

Long-Term Liabilities

Lars Flygare, 2008-09-30

What long-term liabilities are

Definition

Long-term liabilities are existing obligations or debts which are last longer than one year.

The values of many long-term liabilities represent the present value of the anticipated future cash outflows.

Present value represents the amount that should be invested now, given a specific interest rate, to accumulate to a future amount.

Examples of long-term liabilities are:

- Mortgage loans
- Notes payable
- Leases
- Bonds

Mortgage loans

Definition

A mortgage loan is a loan secured by real property. The security or collateral can be, for example, real estate. There are many types of mortgages used worldwide. Several factors define the characteristics of the mortgage. All of the characteristics may be subject to local regulations and legal requirements.

Interest

Interest may be fixed or variable for the life of the loan, and change at certain pre-defined periods. The interest rate can also, of course, be higher or lower.

Term

Mortgage loans generally have a maximum term, that is, the number of years after which an amortizing loan will be repaid. Some mortgage loans may have no amortization, or require full repayment of any remaining balance at a certain date.

Payment amount and frequency

The amount paid per period and the frequency of payments; in some cases, the amount paid per period may change or the borrower may have the option to increase or decrease the amount paid.

Prepayment

Some types of mortgages may limit or restrict prepayment of all or a portion of the loan, or require payment of a penalty to the lender for prepayment.

The two basic types of amortized loans are the fixed rate mortgage and adjustable rate mortgage.

In many countries, floating rate mortgages are normal and will simply be referred to as mortgages. In the United States, fixed rate mortgages are considered "standard."

In a fixed rate mortgage, the interest rate, and hence periodic payment, remains fixed for the life of the loan.

For a fixed rate mortgage, payments for principal and interest should not change over the life of the loan.

In an adjustable rate mortgage, the interest rate is generally fixed for a period of time, after which it will periodically adjust up or down to a market index.

Adjustable rates transfer part of the interest rate risk from the lender to the borrower.

Since the risk is transferred to the borrower, the initial interest

rate may be lower than the fixed rate. The size of the price differential will be related to debt market conditions, including the yield curve.

Notes Payable

Definition

A liability is created when a company signs a note for the purpose of borrowing money.

A note may be signed for an overdue invoice when the company needs to extend its payment, when the company borrows cash, or in exchange for an asset. An extension of the normal credit period for paying amounts owed often requires that a company sign a note, resulting in a transfer of the liability from accounts payable to notes payable. Notes payable are classified as current liabilities when the amounts are due within one year of the balance sheet date. When the debt is long-term (payable after one year) but requires a payment within the twelve-month period following the balance sheet date, the amount of the payment is classified as a current liability in the balance sheet. The portion of the debt to be paid after one year is classified as a long-term liability.

Leases

Operating Lease

An operating lease is basically a rental agreement, for example, renting a car. The features of an operating lease are:

The lessee is free to terminate the lease at little or no cost provided the required amount of notice is given.

The lessor retains ownership rights in the leased asset and bears the risks associated with asset ownership.

The term of the lease is usually compared to the overall economic life of the asset.

The lease is usually cancellable at either the lessee's or lessor's discretion, with minimal or no penalty to either of them

In practice, the economic substance of an operating lease is that of a hire agreement, and as it results in a relatively short-term commitment there are few implications for financial managers. Lease rentals are reported in the performance statement as an expense.

Financial Lease

A financial lease is really a form of loan agreement. It is one in which the risks and benefits of ownership are transferred from the lessor to the lessee through the lease agreement.

The economic substance of the lease is that an asset is purchased by the lessor and is used by the lessee. The lessee gets control of the future economic benefits, but does not legally own the asset. The lessor finances the transaction by giving the lessee long-term credit. The lessee must record the present value of the lease payments as an intangible non-current asset, called a leased asset with a corresponding long-term liability, called a lease liability in their position statement.

Note the name given to the asset. If the asset leased is a car, the lessee must describe it as a 'leased asset', not as a motor vehicle. This is because the lessee is really acquiring the right to use and control the economic benefits.

Legally, the car is still owned by the lessor.

Bonds

Definition

A debt instrument issued for a period of more than one year with the purpose of raising capital by borrowing.

The government, states, cities, corporations, and many other types of institutions sell bonds.

Generally, a bond is a promise to repay the principal along with interest (coupons) on a specified date (maturity).

Some bonds do not pay interest, but all bonds require a repayment of principal.

When an investor buys a bond, he becomes a creditor of the issuer. However, the buyer does not gain any kind of ownership rights to the issuer.

On the one hand, a bond holder has a greater claim on an issuer's income than a shareholder in the case of financial distress.

Bonds are often divided into different categories based on tax status, credit quality, issuer type, maturity and secured/unsecured (and there are several other ways to classify bonds as well).

The yield from a bond is made up of three components: coupon interest, capital gains and interest on interest (if a bond pays no coupon interest, the only yield will be capital gains). A bond might be sold above or below par (the amount paid out at maturity), but the market price will approach par value as the bond approaches maturity. A riskier bond has to provide a higher payout to compensate for that additional risk. Some bonds are tax-exempt, and these are typically issued by municipal, county or state governments, whose interest payments are not subject to federal income tax, and sometimes also state or local income tax.

Callable

Able to be redeemed prior to maturity. The term usually applies to bonds and convertible securities. The issuer of a callable security has to state the conditions under which the security may be called at the time of issue. For most securities, there is a certain initial time period in which the security cannot be called. A bond will usually be called when market interest rates fall below the yield being paid on the bond (bonds are usually called when the price rises to a certain point). To reflect this risk, a callable security is usually priced lower than a non-callable security.

Secured bond

Bond backed by collateral, such as a mortgage or lien, the title to which would be transferred to the bondholders in the event of default. The most common form of secured bonds are mortgage

bonds. These bonds are backed by real estate or physical equipment that can be liquidated. These are thought to be high-grade, safe investments.

Other bonds are secured by the revenues created by projects. If an issuer in default has both secured and unsecured bonds outstanding, secured bondholders are paid off first, then unsecured bondholders. Naturally, because unsecured bonds carry greater risk than secured bonds, they usually pay higher yields.

Unsecured bond

Bond issue that is backed only by the creditworthiness and reputation of the issuer and not by any pledged asset.

Registered bond

Bond issue where the bond owner's name is on record with the bond issuer.

Usually, only the registered bond owner is entitled to the interest on the bond, and to receive its principal upon its presentation for redemption. Ownership of this type of bond is transferable only through the registered owner on the assignment form printed on the back of the bond certificate.

Most bonds are issued in the registered form.

Coupon bond

An unregistered, negotiable bond on which interest and principal are payable to the holder, regardless of whom it was originally issued to. The coupons are attached to the bond, and each coupon represents a single interest payment. The holder submits a coupon, usually semi-annually, to the issuer or paying agent to receive payment. Coupon bonds are being phased out in favour of registered bonds - also called bearer bond.

Term bond

Bonds of the same issue all maturing at the same time.

Serial bond

A set of bonds issued at the same time but having different maturity dates.

Convertible bond

A corporate bond, usually a junior debenture, that can be exchanged, at the option of the holder, for a specific number of shares of the company's preferred stock or common stock. Convertibility affects the performance of the bond in certain ways.

First and foremost, convertible bonds tend to have lower interest rates than non-convertibles because they also accrue value as the price of the underlying stock rises. In this way, convertible

bonds offer some of the benefits of both stocks and bonds. Convertibles earn interest even when the stock is trading down or sideways, but when the stock prices rise, the value of the convertible increases. Therefore, convertibles can offer protection against a decline in stock price. Because they are sold at a premium over the price of the stock, convertibles should be expected to earn that premium back in the first three or four years after purchase. In some cases, convertibles may be callable, at which point the yield will cease.

Bond valuation

Bond valuation is the process of determining the fair price of a bond. As with any security or capital investment, the fair value of a bond is the present value of the stream of cash flows it is expected to generate.

The price or value of a bond is determined by discounting the bond's expected cash flows to the present using the appropriate discount rate.

When a company decides to issue bonds, it must price them so that they are attractive to potential investors in the market. In order to do this the company must decide on the face value (maturity value), coupon payment, coupon rate, and yield rate (return on bond).

The market value or bond price is the present value of the future cash flows from the bond.

The coupon payment varies among bonds and therefore affects the market value of the bond. The higher the coupon the higher the market value.

The number of periods and consequently the number of payments also affects the market value of the bond.

The yield is the rate of return that investors require in order to invest in the bonds.

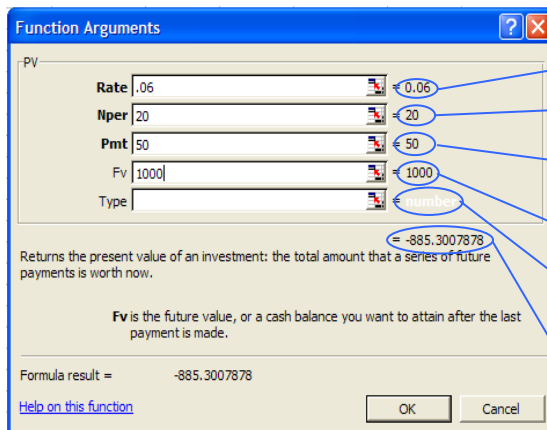
Present Value Equation:

$$V_B = \sum_{t=1}^n \frac{r_c M}{(1 + r_D)^t} + \frac{M}{(1 + r_D)^n}$$

VB	= Market Value
M	= Maturity Value
rc	= Coupon Rate
rD	= Required Rate of Return
n	= number of periods to maturity

Bond Valuation Using Excel:

Bonds can be easily calculated using the Present Value function in Excel. This function is labelled PV and stored under the financial category. The inputs are similar to a financial calculator.



Rate is the yield of the bond per period. In the case of this bond it has an annual yield of 12% and a semi-annual yield of 6%.

Nper is the total number of periods. This one is 10 year

Pmt is the coupon payment per period.

Fv is the future value or face value of the bond.

Type is used to define the timing of the payments. If the payments are made at the beginning of the period enter 1. If the payments come at the end of the period leave blank or enter 0. Coupon payments typically come at the end of the period.

Note that the present value is negative while the payment and future values are positive. The present value is negative because this is a payment for the bond, and the future value and payments are positive because these are payments you receive.