BUILDING A BOND RUNWAY® TO CONFIDENCE

TAKE A LONG-TERM VIEW OF YOUR INVESTMENT PORTFOLIO AS YOU FUND YOUR LIFESTYLE GOALS

The “Bond Runway” is a key strategy to help preserve and protect your lifestyle through times of economic and market distress. For many investors, lifestyle is often the highest value goal because it encompasses your ongoing, annual spending needs. It answers the question, “How much do I need in a portfolio today to fund my annual spending needs in the future?” The desire to protect lifestyle spending is usually paramount; hence, an investment strategy should aim to meet this important goal with a high degree of confidence.

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PROTECTING YOUR LIFESTYLE

The Bond Runway represents the number of years of lifestyle spending you want to try to protect and is comprised of a diversified portfolio of cash and high-quality bonds. It serves as a safety net that can help fund your lifestyle through the most uncertain economic environments.

A growing body of research, known as behavioral finance, shows that many investors let emotions drive the investment decision-making process, often selling equities after a market downturn or buying at the top. Repeating these mistakes over time can undermine your ability to meet long-term financial goals. Northern Trust’s investment approach seeks to fund your goals while minimizing the adverse effects of these potential behavioral hurdles and thus improve your odds of successful long-term financial outcomes. Drawing the Bond Runway investment down in periods of economic distress gives you the patience to have a long-term view for your equity assets, as it provides time for equities to recover their value. And with a longer time horizon, you should have more confidence in capturing the higher returns that equities historically have offered.

YEARS OF RUNWAY AND YOUR RISK PREFERENCE

This approach also empowers you to think about risk differently, defining it in terms of protecting years of spending rather than through less-intuitive measures such as standard deviation or volatility. Identifying your risk preference – that is, the degree of confidence you desire around reaching your goals – is critical to determining the number of years of lifestyle spending your customized Bond Runway protects. Just as an airplane needs a length of runway to get off the ground, the Bond Runway gives equities in your portfolio time to recover from downturns. Longer Runways, meaning those protecting more years with higher levels of overall portfolio exposure to fixed income securities, are generally more suitable for investors with lower risk tolerance or those owning significant assets in excess of their needs.

Additionally, risk preference is often framed in terms of historic periods of distress. For example, during the Great Depression, it took 20 years for equities to fully recover, which includes adjusting for inflation and deflation, from their 1929 peak. Many investors during that time were forced to sell distressed equities to fund their everyday spending needs. If investors during that time had structured their portfolio with a 20-year Bond Runway, they would have been able to maintain their lifestyles through

Source: Ibbotson S&P 500 total returns adjusted for inflation and indexed to 100 in 1926.
the entire Great Depression without selling their equities. Thus, over time, their equity portfolios would have recovered and avoided the permanent loss associated with selling into the prolonged market weakness. Or consider the bear market and inflation spike of the 1970s, when it took 12 years for equities to fully recover after adjusting for inflation. With a Bond Runway of at least 12 years in place, an investor would have had the luxury of riding out the market weakness, giving his or her equities sufficient time to recover value.

Asset sufficiency, or the amount of assets you have in excess of your goals in aggregate, can also help determine the appropriate number of years for the Bond Runway. Longer Runways require more dollars. A family with significant excess assets above and beyond their goals may choose to establish a Runway capable of funding lifestyle through a period such as the Great Depression or longer, whereas a family in the wealth-accumulation stage may instead choose to protect a few years of spending to cover a potential loss of employment.

**RISKS TO FIXED INCOME**

The Bond Runway is built to withstand the six key risks to fixed income: inflation, deflation, default, liquidity, taxation and interest rate changes.

Inflation is a key risk to address in the Bond Runway because lifestyle spending can be extremely sensitive to inflation. Perhaps the most underappreciated risk to fixed income investments is the threat of inflation. The table below illustrates the effect of inflation on bond returns through the 1970s’ era of high inflation. Inflation compounded at nearly 9% annually over that 10-year period. Long-term government bonds (20-year Treasuries) lost 26% of their purchasing power over the full period despite having no credit risk. Treasury inflation-protected securities (TIPS) would have served as a powerful hedge against inflation, but were not available in the 1970s.

**REAL BOND RETURNS (1973-1982)**

<table>
<thead>
<tr>
<th></th>
<th>Annualized Return</th>
<th>Annualized Real Return</th>
<th>Real Growth of $1</th>
<th>Standard Deviation</th>
<th>Maximum Real Drawdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation</td>
<td>8.67%</td>
<td>-2.91%</td>
<td>$0.74</td>
<td>12.79%</td>
<td>-50.80%</td>
</tr>
<tr>
<td>Long-Term Government Bonds</td>
<td>5.76%</td>
<td>-0.67%</td>
<td>$0.93</td>
<td>8.13%</td>
<td>-32.16%</td>
</tr>
<tr>
<td>Intermediate Term Government Bonds</td>
<td>8.00%</td>
<td>-0.37%</td>
<td>$0.96</td>
<td>4.18%</td>
<td>-21.58%</td>
</tr>
<tr>
<td>Low-Duration Bonds</td>
<td>8.30%</td>
<td>-0.21%</td>
<td>$0.98</td>
<td>0.97%</td>
<td>-13.33%</td>
</tr>
<tr>
<td>Treasury Bills</td>
<td>8.46%</td>
<td>-0.21%</td>
<td>$0.98</td>
<td>0.97%</td>
<td>-13.33%</td>
</tr>
</tbody>
</table>

Deflation and default are two risks to fixed income that are intimately related. Deflationary environments tend to accompany deep recessions, when credit risk increases. Although municipal bonds do have various levels of credit risk, a nationally diversified portfolio of high-quality general obligation and revenue municipal bonds has performed very well through historic periods of distress. From 1929 to 1937 (Great Depression), the annual loss rate (default plus recovery) for municipal bonds was just 0.1%. Similarly, from 1970-2006 Baa-rated municipal bonds offered a cumulative default rate of just 0.13% versus 4.64% for Baa-rated corporate bonds.

Municipal bonds are subject to liquidity risk, as was recently experienced during the financial crisis of 2008. Although Treasury bills are the most liquid and offer the best credit profile, municipal bonds are more attractive when taxes are considered. Tax-exempt bonds offer a positive return after taxes and inflation, where Treasuries often do not.

Given our current low-rate environment, you may be searching for higher yields by purchasing longer-term fixed income. However, looking at total returns for bonds through various interest rate cycles from 1926 to 2013, we find that 20-year government bonds returned only 5.48% versus 5.29% for five-year government bonds.

Because the Bond Runway is intended to fund your highest priority goals, your portfolio manager will take an active role in reducing your exposure to the various risks by strategically constructing your Bond Runway.
BOND RUNWAY CONSTRUCTION
The Runway addresses the six key risks mentioned above through a combination of cash (typically in the form of Treasury bills), low-duration municipal bonds and TIPS. We assign a customized investment strategy to dynamically match your current assets with each goal, based on when you will need the funds and the risk associated with fulfilling that goal. The end result is a customized portfolio to fund your lifestyle spending during the times of economic and market distress.

During times of extreme volatility, we would use cash in the form of Treasury bills first to address lifestyle spending needs. These assets are the most liquid and offer the best credit profile. Depending on the length of your chosen Bond Runway, we target high-quality, low-duration municipal bonds to fund lifestyle needs after the first years. They offer excellent credit quality and a positive expected return after taxes and inflation. In the later years, which are increasingly exposed to inflation risk, needs are funded through TIPS.

PORTFOLIO MANAGEMENT WITH THE BOND RUNWAY
As principal, capital gains, interest and dividends are available to fund each of your goals, we will use a total-return approach to help meet your goals and manage your Bond Runway, using both qualitative and quantitative information. The flexibility of the Bond Runway allows you to preserve the overall strategy in normal periods and draw the Bond Runway investment down in periods of economic distress, giving equities time to recover. At Northern Trust, we define investment success as the achievement of your financial goals. The Bond Runway gives you the confidence to take a long-term view of your investment portfolio to help you achieve those goals.

1 Ibbotson long-term government bonds, intermediate-term government bonds, 30-day Treasury bills adjusted for inflation (1973-1982). Low duration portfolio is comprised of 50% intermediate-term government and 50% Treasury bills.
2 Source: Hempel, Hillhouse, PIMCO
3 Source: Moody’s
4 Source: Ibbotson long-term government bonds and intermediate-term government bonds (1926-2013)

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