

INVESTMENT *facts*

No. 3

The Bond Market

About *INVESTMENT facts*

Investment Facts is published by the Investor Learning Centre of Canada, an independent not-for-profit organization. Our aim is to help people like you become better informed about your investment choices.

The ILC works closely with the Canadian Securities Institute – the official educator of the securities industry – and other highly regarded organizations. This helps ensure our publications and programs are accurate and non-promotional.

This issue of Investment Facts is part of an ongoing series. It complements our many other national investment learning programs, including books, seminars and a walk-in-phone-in resource centre.

For more information, call one of our offices listed on the back page. We'll be happy to help!

Can you review for me what bonds are?

When companies or governments need to borrow money, they may issue a bond. People who buy the bond are lending their money and will be paid interest on it. The bond is the IOU or contract between the borrower and the lender. The "coupon rate" or interest rate, the charge that is levied for the use of your money, is outlined in the bond as well as the term, which is the length of time that the loan will be outstanding.

Most people are not aware that there are all kinds of products like bonds. We might refer to the whole market as the bond market, but it is really more precise to call securities like bonds *debt securities* or *fixed income* products. Bonds are a specific kind of debt instrument.

Are bonds and debentures the same thing?

Bonds and debentures are both debt instruments. However, debentures are unsecured, which means they are just a promise to pay, while bonds normally have specific assets pledged as security. They're more like house mortgages – the house secures the mortgage, so if you stop paying interest to the lender, the house can be sold. With bonds, you're the lender, so if something happens to your payments, you can count on some return should the assets be sold.

Just to confuse things, Government of Canada bonds are not secured so they are really debentures. But everyone still calls them bonds!

I've heard about T-Bills and GIC's. Are these kinds of bonds?

Treasury Bills (T-Bills) are short-term debt instruments issued by the federal government and sometimes by a provincial government. They are issued in terms of 91, 182 and 364 days, and are sold in denominations from \$1,000 to \$1,000,000.

You might find when you shop for a T-Bill that the return is called the *effective* interest rate. T-Bills don't actually pay interest. The return is really the difference between the price the Bill is sold at (which is always less than face value) and what it is worth at maturity. Banks and investment dealers will often translate this into a percentage return that is like an interest rate and allows you to comparison shop with other investments.

Short-term debt securities are also called *money market instruments*. Despite the name, money is not traded in the money market. It's called this because products like T-Bills or short-term *paper* are almost as flexible as cash.

Guaranteed Investment Certificates or GIC's are really term *deposit instruments*, not bonds. They are usually issued by a financial corporation like a trust company or a bank, which actually borrows the money from you in the same way that it borrows from you when you put your money in a savings account. They use the funds to meet their own needs and pay out interest before paying you back in full on a set date.

You usually keep a GIC until maturity, but some issuers will redeem their own certificates before maturity for a little less than their full value.

I own a Canada Savings Bond. How does it fit into the picture?

CSBs are another debt instrument issued by the Canadian government. They are not like most bonds because they can be cashed in at any time by the original purchaser only. With CSBs (unlike bonds) you can't transfer ownership to someone else. When you cash in a CSB, you get back the face value of the bond.

The bond market in Canada is huge – up to 35 times bigger than the stock market.

If you have held it for at least three months, you also get the interest that has accrued to date. They have been a popular investment for Canadians, although these days investors are shopping around for better returns.

Similar to CSBs, Canada Premium Bonds offer a higher interest rate but are cashable once a year only, on the anniversary date and for 30 days thereafter.

CSBs and CPBs are available every year from October to April 1.

Are there other debt-type products I should know about?

There are lots of money market products available to investors which you may not have heard of. These include *commercial paper*, short-term IOUs issued by corporations and secured by lines-of-credit, and *bankers' acceptances* which are debt instruments issued by a corporation and guaranteed by a bank.

In addition, there are other products that are similar to bonds. *Strip bonds* are bonds with the coupons removed, which means they don't pay interest. The coupons and the bonds are then sold separately. Because the bond no longer pays interest, it is sold for less than the face value, although it will be redeemed for face value when its term is up. The difference is the return. Because regular interest payments are forgone, a strip bond can be quite risky if you're unlikely to hold it to maturity. The value of the bond will vary a lot before its term is up. A *mortgage backed security* is like a bond that is secured by a pool of home mortgages. These securities are issued by banks, trust companies and the like, and are sold by investment dealers. People buy units of \$5,000 for a five-year term and receive a monthly payment made up of interest and some principal. The cash flow from these instruments can be less predictable than from bonds because the principal is repaid over time rather than at maturity. These are very high quality instruments because they are backed by the federal government's housing corporation which insures the mortgages.

The securities industry brings new products to the market regularly. Although most will interest sophisticated investors only, your investment advisor can tell you if they are right for you.

What happens after a company decides to issue a debt security?

When a company decides to issue new securities, an investment dealer is a big contributor in deciding the kinds of security and its terms such as price. The dealer also helps prepare the company's *prospectus*, which is a document that describes the company and the new securities in great detail. The prospectus is required by law if the securities are to be distributed to the public. You or your advisor should always review it carefully if you are considering buying a new issue of securities.

The issuer then consults with the dealer to decide how the issue should be distributed. The dealer can either purchase it entirely for eventual resale or act as an agent to sell securities directly to investors. This process is called *underwriting*. Dealers offset the risk of buying the whole issue by assessing market conditions before establishing the price of the securities. Dealers are looking for the ideal price which will meet users' needs for capital but will still be attractive to investors.

Sometimes the process is much shorter and the whole issue is bought by one dealer (or a small group) before coming to market. This is because eligible large companies that have a long track record in the capital markets are allowed to sell new securities through a less detailed prospectus called a *prompt offering prospectus*.

Is this process the same for governments?

For provincial and municipal governments or for federal crown corporations, yes. However, the federal government does things differently. It tends to set its own terms with advice from the Bank of Canada and from investment dealers, then offers its bonds and Treasury Bills to selected senior dealers at auctions. Dealers with winning bids buy part or all of the issue.

What happens next?

A dealer will either sell the securities right away or put them in the firm's inventory. The firm's fixed income *trading* department or *bond desk* can then sell them at a later time. In the meantime, it can collect the interest that accrues over time.

Most firms have different specialists for each of the different kinds of debt instruments. These traders also have the authority to buy and sell bonds in the *secondary market*.

What is a secondary market?

So far we have talked about debt instruments that have been newly issued. This is the *primary market*. The primary market directs money from investors to corporations and governments where it is put to use to grow and develop, to add new products and services, and to create new jobs. This market is the engine of the economy.

However, there is another market called the secondary market. *Secondary markets are resale markets*. Here, investors buy and sell securities among themselves and money does not pass through to the original issuer of the securities.

A secondary market in bonds provides investors with an opportunity to buy or sell their debt securities at any time before the term comes due. For example, if you bought a \$1,000, 20-year Government of Canada bond 10 years ago and need to sell it now, you can do so. Being able to buy and sell when you want is what makes the bond market *liquid*.

Secondary markets support primary markets and are very active and important. Prices that investors are paying for securities in the secondary market reflect the value they perceive in the company. Should a company need to go back to the market to raise money again, the price they can get for the new securities will mirror the prices being paid for its current issues as well as other factors.

Will I get all my money back if I sell my bond before the term is up?

That depends on factors like the coupon rate of the bond, the prevailing interest rate, the term left to maturity and the current credit rating of the issuer. You could get more

It's best to buy bonds when you think interest rates are going to fall.

than face value if the coupon rate is significantly higher than current rates for similar securities.

Is collecting interest the only way to make money in the fixed income market?

No. You can also make a capital gain on a bond.

How can that happen?

Bonds are often sold for less than face value. If you buy one *at a discount* from face value and hold it to maturity you will make a capital gain when you cash it in. You will also make a capital gain if you buy your bond *at par* (face value) then sell it for more, which is called selling *at a premium*. But you can also take a capital loss if you sell the bond for less than what you paid for it.

Why do dealers sell some bonds for less than face value?

Selling a bond for less than face value is like putting any merchandise on sale. You do it because you know it won't sell unless you reduce the price. This will happen when the coupon rate on a bond is too low or the term to maturity is long. Let's look at a couple of examples.

Say a \$1,000 Government of Canada Bond is paying an interest or coupon rate of 3% with 10 years left to maturity. That means the income per year is \$30. If other bonds are available with an interest rate of 5%, this one could sit on the shelf. So market pressure forces a price cut, perhaps to \$900, which looks like a good discount. But if you average out that \$100 capital gain which a buyer would make when it is cashed-in in 10 years, it only comes to \$10 a year. Add that to the \$30 interest and the total return is \$40 per year. Taken as a percentage of the discounted price, this return is still only 4.5%. Clearly, if the dealer wants to sell this bond, the discount will have to be a lot bigger!

But if the bond had only five years to run, the picture changes. Now that same \$100 capital gain (assuming the bond is sold for the same discount) is equal to \$20 a year. That makes for a \$50 a year return at the 3% interest rate. \$50 as a percentage of \$900 equates to about 5.6% which now makes the bond a better deal.

What we have been doing here is calculating bond *yields* very roughly. Dealers use yields to determine what is the best price for selling a bond or to test whether a bond being sold is a good investment. Anyone who wants to invest in bonds should get to know bond yields, too.

I think I know what you're saying, but I'm still a bit fuzzy. Explain to me why anyone would want to pay more for a bond than its face value?

It's exactly the same principle. If you have a bond with a high interest or coupon rate and a number of years to run, the bond may very well be worth more than face value. Let's look at a sample yield.

Your dealer has a \$1,000 bond offering 12% with three years to run. Lots of people would like to buy that bond if current interest rates are running at half of that. So the dealer raises the price of the bond and offers it for \$1,150. (Remember, the dealer may also have paid more than face value for the bond.) The capital loss of \$150 you will incur if you buy it is equal to \$50 a year for each of the three years left. When you subtract this from the interest revenue of \$120 a year, the bond is still bringing in \$70 a year. Expressed as a percentage of the premium price you paid, the bond is yielding 6%. If the bond has other attractive features, this may be high enough to still make it competitive against other investments.

What causes the prices of bonds to go up and down?

You can see that the pricing of bonds depends a great deal on current interest rates. If interest rates are now higher than they were a year ago, last year's bonds are not going to be as attractive. They'll have to sell at a discount. In the securities market if interest rates are going up, bond prices in the secondary market will generally move down. The opposite is true if interest rates are falling. Bond prices go up!

Another important factor that affects prices is the credit rating of the issuer. If it is good, the risk is lower and the issuer will be able to borrow at less cost. That means it will not need to pay lenders as high a rate of interest as bonds with lower credit ratings would have to pay. The yield for the investor

may not be as good, but the risk is lower than for a security issued by a less viable firm. These bonds will trade at a premium over similar bonds with lower credit ratings.

The term to maturity is also important. Longer term bonds will need to carry a more favorable coupon rate because so much can happen to affect rates over a very long term. This makes the price of the longer term bond more volatile.

The coupon rate and bond features will also affect market price. When a bond pays a high rate of interest, most of the return an investor receives will regularly accrue over the term. This is less risky than waiting for a capital gain upon redemption. Some features are also very attractive to an investor, such as whether it can be converted into another form of investment. These terms will affect the pricing of the bond.

How do dealers stay in touch with the bond market?

Investors feed information on the price and quantity of bonds available or in demand to an investment dealer's bond trading desk via the sales department. The trading desk provides *price quotations*. Dealers stay in close contact with other dealers to help ensure they are pricing similar bonds in a competitive range. They do this through computer systems and by phone. The screen shows prices and availabilities for a wide range of bonds.

A dealer can use the system to find a bond for an investor and quote competitively even if the firm does not currently own the bond. If you want to buy a particular bond, the dealer normally acts as principal by reselling one the firm already owns or by buying in the open market and reselling to you at a slightly higher price. In a sell trade, the dealer will buy your bond and resell it or put it in the firm's inventory.

Before buying a new issue, review the prospectus which describes the company and the securities.

Who makes sure the bond market is operating fairly?

The bond market in Canada is huge. The dollars involved have been up to 35 times greater than the value of trading in the entire stock market. It is also an *upstairs* or *unlisted* market, which means it operates less out in the open than the stock market. These factors make it a challenge to regulate.

However, rules and regulations governing the bond market are in place to ensure fairness and equality for all. The industry calls this a level playing field. In Canada, the Investment Dealers Association and the various securities administrators set the rules for the bond and money market.

Recently the IDA introduced the CANPX transparency system which will in time, provide live bid and offered quotations and trader price and volume information for government bond and treasury bill issues.

How do I pick the right bond?

Before you choose any bond, make sure you have adequate advice from your investment advisor. He or she will help you decide first of all whether bonds are suitable for you as an investment. Only then should you begin the process of evaluating individual bonds by looking at yields, credit ratings, terms, coupon rate and other characteristics or features of the bond.

What kind of features should I be looking for in a bond?

A bond or debenture always has features which will affect your decision whether or not to buy it. For example, the bond might have an *optional call feature* which means the issuer has the option to pay you back in full before the term is up. If this happens, the issuer would usually pay a premium on the face value. When a bond has a *sinking fund feature* it may be called prior to maturity without payment of a premium.

An *extendible* feature allows you to extend the maturity of your bond or debenture if you wish with the same or a slightly higher interest rate for the extended period.

Retractable bonds allow you to cash in the bond at face value, often five years before maturity. These options are attractive to investors so bonds with these features can be sold with a slightly lower coupon rate.

Other popular features include *convertibility* to common shares of the issuing corporation, or *exchangeability* which offers the option to exchange a debenture with the common stock of a different but related company. Many bonds today are also issued with a *floating rate*. This means the interest rate is adjusted regularly to reflect current interest rates. Not surprisingly, these bonds generally pay a lower coupon rate than others with fixed terms.

I think I know enough to want to get involved. How do I work with a dealer?

First of all, make sure you choose an investment firm you feel you can trust. It makes sense to ask if the firm is a member of one of Canada's Self-Regulatory Organizations. Talk to the branch manager and ask about the firm's investment and client philosophy. Ask if the firm likes to deal with investors with needs and wants similar to yours.

Then select an investment advisor at the firm you've chosen. Interview a few before deciding. After all, this person is going to be very important to your investment success!

Your advisor will open an account with you. This sounds routine but is actually very important. It is now that you will outline your investment needs and your personal financial situation. In any dealing with you, your advisor is obliged by law to make recommendations that are in keeping with your objectives and profile. In the industry, this is what we call the *suitable rule*.

Investment advisors provide advice and research if the firm is full-service. If it is a *discount broker*, the firm will place your

orders but will not offer any advice. That's why you pay a lower commission. Brokers generally make money on a commission charged to you for carrying out your business. Commission is not charged on bonds. Profit is made by selling the bond at a slightly higher price than the firm paid for it. Make sure you know what this mark-up is in advance.

Normally when you buy a long-term bond or a stock you must pay for it within three business days. Money market instruments generally require same day payment. Sometimes you may work out an arrangement with your advisor allowing you to buy a security *on margin*. This means the firm will lend you a portion of the purchase price of the security. Remember, the amount you can borrow will change as the market price of the security changes. That means if it drops, you will have to come up with more money. You should understand this technique fully before investing on margin.

Once you have purchased securities, it makes sense to track their performance. Make sure they continue to meet your investment objectives. Your investment advisor can help you evaluate your securities and advise you whether any adjustments are needed.

So what's next?

Our next newsletter, Investment Facts No. 4, will take you through the compelling world of stocks!

The bond Market is a network of traders connected by phones and computers.



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