

Memorandum

From: Mike McCracken, Chair and CEO, Informetrica

RE: CPP Contribution Rate Impact

1. In the attached tables, two scenarios are compared. The "Shock Case " assumes a 100 basis point increase in the CPP/QPP contribution rate (1 percentage point, split equally between employers and employees) relative to the Base Case which has the existing rate schedule assumed. This increase starts on 1 January 1997 and is maintained for 9 years, allowing one to see both the initial impact and the longer-term marginal effect of this change.

2. It is assumed that nominal interest rates do not change, in line with the Bank of Canada's stated policy to ignore price shocks attributable to significant indirect tax shocks. (In the new National Accounts payroll taxes are to be reclassified as indirect taxes.)

3. The nominal exchange rate is also maintained unchanged. Other policy assumptions are, of course, possible but the impacts would be different and perhaps best thought of as a blend of the CPP shock and policy shocks.

4. The attached tables have both level and percentage of base impact tables. The highlights are as follows:

- GDP - lower by \$1.5 to \$2 billion in 1986\$, or about 0.2 to 0.3%.
- Employment - lower by about 45,000 to 50,000 people, and the unemployment rate higher by 0.25 percentage points.
- CPI- Higher initially by about 0.3 % to 0.4%, but eventually wages eat most of the tax change, leaving the CPI little affected after 8 years.
- Real disposable income per capita - down by 0.5% on a permanent basis.
- Federal government balance - adverse effect, building to over \$2.5 billion larger deficit after 9 years, as earlier deficits increase the debt and subsequent interest charges.
- PLH balances - also worse off by \$1.5 billion after 9 years.
- CPP/QPP balances - improved by \$5.7 billion after 9 years.
- Total government balances - improves by about \$1.5 billion to \$2 billion for each year, reflecting the revenue from the CPP/QPP rate

hike of about \$\$3+ billion, offset by losses attributable to the poorer economic performance.

- The savings-investment story is mainly a reallocation, with more government savings, less foreign savings, and less corporate and personal savings. Investment is slightly higher at the beginning because of the price shock, but real investment is lower throughout.

5. If there are any questions, or if you require any further elaboration do not hesitate to call me.

Table A. Major Economic Indicators: Canada

CPP	1997	1998	1999	2000	2001	2002	2003	2004	2005
Impact									
Gross domestic product at market prices (Bn\$86):									
Consumption expenditure	-1.2	-1.7	-1.7	-1.6	-1.7	-1.8	-1.8	-1.8	-2.0
Government expenditure	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3
Business investment	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2
Residential	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nonresidential construction	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
Machinery & equipment	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1
Inventory change	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0
Net exports	0.1	0.1	0.0	0.1	0.3	0.4	0.5	0.6	0.8
Exports (+)	-0.2	-0.4	-0.4	-0.3	-0.2	-0.2	-0.1	0.0	0.1
Imports (-)	-0.3	-0.5	-0.5	-0.4	-0.5	-0.6	-0.6	-0.6	-0.7
Gross domestic product	-1.3	-2.2	-2.2	-1.9	-1.9	-1.9	-1.9	-1.7	-1.6
Final domestic demand at market prices	-1.4	-2.1	-2.1	-2.1	-2.1	-2.2	-2.3	-2.2	-2.5
Nonresident investment income									
Receipts (+)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payments (-)	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
Gross national product	-1.2	-2.0	-2.0	-1.8	-1.7	-1.8	-1.7	-1.6	-1.5
Labour market (000s):									
Source population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total participation rate (%)	0.00	-0.01	-0.02	-0.03	-0.03	-0.04	-0.04	-0.04	-0.04
Labour force	-0.15	-3.48	-5.66	-6.28	-7.41	-8.85	-9.76	-10.10	-10.46
Employment	-27.03	-45.85	-48.63	-46.69	-47.74	-50.00	-50.86	-49.37	-48.56
Unemployment	26.88	42.38	42.97	40.42	40.34	41.15	41.11	39.27	38.11
Unemployment rate (%)	0.18	0.28	0.28	0.26	0.25	0.26	0.26	0.24	0.23
Wages (\$000) & prices (1986=1):									
Wages per employee (\$C)(1)	0.19	0.29	0.25	0.18	0.15	0.14	0.12	0.08	0.05
Bus. labour inc./employee	0.17	0.24	0.20	0.14	0.11	0.09	0.07	0.04	0.00
Output per employee (\$86)	0.00	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.06
Bus. output per employee	0.01	0.01	0.03	0.04	0.05	0.06	0.07	0.08	0.08
Total unit labour cost	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Implicit deflator of imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impl. defl. of imported oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Implicit deflator of GDP	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impl. defl. bus. gross output	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer price index	0.37	0.58	0.48	0.30	0.20	0.14	0.07	-0.02	-0.11
CPI less food & energy	0.38	0.61	0.53	0.37	0.27	0.21	0.14	0.06	-0.03

Table A. Major Economic Indicators: Canada

CPP Rate Increase	1997	1998	1999	2000	2001	2002	2003	2004	2005
Gross domestic product at market prices (Bn\$86):									
Consumption expenditure	-0.33	-0.46	-0.44	-0.41	-0.42	-0.44	-0.45	-0.43	-0.48
Government expenditure	-0.07	-0.11	-0.12	-0.12	-0.13	-0.14	-0.15	-0.16	-0.17
Business investment	-0.06	-0.16	-0.23	-0.23	-0.20	-0.17	-0.15	-0.14	-0.12
Residential	0.00	-0.02	-0.04	-0.05	-0.07	-0.07	-0.08	-0.09	-0.10
Nonresidential construction	-0.09	-0.25	-0.41	-0.46	-0.40	-0.27	-0.25	-0.22	-0.12
Machinery & equipment	-0.08	-0.20	-0.24	-0.22	-0.19	-0.19	-0.14	-0.13	-0.13
Inventory change (a)	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0
Net exports (a)	0.1	0.1	0.0	0.1	0.3	0.4	0.5	0.6	0.8
Exports (+)	-0.07	-0.15	-0.14	-0.10	-0.07	-0.05	-0.03	0.00	0.03
Imports (-)	-0.12	-0.17	-0.16	-0.15	-0.16	-0.18	-0.18	-0.17	-0.21
Gross domestic product	-0.21	-0.33	-0.32	-0.29	-0.27	-0.27	-0.26	-0.23	-0.22
Final domestic demand at market prices	-0.22	-0.33	-0.33	-0.31	-0.32	-0.32	-0.32	-0.31	-0.33
Nonresident investment income									
Receipts (+)	-0.28	-0.43	-0.34	-0.19	-0.09	-0.04	0.02	0.08	0.16
Payments (-)	-0.40	-0.62	-0.55	-0.44	-0.38	-0.36	-0.34	-0.27	-0.22
Gross national product	-0.20	-0.32	-0.31	-0.28	-0.26	-0.26	-0.25	-0.22	-0.21
Labour market (000s):									
Source population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total participation rate (%) (a)	0.00	-0.01	-0.02	-0.03	-0.03	-0.04	-0.04	-0.04	-0.04
Labour force	0.00	-0.02	-0.04	-0.04	-0.05	-0.05	-0.06	-0.06	-0.06
Employment	-0.20	-0.33	-0.34	-0.32	-0.33	-0.34	-0.34	-0.33	-0.32
Unemployment	1.81	2.86	2.91	2.64	2.58	2.65	2.63	2.52	2.44
Unemployment rate (%) (a)	0.18	0.28	0.28	0.26	0.25	0.26	0.26	0.24	0.23
Wages (\$000) & prices (1986=1):									
Wages per employee (\$C)(1)	0.54	0.79	0.66	0.48	0.39	0.34	0.28	0.20	0.11
Bus. labour inc./employee	0.51	0.71	0.57	0.38	0.28	0.24	0.17	0.09	0.01
Output per employee (\$86)	0.01	0.01	0.03	0.06	0.08	0.09	0.10	0.12	0.13
Bus. output per employee	0.02	0.03	0.05	0.07	0.10	0.12	0.13	0.15	0.16
Total unit labour cost	0.54	0.78	0.63	0.42	0.31	0.25	0.17	0.08	-0.01
Implicit deflator of imports	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03
Impl. defl. of imported oil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Implicit deflator of GDP	0.29	0.46	0.37	0.23	0.14	0.09	0.04	-0.02	-0.09
Impl. defl. bus. gross output	0.25	0.38	0.29	0.17	0.09	0.06	0.01	-0.04	-0.10
Consumer price index	0.27	0.41	0.33	0.21	0.13	0.09	0.05	-0.01	-0.07
CPI less food & energy	0.27	0.43	0.37	0.25	0.18	0.14	0.09	0.04	-0.02

(a) Level Impact

Table A. Major Economic Indicators: Canada

CPP Rate Increase	1997	1998	1999	2000	2001	2002	2003	2004	2005
Gross domestic product at factor cost (Bn\$86):									
Gross domestic product	-0.21	-0.34	-0.33	-0.29	-0.28	-0.28	-0.26	-0.24	-0.22
Industrial production	-0.21	-0.38	-0.35	-0.29	-0.25	-0.24	-0.21	-0.15	-0.11
Mining	-0.04	-0.08	-0.06	-0.04	-0.04	-0.04	-0.05	-0.03	0.00
Manufacturing	-0.26	-0.46	-0.44	-0.35	-0.30	-0.29	-0.24	-0.17	-0.11
Utilities	-0.18	-0.27	-0.23	-0.19	-0.19	-0.20	-0.21	-0.19	-0.19
Incomes (Bn\$C):									
Disp. income/capita (\$86)	-0.41	-0.56	-0.52	-0.49	-0.49	-0.50	-0.51	-0.50	-0.49
Corp. profits before taxes	-0.98	-1.12	-1.05	-1.11	-1.23	-1.30	-1.31	-1.15	-0.99
GDP at factor cost	0.10	0.14	0.06	-0.05	-0.12	-0.16	-0.20	-0.24	-0.29
Savings rate (%)	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
All gov't balance	1.6	2.0	1.6	1.4	1.5	1.6	1.6	1.8	1.8
Federal	-0.8	-0.4	-1.0	-1.3	-1.5	-1.7	-1.9	-2.1	-2.5
Prov. & local, hospitals	-0.5	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.3	-1.5
Canada & Quebec pensions	2.9	3.1	3.4	3.7	4.1	4.4	4.8	5.3	5.7
Current account balance	0.5	0.7	0.7	0.7	0.7	0.9	0.9	0.9	1.1
Merchandise trade balance	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.7
Population and housing (000s):									
Net immigration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total fert. (child./woman)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Households	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Housing starts	-0.03	-0.09	-0.15	-0.18	-0.19	-0.20	-0.21	-0.22	-0.23
Financial:									
Exchange rate (centsUS/\$Can)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real exchange rate	0.20	0.31	0.25	0.16	0.10	0.06	0.03	-0.02	-0.06
90-day commercial paper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real 90-day rate (2)	-0.29	-0.17	0.09	0.14	0.09	0.05	0.05	0.07	0.07
Corp. long-term bond yield	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real bond yield (2)	-0.06	-0.09	-0.07	-0.05	-0.03	0.04	0.08	0.08	0.07
Foreign:									
US GDP (Bn\$87)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US GDP deflator (1987=100)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US WTI oil (\$C/bbl)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US 90-day commercial paper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US Moody's bond rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GDP,G7(less Can&US)(1980=100)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(a) Level Impact

Sources: Statistics Canada, L. H. Meyer & Associates and Informetrica Limited

Notes: (1) Includes supplementary labour income

(2) Uses GDP deflator at market prices

Table 5. Capital Finance Account
Millions of Current Dollars

	1997	1998	1999	2000	2001	2002	2003	2004	2005
CPP Rate Increase									
Sources of gross saving:					Impact				
Total gross savings	196	126	-44	-179	-279	-353	-374	-350	-367
Personal gross savings	-382	-509	-462	-485	-538	-586	-613	-719	-441
Persons & unincorp. bus.	-448	-611	-534	-522	-556	-592	-604	-689	-387
Personal saving	-448	-611	-534	-522	-556	-592	-604	-689	-387
Adj. on grain trans.	0	0	0	0	0	0	0	0	0
Capital consump. allow.	65	102	73	37	18	6	-9	-31	-54
Government gross saving	1634	2033	1652	1442	1485	1573	1606	1757	1771
Government saving	1606	1975	1597	1410	1470	1568	1606	1767	1794
Capital consump. allow.	29	58	55	32	14	6	0	-10	-23
Corporate gross savings	-543	-667	-538	-469	-479	-488	-458	-479	-554
Corp. & gov't bus. enterpr.	-480	-539	-413	-395	-463	-505	-509	-451	-441
Undistrib. corp. profits	-324	-402	-411	-437	-475	-496	-511	-478	-465
Unremitted profits, gov't business enterprises	-34	-42	-36	-31	-32	-33	-34	-29	-26
Capital assistance to bus.	2	2	0	-2	-3	-3	-3	-3	-4
Inventory valuation adj.	-125	-97	34	75	47	27	40	59	54
Capital consump. allow.	-63	-128	-125	-74	-17	17	51	-28	-113
Nonresident saving(1)	-513	-732	-697	-667	-747	-854	-909	-909	-1143
Statistical discrepancy (+)	0	0	0	0	0	0	0	0	0
Disposition of gross saving:									
Total disposition	197	123	-44	-178	-283	-359	-380	-355	-367
Total invest., fixed capital	229	271	48	-161	-248	-253	-279	-348	-413
Government	41	70	58	30	9	-3	-13	-27	-44
Business	188	202	-9	-190	-257	-250	-266	-322	-369
Persons & unincorp. bus. Corporations	90	137	85	24	-9	-32	-60	-97	-137
Corporations	98	65	-95	-215	-247	-218	-206	-224	-232
Total invest., inventories	-32	-149	-93	-18	-35	-106	-101	-7	47
Government	1	0	0	0	0	0	0	0	0
Business	-33	-149	-93	-17	-35	-106	-101	-6	47
Statistical discrepancy (-)	0	0	0	0	0	0	0	0	0

Sources: Statistics Canada and Informetrica Limited

Note:

(1) A positive figure indicates a source of savings made available to economy by nonresidents.