 2012 and as amended by the increase in the top-up benefit. For comparison purposes, Table 8 shows the differences between these two tables.

Tables 6 through 8 reveal that, over the first five years, the total number of beneficiaries who will receive either the full or partial additional top-up benefit (see Table 7) is projected to grow from 813,000 to 925,000. This comprises an increase from 514,000 to 584,000 of the number of current top-up beneficiaries (Table 6) who would receive the full additional top-up and an increase from 299,000 to 341,000 (Table 8) of the number of new top-up beneficiaries who would receive a partial additional top-up.

By 2030, about 1.2 million beneficiaries (Table 7) are projected to receive a top-up benefit, which represents an increase of about 445,000 (Table 8) in the number of beneficiaries receiving a top-up benefit compared to the 12<sup>th</sup> OAS Program Actuarial Report projections. Of these new additional 445,000 top-up beneficiaries, about 417,000 would receive the GIS for single seniors, 25,000 would receive the GIS for seniors whose spouse is not a pensioner, and 3,000 would receive the Allowance for the Survivor.

**Table 6 GIS and Allowance Beneficiaries before any Amendments<sup>(1)</sup>**

Calendar Year	Number of Beneficiaries (thousands)				Number of Beneficiaries Receiving the Top-Up (thousands)			
	GIS Spouse not a Pensioner Allowance Survivor Total <sup>(2)</sup>				GIS Spouse not a Pensioner Allowance Survivor Total <sup>(2)</sup>			
	GIS Single	Pensioner	Survivor	Total <sup>(2)</sup>	GIS Single	Pensioner	Survivor	Total <sup>(2)</sup>
2016	1,119	105	20	1,243	473	35	6	514
2017	1,159	107	19	1,284	490	36	6	532
2018	1,202	109	18	1,329	508	37	5	551
2019	1,241	113	18	1,372	522	38	5	565
2020	1,287	117	17	1,421	540	39	5	584
2021	1,334	121	17	1,472	559	40	5	604
2022	1,385	125	17	1,527	579	42	5	626
2023	1,428	126	16	1,570	594	42	5	642
2024	1,462	126	16	1,604	603	43	5	650
2025	1,502	126	16	1,644	615	43	5	663
2030	1,716	124	13	1,853	681	47	4	732
2040	2,014	124	8	2,146	775	51	3	828
2050	2,105	122	7	2,234	798	50	2	850

(1) 12<sup>th</sup> OAS Program Actuarial Report as at 31 December 2012. The table excludes persons who are unaffected by the amendment – GIS recipients whose spouse is a pensioner or Allowance recipient, and recipients of the regular Allowance.  
 (2) Components may not sum to totals due to rounding.

**Table 7 GIS and Allowance Beneficiaries after Increasing the Top-Up Benefit<sup>(1)</sup>**

Calendar Year	Number of Beneficiaries (thousands)				Number of Beneficiaries Receiving the Additional Top-Up (includes new Top-Up Beneficiaries) (thousands)			
	GIS Spouse not a Pensioner Allowance Survivor Total <sup>(2)</sup>				GIS Spouse not a Pensioner Allowance Survivor Total <sup>(2)</sup>			
	GIS Single	Pensioner	Survivor	Total <sup>(2)</sup>	GIS Single	Pensioner	Survivor	Total <sup>(2)</sup>
2016	1,119	105	20	1,243	749	54	10	813
2017	1,159	107	19	1,284	775	55	10	840
2018	1,202	109	18	1,329	804	57	9	869
2019	1,241	113	18	1,372	827	58	9	894
2020	1,287	117	17	1,421	856	60	9	925
2021	1,334	121	17	1,472	885	62	9	956
2022	1,385	125	17	1,527	918	64	9	991
2023	1,428	126	16	1,570	943	65	8	1,017
2024	1,462	126	16	1,604	960	66	8	1,034
2025	1,502	126	16	1,644	982	67	8	1,057
2030	1,716	124	13	1,853	1,098	72	7	1,177
2040	2,014	124	8	2,146	1,263	78	4	1,346
2050	2,105	122	7	2,234	1,308	77	4	1,389

(1) The table excludes persons who are unaffected by the amendment – GIS recipients whose spouse is a pensioner or Allowance recipient, and recipients of the regular Allowance.  
 (2) Components may not sum to totals due to rounding.

**Table 8 Change in GIS and Allowance Beneficiaries due to Increased Top-Up Benefit<sup>(1)</sup>**

Calendar Year	Change in Number of Beneficiaries (thousands)				Change in Number of Beneficiaries Receiving the Top-Up (new top-up beneficiaries) (thousands) <sup>(3)</sup>			
	GIS				GIS			
	GIS Single	Spouse not a Pensioner	Allowance Survivor	Total <sup>(2)</sup>	GIS Single	Spouse not a Pensioner	Allowance Survivor	Total <sup>(2)</sup>
2016	-	-	-	-	276	19	4	299
2017	-	-	-	-	285	19	4	308
2018	-	-	-	-	295	20	4	319
2019	-	-	-	-	305	20	4	329
2020	-	-	-	-	316	21	4	341
2021	-	-	-	-	327	22	4	352
2022	-	-	-	-	339	23	3	365
2023	-	-	-	-	349	23	3	375
2024	-	-	-	-	358	23	3	384
2025	-	-	-	-	367	23	3	394
2030	-	-	-	-	417	25	3	445
2040	-	-	-	-	489	27	2	518
2050	-	-	-	-	511	27	1	539

(1) Table 8 is the difference between Tables 7 and 6.

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

(3) This number represents the number of new top-up recipients due to the increased income limits of the increased top-up.

***Detailed Impact on GIS and Allowance Expenditures***

Table 9 shows the projected GIS and Allowance expenditures by type of benefit as presented in the 12<sup>th</sup> OAS Program Actuarial Report as at 31 December 2012 and as amended by the increase in the top-up benefit. For comparison purposes, Table 10 shows the change in expenditures resulting from the increase in the top-up benefit. Note that these tables exclude persons who are unaffected by the amendment – GIS recipients whose spouse is a pensioner or Allowance recipient, and recipients of the regular Allowance.

Table 10 reveals that, over the first five years, the increase in GIS single expenditures is projected to grow from \$289 million in 2016 to \$716 million in 2020. By 2030, GIS single expenditures are projected to be \$1.1 billion or about 8% higher than projected under the 12<sup>th</sup> OAS Program Actuarial Report.

Table 10 also reveals that, over the first five years, the increase in GIS spouse not a pensioner expenditures is projected to grow from \$22 million in 2016 to \$52 million in 2020. By 2030, GIS spouse not a pensioner expenditures are projected to be \$78 million or about 8% higher than projected under the 12<sup>th</sup> OAS Program Actuarial Report.

Finally, Table 10 shows that, over the first five years, the increase in Allowance for the Survivor expenditures is projected to grow from \$4 million in 2016 to \$7 million in 2020. In 2030, Allowance for the Survivor expenditures are projected to be \$7 million or about 4.5% higher than projected under the 12<sup>th</sup> OAS Program Actuarial Report.



**Table 9 GIS and Allowance Expenditures<sup>(1)</sup>**

Calendar Year	Expenditures 12 <sup>th</sup> OAS Actuarial Report (\$ million)				Expenditures After Increasing Top-Up (\$ million)			
	GIS Single	GIS Spouse not a Pensioner	Allowance Survivor	Total <sup>(2)</sup>	GIS Single	GIS Spouse not a Pensioner	Allowance Survivor	Total <sup>(2)</sup>
2016	7,169	593	172	7,933	7,459	614	175	8,248
2017	7,565	614	166	8,345	8,177	659	173	9,009
2018	7,992	641	164	8,797	8,638	688	171	9,497
2019	8,388	675	164	9,227	9,065	724	172	9,961
2020	8,861	712	164	9,737	9,577	763	171	10,511
2021	9,364	749	164	10,277	10,121	804	171	11,096
2022	9,917	789	164	10,870	10,718	847	171	11,737
2023	10,456	823	159	11,438	11,297	883	166	12,346
2024	10,889	841	163	11,892	11,762	903	169	12,834
2025	11,390	859	162	12,410	12,302	923	169	13,394
2030	14,170	962	155	15,288	15,301	1,040	162	16,503
2040	20,352	1,215	124	21,691	21,963	1,321	130	23,414
2050	26,183	1,472	131	27,786	28,255	1,601	137	29,993

(1) The table excludes benefit expenditures pertaining to individuals unaffected by the amendment – GIS recipients whose spouse is a pensioner or Allowance recipient, and recipients of the regular Allowance.

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

**Table 10 Change in GIS and Allowance Expenditures due to Increased Top-Up Benefit<sup>(1)</sup>**

Calendar Year	Change in Expenditures (\$ million)				Change in Expenditures (%)			
	GIS Single	GIS Spouse not a Pensioner	Allowance Survivor	Total <sup>(2)</sup>	GIS Single	GIS Spouse not a Pensioner	Allowance Survivor	Total
2016	289	22	4	315	4.0	3.6	2.2	4.0
2017	612	45	7	664	8.1	7.3	4.5	8.0
2018	647	47	7	701	8.1	7.3	4.5	8.0
2019	677	49	7	734	8.1	7.3	4.5	8.0
2020	716	52	7	775	8.1	7.3	4.5	8.0
2021	756	54	7	818	8.1	7.3	4.5	8.0
2022	802	57	7	866	8.1	7.3	4.5	8.0
2023	841	60	7	908	8.0	7.3	4.4	7.9
2024	874	62	6	941	8.0	7.4	3.7	7.9
2025	912	64	7	984	8.0	7.5	4.6	7.9
2030	1,131	78	7	1,216	8.0	8.1	4.5	8.0
2040	1,611	105	6	1,722	7.9	8.7	4.5	7.9
2050	2,072	129	6	2,207	7.9	8.7	4.5	7.9

(1) Change is relative to the best-estimate projections of the 12<sup>th</sup> OAS Program Actuarial Report. The table excludes benefit expenditures pertaining to individuals unaffected by the amendment – GIS recipients whose spouse is a pensioner or Allowance recipient, and recipients of the regular Allowance.

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

## 2. Impact of Cancelling Increase in Ages of Eligibility

### A. Assumptions and Methods

For the purpose of cancelling the provisions in *the Old Age Security Act* that increase the ages of eligibility for the OAS basic pension and the GIS benefit from 65 to 67 and Allowance benefits from 60 to 62 over the 2023 to 2029 period, the age of eligibility for the OAS basic pension and GIS benefit is assumed to remain at 65 and to remain at age 60 for Allowance benefits throughout the projection period.

### B. Results

Table 11 presents the financial status of the OAS program as amended for the increase in the single rate GIS and Allowance for the Survivor top-up benefits (see Section 1 above) as well as for cancelling the increase in the ages of eligibility.

**Table 11 Financial Status of OAS Program after All Amendments**

Calendar Year	Number of Beneficiaries (thousands)		Expenditures (\$ million)				GDP (\$ billion)	Expenditures as a Percentage of GDP
	OAS	GIS/ Allowance	OAS	GIS/ Allowance	Admin. Expenses	Total <sup>(1)</sup>		
2016	5,896	1,957	38,892	11,325	172	50,389	2,056	2.45
2017	6,110	2,022	41,109	12,249	182	53,540	2,118	2.53
2018	6,335	2,094	43,477	12,911	192	56,581	2,197	2.58
2019	6,574	2,165	46,021	13,558	203	59,782	2,280	2.62
2020	6,824	2,243	48,757	14,297	215	63,269	2,369	2.67
2021	7,072	2,323	51,628	15,083	227	66,938	2,464	2.72
2022	7,329	2,409	54,679	15,938	241	70,858	2,562	2.77
2023	7,589	2,497	57,866	16,825	255	74,946	2,664	2.81
2024	7,848	2,580	61,151	17,681	269	79,101	2,767	2.86
2025	8,111	2,670	64,584	18,632	284	83,500	2,874	2.91
2030	9,393	3,100	83,191	23,647	364	107,202	3,503	3.06
2040	10,672	3,414	116,959	32,157	508	149,624	5,211	2.87
2050	11,561	3,472	157,387	40,562	675	198,625	7,638	2.60

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

Table 12 shows the difference between Tables 11 and 4, which allows for the measurement of the impact of cancelling the increase in the ages of eligibility after increasing the top-up benefit.

Table 12 reveals that cancelling the increase in the ages of eligibility is projected to result in 109,000 additional beneficiaries receiving the OAS basic pension in 2023 and about 1 million more beneficiaries by 2030. Cancelling the increase in the ages of eligibility is also projected to result in 19,000 additional GIS and Allowance beneficiaries in 2023 and about 187,000 more by 2030.

Total expenditures are projected to increase by \$439 million in 2023 and by \$10.4 billion in 2030. As such, by 2030, expenditures expressed as a percentage of the GDP would be higher by about 0.3% of the GDP compared to only increasing the top-up benefit.

**Table 12 Change in Financial Status Due to Cancelling the Increase in Ages of Eligibility  
 (after Increase in Top-Up Benefit)<sup>(1)</sup>**

Calendar Year	Change in Number of Beneficiaries (thousands)		Change in Expenditures (\$ million)				GDP (\$ billion)	Expenditures as a Percentage of GDP
	OAS	GIS/ Allowance	OAS	GIS/ Allowance	Admin. Expenses <sup>(3)</sup>	Total <sup>(2)</sup>		
2016	-	-	-	-	-	-	2,056	0.00
2017	-	-	-	-	-	-	2,118	0.00
2018	-	-	-	-	-	-	2,197	0.00
2019	-	-	-	-	-	-	2,280	0.00
2020	-	-	-	-	-	-	2,369	0.00
2021	-	-	-	-	-	-	2,464	0.00
2022	-	-	-	-	-	-	2,562	0.00
2023	109	19	355	82	1	439	2,664	0.01
2024	257	46	1,518	262	6	1,787	2,767	0.07
2025	412	72	2,770	472	11	3,253	2,874	0.12
2030	997	187	8,928	1,430	36	10,394	3,503	0.30
2040	876	157	9,143	1,498	37	10,678	5,211	0.20
2050	1,048	175	13,198	2,062	52	15,313	7,638	0.20

(1) Table 12 is the difference between Tables 11 and 4.

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

(3) As per the 12<sup>th</sup> OAS Program Actuarial Report, administrative expenses are assumed to be 0.35% of total annual benefit payments. As a result of cancelling the increase in the ages of eligibility, it is projected that administrative expenses will increase.

### 3. Impact of All Amendments

Table 13 shows the difference between Tables 11 and 3 and enables the measurement of the impact of all amendments.

The number of program beneficiaries is not projected to increase over the period 2016 through 2022. Thereafter, due to the cancellation of the increase in the ages of eligibility, the number of beneficiaries of the OAS basic pension gradually increases by about 1 million by 2030, and the number of GIS and Allowance beneficiaries gradually increases by about 187,000 by the same year.

Both amendments are projected to increase total program expenditures by \$11.6 billion in 2030, which represents an increase of 0.33% of GDP. Chart 2 illustrates the cost of the OAS program expressed as a percentage of the GDP under the 12<sup>th</sup> OAS Program Actuarial Report, after the amendment for the top-up benefit, and after all amendments.

**Table 13 Change in Financial Status Due to All Amendments<sup>(1)</sup>**

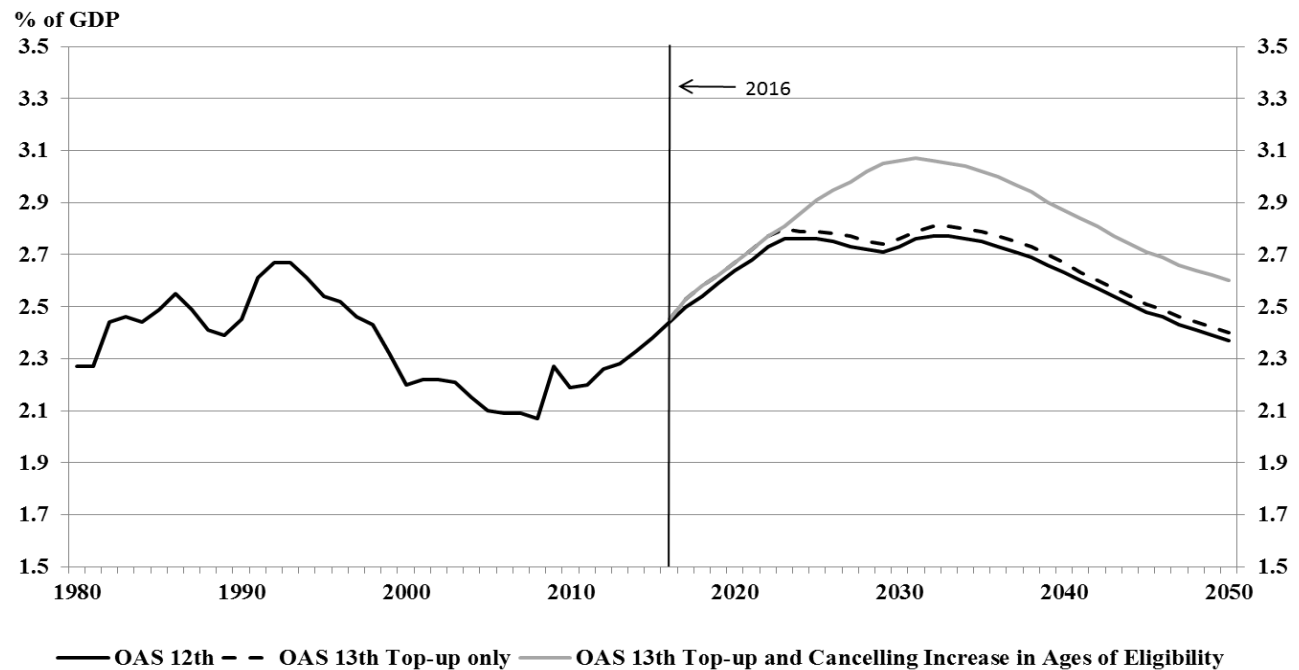
Calendar Year	Change in Number of Beneficiaries (thousands)		Change in Expenditures (\$ million)				GDP (\$ billion)	Change in Expenditures as a Percentage of GDP
	OAS	GIS/ Allowance	OAS	GIS/ Allowance	Admin. Expenses <sup>(3)</sup>	Total <sup>(2)</sup>		
2016	-	-	-	315	-	315	2,056	0.01
2017	-	-	-	664	-	663	2,118	0.03
2018	-	-	-	701	-	701	2,197	0.04
2019	-	-	-	734	-	734	2,280	0.03
2020	-	-	-	775	-	775	2,369	0.03
2021	-	-	-	818	-	818	2,464	0.04
2022	-	-	-	866	-	867	2,562	0.04
2023	109	19	355	991	1	1,347	2,664	0.05
2024	257	46	1,518	1,204	6	2,729	2,767	0.10
2025	412	72	2,770	1,456	11	4,237	2,874	0.15
2030	997	187	8,928	2,646	36	11,610	3,503	0.33
2040	876	157	9,143	3,220	37	12,400	5,211	0.24
2050	1,048	175	13,198	4,269	52	17,520	7,638	0.23

(1) Table 13 is the difference between Tables 11 and 3.

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

(3) As per the 12<sup>th</sup> OAS Program Actuarial Report, administrative expenses are assumed to be 0.35% of total annual benefit payments. As a result of cancelling the increase in the ages of eligibility, it is projected that administrative expenses will increase.

**Chart 2 OAS Program Expenditures as a Percentage of GDP**



## V. Conclusion

This 13<sup>th</sup> OAS Program Actuarial Report shows the following:

### *Increasing the GIS Top-Up Benefit*

- The increase in GIS and Allowance expenditures is projected to be \$315 million in 2016 and \$775 million by 2020. GIS and Allowance expenditures are thus projected to be \$3.2 billion higher than under the 12<sup>th</sup> OAS Program Actuarial Report over the period 2016 through 2020.
- The projected number of GIS and Allowance beneficiaries who will receive the full or a partial additional top-up benefit is estimated to grow from 813,000 in 2016 to 925,000 by 2020.
- By 2030, GIS and Allowance expenditures are projected to be \$1.2 billion or 0.03% of the GDP higher than projected under the 12<sup>th</sup> OAS Program Actuarial Report.

### *Cancelling the Increase in Ages of Eligibility*

- By 2030, cancelling the increase in the ages of eligibility for OAS benefits is projected to increase the number of beneficiaries of the OAS basic pension by 1 million and increase the number of GIS and Allowance beneficiaries by 187,000.
- By 2030, cancelling the increase in the ages of eligibility is projected to increase total program expenditures by \$10.4 billion. This represents an increase of 0.3% of GDP.

### *All Amendments*

- Taken together, the amendments are projected to increase total program expenditures by \$11.6 billion by 2030, which represents an increase of 0.33% of GDP.

## VI. Actuarial Opinion

In our opinion, considering that this 13<sup>th</sup> Actuarial Report on the Old Age Security Program 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 methods employed are appropriate for the purposes of this report.

This report has been prepared, and our opinions given, in accordance with both accepted actuarial practice in Canada, in particular, the General Standards of Practice of the Canadian Institute of Actuaries, and internationally accepted actuarial practice as provided by the International Standards of Actuarial Practice for General Actuarial Practice (ISAP 1) and Financial Analysis of Social Security Programs (ISAP 2) of the International Actuarial Association.



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Chief Actuary

Ottawa, Canada  
15 July 2016

## Appendix A – Detailed Tables of Projections Including All Amendments

**Table 14 OAS Program Beneficiaries (Projected)<sup>(1)</sup>**

Calendar Year	Number of Beneficiaries			Recipient Rates		
	OAS (thousands)	GIS (thousands)	Allowance (thousands)	OAS (%)	GIS (%)	Allowance (%)
2016	5,896	1,882	75	98.2	31.4	3.3
2017	6,110	1,948	74	98.3	31.4	3.1
2018	6,335	2,020	74	98.4	31.4	3.0
2019	6,574	2,091	74	98.5	31.3	3.0
2020	6,824	2,169	74	98.5	31.3	2.9
2021	7,072	2,250	74	98.5	31.3	2.8
2022	7,329	2,335	73	98.6	31.4	2.8
2023	7,589	2,423	73	98.6	31.5	2.7
2024	7,848	2,506	73	98.7	31.5	2.7
2025	8,111	2,597	73	98.7	31.6	2.7
2026	8,378	2,691	71	98.8	31.7	2.7
2027	8,637	2,786	69	98.8	31.9	2.7
2028	8,903	2,883	66	98.8	32.0	2.6
2029	9,160	2,976	63	98.9	32.1	2.6
2030	9,393	3,041	60	98.9	32.0	2.5
2031	9,588	3,097	58	99.0	32.0	2.4
2032	9,751	3,145	57	99.1	32.0	2.4
2033	9,898	3,187	56	99.2	32.0	2.4
2034	10,037	3,223	55	99.3	31.9	2.3
2035	10,172	3,258	54	99.3	31.8	2.3
2036	10,300	3,290	52	99.4	31.7	2.2
2037	10,408	3,315	52	99.4	31.7	2.2
2038	10,503	3,335	52	99.5	31.6	2.1
2039	10,586	3,349	52	99.5	31.5	2.1
2040	10,672	3,362	51	99.5	31.4	2.1
2045	11,072	3,396	52	99.5	30.5	1.9
2050	11,561	3,421	51	99.4	29.4	1.7
2055	12,118	3,456	49	99.4	28.3	1.6
2060	12,703	3,498	42	99.4	27.4	1.5

(1) The projected OAS basic 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. All recipient rates include benefits paid outside Canada and for this reason can exceed 100%.

**Table 15 OAS Program Expenditures and Average Annual Benefits (Projected)<sup>(1)</sup>**

Calendar Year	Expenditures (\$ million)					Average Annual Benefit (\$)		
	OAS	GIS	Allowance	Administrative Expenses	Total <sup>(2)</sup>	OAS	GIS	Allowance
2016	38,892	10,818	507	172	50,389	6,597	5,748	6,748
2017	41,109	11,737	512	182	53,540	6,728	6,024	6,927
2018	43,477	12,391	520	192	56,581	6,863	6,134	7,061
2019	46,021	13,026	531	203	59,782	7,000	6,231	7,193
2020	48,757	13,758	540	215	63,269	7,145	6,342	7,335
2021	51,628	14,533	551	227	66,938	7,300	6,460	7,477
2022	54,679	15,377	561	241	70,858	7,461	6,584	7,632
2023	57,866	16,254	571	255	74,946	7,625	6,708	7,786
2024	61,151	17,100	581	269	79,101	7,792	6,823	7,942
2025	64,584	18,044	588	284	83,500	7,962	6,947	8,106
2026	68,151	19,023	589	299	88,062	8,134	7,070	8,275
2027	71,772	20,044	586	315	92,717	8,309	7,196	8,439
2028	75,577	21,110	573	331	97,591	8,489	7,322	8,622
2029	79,424	22,145	555	348	102,471	8,671	7,440	8,805
2030	83,191	23,110	536	364	107,202	8,857	7,600	8,986
2031	86,731	24,045	528	379	111,683	9,046	7,764	9,149
2032	90,086	24,941	528	394	115,949	9,239	7,931	9,314
2033	93,408	25,823	529	408	120,168	9,437	8,102	9,492
2034	96,753	26,661	530	423	124,367	9,640	8,271	9,680
2035	100,173	27,528	529	437	128,667	9,848	8,448	9,875
2036	103,625	28,392	528	452	132,996	10,060	8,629	10,079
2037	106,973	29,224	532	466	137,195	10,278	8,815	10,268
2038	110,276	30,034	540	480	141,330	10,500	9,005	10,466
2039	113,557	30,810	550	494	145,411	10,727	9,198	10,668
2040	116,959	31,597	560	508	149,624	10,959	9,397	10,886
2045	135,169	35,533	628	584	171,914	12,208	10,462	12,014
2050	157,387	39,887	675	675	198,625	13,614	11,658	13,288
2055	184,199	44,857	719	784	230,560	15,201	12,981	14,696
2060	215,347	50,440	683	910	267,380	16,953	14,419	16,271

(1) The projected OAS basic 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 Tax-Free Savings Accounts. All expenditures include benefits paid outside of Canada.

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



**Table 16 OAS Program Expenditures as Percentage of GDP (Projected)**

Calendar Year	Gross Domestic Product (\$ billion)	Expenditures as % of Gross Domestic Product <sup>(1)</sup>				Total <sup>(2)</sup>
		OAS	GIS	Allowance	Administrative Expenses	
		(%)	(%)	(%)	(%)	(%)
2016	2,056	1.89	0.53	0.02	0.01	2.45
2017	2,118	1.94	0.55	0.02	0.01	2.53
2018	2,197	1.98	0.56	0.02	0.01	2.58
2019	2,280	2.02	0.57	0.02	0.01	2.62
2020	2,369	2.06	0.58	0.02	0.01	2.67
2021	2,464	2.10	0.59	0.02	0.01	2.72
2022	2,562	2.13	0.60	0.02	0.01	2.77
2023	2,664	2.17	0.61	0.02	0.01	2.81
2024	2,767	2.21	0.62	0.02	0.01	2.86
2025	2,874	2.25	0.63	0.02	0.01	2.91
2026	2,987	2.28	0.64	0.02	0.01	2.95
2027	3,107	2.31	0.65	0.02	0.01	2.98
2028	3,232	2.34	0.65	0.02	0.01	3.02
2029	3,364	2.36	0.66	0.02	0.01	3.05
2030	3,503	2.38	0.66	0.02	0.01	3.06
2031	3,639	2.38	0.66	0.01	0.01	3.07
2032	3,784	2.38	0.66	0.01	0.01	3.06
2033	3,936	2.37	0.66	0.01	0.01	3.05
2034	4,096	2.36	0.65	0.01	0.01	3.04
2035	4,262	2.35	0.65	0.01	0.01	3.02
2036	4,436	2.34	0.64	0.01	0.01	3.00
2037	4,619	2.32	0.63	0.01	0.01	2.97
2038	4,810	2.29	0.62	0.01	0.01	2.94
2039	5,007	2.27	0.62	0.01	0.01	2.90
2040	5,211	2.24	0.61	0.01	0.01	2.87
2045	6,334	2.13	0.56	0.01	0.01	2.71
2050	7,638	2.06	0.52	0.01	0.01	2.60
2055	9,181	2.01	0.49	0.01	0.01	2.51
2060	11,092	1.94	0.45	0.01	0.01	2.41

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

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

## **Appendix B – Acknowledgements**

Service Canada provided statistics on the Old Age Security program.

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The following people assisted in the preparation of this report:

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