

Ask Legg Mason

Introduction to Fixed Income

This is the first in a series of educational guides that seek to explain some of the concepts widely used in fixed income investing.

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Introduction to Fixed Income

Why consider investing in bonds?

Bonds, which in their simplest form are no more than an IOU from a government or a company, are one of the largest asset classes, but probably the least explored by individual investors. Although bonds are generally viewed as a less risky and therefore lower returning asset class compared to equities, they are more risky than cash deposits. Fixed income investments can provide investors with many benefits. These include income generation, capital growth, lower volatility than equities and diversification of risk. Indeed, investing in a combination of sectors within the fixed income universe allows investors to maximise the potential of these benefits.

Bond markets have come a long way in recent years, expanding both in regional terms and on a sector basis. Bond market issuance was traditionally dominated by governments, local authorities and corporates in developed markets. However, bond markets have experienced considerable growth in emerging markets in recent years, with governments now issuing significantly more bonds in their local currencies as opposed to their traditional issuance in major foreign currencies. The fixed income universe has also expanded on a sector basis, with increasing issuance in securities backed by assets, such as mortgages or credit card payments.

Global fixed income universe expanding

The range of entities issuing a wide variety of bonds makes the global bond universe a very diverse market. The major sectors within global bond markets, which we will explore in more depth in later guides, are:

- Government bonds – issued by both developed and emerging countries*
- Supranational (entities formed between governments, e.g. World Bank), local authority and public sector bonds (agency bonds)
- Asset- and mortgage-backed securities (ABS and MBS)
- Corporate bonds – investment grade and high yield (sub-investment grade)
- Emerging market debt – issued by governments and corporations in emerging markets

*Bonds issued by emerging markets are usually grouped under emerging market debt.

Wide risk spectrum

The global bond universe comprises a wider risk spectrum than many investors may realise. The higher risk sectors of the bond universe, such as high yield corporate bonds or emerging market debt, offer superior income returns compared to the lower risk sectors, such as government bonds, as the bond issuers have to compensate investors for the higher risk of default. However, they can also exhibit a greater volatility in capital returns and tend to be more correlated with equity market returns.

Performance returns of different fixed income sectors vary depending on the economic backdrop and investors' general appetite for risk. While the lower-risk sectors tend to perform well in a weakening economic environment in which investors become more risk averse and central banks cut interest rates, the higher-risk sectors tend to perform better in a period of economic recovery or robust growth when corporate earnings are improving and default rates are declining. The varying performance of the fixed income sectors over time is highlighted in the chart on the previous page.

How have the various fixed income sectors performed?

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Highest Return	EMD (USD)	Mortgages	Global Govt Inflation Linked (USD)	Global High Yield (USD)	Global Govt Inflation Linked (USD)	EMD (USD)	Global High Yield (USD)	Global Govt Inflation Linked (USD)	Global Govt Bonds (USD)	Global High Yield (USD)
	Mortgages	EMD (USD)	Global Govt Bonds (USD)	EMD (USD)	Global High Yield (USD)	EMD Local	EMD (USD)	Global Govt Bonds (USD)	Mortgages	EMD (USD)
	0-3mth US Treasury Bills	Global Corporate (USD)		Global Govt Inflation Linked (USD)	EMD (USD)	0-3mth US Treasury Bills	EMD Local	Global Corporate (USD)	0-3 month US Treasury Bills	EMD Local
	Global Govt Inflation Linked (USD)	0-3mth US Treasury Bills	EMD Local	Global Corporate (USD)	EMD Local	Mortgages	Global Corporate (USD)	Mortgages	EMD Local	Global Corporate (USD)
	Global Corporate (USD)	Global High Yield (USD)	EMD (USD)	Global Govt Bonds (USD)		Global High Yield (USD)	Global Govt Inflation Linked (USD)	EMD (USD)	Global Govt Inflation Linked (USD)	
	Global Govt Bonds (USD)	Global Govt Inflation Linked (USD)	Mortgages	EMD Local	Global Corporate (USD)	Global Govt Inflation Linked (USD)	Global Govt Bonds (USD)	EMD Local	Global Corporate (USD)	Mortgages
	Global High Yield (USD)	Global Govt Bonds (USD)	0-3mth US Treasury Bills	Mortgages		Global Corporate (USD)	Mortgages	0-3 month US Treasury Bills	EMD (USD)	Global Govt Bonds (USD)
Lowest Return	Not Available		Global High Yield (USD)	0-3 month US Treasury Bills		Global Govt Bonds (USD)	0-3mth US Treasury Bills	Global High Yield (USD)		0-3mth US Treasury Bills

As at 31 December 2009. Source: Bloomberg. 0-3mth US Treasury Bills: Merrill Lynch US Treasury Bills 0-3 Months, EMD Local: JP Morgan Global Bond Index Emerging Market Local Unhedged, EMD (USD): Merrill Lynch USD Emerging Market Sovereign Plus Index, Global Corporate (USD): Merrill Lynch Global Broad Market Corporate Index, Global Govt Bonds (USD): Merrill Lynch Global Government Bond Index, Global Govt Inflation Linked (USD): Merrill Lynch Global Governments, Inflation-Linked Index, Global High Yield (USD): Merrill Lynch Global High Yield Index, Mortgages: Merrill Lynch Mortgage Master Index.

As you can see, market leadership within fixed income changes from year to year as economic conditions and risk appetite changes. Looking at the more recent years, the less risky sectors of the bond market tended to perform better over the crisis period of 2007 and 2008, while 2009 has seen a reversal of fortunes with the higher risk sectors taking the lead. While the chart gives you an indication of relative performance, it masks the dispersion in returns between the top and bottom performing sector. In 2003, for instance, as the global economy emerged from the aftermath of the burst dotcom bubble, global high yield bonds led the market higher with an annual total return of +30%¹ in US dollar terms, while 0-3 month US Treasury Bills lagged the market with a return of +1%¹. In 2008, meanwhile, global high yield bonds fell by 28%¹, while global government bonds rose by 11%¹.

Diverse asset class, but jargon can be off-putting

Although the asset class has much to offer for both risk averse investors and those who are more willing to take on risk, many investors struggle with the jargon used in fixed income investing. In our series of educational guides we will cover the key concepts that investors are likely to come across in fixed income. We will kick off with some of the bond terminology such as yields, spreads and duration, followed by overviews of the major bond market sectors and the strategies fund managers use to generate returns in bond funds.

¹ Source: Bloomberg.

How are bonds graded?

	Moody's	S&P	Definition	Known as
	Aaa	AAA	Highest rating available	Investment grade bonds
	Aa	AA	Very high quality	
	A	A	High quality	
	Baa	BBB	Minimum investment grade	
	Ba	BB	Low grade	Non-investment grade or high yield bonds
	B	B	Very speculative	
	Caa	CCC	Substantial risk	
	Ca	CC	Very poor quality	
	C	D	Imminent default or in default	

Source: Reuters and Legg Mason.

Glossary

Investment Grade Bonds

A term used to describe bonds considered to be safe investments. They carry credit ratings of Baa3 and higher from Moody's and BBB- and higher from Standard & Poor's and Fitch. Bonds with ratings below investment grade are known as high yield bonds, junk bonds or speculative grade bonds.

Junk Bonds

Junk bonds, or speculative grade bonds, or high yield bonds are bonds rated below investment grade at the time of purchase. They have a higher risk of default, but pay a higher yield than investment grade bonds to attract investors. Such bonds are rated at Ba and below by Moody's, at BB+ and below by Standard & Poor's and BB+ by Fitch.

Coupon

The interest paid on a bond expressed as a percentage of the face value. If a bond carries a fixed coupon the interest is usually paid on an annual or semi-annual basis. The term also refers to the detachable certificate entitling the bearer to the interest payment.

Yield

Percentage return on an investment or security, usually calculated at an annual rate.

Duration

Duration is the time, measured in years, in which a bond investor will receive the present value of future interest and principal payments. It is calculated by multiplying the present value of the principal and each coupon by the time that will elapse before payment is made. It is also a measure of the sensitivity of a bond's price to changes in interest rates.

Maturity

The length of time between the issue of a bond or other security and the date on which it becomes payable in full. Most bonds are issued with a fixed maturity date. Those without one are known as perpetuals.

Yield to Maturity

Yield to maturity is the rate of return expected on a bond if it is held until maturity and is a key consideration when comparing bond investments. It is calculated by taking into account its coupon, current market price and time to maturity. The yield to maturity, expressed as an annualized rate of return, assumes all coupons from the bonds will be reinvested at the same rate.

Default

Failure to meet a payment of interest or principal on a debt or bond. Technically, a borrower does not default. The initiative comes from the lender who declares the borrower is in default.

Money Market

A global wholesale market for the buying and selling of money. Money markets normally trade in short term debt instruments with maturities of 12 months or less. Most activity is by banks borrowing and lending to each other and interest rates are often set with reference to the London Interbank Offered Rate (Libor).

Asset-backed Securities

Asset-backed securities are debt instruments secured against assets or cash flows from items such as car loans, credit card debt, mortgage loans, aircraft leases or royalty payments. The assets are pooled or bundled together and used as collateral for the issue of debt instruments in a process known as securitization. A special purpose vehicle (SPV) is formed to carry out the securitization and pay back the banks that owned the assets. The removal of the assets from a bank's balance sheet and the money it receives for them may improve its credit rating and reduce the capital it needs.

Mortgage-backed Securities

A mortgage-backed security is a security backed by, or secured against, a pool or package of mortgage loans. Payments of principal and interest from the pool of mortgages are passed to the holder of the security.

Brady Bonds

Bonds which originated as syndicated bank credits to developing countries, denominated in major European currencies. During the recession of the early 1980s many developing countries ran out of foreign currency to meet their payments on these loans. To restore confidence in the borrowers, much of this debt was converted at a discount into negotiable bonds backed by the U.S. Treasury under a scheme introduced in 1989 by the then U.S. Treasury Secretary Nicholas Brady.

Treasury Bill

Short-term government security issued in domestic currency with a maturity not exceeding one year and therefore considered to be a money market instrument. Treasury bills are sold at a discount from par value and do not carry a coupon.

U.S. Treasury Bill

Short-term US government bearer securities with maturities of three, six and maximum twelve months. They are sold on a regular basis and have a dominating position on money markets. Nearly one-third of marketable US Treasury debt is concentrated in Treasury bills. The purchase and sale of such bills through open market operations forms a key part of U.S. monetary policy.

Treasury Bond

Government debt security issued with a maturity of ten years or more, traded in the capital markets. Treasury bonds are issued with a fixed coupon.

Sovereign Issue

A bond issued by a government or a government-backed agency.

Zero Coupon Bond

A bond that pays no coupon but is issued at a deep discount to face value. The difference between the issue and redemption prices creates a capital gain that boosts the effective yield close to market levels. As it does not pay a coupon, investors do not run the risk of reinvesting interest paid at a lower rate if interest rates fall during the life of the bond.

Vanilla Bond

A bond with no unusual features, paying a fixed rate of interest and redeemable in full on maturity. The term derives from vanilla or 'plain' flavoured ice-cream.

Convertible Bond

A bond that is convertible into shares at a pre-set conversion price. Convertible bonds may be used for arbitrage purposes by those who spot a difference between the value of the bond and the underlying shares.

Multiplier Bond

A bond that allows the investor to reinvest coupons into additional, identical bonds and to reinvest coupons on these additional bonds. The borrower gains a cash flow benefit because the payouts are being converted into extra debt. Also known as a bunny bond.

Bullet Bond

A bond which pays a fixed rate of interest and is redeemed in full on maturity. It is also known as a straight or fixed bond because it has no special features. The name derives from the printers' symbol of a bullet point or large dot used to identify the bonds in price lists.

Floating Rate Bond

A bond with a variable interest rate as opposed to a fixed rate.

Jumbo Bonds

A colloquial term for a very high value bond issue. The size will vary from market to market; in some emerging markets it will be in the hundreds of million of dollars, in developed markets it will be in the billions.

Eurobonds

Eurobonds are fixed income securities issued by corporations and sovereign entities for sale in the Euromarket.

Senior Secured Debt

Secured Debt that is paid first in the event of a default.

Global Depository Receipt

A Global Depository Receipt is a negotiable certificate held by a bank in one country that represents a certain number of shares traded on an exchange in another country. A GDR allows shares to be traded in other countries without needing to be registered on foreign exchanges.

Source: Reuters and Legg Mason.

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