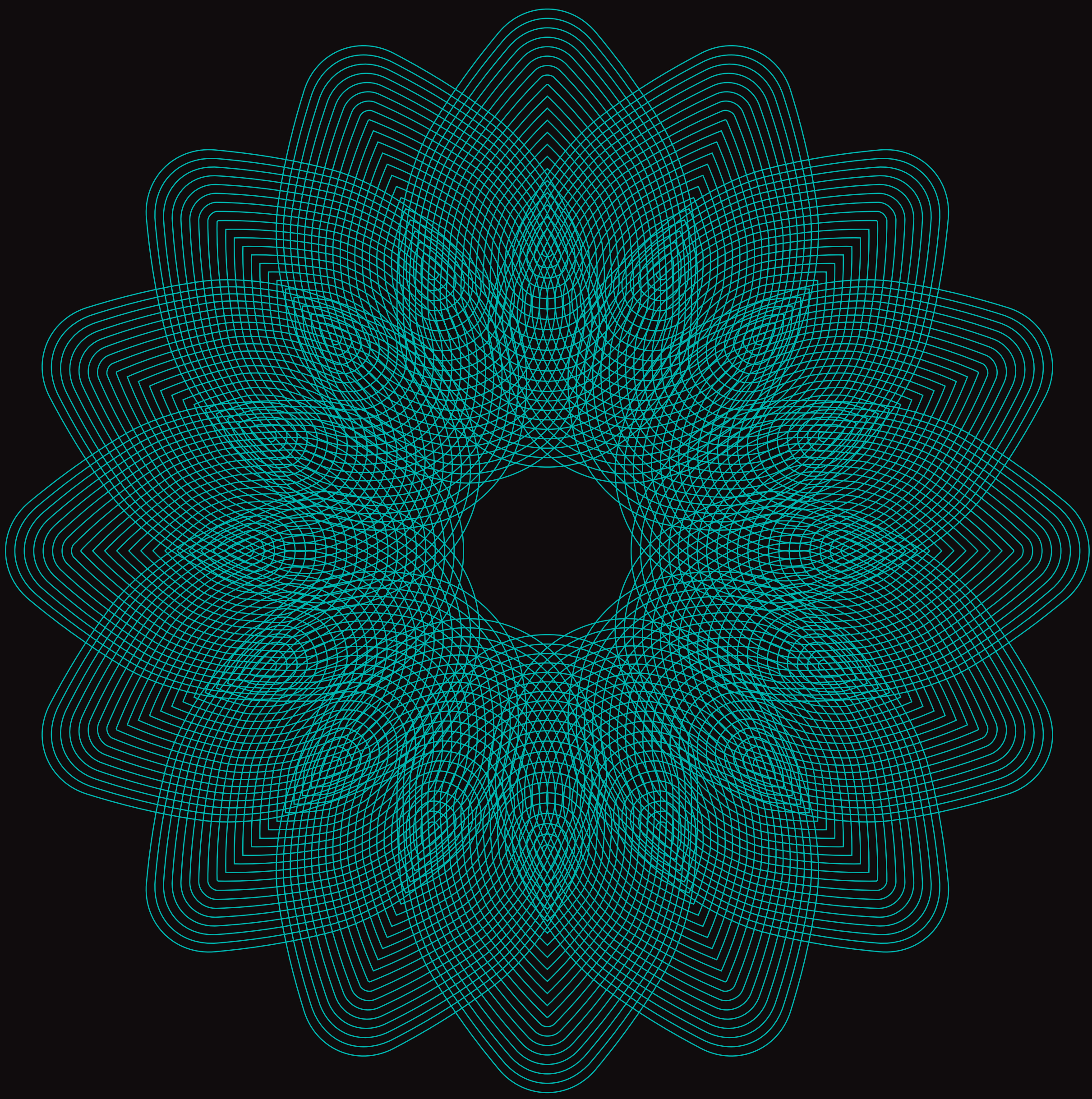
Deloitte.
Access Economics



The Corporate Bond Report 2018

Australia's growing appetite for corporate bonds

Commissioned by FIIG Securities Limited

Foreword

Jim Stening
Managing Director
FIIG Securities Limited

A fundamental cornerstone of any properly functioning capital market is access to debt capital. The ongoing development of the Australian corporate bond market will help to generate investment opportunities along the risk return spectrum between cash and equities. It will also enable the funding of a much broader range of opportunities for borrowers.

This report demonstrates the low allocation both private and professional Australian investors have to corporate bonds relative to the rest of the world. It is now time for Australians to consider a more diversified approach to asset allocation to help reduce periods of extreme volatility for investors.

Diversified asset allocations across a balanced mix of asset classes is particularly important given our ageing population and the increasing reliance on the growing superannuation savings pool to sustain Australians in retirement.

Market commentators, legislators, superannuation fund managers and financial advisors need to consider what constitutes a debt investment for investors and their allocation to these assets.

At the same time, the options for borrowers in Australia have been limited to the traditional debt providers, whose provision of credit is not suited for every organisation.

This report helps to shine a spotlight on what the bond market is comprised of, how investment in the bond market has performed and the potential of the corporate bond market in Australia.

In commissioning this report, we hope to add to the momentum of change and contribute to removing the existing barriers to further growing the Australian corporate bond market, by encouraging investors and borrowers to engage with the exciting opportunities being made available.

Contents

Australia's growing appetite for corporate bonds

What's the opportunity?

More than **$1 trillion** of corporate bonds are outstanding in Australia: the corporate bond market is around **70%** the size of the listed share market (ASX)

Only **47%** of the Australian corporate bond market is owned by Australian investors

Average gross annual return of Australian bonds was **6.1%** between 2006-16, compared to **4.3%** for Australian shares

Snapshot of private investment

Only **16%** of high net worth individuals in Australia directly own corporate bonds

Corporate bonds are **11%** of total portfolio assets for individuals with direct holdings

95% of corporate bond investors own AUD-denominated bonds, while **72%** own USD-denominated bonds

Why corporate bonds?

Expected yield of an investment is the **#1 consideration** affecting individuals' investment decisions

Reasons for holding corporate bonds: **73%** for a reliable income stream; **72%** for the level of return given risk profile; **54%** for capital preservation

Older Australians have larger corporate bond holdings: corporate bonds are **22%** of assets for individuals aged **55+**, compared to **3-4%** for younger groups

Barriers to investing

84% of high net worth individuals in Australia do not own corporate bonds

Lack of awareness of the benefits of bonds identified as a barrier to investment by **38%** of non-investors

Almost 70% of non-investors have insufficient understanding to invest in corporate bonds

What's the outlook?

86% of corporate bond investors have had a positive experience, and a net **37%** intend to invest more in the next 12 months

A net **15%** of non-investors intend to invest in the next 12 months. Therefore the share of high net worth individuals owning corporate bonds could grow from **16% to 29%**

Low yields in cash investments is the **#1 concern** identified by investors. And **40%** are concerned about government policy uncertainty

Snapshot of issuer activity

Non-financial corporations in Australia raise around **10%** of total funding from corporate bonds

Number of unrated issues in Australia increased from 16 in 2012-14 to **39 in 2015-17**

Value of unrated issues in Australia was more than **$1.1bn** in 2017

Highlights

The Australian corporate bond market has grown by more than 40% since 2010, currently reaching over $1 trillion of Australian corporate bonds outstanding.[1] This is more than two-thirds the size of the Australian stock market – yet, corporate bonds do not receive nearly as much attention as an investment option in Australia and fly under the radar of most investors.

Historically, corporate bonds have only been issued by large rated companies in Australia and purchased by overseas or institutional investors. Innovations in the Australian corporate bond market are enabling greater access for both issuers and investors. Recent years have seen increased issuance by unrated corporates seeking direct access to capital markets, and greater demand for corporate bond investments from private and non-institutional corporate investors.

This report unpacks the latest trends in Australia's corporate bond markets, seeking to understand what's driving investor and issuer activity, what's holding back market participation, and what might happen next. The research is informed by a Deloitte Access Economics survey of more than 700 high net worth individuals (HNWIs – individuals with more than $2 million of investable assets), as well as consultations with corporate investors and debt issuers.

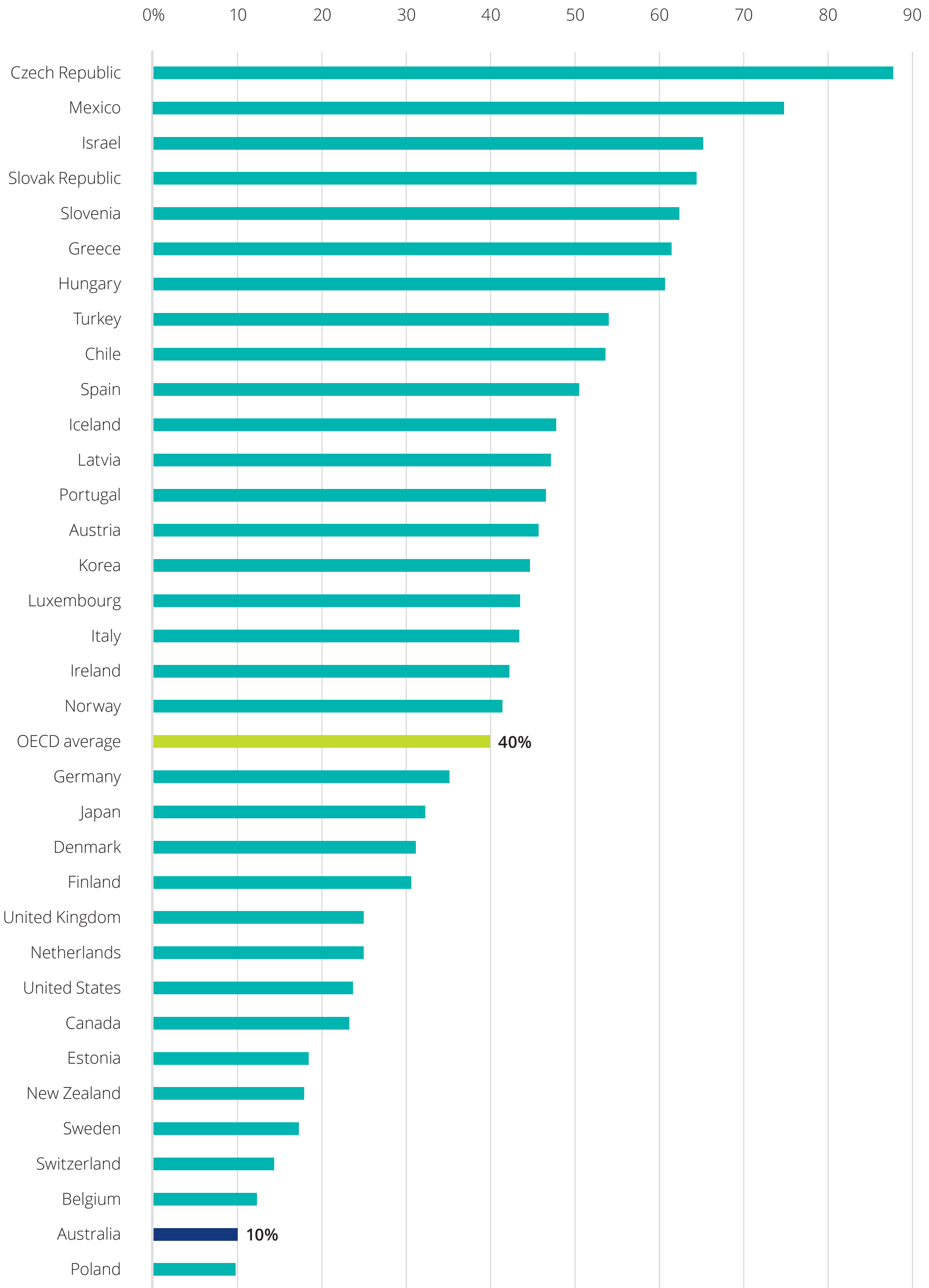
As at June 2017, total bonds on issue by Australian banks was around $540 billion, with another $460 billion on issue by other financial institutions, and $255 billion by non-financial corporates. Almost half (47%) of outstanding bonds are owned by Australian companies, governments and individuals, with the remaining 53% owned by overseas investors. But direct market participation by Australian investors is relatively low compared to other countries: private investors hold less than 1% of all corporate bonds on issue in Australia compared to almost 20% in the United States, and Australian superannuation funds hold only 10% of their assets in bonds and bills compared to an OECD average of 40% (Chart i).

While this may partly be due to regulatory differences, such as different countries mandating that retirement funds hold a higher proportion of fixed income securities, it suggests that Australia's corporate bond market is relatively underdeveloped. However, a number of conditions – such as an increasingly aging population – mean that the Australian bond market is well positioned for further development over the coming years.

[1] We use the term 'corporate bond' to describe bonds that have been issued by both financial and non-financial corporations.

Chart i

OECD countries' pension fund asset allocations in bonds and bills, 2016

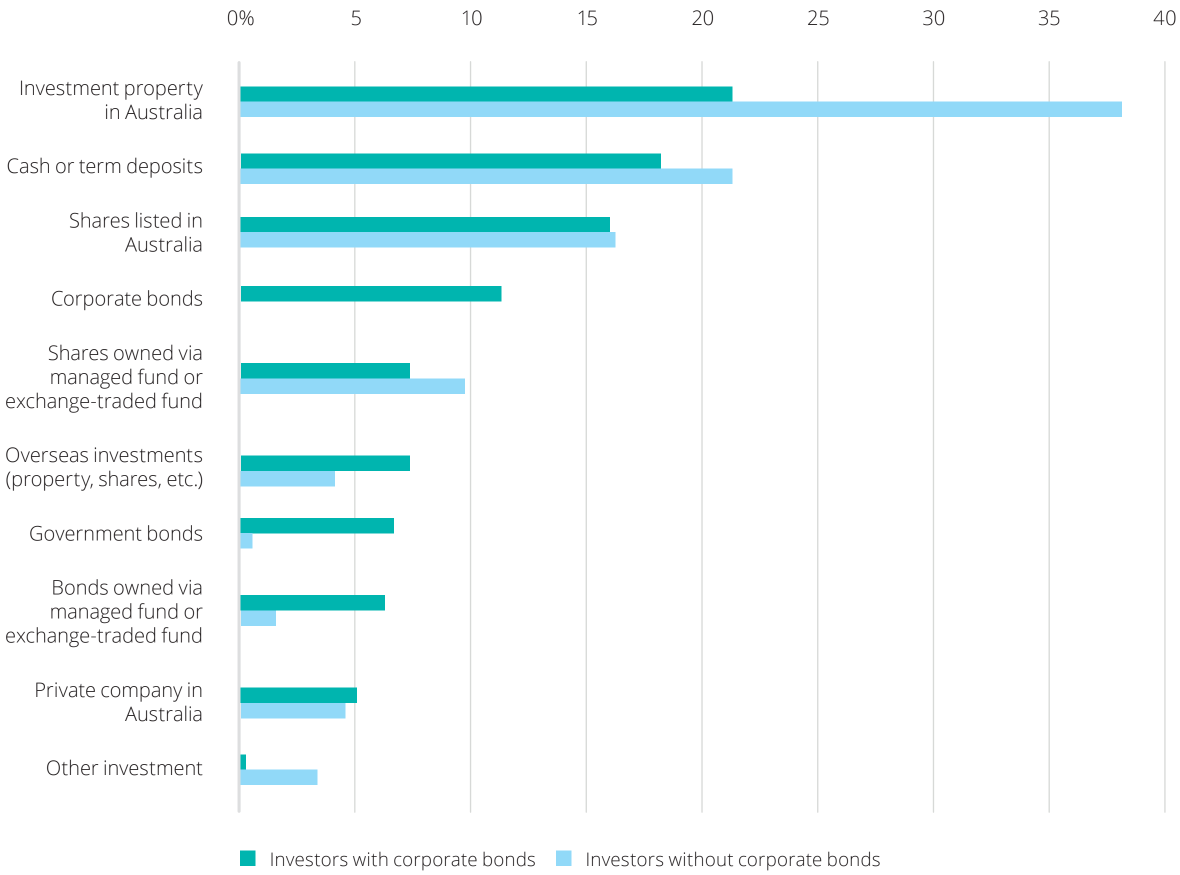


Source: OECD Pension Markets in Focus No.14 (2017)

There's been growing interest in corporate bond investments from private and corporate investors in Australia. Our research finds that 16% of HNWIs in Australia have direct holdings of corporate bonds. For the HNWIs who own corporate bonds, this asset class represents an average of 11% of their total portfolio – the fourth highest investment allocation behind property, cash and shares (Chart ii). Private investors who do not own corporate bonds have a much higher proportion of their assets allocated to investment property.

Chart ii

Average asset allocations of HNWIs' investment portfolios

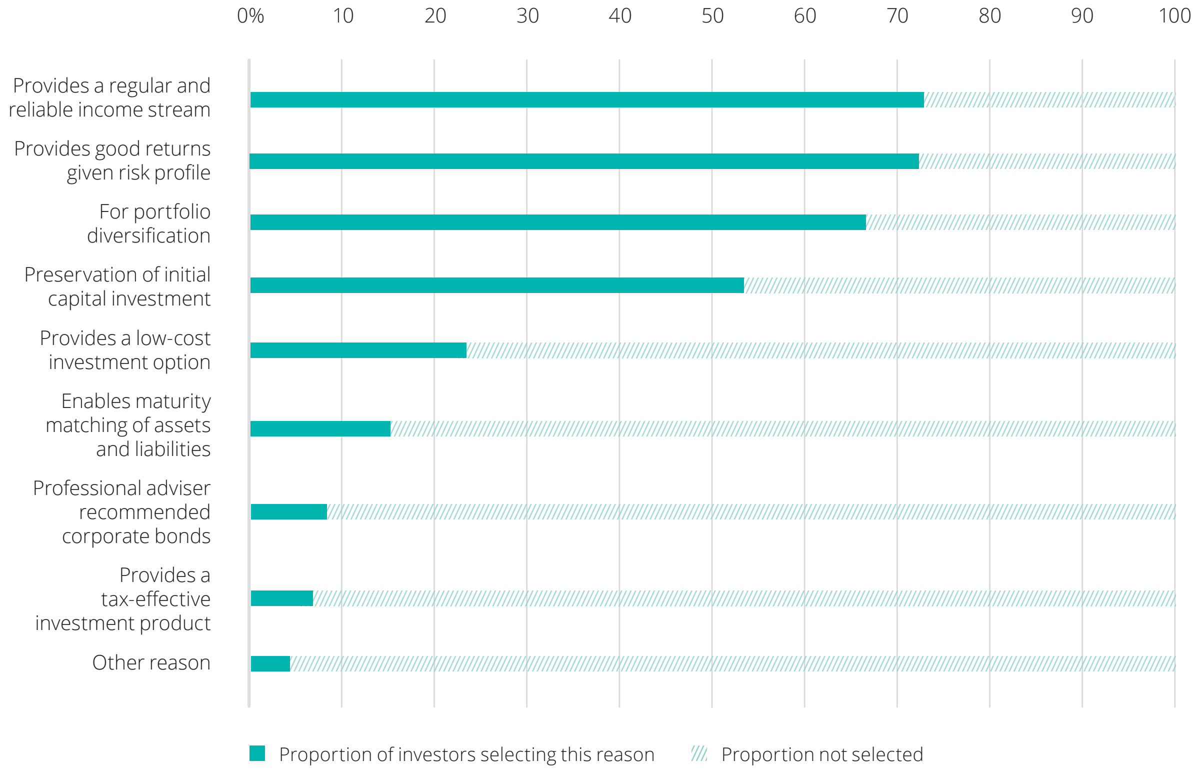


Source: Deloitte Access Economics survey (2018)

The main drivers of corporate bond investment are clear: around three-quarters of HNWIs with corporate bonds believe they provide a reliable income stream and relatively good returns given the risk profile (Chart iii), and corporate investors cite similar reasons for holding corporate bonds. As a fixed income asset, corporate bonds provide capital stability and regular interest payments. But they offer higher yields than other fixed income securities such as government bonds and deposits, in order to compensate investors for the additional risks associated with corporate issuers.

Chart iii

Reasons for including corporate bonds in current investment portfolio



Note: Respondents were allowed to select multiple reasons for investing in corporate bonds

Source: Deloitte Access Economics survey (2018)

Given these drivers, corporate bonds can be well-suited to the investment preferences of private investors transitioning to retirement. Retirees rely on accessing a predictable and stable income stream from their investments, and have a lower tolerance for risk and volatility as they have less time to rebuild their savings in the event of large losses. Older private investors in Australia have significantly larger holdings of corporate bonds, which represent 22% of assets for HNWIs aged 55 years and older compared to only 3-4% for younger age groups.

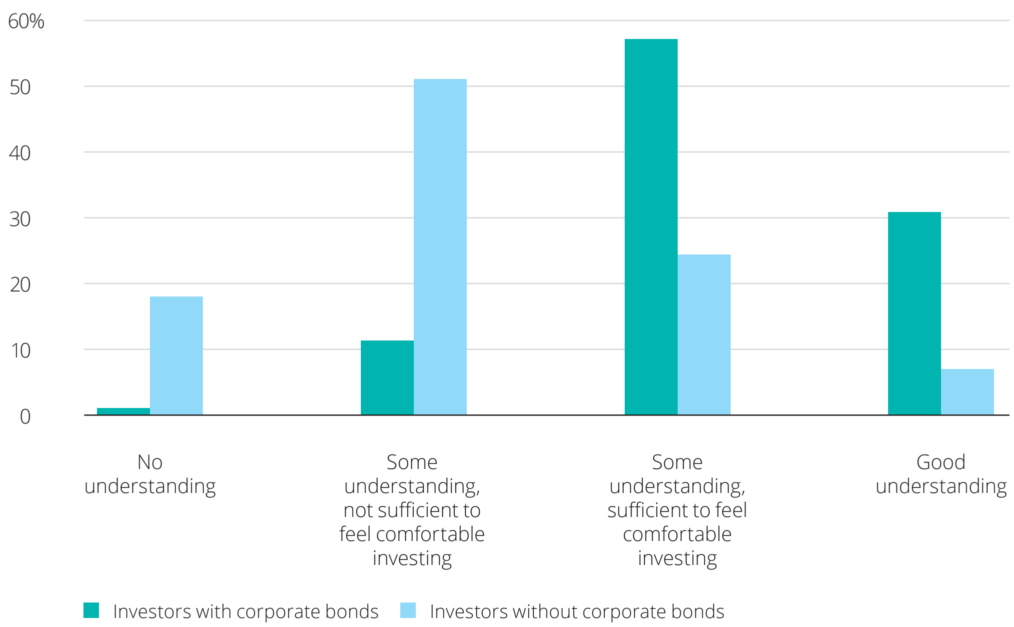
Market innovations are facilitating greater investor access to Australian corporate bonds. Bond investment by private individuals has historically been relatively low, because most bonds are traded in the professional market ('over the counter') and in large parcels of $500,000 or more.

However, recent innovations in the corporate bond market have enabled greater private investor activity, including fixed income investment service providers offering smaller parcels of corporate bond investments as low as $10,000.

But a lack of understanding of the role and features of corporate bonds continues to be a barrier to investing by both private and corporate investors in Australia. For private investors, our research finds that almost 70% of HNWIs without corporate bond holdings have insufficient understanding to feel comfortable investing in corporate bonds (Chart iv). And for corporate investors that do not have large corporate bond holdings or have only recently started investing, a lack of market knowledge can hold back further investment.

Chart iv

Level of understanding of corporate bonds as an investment



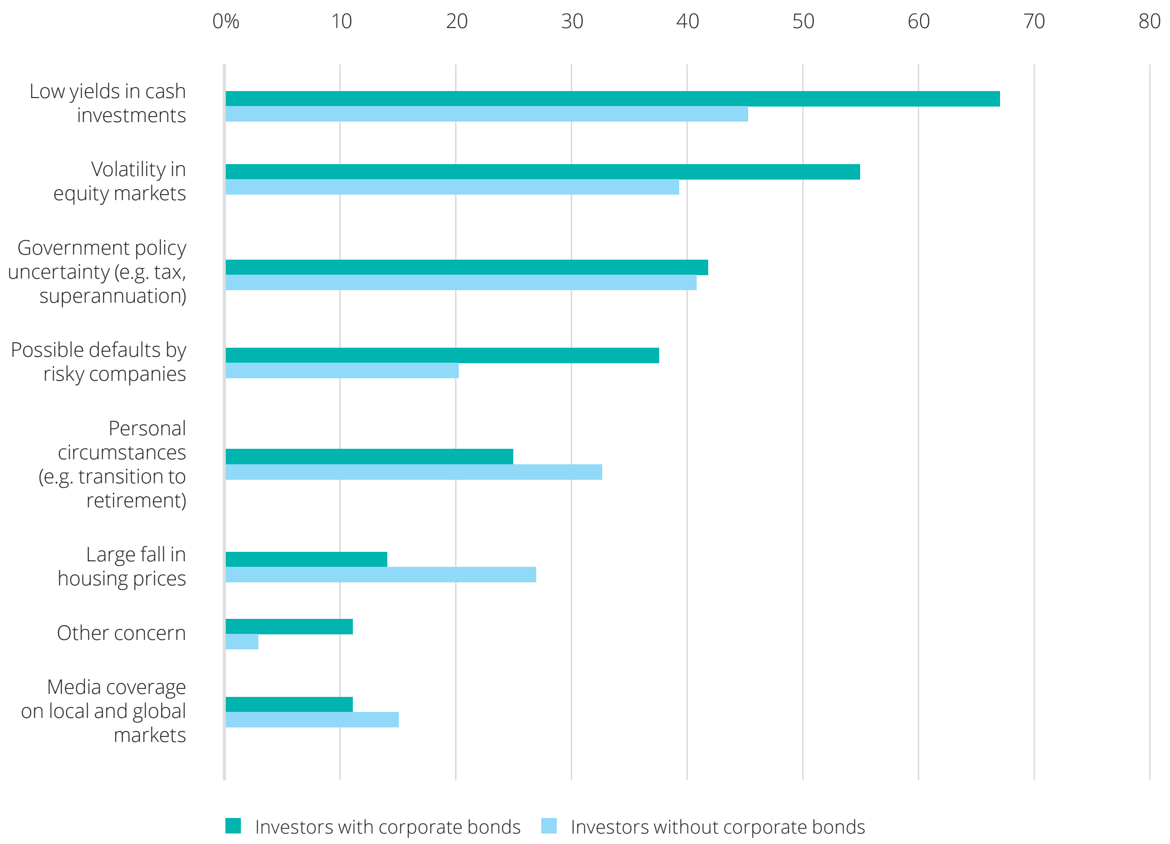
Source: Deloitte Access Economics survey (2018)

Going forward, it is anticipated that investor participation in Australia's corporate bond market will continue to grow. Australia's population is ageing, with the number of Australians aged 65 years and over forecast to increase to almost 5.7 million by 2030, which will support demand for corporate bonds. Australian investors are also concerned about several features of the external market environment which may encourage greater corporate bond investment.

Low yields in cash investments and uncertainty around government taxation policy are two of investors' top three concerns about Australia's current investment environment (Chart v). With corporate bonds providing a higher-yielding fixed income asset and also being relatively unaffected by tax changes, these factors could lead to portfolio rebalancing away from other investments and towards corporate bonds. Furthermore, HNWIs without corporate bond holdings were more likely to identify falling house prices as a concern, consistent with their higher portfolio allocations to property investments (Chart ii).

Chart v

HNWIs' broader concerns about the current investment environment



Note: Respondents were allowed to select multiple concerns about the current investment environment

Source: Deloitte Access Economics survey (2018)

On the supply side of the market, bonds also represent an important funding source for Australian companies. While bonds currently represent only 10% of total funding for non-financial corporations in Australia, they can fill funding gaps where banks are unwilling to lend the full amount of capital required for a company's operations or growth. Many companies are also seeking longer-term funding certainty in their debt financing, which bond funding can provide. Moreover, unlike equity raisings, bond issuance does not have dilutive impacts on company ownership.

While historically only companies with a credit rating have been able to access Australia's debt capital markets, in recent years innovative funding solutions have enabled unrated companies to issue bonds as well. These unrated deals have been facilitated by key market players such as bond brokers and banks. Demand for these new funding solutions from unrated corporates has partly been driven by tighter corporate lending conditions in the Australian banking sector, such as tougher reporting standards and stronger balance sheet or cash flow requirements.

There is clear potential for growth in the Australian corporate bond market. Our research on future investment intentions suggests that the share of HNWIs that own corporate bonds could increase from 16% to 29% over the next 12 months: a sign that private investors see potential in corporate bond investments. This would be the equivalent of almost $30 billion in additional corporate bond investment by private investors, though it still represents a relatively small share of Australia's $1 trillion-plus corporate bond market. Ongoing market innovations and new funding products will continue to support this growth over the coming years.

A brief introduction to corporate bonds

A bond is a debt security issued by an organisation to raise funding for their operations, investments or to refinance maturing debt. The issuer sells the bond at its face value, with the promise to repay this face value amount at the end of the bond's life (at maturity). Through the life of the bond, the issuer makes regular interest payments (the coupon), to the bondholder. Between the bond's issuance and maturity dates, its yield can deviate from the coupon rate should its price fluctuate away from its face value. An increase in a bond's price is associated with a reduction in yields, and vice versa (AMP Capital, 2018).

Bonds can be issued in Australia or in overseas markets such as the United States and Europe, and the organisation issuing a bond can be a public institution such as a government, or a corporation. **This study focuses on the corporate bond market: in this report, 'corporate bond' is used to describe bonds that have been issued by financial and non-financial corporations.** There are a number of features that can vary across different corporate bonds.

Rating
Credit rating agencies rate bonds depending on the issuer's perceived risk of default. Investment grade bonds are rated BBB- or higher by Standard & Poor's, Baa3 or higher by Moody's, or BBB- or higher by Fitch. In Australia, corporate bonds that are below investment grade or unrated are typically issued by smaller corporations.

Recent years have seen an increase in unrated companies issuing high yield bonds; possibly to overcome more conservative bank lending (BondAdviser, 2017). However, it can often be easier for lower-rated issuers to source funding from offshore bond markets, particularly the United States (FSI, 2014).

Term
The term of a bond is the length of time remaining before it matures. The average term to maturity of a corporate bond issued in Australia is slightly less than 5 years. Companies can typically borrow funds for longer terms in offshore bond markets, enabling access to capital for a longer period than through intermediated lending via the banking system (ELRI, 2017).

Currency
As corporate bond markets bring together international borrowers and investors, companies can issue bonds in a range of currencies, which can help to manage foreign currency funding requirements and risks. There is also a larger investor base in offshore markets, particularly for corporate bonds with lower credit ratings, longer terms, or issued in larger sizes (FSI, 2014). Much of the foreign currency debt issued by Australian companies is swapped back into Australian dollars (Bergmann and Nitschke, 2016), suggesting that companies are borrowing offshore to access the wider range of investors overseas, rather than to gain foreign currency exposure. Since foreign investors may not want to take on foreign currency risk, Australian companies seeking to tap into these investors may issue in the foreign currency and swap cash flows back to Australian dollars for use in local operations.

Default implications
The risk profile of a corporate bond can also depend on what happens in the event that the issuer defaults. For example, a bond can be secured, i.e. tied to specific assets owned by the company which are used as collateral for the debt security. In the event that the company defaults, secured bondholders have first claim on the funds raised by the sale of these specific assets (NAB, 2013a). There are also unsecured corporate bonds that are not linked to particular collateral, where the issuer's reputation and perceived economic strength may be sufficient to satisfy investors that the risk of default is very low.

1

The Australian corporate bond market is growing

What's the opportunity?

More than **$1 trillion** of corporate bonds are outstanding in Australia: the corporate bond market is around **70%** the size of the listed share market (ASX)

Only **47%** of the Australian corporate bond market is owned by Australian investors

Average gross annual return of Australian bonds was **6.1%** between 2006-16, compared to **4.3%** for Australian shares

Corporate bonds are generally issued for different purposes by financial versus non-financial corporations. They provide banks and other financial institutions with funds that can be used for lending or making other payments. Meanwhile, for non-financial corporations, bonds represent an alternative source of debt financing to lending offered by banks.

There is currently more than $1 trillion of Australian corporate bonds outstanding. Since a large share of finance in Australia is intermediated by banks and financial institutions, a significant portion of corporate bonds have been issued by companies in the finance sector (Kent, 2017).

As of June 2017, Australian banks had approximately $540 billion of corporate bonds outstanding, of which around 40% had been issued in Australia (Chart 1). A further $460 billion of corporate bonds had been issued by other financial institutions such as insurers and investment funds, almost all of which was issued in Australia. Finally, non-financial corporations had around $255 billion of corporate bonds outstanding, 20% of which had been issued in Australia.

Chart 1

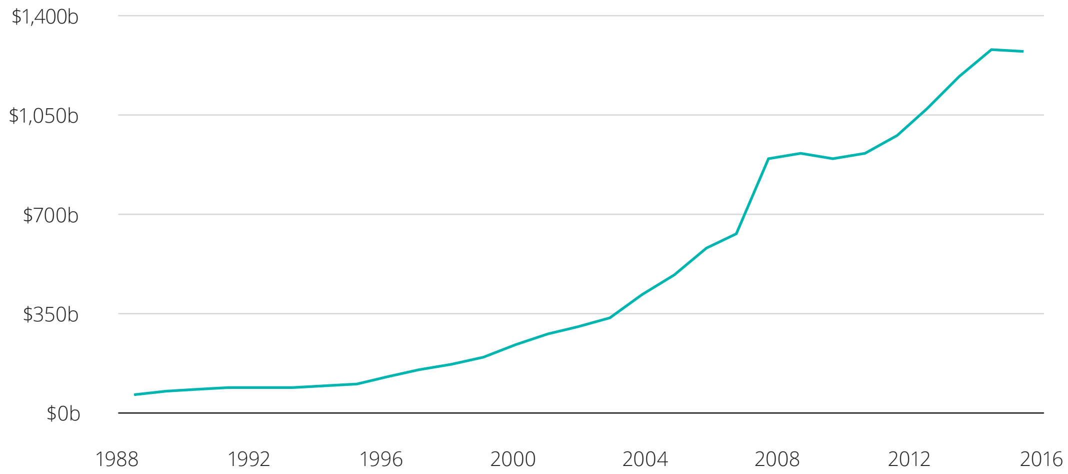
Bonds outstanding by issuer, June 2017

Source: ABS 5232.0, Australian National Accounts: Finance and Wealth (2017)

Significant growth in the stock of Australian corporate bonds outstanding has occurred over the past 30 years (Chart 2). Issuance of corporate bonds increased rapidly from relatively low levels in the decade leading up to the global financial crisis, particularly as Australian banks broadened their funding sources by issuing bonds (Black et al., 2012). Corporate bond market activity slowed during the crisis as investor demand for private sector securities declined due to a broad reduction in risk appetite (Kent, 2017). Since the crisis, the amount of bonds outstanding has generally continued to rise over recent years.

Chart 2

Total corporate bonds outstanding as at the end of the year, 1988 to 2016

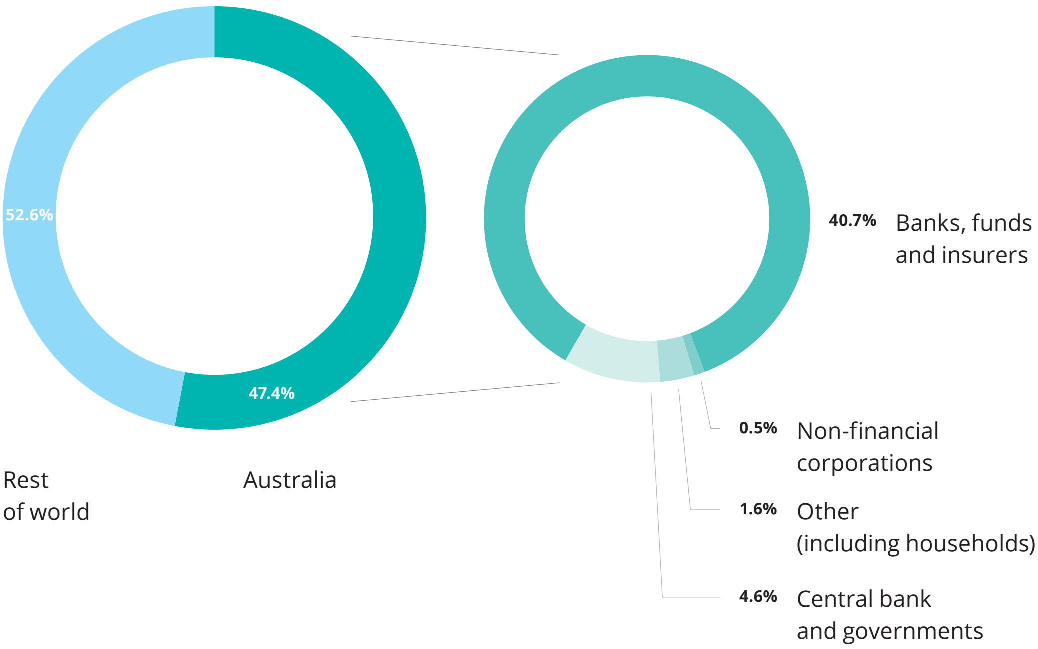


Source: ABS 5232.0, Australian National Accounts: Finance and Wealth (2017)

Around half (53%) of all corporate bonds outstanding issued by Australian companies are currently owned by overseas investors – traditionally from the United States and Europe, but also from investors in Asia (AFMA, 2017). The majority of demand by Australian investors comes from institutional investors such as banks, investment funds, superannuation funds and insurers (Chart 3). A key benefit of holding corporate bonds is that they provide institutional investors with a means to diversify large investment portfolios.

Chart 3

Ownership share of outstanding Australian corporate bonds, June 2017



Source: ABS 5232.0, Australian National Accounts: Finance and Wealth (2017)

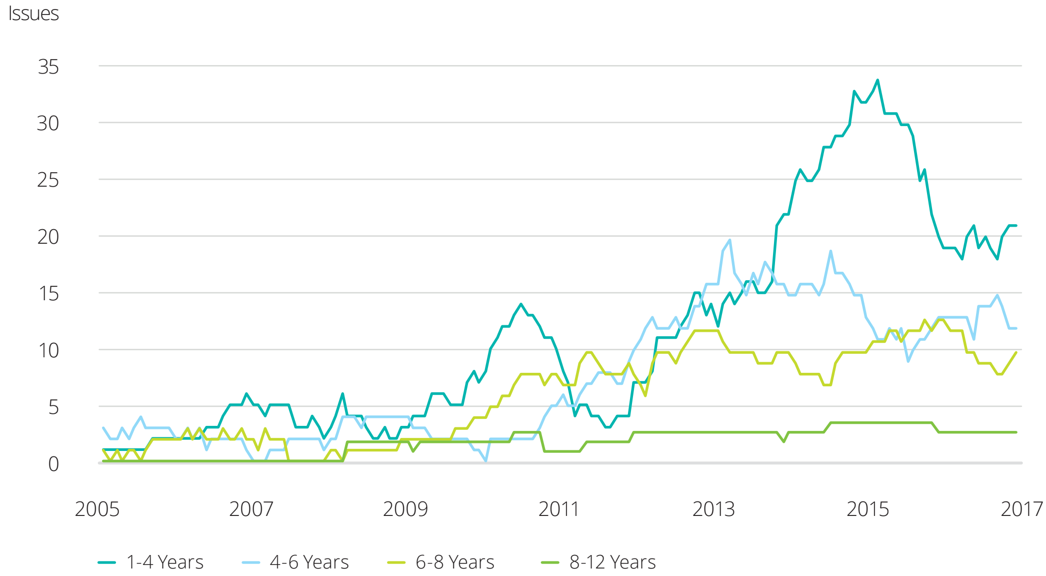
In recent years, there has been growing interest in corporate bond investments from non-institutional private and corporate investors, which currently comprise a small fraction of overall corporate bond ownership (Dolor, 2017). Demand side factors that could be driving this trend include efforts by regulators and industry to increase awareness on fixed income securities such as corporate bonds, volatility in the share market causing investors to consider alternative asset classes, and an ageing population. Population ageing is expected to support private investor demand for fixed income securities because retired individuals typically shift investments away from equities and towards more stable assets such as bonds (Stothard, 2013). The increasing private investor activity in Australia's corporate bond market will be discussed further in Section 2.

On the supply side, companies can finance their operations through a balance of equity and debt, and Australian companies have historically used bank loans for debt financing rather than bonds (ELRI, 2017). However, corporate bonds can be an essential component of a company's overall capital structure, representing an alternative option to equity and bank debt and providing greater diversification to a company's funding mix. In this context, corporate bonds play an important role in the Australian economy by providing companies with direct access to financial capital, which can then be put to productive use in expanding business operations and investing in new projects (ICMA, 2013).

As discussed above, the main issuers of corporate bonds in Australia are banks and other financial institutions (Chart 1). Bonds issued by non-financial corporations tend to be from large and well-established corporations, such as Wesfarmers or Telstra, and resources-related corporations. These companies are in capital intensive businesses and therefore require relatively large amounts of financing. Resources-related companies increased their bonds on issue by three times during the mining boom between 2008 and 2015 (Kent, 2017).

In the mid-2000s, there were virtually no BBB non-financial corporate bonds issued in Australia; however, over the past five years there has been increased issuance of these bonds, especially at shorter maturities of 1-4 years (Chart 4). There are also a growing number of unrated corporate debt issues in the Australian bond market, which have offered initial yields of around 4-6 percent above government bond yields, and have increased the breadth of corporate bond investments available to Australian investors (NAB, 2015). These market developments are discussed further in Section 6.

Chart 4
Number of outstanding BBB rated non-financial corporate bonds, 2005 to 2017



Source: RBA Aggregate Measures of Australian Corporate Bond Spreads and Yields, Non-Financial Corporate Bonds (2018)

How do bonds compare to other asset classes in Australia?

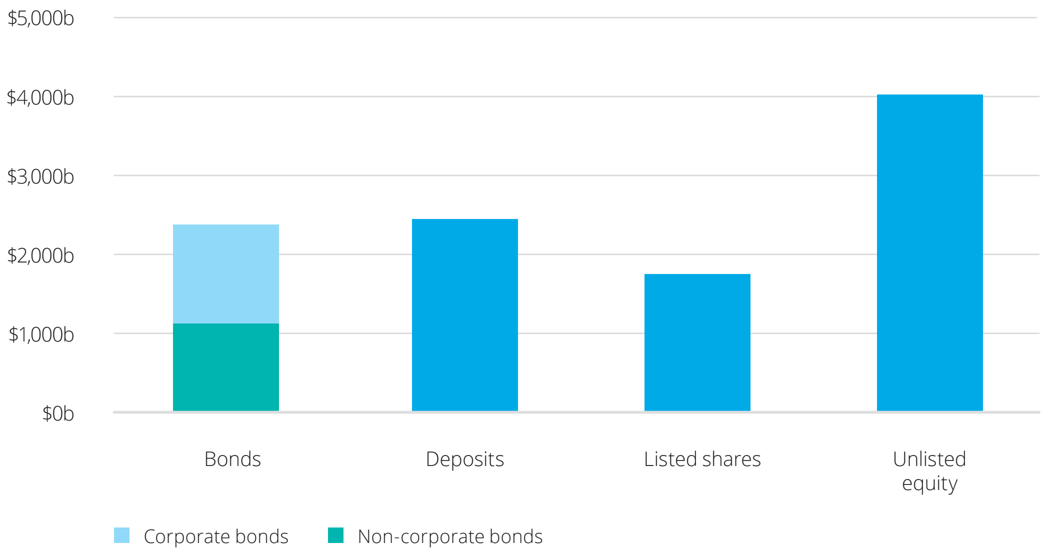
As corporate bonds represent one of many potential assets for Australian investors, this section contextualises the bond market in relation to other asset classes.

The overall size of Australia's bond market, comprised of bonds issued by Australian corporates and governments (including those issued both domestically and offshore), is significant.

In September 2017, the total bond market was valued at over $2.3 trillion in outstanding bonds (Chart 5). This was larger than the size of Australia's listed share market, which had a total market capitalisation of around $1.7 trillion in the same period, and roughly similar to the total amount of deposits in Australia.

Chart 5

Size of Australia's bond market compared to other asset classes, September 2017



Source: ABS 5232.0, Australian National Accounts: Finance and Wealth (2017)

The risk-return relationship underpins differences in the yields of corporate bonds compared to other asset classes, as well as differences in the yields of various types of corporate bonds with different risk profiles. Bonds that are perceived to be riskier (such as corporate bonds compared to government bonds, or unrated bonds compared to investment grade bonds) are higher yielding in order to attract investors and compensate them for taking on the additional risk. For example, average Australian corporate bond yields for AA and A rated corporate bonds have generally been around 50-150 basis points above government yields over the past few years (RBA, 2018), and riskier corporate bond investments have had even higher yields.

By the same token, bonds are less risky than shares issued by the same company and are therefore lower yielding (though overall performance on returns can vary, as discussed below). This is because if a company were to go into receivership, debt securities including bonds are paid back before any remaining value is allocated to owners of equity including shareholders (Rupp, 2016). The regular coupon payments made to bondholders are also contractual obligations and are therefore paid regardless of a company's performance, whereas dividend payments to shareholders can be reduced at the discretion of a company at any time and may be impacted by performance.

There are also hybrid securities that have elements of both debt and equity securities. While they can provide regular interest payments similar to debt securities, they are higher risk than bond investments due to their equity-like features (ASX, 2018). For example, there are call dates when hybrid securities convert to equity but conversion is dependent on meeting specific conditions. Hybrids that fail to convert are then perpetual investments and as such there are no maturity dates. Interest payments can be deferred and may not be paid at all (non-cumulative). In contrast, as long as the issuer is solvent, its bonds must pay income on agreed dates and repay capital at maturity.

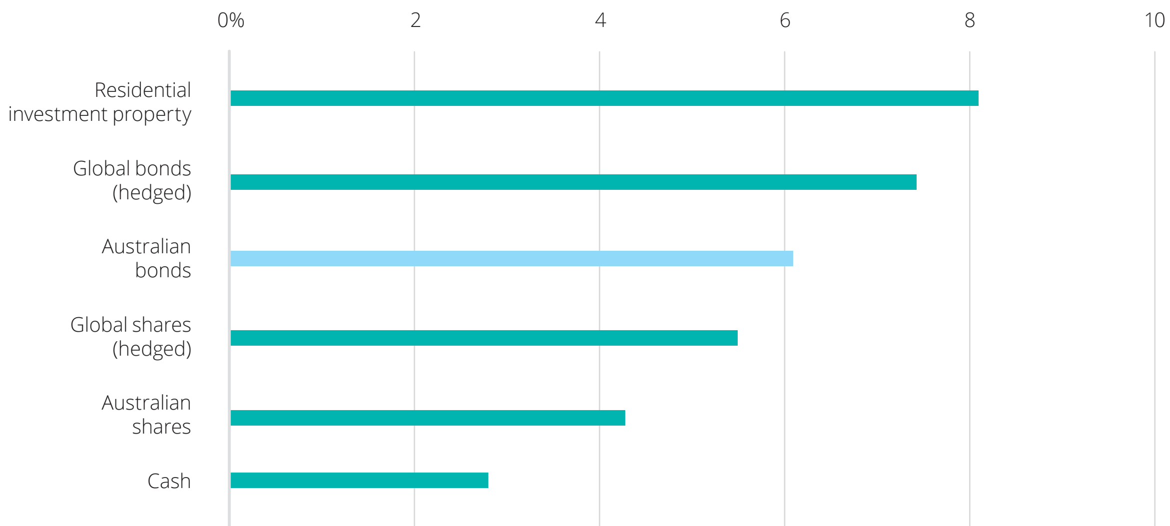
However, when overall returns including both yields and capital gains are considered, bonds generally outperform shares during periods of economic downturn. This is because as a fixed income security, bonds tend to be viewed as relatively safe investments when issued by large and reputable companies and governments (Borzykowski, 2016).

The yields on highly rated corporate bonds with low risk of default typically fall during recessions, meaning that the prices of these bonds increase – thereby leading to capital gains that contribute to higher returns (Zacks Research, 2012).

Over the decade to 2016, Australian bonds had an average gross (pre-tax) annual return of 6.1%, including both yields and capital gains (Chart 6). Consistent with this being a period of economic downturn both during and after the global financial crisis, Australian bonds outperformed both the local (4.3% p.a.) and global share markets (5.5% p.a.) over this time period (ASX, 2017a). They also outperformed cash deposits, which had a gross annual return of less than 3% over this period.

Chart 6

Gross annual returns between 2006 and 2016 for selected asset classes



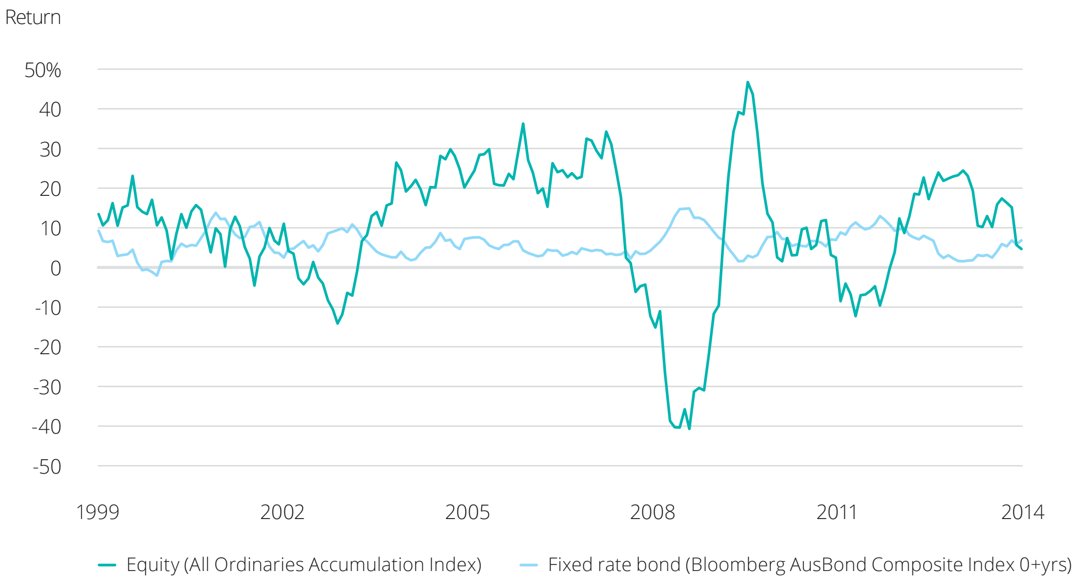
Source: Russell Investments/ASX 2017 Long-term Investing Report (ASX, 2017a)

Furthermore, bond returns are typically less volatile than returns on equity investments because of the greater certainty around their income flows and performance. As shown in Chart 7, returns for Australian equity investments between 1999 and 2014 fluctuated significantly more than returns of fixed rate bonds in Australia.

The countercyclical performance of bond investments (as discussed above) is illustrated around 2009 and again around 2012, where equity investments saw negative returns while bond returns increased. This countercyclical mechanism means that investing in bonds alongside other assets with procyclical returns, such as shares, can help to protect an investor's overall portfolio against volatility (FIIG Securities, 2015a).

Chart 7

Returns for equity compared to fixed rate bond investments in Australia, 1999 to 2014



Source: Bloomberg (2018)

The Australian corporate bond market has experienced significant growth over the past few decades. In recent years, there has been increased activity from new segments of the market: non-institutional private and corporate investors on the demand side, and middle market companies on the supply side. With bonds representing a sizeable and relatively high-yielding asset class, continued growth in corporate bond market activity will have benefits for both investors and issuers in Australia.

2

Rising private investor demand for corporate bonds

Snapshot of private investment

Only **16%** of high net worth individuals in Australia directly own corporate bonds

Corporate bonds are **11%** of total portfolio assets for individuals with direct holdings

95% of corporate bond investors own AUD-denominated bonds, while **72%** own USD-denominated bonds

Fixed income securities play an important role in an investor's overall portfolio. As a defensive asset, fixed income securities are associated with capital stability, regular income and relative certainty. They therefore provide balance and diversification in portfolios that also contain riskier growth assets such as property, shares and other equity investments.

Corporate bonds represent only one type of fixed income security which private, institutional and corporate investors can choose from; other examples include government bonds, asset-backed securities and certificates of deposit. Within the fixed income asset class, the perceived risk associated with investing in corporate bonds is higher than that of government bonds and deposits (Vanguard Investments, 2012).

Notwithstanding this, corporate bonds do offer the capital stability and regular income benefits associated with fixed income securities, and they typically offer higher yields than government bonds and deposits to compensate for the additional credit risk.

Investment in corporate bonds by private individuals has historically been low in Australia. This is because the majority of corporate bonds are traded over the counter (OTC), which means it can be difficult for private investors to access the market (Murphy, 2016) – the box below provides further detail on the various channels through which investors can buy corporate bond investments. Limited understanding by private investors in Australia on the benefits of corporate bond investments has also played a role, as discussed further in Section 4.

Accessing the corporate bond market

Companies can issue bonds in the primary market either via public offering or private placements:

- In the case of a public offering, a prospectus is prepared which outlines key information and risks associated with the bond. Investors can apply to buy bonds at their face value (ASIC, 2010). In Australia, public offers generally are only open to institutional investors in the wholesale market (which require large minimum investments, often starting at $500,000). A small number of public offers are open to retail investors with lower minimum purchase requirements (FSI, 2014).
- In a private placement, a select set of investors are given the opportunity to purchase the bonds being issued to the exclusion of other parties. Corporate bonds issued via private placement are typically unrated debt issuances (Macquarie, 2016). Disclosure requirements for private placements generally are less stringent than for public offerings, and costs may be lower due to the avoided need to obtain a credit rating (Black et al., 2012).

Once a bond has been issued, it can be bought and sold on the secondary market. This takes place either via the over the counter (OTC) market or on the Australian Securities Exchange (ASX):

- The OTC market is a network of buyers and sellers who trade among themselves without a central marketplace. OTC trading typically takes place between institutional and sophisticated investors, either directly or via a fixed income investment service provider, with minimum parcel sizes of $500,000 or more (NAB, 2015). Most bond trading takes place OTC, because there is a much wider range of bonds available than, say, shares (RBA, 2015) which means trades tend to happen on an individualised – rather than centralised – basis. Prices on the OTC market can be more opaque, with limited information made available to public audiences.
- A small number of corporate bonds are available for trade on the ASX after they are issued. These are called exchange-traded bonds and are traded at the market price published on the ASX. While there is no minimum parcel size as is the case in the OTC market, there are relatively few exchange-traded bonds available (Australian Corporate Bond Company, 2018).

95% of Australian corporate bonds are issued almost entirely to wholesale investors, with subsequent trading done over the counter (Black et al., 2012). As trading on the OTC market typically occurs in large parcels, private investors have historically needed to be very wealthy in order to participate. Currently, households hold only a small share of outstanding corporate bonds in Australia (Chart 3). Self-managed superannuation funds (SMSFs) have historically faced similar barriers to directly investing in corporate bonds, with only 1% of SMSF assets held in debt securities as of 2017 (ATO, 2017).

However, recent innovations in the corporate bond market are facilitating more private investor and SMSF activity. In particular, fixed income investment service providers such as FIIG Securities have opened up direct bond ownership to a larger number of individual investors in Australia. These service providers can access the OTC market and buy corporate bonds in large parcels of $500,000 or more, and then sell these investments in smaller parcels which can be more readily purchased by individuals (Myer, 2013).

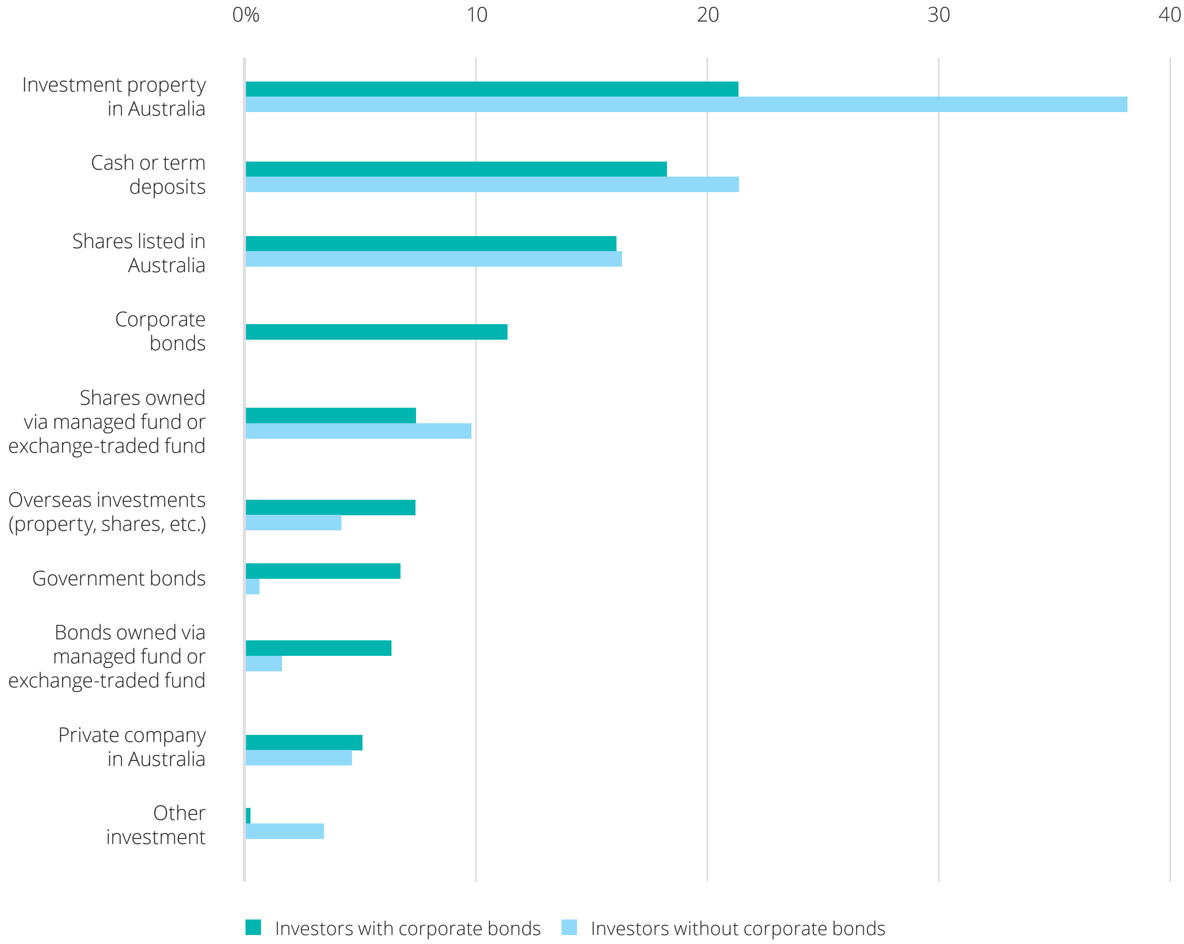
This lower minimum investment size – sometimes as low as $10,000 parcels (FIIG Securities, 2013a) – enables greater private investor access to corporate bonds.

In addition to direct purchases of corporate bonds, investors may also gain indirect exposure to corporate bonds through managed funds or exchange-traded funds (ETFs) that are designed to track particular combinations of corporate bonds (ACFS, 2015). These may be purchased in small amounts and are available via channels already familiar to investors (for example, on the ASX). However, ETFs and managed funds do not necessarily provide the same features as direct investment in corporate bonds, such as a fixed maturity date, principal preservation and certainty in yields (FIIG Securities, 2015b).

Our research finds that 16% of high net worth individuals (HNWIs) currently have direct holdings of corporate bonds in their investment portfolios.[2] For the HNWIs who own corporate bonds, this asset class represents an average of 11% of the total assets in their portfolio (Chart 8).

[2] For the purposes of this study, HNWIs are defined as individuals with more than $2 million of investable assets (excluding their principal place of residence but including investments in a self-managed superannuation fund). Our research is based on a survey of 412 HNWIs in Australia and an additional 345 HNWIs who are known to have direct corporate bond investments.

Chart 8
Average asset allocations of HNWIs' investment portfolios



Source: Deloitte Access Economics survey (2018)

HNWIs who do not own corporate bonds typically have a much higher share of their portfolio allocated to investment property in Australia – 38%, compared to 21% for bond investors. These non-investors also have a slightly higher portfolio allocation to cash deposits than bond investors, while the two groups have broadly similar shares of their portfolios invested in Australian equity.

This suggests that there is a lack of diversity in private investor portfolios in the absence of corporate bond investments.

HNWIs who do not have direct holdings of corporate bonds have 64% of their portfolio invested in growth assets – property, Australian shares and shares held in a managed fund or ETF – and 21% of their portfolio held in the highly defensive asset class of cash or term deposits. They own limited investments with risk and return profiles in between these two extremes, with only 2% of their portfolio held in corporate bonds, government bonds and bonds held in a managed fund or ETF.

By contrast, as illustrated in Chart 8, the average investment allocation of HNWIs who do directly own corporate bonds is much more diversified. They have 45% of their portfolio invested in the aforementioned growth assets, 18% in cash or term deposits, and 24% in bond-related investments.

Corporate bonds play an important role in a well-diversified portfolio, by offering a higher – but still stable – rate of return compared to other fixed income securities such as deposits and government bonds, albeit with a higher level of credit risk compared to these other investments (Stewart and Valtwies, 2015). In this context, corporate bonds can fill a niche between low-return and low-risk fixed income investments, and high-return but riskier shares, offering a mid-point in risk and return for investors seeking further diversification (ASIC, 2015). The relatively high yields of corporate bonds within the fixed income asset class is especially relevant in the current low yield environment, as discussed further in Section 5 of this report.

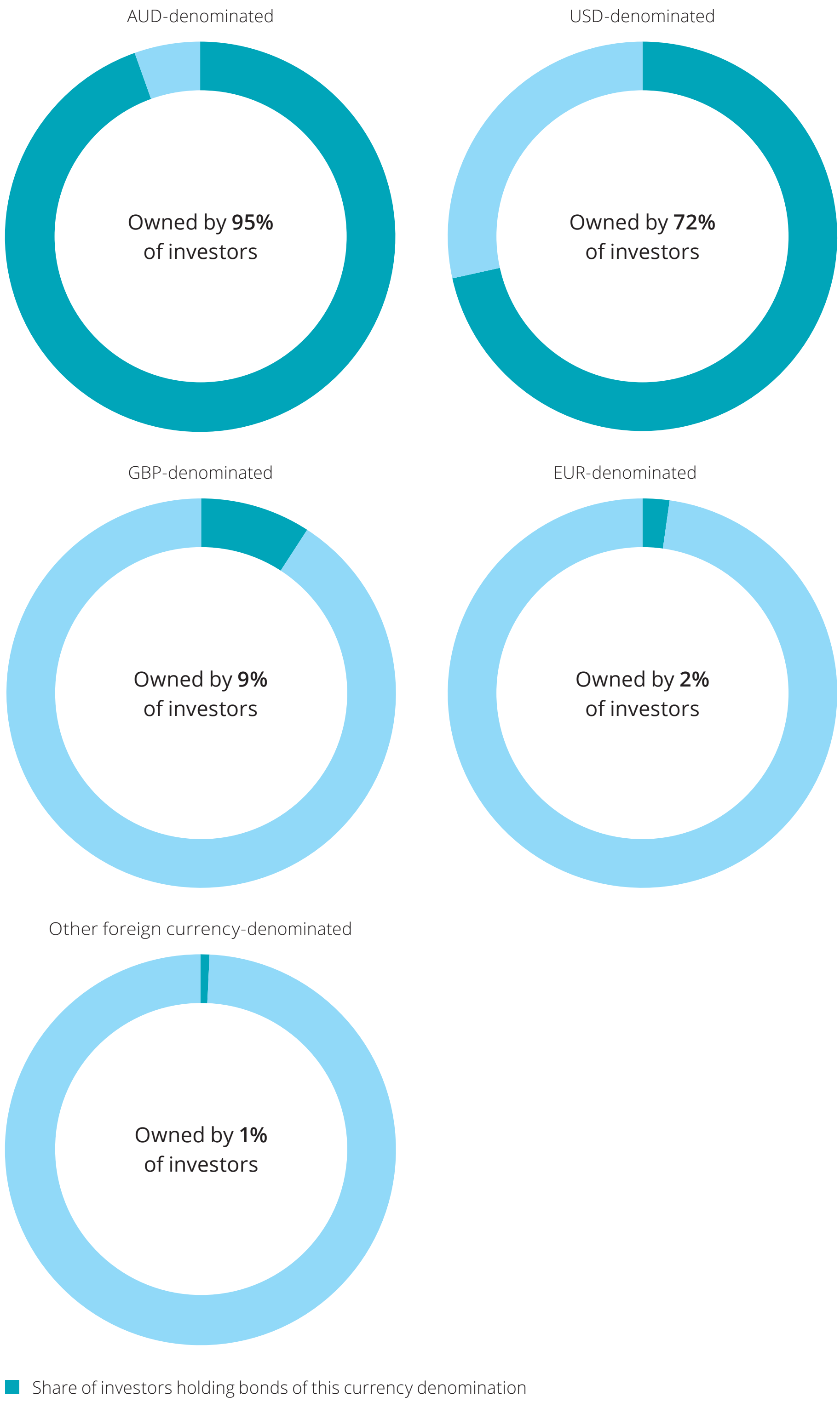
What does Australian private investor activity in the corporate bond market look like?

Given the diverse range of corporate bonds available in the market, this section provides an overview of the current activities of Australian investors with direct holdings of corporate bonds.

Almost all HNWIs with corporate bonds (95%) reported owning bonds that are denominated in Australian dollars. Many Australian investors also have foreign currency exposure – predominantly through US dollar-denominated corporate bonds (held by 72% of investors) (Chart 9). Ownership of corporate bonds denominated in other foreign currencies, such as pounds and euros, was relatively low.

There are several reasons that could be behind the relatively high incidence of private holdings of US dollar-denominated bonds. Private investors may wish to invest in corporate bonds issued by American companies in US dollars (given that the size of the United States corporate bond market is much larger than other markets) or to gain exposure to US dollar currency movements in expectation of future appreciation (Platt, 2017).

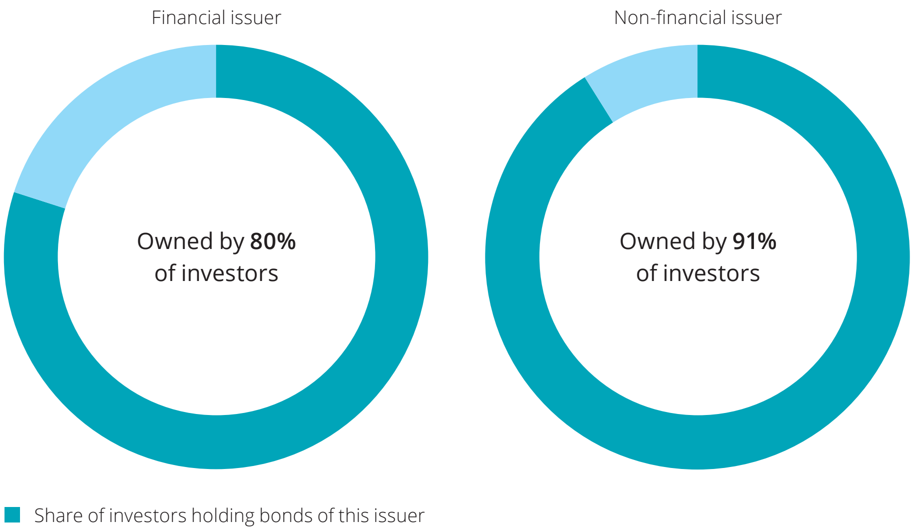
Chart 9
Corporate bond holdings by currency denomination



Note: Respondents may own corporate bonds of more than one currency denomination
Source: Deloitte Access Economics survey (2018)

HNWIs in Australia are more likely to have holdings in bonds issued by non-financial corporations compared to financials, with 91% of investors owning corporate bonds in non-financial companies (Chart 10). Demand for high quality non-financial corporate bonds is partly driven by investors wishing to diversify away from the banks and other financials, given high exposures to the financial sector through investments in other asset classes such as bank shares, deposits or mortgage-financed investment property (Tunley, 2011).

Chart 10
Corporate bond holdings by issuer



Note: respondents may own corporate bonds of more than one issuer
Source: Deloitte Access Economics survey (2018)

HNWIs can utilise different trading strategies, including buying and holding bonds to maturity, or active trading of bonds depending on price movements (SIFMA, 2013). Holding a corporate bond to its maturity date is the only way to guarantee that an investor will receive ongoing coupon payments and recoup the face value of the bond (subject to the risk of the issuer defaulting on its obligations). However, an investor could also choose to sell the bond on the secondary market before it matures. Doing so would enable the investor to realise the capital gain associated with this change in bond pricing, adding to the overall return of their corporate bond investment (PIMCO, 2018).

Our research finds that 26% of private investors have a strategy of buying and holding to maturity, while 13% actively trade the corporate bonds in their portfolio. The remaining 61% reported having a mix of holding and trading strategies depending on the market environment.

Australian private investors who have direct ownership of corporate bonds participate in the market with a diverse range of bond holdings and trading strategies. While individuals have historically found it difficult to directly access corporate bond markets, recent innovations such as the emergence of fixed income investment service providers have facilitated greater private investor activity. Given the lack of diversity in many private investor portfolios, the high-yielding fixed income nature of corporate bonds could be an attractive investment for many HNWIs.

3

Capital preservation and yields drive investment in corporate bonds

Why corporate bonds?

Expected yield of an investment is the **#1 consideration** affecting individuals' investment decisions

Reasons for holding corporate bonds: **73%** for a reliable income stream; **72%** for the level of return given risk profile; **54%** for capital preservation

Older Australians have larger corporate bond holdings: corporate bonds are **22%** of assets for individuals aged **55+**, compared to **3-4%** for younger groups

Private, institutional and corporate investors may consider many factors when making decisions around their portfolio asset allocations, including asset-specific characteristics, broader portfolio positioning, and other practical considerations. The box below discusses these considerations in further detail.

Potential considerations in investment decision making

Characteristics of a specific asset

This could include the returns of the asset, its risk profile, liquidity in the market, currency denomination and term. For example, compared to shares, a highly rated corporate bond will offer more stable returns due to its lower risk profile. A corporate bond issued by a large Australian company will also be a fixed term investment compared to shares, which have no fixed maturity date.

Asset's role in broader portfolio

Broader portfolio considerations influencing investors' decisions include diversification, tax implications, and – for private investors – access to government benefits and other individual or household entitlements. Changing corporate bond holdings relative to other asset classes can affect the investor's overall portfolio along these dimensions. For private investors, the relative importance of these broader considerations can depend on their life stage (e.g. younger versus older, or working versus retired).

Relevant practical considerations

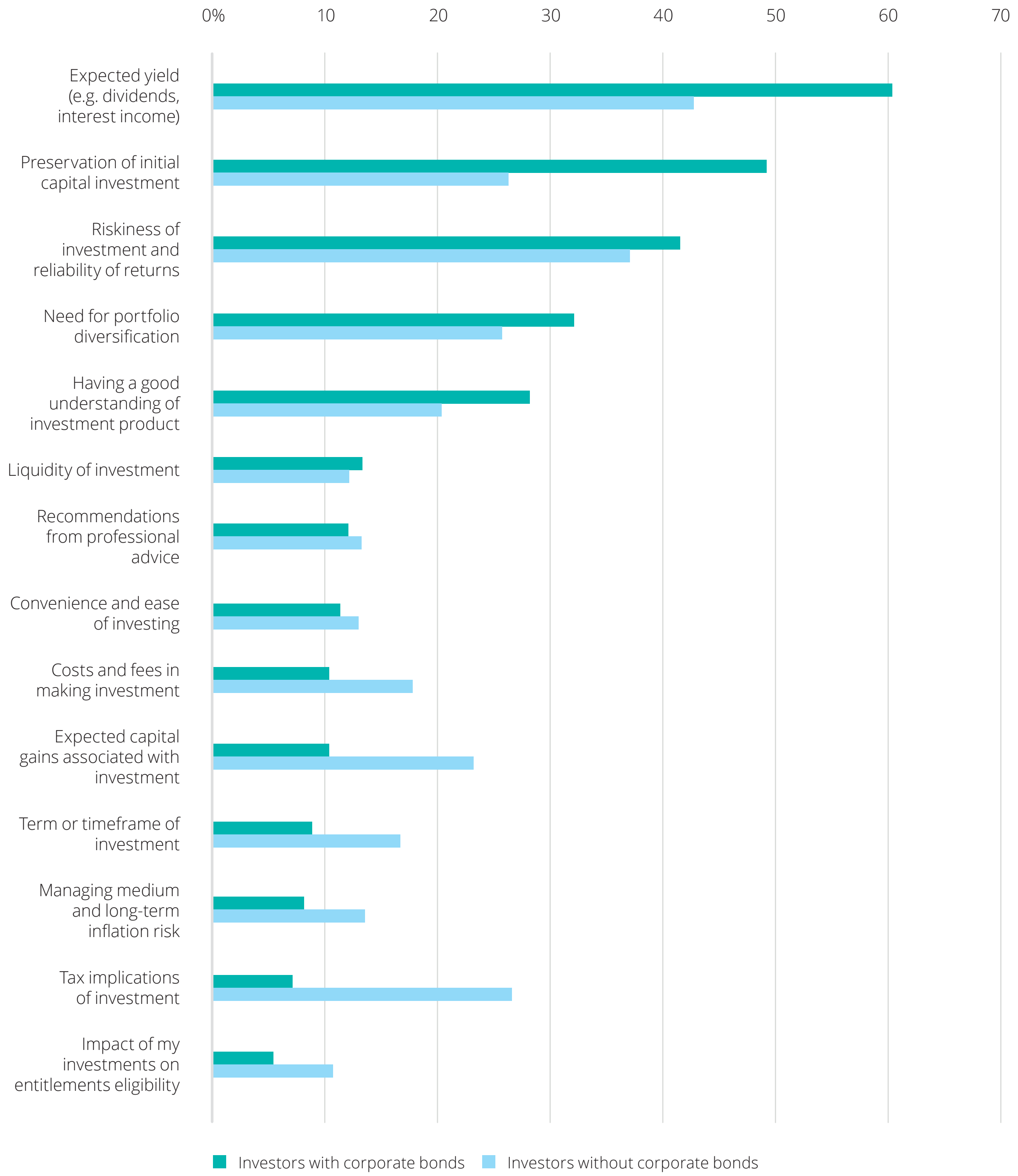
Factors such as convenience and ease of accessing the market, costs and fees of investment, and recommendations from professional advisers can also affect investor decisions. For example, it is generally easier to access reporting and price discovery information for assets that are traded on an exchange such as the ASX, as compared to assets that are traded OTC.

For Australian private investors, the expected yield of an investment is the most commonly cited consideration affecting investment decisions. Across the HNWIs surveyed for this report, 60% of corporate bond holders ranked expected yields amongst their top three investment considerations, compared to 43% of HNWIs without corporate bonds. This suggests that private investors who are seeking yield are investing in corporate bonds.

Around half of corporate bond investors identified capital preservation as a relevant factor (compared to 26% of non-investors). However, non-investors were significantly more likely to cite expected capital gains and tax implications as relevant investment considerations (Chart 11). This suggests that private investors value corporate bonds as an investment that provides relative certainty in recovering their original capital if held to maturity, and are less interested in timing their corporate bond trades to realise capital gains.

Chart 11

Factors considered by HNWIs when making investment decisions



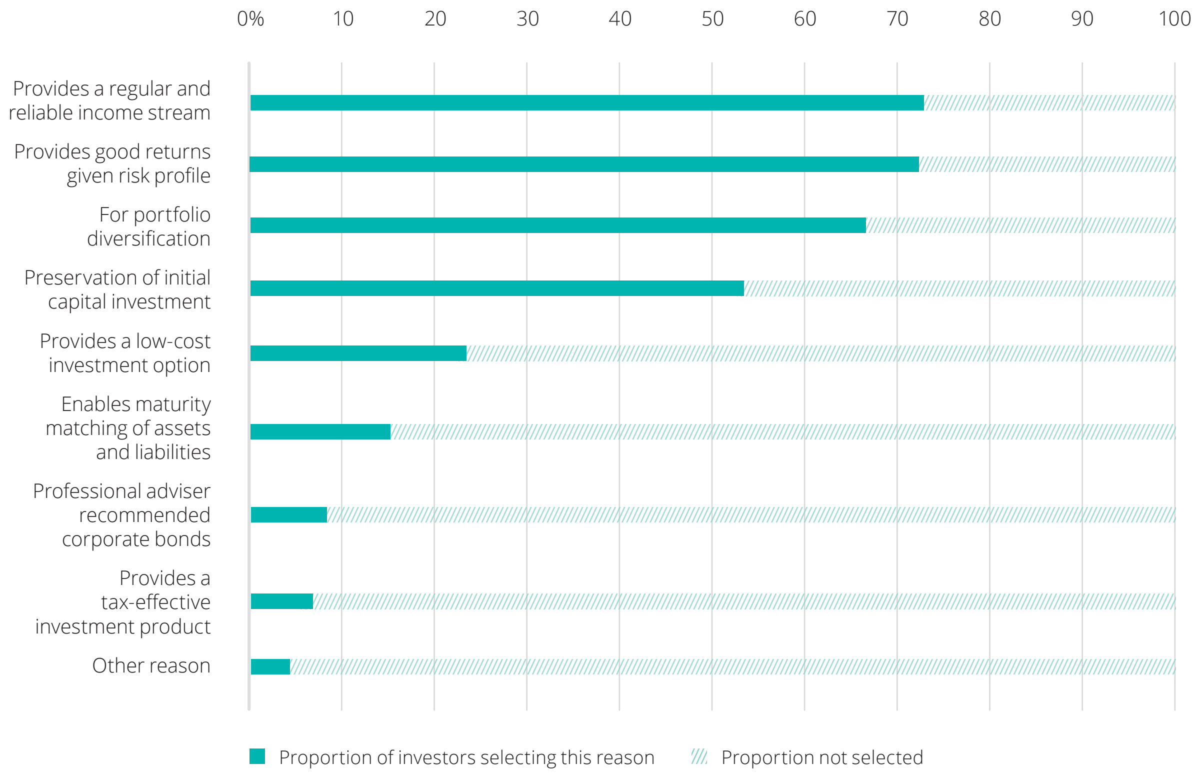
Note: Respondents were asked to select their top three considerations when making investment decisions

Source: Deloitte Access Economics survey (2018)

Corporate bond investors' motivations are consistent with those investment considerations discussed above. Having a reliable income stream from the regular coupons paid by corporate bonds is the most commonly cited reason (73%) for including corporate bonds in a portfolio. Moreover, 72% of investors feel that corporate bonds offer a good overall return given the relative stability and security of their risk profile (Chart 12). This suggests that investors enjoy the benefits of reliable income from corporate bonds as a fixed income security, but with higher yields than other fixed income assets.

Chart 12

Reasons for including corporate bonds in current investment portfolio



Note: Respondents were allowed to select multiple reasons for investing in corporate bonds

Source: Deloitte Access Economics survey (2018)

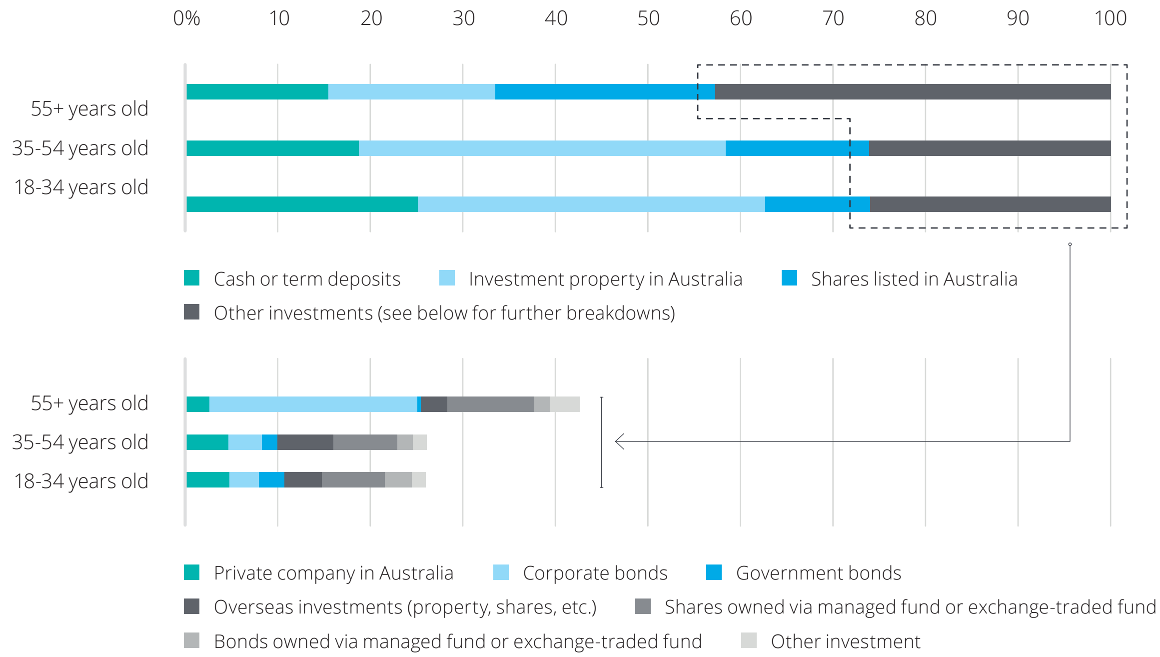
Corporate bonds can play an important role in diversifying asset holdings, with 67% of investors identifying portfolio diversification as a reason for owning corporate bonds (Chart 12). Diversification is a strategy for investors to reduce their overall portfolio risk, as owning investments across a range of asset classes limits exposure to any particular asset or risk. A well-diversified portfolio should also exhibit lower overall volatility, as the price movements associated with individual assets are averaged over a larger pool of different asset classes (Vanguard Investments, 2012). As previously discussed, corporate bonds can offer a mid-point between other lower-return and lower-risk fixed income investments, and high-return but riskier shares.

This role for corporate bonds in a diversified portfolio can be of particular benefit to retirees or investors near retirement. Previous research finds that the reliable income stream from investments such as corporate bonds is an important consideration for retirees who no longer earn regular employment income (Allentuck, 2013; ASIC, 2017). Older age groups can have a greater preference for defensive assets relative to younger Australians: volatility is less desirable for older individuals who are drawing down their savings, and who do not have sufficiently long investment horizons to ride out short-term price fluctuations (Polyak, 2015).

Consistent with this, our research finds that HNWIs in Australia have significantly larger holdings of corporate bonds if they are in retirement or near retirement age. Corporate bonds represent 22% of assets for HNWIs aged 55 years and older, compared to only 3-4% for individuals in the younger age groups (Chart 13). Fixed income investment service providers are also seeing rising demand for corporate bond investments from SMSF clients that are nearing retirement (Kennedy, 2013).

Chart 13

Average asset allocations by age group



Source: Deloitte Access Economics survey (2018)

Corporate and institutional investors also view capital preservation alongside relatively high yields as a key benefit of investing in corporate bonds. For example, corporate investors such as non-financial companies and not-for-profit organisations often maintain investment portfolios, as they can be required to hold capital reserves for risk management or to fund future operations. Corporate investors that were interviewed for this report noted that they may need to hold some portion of their portfolio in low-risk investments for operational purposes, and that corporate bonds provide an opportunity to do so while earning yields that are higher than alternative fixed income investments. The Chief Executive Officer of one private company interviewed stated that:

"We started investing in corporate bonds three years ago because we had cash investments for our long-term provision accounts which were earning low interest rates. Corporate bonds were an asset that we could park those funds in for a higher return while not risking our capital."

For institutional investors such as superannuation funds and insurers, fixed income securities serve two purposes within their broader portfolios: first, to ensure that their initial capital can be preserved should there be volatility in market conditions; and second, as a reliable source of income (Voya, 2016). Corporate bonds can fill this role. In recent years, Australian corporate bond yields have typically been 1-4 percentage points higher than yields on Australian Government Securities, depending on the bond's rating (Kent, 2017).

Given that capital preservation is often a motivating factor for these investors to hold corporate bonds, the default risk of these assets can place limitations on what bonds can be purchased and held. In some cases, there can be a significant gap in the probability of default between highly-rated corporate issuers and lower-rated issuers (NAB, 2013b).

As such, the risk of investing in these lower-rated issuers may be too high for corporate investors that require a higher degree of safety in their corporate bond investments.

Throughout the corporate investor interviews conducted for this research, we found that companies typically had ratings restrictions on their corporate bond investments, ranging from investment grade bonds to a more restrictive minimum of BBB+ rated bonds. One challenge for corporate investors with a requirement for capital preservation is to balance the need for low-risk corporate bond investments against demand for higher-yielding assets, particularly for institutions without much experience in the corporate bond market. These investors may need to develop internal capabilities or utilise the services of fixed income investment service providers in order to ensure that the right investment decisions can be made to suit their broader operational goals.

Overall, the benefits of capital preservation and relatively high yields (compared to other fixed income assets) motivate private, corporate and institutional investors in Australia to invest directly in corporate bonds. Corporate bonds can play an important diversification role as a mid-point between other lower-risk fixed income assets, and riskier investments such as shares and property. These benefits are particularly relevant for individuals transitioning into retirement, and corporate investors with operational requirements for less risky investments.

4

Improving investor awareness and understanding of corporate bonds

Why corporate bonds?

84% of high net worth individuals in Australia do not own corporate bonds

Lack of awareness of the benefits of bonds identified as a barrier to investment by **38%** of non-investors

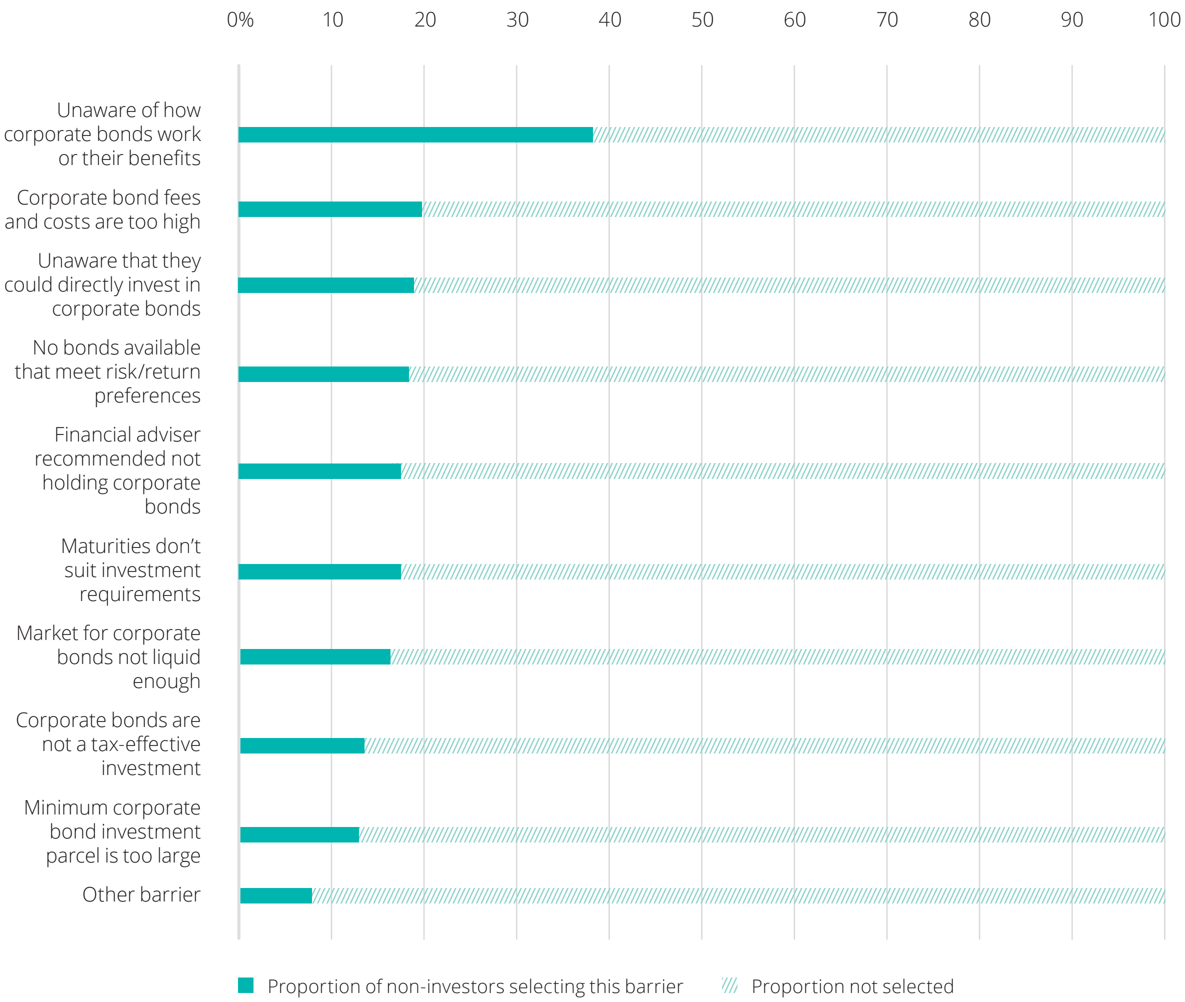
Almost 70% of non-investors have insufficient understanding to invest in corporate bonds

Despite the benefits of capital preservation, relatively high yields and greater diversification, our research finds that 84% of HNWIs in Australia do not directly own corporate bonds in their investment portfolios. We therefore sought to understand the factors that could be preventing greater private investment in the corporate bond market through the private investor survey conducted for this report.

The most commonly cited barrier by private investors is a lack of awareness of the benefits of corporate bonds or how they work, identified by 38% of HNWIs without corporate bond holdings (Chart 14). The second most commonly cited barrier, the perceived fees and costs of investing in corporate bonds, was identified by 20% of non-investors.

Chart 14

Barriers to investing in corporate bonds perceived by non-investors



Note: Respondents were allowed to select multiple barriers to accessing corporate bonds

Source: Deloitte Access Economics survey (2018)

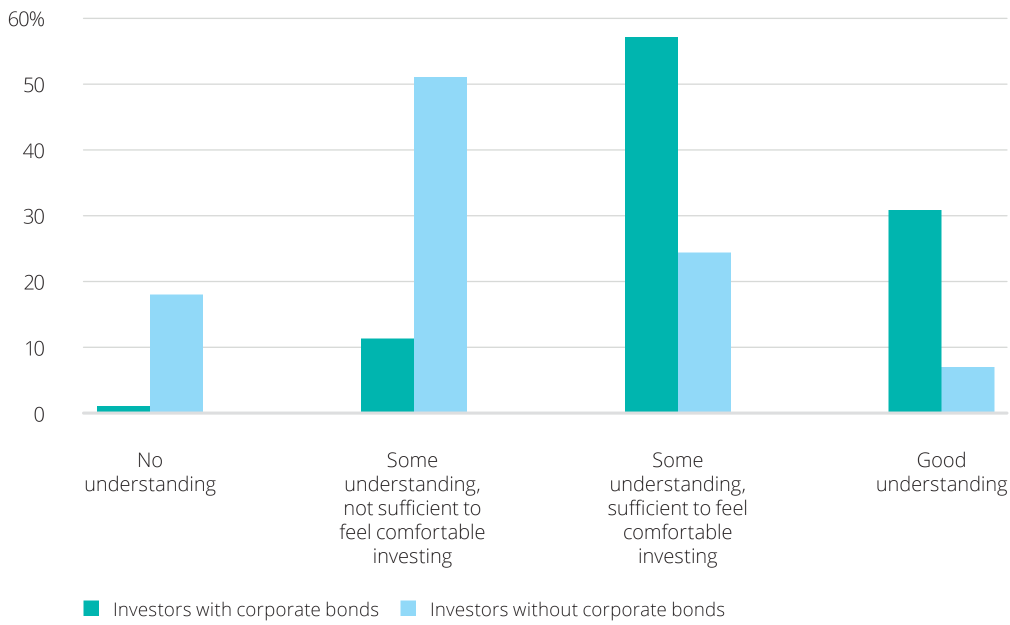
Previous studies have found that Australian investors typically do not feel confident investing in assets outside of cash, shares and property, with less than 20% comfortable with holding or trading unlisted investments and on-exchange investments outside of shares (ASX, 2017b). Across the entire Australian investor base, one-third of investors are not even aware that bonds exist as an asset class (ASX, 2017b).

For HNWIs in particular, our research finds that almost 70% of those without corporate bond holdings have insufficient understanding to feel comfortable investing in corporate bonds (Chart 15).

It is generally not costless for individuals to gather information in order to develop an understanding of financial investments, and while the services of an intermediary such as a fixed income investment service provider can assist, this option may not suit all private investors. Nonetheless, overcoming the awareness barrier for private investors who wish to better understand corporate bonds could lead to greater participation in Australia's corporate bond market in the future.

Chart 15

Level of understanding of corporate bonds as an investment



Source: Deloitte Access Economics survey (2018)

Of those HNWIs with corporate bond investments, almost 90% reported having a sufficient level of understanding such that they are comfortable with owning these investments.[3] The informed nature of these HNWIs suggests that Australian private investors who do own corporate bonds are relatively self-driven in their corporate bond investment decisions. This is consistent with our finding that only 8% hold corporate bonds in their portfolio because it was recommended by a financial adviser (Chart 12). At the same time, 18% of private investors without corporate bond holdings stated that their financial adviser recommended against investing in corporate bonds (Chart 14).

Financial advisers and planners in Australia face several challenges in facilitating corporate bond investments on behalf of their clients. Many financial advisers have limited tools for trading or getting pricing information on bonds (Kitces, 2018), and bonds cannot be accessed via standard platforms which means they may be a less efficient investment for financial planning practices. Furthermore, as Australian investors have traditionally focused on equity and property investments in their portfolio, some financial advisers may have limited familiarity with corporate bonds as an asset class. However, as the Australian population continues to age, greater demand for defensive assets could require financial advisers to seek fixed income investments such as corporate bonds for their clients.

Awareness of corporate bonds as an asset class can also be a barrier preventing greater market engagement by corporate investors in Australia. The corporate investors that were consulted as part of this research all considered diversification across their corporate bond holdings as an important part of their investment decision making. Indeed, the many different types of bonds available can enable investors to diversify within their portfolio allocation to corporate bonds, including gaining exposures across different geographies, issuers, credit qualities and currencies (Gomez-Bravo, 2017).

However, for companies that do not have large corporate bond holdings or have only recently started investing, a lack of awareness and knowledge can hold back investment in particular segments of the market and limit the diversification benefits. Without this understanding, corporate investors can perceive that the unknown risks associated with holding particular bonds are higher than the actual level of risk.

This effect may be exacerbated by the fact that corporate bonds are sometimes perceived to be less liquid than other asset classes such as shares and cash deposits (ELRI, 2017). According to the RBA, "the corporate bond market in Australia has never had a highly liquid secondary market"; however, this is not a significant concern as Australian market activity has been mainly to buy and hold corporate bonds (Debelle, 2016). Nonetheless, the combination of a low understanding of corporate bond investments and the perception of less liquidity in the corporate bond market can lead to a preference at a Board or portfolio manager level to limit investments in fixed income securities (DAE, 2012).

[3] Of the HNWIs who have corporate bond investments but state that they do not feel comfortable investing in corporate bonds, 25% stated that they were following the recommendation of a professional adviser to hold corporate bonds. The remainder appeared to have enough understanding of corporate bonds to identify diversification, reliable income and capital preservation as reasons for investing.

Overall, this lack of awareness can pose a challenge for corporate investors seeking to begin investing in the corporate bond market, or those looking to diversify their investments in a new sector or geography. The time and resources required to develop sufficient levels of understanding may limit the ability for corporate investors to directly invest in particular corporate bonds. For example, the Chief Financial Officer of a financial institution that we interviewed stated that:

"As a relatively conservative institution that has only recently started investing in corporate bonds, we have stuck to what we understand and invested in bonds issued by large banks. But we know this limits our opportunities as we don't own any corporate bonds issued by non-financials."

Overcoming the awareness barrier across private and corporate investors can facilitate greater participation Australia's corporate bond market. Various actions could be undertaken to promote awareness of corporate bonds amongst Australian investors, which could bring understanding levels up towards those of other countries where corporate bonds are more well understood and widely held (discussed below in Section 5). These actions include:

- More active information provision by market participants such as fixed income investment service providers;
- Targeted educational content for key investor groups such as SMSFs and corporate investors with large asset portfolios; and
- Continuing to improve the accessibility of the corporate bond market through smaller investment parcels and more convenient channels for investing in corporate bonds.

Ongoing efforts to improve awareness of corporate bonds will help to facilitate future growth in corporate bond investment, particularly if the information can be provided to investors in an accessible and relatively costless manner. A lack of understanding of corporate bonds is cited as a key barrier to investing by both private and corporate investors in Australia. Improving awareness will enable more Australian investors to recognise the role and benefits of corporate bonds, as are well understood in other countries where corporate bonds are more widely held.

5

Population ageing and the low yield environment provide future opportunities

What's the outlook?

86% of corporate bond investors have had a positive experience, and a net **37%** intend to invest more in the next 12 months

A net **15%** of non-investors intend to invest in the next 12 months. Therefore the share of high net worth individuals owning corporate bonds could grow from **16% to 29%**

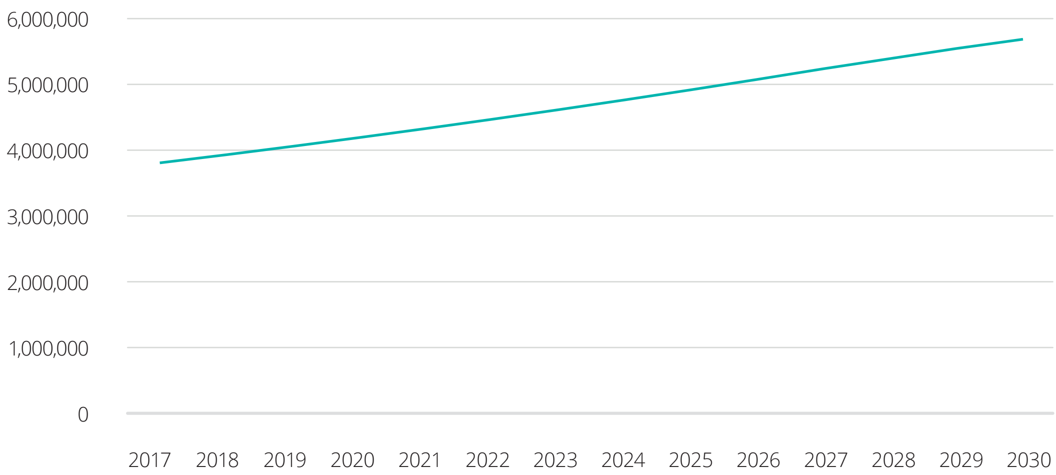
Low yields in cash investments is the **#1 concern** identified by investors. And **40%** are concerned about government policy uncertainty

Over the coming years, private investor demand for corporate bonds will be supported by population ageing in Australia and across the developed world. Globally, the population growth rate for individuals aged 60 years or over is 3.3% per annum (Doff, 2017), and the number of Australians aged 65 years and over is forecast to grow to almost 5.7 million by 2030 (Chart 16).

As the relatively low risk and stable income stream associated with corporate bond investments are well suited to the preferences of individuals at or near retirement, increases in the retirement-aged population could be expected to boost private investor demand for corporate bonds in the future.

Chart 16

Projection of the Australian population aged 65 and over



Source: ABS 3222.0, Population Projections, Australia 2012 to 2101 (2013)

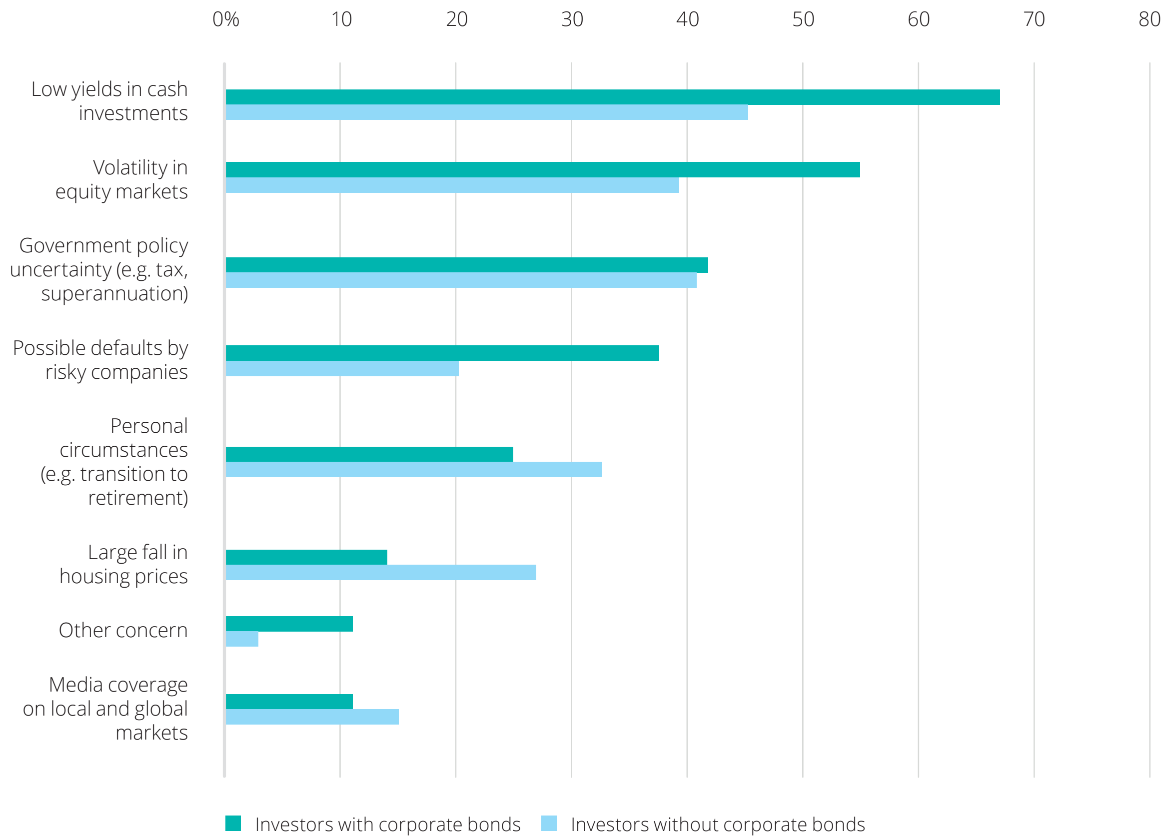
Another factor which could influence future demand for corporate bonds is the low yield environment. Nominal yields are currently at relatively low levels by historical standards, and current pricing in global asset markets suggests that market participants expect that the low yield environment will continue in the near future (Debelle, 2018).

'Low yields in cash investments' is the most commonly cited concern about the current investment environment for HNWIs in Australia, identified by 67% of private investors with corporate bond holdings and 45% of those without (Chart 17).

For investors with such concerns, corporate bonds can offer incremental spreads relative to other fixed income securities, and the additional risk associated with high quality corporate debt is generally small given the sound fundamentals of large Australian companies that issue investment grade bonds (Sivapalan, 2016). Any rebalancing of private investor portfolios away from low yielding cash investments could therefore support demand for corporate bonds, to the extent that the low yield environment is expected to continue in the future.

Chart 17

HNWIs' broader concerns about the current investment environment



Note: Respondents were allowed to select multiple concerns about the current investment environment

Source: Deloitte Access Economics survey (2018)

Furthermore, HNWIs without corporate bond holdings were more likely to identify falling house prices as a concern, consistent with their higher portfolio allocations to property investments (Chart 8). And more than 40% of Australian HNWIs surveyed highlighted uncertainty in the government's taxation and superannuation policy as a current concern around their investments. Corporate bonds do not receive the tax benefits that some other investments receive, such as dividend imputation for shares or the possibility of negative gearing for investment properties. Indeed, some 14% of private investors without corporate bond holdings cited this lack of tax effectiveness as a barrier to investment (Chart 14).

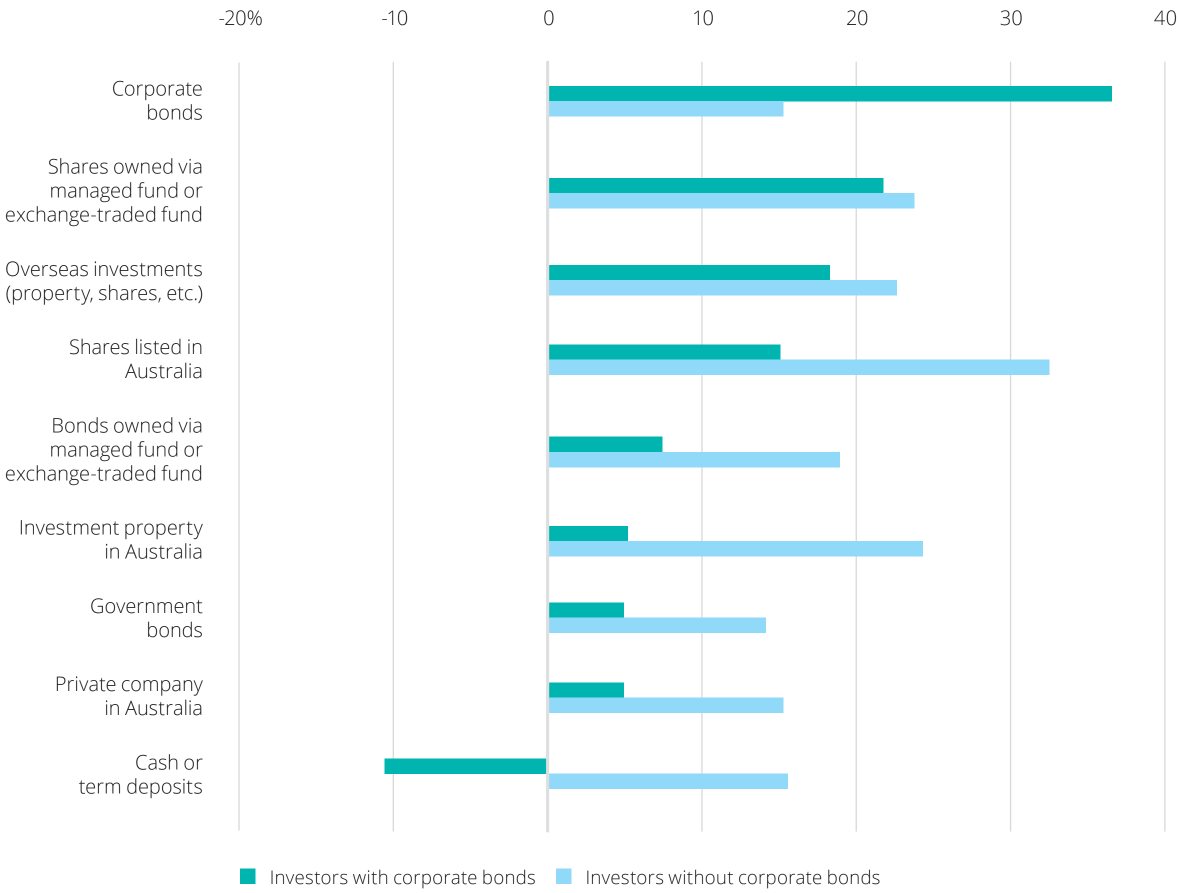
However, this also means that there is lower political risk associated with corporate bond investments. For example, any future changes to franking credits under the dividend imputation system could affect returns earned on share investments, but bond investments would be unaffected as they currently do not receive special tax treatment.

Our research finds that there is a positive outlook for private investor demand for corporate bonds in Australia. Over the next 12 months, almost half (46%) of HNWIs who already hold corporate bonds in their portfolio intend on increasing their corporate bond investments. While 9% of existing corporate bond investors indicated that they would decrease their holdings, in net terms this means that 37% of HNWIs with corporate bond holdings intend to further invest in corporate bonds in the next year.

Existing investors are more likely to intend on increasing their holdings of corporate bonds compared to their investment intentions for all other asset classes (Chart 18). This is consistent with how these investors rate their experience with owning corporate bonds: 86% of existing corporate bond holders stated that they have had a positive or very positive experience. This investor group also indicated in net terms that they plan to decrease their holdings of cash and term deposits, potentially by substituting lower-yielding cash investments for corporate bonds.

Chart 18

Net investment intentions to increase holdings by asset class over the next 12 months



Note: Net investment intentions represent the proportion of investors/non-investors intending to increase their holdings of each asset class over the next 12 months, less the proportion intending to decrease their holdings.

Source: Deloitte Access Economics survey (2018)

In addition, a net 15% of HNWIs in Australia who currently do not directly own corporate bonds indicated an intention to invest in this asset class over the next 12 months. Based on these investment intentions, the share of HNWIs who own corporate bonds could almost double in 12 months' time, from 16% to 29% of all HNWIs: a sign that private investors see potential in corporate bond investments.

Data on the total number of HNWIs in Australia is difficult to come by; however, estimates published in the *Global Wealth Databook* suggest that there were around 100,000 individuals in Australia with more than US$5 million of wealth in 2017 (Credit Suisse, 2017).[4] Based on these figures, the 15% of high net worth non-investors intending on purchasing corporate bonds would be equivalent to almost $30 billion in additional corporate bond investment by Australian private investors,[5] though this still represents a relatively small share of Australia's $1 trillion-plus corporate bond market.

More broadly across the entire cohort of HNWIs who do not own corporate bonds, our research finds that 95% of all investors without corporate bonds state that defensive assets play an important role in their investment portfolio. Given that the benefits of corporate bond investments include capital preservation and relatively high returns compared to risk profile (Chart 12), there may be opportunities for the 85% of non-investors that do not currently intend on entering the corporate bond market in the next 12 months to find a role for corporate bond investments in their portfolios.

What could greater investor participation in Australia's corporate bond market look like?

Investor participation in the corporate bond market varies across different countries, and this section provides a discussion of future opportunities for growth in the Australian market in the context of investor activity in overseas markets.

Australia's corporate bond market is generally regarded as underdeveloped relative to other countries (ELRI, 2017). This has been the case for some time now, with the World Bank's 2006 publication of bond market indicators on size, access, efficiency and stability ranking Australia at 27 of 44 countries on overall bond market development (World Bank, 2006).

More recently, former RBA Governor Ian Macfarlane has stated that "direct investment in the fixed income asset class such as corporate bonds remains underdeveloped in Australia compared to other developed countries" (FIIG Securities, 2013b). A more developed corporate bond market would provide "greater opportunities for companies seeking additional means of raising capital as well as for investors seeking lower risk investments".

Recent estimates suggest that retail investors directly hold 19% of all corporate bonds on issue in the United States and around 9% of corporate bonds in emerging market economies – compared to less than 1% in Australia (NAB, 2015). Given the benefits of corporate bond investments and the potential demand drivers already discussed above, private investor participation in Australia's corporate bond market could increase towards these levels observed in other countries over the coming years.

Institutional investors in Australia also have relatively low holdings of fixed income investments compared to other countries. For example, the share of total assets allocated by Australian superannuation funds to bonds and bills[6] was 10% in 2016, compared to an average of 40% across OECD countries (Chart 19). Meanwhile, Australian superannuation funds held 51% of their assets in shares, compared to an OECD average of 16% (and second only to Poland in the proportion of assets allocated to share investments).

---

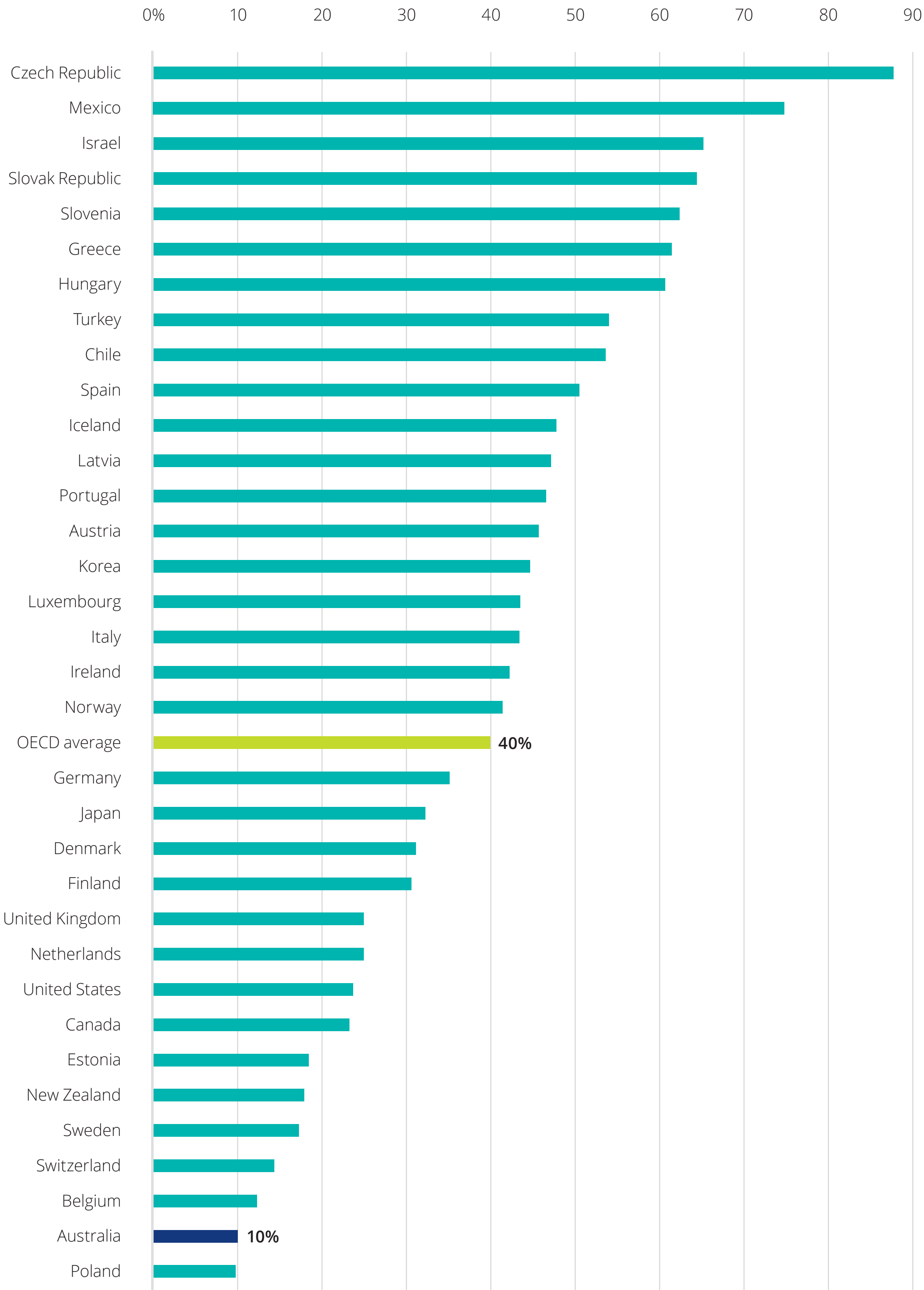
[4] The Australian Bureau of Statistics only publishes limited data on the wealth of Australians, with this data presented at a household balance sheet level and typically in the form of either averages or distributions. The *Global Wealth Databook* (Credit Suisse, 2017) uses this household balance sheet data to produce estimates of individual net worth. The definition of 'high net worth' used in the *Databook* differs to the definition applied to this report, as it includes an individual's investable assets and their principal place of residence (the latter is excluded from our definition). To roughly account for this difference, we have cited the *Databook*'s estimate of HNWIs using a higher threshold of US$5 million, compared to the A$2 million HNWI threshold applied in our survey and elsewhere in this report.

[5] This estimate of additional corporate bond investment from non-investors assumes that non-investors purchase corporate bonds such that their average portfolio allocation to corporate bonds is equivalent to 11% of their investable assets (i.e. the average allocation to corporate bonds across the portfolios of private investors that currently hold this asset class).

[6] This measure also includes government bonds and bills.

Chart 19

OECD countries' pension fund asset allocations in bonds and bills, 2016



Source: OECD Pension Markets in Focus No.14 (2017)

The relatively high proportion of equity investments in Australia partly reflects the fact that most superannuation funds are many years from the retirement phase and so are seeking higher returns (Mercer, 2014). Additionally, there are different investment mandates for retirement funds in different countries, with some countries requiring that funds hold a higher proportion of fixed income securities such as corporate bonds (DAE, 2012).

As more Australians transition to retirement and the population ages in the future, the share of superannuation funds' portfolios allocated to corporate bonds could increase towards the average levels observed in other countries' pension funds.

While Australia's corporate bond market is relatively underdeveloped and market participation by various groups of investors is low compared to other countries, there is potential for future growth. Population ageing, the low yield environment and uncertainty around government policy could provide opportunities and support increased demand for corporate bonds over the coming years. This may lead to significant increases in the share of private, corporate and institutional investors with direct ownership of corporate bonds.

6

Increasing middle market activity and unrated issuance

Snapshot of issuer activity

Non-financial corporations in Australia raise around **10%** of total funding from corporate bonds

Number of unrated issues in Australia increased from 16 in 2012-14 to **39 in 2015-17**

Value of unrated issues in Australia was more than **$1.1bn** in 2017

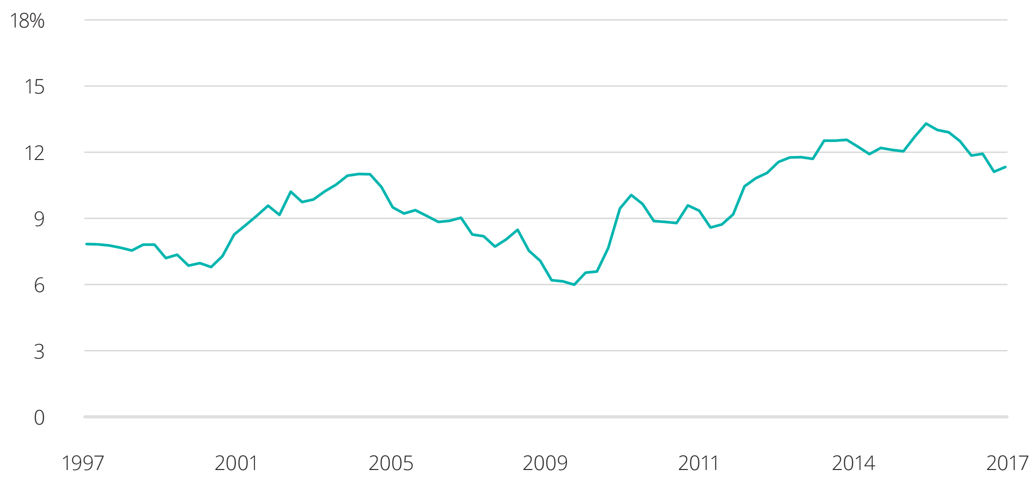
So far in this report, we have focused on the demand side of Australia's corporate bond market, including private, corporate and institutional investors. We now turn to examine the supply side. As discussed in Section 1, Australian companies utilise bonds as an important source of debt financing for their operations and expansion, and bonds play an important role in the capital structure of non-financial corporates.

In aggregate across non-financial corporations in Australia, equity represents around 55% of total funding, intermediated debt (i.e. lending from banks) represents around 35%, and non-intermediated debt (i.e. corporate bond issuance) represents around 10% (Kent, 2017).

Companies seek to optimise capital structure through the right balance of equity and debt funding in order to maximise value and minimise the overall cost of capital (Kennon, 2017). While bank lending is the largest source of debt funding for Australian corporates in aggregate, many companies directly access debt markets to raise the capital required to meet operational needs. The proportion of Australian non-financial corporates' overall funding that is comprised of non-intermediated debt has generally increased over the previous decade, from 6% in 2007 to 11% in 2017 (Chart 20).

Chart 20

Proportion of Australian non-financial corporates' funding which is non-intermediated debt, 1997 to 2017



Source: ABS 5232.0, Australian National Accounts: Finance and Wealth (2017)

Although bank loans provide a relatively less expensive source of debt for Australian corporates, banks typically have to structure the debt financing that they provide in a conservative manner (AICD, 2015). As such, banks are sometimes only willing to provide a certain amount of funding before the size of the loan facility becomes too large and risky. Companies consulted with for this study indicated that where banks do not have the appetite to lend the full amount of capital required by a company, corporate bonds can provide an alternative source of debt. The Chief Financial Officer of a growing technology company stated that:

"We need multiple sources of capital to fund our balance sheet. Corporate bonds represent one component of our funding mix and are an essential element in our funding strategy. The banks will only go so far down the capital structure in lending to us – corporate bonds go further down and enable us to fund our business's growth."

Publicly listed companies may also choose to source capital through additional equity raisings. However, issuing further equity has the result of diluting the existing shares on offer, which can have adverse impacts on other financial metrics such as the share price and earnings per share (Murphy, 2017). The companies interviewed as part of this research highlighted that the non-dilutive impacts of corporate bonds on company ownership are a key benefit associated with utilising them as a funding source.

More Australian corporates are recognising the benefits of bonds in providing a flexible funding option within their overall capital structure. In recent years, there has been a trend for Australian companies to diversify their funding sources away from bank lending, including more middle market activity with increased corporate bond issuance by unrated smaller borrowers (Darcy et al., 2014). This shift has been enabled by improved access to Australian debt capital markets for unrated borrowers, as well as partly driven by tighter conditions in bank lending.

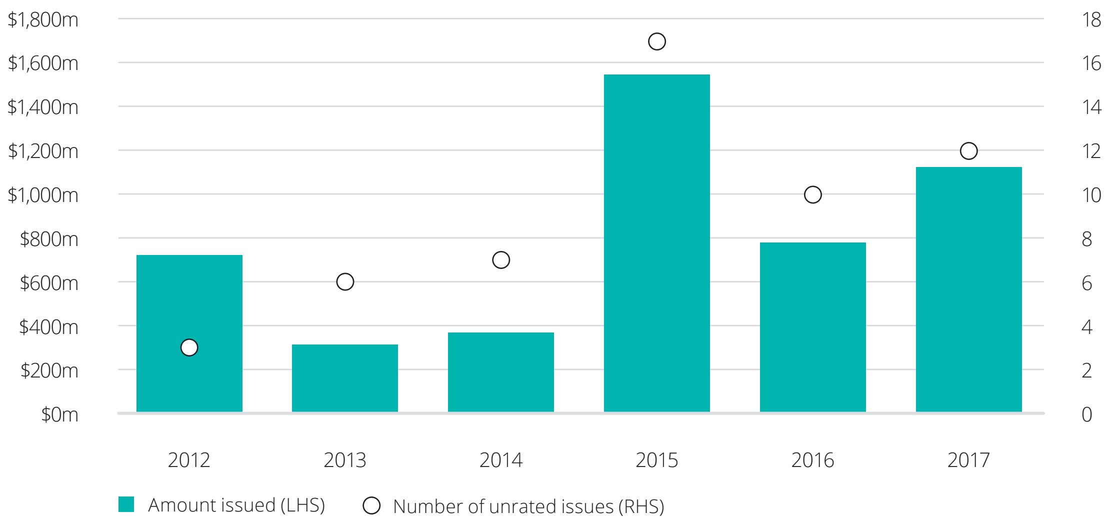
Australian companies have typically required a credit rating to access capital markets for debt funding, which can be a prohibiting factor to issuing corporate bonds as a source of funding (ELRI, 2017; FSI, 2014). Up until recent years, companies without a credit rating had to rely only on bank loans and equity to fund operations and growth.

However, innovative new lending products have enabled unrated Australian borrowers to directly access capital and facilitated increased middle market activity in Australia's corporate bond market. For example, fixed income broker FIIG Securities originated its first unrated Australian bond deal in 2012 – a $30 million issue for Silver Chef (Davison, 2015).

The National Australia Bank facilitated its first unrated corporate bond issue in Australia in 2014 – a $60 million deal for NEXTDC (NAB, 2015). Apart from the lack of credit rating, these bonds are structured in a similar way to those issued by rated companies. Unrated AUD corporate bond issuance has increased in recent years, with 12 issues valued at more than $1.1 billion in 2017 (Chart 21).

Chart 21

Unrated AUD corporate bond issuance, 2012 to 2017



Source: FIIG Securities (2018)

This funding innovation of new unrated issuance has enabled a diverse range of Australian corporates that need capital to directly source this funding from both private and institutional investors seeking higher-yielding fixed income assets. The ability for businesses such as FIIG Securities and the NAB to offer these lending products to unrated issuers has emerged naturally as a result of their core business activities. For example, as a fixed income broker, FIIG Securities has access to an investor base that demands assets that have reliable income and are capital secure, and so originating unrated bonds that can be purchased by these investors is a complementary activity (Davison, 2015). Meanwhile, banks such as the NAB can originate unrated bonds on behalf of existing clients in its network, where they already have an understanding of the company's requirements and risks (Craig and Swiss, 2017).

Demand for these new funding solutions has partly been driven by tighter conditions in Australian bank lending. Banks tend to place restrictive covenants on their corporate loans, which are intended to reduce the bank's exposure to the company's risks (Renaud, 2018). These covenants can be suddenly tightened by banks in the event of a decline in their willingness to provide business loans, as was the case following the global financial crisis and the associated decrease in risk appetite (Ralston, 2009). Over recent years, the Australian Prudential Regulation Authority (APRA) has increasingly tightened regulations on bank lending, and this has led to tighter conditions around loans to Australian corporates such as tougher reporting standards and stronger balance sheet or cash flow requirements (Farmakidis, 2017).

While unrated corporates have historically had little alternative to working around the covenants in banks' loan products, the recent growth in unrated bond issues have provided these corporates with a flexible form of debt financing that can replace or sit alongside bank loans. It is generally easier for companies to negotiate covenants with investors when a bond is issued, and bond markets offer greater flexibility in features such as the term and structure of the debt financing (NAB, 2014).

Moreover, corporate bonds provide relative certainty in funding and covenants until their maturity date, whereas banks may tighten loan covenants should risk appetites change. This allows companies to use the funds from bond issuance to commit to long-term strategies without being concerned about potential changes in the amount and/or conditions of that funding. One Chief Financial Officer interviewed for this report noted:

> "When a bank wanted to exit from the lending facility they had previously provided us, we were able to issue corporate bonds to fill the sudden funding gap. As long as we meet the bonds' covenants, we have certainty that we can use this capital until the maturity date, and that the funding won't be retracted or structurally changed partway through."

There will be future opportunities for growth in bond issuance by unrated Australian corporates, particularly as demand for high-yielding fixed income assets is supported by the population ageing trend discussed in Section 5. Diversification in funding means that companies can strengthen balance sheets and reduce dependency on any individual source of capital such as bank lending (Michon and van Aanholt, 2012), particularly as Australian banks continue to tighten their corporate lending requirements. Issuing bonds directly to investors in debt capital markets will continue to provide corporates with a funding option to fill any gaps between equity and bank debt as the unrated Australian market grows in the future.

Bonds provide an important funding source for companies, as an alternative to equity and bank debt. While historically only companies with a credit rating have been able to access Australia's debt capital markets, recent funding innovations in Australia – following trends observed in other countries – have enabled unrated companies to issue bond instruments that are structured in a similar way to rated issuances. Demand for these new funding solutions from unrated corporates is also being driven by tighter corporate lending conditions in the banking sector, and desire for the relative funding certainty provided by bonds.

References

Allentuck, Andrew (2013), Planning an income stream in retirement, http://business.financialpost.com/personal-finance/retirement/rrsp/planning-an-income-stream-in-retirement

AMP Capital (2018) Higher global inflation and higher bond yields – what's the risk and implications for other assets?, Oliver's insights, http://www.ampcapital.com.au/article-detail?alias=/olivers-insights/february-2018/higher-global-inflation-and-higher-bond-yields

Australian Bureau of Statistics [ABS] (2013), Population projections, Australia 2012 (base) to 2101. ABS cat. no. 3222.0, http://www.abs.gov.au/ausstats/abs@.nsf/mf/3222.0

ABS (2017), Australian National Accounts: Finance and Wealth. ABS cat. no. 5232.0, http://www.abs.gov.au/ausstats/abs@.nsf/mf/5232.0

Australian Corporate Bond Company (2018), How to Buy and Sell [XTBs], https://xtbs.com.au/how-to-buy-xtbs-and-sell-old/

Australian Financial Markets Association [AFMA] (2017), 2017 Australian Financial Markets Report, https://afma.com.au/data/afmr/2017%20AUSTRALIAN%20FINANCIAL%20MARKETS%20REPORT.pdf

Australian Securities Exchange [ASX] (2012), Does long-term share investing still work?, ASX Investor Update, https://www.asx.com.au/201208-does-long-term-share-investing-still-work.htm

ASX (2017a), 2017 Long-term Investing Report

ASX (2017b), ASX Australian Investor Study 2017, https://www.asx.com.au/education/2017-asx-investor-study.htm

ASX (2018), Types of hybrid securities, https://www.asx.com.au/products/types-of-hybrid-securities.htm

Australian Securities and Investments Commission [ASIC] (2010), Investing in Corporate Bonds?, https://www.moneysmart.gov.au/media/132057/investing-in-corporate-bonds.pdf

ASIC (2015), Corporate bonds, https://www.moneysmart.gov.au/investing/investments-paying-interest/bonds/corporate-bonds

ASIC (2017), Invest Smarter: Choose your investments, https://www.moneysmart.gov.au/investing/invest-smarter/choose-your-investments

Australian Institute of Company Directors [AICD] (2015), The Corporate Bond market is open for business, https://www.fiig.com.au/docs/default-source/media/company-director---thought-leadership-roundtable.pdf

Australian Taxation Office [ATO] (2017), Self-managed super fund statistical report - March 2017, https://www.ato.gov.au/Super/Self-managed-super-funds/In-detail/Statistics/Quarterly-reports/Self-managed-super-fund-statistical-report---March-2017/?anchor=Assetallocation#Assetallocation

Bergmann, Michelle and Nitschke, Anna (2016), The Kangaroo Bond Market, Reserve Bank of Australia, https://www.rba.gov.au/publications/bulletin/2016/sep/6.html

Black, Susan; Kirkwood, Joshua; Rai, Alan; and Williams, Thomas (2012), Research Discussion Paper: A History of Australian Corporate Bonds, Reserve Bank of Australia, https://www.rba.gov.au/publications/rdp/2012/pdf/rdp2012-09.pdf

BondAdvisor (2017), What is Australian High Yield?, http://www.bondadviser.com.au/blog/what-is-australian-high-yield/

Borzykowski, Bryan (2016), The assets that do best in a market downturn, CNBC, https://www.cnbc.com/2016/01/22/the-assets-that-do-best-in-a-market-downturn.html

Craig, Helen; and Swiss, Samantha (2017), Bringing in the buy side, KangaNews, http://www.kanganews.com/news/7466-bringing-in-the-buy-side

Credit Suisse (2017), Global Wealth Databook 2017, https://www.credit-suisse.com/corporate/en/research/research-institute/global-wealth-report.html

Darcy, James; Cerché, Paul; Soljo, Simun; and Ardra, Mizu (2014), Unravelled: development of the corporate bond market, https://www.allens.com.au/pubs/fsr/140708-unravelled-03.htm

Davison, Laurence (2015), New Capital Access, KangaNews, http://www.kanganews.com/images/archived/stories/magazines/2015AugSep/KNAugSep15FIIG.pdf

Debelle, Guy (2014), The Australian Bond Market, RBA: Speech to the Economic Society of Australia, 15 April 2014, https://www.rba.gov.au/speeches/2014/sp-ag-150414.html

Debelle, Guy (2016), Liquidity in Australian Fixed Income Markets, RBA: Address to the 4th Australian Regulatory Summit, 21 June 2016, https://www.rba.gov.au/speeches/2016/sp-ag-2016-06-21.html

Debelle, Guy (2018), Risk and Return in a Low Rate Environment, RBA: Speech to the Financial Risk Day 2018, 16 March 2018, https://www.rba.gov.au/speeches/2018/pdf/sp-dg-2018-03-16.pdf

Deloitte Access Economics [DAE] (2012), Out on a limb? Domestic fixed income assets in Australia, http://www.latrobefinancial.com.au/documents/common/DAE-ASF_161012.pdf

Doff, Natasha (2017), Don't Worry Bond Investors, Baby Boomers Have Got Your Back, https://www.bloomberg.com/news/articles/2017-01-09/don-t-worry-bond-investors-baby-boomers-have-got-your-back

Dolor, Sol (2017), Top lawyer looks for boost in retail bond market demand in 2017, https://www.australasianlawyer.com.au/news/top-lawyer-looks-for-boost-in-retail-bond-market-demand-in-2017-231196.aspx

Economics & Law Research Institute [ELRI] (2017), Discussion Paper: Current State and Development of the Australian Corporate Bond Market, http://www.elri.com.au/wp-content/uploads/The-Australian-Corporate-Bond-Market-Discussion-Paper.pdf

Farmakidis, Francis (2017), APRA's wide net: corporate lending feeling the squeeze, https://www.therealestateconversation.com.au/blog/francis-farmakidis/apras-wide-net-corporate-lending-feeling-the-squeeze/apra/lending

FIIG Securities (2013a), Bonds now available in $10,000 parcels, https://www.fiig.com.au/research-and-education/fiig-research/2016/11/23/bonds-now-available-in-$10-000-parcels

FIIG Securities (2013b), The Australian Guide to Fixed Income, https://www.fiig.com.au/docs/default-source/publications/australian-guide-to-fixed-income.pdf?sfvrsn=16

FIIG Securities (2015a), How to protect your portfolio against volatile share prices, http://thewire.fiig.com.au/article/education/education%20(advanced)/2015/09/01/volatile-times-why-bonds

FIIG Securities (2015b), Direct investment versus managed funds, http://thewire.fiig.com.au/article/2015/05/19/direct-investment-versus-managed-funds

Financial System Inquiry [FSI] (2014), The corporate bond market, http://fsi.gov.au/publications/interim-report/03-funding/the-corporate-bond-market/

Gomez-Bravo, Pilar (2017), Is Your Bond Portfolio Stuck in the 1970s? Don't Overlook Diversification in Fixed Income, https://www.mfs.com/content/en_us/blogs/2017/September/is-your-bond-portfolio-stuck-in-the-1970s.html

International Capital Market Association [ICMA] (2013), Economic Importance of the Corporate Bond Markets

Kennedy, Chris (2013), Head to head: FIIG Securities' Mark Paton, InvestorDaily, https://www.investordaily.com.au/investor-weekly/head-to-head/28039-head-to-head-fiig-securities-mark-paton

Kennon, Joshua (2017), An Introduction to Capital Structure, The Balance, https://www.thebalance.com/an-introduction-to-capital-structure-357496

Kent, Christopher (2017), Fixed Income Markets and the Economy, RBA: The Bloomberg Address, 9 August 2017,

https://www.rba.gov.au/speeches/2017/sp-ag-2017-08-09.html

Kitces, Michael (2018), The Latest In Financial Advisor, https://www.kitces.com/blog/the-latest-in-financial-advisor-fintech-february-2018/

Liddell, Brett, (2017), Understanding floating rate notes, VanEck, https://www.vaneck.com.au/understanding-floating-rate-notes/?audience=retail

Macquarie (2016), The U.S. privately placed debt market, https://static.macquarie.com/dafiles/Internet/mgl/global/shared/corporate/asset-management/investment-management/docs/private-placements-overview.pdf?v=2

Mercer (2014), High Exposure to Growth Makes More Sense Down Under, Mercer Newsroom, https://www.mercer.com.au/newsroom/high-exposure-to-growth-makes-sense.html

Michon, Rolf; and van Aanholt, Richinel (2012), Corporate Financing: Diversification of Funding Sources, https://www.orchardfinance.com/attachments/article/238/Corporate%20Financing%20Diversification%20of%20funding%20sources.pdf

Murphy, Richard (2016), The differences between exchange-traded and over-the-counter (OTC) markets, Australian Corporate Bond Company, https://xtbs.com.au/insights/otc-corporate-bonds-the-disadvantages-of-opaque-markets/

Murphy, Richard (2017), Why companies issue bonds, Australian Corporate Bond Company, https://xtbs.com.au/insights/companies-issue-bonds/

Myer, Rod (2013), Fixed income finds new fans, The Sydney Morning Herald: 10 July 2013, https://www.smh.com.au/money/fixed-income-finds-new-fans-20130709-2pmuf.html

National Australia Bank [NAB] (2013a), Australian Debt Securities and Corporate Bonds: What's the risk?,

https://www.nab.com.au/content/dam/nabrwd/legacy/personal/private-wealth/Investment%20transactions/Access%20Bond%20service/debt-securities-and-corporate-bond-report.pdf

NAB (2013b), Australian Debt Securities and Corporate Bonds: How to add Australian Debt Securities and Corporate Bonds to a portfolio?,

https://www.nab.com.au/content/dam/nabrwd/legacy/personal/private-wealth/Investment%20transactions/Access%20Bond%20service/how-to-add-to-your-portfolio.pdf

NAB (2014), Australian Debt Securities and Corporate Bonds: Trends and prospects, https://business.nab.com.au/wp-content/uploads/2014/02/australian-debt-securities-and-corporate-bonds-february-2014.pdf

NAB (2015), Australian Debt Securities and Corporate Bonds: Improving access to the Corporate Bond Market for retail investors, https://business.nab.com.au/wp-content/uploads/2015/06/Australian-debt-securities-and-corporate-bonds-june-2015.pdf

Organisation for Economic Co-operation and Development [OECD] (2017), Pension Markets in Focus, http://www.oecd.org/pensions/private-pensions/Pension-Markets-in-Focus-2017.pdf

Platt, Eric (2017), Weak dollar sharpens appeal of US corporate debt, Financial Times: August 2017, https://www.ft.com/content/f2c544dc-73c9-11e7-93ff-99f383b09ff9

PIMCO (2018), Bonds: A primer on the basics and complexities of the global bond market, https://www.pimco.com.au/en-au/resources/education/everything-you-need-to-know-about-bonds/

Polyak, Ilana (2015), Age and risk tolerance key to mastering asset allocation, CNBC: June 2015, https://www.cnbc.com/2015/06/10/age-and-risk-tolerance-key-to-mastering-asset-allocation.html

Ralston, Deborah (2009), Australia's Corporate Lending Landscape, Infinance: August 2009, http://www.melbournecentre.com.au/files/DRalston%20article%20from%20inFinance_Aug09.pdf

Renaud, Rob (2018), Why companies issue debt and bonds (and don't just borrow from the bank), https://www.investopedia.com/ask/answers/05/reasonforcorporatebonds.asp

Reserve Bank of Australia [RBA] (2005), How Do Australian Businesses Raise Debt?, https://www.rba.gov.au/publications/fsr/2005/mar/pdf/0305-1.pdf

RBA (2012), Chart Pack: Bond Issuance, https://www.rba.gov.au/chart-pack/bond-issuance.html

RBA (2015), Market Making in Bond Markets, https://www.rba.gov.au/publications/bulletin/2015/mar/7.html

RBA (2018), Chart Pack – Interest Rates – Australian Corporate Bond Yields, https://www.rba.gov.au/chart-pack/interest-rates.html

Rupp, Heather (2016), Bond versus Equity: Capital Structure Positioning Matters, http://www.peritusasset.com/2016/10/bond-versus-equity-capital-structure-positioning-matters/

Securities Industry and Financial Markets Association [SIFMA] (2013), Bond Investment Strategies, http://www.investinginbonds.com/learnmore.asp?catid=6&id=386

Shapiro, Jonathan (2017), Investors look for corporate bond alternatives, The Australian Financial Review: 7 September 2017, http://www.afr.com/business/banking-and-finance/investors-look-for-corporate-bond-alternatives-20170906-gyc1fo

Sivapalan, Jay (2016), Overcoming the low yield, low return environment, https://www.janushenderson.com/aupi/post/12554/overcoming-the-low-yield-low-return-environment

Stewart, Adrian and Valtwies, John (2015), Bonds Versus Term Deposits: Tackling the Misconceptions, PIMCO, https://www.pimco.com.au/en-au/insights/investment-strategies/featured-solutions/bonds-versus-term-deposits-tackling-the-misconceptions

Stothard, Michael (2013), Bonds to benefit from ageing population, Financial Times: 25 July 2013, https://www.ft.com/content/c8ba4162-f446-11e2-8459-00144feabdc0

Tunley, Stephen (2011), The big banks have large fingers in your financial wallet – how big are they and is it good for you?, http://www.balmain.com.au/Balmain/PublicationsDetail.aspx?Id=9

Vanguard Investments (2012), The role of fixed income in portfolios, https://www.vanguardinvestments.com.au/adviser/adv/adviser-resources/knowledge-centre/fixed-inc-centre/role-of-fixed-income-in-portfolios.jsp

Vanguard Investments (2015), Asset allocation through the ages, https://www.vanguardinvestments.com.au/retail/ret/articles/insights/research-commentary/retirement-and-superannuation/Asset-allocation-through-the-ages.jsp

Voya (2016), U.S. Investment Grade Corporate Bonds in Perspective, https://investments.voya.com/Institutional/Research-Insights/U.S.-Investment-Grade-Corporate-Bonds.htm

Weavers, John (2015), Australia's high-yield bond market coming to life, Reuters, https://www.reuters.com/article/asia-bonds/australias-high-yield-bond-market-coming-to-life-idUSL4N0XA1DV20150413

World Bank (2006), Bond market development indicators, http://siteresources.worldbank.org/INTTOPACCFINSER/Resources/Bndind.pdf

Zacks Research (2012), Bond Performance During Recessions, https://finance.zacks.com/bond-performance-during-recessions-1090.html

Limitation of our work

General use restriction
This report is prepared solely for the use of FIIG Securities Limited. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of providing analysis on and improving awareness of the Australian corporate bond market. You should not refer to or use our name or the advice for any other purpose.

Deloitte.
Access Economics

Contact us

Deloitte Access Economics
ACN: 149 633 116
Level 14, 225 George Street
Sydney NSW 2000
Tel: +61 2 9322 7000
Fax: +61 2 9322 7001

MCBD_HYD_04/18_055438