

**Brent Joyce:** Welcome to another instalment of the Laketon audio file, my name is Brent Joyce, Vice President, Managed Accounts here at Laketon, thank you for spending a few minutes with us today. Bond investors have many fears and with the possible exception of debt default, nothing's feared more than inflation. That's because both current levels of, and future expectations for inflation drive changes in both the level and slope of the yield curve.

When inflation expectations rise, investors demand a higher bond yield to compensate them for the loss of purchasing power. However, because the coupon rate is generally fixed, adjustments must occur in the value of the bond itself. That's why the value of a bond moves in the opposite direction of changes in inflation expectations.

Real Return Bonds are held up as a tool to mitigate against the risk of inflation, in this instalment of our audio series we will dissect Real Return Bonds to examine their anatomy and determine if they can indeed live up to their name. Joining me to answer our questions is Gary Morris, Senior Vice President & Director Fixed Income at Laketon Investment Management.

Gary, in order to lay the foundation for our discussion, spelling out a few concepts and definitions is in order. We hear the following terms bandied about:

Real Yields, Nominal Yields, Breakevens ... can you give us some insight

**Gary:** Well Brent, before I get into the definitions of some of the terms that you have cited, let me begin by saying that Real Return Bonds (or Indexed Linked Bonds as they are more broadly referred to) are essentially the same as nominal bonds, with a couple of key differences. Similar to conventional or nominal bonds, Real Return Bonds have fixed maturity dates, with fixed coupons and regular coupon payments, and they have a par price of \$100. The key differences are that: 1) they have yields to maturity which are based on real yields; and not nominal yields 2). and their coupon and principal payments are indexed to inflation. Now let me give you the definitions (which are also included in the slide presentation):

Real Yield: A real yield is the rate of return, in absence of inflation expectations that clears the market of borrowers and lenders for a particular term and level of risk.

Inflation Expectation: Inflation Expectations is the expected rate of inflation over a particular term.

Nominal Yield: A Nominal Yield is the sum of real yields and inflation expectations.

Yield Curve: The Canada Yield Curve is the curve connecting yields of government bonds with terms to maturity of 1 to 30 years. There is clearly a different yield curve for Real Return Bonds and Nominal bonds.

Inflation Breakeven: Inflation breakeven is equal to the difference between the yield on a Nominal bond and the yield on a Real Return Bond for a similar term. It is generally understood to represent inflation

expectations, except that there may be other factors besides inflation that distort the relationship between nominal and real yields.

**Brent:** OK, Gary, thank you for that, that's very helpful. Now how did we come to have a Real Return Bond market here in Canada? And is it big enough and liquid enough for retail investors?

**Gary:** The Canadian Real Return Bond market has its origins in the early 1990's when the first Canadian Real Return Bond (the 4.25% of December 1, 2021) was issued. The program was launched in an environment of falling inflation and was seen as a way for Finance to control its borrowing costs, as well as provide a means for investors to offset inflation risks. At the time there were already well functioning indexed-linked bond markets, particularly the Indexed-Linked Gilt market in the U.K.

The Real Return Bond market has grown consistently over the last 20 years, constrained only by the department of Finance's issuance program. The advent of the DEX Real Return Bond indices as well as the creation of other Index Linked Bond markets has greatly helped the adoption of Real Return Bonds. There has never been a shortage of buyers for Canadian Real Return Bonds as many investors have been attracted by their inflation hedging characteristics. One can only imagine the kind of interest that Real Return Bonds would have garnered had inflation expectations been consistently higher over the past 20 years.

Data on participation in the Real Return Bond market is not readily available. However, it is not difficult to guess who the major participants are – pension funds, Real Return Bond mutual funds and more recently ETF's are at the top of the list. Of course, core bond funds such as those managed by active managers like ourselves will use Real Return Bonds tactically from time-to-time as opportunities arise.

As far as the retail investor goes, there are several considerations. The market is certainly broad enough for their participation, although liquidity can, at times, be challenging. Demand for Real Return Bonds has generally exceeded supply and as such, there has always been a bit of a liquidity premium associated with Real Return Bonds – this is a kind of feature, if you will, that can get a retail investor into a bit of trouble if they are not careful. On the other hand getting exposure to the Index Linked Bond market through specialty funds or ETF's is relatively easy.

**Brent:** You said that there were several considerations for the retail investor what are the others?

**Gary:** Well, the other really important consideration relates to the kind of exposure that a retail investor should have to Real Return Bonds. Typically, this relates to the distinction between a strategic exposure and a tactical one. Real Return Bond funds and ETF's provide investors with a strategic exposure which may be desirable if the investor is looking to offset liabilities that are sensitive to inflation. In this case the investor will have Real Return Bonds as part of their overall asset mix. On the other hand, tactical exposure to Real Return Bonds in active bond funds may be preferable if the investor is looking for timely protection against inflation under certain scenarios.

**Brent:** We are aware that inflation is no friend of nominal bonds and that Real Return Bonds can protect us from inflation, how is it that they do this and what makes them unique?

**Gary:** When people think of government bonds they typically think of nominal bonds and the sensitivity of bond prices to changes in the nominal yield curve. Real Return Bond prices, on the other hand, are sensitive to the real yield curve. Because, nominal yields are made up of real yields and inflation expectations; if inflation expectations rise, nominal yields will rise and conversely nominal bond prices will fall. Real return bond holders are not subjected to the same risks; if inflation expectations rise, Real Return Bond prices will stay essentially unchanged and the Real Return Bond holder may get an added benefit of having her coupon and principal increased by the change in inflation. Another way of looking

at indexed linked bonds is that the risk of higher inflation is transferred from the bondholder to the bond issuer – opposite of the situation that exists with conventional bonds

I should point out an important nuance of Index Linked Bonds which is sometimes overlooked by investors. While Index Linked Bond coupon and principal payments grow with the growth in current CPI, nominal bond prices will vary inversely, not with current CPI, but with inflation expectations. Although a Real Return Bond price will generally not fall with a rise in inflation expectations, there is no guarantee that its coupon and principal will grow in the future – unless CPI matches those expectations.

**Brent:** These Real Return Bonds sound like a good deal, the benefits of bonds without the risks posed by inflation. So there must be a catch? What should we be concerned about with these bonds? Is there any downside to owning them vs. owning a nominal bond, or special risks we should be aware of as investors?

**Gary:** Real Return Bonds have been attracting a lot of attention recently as central banks continue their efforts to reflate the global economy – and talk of higher inflation grows. With nominal yields at close to historical lows, and inflation expectations also relatively low, investors see the potential upside with Index Linked Bonds. Of course, earning excess returns investing in Index Linked Bonds requires good inflation forecasting skills, something that few investors seem to have done well over the last few years.

Some commentators point to the recent rise in inflation breakevens, as an indication that inflation expectations are rising. We believe that the rise in breakevens over the last year has more to do with a normalisation of the liquidity premium that was exacted on all essentially “non-vanilla” Treasury securities during the credit crisis. If it was simply a matter of higher inflation expectations, we would have expected yields to have risen on government agency debt as well. You can see on the chart that we have provided in the slide presentation that Real Return Bond breakevens and CMB yield spreads moved in tandem

In our view the biggest threat to bond yields is not rising inflation expectations, but rather rising real yields. A consequence of the aggressive fiscal response to the credit crisis by many governments, has been the explosion of sovereign debt. This is true for Government of Canada bonds and even more true for U.S. Treasuries. Unfortunately, the risk that accompanies the growth in sovereign debt is the potential rise in the clearing point of buyers and sellers – the real yields.

Up until now, domestic investors have increased their consumption of government bonds – particularly important to the U.S., and have kept a lid on bond yields. Foreigners have essentially maintained their buying pace. However, it would be naive to expect that the well of purchasers will remain or that it can grow to offset even more supply.

We don't know for a fact that foreigners have been buying Real Return Bonds and TIP's (in the U.S.), but it doesn't really matter. Any buying of nominal bonds will have an impact on nominal yields and an indirect impact on real yields. The inflation protection characteristics of Index Linked Bonds will not protect investors from a rise in real yields.

**Brent:** Most of the fixed income mandates at Laketon provide a great deal of latitude to invest across all facets of the bond market. Now that we have a better understanding of how Real Return Bonds behave, as a portfolio manager that faces a choice of whether or not to include Real Return Bonds in a portfolio where do you stand at present?

**Gary:** Well, Real Return bonds are a natural instrument for immunizing inflation indexed liabilities. It is no surprise that the largest buyers of Index Linked Bond have been pension funds, particularly those with Cost of Living Adjustments.

Real Return Bonds have also been included in portfolios, as an inflation hedge. However, given the relatively benign inflation environment of the last ten years, we have not seen a big move towards Real Return Bonds for this purpose.

In more tactical terms, investors have moved in and out of Real Return Bonds as sentiment towards inflation has ebbed and flowed. Typically, investors have switched between real and nominal bonds to take advantage of changes in inflation expectations – which is the differential between nominal and real yields.

We have always thought of Real Return Bonds as a good tool to use in the protection against rising inflation, particularly in an environment where real yields are not a concern. For a variety of fundamental reasons, particularly those relating to large excess capacity in plant, equipment and most importantly labour markets, we don't expect to see a rise in core inflation. On the other hand, as I mentioned before, we do have concerns with respect to higher real yields. Therefore, for the time being, we are not actively looking at using Real Return Bonds tactically in the portfolios under our management.

**Brent:** From what we have learned today, it seems fair to conclude that Real Return Bonds have merit, but investors must remember that Real Return Bonds still carry a variety of risks. Certainly, Real Return Bonds will live up to their name if higher rates simply reflect higher levels of inflation. However, an increase in rates due to factors other than inflation can negatively affect Real Return Bonds, just as they would any other long-term bond. And because of their long duration, Real Return Bonds are a very sensitive tool to employ. We should remember that inflation can both rise and fall. The coupon payments and principal adjustments associated with Real Return Bonds only come if inflation moves from expectations to reality.

I would like to thank you for spending some time with us today, and a thank you to Gary for the education on Real Return Bonds and your views on them, this concludes our call.