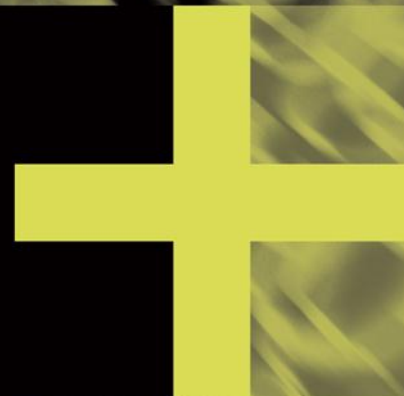


Fact Sheet

Liquidity Premium Service

barrie+hibbert

Powering objectivity in the global financial services industry



Liquidity Premium Service

Our Liquidity Premium Service gives you access to our estimates of how credit spreads for corporate bonds can be split into a Liquidity Premium, a Credit Premium and Expected Losses. This is useful in many areas of actuarial, investment management and asset-liability modelling work.

Corporate Bond Investment Challenges

Investors in corporate bonds demand compensation for defaults they expect will occur and for the risk that events turn out worse than expected. In addition, credit-risky bonds are sometimes hard to sell quickly without offering a substantial price discount, so investors demand compensation for bearing this illiquidity risk. The combination of these can be seen in the additional yield – or spread – over risk-free bonds that can be seen in the market. With increased market volatility, breaking out these elements and understanding the risks associated with corporate bonds has never been so important.

What is a fair-value for Corporate Bond backed Annuity Liabilities?

The seemingly obvious answer to this question is to use the market price, but is this really a fair value if you are going to hold the bond to maturity? In this case you are only concerned with the possibility that those bonds will default and so will expect to earn the Liquidity Premium. Therefore, it could be argued that the bond is worth more than is indicated by the market.

Are Corporate Bonds a Good Investment?

Answering this question depends on how likely you think the company issuing the bond is to default and how much you would expect to lose, (Expected Losses), how confident you are in that assumption (Credit Risk Premium) and how easy it is to sell the bond in the market (Liquidity Premium). As spreads widen, poor assumptions can make credit-risky assets look cheaper and therefore more attractive than they should be. These assumptions have a large effect on the design and stability of strategic asset allocation strategies.

How we can help?

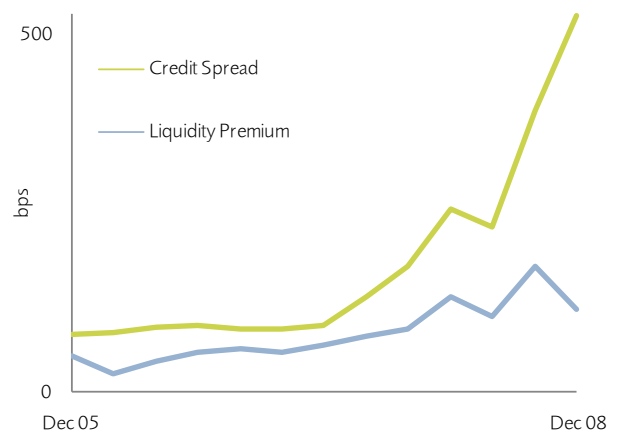
Our Liquidity Premium Service estimates Expected Losses, a Credit Risk Premium and a Liquidity Premium from credit spreads. We publish quarterly reports containing our estimates for various maturities, rating classes and economies. In addition, we provide a summary of our method – helping you further understand our estimates.

Our approach uses an extended Merton model to estimate a market-consistent price for the combination of Expected Losses and a Credit Risk Premium, and then subtracts this from credit spreads to give the Liquidity Premium. Since we are using market-implied inputs, we provide a conditional understanding of credit risk, which is not available from examining historic defaults alone.

What is a fair-value for Corporate Bond backed Annuity Liabilities?

Here we show the increase in credit spreads and our estimate of the Liquidity Premium for A rated UK corporate bonds from the end of 2005 until the end of 2008. The large increase in spread implies a big-drop in the market-implied value of a bond. But with a little over a fifth of the spread estimated to be due to the Liquidity Premium, it could be argued that the bonds being held to maturity are worth more than the market value.

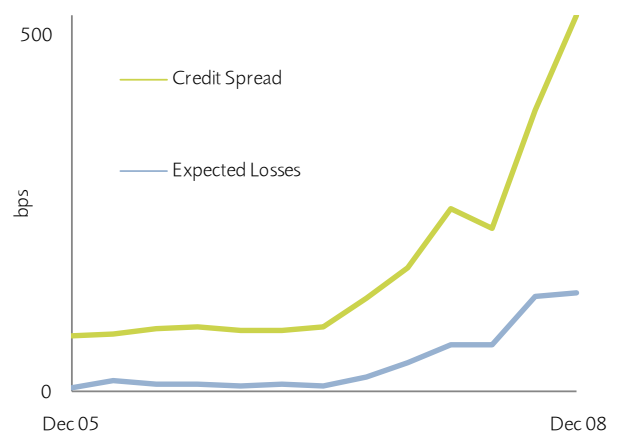
Armed with these estimates **Annuity providers** are better able to price and value their business and, under some regulatory regimes, calculate their statutory reserves. Because annuity funds are generally long-term buy-and-hold investors with illiquid liabilities, they can earn the liquidity premium "for free". This stands in contrast to investors who may need to liquidate their assets at short notice and are therefore concerned about mark-to-market risk on their bonds.



Are Corporate Bonds a Good Investment?

Here we show that, for the same type of bonds, there has been a massive increase in Expected Losses, reaching over 20 times its initial value. This suggests that, although the increase in credit spreads is partly due to the increased return investors expect from holding credit-risky assets with limited liquidity, an important factor is the increase of expected losses.

Armed with these estimate **Asset Managers** are better placed to understand the relative attractiveness of corporate bonds, the cost of rebalancing, how the Liquidity Premium can be earned and provide a much more informed basis for creating stable asset allocation strategies.



Benefits

Our regular service means that you can examine and understand how assumptions can change over time. We give you an independent view and greater insight into your own assumptions.

If insurers are not bearing certain risks then it is possible for them to make allowances for this when valuing their liabilities. This is recognised by an increasing number of industry bodies:

- ✦ The FSA's Prudential Sourcebook for Insurers (INSPRU section 3.1.43G) states that allowance for credit risk can be set "by reference to historic default rates" and "allowance should be made ... for any recent or expected changes in market conditions that may invalidate historic default rates"
- ✦ "In response to the current dislocated market conditions, the CFO Forum members are working collaboratively on the application of the Market Consistent Embedded Value (MCEV) Principles© to address the notion of market consistency in the current turmoil..... The particular areas under review include implied volatilities, the cost of non-hedgeable risks, the use of swap rates as a proxy for risk-free rates and the effect of liquidity premia" (CFO Forum)

We estimate the expected losses that may materialise on corporate bonds, the risk premium that investors should demand as compensation for bearing the risk of unexpected defaults and the extra compensation that bonds offer investors for bearing "illiquidity risk". It is therefore invaluable in determining assumptions for discount rates, in both pillar 1 and pillar 2 reporting.

Why Barrie & Hibbert?

Barrie & Hibbert was established in 1995 by John Hibbert and Andrew Barrie. We provide a range of software modeling tools, research and consulting services to a wide range of financial institutions and strategic partners.

Barrie & Hibbert's primary focus is the identification, quantification and management of financial risk in savings and investment products, institutional portfolios and life and pensions balance sheets. Barrie & Hibbert has developed a powerful library of financial models that can be used to understand the complicated joint financial relationships that drive uncertainty in long-term financial plans.

Collectively our staff of leading academics, quantitative analysts, actuaries and software engineers offer a depth and breadth of expertise combined with an unrivalled track record of experience in implementing risk solution for financial institutions around the world.

Our asset and product modeling capability has been developed over the last 13 years resulting in Barrie & Hibbert becoming a global market leader in stochastic asset modeling services.

Barrie & Hibbert is privately owned and employs around 100 staff across locations in the UK, North America and Asia.

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