

Actuarial Report (15th)

Supplementing the Actuarial Report on the

OLD AGE SECURITY PROGRAM

As at 31 December 2015



Office of the Superintendent of
Financial Institutions Canada

Office of the Chief Actuary

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19 July 2019

The Honourable Jean-Yves Duclos, P.C., M.P.
Minister of Families, Children and Social Development
House of Commons
Ottawa, Canada
K1A 0A6

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 of the Old Age Security program when an amendment to the *Old Age Security Act* is made that affects the cost of benefits, I am pleased to submit the 15th Actuarial Report on the Old Age Security program.

Yours sincerely,



Assia Billig, FCIA, FSA, PhD
Chief Actuary

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I. Executive Summary

This is the 15th Actuarial Report on the Old Age Security (OAS) program since the implementation 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 most recent report made pursuant to section 3 of the PPRA is the 14th Actuarial Report on the Old Age Security Program as at 31 December 2015, which was tabled in the House of Commons on 16 August 2017. Therefore, this 15th Actuarial Report has been prepared on the basis of the 14th Actuarial Report to show the effect of Division 7 of Part 4 of Bill C-97 on the long-term financial status of the OAS program. Bill C-97 – the *Budget Implementation Act, 2019, No. 1*, received Royal Assent on 21 June 2019.

Bill C-97 amends the *Old Age Security Act* to enhance, beginning 1 July 2020, the income exemption for the Guaranteed Income Supplement (GIS) and Allowance benefits by:

- Extending eligibility for the income exemption to self-employment income;
- Increasing the amount of the full income exemption from the first \$3,500 of annual employment income to \$5,000 of annual employment and self-employment income for each GIS or Allowance recipient and their spouse or common-law partner; and
- Introducing a partial income exemption of 50 per cent to apply to annual employment and self-employment income greater than the new full income exemption amount of \$5,000 but not exceeding \$15,000 for each GIS or Allowance recipient and their spouse or common-law partner, for a maximum partial income exemption of \$5,000. In combination, the full and partial income exemption can result in a maximum total income exemption of \$10,000.

Main Findings

This 15th OAS Program Actuarial Report projects the following in respect of the amendments under Division 7 of Part 4 of Bill C-97:

- In 2021, the first full year of implementation, the amendments are projected to increase total expenditures by \$464 million. In 2030, the increase in total expenditures is projected to be \$473 million.
- The number of individuals who will benefit from this change is projected to be 325,000 in 2021 and is expected to grow to 358,000 by 2030.
- In 2030, total expenditures are projected to be 0.01% of the Gross Domestic Product (GDP) higher than projected under the 14th OAS Program Actuarial Report.

II. Introduction

This report 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 most recent report made pursuant to section 3 of the PPRA is the 14th Actuarial Report on the Old Age Security (OAS) Program as at 31 December 2015, which was tabled in the House of Commons on 16 August 2017. Therefore, this 15th Actuarial Report has been prepared on the basis of the 14th Actuarial Report to show the effect of Division 7 of Part 4 of Bill C-97 on the long-term financial status of the OAS program. Bill C-97 – the *Budget Implementation Act, 2019, No. 1* received Royal Assent on 21 June 2019.

III. Description of Division 7 of Part 4 of Bill C-97

The OAS Program currently provides the Guaranteed Income Supplement (GIS) an employment earnings exemption, which allows seniors to earn up to \$3,500 per year of employment income without a reduction in their GIS or Allowance benefit. The exemption also applies in instances where the earnings are those of the GIS recipient’s spouse or common-law partner as the income-testing is based on the combined annual income of the couple. In the case of couples, they can earn up to \$7,000 before their GIS is reduced.

Seniors who earn more than \$3,500 from employment currently face reductions to their GIS. In addition, the current GIS earnings exemption does not apply to income from self-employment.

Bill C-97 amends the *Old Age Security Act* to enhance, beginning 1 July 2020, the income exemption for the GIS and Allowance benefits by:

- Extending eligibility for the income exemption to self-employment income;
- Increasing the amount of the full income exemption from the first \$3,500 annual employment income to \$5,000 of annual employment and self-employment income for each GIS or Allowance recipient and their spouse or common-law partner; and
- Introducing a partial income exemption of 50 per cent to apply to annual employment and self-employment income greater than the new full income exemption amount of \$5,000 but not exceeding \$15,000 for each GIS or Allowance recipient and their spouse or common-law partner, for a maximum partial income exemption of \$5,000. In combination, the full and partial income exemption can result in a maximum total income exemption of \$10,000.

IV. Financial Status

Unless stated otherwise, the financial estimates presented in this report use the same actuarial assumptions and methods as for the 14th OAS Actuarial Program Report as at 31 December 2015. The impacts on expenditures and the number of beneficiaries are relative to the best-estimate projections of the 14th OAS Program Actuarial Report.

A. Assumptions and Methods

The enhanced income exemption under Bill C-97 will affect OAS program beneficiaries in pay, and will also result in new beneficiaries who would have otherwise not been entitled to a GIS or Allowance benefit.

Using depersonalized statistics on OAS beneficiaries as at 31 July 2016, provided by Service Canada, assumptions were developed on the proportions of GIS and Allowance beneficiaries in pay who would be affected and receive higher benefits due to the enhanced income exemption. These assumptions vary by age, sex, type and level of benefit. The projected average increases in benefits were also determined for these individuals.

The projected number of seniors eligible to receive the GIS and Allowance benefits will increase because of the enhanced income exemption. Using depersonalized statistics on OAS beneficiaries as at 31 July 2016, provided by Service Canada and income tax data from the Canada Revenue Agency, assumptions were developed for the projected increase in the number of GIS and Allowance beneficiaries by age, sex, type and level of benefit. The projected average benefits for these new beneficiaries were also determined.

Table 1 shows the assumed proportion of beneficiaries in pay who would be affected and their average increase in benefits expressed as a percentage of the maximum benefit. Table 1 also shows the assumed proportion of new GIS and Allowance beneficiaries and the average new benefits expressed as a percentage of the maximum benefit payable.

Table 1 Assumed Proportion of Affected and New GIS and Allowance Beneficiaries and Average Increase in Benefits and New Benefits (2020)⁽¹⁾

Benefits in Pay	GIS				Allowance Survivor
	Single	Spouse a Pensioner	Spouse not a Pensioner	Spouse Has Allowance Regular	
Affected (% of Beneficiaries in Pay)	3.30	7.79	24.25	53.22	15.08
Average Increase in Benefit (% of Maximum Benefit)	21.74	17.05	17.55	1.54	16.49
New Benefits					
New (% of Population)	0.33	0.58	0.66	0.32	0.06
Average New Benefit (% of Maximum Benefit)	16.73	17.74	16.49	15.29	25.93

(1) Based on the projected GIS and Allowance annualized maximum rates for July 2020 (\$11,109) and individuals receiving the maximum OAS basic pension.

Table 2 presents illustrative impacts on the amount of GIS benefits payable before and after the enhanced income exemption for various employment and self-employment earnings levels. For instance, for an individual with a total annual income of \$15,000 of which \$3,000 is employment earnings and \$3,000 is self-employment earnings, their employment earnings only would be fully exempt under the current program, for a net \$12,000 of remaining income considered for determining their benefits.

After the amendments are applied, \$5,000 of their earnings from employment and self-employment would be exempt with another \$500 also exempt (50% of the next \$1,000), for a net \$9,500 remaining income considered for determining the benefits. In this case, the lower considered income would result in the annual benefit increasing from \$3,390 to \$4,650, for an increase of \$1,260 or 37%.

Table 2 Illustrative Impact on GIS Single Benefit (July 2020 Basis)⁽¹⁾

Annual Total Income Before Exemption (\$)	Annual Earnings Income (\$)		Annual Total Income After Exemption (\$)		Annualized Benefit After Exemption (\$)		Increase in Annual Benefit Due to Enhancement	
	Employment	Self-Employment	Current	Enhanced	Current	Enhanced	(\$)	(%)
5,000	4,000	-	1,500	1,000	10,365	10,617	252	2.4%
5,000	2,000	2,000	3,000	1,000	9,370	10,617	1,247	13.3%
5,000	-	4,000	5,000	1,000	7,869	10,617	2,748	34.9%
10,000	4,000	-	6,500	6,000	6,753	7,113	360	5.3%
10,000	2,000	2,000	8,000	6,000	5,613	7,113	1,500	26.7%
10,000	-	4,000	10,000	6,000	4,397	7,113	2,716	61.8%
15,000	6,000	-	11,500	9,500	3,641	4,649	1,008	27.7%
15,000	3,000	3,000	12,000	9,500	3,389	4,649	1,260	37.2%
15,000	-	6,000	15,000	9,500	1,889	4,649	2,760	146.1%
20,000	8,000	-	16,500	13,500	1,145	2,645	1,500	131.0%
20,000	4,000	4,000	16,500	13,500	1,145	2,645	1,500	131.0%
20,000	-	8,000	20,000	13,500	0	2,645	2,645	n/a

(2) Estimated annualized benefits based on the projected GIS Single annualized maximum rate for July 2020 (\$11,109) 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 14th OAS Program Actuarial Report as at 31 December 2015. Table 4 presents the same information but amended for the increase in the income exemption, while Table 5 presents the change in the financial status due to the increase in the income exemption.

Table 5 reveals that the increase in expenditures is projected to be \$464 million in 2021 (first full year of implementation) and \$473 million in 2030. In 2030, the expenditures are projected to be 0.01% higher relative to the GDP. The number of new GIS and Allowance beneficiaries is projected to be 142,000 in 2021 and 138,000 in 2030.

Table 3 Financial Status before Amendments⁽¹⁾

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 ⁽²⁾		
2016	5,761	1,934	37,779	11,172	170	49,121	2,027	2.42
2017	5,971	1,996	39,902	12,152	181	52,236	2,091	2.50
2018	6,194	2,061	42,226	12,800	191	55,217	2,155	2.56
2019	6,432	2,123	44,738	13,418	202	58,357	2,222	2.63
2020	6,683	2,196	47,433	14,141	214	61,788	2,289	2.70
2021	6,936	2,277	50,232	14,936	226	65,394	2,368	2.76
2022	7,197	2,363	53,183	15,792	240	69,214	2,452	2.82
2023	7,464	2,452	56,280	16,692	254	73,226	2,540	2.88
2024	7,730	2,537	59,470	17,567	268	77,305	2,632	2.94
2025	8,001	2,628	62,791	18,519	282	81,592	2,727	2.99
2030	9,283	3,068	80,334	23,609	361	104,304	3,254	3.21
2040	10,602	3,406	111,437	31,697	497	143,632	4,712	3.05
2050	11,522	3,416	147,449	38,691	647	186,786	6,669	2.80
2060	12,724	3,386	198,566	47,107	853	246,527	9,298	2.65

(1) 14th OAS Program Actuarial Report as at 31 December 2015.

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

Table 4 Financial Status after 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 ⁽¹⁾		
2016	5,761	1,934	37,779	11,172	170	49,121	2,027	2.42
2017	5,971	1,996	39,902	12,152	181	52,236	2,091	2.50
2018	6,194	2,061	42,226	12,800	191	55,217	2,155	2.56
2019	6,432	2,123	44,738	13,418	202	58,357	2,222	2.63
2020	6,683	2,338	47,433	14,369	215	62,017	2,289	2.71
2021	6,936	2,419	50,232	15,398	228	65,858	2,368	2.78
2022	7,197	2,506	53,183	16,259	241	69,684	2,452	2.84
2023	7,464	2,597	56,280	17,165	255	73,701	2,540	2.90
2024	7,730	2,682	59,470	18,044	269	77,784	2,632	2.96
2025	8,001	2,773	62,791	18,998	284	82,073	2,727	3.01
2030	9,283	3,206	80,334	24,080	363	104,777	3,254	3.22
2040	10,602	3,515	111,437	32,089	499	144,025	4,712	3.06
2050	11,522	3,511	147,449	39,053	648	187,150	6,669	2.81
2060	12,724	3,470	198,566	47,447	855	246,867	9,298	2.65

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

Table 5 Change in Financial Status due to Increase in Income Exemption⁽¹⁾

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	-	-	-	-	-	-	2,056	0.00
2017	-	-	-	-	-	-	2,118	0.00
2018	-	-	-	-	-	-	2,197	0.00
2019	-	-	-	-	-	-	2,280	0.00
2020	-	141	-	229	1	229	2,369	0.01
2021	-	142	-	462	2	464	2,464	0.02
2022	-	143	-	468	2	470	2,562	0.02
2023	-	144	-	473	2	475	2,664	0.02
2024	-	145	-	477	2	479	2,767	0.02
2025	-	145	-	480	2	481	2,874	0.02
2030	-	138	-	472	2	473	3,503	0.01
2040	-	108	-	392	1	393	5,211	0.01
2050	-	96	-	363	1	364	7,638	0.01
2060	-	84	-	340	1	340	7,639	0.00

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

Detailed Impact on GIS and Allowance Beneficiaries

Table 6 shows the projected number of GIS and Allowance beneficiaries in pay who would be affected by the change in the income exemption. For these beneficiaries, the benefits otherwise payable would be increased due to the new income exemption.

In 2021, about 182,000 beneficiaries in pay are projected to have their GIS or Allowance benefit increased due to the change in the income exemption. This number of affected GIS and Allowance beneficiaries is projected to increase to 221,000 by 2030.

Table 7 shows the projected number of new GIS and Allowance beneficiaries due to the change in the income exemption. These individuals would not otherwise be entitled to for the GIS or Allowance benefit.

In 2021, about 142,000 individuals are projected to start receiving a GIS or Allowance benefit due to the change in the income exemption. This number of new GIS and Allowance beneficiaries is projected to be 138,000 in 2030.

Table 8 shows the total projected number of GIS and Allowance beneficiaries who would be affected or result from the change in the income exemption.

In 2021, a total of about 325,000 GIS and Allowance beneficiaries (affected plus new) are projected to benefit from the change in the income exemption. The number of individuals who would benefit from the change is projected to increase to 358,000 by 2030.

Table 6 Beneficiaries Affected by the Amendments

Number of Affected Beneficiaries ⁽¹⁾ (thousands)						
GIS						
Calendar Year	Single	Spouse a Pensioner	Spouse not a Pensioner	Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total Affected ⁽³⁾
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	42	54	24	55	3	178
2021	44	56	25	55	3	182
2022	45	58	26	57	3	188
2023	46	60	26	59	3	193
2024	48	61	27	60	3	198
2025	49	63	27	61	3	203
2030	54	70	29	66	2	221
2040	51	65	26	59	2	202
2050	52	61	25	61	1	200
2060	55	62	25	64	1	208

(1) Number of beneficiaries, as projected under the 14th OAS Program Actuarial Report as at 31 December 2015, who are assumed to be affected by the enhanced income exemption.

(2) GIS and Allowance Regular beneficiaries combined.

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

Table 7 New Beneficiaries Resulting from the Amendments⁽¹⁾

Number of New Beneficiaries ⁽¹⁾ (thousands)						
GIS						
Calendar Year	Single	Spouse a Pensioner	Spouse not a Pensioner	Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total New ⁽³⁾
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	23	41	46	31	2	141
2021	23	41	46	31	2	142
2022	23	42	46	30	2	143
2023	23	42	47	30	2	144
2024	24	43	47	30	2	145
2025	24	43	47	29	2	145
2030	23	44	45	24	1	138
2040	18	36	33	20	1	108
2050	16	31	29	18	1	96
2060	14	28	26	14	1	84

(1) Projected number of new beneficiaries for those persons who become eligible for a GIS or Allowance benefit because of the amendments who were not eligible before.

(2) GIS and Allowance Regular beneficiaries combined.

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

Table 8 Beneficiaries after Amendments

Calendar Year	Total GIS and Allowance Beneficiaries Before Amendments (thousands)	Total Number of Beneficiaries Affected or New due to the Enhanced Income Exemption ⁽¹⁾ (thousands)						Total GIS and Allowance Beneficiaries After Amendments (thousands)
		GIS						
		Single	Spouse a Pensioner	Spouse not a Pensioner	Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total ⁽³⁾	
2016	1,934	-	-	-	-	-	-	1,934
2017	1,996	-	-	-	-	-	-	1,996
2018	2,061	-	-	-	-	-	-	2,061
2019	2,123	-	-	-	-	-	-	2,123
2020	2,196	65	95	70	85	4	319	2,338
2021	2,277	67	97	71	86	4	325	2,419
2022	2,363	68	99	72	87	4	331	2,506
2023	2,452	70	102	73	89	4	337	2,597
2024	2,537	71	104	74	90	4	343	2,682
2025	2,628	73	106	74	91	4	348	2,773
2030	3,068	77	114	74	90	3	358	3,206
2040	3,406	70	101	58	79	3	311	3,515
2050	3,416	69	92	54	79	2	296	3,511
2060	3,386	69	90	52	79	2	291	3,470

- (1) Projected total affected and new beneficiaries resulting from the enhanced income exemption.
 (2) GIS and Allowance Regular beneficiaries combined.
 (3) Components may not sum to totals due to rounding.

Detailed Impact on GIS and Allowance Benefit Expenditures

Table 9 shows the projected increase in GIS and Allowance benefits for beneficiaries in pay who would be affected by the change in the income exemption (shown in Table 7).

In 2021, it is projected that GIS and Allowance beneficiaries affected by the amendments would receive \$211 million more in benefits than projected under the 14th OAS Program Actuarial Report due to the change in the income exemption. The increase in expenditures is projected be \$246 million in 2030.

Table 10 shows the projected GIS and Allowance benefits for new beneficiaries resulting from the change in the income exemption.

In 2021, new beneficiaries resulting from the change in the income exemption are projected to receive \$251 million in benefits. The benefit expenditures for new beneficiaries are further projected be \$226 million in 2030.

Table 11 shows the projected total increase in GIS and Allowance benefits resulting from the change in the income exemption. In 2021, GIS and Allowance beneficiaries, affected and new, are projected to receive an additional \$462 million compared to under the 14th OAS Program Actuarial Report due to the change in the income exemption. The increase in benefit expenditures is projected be \$472 million in 2030.

Table 9 Additional Benefit Expenditures for Beneficiaries Affected by the Amendments⁽¹⁾

Additional Benefit Expenditures for Affected Beneficiaries ⁽¹⁾						
(\$ million)						
Calendar Year	GIS			Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total Affected ⁽³⁾
	Single	Spouse a Pensioner	Spouse not a Pensioner			
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	43	29	20	8	3	103
2021	88	59	41	16	7	211
2022	91	61	42	17	7	216
2023	93	62	43	17	6	222
2024	96	64	43	17	6	227
2025	98	65	44	18	6	231
2030	105	71	46	19	5	246
2040	96	63	38	18	4	219
2050	96	59	35	19	3	213
2060	98	59	35	21	3	215

- (1) Projected additional expenditures associated with affected beneficiaries shown under Table 6.
 (2) GIS and Allowance Regular expenditures combined.
 (3) Components may not sum to totals due to rounding.

Table 10 Benefit Expenditures for New Beneficiaries Resulting from the Amendments⁽¹⁾

Benefit Expenditures Related to New Beneficiaries						
(\$ million) ⁽¹⁾						
Calendar Year	GIS			Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total New ⁽³⁾
	Single	Spouse a Pensioner	Spouse not a Pensioner			
2016	-	-	-	-	-	-
2017	-	-	-	-	-	-
2018	-	-	-	-	-	-
2019	-	-	-	-	-	-
2020	18	22	35	46	3	125
2021	36	45	71	93	6	251
2022	36	46	71	92	6	251
2023	37	46	72	91	6	251
2024	37	47	72	89	6	250
2025	37	47	72	87	6	248
2030	36	47	68	71	5	226
2040	27	38	48	56	4	173
2050	23	31	41	50	3	149
2060	20	27	36	38	3	124

- (1) Projected benefit expenditures of new beneficiaries for those persons who become eligible for a GIS or Allowance benefit because of the amendments who were not eligible before.
 (2) GIS and Allowance Regular expenditures combined.
 (3) Components may not sum to totals due to rounding.

Table 11 Benefit Expenditures After Amendments

Calendar Year	Total GIS and Allowance Benefit Expenditures Before Amendments (\$ million)	Total Additional Benefit Expenditures Resulting from the Enhanced Income Exemption ⁽¹⁾ (\$ million)						Total GIS and Allowance Benefit Expenditures After Amendments (\$ million)
		GIS						
		Single	Spouse a Pensioner	Spouse not a Pensioner	Spouse has Allowance Regular ⁽²⁾	Allowance Survivor	Total ⁽³⁾	
2016	11,172	-	-	-	-	-	-	11,172
2017	12,152	-	-	-	-	-	-	12,152
2018	12,800	-	-	-	-	-	-	12,800
2019	13,418	-	-	-	-	-	-	13,418
2020	14,141	61	51	55	55	7	229	14,369
2021	14,936	125	104	112	109	13	462	15,398
2022	15,792	127	106	113	108	13	468	16,259
2023	16,692	130	108	114	108	13	473	17,165
2024	17,567	132	110	115	107	13	477	18,044
2025	18,519	135	112	116	105	12	480	18,998
2030	23,609	140	118	114	90	10	472	24,080
2040	31,697	123	101	86	74	8	392	32,089
2050	38,691	120	90	77	69	7	363	39,053
2060	47,107	119	86	71	59	5	340	47,447

- (1) Projected total expenditures of affected and new beneficiaries resulting from the enhanced income exemption.
 (2) GIS and Allowance Regular expenditures combined.
 (3) Components may not sum to totals due to rounding.

V. Conclusion

This 15th OAS Program Actuarial Report projects the following in respect of the amendments under Division 7 of Part 4 of Bill C-97:

- In 2021, the first full year of implementation, the amendments are projected to increase total expenditures by \$464 million. In 2030, the increase in total expenditures is projected to be \$473 million.
- The number of individuals who will benefit from this change is projected to be 325,000 in 2021 and is expected to grow to 358,000 by 2030.
- In 2030, total expenditures are projected to be 0.01% of the Gross Domestic Product (GDP) higher than projected under the 14th OAS Program Actuarial Report.

VI. Actuarial Opinion

In our opinion, considering that this 15th 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 for the purposes of this report;
- the assumptions used are, individually and in aggregate, reasonable and appropriate for the purposes of this report; and,
- the methods employed are appropriate for the purposes of this report.

This report has been prepared, and our opinion given, in accordance with accepted actuarial practice in Canada, in particular, the General Standards of Practice and the Practice-Specific Standards for Social Security Programs of the Standards of Practice of the Canadian Institute of Actuaries.

As of the signing of this report, we have not learned of any events that would have a material impact on the results presented in this report.



Assia Billig, FCIA, FSA
Chief Actuary



Michel Montambeault, FCIA, FSA
Senior Actuary

Ottawa, Canada
19 July 2019

Appendix A – Detailed Tables of Projections

Table 12 Beneficiaries after Amendments (Projected)⁽¹⁾

Calendar Year	Number of Beneficiaries			Recipient Rates		
	OAS (thousands)	GIS (thousands)	Allowance (thousands)	OAS (%)	GIS (%)	Allowance (%)
2016	5,761	1,860	73	96.1	31.0	3.2
2017	5,971	1,918	77	96.1	30.9	3.3
2018	6,194	1,987	74	96.1	30.8	3.0
2019	6,432	2,052	71	96.1	30.7	2.8
2020	6,683	2,242	96	96.2	32.3	3.7
2021	6,936	2,324	96	96.2	32.2	3.7
2022	7,197	2,410	97	96.3	32.2	3.7
2023	7,464	2,499	98	96.3	32.2	3.7
2024	7,730	2,583	99	96.4	32.2	3.7
2025	8,001	2,673	99	96.4	32.2	3.7
2026	8,274	2,767	99	96.5	32.3	3.8
2027	8,535	2,858	99	96.5	32.3	3.8
2028	8,798	2,953	98	96.6	32.4	3.9
2029	9,051	3,042	97	96.7	32.5	4.0
2030	9,283	3,109	97	96.7	32.4	4.0
2031	9,480	3,167	96	96.9	32.4	4.0
2032	9,645	3,213	95	97.0	32.3	4.0
2033	9,796	3,256	94	97.1	32.3	3.9
2034	9,941	3,293	92	97.1	32.2	3.9
2035	10,079	3,328	91	97.2	32.1	3.8
2036	10,213	3,360	90	97.2	32.0	3.8
2037	10,324	3,382	89	97.3	31.9	3.7
2038	10,421	3,401	88	97.3	31.8	3.6
2039	10,510	3,415	87	97.3	31.6	3.5
2040	10,602	3,428	87	97.3	31.5	3.4
2045	11,032	3,435	85	97.3	30.3	3.1
2050	11,522	3,425	86	97.3	28.9	3.0
2055	12,061	3,390	87	97.2	27.3	2.8
2060	12,724	3,384	85	97.2	25.9	3.0

(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. All recipient rates include benefits paid outside Canada and for this reason can exceed 100%.

Table 13 Expenditures and Average Annual Benefits after Amendments (Projected)⁽¹⁾

Calendar Year	Expenditures (\$ million)					Average Annual Benefit (\$)		
	OAS	GIS	Allowance	Administrative Expenses	Total ⁽²⁾	OAS	GIS	Allowance
2016	37,779	10,640	532	170	49,121	6,558	5,719	7,252
2017	39,902	11,582	570	181	52,236	6,683	6,038	7,384
2018	42,226	12,243	558	191	55,217	6,817	6,162	7,565
2019	44,738	12,867	551	202	58,357	6,955	6,271	7,738
2020	47,433	13,763	607	215	62,017	7,097	6,138	6,346
2021	50,232	14,727	672	228	65,858	7,242	6,337	7,025
2022	53,183	15,568	692	241	69,684	7,390	6,461	7,145
2023	56,280	16,454	711	255	73,701	7,540	6,585	7,266
2024	59,470	17,314	730	269	77,784	7,693	6,703	7,390
2025	62,791	18,251	747	284	82,073	7,848	6,827	7,526
2026	66,231	19,248	762	300	86,540	8,004	6,956	7,672
2027	69,670	20,245	774	315	91,003	8,163	7,082	7,818
2028	73,234	21,297	784	331	95,646	8,324	7,212	7,980
2029	76,820	22,328	793	347	100,289	8,487	7,339	8,142
2030	80,334	23,280	801	363	104,777	8,654	7,487	8,294
2031	83,641	24,193	807	377	109,018	8,823	7,639	8,418
2032	86,762	25,023	811	391	112,986	8,995	7,788	8,542
2033	89,843	25,867	813	405	116,927	9,171	7,945	8,673
2034	92,950	26,684	813	418	120,866	9,350	8,102	8,809
2035	96,095	27,500	815	432	124,842	9,534	8,263	8,948
2036	99,291	28,320	817	446	128,875	9,722	8,429	9,094
2037	102,337	29,062	820	459	132,678	9,913	8,592	9,223
2038	105,336	29,808	823	472	136,440	10,108	8,764	9,353
2039	108,329	30,531	827	485	140,173	10,307	8,939	9,484
2040	111,437	31,256	833	499	144,025	10,511	9,117	9,625
2045	127,896	34,576	895	568	163,934	11,593	10,066	10,502
2050	147,449	38,056	997	648	187,150	12,797	11,111	11,586
2055	170,452	41,773	1,102	741	214,069	14,132	12,321	12,721
2060	198,566	46,232	1,215	855	246,867	15,605	13,660	14,248

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

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

Table 14 Expenditures as Percentage of GDP after Amendments (Projected)

Calendar Year	Gross Domestic Product (\$ billion)	Expenditures as % of Gross Domestic Product ⁽¹⁾				Total ⁽²⁾ (%)
		OAS (%)	GIS (%)	Allowance (%)	Administrative Expenses (%)	
2016	2,027	1.86	0.52	0.03	0.01	2.42
2017	2,118	1.91	0.55	0.03	0.01	2.50
2018	2,197	1.96	0.57	0.03	0.01	2.56
2019	2,280	2.01	0.58	0.02	0.01	2.63
2020	2,369	2.07	0.60	0.03	0.01	2.71
2021	2,464	2.12	0.62	0.03	0.01	2.78
2022	2,562	2.17	0.63	0.03	0.01	2.84
2023	2,664	2.22	0.65	0.03	0.01	2.90
2024	2,767	2.26	0.66	0.03	0.01	2.96
2025	2,874	2.30	0.67	0.03	0.01	3.01
2026	2,987	2.35	0.68	0.03	0.01	3.07
2027	3,107	2.38	0.69	0.03	0.01	3.11
2028	3,232	2.42	0.70	0.03	0.01	3.16
2029	3,364	2.45	0.71	0.03	0.01	3.19
2030	3,503	2.47	0.72	0.02	0.01	3.22
2031	3,639	2.48	0.72	0.02	0.01	3.23
2032	3,784	2.48	0.71	0.02	0.01	3.22
2033	3,936	2.47	0.71	0.02	0.01	3.21
2034	4,096	2.46	0.71	0.02	0.01	3.20
2035	4,262	2.45	0.70	0.02	0.01	3.18
2036	4,436	2.44	0.70	0.02	0.01	3.17
2037	4,619	2.42	0.69	0.02	0.01	3.14
2038	4,810	2.40	0.68	0.02	0.01	3.11
2039	5,007	2.38	0.67	0.02	0.01	3.08
2040	5,211	2.36	0.66	0.02	0.01	3.06
2045	6,334	2.27	0.61	0.02	0.01	2.91
2050	7,638	2.21	0.57	0.01	0.01	2.81
2055	9,181	2.17	0.53	0.01	0.01	2.72
2060	11,092	2.14	0.50	0.01	0.01	2.65

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