VECC #1

INTERROGATORY

Please describe fully the macroeconomic transmission mechanism through which lower federal corporate tax rates are reflected in the overall price level and its rate of change in the Canadian economy.

PEG RESPONSE

According to basic microeconomic theory, lower tax rates will raise the rate of return in the industry above the competitive level. This will trigger additional investment in productive capacity. As the supply to the market increases, the equilibrium price will fall in real terms. GDPIPI growth will slow.

VECC #2

INTERROGATORY

Please provide your views as to the factors that affect inflation in the Canadian economy. A helpful discussion of the forces affecting inflation is Tiff Macklem, “A New Measure of Core Inflation”, *Bank of Canada Review*, Autumn 2001.

PEG RESPONSE

Price inflation in Canada is the result of several forces that include the following.

Monetary policy

Stimulative monetary policy typically lowers interest rates and accelerates inflation with a lag of approximately a year. The Bank of Canada uses monetary policy to keep inflation in the total consumer price index (CPI) in the 1-3% range.

Fiscal policy

Stimulative fiscal policy can accelerate inflation. The impact is greater the closer the economy is to full capacity and the less extensive is foreign trade.

Supply Shocks

Inflation is accelerated by shocks in the supply of goods and services. Prices are especially susceptible to supply shocks in the agriculture, oil, and natural gas industries.

Capacity Utilization

The economy is more sensitive to inflation pressures when the economy is at full capacity. This effect is lessened to the extent that goods and services are internationally traded.

Exchange Rates

Inflation will slow when the Canadian dollar appreciates relative to the currencies of Canada’s trading partners. This effect will be more pronounced to the extent that goods and services are traded internationally.

Inflation Expectations

Inflation at a given point in time also depends on expectations concerning future inflation,

VECC #3

INTERROGATORY

Please indicate your views on the extent to which monetary policy affects the rate of inflation in the Canadian economy.

PEG RESPONSE

Monetary policy is well known to have a major impact on inflation in the Canadian economy. The Bank of Canada maintains an inflation target regime under which it uses monetary policy to keep inflation in the total consumer price index (CPI) in the 1-3% range. As discussed further in Tiff Mackem's helpful essay, "A New Measure of Core Inflation" (*Bank of Canada Review*, Autumn 2001), the Bank's control program focuses on a "core" CPI inflation index. This is a special CPI that excludes fruit and vegetables, gasoline, fuel oil, natural gas, intercity transportation, tobacco, and mortgage interest costs and is adjusted to remove the effects of indirect (*e.g.* sales and excise) taxes.

Witness: Mark Lowry

VECC #4

INTERROGATORY

In your view, does a decrease in federal corporate tax rates provide a fiscal stimulus to the Canadian economy?

PEG RESPONSE

Yes. Lower corporate taxes will stimulate investment and, by slowing price growth, encourage consumption.

Witness: Mark Lowry

VECC #5

INTERROGATORY

With respect to the Canadian economy in the last quarter of 2007, please provide your estimates of (i) the non accelerating inflation rate of unemployment (NAIRU) and (ii) capacity utilization.

PEG RESPONSE

We do not have in-house estimates of these statistics but note the following.

- The Bank of Canada reported capacity utilization of 81.7% (manufacturing) and 82.7% (non-farm) in the third quarter of 2007.
- The national unemployment rate was 5.9% in the fourth quarter of 2007. This is down considerably from the recent historical norm. For example, the unemployment rate averaged 8.6% from 1991-2006.

VECC #6

INTERROGATORY

With respect to the Canadian economy at present, please provide your estimates of (i) the non accelerating inflation rate of unemployment (NAIRU) and (ii) capacity utilization.

PEG RESPONSE

We have no knowledge of how conditions have changed since the last quarter of 2007.

Witness: Mark Lowry

VECC #7

INTERROGATORY

In your view, for the last quarter of 2007 was the Canadian economy operating approximately at its productive capacity, i.e., at its potential output?

PEG RESPONSE

In its January 2008 *Monetary Policy Report Update* the Bank states on p. 4 that "the economy was operating about one-half of a per cent above its production capacity in the last quarter of 2007".

VECC #8

INTERROGATORY

In your view, at present is the Canadian economy operating approximately at its productive capacity, i.e., at its potential output?

PEG RESPONSE

We do not know how conditions have changed since the fourth quarter of 2007.

Witness: Mark Lowry

VECC #9

INTERROGATORY

Please provide your estimate of the amount of the Canadian capital stock owned by foreigners and the amount of the corporate tax cut savings that will accrue to them as a result of the announced tax rate cuts.

PEG RESPONSE

We do not have a good estimate of the amount of the Canadian capital stock owned by foreigners. Please note, however, that Statistics Canada notes in its publication *Foreign and Domestic Investment in Canada – 2004 to 2006* that in 2006 about 27% of capital spending on construction and machinery and equipment was foreign.

We do not have an estimate of the amount of corporate tax savings that will accrue to foreigners as a result of the announced tax cuts.

Witness: Mark Lowry

VECC #10

INTERROGATORY

Please provide your views as to how the exercises of fiscal policy and monetary policy interact in the Canadian economy.

PEG RESPONSE

I do not know how the Bank of Canada will respond to the anticipated reductions in corporate income and capital taxes. However, the following discussion by Tiff Macklem in "A New Measure of Core Inflation" (*Bank of Canada Review*, Autumn 2001) concerning the Bank's handling of changes in indirect (*e.g.* sales and excise) taxes may be pertinent.

> The first round effect of a change in an indirect tax is an increase in the price level that is proportional to the tax increase. This raises inflation temporarily, but once the price level has reached its new level, the rate of increase in the price level (*i.e.* inflation) is unaffected. Given the discrete and temporary nature of the impact of inflation on these first round effects, the Bank has indicated that it would accommodate these, but that it would not accommodate the second-round effects that could arise if the initial price change related to the change in indirect taxes began feeding into expectations of future inflation, wages, and the prices of other goods and services. (p.4)

VECC #11

INTERROGATORY

Please provide your understanding of the terms (i) economic investment, (ii) portfolio investment, and (iii) foreign direct investment.

PEG RESPONSE

I understand economic investment to be investment in tangible and intangible assets used to produce tangible goods and services. Portfolio investment is investment of money in financial assets with the objective to producing more money. Foreign direct investment is long term investment by an entity in one economy in an entity resident in another nation's economy.

Witness: Mark Lowry

VECC #12

INTERROGATORY

Please provide your views as to the extent that various macroeconomic price indices, *e.g.*, GDPIPIFDD, GDPPI, PPI, WPI, and CPI track each other.

PEG RESPONSE

The attachment labeled "VECC 12 Attachment" contains a table and figure that compare the trajectories of the GDPIPI (all items), GDPIPIFDD, CPI (all items), and Industry Price Index for Manufacturing from 1981 to 2006. Please note the following:

- The GDPIPI, GDPIPIFDD, and IPI have fairly similar trajectories in the long run.
- In the short run, the trajectories of the indexes are more likely to diverge. The trajectories of the CPI and the GDPIPI are most similar because of their heavier weights on price-volatile commodities such as oil and gas. The short run trajectory of the IPI can be quite different from the others.

Witness: Mark Lowry

Comparison of Canadian CPI and GDP-IPI Trends 1981-2006

	GDP-IPI FDD		**GDP-IPI**		**CPI[1]**		**PPI[2]**	
	Index (1981=100)	Growth Rate	Index (1981=100)	Growth Rate	Index (1981=100)	Growth Rate	Index (1981=100)	Growth Rate
1981	100.0		100.0		100.0		100.0	
1982	109.5	9.09%	108.4	8.10%	110.9	10.35%	106.7	6.49%
1983	115.5	5.31%	114.4	5.32%	117.4	5.67%	110.4	3.41%
1984	120.1	3.96%	118.1	3.24%	122.4	4.21%	115.4	4.43%
1985	124.4	3.51%	121.7	2.99%	127.3	3.88%	118.6	2.72%
1986	129.1	3.68%	125.5	3.05%	132.5	4.04%	119.6	0.86%
1987	134.3	3.97%	131.2	4.48%	138.4	4.33%	122.9	2.75%
1988	139.4	3.68%	137.2	4.42%	143.8	3.87%	128.3	4.23%
1989	145.3	4.19%	143.3	4.35%	151.1	4.93%	130.9	2.00%
1990	150.9	3.78%	147.9	3.21%	158.4	4.70%	131.2	0.30%
1991	156.2	3.40%	152.2	2.87%	167.3	5.46%	129.9	-1.05%
1992	158.8	1.66%	154.2	1.29%	169.7	1.44%	130.5	0.51%
1993	161.9	1.98%	156.6	1.50%	172.9	1.89%	135.2	3.53%
1994	164.4	1.49%	158.3	1.14%	173.1	0.12%	143.4	5.87%
1995	166.4	1.24%	161.9	2.24%	177.0	2.19%	154.1	7.19%
1996	168.3	1.11%	164.5	1.54%	179.6	1.47%	154.7	0.40%
1997	170.7	1.43%	166.4	1.19%	182.6	1.67%	155.8	0.71%
1998	172.9	1.30%	165.7	-0.43%	184.4	0.99%	156.4	0.37%
1999	175.2	1.29%	168.6	1.72%	187.7	1.74%	159.2	1.78%
2000	179.3	2.32%	175.6	4.07%	192.7	2.66%	166.0	4.17%
2001	182.5	1.75%	177.6	1.12%	197.6	2.48%	167.6	0.97%
2002	186.6	2.22%	179.5	1.11%	202.0	2.22%	167.7	0.06%
2003	189.4	1.49%	185.5	3.25%	207.7	2.76%	165.4	-1.36%
2004	192.5	1.66%	191.4	3.14%	211.5	1.83%	170.7	3.11%
2005	196.5	2.01%	197.8	3.32%	216.2	2.17%	173.2	1.48%
2006	200.4	1.97%	202.5	2.33%	220.4	1.94%	177.3	2.33%
1997-2006		**1.78%**		**2.18%**		**2.09%**		**1.43%**
1998-2006		**1.84%**		**2.51%**		**2.23%**		**1.57%**
Average		**1.81%**		**2.34%**		**2.16%**		**1.50%**

1. Statistics Canada Consumer Price Index (2007). All consumer items included. Annual price index where 2002=100. Normalized into 1997=100, then 1981=100 for VECC 12 Attachment.

2. Statistics Canada Industry Price Index (2007). All manufacturing items included. Monthly price index where 1997=100, averaged into annual values. Normalized from 1997=100 to 1981=100 for VECC 12 Attachment.

VECC #13

INTERROGATORY

Please provide a copy of all reports, studies, and memoranda that PEG has provided to the Ontario Energy Board and/or staff related to taxes or Z-factors since 2000.

PEG RESPONSE

We have not prepared any reports, studies, or memoranda on these issues since 2000 apart from some very brief and general discussions on Z factors in high level reports on incentive regulation.