



10 November 2017

1. Economic scenarios consistent with 70 per cent confidence interval for the budgetary balance (M. Greg Fergus)

The 70 per cent confidence interval for the budgetary balance shown in Figure 6 in our October 2017 Economic and Fiscal Outlook (EFO) ranges from a budgetary deficit of \$30.5 billion to a budgetary surplus of \$10.8 billion in 2022-23.

Our confidence intervals are constructed using a stochastic simulation approach, that is, repeated simulations of (100,000) alternative economic scenarios for real GDP growth, GDP inflation and interest rates. In addition, we incorporate the positive correlations of shocks to these variables based on their historical relationships. As such, there are a multitude of scenarios consistent with this interval.

A representative scenario for the lower bound of the 70 per cent interval for the budgetary balance (-\$30.5 billion) would have real GDP growth averaging 1.4 per cent annually over 2017 to 2022 (0.5 percentage points lower than our baseline projection of 2.0 per cent average growth); GDP inflation averaging 1.5 per cent annually over 2017 to 2022 (0.5 percentage points lower than our baseline projection of 2.1 per cent average growth); and interest rates 30 basis points lower annually, on average, over 2017 to 2022.

A representative scenario for the upper bound of the 70 per cent interval for the budgetary balance (\$10.8 billion) would have real GDP growth averaging 2.5 per cent annually over 2017 to 2022 (0.5 percentage points higher than our baseline projection of 2.0 per cent average growth); GDP inflation averaging 2.6 per cent annually over 2017 to 2022 (0.5 percentage points higher than our baseline projection of 2.1 per cent average growth); and interest rates 30 basis points higher annually, on average, over 2017 to 2022.

2. Historical Employment Insurance (EI) contribution rates (Mr. Easter)

The table below presents historical and projected EI contribution rates for residents outside of Quebec (base rate) and for residents in Quebec. Recall that the Quebec Parental Insurance Plan (QPIP) replaces EI maternity and parental benefits for residents of Quebec, and accordingly, the EI Commission establishes a reduction in premiums for employers and employees in respect of that plan.

Employment Insurance Premium Rates*per \$100 of earnings*

	Base rate	Quebec
1997	2.90	
1998	2.70	
1999	2.55	
2000	2.40	
2001	2.25	
2002	2.20	
2003	2.10	
2004	1.98	
2005	1.95	
2006	1.87	1.53
2007	1.80	1.46
2008	1.73	1.39
2009	1.73	1.38
2010	1.73	1.36
2011	1.78	1.41
2012	1.83	1.47
2013	1.88	1.52
2014	1.88	1.53
2015	1.88	1.54
2016	1.88	1.52
2017	1.63	1.27
2018	1.66	1.30
<i>2019</i>	<i>1.65</i>	<i>1.29</i>
<i>2020</i>	<i>1.65</i>	<i>1.29</i>
<i>2021</i>	<i>1.65</i>	<i>1.29</i>
<i>2022</i>	<i>1.65</i>	<i>1.29</i>
<i>2023</i>	<i>1.65</i>	<i>1.29</i>
<i>2024</i>	<i>1.65</i>	<i>1.29</i>

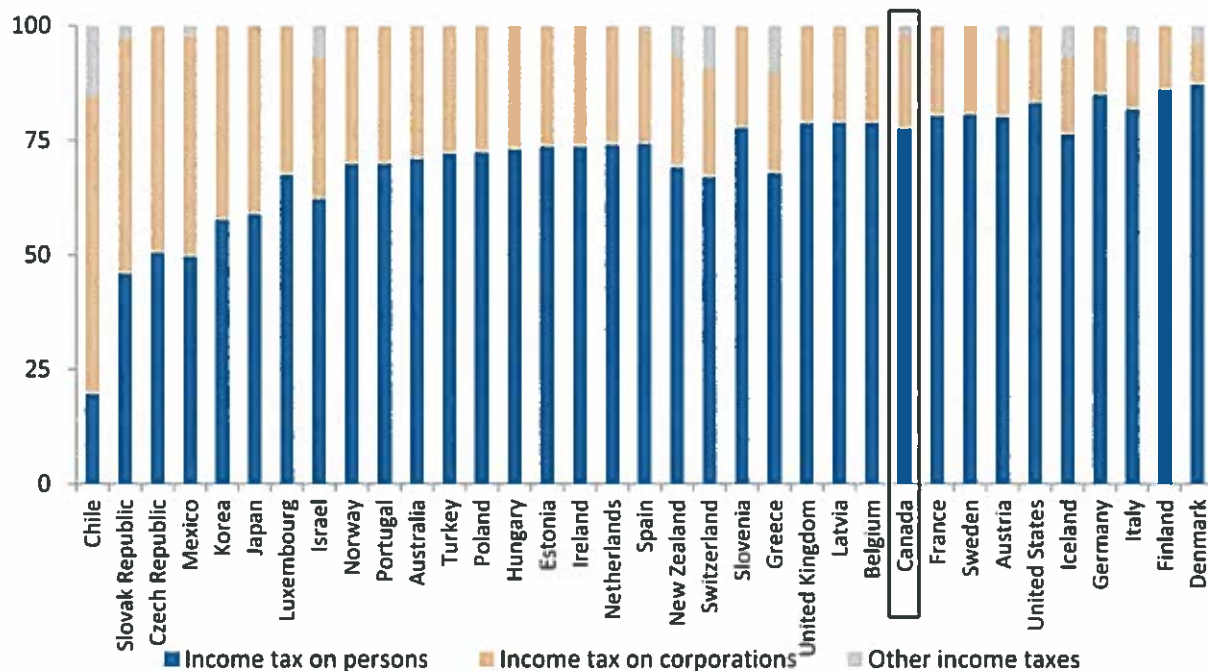
Note: PBO projections are shown in italics (2019 to 2024).

3. International comparison of revenue components (Mr. Easter)

Income taxes comprise 47 per cent of total government revenues in Canada.¹ This is the fifth highest share of total revenues among OECD member countries. Income tax on persons accounts for 37 per cent of total government revenues. Income tax on corporations accounts for 10 per cent of total government revenues.

Composition of income tax revenue, OECD member countries, 2015

% of total income tax revenue



Source: Organisation for Economic Co-Operation and Development and Parliamentary Budget Officer.
 Note: Data correspond to 2015 (except for Australia, Greece, Japan and Poland, which correspond to 2014).

Considering income taxes only, Canada generates 77 per cent of income taxes from taxes on persons, 21 per cent from corporations and 2 per cent from other sources (i.e., non-residents).

¹ Other major revenue categories include social security contributions, payroll taxes, property taxes, taxes on goods and services.

Revenue statistics in OECD member countries, 2015

% of gross domestic product

	Revenues					
	Total	Non-income tax	Income taxes			
			Total	Personal	Corporate	Other
Australia	27.8	11.7	16.1	11.4	4.7	0.0
Austria	43.5	30.6	13.2	10.6	2.3	0.4
Belgium	44.8	28.8	16.0	12.6	3.4	0.0
Canada	31.9	17.1	15.2	11.8	3.1	0.3
Chile	20.7	14.3	7.5	1.5	4.9	1.1
Czech Republic	33.5	26.3	7.2	3.6	3.6	0.0
Denmark	46.6	18.6	29.2	25.4	2.6	1.1
Estonia	33.6	25.7	7.9	5.8	2.1	0.0
Finland	44.0	28.5	15.5	13.3	2.2	0.0
France	45.5	34.8	10.7	8.6	2.1	0.0
Germany	36.9	25.3	11.6	9.9	1.7	0.0
Greece	36.8	29.0	8.7	5.9	1.9	0.7
Hungary	39.4	32.5	6.9	5.0	1.9	0.0
Iceland	37.1	20.9	17.5	13.3	2.9	1.3
Ireland	23.6	13.4	10.2	7.5	2.7	0.0
Israel	31.4	22.2	9.9	6.1	3.0	0.7
Italy	43.3	29.9	13.9	11.3	2.1	0.5
Japan	32.0	21.7	10.4	6.1	4.3	0.0
Korea	25.3	17.6	7.6	4.4	3.2	0.0
Latvia	29.0	21.5	7.5	5.9	1.6	0.0
Luxembourg	37.0	23.5	13.4	9.0	4.4	0.0
Mexico	17.4	10.8	6.8	3.4	3.3	0.2
Netherlands	37.8	27.3	10.5	7.7	2.7	0.0
New Zealand	32.8	15.8	18.1	12.5	4.4	1.2
Norway	38.1	23.1	15.0	10.4	4.5	0.0
Poland	32.1	25.8	6.3	4.6	1.7	0.0
Portugal	34.5	24.0	10.5	7.3	3.2	0.0
Slovak Republic	32.3	25.6	6.9	3.2	3.5	0.2
Slovenia	36.6	30.0	6.6	5.1	1.5	0.0
Spain	33.8	24.2	9.7	7.2	2.4	0.1
Sweden	43.3	27.9	15.5	12.5	3.0	0.0
Switzerland	27.9	16.2	13.0	8.7	3.0	1.2
Turkey	30.0	23.9	6.1	4.4	1.7	0.0
United Kingdom	32.5	21.0	11.5	9.1	2.5	0.0
United States	26.4	13.4	12.9	10.7	2.2	0.0

Sources: Organisation for Economic Co-Operation and Development and Parliamentary Budget Officer.

Note: Data for Australia, Greece, Japan and Poland are unavailable for some categories in 2015. Data are instead shown for 2014.