The Risk-Free Rate of Return is an important concept in financial markets since it provides the return an investor can receive on his money without running any risk of loss. Typically, the rate of return is measured by the one-month treasury bill issued by the government. But what happens when there are no Treasury bills to measure the risk-free rate of return? Investors in government bonds have found out that government bonds are not risk free, even if there is virtually no risk of default, because the price of the bond produces capital gains and losses to bondholders. The longer the maturity of the bond, the greater the change in the price of the bond whenever bond yields change. Treasury bills, on the other hand, are redeemed within a month at their face value, and short of a default, there is no risk of loss due to capital gains or losses. But what if there are no Treasury bills, as was generally the case in the 1800s, that investors can use for a risk-free investment? One alternative is the interest rate the central bank pays on deposits with the bank. England has had a central bank beginning in 1694 and this rate enables historians to provide a risk-free rate of return in Great Britain for over 300 years.

But what if there is no central bank and no treasury bills? This is the situation that the United States faced between 1836 and 1913 when the Federal Reserve was established and before 1918 when the Federal government began issuing treasury bills to cover its borrowing needs. Unlike most European countries, the United States almost managed to pay off its debt before World War I commenced. The easiest solution would be to use commercial paper as a substitute for Treasury bills. Since the risk of the issuing bank defaulting is low and the bills' maturity is only a month or two, they would seem to be the best substitute for Treasury Bills. The problem with this solution is that when you calculate the rate of return over time, before 1918, commercial bills provided a higher return than Government bonds! When we put together a risk-free bill series to compare with Government bonds in the United States between 1835 and 2017, we found that the bills outperformed the government bonds until World War I when treasury bills were introduced and bonds outperformed bills between 1918 and 2018. Clearly, this was not a solution. There were periods of time in the nineteenth century when commercial bills paid lower returns than government bonds, and there were periods when they paid higher returns. The solution seemed simple, use the coupon rate on government bonds as the basis for the risk-free rate of return, but during those periods when commercial bills paid a lower yield than government bonds, use commercial bills. This solution worked! Risk-free bills provided a lower rate of return than risk-free government bonds and the balance between bills and bonds was restored.