Risk-Free Rate

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

The RFR represents the return one could achieve by 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. – 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 or 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 interest during the life time of the security and subsequently 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 a sovereign issuer defaults on its domestic bonds then all other – especially corporate – bond issuers of 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, sovereign defaults can have severe, possibly catastrophic knock-on effects on numerous 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.

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. If that went bankrupt, the firm´s performance and financial standing may not be affected at all by a sovereign default. It may still operate normal, meeting all bond- and credit-related obligations to best satisfaction.

However, the concept of a sovereign ceiling can be backed by empirical evidence: Therefore – at least, as far as most developed markets are concerned - the investment in a local bond issued by the sovereign may be regarded as the least risky investment proposition in that country. Hence, domestic bonds issued in local currency by the German or Unites States governments are considered risk free. (As a matter of fact, the United States defaulted on some or all of its debt in 1790, 1861, 1833, and 1979. It was never declared "bankrupt" in any sovereign court, though, nor was the government placed in any sort of receivership. Germany had gone bankrupt last in 1939 and 1948, due to WWII).

Most sovereigns 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 enhanced macroeconomic, regulatory or geo-political risks over time. Therefore, in choosing the appropriate RFR, the expected holding period of an intended investment should more or less match the maturity of the respective local government bond used as a benchmark.

This approach can also be applied if one considered an investment in an – anything but risk-free – emerging market. Even in this case, a local government bond is the most relevant and appropriate proxy benchmark for a "RFR" in the respective local currency: Despite all the risks associated with such an investment, investing in a local government bond is still assumed to be the least risky alternative available.

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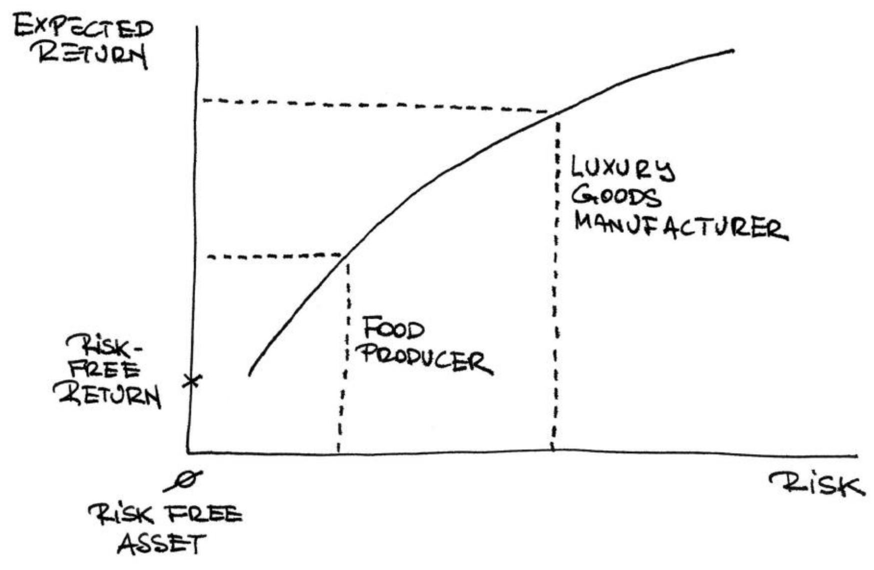

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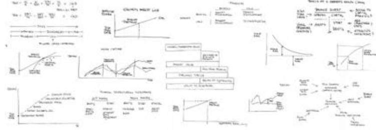

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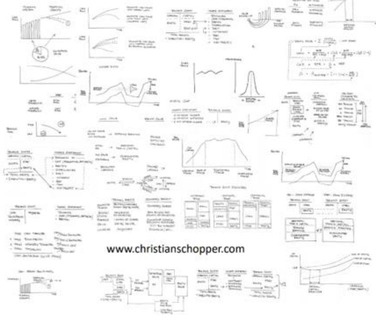

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