

Actuarial note

Valuation of modifications to the National Insurance System included in the Budget Statement 2013

1. Introduction

This note presents the financial implications of modifications to the National Insurance System (NIS) that were included in the Budget Statement 2013 presented by the Minister of Finance on 1 October 2012. Certain provisions are different from the recommendations of the *Eighth Actuarial Review of the National Insurance System as of 30 June 2010*.

2. Modifications considered

The Budget Statement includes the following modifications to the NIS:

- **Pensions in payment:** increase of 25% in January 2013 and 20% percent in January 2014.
- **Maternity grant, Special maternity grant, Retirement grant and Funeral grant:** increase of 50% in January 2013.
- **Minimum Survivors' benefits:** increased in January 2013 as follows:
 - Spouse: TT\$600
 - Child: TT\$600
 - Dependent parents (if both are alive): TT\$300 each
 - Dependent parents (if only one is alive): TT\$600
 - Orphan: TT\$1,200
- **New benefit calculation:**
 - Retirement pension:
 - 1.8% per year for earnings equal to or less than 50% of the Maximum Insurable Earnings (MIE), plus 1.2% per year for earnings greater than 50% of the MIE
 - Invalidity pension:
 - Same as retirement pension
 - Survivors' pensions:
 - Application of a given percentage to the retirement pension calculated as above:
 - Widow/widower: 60%
 - Child: 30%
 - Orphan: 60%
 - Parents: 30%
 - Short-term benefits:
 - Application of the appropriate percentages to the actual earnings during the specified period:
 - Sickness benefit: 60% of the insured average weekly earnings over the best 10 out of the 13 weeks immediately preceding the illness

- Maternity benefit: 60% of the insured average weekly earnings over the best 10 out of the last 13 weeks
- Employment injury benefits:
 - Application of the appropriate percentage to the actual earnings during the specified period:
 - Injury allowance: 66 $\frac{2}{3}$ % of weekly earnings related to the contributions paid for the week during which the accident occurred or the disease was diagnosed
 - Disablement pension: Degree of disablement multiplied by the Injury allowance calculated as above
 - Disablement grant: Degree of disablement (minimum of 3 per cent) times the number of weeks disablement is expected to last (maximum of 365) times 50% of the average weekly earnings that would be used for Injury allowance
 - Death benefits: Same percentage of Injury allowance as survivors' benefits are of the retirement pension
- **New contribution calculation:** contributions calculated as a percentage applied directly to the covered earnings (elimination of the earnings classes).
- **Contribution rate:** increased to 11.7% in 2013 and 12.0% in 2014.
- **Maximum Insurable Earnings:** increased as follows:

Year	Maximum Insurable Earnings
2013	TT\$10,000
2014	TT\$12,000
2015	TT\$13,000
2016	TT\$14,000
2017	TT\$16,000
2018	TT\$18,000
2019	TT\$20,000
2020	TT\$22,000

- **Inclusion of self-employed persons:**
 - Contribution rate of 11.2% (10.7% for Long-term benefits and 0.5% for Short-term benefits).
 - Granting of age credits of 50 contribution weeks for each year elapsed between the age of 50 and the attained age of the person at the introduction of these measures, up to a maximum of 300 weeks of credit.
- **Maternity Benefits:** increase of the maximum duration of benefits from 13 to 14 weeks.

3. Results

Financial projections under the modification package are presented in Appendix 1 for salaried workers and in Appendix 2 for self-employed persons. These tables may be compared to Table 3.7 of the *Eighth Actuarial Review of the National Insurance System as of 30 June 2010* for salaried workers and to Table 4.13 for self-employed persons.

Under the modification package, the general average premium (GAP) for salaried workers is 17.1% (compared to 17.6% under the base scenario of the 8th Actuarial Review) and the GAP for self-employed persons is 9.0% (compared to 9.4% under the base scenario of the 8th Actuarial Review).

Under the modification package, the year of reserve exhaustion is delayed from 2039-40 to 2044-45 for salaried workers. For self-employed persons, total assets remain positive until at least 2059-60, as in the base scenario.

Pierre Plamondon, Gilles Binet, Doan-Trang Phan
Centre for the International Promotion of Quebec Public Expertise
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Appendix 1

Projected revenue, expenditure and assets concerning SALARIED workers (modified package), 2010-2060 (thousand TT\$)

Year	Revenue			Expenditure			Assets	
	Contribution income	Investment income	Total	Benefits	Administrative expenses	Total	Year-end	Number of times current year's expenditure
2010-11	2,723,094	2,066,164	4,789,258	2,295,500	128,465	2,423,965	20,894,704	8.6
2011-12	3,085,507	1,777,531	4,863,039	2,850,432	136,163	2,986,594	22,736,409	7.6
2012-13	3,514,420	1,922,211	5,436,631	3,614,786	143,955	3,758,741	24,414,300	6.5
2013-14	4,137,192	2,079,401	6,216,593	3,886,457	152,245	4,038,702	26,592,191	6.6
2014-15	4,639,385	2,270,334	6,909,719	4,243,533	160,605	4,404,138	29,097,772	6.6
2015-16	4,986,806	2,451,129	7,437,934	4,653,142	169,000	4,822,142	31,713,564	6.6
2016-17	5,419,111	2,575,372	7,994,484	5,079,410	177,387	5,256,798	34,451,250	6.6
2017-18	5,910,638	2,729,487	8,640,125	5,526,468	185,722	5,712,190	37,379,186	6.5
2018-19	6,383,056	2,849,341	9,232,396	5,964,816	193,958	6,158,774	40,452,808	6.6
2019-20	6,818,362	2,958,883	9,777,245	6,456,643	202,047	6,658,690	43,571,364	6.5
2024-25	8,452,274	3,781,433	12,233,707	9,293,366	243,473	9,536,838	58,042,526	6.1
2029-30	10,468,038	4,577,795	15,045,834	12,761,841	293,024	13,054,865	69,629,242	5.3
2034-35	13,031,543	4,937,321	17,968,864	17,746,724	352,652	18,099,376	73,958,784	4.1
2039-40	15,939,635	4,148,265	20,087,900	25,212,222	424,423	25,636,645	59,419,541	2.3
2049-50	22,084,870	-9,390,463	12,694,407	52,991,399	614,633	53,606,032	-161,244,718	-3.0
2059-60	32,700,514	-57,580,981	-24,880,466	83,734,625	890,018	84,624,643	-918,050,010	-10.8

Appendix 2

Projected revenue, expenditure and assets concerning SELF-EMPLOYED PERSONS (modified package), 2010-2060 (thousand TT\$)

Year	Revenue			Expenditure			Assets	
	Contribution income	Investment income	Total	Benefits	Administrative expenses	Total	Year-end	Number of times current year's expenditure
2010-11	–	–	–	–	–	–	–	–
2011-12	–	–	–	–	–	–	–	–
2012-13	58,033	1,821	59,854	3,578	11,600	15,178	44,675	2.9
2013-14	185,610	10,739	196,349	10,668	11,600	22,268	218,757	9.8
2014-15	337,927	31,452	369,378	22,711	12,687	35,399	552,736	15.6
2015-16	475,448	63,987	539,435	39,238	18,187	57,425	1,034,746	18.0
2016-17	591,644	104,279	695,924	63,222	23,116	86,338	1,644,332	19.0
2017-18	679,556	151,950	831,506	96,022	25,374	121,396	2,354,442	19.4
2018-19	733,806	200,237	934,043	147,212	26,088	173,299	3,115,185	18.0
2019-20	788,073	247,573	1,035,646	207,269	28,355	235,624	3,915,207	16.6
2024-25	1,067,698	534,198	1,601,896	535,280	37,179	572,458	8,523,810	14.9
2029-30	1,393,955	945,886	2,339,841	795,024	47,079	842,102	14,930,303	17.7
2034-35	1,759,614	1,613,280	3,372,894	786,082	57,784	843,866	25,452,019	30.2
2039-40	2,115,898	2,574,351	4,690,249	1,497,964	67,884	1,565,848	40,158,810	25.6
2049-50	2,692,104	4,478,878	7,170,982	4,946,029	88,604	5,034,633	68,218,889	13.5
2059-60	4,101,078	5,112,001	9,213,079	9,445,968	131,302	9,577,270	76,460,875	8.0