

Table: Equity Risk Premium & Risk-free Rates

Corresponding Risk-free Rates (R_f) ;

Duff & Phelps Recommended U.S. Equity Risk Premium (ERP) and

January 2008-Present

January 1, 2008 - October 26, 2008

For additional information, please visit https://www.duffandphelps.com/insights/publications/cost-of-capital

Duff & Phelps Recommended ERP What Risk-free Rate (R_f) (%) Changed R_f (%) **Current Guidance:** June 30, 2020 - UNTIL FURTHER NOTICE 2.50 Normalized 20-year U.S. Treasury yield 6.00 Rf March 25, 2020 - June 29, 2020 Normalized 20-year U.S. Treasury yield 3.00 6.00 ERP December 19, 2019 - March 24, 2020 Normalized 20-year U.S. Treasury yield 3.00 5.00 ERP Normalized 20-year U.S. Treasury yield 3.00 September 30, 2019 - December 18, 2019 5.50 Rf 3.50 December 31, 2018 - September 29, 2019 Normalized 20-year U.S. Treasury yield 5.50 ERP September 5, 2017 - December 30, 2018 Normalized 20-year U.S. Treasury yield 3.50 5.00 ERP November 15, 2016 - September 4, 2017 Normalized 20-year U.S. Treasury yield 3.50 5.50 R_f 4.00 January 31, 2016 - November 14, 2016 Normalized 20-year U.S. Treasury yield 5.50 **ERP** 4.00 December 31, 2015 Normalized 20-year U.S. Treasury yield 5.00 December 31, 2014 Normalized 20-year U.S. Treasury yield 4.00 December 31, 2013 Normalized 20-year U.S. Treasury yield 4.00 February 28, 2013 - January 30, 2016 Normalized 20-year U.S. Treasury yield 4.00 5.00 ERP 4.00 5.50 December 31, 2012 Normalized 20-year U.S. Treasury yield January 15, 2012 - February 27, 2013 Normalized 20-year U.S. Treasury yield 4.00 5.50 ERP Normalized 20-year U.S. Treasury yield 4.00 December 31, 2011 6.00 September 30, 2011 - January 14, 2012 Normalized 20-year U.S. Treasury yield 4.00 6.00 ERP Normalized 20-year U.S. Treasury yield 4.00 July 1 2011 - September 29, 2011 5.50 R_f June 1, 2011 - June 30, 2011 Spot 20-year U.S. Treasury yield Spot 5.50 R_f May 1, 2011 - May 31, 2011 Normalized 20-year U.S. Treasury yield 4.00 5.50 R_f Spot 20-year U.S. Treasury yield Spot December 31, 2010 December 1, 2010 - April 30, 2011 Spot 20-year U.S. Treasury yield Spot 5.50 June 1, 2010 - November 30, 2010 Normalized 20-year U.S. Treasury yield 4.00 R_f 5.50 December 31, 2009 Spot 20-year U.S. Treasury yield December 1, 2009 - May 31, 2010 Spot 20-year U.S. Treasury yield Spot 5.50 **FRP** June 1, 2009 - November 30, 2009 Spot 20-year U.S. Treasury yield Spot 6.00 R_f December 31, 2008 Normalized 20-year U.S. Treasury yield 4.50 6.00 November 1, 2008 - May 31, 2009 Normalized 20-year U.S. Treasury yield 4.50 6.00 R_f Spot 20-year U.S. Treasury yield October 27, 2008 - October 31, 2008 Spot 6.00 FRP

Spot 20-year U.S. Treasury yield

Spot

5.00

Initialized

[&]quot;Normalized" in this context means that in months where the risk-free rate is deemed to be abnormally low, a proxy for a longer-term sustainable risk-free rate is used.

To learn more about cost of capital issues, and to ensure that you are using the most recent Duff & Phelps Recommended ERP, visit www.duffandphelps.com/insights/publications/cost-of-capital.

This and other related resources can also be found in the online Cost of Capital Navigator platform. To learn more about the Cost of Capital Navigator and other Duff & Phelps valuation and industry data products, visit www.DPCostofCapital.com.