1 **Q.   On page 38 Mr. Coyne states:**
2
3   **"The forward-looking MRP is calculated by subtracting the risk-free rate for each**
4   **country from the estimated total return for the overall market, as calculated using**
5   **the DCF methodology for the S&P/TSX Composite Index in Canada and the S&P**
6   **500 Index in the U.S."**
7
8   **a) Please confirm that the estimated total return for both market indices is**
9   **calculated using the Constant Growth DCF Model. If not confirmed, please**
10   **explain how these estimated total returns were calculated.**
11   **b) Please confirm that the use of the Constant Growth DCF Model implies that all**
12   **firms used to estimate the MRP pay dividends that can be expected to grow at a**
13   **constant annual rate from now to infinity. If not confirmed, please explain.**
14   **c) Please provide the number of companies included in the TSX Index that is used**
15   **to estimate the Canadian MRP that did not have a valid dividend yield, and**
16   **hence were not included in the estimation of the MRP.**
17   **d) Please provide the number of companies included in the TSX Index that did not**
18   **have a valid earnings growth estimate, and hence were not included in the**
19   **estimation of the MRP.**
20   **e) Please provide the number of firms actually used to estimate the MRP in JMC-5.**
21   **f) Please confirm that the average long-term growth estimates provided in JMC-5**
22   **for the remaining firms in the TSX Index after eliminating the firms noted in**
23   **part (d) was 8.21%, and that the expected return on the TSX was 11.72%**
24   **according to Mr. Coyne's calculations. If not confirmed, please explain.**
25   **g) Please confirm that the long-term growth rate of 8.21% (as in part (f)) used to**
26   **estimate the expected market risk premium using the constant growth DCF is**
27   **more than double Mr. Coyne's estimate of Canadian nominal GDP growth (of**
28   **3.73%).**
29   **h) Can Mr. Coyne please reconcile the huge discrepancy between this MRP**
30   **estimate with more commonly used MRP estimates in the 3-6% range that are**
31   **based on the expectations of market professionals and on historical**
32   **observations? For example, the MRP for Canadian stocks over the 1900-to-2015**
33   **period had an arithmetic average of 5.2% and a geometric average of 3.3%.**
34   **i) Please provide the number of companies included in the S&P 500 Index that is**
35   **used to estimate the U.S. MRP that did not have a valid dividend yield, and**
36   **hence were not included in the estimation of the MRP.**
37   **j) Please provide the number of companies included in the S&P 500 Index that did**
38   **not have a valid earnings growth estimate, and hence were not included in the**
39   **estimation of the MRP.**
40   **k) Please provide the number of firms actually used to estimate the MRP in JMC-6.**
41   **l) Please confirm that the average long-term growth estimates provided in JMC-6**
42   **for the remaining firms in the S&P 500 Index after eliminating the firms noted**
43   **in part (j) was 10.80%, and that the expected return on the Index was 13.30%**
44   **according to Mr. Coyne's calculations. If not confirmed, please explain.**

1   **m) Please confirm that the long-term growth rate of 10.8% (as in part (k)) used to**
2   **estimate the expected market risk premium using the constant growth DCF is**
3   **more than double Mr. Coyne's estimate of U.S. nominal GDP growth (of 4.35%).**
4   **n) Can Mr. Coyne please reconcile the huge discrepancy between these MRP**
5   **estimates with more commonly used MRP estimates in the 3-6% range that are**
6   **based on the expectations of market professionals and on historical**
7   **observations? For example, the MRP for U.S. stocks over the 1900-to-2015**
8   **period had an arithmetic average of 5.8% and a geometric average of 4.4%.**
9

10   A.   a) Confirmed. The estimated total return was calculated using the companies in the
11   S&P/TSX Composite Index in Canada and the S&P 500 Index in the U.S.
12

13   b) Confirmed. One assumption of the Constant Growth DCF model is that dividends are
14   expected to grow at a constant rate in perpetuity.
15

16   c) 61 of the companies in the TSX Index did not have a valid dividend yield, as shown in
17   Exhibit JMC-5.
18

19   d) 136 of the companies in the TSX Index did not have a valid earnings growth estimate,
20   as shown in Exhibit JMC-5.
21

22   e) 94 firms were used to estimate the MRP in Exhibit JMC-5.
23

24   f) As shown in Exhibit JMC-5, the average long-term growth estimate for companies in
25   the TSX Index that pay dividends and that have a positive long-term growth estimate
26   is 12.14%, the market-capitalization weighted average long-term growth rate is 8.21%,
27   and the secondary market investor required return is 11.72%.
28

29   g) Mr. Coyne can confirm that 8.21% is more than double 3.73%.
30

31   h) The historical MRP averages cited in the question are based on historical government
32   bond yields. There is an inverse relationship between interest rates and the equity risk
33   premium. That is, as interest rates increase (decrease), the equity risk premium
34   decreases (increases). In the current low interest rate environment, it is not appropriate
35   to rely solely on the historical MRP because it is calculated based on average
36   government bond yields which are much higher than current yields on Canadian
37   government bonds. For this reason, Mr. Coyne has also developed a forward-looking
38   MRP which reflects the inverse relationship between interest rates and the equity risk
39   premium. With regard to investor surveys, there is evidence that investors tend to base
40   their response more on recent history than on what is expected to occur over the
41   forward-looking period. Therefore, market risk premiums based on investor surveys

1   have limited value according to those who have researched the matter, such as Dr.
2   Aswath Damodoran, Professor of Finance at the Stern School of Business at New York
3   University.[1]
4
5   i)   88 of the companies in the S&P 500 Index did not have a valid dividend yield, as shown
6   in Exhibit JMC-6.
7
8   j)   16 of the companies in the S&P 500 Index did not have a valid earnings growth
9   estimate, as shown in Exhibit JMC-6.
10
11   k)   407 firms were used to estimate the MRP in Exhibit JMC-6.
12
13   l)   As displayed in Exhibit JMC-6, the average long-term growth estimate for companies
14   paying dividends with a positive long-term growth estimate is 11.42%, the market
15   capitalization weighted average long-term growth estimate is 10.80%, and the
16   secondary market investor required return is 13.30%
17
18   m) Mr. Coyne can confirm that 10.80% is more than double 4.35%.
19
20   n)   Please see response to subpart (h) above.

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[1]   Aswath Damodoran, *Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2013 Edition*, Updated March 2013, at 19-20.