Risk-Free Rate

The *Risk-Free Rate* (RFR) is the *rate* of return of an investment with no *risk* of loss. The yield achievable by investing in government bonds, such as issued by the United States or Germany, is assumed to have zero risk.

The RFR represents the return one could achieve if investing in a risk-free asset: This is an asset which will meet its obligations over the entire investment period and therefore will never default or go bankrupt. – In technical terms, the standard deviation of returns (i.e. risk) would be zero, or at least close to zero.

Capital markets comprise a wide range of products, such as stocks, bonds or a vast variety of hybrid securities, like convertibles, preferred shares and else. Besides, alternative asset categories such as private equity or hedge fund investments have become very popular as well as investments in real estate or structured products.

Bonds - they belong to the category of fixed income instruments - are by far the largest asset category in the global capital markets. Issuers are foremost public institutions, such as sovereigns (e.g. Germany) and corporates (e.g. Apple). Thereby the issuer of a bond borrows funds from investors for a certain period of time, pays regular interest during the life time of the security and redeems the principal at the end of maturity.

In most developed capital markets, bonds issued by sovereigns are treated as investment instruments with zero – or close to zero – risk. The reasoning is as such: If the sovereign issuer defaults on its domestic bonds then all other – especially corporate – bond issuers in that same country are assumed to default as well. – A government in default would be unable to pay salaries to its civil servants or cover costs and expenditures related to health care, education or infrastructure: Hence, a sovereign default will have a severe, possibly catastrophic knock-on effect on many sectors of a national economy, with the entire country perhaps coming to a stand-still. History is littered with sovereign defaults, especially in emerging markets, but not only.

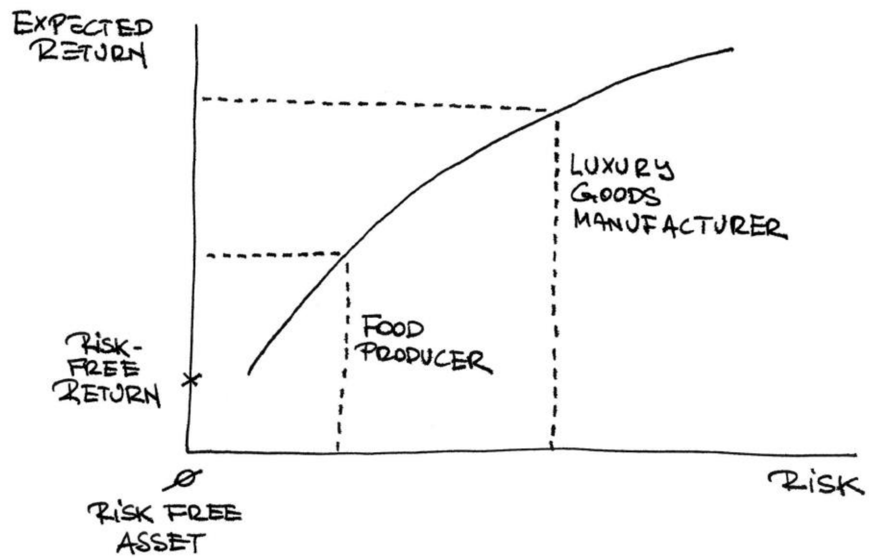
This concept of an anticipated domino effect caused by a sovereign default is also applied by credit rating agencies: Within their respective frameworks, they assume that the credit rating of any local corporate borrower cannot exceed that of the sovereign. Hence, the credit rating of the sovereign issuer is set as a cap, the “sovereign ceiling”, a sort of “as good as it gets” upper limit for a domestic credit rating of any firm or institution.

Of course, there are good arguments to oppose this concept: For instance, a mature, well-diversified and globally operating firm may just for tax-related reasons be domiciled in a certain country. Assuming latter going bankrupt, this firm´s performance and financial standing may not at all be affected by the sovereign default. It may still operate as normal, also meeting all its bond- and credit-related obligations to best satisfaction.

However, the concept of a sovereign ceiling is broadly backed by empirical evidence: Therefore – as far as most developed markets are concerned - the investment in a local bond issued by the sovereign is regarded as the least risky investment proposition in that country. Therefore, domestic bonds issued in local currency by the German or Unites States governments are considered risk free.

Whereby, major sovereigns tend to issue bonds across a wide maturity spectrum from very short-term to very long-term. Yields of these bonds differ, usually increasing with maturity, reflecting potential enhanced macroeconomic, regulatory or geo-political risks. Now, in choosing the appropriate RFR, the expected holding period of the intended investment should match the maturity of the respective local government bond.

If one considered an investment in an – anything but risk-free – emerging market, also then a local government bond may serve as the appropriate proxy for a “RFR” in the respective local currency: The assumption is that a local government bond still offers the least risky investment alternative available.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