## Volume 3, Section 1 - McShane, Cost of Capital

Q. (page 49, line 1314 and footnote 49, and page 58, lines 1575-1577)
a. Please provide the information used to draw the conclusion that the period from 1993 to 2006 represents one full business cycle for the U.S. economy, for the purposes of the DCF-based equity risk premium test.
b. What period ending in 2006 best represents one full business cycle for the Canadian economy, and what is the evidence that supports this?
c. Please reconcile the choice of the 1993-2006 period as one full business cycle on page 49 with the apparent inference, on page 58 at lines 1576-1577, that the period from 1994 to 2005 is one full business cycle for the purposes of the comparable earnings test.
A. (a) With respect to the DCF-based risk premium test, the objective was to include a period that was similar both in terms of economic fundamentals and operating environment to the current and expected environment. A recession is typically measured from the trough of one recession to the trough of the next. In that context, a full U.S. business cycle would have been from 1993 to 2001, with the trough of the first recession ending in December of 1992 and the trough of the subsequent recession ending in November 2001. For this purpose, however, in order to include the most recent data, the cycle was defined as "point-to-point", thereby including the most recent 2001 recession with the years of expansion and contraction subsequent to the end of the 1992 recession. The individual annual rates of growth in the U.S. economy from 1993 to 2006 were:

| 1993 | $2.7 \%$ |
| :--- | :--- |
| 1994 | $4.0 \%$ |
| 1995 | $2.5 \%$ |
| 1996 | $3.7 \%$ |
| 1997 | $4.5 \%$ |
| 1998 | $4.2 \%$ |
| 1999 | $4.5 \%$ |
| 2000 | $3.6 \%$ |
| 2001 | $0.8 \%$ |
| 2002 | $1.6 \%$ |
| 2003 | $2.5 \%$ |
| 2004 | $3.9 \%$ |
| 2005 | $3.2 \%$ |
| 2006 | $3.2 \%$ |

Since the period contains all of the years since the 1992 recession, and includes a recession itself, it is a reasonable proxy for a full business cycle.
(b) The most recent recession in Canada officially ended in 1992, although the first year of expansion (1993) was relatively anemic. In contrast to the U.S. economy, Canada did not experience a recession in 2001. Nevertheless, it has experienced three periods of economic slowdown since 1992 as illustrated in the chart provided in Attachment A. The annual rates of growth from 1993 to 2006 are as follows:

$$
\begin{array}{ll}
1993 & 2.3 \% \\
1994 & 4.8 \% \\
1995 & 2.8 \% \\
1996 & 1.6 \% \\
1997 & 4.2 \% \\
1998 & 4.1 \% \\
1999 & 5.5 \% \\
2000 & 5.2 \% \\
2001 & 1.8 \% \\
2002 & 2.9 \% \\
2003 & 1.9 \% \\
2004 & 3.1 \% \\
2005 & 3.1 \% \\
2006 & 2.8 \%
\end{array}
$$

Since there has been no official recession since 1990-1992, the entire period 1994-2006 can be viewed as a business cycle, since it includes a balance of years of expansion (above trend growth), economic downturns and growth at approximately trend (average) levels. The year 1993 is excluded from the measurement of the business cycle for the purpose of applying the comparable earnings test to Canadian industrial companies due to the hang-over of the effects of the 1990-1992 recession.
(c) Given the pattern of growth in the U.S. from 1993-2006, and the imprecision inherent in the measurement of a full business cycle since the recession ending 1992, both periods, 1993-2006 and 1994-2006, are reasonable proxies for a full "point -to- point" business cycle in the U.S. The inclusion of 1993 in the DCFbased risk premium test captures the change in operating environment ushered in as a result of the implementation of Open Access Order 636.

# Gross Domestic Product Chart 

Gross Domestic Product in Constant Dollars for Canada


