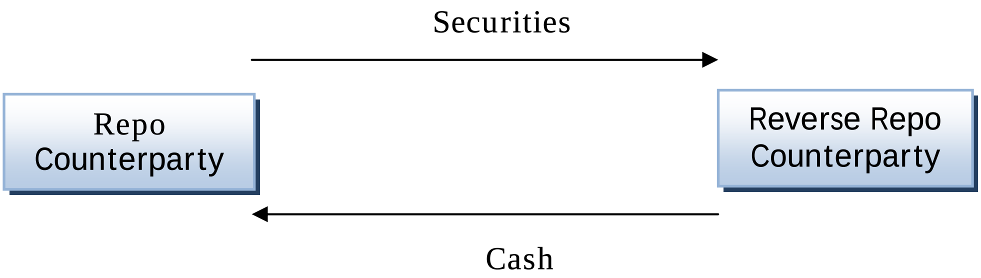
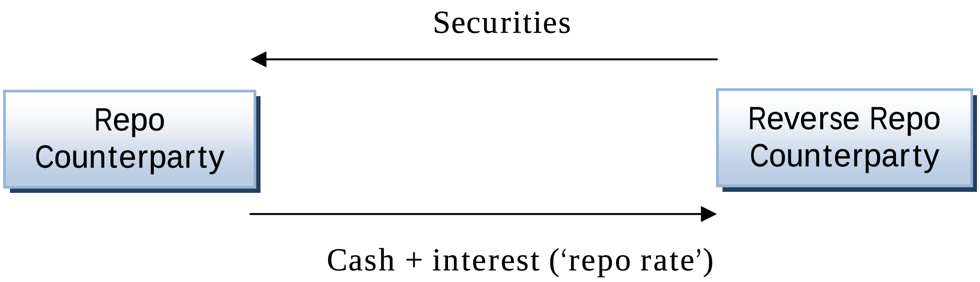
Product Briefing - Repos

Repurchase agreements or ‘repos’ are a vital part of the fixed income world and represent an important instrument for the financing of bond positions. Economically, **the repo mechanism is a collateralised loan** but its legal form as we will show is something different.

Arguably repos are the most popular technique used in the financing of fixed income transactions. **A repo involves the simultaneous sale and future repurchase of an asset.** The seller of the asset buys it back at the same price at which it was sold. On the second leg of the transaction the seller pays the buyer interest on the implicit loan that has been created. This interest is termed **the repo rate**.

The main cash flows associated with a typical repurchase agreement are illustrated below





A reverse repo is the opposite of a repo. From this perspective the transaction is viewed as the purchase of an asset for cash, with an agreement to resell at some future date.

The market distinguishes between two different types of repo in relation to the asset that is transferred. **A specific repo** involves a bond that is specified by the two counterparties, whereas a **general collateral (‘GC’) transaction** involves a bond that meets some pre-agreed criteria.

Economically, the repo can be viewed as a collateralised loan rather than a pair of securities trades. Legally, however, the transaction is a sale and repurchase which will have important implications in the event of the default of one of the counterparties.

If the securities had merely been pledged, then the default of the repo counterparty would result in the reverse repo counterparty becoming an unsecured creditor. However, the sale and repurchase structure means the reverse repo counterparty has the right of close out and set off – they get to keep the securities in lieu of the of the money lent. Similar principles would apply if the reverse repo counterparty were to fail.

Appreciating that the transaction economically resembles a collateralised loan gives an insight into the popularity of the transaction. **The interest that is payable on the second leg of the transaction will be lower than that of an unsecured borrowing and as a rule of thumb the rate that is agreed by the two counterparties is about 1/8th less than the LIBOR rate of the equivalent maturity**.

It is important to appreciate that the **legal title of the bonds is transferred to the reverse repo counterparty** as part of the first leg of the transaction. This will allow them to sell on the bonds as part of an unrelated transaction if necessary.

However, **any economic benefit or risk is retained by the repo counterparty**. This has a number of implications:

- If the bond issuer defaults over the period of the repo they will receive the security back but will still be forced to repay the price agreed in the first leg of the transaction
- If the issuer of the bond being repo'd defaults the repo counterparty will receive back the asset but will still be obliged to pay the original price agreed on the first leg of the transaction
- If the bond pays a coupon during the period, this will have to be remitted back to the repo counterparty immediately

Suppose that a bank is bullish on the prospects of the value of a particular bond and decides to use the repo mechanism to finance its purchase. The steps in the transaction are:

- Buy the bond for an agreed value and an agreed cash amount (an outright purchase)
- Sell the bond under repo and receive the market value with an agreement to repurchase the bond at a future date
- The cash proceeds received from the first leg of the repo are used to settle the outright purchase

- When the repo matures the bank retakes delivery of the bond and then sells it in the open market to any counterparty
- The proceeds received from this sale are used to settle the outstanding principal and interest amount due under the repo

It can be confusing as to why an investor would buy a bond outright and then sell it under repo to pay for it. However, the key to grasping the logic of this trade is to recall that all of the economic benefit of the transaction is retained by the repo seller (i.e. the outright buyer of the bond). So as long as the final sale generates sufficient cash to cover the initial purchase and the interest on the repo the transaction will show a profit.

A similar procedure could be used if the market participant thought that a particular bond was going to fall in value:

- The target bond is purchased under a repo transaction
- The bond is sold to a market participant in an outright sale
- At the maturity of the repo the trader buys back the bond in the market to satisfy his commitment to redeliver the bond under the second leg of the repo
- The proceeds of the repo (initial price plus interest received on the cash leg) are used to pay for the purchase of the bond

As in the bullish scenario, as long as the cash received from selling the bond is greater than the cash paid to buy it the transaction will be profitable

Although this section is designed to give the reader and awareness of the key issues associated with a repurchase agreement there is one particular aspect of the market that is worth highlighting. On occasion certain bonds will be in very high demand in the market and as a result the asset will **'go on special'** in the repo market. The excess demand for the bond may occur as a result of traders being very bearish in relation to a particular issue and there is significant demand to obtain the bond using the repo mechanism. Another example is that the bond futures contract may require a particular government bond to be delivered if it is held to its final maturity.

The impact of specialness in the repo market will result in repo rates going down. Intuitively, it would seem that the relative scarcity of an asset would cause rates to rise but this is not the case. The participant who needs to take delivery of the asset will buy it under repo and deliver cash in return. Given the scarcity of the asset the cash that he has now lent out will only earn a very low rate of interest; this is the 'cost' he must pay. Looked at from the repo seller's perspective, if they own the asset, they are able to profit from its scarcity by borrowing money at very low rates of interest.

Depending on the level of demand for the **asset it is possible for the repo rate to turn negative**; that is the buyer of the bond in the repo transaction gets back less cash than they initially forwarded. This would occur if the penalty costs for failing to deliver are greater than the reduction in their repo proceeds.

Key themes:

- *Collateralised loan vs. sale and repurchase of an asset*
- *Repo vs. reverse repo*
- *Specific vs. 'GC' repo*
- *Legal title is transferred*
- *Economic benefits are retained*
- *'Specialness'*
- *Negative repo rates*