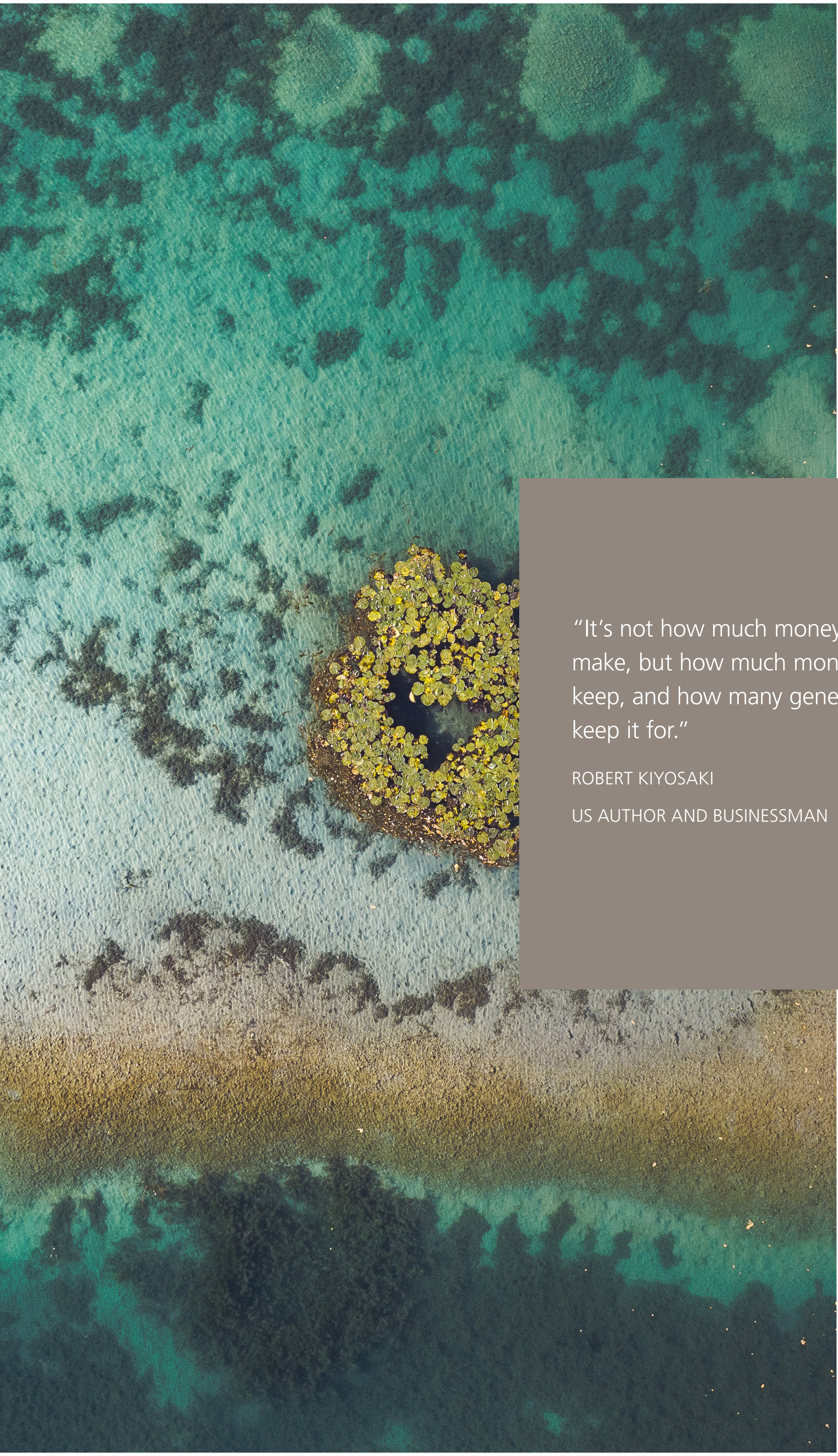
Steady and reliable income streams

An introduction to fixed income



"It's not how much money you make, but how much money you keep, and how many generations you keep it for."

ROBERT KIYOSAKI

US AUTHOR AND BUSINESSMAN

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What is fixed income and why invest in it?

What is fixed income?

Fixed income can be viewed as a form of debt, like an 'IOU'. When you purchase fixed income, or a bond as it is commonly referred to, you are lending money to the issuer of that bond—the borrower. In return for the loan, the borrower promises to pay you a specified rate of return (or coupon) during the life of the bond, and to repay the face value of the bond (the par value) when it matures.

What are the benefits of investing?

Steady and reliable income

Since coupon payments are incorporated into the structure of the security, fixed income can provide you with a steady and reliable income stream. Typically, coupon payments are compulsory and scheduled from the origination date of a bond—unlike the payment of share dividends, which are at the company's discretion.

Capital protection

Fixed income securities often appeal to risk-averse investors as they are generally less volatile than growth assets such as equities. Fluctuations in equity markets mean that portfolios can experience significant volatility over a short period of time. However, with fixed income securities, you can, at a minimum, expect to receive the par value back at the maturity date.

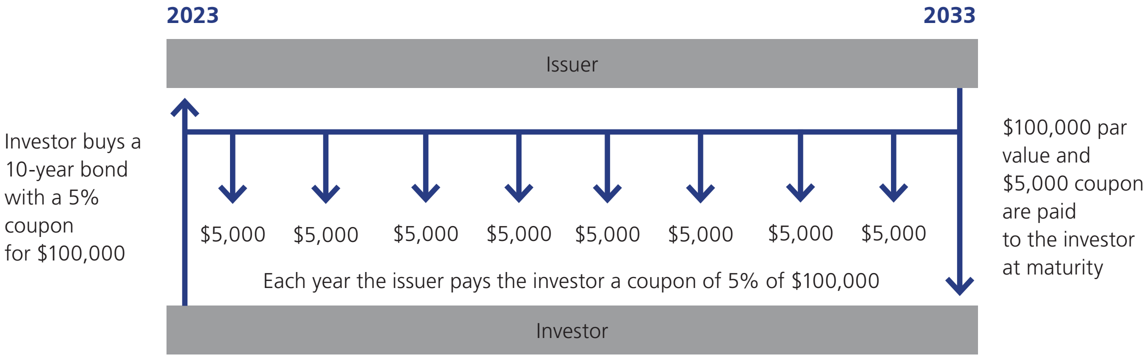
Diversification

Overall investment risk can be reduced through a diversified portfolio where investments are made across various asset classes. Diversification achieved through an allocation to fixed income securities over the long term can provide you with better risk-adjusted returns. This helps to reduce the overall volatility in a portfolio as well as preserve capital.

How can you invest in fixed income?

Fixed income securities can be purchased in either the primary or secondary market. In the primary market you can buy securities directly from the borrower, while in the secondary market, investors trade fixed income securities among themselves and the borrower doesn't participate in the trade.

Cash flow payments of a bond



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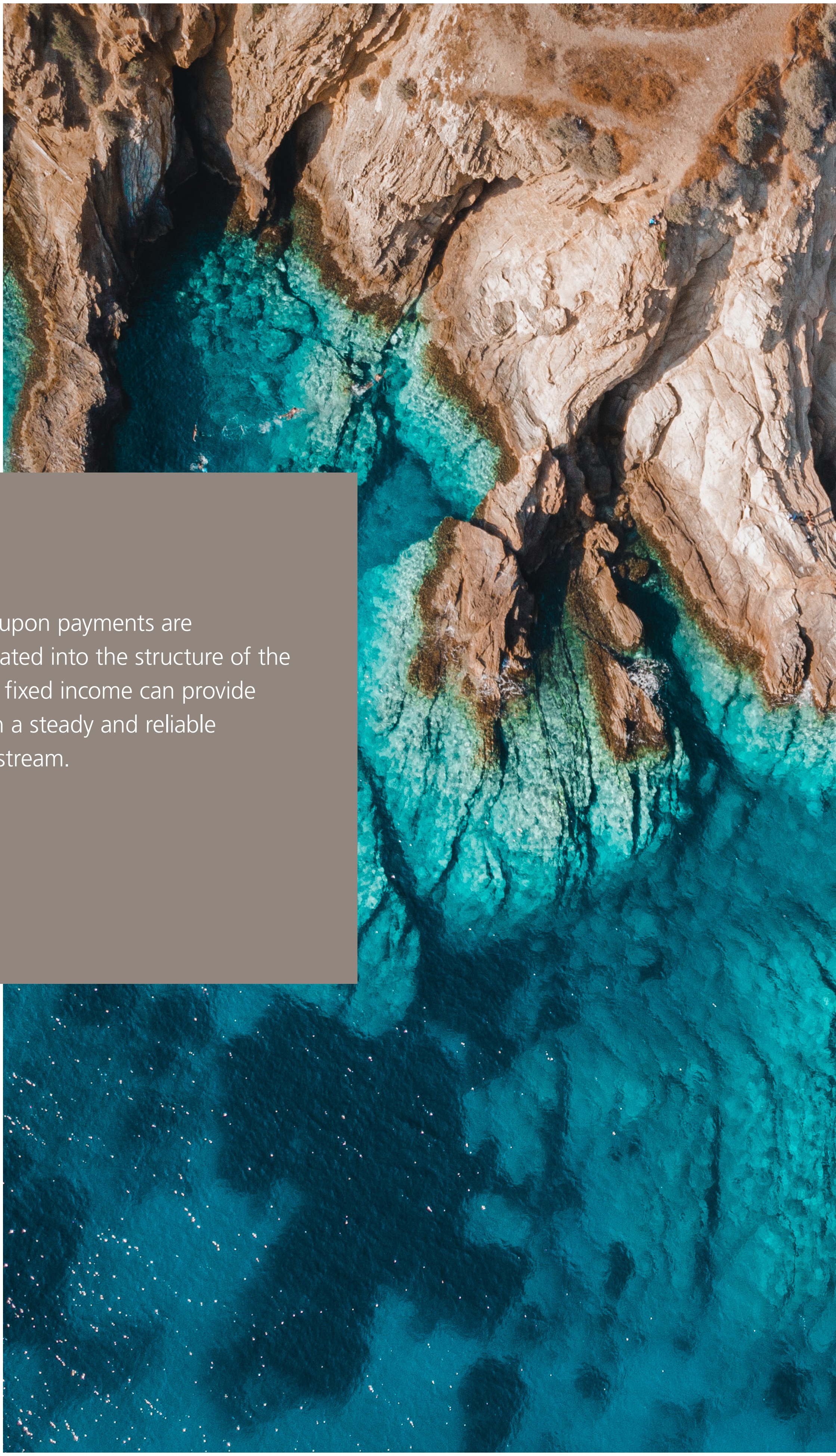


What types of securities can you invest in?

What are the main issuer segments?

The main issuer segments are government bonds, supranational and agency bonds, corporate bonds, financial bonds and asset-backed securities.

Government bonds typically carry the lowest risk, while corporate bonds and financials carry the highest risk. Most issuers will have a credit rating, which reflects the issuer's ability to repay its debts. Generally, the higher the risk associated with the issuer, the higher the yield you can expect to receive to compensate for that risk.

The main credit rating agencies are Standard & Poor's and Moody's Investors Service. Any bonds rated 'BBB' or higher by Standard & Poor's, and 'Baa' or higher by Moody's, are considered investment grade. Historically, companies rated investment grade have generally been able to withstand a recession and not default, while sub-investment grade companies experience higher rates of default.

The main issuer segments

- **Government**—Also referred to as sovereigns and treasuries, governments issue bonds to pay for their activities and pay off debts.
- **Supranational/agency**—International organisations, such as the European Investment Bank and World Bank, issue bonds to support their mandates.
- **Corporate**—Corporations issue bonds to raise funds so they can expand, cover expenses ,and refinance existing debt obligations. These securities are also referred to as credit.
- **Financial**—Financial institutions issue bonds to support their wholesale funding activities. These securities are also referred to as credit.
- **Asset-backed**—Financials and other lending institutions will pool assets, typically consisting of auto loans and credit card receivables, then use these assets as security on a bond. Financial institutions use these securities to raise money so they are able to offer more loan products.

What are the main maturity profiles?

The maturity date of a bond tells you when the par value of the bond will be repaid to the investor. As such, it's an important metric for determining a bond's valuation.

There are different types of maturities available in the bond market, appealing to a range of investors. Bonds with maturities between three and five years appeal mainly to the retail sector of the market, while bonds with maturities greater than five years appeal to institutional investors, such as pension funds and insurance companies.

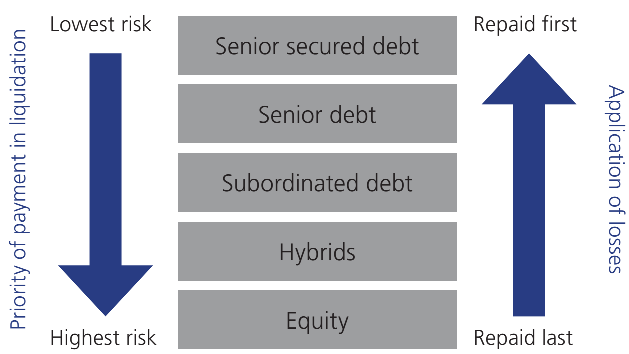
Where does the security sit in the capital structure?

A company's capital structure refers to how it finances its overall operations and growth by using different sources of funds—namely, debt and equity.

Within debt, the securities available can include senior secured debt, senior debt, subordinated debt and hybrids. As the following image shows, senior secured debt ranks higher in the issuer's capital structure than any other form of capital. This means that if the issuer were to go bankrupt, senior secured debt must be repaid before other creditors receive any payment. As such, these securities will generally have the lowest risk profile but will also offer a lower yield than securities ranking lower in the capital structure.

- **Senior secured debt**—Secured by collateral on which the lender has put in place a 'first lien' or legal right to secure the payment or debt.
- **Senior debt**—Not secured by collateral, but would have first claim to unsecured assets if the issuer went bankrupt.
- **Subordinated debt**—Would only be paid once the claims of senior debt holders had been met.
- **Hybrids**—These securities include a variety of risk profiles and structures issued by financials and corporates. They possess debt and equity-like features and, unlike traditional debt securities, typically have aspects of perpetuity (such as no maturity date) and coupon payments, which are discretionary. Some hybrids also offer franking credits, which can provide tax benefits to the investor.

Capital structure



Source: LGT Crestone. For illustrative purposes only.

Coupons, yields and other confusion

A closer look at coupons

Securities can have fixed rate, floating rate or zero rate coupons:

- **Fixed rate**—These securities provide a fixed amount of interest until the maturity date of the bond. As you have locked in an interest rate, the price of the security will fluctuate as interest rate expectations move. If, for example, rates move continuously higher, other investors may not want to pay so much for a security only yielding a fixed 3% for the next 10 years. Very simplistically, you are best to invest in a fixed rate security if you believe interest rates are more likely to move lower over the lifetime of the bond. This means you can receive a higher coupon as market rates fall.
- **Floating rate**—These securities have variable interest rates that are adjusted periodically to provide an income over a set benchmark, such as the 90-day bank bill rate. The price of the security will not be affected by changes in interest rates. However, the price can be affected by changes in credit spreads or changes in the issuing company's creditworthiness.
- **Zero coupon rate**—These securities don't pay a coupon—instead, they are sold at a discount to par and redeemed for the full par value at maturity.

A closer look at yield

Yield is the income return on an investment expressed as an annual percentage. There are two different measures of yield:

- **Yield to maturity**—Sometimes called gross redemption yield, this is the most commonly used measure of yield. It considers the current market price, par value, capital gain or loss, time to maturity and the coupon.
- **Current yield**—Sometimes called running yield, this is the annual payout on a security as a percentage of the current market price of the bond. While this yield is quicker to calculate, it doesn't consider the present value of future coupon payments. As such, it can overstate or understate the yield on an investment.

If you were to purchase a new bond and hold the security till its maturity date, then any change in the yield or price of the bond over its life is irrelevant. However, if you buy or sell an existing bond, the market price of the bond may fluctuate. As bond prices and yield have an inverse relationship, the yield for the security will also fluctuate, moving in the opposite direction of the price. The reason for this is because the price of existing bonds needs to adjust to reflect the price of newly-issued bonds. If a newly-issued bond trades at a higher yield, it will be more attractive to investors, so investors will sell the existing bond and buy the new one. This will continue until the existing bond's price adjusts so that its yield matches the newly-issued bond.

Modified duration

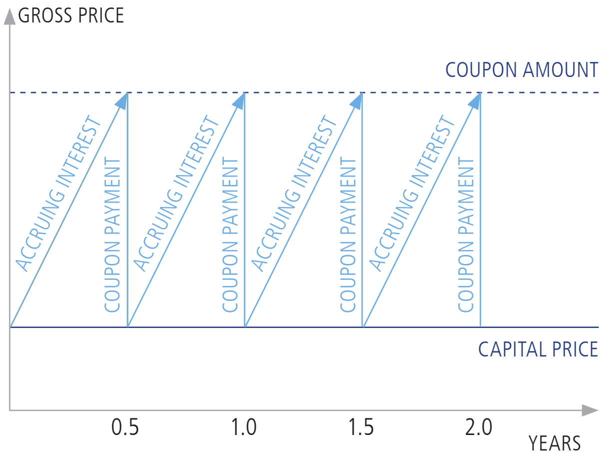
Modified duration is a measure of the sensitivity of the bond's price to changes in interest rates. It is expressed as a number of years, is the weighted average of all the cash flows from a security, and is determined by the bond's yield, coupon and maturity. If a security has a duration of five years, this means the security is expected to decrease in value by 5% if interest rates rise 1%—and it's expected to increase in value by 5% if rates fall 1%. Generally, the higher the duration, the more its price will drop as interest rates go up.

What affects the price of bonds?

There are several factors that impact the price of bonds. These include inflation, interest rates and the financial health of the issuer:

- **Inflation**—As inflation rises, central banks are likely to raise interest rates to keep inflation within a pre-determined band. In turn, as interest rates rise, to ensure a real rate of return, the capital price of the bond will fall.
- **Interest rates**—Some securities are more sensitive to changes in interest rates than others. Where interest rates are rising, new securities will generally be issued with a higher coupon than existing bonds. This tends to cause the price of the existing bonds with lower coupons to fall.
- **Financial health of the issuer**—Where there is doubt that the issuer will repay the bond, this will clearly affect the price of the security. As mentioned earlier, credit ratings are typically used by the market to assess the risk associated with individual issuers.

The price you pay is the gross price—the capital price plus accrued interest



Source: LGT Crestone. For illustrative purposes only.

When bond prices are quoted in the market, they are quoted using the capital price. This is the underlying value of a bond ascribed by the market and doesn't include accrued interest.

The capital price is generally stable over time. When the price changes, it's for an economic reason, such as a change in interest rates or in the bond issuer's credit quality. However, focusing on the capital price alone is not enough, as you will also need to calculate what the accrued interest is.

In the following chart, we're assuming that the capital price of a bond remains constant over two years, although it would fluctuate due to interest rates and other factors. Note that the bond price steadily increases each day until reaching a peak the day before an interest payment is made. It then drops back to the capital price on the day of the interest payment.

How active management can help mitigate risk

Key risks to be aware of

There are specific risks you should be aware of when investing in fixed income securities. However, by taking an active approach to investing, many of these risks can be mitigated or eliminated.

Key risks

Credit—Changes in the health of an issuer are often captured by the issuer's credit rating. As with shares, if negative market sentiment exists around a certain issuer, the price of the issuer's bonds will fall as investors become concerned they may not receive their money back on their investment.

Currency—Investing in a foreign currency bond can provide international exposure, but it can also create foreign exchange risk. This is where movements in the foreign exchange rate devalue the bond in Australian dollar terms.

Inflation—If you hold a bond that is returning 5% per annum, and inflation rises to 7% per annum, you would effectively lose money and your real rate of return would be -2%.

Interest rate—Given the inverse relationship between price and yield, if interest rates rise, then the capital price of a bond will decrease. If a new bond becomes available at a higher interest rate, this will decrease the value of any existing bonds, which may be paying a lower coupon. Floating rate notes limit your exposure to this risk.

Liquidity—Liquidity risk is where there isn't enough depth in the market for you to sell your investment. Bond markets are generally less liquid than equity markets, particularly for over-the-counter securities which aren't listed on an exchange. Securities that have larger issue sizes are more liquid—generally, $500 million for a corporate bond and $1 billion for a bond issued by a financial institution.

Reinvestment—As your existing bond reaches its maturity date, the credit risk associated with the bond lessens, and so too does the return from the bond. This means that the bond is no longer reflecting your intended risk-return profile. There's also an increased risk that the proceeds you receive when the bond matures will need to be reinvested at a lower rate. To overcome this risk, an active manager can identify select opportunities in the market prior to your bond reaching its maturity date, helping you to maintain your intended risk-return profile.

Time—The longer the maturity of a security, the higher the risk. This is because, given the uncertainty that comes with time, the security may be susceptible to any of the risks outlined above. Typically, longer-dated assets have a higher yield to compensate for taking on additional risk.

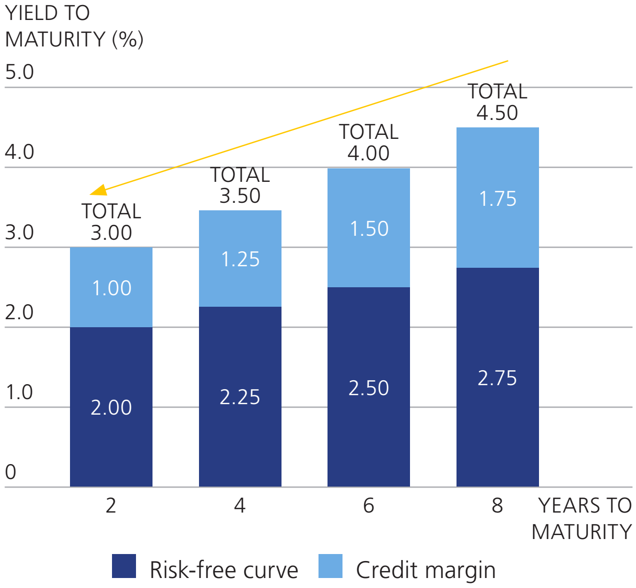
Take control of reinvestment risk

The first key difference between passive and active management is the ability to take control of reinvestment risk. As explained earlier, reinvestment risk is the risk that you are not able to reinvest cash flows from an investment at a rate equal to the investment's current rate of return. By waiting for a security to mature, the passive investor has limited his or her reinvestment opportunities to only those bonds available on the maturity date.

Maintain your risk-return profile

The second key difference between passive and active management is the ability to maintain a risk-return profile. As the graph below shows, all else being equal, the yield of a bond will typically fall over time. This is because, as the bond approaches its maturity date, the credit margin associated with the bond will fall. The credit margin is the premium over the risk-free curve for taking on additional credit risk. The risk-free curve is the theoretical rate of return that you would expect for a risk-free investment over a specified period of time. As there is less risk associated with lending for shorter periods of time, the credit margin will typically fall over time, and thus you may not be maximising the returns from your invested capital and maintaining your intended risk-return profile.

How the yield of a bond typically falls over time



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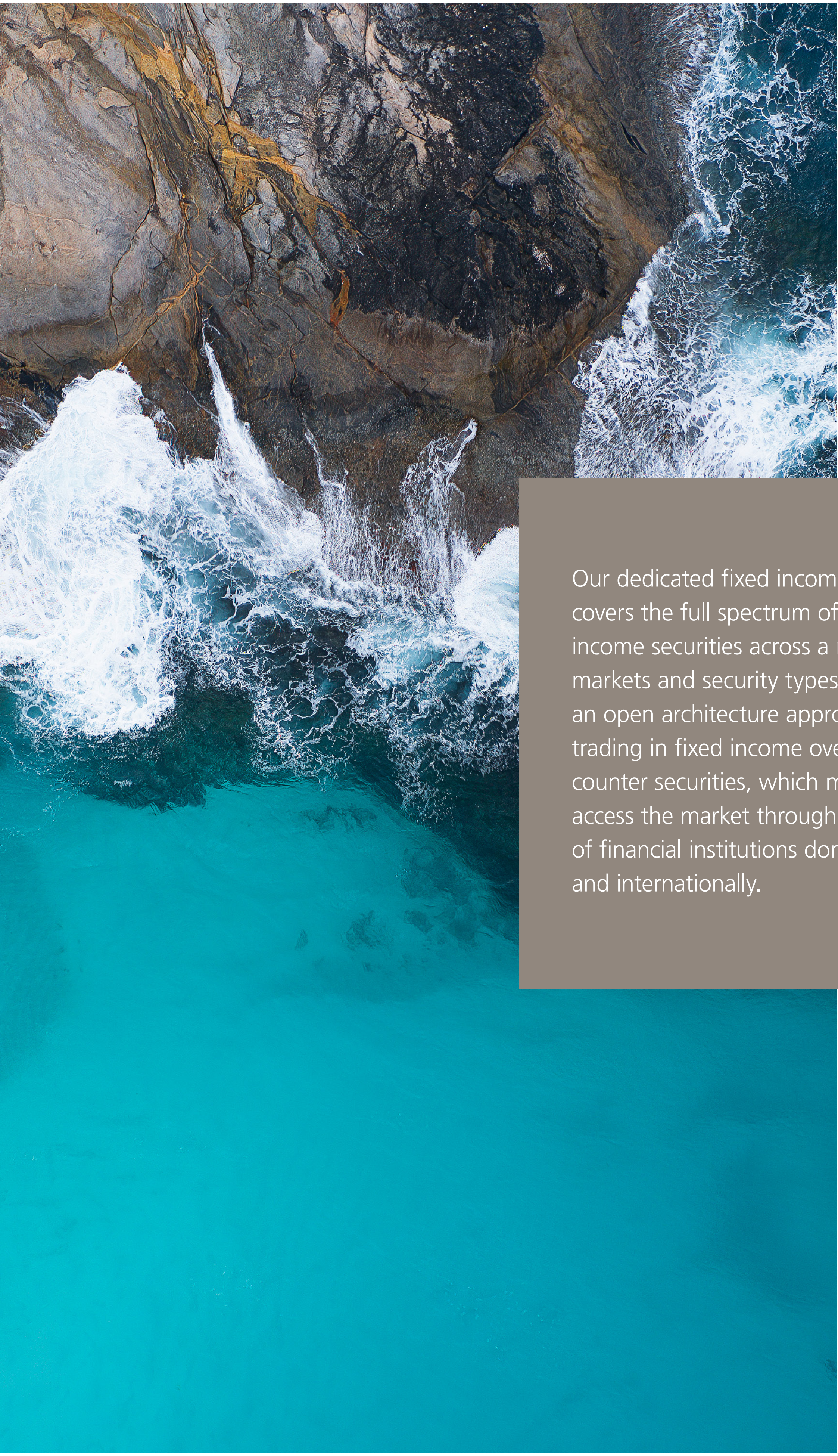

Our dedicated fixed income team covers the full spectrum of fixed income securities across a range of markets and security types. We have an open architecture approach to trading in fixed income over-the-counter securities, which means we access the market through a variety of financial institutions domestically and internationally.

Contact us

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