

The 100% Guarantee

The reign of the risk-free rate.



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The risk-free rate is a theoretical return that is earned with 100% certainty. In practice, this means that a creditor is nearly 100% certain that promised interest payments and the original principal are paid on time and in full. The risk-free rate is a universal reference point used in financial analysis to estimate the fair value of competing investment opportunities and is usually represented as the return earned by investing in a debt instrument issued by a national government. Canadian investors typically view the return available on a Government of Canada 3-month Treasury Bill as a risk-free rate.

Risk-free or default-free debt was an outcome of the Glorious Revolution of 1688 in England when William of Orange took the English throne from James II and parliamentary rule of law formally displaced the divine right of the monarch. Funds loaned to a monarch under the legal framework of the Divine Right of Kings were very much at risk. Sovereigns could, and did, renege on their debts by unilaterally imposing new terms of borrowing and even full repudiation of debts owed. Creditors had no legal recourse because monarchs were above the law.

Debt issued under the constitutional monarchy was backed by Parliament's ability to levy and collect taxes from England's citizens. This provided creditors with much more protection than the personal promises of the reigning monarch. Parliament's guarantee provided a debt investment that offered investors a rate of return that was all but free of default. parliamentary-funded debt became the National Debt, not just the king's debt.

The decline in the risk premium on government debt following the signing of the Treaty of Ryswick in 1697 testifies to investors' increased faith in the parliamentary guarantee. During the opening of the decade of the constitutional monarchy, government debt carried a risk

premium of 400 basis points over private debt. The premium disappeared and became a small discount in the years 1698 to 1705. The Treaty of Ryswick ended the Nine Years War, confirmed William of Orange as King of England and left the new constitution intact.

Today, the interest rate paid on default-free debt is used to price the fair-value of guaranteed streams of future income. In the world of defined benefit (DB) pension plans, this means calculating the present value of promised benefits with a risk-free rate of return under the assumption that a pension promise is in reality a deferred wage. Because current wages when received are 100% certain, it follows that wages earned today but paid at a later date in the form of a pension should have the same level of economic certainty. What asset mix policy ensures this level of benefit certainty? Simple—a portfolio of default-free zero coupon bonds whose current market value equals the present value of the promised pension discounted using the yield of the zero coupon bonds.

The use of default-free yields to estimate the present value of DB pension promises is controversial because it produces much higher liabilities than if discounted using the expected return of a portfolio of risky assets, a long-established but misguided actuarial practice. However, the higher liabilities using default-free rates portray fairly the economic value of a guaranteed pension promise. The economic value is high because risk removal is expensive.

A political revolution some 300 years ago launched a financial revolution that ushered in the development of a market for near default-free government debt. The financial security provided by the progeny of these early financial instruments is now a key factor in the fair pricing and restructuring of DB pension promises around the globe. ■

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