COLUMBIA THREADNEEDLE INVESTMENTS®

Liability Driven Investment

Glossary

A

Actuary – An actuary is a business professional who deals with the financial impact of risk and uncertainty. In a pension scheme, one of the key responsibilities of an actuary is to provide an estimate of the present value of the scheme's liabilities and the uncertainties around these liabilities.

B

Basis points (bps) – One hundredth of a percentage point = 0.01%.

Buy-in – The purchase of an annuity contract with an insurance company as an investment to match some or all of a pension scheme's liabilities, and therefore reduce risk.

Buy-out – The process whereby a pension scheme's liabilities are transferred to an insurance company and the obligation for the pension scheme to provide those benefits is ceased.

C

Central clearing – A set of regulations introduced by the European Markets Infrastructure Regulation (EMIR) after the global financial crisis. It is a framework designed to increase security in the OTC derivatives market. By both the investment bank and the investor simultaneously giving up their trade to a clearing house, this removes bank counterparty exposure from some OTC trades. All positions are collateralised daily using cash (referred to as margin) and all participants must post a further buffer with the clearing house known as initial margin. Central clearing was enacted in 2012 but implementation is still being phased in, though it will become mandatory within investment markets.

Clearing house – A well-capitalised and highly regulated entity that sits between an investment bank and investor for some OTC derivative transactions.

Collateral – An asset provided as security for a debt. In the example of a swap, collateral is normally provided in the form of cash or readily marketable securities.

Consumer Price Index (CPI) – This is a measure that examines the weighted average of prices of a basket of consumer goods and services. It is calculated by taking price changes for each item in the basket of goods and averaging them. Changes in CPI are used to assess price changes associated with cost of living and as such is one of the most frequently used statistics for identifying periods of inflation or deflation.

Counterparty – A participant in a derivative contract. Typically, the two participants in a swap contract are the pension scheme and a bank.

Credit Default Swap (CDS) – A CDS is a credit derivative between two counterparties, whereby one makes periodic payments to the other and receives the promise of a payoff if a third party defaults. The former party receives credit protection and is said to be the "buyer" while the other party provides credit protection and is said to be the "seller". The third party is known as the "reference entity".

Credit Support Annex (CSA) – A Credit Support Annex (CSA) is a document that provides details related to the collateral arrangements between two parties in privately negotiated over-the-counter (OTC) derivative instruments such as swaps. The CSA is an appendix to an industry standard derivative agreement called an ISDA master agreement.

D

Defined Benefit (DB) Scheme – A DB scheme is one whereby the benefit payable to the scheme member is defined in terms of factors relevant to the particular member. These factors include age at retirement, member's pay and years of employment.

Derivative – A derivative instrument or contract is one whose value is derived from the price movement of another asset or instrument. For example, interest rate swaps are derivatives which are dependent on interest rates.

Discount rate – The interest rate used to discount the liabilities (which are expected to happen in the future) so that a present value of these liabilities can be estimated today.

Duration – The weighted average timing of all of an instrument's cashflows, where the weightings are the present values of the cashflows at the current market yield. By formula: Duration =

(Present Value * t)/Sum(Present Value). Duration is widely used as a risk measure of a portfolio of assets or liabilities. It gives a general indication of the sensitivity of an instrument's or a portfolio's market price to small changes in interest rates.

E

Equity option – An option contract on a share or share index. The holder of an equity option has the options to buy or sell some number of stocks in a certain company at a given price known as the strike price on or before the expiration date.

Exchange-traded – Exchange trading is the alternative to OTC dealing. Exchange-traded financial instruments are standardised, and less flexible, but the interposition of the exchange reduces credit risk and increases transparency.

F

FRS17 – UK Financial Reporting Standard 17, dealing with retirement benefits. FRS 17 replaced – and widened the scope of – the earlier UK Statements of Standard Accounting Practice SSAP 24. The most significant impact of FRS 17 is in relation to DB pension schemes. FRS 17 requires any deficit in the pension scheme to be recognised in full in the sponsoring employer's balance sheet. FRS 17 also requires pension liabilities to be measured on a more conservative basis for accounting purposes, compared with the earlier accounting under SSAP 24. This generally resulted in significantly greater pension liabilities (for accounting purposes) under FRS 17, and a greater incidence of larger pension deficits for accounting purposes.

Funding level – The relationship at a specified date (often the valuation date) between the value of the assets and the value of the liabilities of a DB pension scheme, often expressed as a ratio (the 'funding ratio').

Future – A futures contract is a standardised contract traded on a futures exchange, to buy or sell a certain underlying instrument at a certain date in the future, at a specified price.

Forward price – The predetermined delivery price for an asset to be paid at predetermined date in the future.

G

Gilt TRS – A gilt TRS (total return swap) is an agreement to exchange the total returns of a gilt or gilts in exchange for a floating rate (e.g. LIBOR plus or minus a spread) cashflow. Typically, maturity terms for TRS are between six months to three years.

Gilt repo – A gilt sale and repurchase agreement (known as gilt repo for short) is an agreement to sell gilts to a bank and simultaneously agreeing to buy back these gilts on a particular date in the future and at a specified price. The time between the sale and purchase point can vary from overnight to one year.

Global Master Repo Agreements (GMRA) – A standard legal document used to outline the relationship between counterparties to a gilt repo contract.

H

Haircut – A percentage that is subtracted from the par value of the assets that are being used as collateral. The size of the haircut reflects the perceived risk associated with holding the assets.

I

Inflation swap – This is an agreement between two parties to exchange a series of inflation-linked cashflows for fixed cashflows. Pension schemes typically hedge their inflation-linked liabilities by receiving inflation-linked cashflows in exchange for fixed cashflows.

Initial margin – Collateral or security that must be lodged upfront in the case of an exchange traded derivative position or some OTC derivatives traded via central clearing.

Interest rate swap (IRS) – An IRS is an agreement between two parties to exchange a series of cashflows. Typically a pension scheme would hedge its fixed liabilities by paying floating cashflows (usually linked to LIBOR) in exchange for fixed cashflows.

International Swaps & Derivatives Association (ISDA) – An ISDA Master Agreement is a standard document developed by the International Swaps & Derivatives Association which is used to document the legal relationship between counterparties to an OTC derivative contract.

L

Leveraged fund – A fund which invests in swaps or in gilt derivatives and other assets (such as bonds, cash etc.) whereby the fund value is smaller than the total liabilities which are hedged using the underlying assets and derivatives in the fund.

Liabilities – These are future payouts resulting from pension commitments made by a pension scheme's sponsoring employer.

Liability cashflow – A schedule of aggregated future payouts that the pension scheme is expected to make over its lifetime.

Limited Price Indexation (LPI) – UK PRI but subject to a specified cap and floor.

London Inter Bank Bid rate (LIBID) – Interest rate at which banks are willing to borrow from one another in the inter-bank market.

London Inter Bank Offered Rate (LIBOR) – An interest rate at which banks offer to lend funds, in marketable size, to other banks in the London interbank market. It is set each day by the British Bankers Association, which calculates it by averaging

short-term, inter-bank and deposit interest rates among the most creditworthy banks.

Longevity – A measure of the life expectancy of current and future pensioners and other beneficiaries of a pension scheme. From the perspective of the pensions provider, there is therefore a related 'longevity risk'. Longevity risk refers to the increased cost of providing pensions, resulting from improvements in health and increases in average life expectancy.

M

Margin – (in the futures markets) – Margin is a refundable cash deposit payable by market participants to protect other participants in the market against the risk of a default.

Mark-to-market – To record a change in the value of an asset or fund to reflect its current fair market value. For swaps, it leads to an adjustment of the amount of collateral required by the swap parties to reflect the current market value.

N

Nominal interest rate – It is often known as "interest rate" and is the charge applied by the lender of money to the borrower as a recompense for lending money. Normally, it is calculated as a percentage of the total amount loaned.

Notional amount – In the context of an interest rate swap, the notional amount is the specified amount on which the exchanged interest payments are based. Each period's rates are multiplied by the notional amount to determine the value of each counterparty's payment.

O

Over the counter (OTC) trading – The trading of a security directly between two parties instead of on a formal exchange such as the London Stock Exchange.

P

Par swap – This is a swap whereby fixed cashflows are exchanged for floating rate cashflows on a regular basis. In the UK, the cashflows are normally paid semi-annually. At the outset the present value (PV) of fixed rate cashflows equals the present value of the floating rate cashflows.

Pension Protection Fund (PPF) – A UK body which takes on responsibility for undefined pension schemes in the event of the sponsoring employers insolvency (subject to certain eligibility criteria).

Pooled LDI fund – A fund where individual investors with the same investment objective bring their monies together in a single investment vehicle portfolio. In exchange for the monies brought in, the investor receives a proportional share in the underlying assets which in this case pursue an LDI strategy.

Present value (PV) – Today's value of a future liability, calculated by discounting the future liability at an appropriate rate of interest.

PV01 – PV01 is the change in the present value of a liability or asset as a result of a 0.01% change in interest rates.

R

Real interest rate – This rate strips out the effect of inflation and is estimated as follows: nominal interest rate less inflation rate.

Real rate swap – A real rate swap is an agreement between two parties to exchange a series of inflation linked cashflows in exchange for floating (usually LIBOR) cashflows.

Retail Price Index (RPI) – This index measures the average change from month to month in the prices of goods and services purchased by households in the UK. RPI is the main domestic measure of inflation in the UK.

Rewarded risk – A rewarded risk is one which is associated with an expected benefit for the party accepting the risk. For pension schemes, investment in equities is expected to provide a reward i.e. higher return for the extra investment risk undertaken.

Risk premium – The extra return expected by an investor above the risk free rate to compensate them for the risk(s) they are exposing themselves to.

RPI01 – RPI01 is the change in the present value of a liability or asset as a result of a 0.01% change in RPI.

S

Segregated LDI solution – A solution whereby the LDI strategy followed by a single investor is tailored to the investor's specific requirements.

Spot price – The spot price or spot rate of an asset is the price that is quoted for immediate (spot) settlement (payment and delivery). Spot settlement is normally one or two business days from trade date. This is in contrast with the forward price established in a forward contract or futures contract, where contract terms (price) are set now, but delivery and payment will occur at a future date.

SSAP – Statement of Standard Accounting Practice is an older mandatory statement of accounting practice for the UK, issued by the Accounting Standards Board. It has been replaced by Financial Reporting Standards (FRS).

Sterling Over Night Index Average (SONIA) – The Sterling Over Night Index Average tracks actual average market sterling funding rates each day for settlement that day where repayment is made on the following business day.

Swap – A derivative instrument whereby two parties enter an agreement to exchange a series of cashflows at pre-determined future dates, usually settled for the difference. Examples of capital market swaps typically used by pension schemes to hedge interest rate and inflation risks include interest rate swaps, inflation swaps and real interest rate swaps.

Swaption – An option on a swap where the buyer of the option has the right, but not the obligation, to enter into a specified swap on a specific future date (or on one of a number of specified dates) set out in the terms of the swaption.

T

Technical provisions – Technical provisions is the name given to an actuarial valuation of the scheme's benefits earned to date using a method and assumptions chosen prudently by the trustees after taking actuarial advice and with the agreement of the employer.

Total return swaps – A swap agreement in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of an underlying asset, which includes both the income it generates and any capital gains. (For example, the dividends plus capital appreciation from a share (equity)).

U

Unleveraged fund – A fund which invests in swaps or gilt derivatives and other assets (such as bonds, cash etc.) whereby the fund value is equal to the total liabilities which are hedged using the underlying assets and derivatives in the fund.

Unrewarded risk – An unrewarded risk is one which is not associated with an obvious benefit for the party accepting the risk. For pension schemes, interest rate and inflation risks are often considered as unrewarded risks.

V

Variation margin – A payment that is made by the participants to the relevant clearing house based upon day-to-day price movements of the contracts that these participants hold. Utilised in the futures market and for some centrally cleared OTC derivatives.

Z

Zero coupon interest rate swap – This is a swap whereby fixed cashflows are exchanged for floating rate cashflows at maturity. It is effectively accumulating the interest payments on a par swap on a compound rate and exchanged at maturity. At the outset the present value of fixed rate cashflows equals the present value of the floating rate cashflows.

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