Bonds

An introduction to bond basics

January 2008

INVESTMENT
INDUSTRY ASSOCIATION
OF CANADA

The information contained in this publication is for general information purposes only and is not intended by the Investment Industry Association of Canada as investment advice or a recommendation on the appropriateness of bond investing.

For an investor, bonds are just one of the wide variety of options available to choose from when building an investment portfolio.

Before investing in bonds, it's important to have a general understanding of what they are and the potential advantages and risks they carry.

This brochure provides a plain-language introduction to bonds. It explains what a bond is, why think about investing in bonds, the risks of bond investing and how bonds are bought and sold.

TABLE OF CONTENTS

BOND BASICS

What is a bond?

Interest and dividends are taxed differently. Although typically the tax treatment of the interest and capital gains on bonds is straightforward, certain bonds can have special tax implications that investors should be aware of. Check with your investment advisor.

A bond is a type of investment that represents a loan between a borrower and a lender. Think of it as similar to getting a personal loan from a bank – except in this case you are the lender (known as the **investor** or **creditor**) and the borrower is generally a government or corporation (known as the **issuer**).

With bonds, the issuer promises to make regular interest payments to the investor at a specified rate (the **coupon rate**) on the amount it has borrowed (the **face amount**) until a specified date (the **maturity date**). Once the bond matures, the interest payments stop and the issuer is required to repay the face amount of the principal to the investor.

Because the interest payments are made generally at set periods of time and are fairly predictable, bonds are often called **fixed-income securities**.

How are bonds different from stocks?

Coupon rate
The coupon rate is stated as a percentage of the face value of a bond (typically, bonds pay interest semi-annually) and is used to calculate the interest the bondholder receives.

Example:
A bond with a $1,000 face value and a six per cent coupon will pay its bondholders $30 every six months (or $60 per year) until the bond's maturity date. When the bond matures, the investor is repaid the full $1,000 face value.

Bonds are considered debt investments. On the other hand, a stock purchase is considered an equity investment because the investor (also known as the **stockholder**) becomes a part owner of the corporation.

The issuers of stock or equity are typically companies; issuers of debt can be either companies or governments.

While bonds generally don't provide an opportunity to share in the profits of the corporation, the stockholder is entitled to receive a portion of the profits and may also be given voting rights. Bondholders earn interest while stockholders typically receive dividends. Both may experience capital gains or capital losses if the price at which they sell their holdings is, respectively, higher or lower than the price at which they bought them.

Coupon rates are most often ***fixed*** – the rate of interest stays constant throughout the life of the bond. However, some bonds have ***variable*** or ***floating*** coupon rates (interest payments change from period to period based on a predetermined schedule or formula). Some bonds pay no interest at all until maturity.

Because bondholders are creditors rather than part owners, if a corporation goes bankrupt, bondholders have a higher claim on assets than stockholders. This provides added security to the bond investor – but does not completely eliminate risk.

Finally, bonds also trade differently from stocks. Bonds typically trade in the over-the-counter (OTC) market – for example, from a broker to a broker at another firm directly – instead of on a stock exchange.

WHAT ARE THE BENEFITS OF INVESTING IN BONDS?

Income predictability

If your objective is to maintain a specific, steady level of income from your portfolio, high quality bonds can provide a series of predictable cash flows with minimal risk to your invested capital (the principal).

Safety

Depending on their quality, bonds can offer you a high degree of certainty that the interest and principal repayment will be received in full if the bond is held to maturity. The quality of the bond – and the level of security that comes with it – is reflected in the credit rating of the issuer.

Diversification

Diversification means holding a mix of different asset classes in your portfolio. For example, adding fixed-income securities like bonds to an equity portfolio helps you achieve greater diversification. This is a way to reduce portfolio risk – the risk inherent in your combined investment holdings – while potentially increasing returns over time, since even if one class declines in value, there is still an opportunity for an increase in one or more of the other classes.

Choice

A wide range of bond issuers with a variety of coupon rates and maturity dates are available for you to choose from. This allows you to find the bond(s) with cash flows that match your income needs while complementing your other portfolio holdings.

Credit ratings
Credit ratings are assigned by various agencies based on how likely it is that the issuer will fail to make its scheduled interest and principal payments. Most agencies follow a letter-based rating scale. Typically, debt assigned a rating of "AAA" represents the lowest level of default risk. Debt rated "BBB" or above is normally considered investment grade, whereas debt with a rating of "BB" or below is considered speculative or non-investment grade.

Asset classes
Investments are categorized into three main asset classes:

- equities
- debt (e.g., bonds)
- cash and cash equivalents (e.g., guaranteed investment certificates or GICs and shorter-term money market securities, such as treasury bills).

These different assets may be combined in different ways (for example, into mutual funds) that allow investors to get the benefits of diversification without buying individual securities directly.

For help with selecting bonds that are best suited to your investment strategy and risk tolerance, ask an investment advisor. An investment advisor can help you determine if bonds are the right way to meet your portfolio objectives and income needs.

WHAT ARE THE RISKS OF BOND INVESTING?

There are a number of risks to bond investing and, as a rule, investment returns are lower when risk is low; higher returns mean higher risk. Two key risks are the risk of default and price risk.

The risk of default (also known as credit risk)

An issuer of debt is said to be in default when the issuer is unable to repay the principle or interest as scheduled. Government of Canada bonds have virtually no risk of default. Corporate bonds are more exposed to default risk because companies cannot raise taxes when there is a cash shortfall or take advantage of other options available to governments.

Because the financial health of a company may change during the life of a bond, it is important to watch for changes. Investors can assess the likelihood of default inherent in a bond by watching its credit rating. Ratings are available through credit agencies including the Dominion Bond Rating Service (*www.dbrs.ca*), Standard & Poor's (*www.standardandpoors.com*), Moody's (*www.moodys.ca*) and others.

Price quotations
Bond prices are quoted in numbers that represent a percentage of their face value. A bond quoted at 100 is trading at 100 per cent of its face value, or at par.

Example:
- *A bond quoted at 94.50 is trading at 94.5 per cent of its face value or par.*
- *If the face value of the bond is $1,000, it would only cost $945.00 to purchase ($1,000 x .945). This bond is trading at a discount.*
- *If the quote was 101.25, then the cost is 101.25 per cent of the face value, or $1,012.50. This bond is trading at a premium.*

Price risk

If you sell your bonds prior to their maturity, their price or market value may be lower than the price at which you bought them. Price fluctuates throughout a bond's lifetime and may be greater or less than its face or principal value.

If you buy a bond below par, you can expect to realize a capital gain when the bond matures; similarly, if you bought the bond at a premium, you will have a capital loss at maturity.

A bond's price is a function of the bond's coupon rate as compared to the current level of interest, its remaining term to maturity, its credit or default risk and any special features it may have.

End-of-day prices for many widely held bonds are quoted in the daily business papers.

Relationship between **interest rates** and **bond pricing:**

Interest rate ↑ = bond price ↓

Interest rate ↓ = bond price ↑

Coupon rate versus interest rate fluctuations

Fluctuations in interest rates usually have the biggest impact on the price of bonds – interest rates can be affected by many things, including a change in inflation rates. Generally speaking, bond prices move *inversely* to interest rates because the coupon rate usually remains constant through to maturity. If current interest rates are higher than the coupon rate, the bond is less attractive to investors and drops in value, since investors aren't willing to pay as much for a series of lower coupon payments. Bond prices increase when the coupon rate is higher than current interest rate levels. To an investor who holds bonds through to maturity, price fluctuations may seem irrelevant.

Not all bond prices react in the same way to interest rate changes. Usually, the lower the coupon rate, the more sensitive the bond price is to any changes in rates.

However, trading-oriented investors may take advantage of these fluctuations to enhance their overall portfolio performance. As an example, a short-term interest rate decrease may be an opportunity to sell bonds at a profit and move funds into non-interest-bearing investments with anticipated higher returns.

Term to maturity

As bonds approach maturity, their market value approaches their face value. In general, the longer the term to maturity and the lower the coupon rate, the more sensitive a bond is to any changes in rate. When interest rates increase, bonds with distant maturity dates and low coupon rates experience the greatest fall in price.

Risk

As a rule, you can expect to receive a full repayment of a bond's face value on the maturity date as long as the issuer is able to repay the debt, but if the credit rating changes during the life of the bond, it may have an affect on the bond's price. For example, if the credit rating of debt rated "AAA" – the lowest level of default risk – changes due to large losses by the issuing company that could affect the company's ability to repay interest or principal, the bond price will drop even if there is no change in interest rates.

Special features

Many bonds have special features that may have a significant impact on their price, risk and the returns you may earn. They can be called (repaid) early or they can be converted, for example, into shares of the issuing company. Bonds can also be extended (repayment deferred from the original term to a later date) or other special provisions can apply.

Demand and supply

The availability of bonds and the demand for them also affects the price of bonds. As demand increases, prices rise, all other factors remaining the same. Also, as the supply of bonds declines, for example, prices generally also rise. In both cases, if you are holding bonds, their yield to maturity will increase. Similarly, when demand falls or supply increases, prices fall and yield to maturity declines.

Talk to an investment advisor for advice on how interest rate fluctuations might work in your favour when buying or selling bonds.

Yield

Yield is the return you get on a bond.

- The ***current yield*** is the annual return on the dollar amount paid for the bond. It is calculated by dividing the dollar amount of the coupon rate by the purchase price. For example, a bond with a $1,000 face value and a 6.5 per cent coupon, purchased at par, has a current yield of 6.5 per cent (annual interest of $65 divided by $1,000 purchase price). The same bond purchased at $950 (i.e., purchased at a discount) would have a current yield of 6.84 per cent ($65 interest divided by $950 purchase price). And, if the price rises to $1,100, the current yield drops to 5.90 per cent ($65 divided by $1,100).
- The ***yield to maturity (YTM)*** is a more meaningful calculation that tells you the *total* return you will receive by holding the bond until it matures. YTM equals all the interest payments you will receive (assuming you reinvest these interest payments at the same rate as the current yield on the bond), plus any gain (if you purchased the bond at a discount) or loss (if you purchased the bond at a premium) on the price of the bond. YTM is useful because it enables you to compare bonds with different maturity dates and coupon rates.

HOW DO I INVEST IN BONDS?

Basis point
When you read or hear about bond quotes and yields, you may hear the words "***basis point***." A basis point is a unit of measure; it equals 1/100th of one per cent or, alternatively, 100 basis points are equal to one per cent.

Example:
If a bond's yield increased from 5.10 per cent to 5.35 per cent, its yield is said to have increased by 25 one-hundredth of a per cent or, more simply, by 25 basis points.

There are three common ways to invest in bonds:

1. **Over-the-counter (OTC) market:** Individual bonds are not bought on a central exchange such as the Toronto Stock Exchange (TSX) (except in the case of convertible debentures). Instead, they are bought or sold through an investment advisor from inventory in the advisor's brokerage firm or in the OTC market. The price includes any fees for the advisor's services.

   When purchasing a newly issued bond (a bond not previously held by another investor), the investment advisor provides you with a prospectus or other disclosure documents that explain the bond's terms, features and associated risks and then buys the bond on your behalf in the ***primary market***. Previously issued bonds are traded in the ***secondary market***.

2. **Mutual/investment funds:** Bond or balanced mutual funds are an indirect method of investing in bonds. These products combine professional management with exposure to a basket of bonds that have varying maturity dates and levels of quality.

   Like any mutual fund, a bond or balanced fund may accommodate systematic purchase/withdrawal plans, reinvestment of distributions and low initial investment requirements.

   However, unlike direct bond investments, mutual funds do not have a stated maturity date or coupon rate, making the size and timing of your cash flows uncertain. It may also be difficult to determine the quality of the bonds held in the fund or the general level of risk.

   Mutual funds charge investors a management fee that incorporates fees paid out to advisors.

To learn more about ETFs, visit www.ishares.ca or www.claymoreinvestments.ca.

3. **Exchange-traded funds (ETFs):** ETFs are mutual fund trusts whose units trade on a stock exchange, such as the TSX. Some ETFs expose you to an entire bond market index, while others try to track the performance of a government benchmark bond. Risk levels vary depending on the ETF selected. Because ETFs are not actively managed, they tend to be characterized by lower management fees

Paying for your bonds

There are three things to remember when you decide to buy and come to pay for your bond.

1. **Fees:** Ask how fees are charged on these products as fees and commissions will have an impact on your overall return.

2. **Accrued interest:** The amount of interest that has accumulated on a bond since the last coupon payment is added to the total cost of a bond transaction, but will be repaid to you.

3. **When you have to pay**
   The settlement date, or the date when the seller must deliver the bond and the purchaser must pay for it, can range from the same day the trade is executed (or trade date) to standard settlement times, to, in certain cases, other dates. In Canada, money market instruments such as T-bills settle on the same day as the transaction. Short-term (maturing in three years or less) Government of Canada bonds settle in two business days. Most other government and corporate bonds settle three business days after the transaction date.

   With the exception of some Canada Savings Bonds (CSB), physical delivery of bond certificates rarely takes place. Most bonds are traded, cleared and settled electronically.

Example:
Assume you purchased a bond on March 31. The last coupon payment was December 31 and the next coupon payment is on June 30. Your purchase price includes the bond's market price plus the amount of interest that has accrued between December 31 and March 31. Accrued interest compensates sellers of a bond for interest that they have earned but not received. You will receive the full coupon payment on June 30, which reimburses you for the accrued interest you paid to the seller for the December 31 to March 31 period as well as that earned between April 1 and June 30.

A FINAL WORD

You now have an understanding of bond basics – but there is still more to consider before making an investment decision.

Additional information on bond types and features, how bonds are priced and traded, and the risks for investors is available in the publication *Bonds: More on bond investing*. To obtain a copy, visit *www.iiac.ca*.

For expert advice, contact an investment advisor who is employed by a registered dealer to discuss how bonds might meet your financial objectives and fit within your overall investment strategy.

The IDA registered investment advisor advantage

When looking to invest money, finding a good investment advisor is critical. There are differences between people *calling* themselves investment advisors and ones *regulated* as advisors, as well as different standards of regulation. Investment Dealers Association of Canada (IDA) registered investment advisors are qualified, trained, regulated and meet high standards of conduct to ensure they provide investors with the best possible service to meet investor needs. The business and financial practices of IDA registered advisors and member investment dealers are regulated by the IDA, Canada's front-line securities regulator.

IDA registered advisors offer:

THE BROADEST CHOICE – IDA registered advisors are able to offer a broad range of investment products and services to meet investors' needs. They can offer not only mutual funds and guaranteed investment certificates (GICs), but also other products only available through registered investment dealers. These include stocks, bonds, options and other more sophisticated alternatives.

FULL UNDERSTANDING OF INVESTOR NEEDS – IDA registered advisors are required to meet rigorous suitability and "know-your-client" rules prior to offering advice. This ensures they understand the investors' financial situation, investment knowledge and objectives, and tolerance for risk.

EXPERT KNOWLEDGE – IDA registered advisors are required to complete extensive training to obtain their registration and meet ongoing education requirements to maintain it. Before being licensed, they are subject to demanding proficiency requirements. They are one of only a few types of advisors subject to mandated continuing education requirements to sustain their expertise as financial products change and capital markets grow.

THE UTMOST IN INTEGRITY – IDA registered advisors are held to strict compliance standards that are monitored at both the firm level and by the IDA.

THE HIGHEST DEGREE OF PROFESSIONALISM – IDA registered advisors are required to act solely in investors' interests to provide investment solutions that meet their clients' specific objectives and needs. They form the only group of securities advisors who must provide clients with written information on how to have complaints addressed through the firm, the IDA and the federal Ombudsman for Banking Services and Investments (OBSI) – complaint channels to which clients of other types of advisors may not have access. The IDA requires investment dealers across Canada to report all client complaints, even if the complaints are solved at the firm level, through a central database.

PROTECTION – Accounts held at registered investment advisors are protected from dealer insolvency by the substantial Canadian Investor Protection Fund (CIPF) to an amount of $1 million or more each (the fund does not cover losses resulting from a decrease in the market value of securities). Visit *www.cipf.ca* for more information.

For a list of registered investment dealers, visit *www.iiac.ca*.

Contact Us

Toronto
11 King St. West
Suite 1600
Toronto, Ontario
M5H 4C7
T: 416.364.2754
F: 416.364.4861

Montréal
Place Montreal Trust Edifice A
2112-1800 McGill College Ave.
Montréal, Québec
H3A 3J6
T: 514.843.8083
F: 514.843.9763

Vancouver
888 Dunsmuir Street
Suite 1230
Vancouver, British Columbia
V6C 3K4
T: 604.482.1790
F: 604.633.1574

www.iiac.ca
capitalmarkets@iiac.ca

The Investment Industry Association of Canada (IIAC), formerly the industry association arm of the Investment Dealers Association of Canada (IDA), advances the position of the Canadian investment industry on regulatory and public policy issues. As the professional association for investment dealers, the Investment Industry Association mandate is to promote efficient, fair and competitive capital markets for Canada while helping its member firms across the country succeed in the industry. Member firms range in size from small regional brokers to large investment dealers that employ thousands of individuals nationwide. Our members work with Canadian investors to help build prosperity and investment security for them and their families.