

1 • 10-Year Treasury bond yield is forecasted to be 3.8% in 2023, 3.7% in
2 2024, and 3.6% in 2025.

3 • An unemployment rate of 3.6% is forecasted for 2023 and 4.0% for 2024.

4 • Real growth in GDP of 2.1% is forecasted in 2023 and 1.3% in 2024.⁸

5 The Fed’s economic projections as of June 14, 2023, showed the following
6 median forecasts:

7 • Personal Consumption Expenditures (“PCE”) inflation rate of 3.3% for
8 2023, 2.5% for 2024, and longer run inflation at 2.0%;

9 • Unemployment rate of 3.8% for 2023 and 4.1% for 2024, with a longer run
10 unemployment rate of 4.0%; and

11 • Growth in real GDP of 2.1% for 2023, 1.5% for 2024 with a longer run
12 growth rate of 1.8%.⁹

13 **Q. Based on the interest rate data and the forecasts you presented, what are your**
14 **conclusions with respect to general economic conditions at this time?**

15 A. There appears to be a consensus for slow growth in GDP in 2023 - 2024, with the
16 U.S. unemployment rate forecasted to rise to about 4.0% - 4.1% through 2024.
17 Inflation is forecasted to be above 3.0% through 2023, but decline in 2024 and
18 thereafter. The forecasted yield on the 10-Year Treasury Bond for 2023, 3.8%, is
19 expected to decline slightly in 2024.

⁸ Third Quarter Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia (August 11, 2023), <https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q3-2023>.

⁹ Summary of Economic Projections, Federal Reserve Board (September 20, 2023), <https://www.federalreserve.gov/monetarypolicy/files/fomcprojt20230920.pdf>.

1 and later Ibbotson and Chen (2003) used this supply approach. They
2 extrapolated the cash flows and earnings growth generated by
3 companies themselves. These forecasts tend to give somewhat
4 lower historical risk premiums, primarily because part of the total
5 return of the stock market has come from price-to-earnings ratio
6 expansion. This expansion is not predicated to continue on
7 indefinitely and is removed from the expected risk premium.²¹
8

9 **Q. Are there other concerns regarding using the use of historical MRPs for**
10 **estimating the investor required ROE?**

11 A. Yes. A historical MRP calculated over a long period of time may not reflect current
12 investor expectations and requirements. For example, Pratt and Grabowski
13 presented a detailed discussion of the sources of potential upward bias and
14 overstatement of the long-term historical risk premium.²² One potential source of
15 bias they analyzed was the historical period of 1942 – 1951, which included
16 government-imposed stability in interest rates for government bonds during the
17 Second World War. Pratt and Grabowski named this period “WWII Interest Rate
18 Bias” and estimated that it resulted in an overstatement of the long-run historical
19 risk premium of 117 basis points, or 1.17%. Pratt and Grabowski also considered
20 the supply-side MRP, which I considered and presented earlier.

21 Kroll analyzed and calculated the so-called World War II Interest Rate Bias
22 and subtracted it from the supply-side ERP of 6.35%, resulting in an adjusted
23 historical ERP of 5.37%. I also present this historical ERP on page 2 of Exhibit
24 RAB-5.

²¹ William N. Goetzmann & Roger G. Ibbotson, Handbook of the Equity Risk Premium 522-523 (Rajnish Mehra ed., Elsevier B.V., 2008).

²² Pratt and Grabowski, Cost of Capital, 119 – 120 (Wiley, 5th ed.)