

# Forced Savings: 2015 update

## *A macro-economic impact assessment of an expansion in the Canada Pension Plan*

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The new federal government is the latest in expressing a desire to expand coverage of the Canada Pension Plan (CPP). They now join some other groups and provincial governments that have put forward proposals in recent years. Supporters of the increased CPP program universally point to how it will help Canadians have more money available to them after retirement. Opponents point out there is no sign of a generalized savings crisis and that family net wealth has instead been increasing substantially among all age groups. Almost no one, however, looks at the broader economic spin-off impacts of the pension math—removing disposable income today to pay for higher post-retirement incomes tomorrow.

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### Current proposals

Using macro-econometric modelling from the University of Toronto's Policy and Economic Analysis Program (PEAP), CFIB published the only detailed look at the scale of impacts on employment, wages and output back in 2010. In light of the change in government federally, we believed it prudent to re-estimate the modelling based on updated assumptions and new timelines.

The federal proposal is light on details, apart from suggestions of similarity to the Ontario

Retirement Pension Plan, which is expected to be introduced in 2017.

*"We're looking at an expansion and a mandatory expansion of the CPP of the type that Kathleen Wynne put forward in Ontario."*

Justin Trudeau (Globe and Mail, May 27, 2015).

The Ontario plan calls for a 3.8 per cent premium shared by employers and employees on earnings between \$3,500 and \$90,000. The ORPP also proposes to exempt workplaces with existing defined benefit pension plans that meet certain thresholds as well as to have a different investment criteria for money held in the fund.

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### Basic Assumptions

It is unclear how all the elements of the ORPP could be incorporated into the existing national framework, or if indeed the ORPP would continue to exist in the event of CPP and QPP expansion. To estimate the macro-economic impacts, therefore, it requires a number of generalized assumptions. For ease of measurement, we assume the same 3.8 per cent increase in premiums as the ORPP, but only on the existing Yearly Maximum Pensionable Earnings (\$54,900 for 2016)—and phased-in between 2017 and 2020. The total premiums collected, therefore, would be roughly 38 per cent higher than base case CPP

and QPP contribution revenues. Assumptions on the specifics don't matter as much as understanding the relative size of the expansion relative to the existing plan. The same dollar figures could be collected with a different premium rate applied to a different income threshold with relatively little effect on the overall macroeconomic impacts (Caveat: the model cannot account for nuanced differences in spending flows of low, mid and high income earners).

On the benefits side of the equation, we also assume the ORPP's income replacement boost from 25 per cent to 40 per cent of pensionable earnings over one's lifetime, but that to ensure generational neutrality, eligibility for enhanced benefits would be proportional to the additional premiums paid in. Under current eligibility rules, therefore, it would take a minimum of 39 years of paying the higher premiums for one to be able to receive the full 60 per cent increase in benefits.

Although we cannot specifically model the plan exemptions structured under the ORPP, it is still prudent to account for the likely offsetting impacts an enhanced CPP-QPP would have on employer and employee pension saving behaviour. Some of these impacts would be automatic—most public sector pension plans and some private sector plans are integrated with the CPP or QPP, meaning that any increase in CPP-QPP premiums and benefits would be, by design, offset by equal reductions in the other portions, leaving net retirement premiums and benefits unchanged. Other employer-run pension plans, whether structured as defined benefit, defined contribution or joint RRSPs, would likely see a scaling back by behavioural response. By how much is an open question, but for the sake of argument, we factor in a 50 per cent offset to employer and employee contributions to private plans.

These assumptions are not cast in stone—they may have to be adjusted up or down as new information comes to light. However, they can still be illustrative because the spin-off macroeconomic impacts would be scalable. That is, if the size of the plan turns out to be larger than assumed, and that the behavioural

response is smaller, the final impacts can be adjusted proportionately.

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## How the economy is affected

To better illustrate how the impacts of the pension changes flow through the economy we separately model the employer and employee portions of the CPP-QPP adjustments. The effects of the higher employee premiums would first show up as lower discretionary spending which would, in turn, induce some employment and wage loss in affected businesses. These effects, however, would very gradually reverse themselves as the added post-retirement benefits start flowing back into the economy. There would also be some benefits from the funds accumulating as they get used in productive investments.

Employee compensation is determined broadly speaking by the value of their productive output. As such, employers are neutral to whether the compensation is structured as current (wages) or deferred (pensions). A mandated increase in employer pension costs is, in effect, the same as mandating a wage increase. Unlike added employee premiums, therefore, the effects of higher employer premiums would cycle through the economy as a tax on inputs. Initially, labour costs would be forced higher but with no corresponding increase in output. In the short run, employment would be scaled back and substituted for capital where possible. In the longer term, however, more unemployment in the system would put downward pressure on wage demands, helping restore employment to its previous path, but at wages lower than they otherwise would have been. Effectively this means most, if not all, employer payroll premiums eventually get passed on to employees—on average.

How it would affect individuals, as net winners or losers would depend on their particular circumstances. As mentioned above, the PEAP model cannot specifically show this, but conceptually, the people most likely to lose their jobs or have hours cut back would be those who could most easily be substituted by technology or those in the weakest businesses.

With an added premium on skills, therefore, the most likely casualties would be new entrants or low skilled workers. For others, the benefits may exceed the average because of indirect or induced positive effects on certain businesses. Much also depends on the structure of the CPP-QPP enhancement and what income thresholds apply. If the increase is applied only to moderate-to-high income groups—as suggested by some, the distribution of the employment and wage impacts would be different than if applied to low-to-mid income groups as well. Similarly, how CPP and QPP enhancements are targeted on incomes could negatively affect Old Age Security (OAS) and Guaranteed Income Supplement (GIS) payments at the lower end of the wage scale.

## Results:

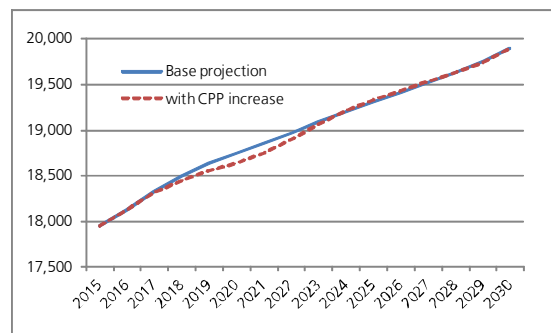
As with the 2010 model simulation, the introduction of an expanded CPP brings about slower economic activity in the early years, followed by a very gradual return to normal levels through the remainder of the forecast horizon<sup>1</sup>.

- Employment is initially hit as employers have to react to higher payroll costs. By 2020, total employment in Canada would have roughly 110,000 fewer jobs relative to the status quo CPP projection (see Figure 1). As a result, the unemployment rate moves up by 0.3 to 0.4 percentage points. Although employment levels return to normal by about 2024, the person-years lost in the preceding seven years amount to about 460,000.
- The later employment improvement, however, is a result of a slowdown in wage growth—which over the forecast horizon move earnings permanently lower by about 0.8 per cent. This is roughly equivalent to

the employer passing on their portion of higher CPP premiums to employees less the 50 per cent offset in alternate retirement savings.

Figure 1:

### Employment projections ('000s)



- Because of payroll tax pass-through, the CPI inflation rate rises by about 0.1 per cent per year in the first three years, but slower employment/wage growth and lower disposable income from higher employee CPP premiums put a downward influence on prices later on.
- Personal spending never really recovers over the projection horizon (to 2040) because much of the added CPP post-retirement benefits have yet to be paid out. After an initial hit, though, GDP fares better because the added CPP savings built up in the fund indirectly generates productivity-improving investment. Higher exports and lower imports also contribute to better long-run GDP performance.
- However, because government balances are more sensitive to personal earnings (income tax) and spending (sales taxes), the net result is a quick negative impact on the federal balance by about \$5 billion and collective provincial balances by about the same amount by 2021. Impacts on government balances don't disappear until the 2030s, but in the meantime, debt-to-GDP ratios permanently rise 0.5 to 1.0 per cent.

<sup>1</sup> The macro-econometric impact analysis for this study was conducted by Peter Dungan, Adjunct Associate Professor of Business Economics, Rotman School of Business at the University of Toronto, using the FOCUS model of the Policy and Economic Analysis Program

FOCUS Model - Policy & Economic Analysis Program  
 CPP 2015 - .019 increase; 50% offset; employer and employee pay

Summary of Projection

(Percentage Change from base projection; \* Indicates change in levels)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Real Gross Domestic Product	-0.09	-0.29	-0.45	-0.52	-0.44	-0.17	0.13	0.27	0.26	0.24
Expenditure on Personal Consumption	-0.11	-0.39	-0.71	-0.95	-0.98	-0.75	-0.41	-0.15	-0.05	-0.06
Expenditure by Governments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Investment Expenditure	-0.09	-0.30	-0.39	-0.30	-0.14	0.24	0.70	0.83	0.70	0.68
Residential Construction	-0.18	-0.67	-1.04	-1.15	-0.99	-0.16	0.94	1.42	1.36	1.31
Non-Residential Construction	-0.06	-0.13	-0.09	0.03	0.18	0.34	0.46	0.36	0.22	0.19
Machinery and Equipment	-0.03	-0.12	-0.10	0.13	0.31	0.48	0.74	0.81	0.63	0.66
Exports	-0.01	-0.03	-0.06	-0.07	-0.05	0.02	0.12	0.21	0.26	0.27
Imports	0.00	-0.07	-0.23	-0.39	-0.52	-0.56	-0.47	-0.31	-0.22	-0.17
Unemployment Rate *	0.05	0.17	0.29	0.36	0.33	0.18	0.00	-0.09	-0.09	-0.07
Employment	-0.07	-0.24	-0.44	-0.58	-0.58	-0.40	-0.13	0.06	0.11	0.10
Employment (Ch in '000) *	-12.5	-45.4	-83.3	-109.4	-110.0	-76.0	-24.5	12.4	22.4	20.3
Finance Co. 90-Day Paper Rate *	-0.01	-0.04	-0.10	-0.13	-0.13	-0.13	-0.11	-0.07	-0.09	-0.12
Industrial Bond Rate *	-0.01	-0.04	-0.10	-0.13	-0.13	-0.13	-0.12	-0.07	-0.09	-0.13
Consumer Price Index	0.10	0.22	0.29	0.28	0.11	-0.13	-0.33	-0.43	-0.46	-0.45
CPI - Inflation Rate *	0.10	0.12	0.07	-0.01	-0.18	-0.25	-0.20	-0.11	-0.03	0.01
Average Annual Wages and Salaries	0.02	-0.01	-0.11	-0.28	-0.53	-0.77	-0.92	-0.97	-0.97	-0.95
Productivity Change (GDP/Employee)	-0.02	-0.05	-0.01	0.06	0.14	0.23	0.26	0.21	0.15	0.14
Capital Stock	0.00	-0.01	-0.02	-0.02	0.00	0.04	0.09	0.16	0.21	0.23
Exchange Rate (US \$/Cdn \$)	0.00	0.00	-0.05	-0.10	-0.15	-0.20	-0.25	-0.20	-0.15	-0.10
Balance on Current Account (\$ Mill) *	130	763	1982	3204	4300	4948	4835	4425	4616	4920
Federal Gov't Balance (NA Basis) (\$ Mill) *	-552	-1942	-3642	-5100	-5594	-4684	-2887	-1627	-1268	-1238
Ratio: Federal Debt to GDP (%) *	0.0	0.1	0.3	0.5	0.7	0.8	0.9	0.9	1.0	1.0
Prov'l Gov't Balance (NA Basis) (\$ Mill) *	-537	-1748	-3162	-4300	-4478	-3457	-1789	-591	-184	-121
Ratio: Provincial Debt to GDP (%) *	0.0	0.1	0.2	0.4	0.6	0.7	0.7	0.7	0.7	0.7

FOCUS Model - Policy & Economic Analysis Program  
 CPP 2015 - .019 increase; 50% offset; employer and employee pay

Summary of Projection

(Percentage Change from base projection; \* Indicates change in levels)

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Real Gross Domestic Product	0.18	0.07	0.07	0.13	0.13	0.11	0.15	0.16	0.10	0.10
Expenditure on Personal Consumption	-0.11	-0.18	-0.22	-0.18	-0.13	-0.10	-0.07	-0.04	-0.04	-0.05
Expenditure by Governments	0.00	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Investment Expenditure	0.61	0.37	0.35	0.54	0.50	0.37	0.46	0.48	0.29	0.24
Residential Construction	0.99	0.45	0.38	0.66	0.57	0.45	0.66	0.67	0.36	0.33
Non-Residential Construction	0.16	0.08	0.15	0.25	0.19	0.14	0.19	0.17	0.09	0.10
Machinery and Equipment	0.80	0.66	0.56	0.79	0.81	0.56	0.57	0.67	0.44	0.25
Exports	0.25	0.22	0.20	0.19	0.19	0.19	0.19	0.19	0.18	0.16
Imports	-0.14	-0.16	-0.21	-0.20	-0.16	-0.15	-0.15	-0.10	-0.09	-0.12
Unemployment Rate *	-0.03	0.02	0.03	0.00	-0.02	-0.01	-0.03	-0.04	-0.02	-0.01
Employment	0.06	-0.01	-0.04	-0.01	0.02	0.02	0.04	0.06	0.04	0.02
Employment (Ch in '000) *	11.7	-2.4	-9.0	-1.2	4.5	4.0	7.9	11.9	7.3	3.7
Finance Co. 90-Day Paper Rate *	-0.12	-0.11	-0.15	-0.15	-0.12	-0.13	-0.15	-0.13	-0.12	-0.15
Industrial Bond Rate *	-0.12	-0.11	-0.16	-0.15	-0.12	-0.14	-0.16	-0.13	-0.12	-0.15
Consumer Price Index	-0.43	-0.41	-0.42	-0.44	-0.43	-0.42	-0.41	-0.38	-0.34	-0.31
CPI - Inflation Rate *	0.03	0.01	-0.01	-0.01	0.01	0.01	0.01	0.03	0.04	0.03
Average Annual Wages and Salaries	-0.94	-0.97	-1.02	-1.03	-1.02	-1.02	-0.99	-0.94	-0.92	-0.89
Productivity Change (GDP/Employee)	0.12	0.09	0.11	0.14	0.11	0.09	0.11	0.10	0.07	0.08
Capital Stock	0.26	0.29	0.30	0.31	0.34	0.35	0.35	0.36	0.36	0.34
Exchange Rate (US \$/Cdn \$)	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Balance on Current Account (\$ Mill) *	4905	5239	5961	5902	5563	5997	6250	5792	5897	6545
Federal Gov't Balance (NA Basis) (\$ Mill) *	-1568	-2245	-2379	-1790	-1456	-1316	-760	-322	-424	-247
Ratio: Federal Debt to GDP (%) *	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
Prov'l Gov't Balance (NA Basis) (\$ Mill) *	-376	-843	-868	-335	29	283	824	1243	1281	1556
Ratio: Provincial Debt to GDP (%) *	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4

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Summary of Projection

(Percentage Change from base projection; \* Indicates change in levels)

	2037	2038	2039	2040
Real Gross Domestic Product	0.12	0.09	0.06	0.09
Expenditure on Personal Consumption	-0.03	-0.02	-0.02	0.00
Expenditure by Governments	-0.01	-0.01	-0.01	-0.01
Investment Expenditure	0.31	0.19	0.06	0.12
Residential Construction	0.46	0.28	0.14	0.31
Non-Residential Construction	0.13	0.06	0.03	0.06
Machinery and Equipment	0.31	0.18	-0.14	-0.19
Exports	0.15	0.14	0.13	0.11
Imports	-0.11	-0.09	-0.11	-0.13
Unemployment Rate *	-0.02	-0.02	-0.01	-0.02
Employment	0.04	0.03	0.02	0.03
Employment (Ch in '000) *	7.4	7.2	3.5	7.0
Finance Co. 90-Day Paper Rate *	-0.14	-0.11	-0.12	-0.13
Industrial Bond Rate *	-0.14	-0.11	-0.13	-0.13
Consumer Price Index	-0.29	-0.25	-0.22	-0.20
CPI - Inflation Rate *	0.03	0.04	0.03	0.02
Average Annual Wages and Salaries	-0.85	-0.82	-0.80	-0.77
Productivity Change (GDP/Employee)	0.09	0.05	0.05	0.06
Capital Stock	0.31	0.30	0.26	0.21
Exchange Rate (US \$/Cdn \$)	0.00	0.00	0.00	0.00
Balance on Current Account (\$ Mill) *	6400	6147	6834	7160
Federal Gov't Balance (NA Basis) (\$ Mill) *	353	551	689	1455
Ratio: Federal Debt to GDP (%) *	0.9	0.8	0.8	0.7
Prov'l Gov't Balance (NA Basis) (\$ Mill) *	2135	2426	2726	3494
Ratio: Provincial Debt to GDP (%) *	0.4	0.3	0.2	0.2