Long-Term Investing Report

Comparing 10 and 20 year performance of various investments to December 2009

A research study issued by the ASX and Russell Investments

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Summary

This report investigates the performance of various types of investments over the past ten and twenty years. As part of the performance comparison, the report considers the real-life impact of tax, costs and borrowing on ultimate investment returns.

The aim is to provide individual investors with a reasonable insight into how different investments have performed over the medium to long term – in real terms.

Results: Before-tax but after-costs

- Residential investment property achieved the highest return of 10.4% p.a. for the ten-year period, while Australian shares returned 8.4% p.a.
- Residential investment property also achieved the highest return of 9.8% p.a. for the twenty-year period, while Australian shares returned 9.7% p.a.
- Australian bonds had the third highest result, with a return of 6.4% p.a. for the ten-year period, and 8.9% p.a. for the twenty-year period.
- Global real estate investment trusts (REITs) returned 5.3% p.a. for the ten-year period, outperforming Australian REITs, which returned 3.7% p.a.
- International shares achieved the lowest return of any asset class over the ten-year period, with a return of -3.6% p.a., underperforming cash which returned 3.9% p.a. However, over twenty years, international shares equalled the cash return of 4.8% p.a.

Results: After-tax and after-costs

- Residential investment property outperformed all other asset classes at the lowest and highest marginal tax rate for the ten-year period, with a return of 9.5% p.a. and 7.9% p.a., respectively.
- Australian shares achieved the second highest return of 8.6% and 6.3% at the lowest and highest marginal tax rates, respectively, for the ten-year period.
- Over the twenty-year period, Australian shares outperformed all other asset classes at both the lowest and highest marginal tax rates, with a return of 9.9% p.a. and 7.8% p.a., respectively.
- Residential investment property achieved the second highest return of 8.8% p.a. and 7.2% p.a. at the lowest and highest marginal tax rates, respectively, for the twenty-year period.
- Australian bonds outperformed global REITs, Australian REITs, cash and international shares on both the lowest and highest marginal tax rates for the ten-year period.
- Over twenty years, cash returned the least on both the lowest and highest marginal tax rates.

Diversified managed funds

- The sample managed funds will naturally always lie in between the lowest and highest performing asset classes.
- The managed funds exhibited less volatility than shares and listed property, providing a more consistent return for investors.

Tax implications for investors

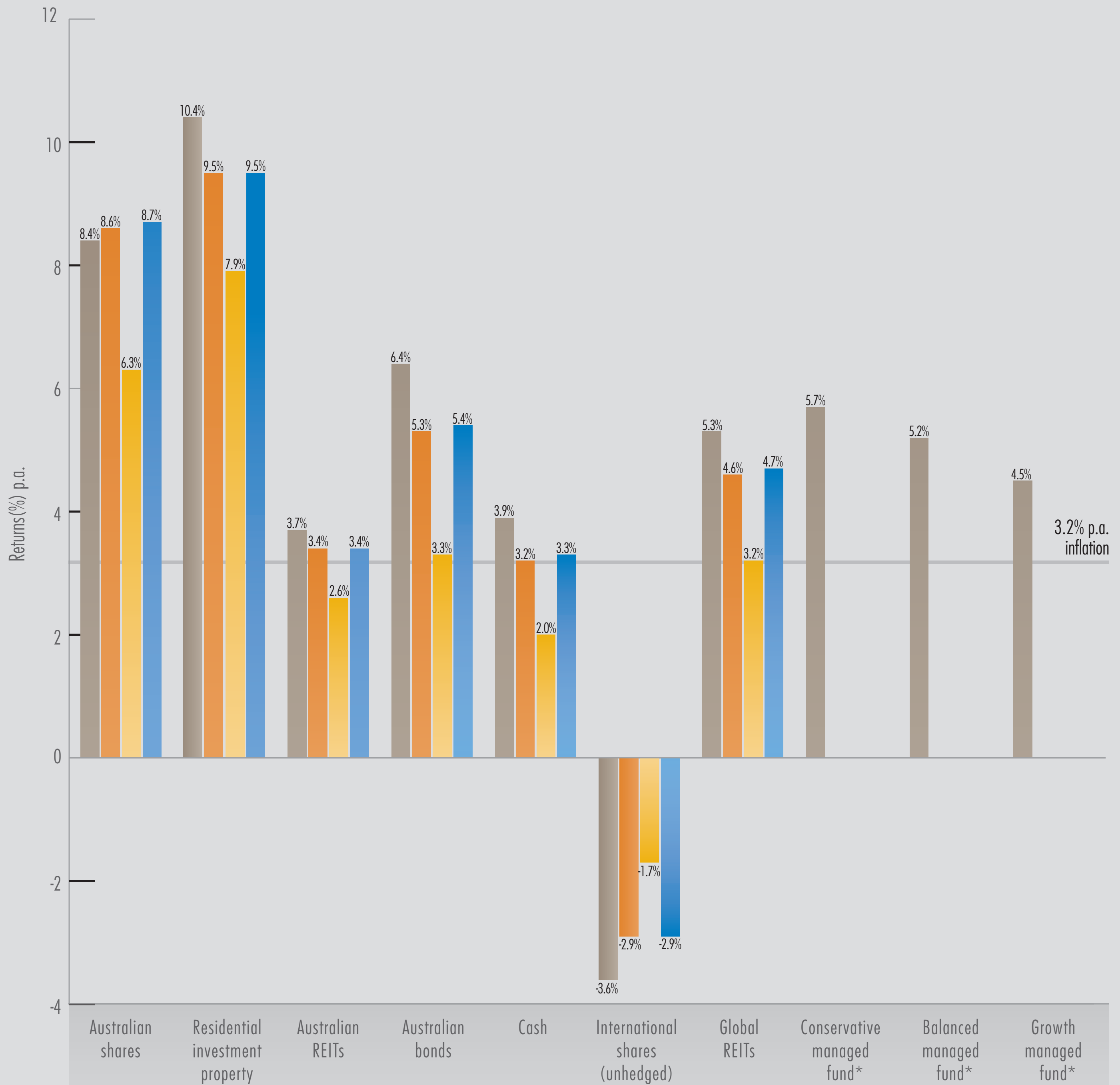
- The results of this study show that tax makes a significant difference to the end outcome for various investments.
- Personal taxation has a greater impact on Australian bonds and cash investments.
- Superannuation calculations have also been taken into account, demonstrating that investing in superannuation can provide significant tax advantages which may increase net returns compared to investments outside of superannuation.
- Due to the benefits of franking credits, the effect of personal taxation on the returns on Australian shares has been less significant.
- At the lowest marginal tax rate, the tax credits from dividend imputation results in the after-tax return being slightly greater than the before-tax return.
- The tax deferral of a portion of Australian REIT distributions has also resulted in a reduced impact of personal taxation on Australian REIT returns.
- Lastly, the impact of personal taxation on residential investment property has also been less significant as a result of the capital gains tax discounting rule (which also applies to the other asset classes except Australian bonds and cash) and tax deferral benefits.

Effect of gearing

- Borrowing money to invest over the past ten and twenty years has effectively increased the after-tax return of both Australian shares and residential investment property.
- The increase in performance of these two asset classes has more than offset the borrowing costs over the ten- and twenty-year periods.

Exhibit 1

Investment returns for the ten years to December 2009.



Gross return

After-tax lowest marginal tax rate

After-tax top marginal tax rate

Super

CPI

* Only before-tax return has been calculated

Note: all returns are net of costs

Long-Term Investing Report

All investment markets move in cycles. While this report presents a review of medium-to long-term investment performance, it is not indicative of how asset classes might perform in the next ten or twenty years.

About the report: Fair comparison of investment performance

This report is designed to investigate the performance of various investments over the medium and long term. The results are provided on a consistent net basis (that is, after all costs and taxation) over ten- and twenty-year periods to the end of 31 December, 2009.

Performance is calculated over these two periods for two reasons:

1. to assist those individual investors who invest for the medium and longer term
2. to provide a reasonable comparison between investment sectors.

The report considers the tax effect for investors at both the lowest and highest marginal rates as well as at the superannuation tax rate, to provide a more accurate indication of performance for investors at different tax thresholds. Seven asset classes are included in this report:

» Australian shares

» Residential investment property

» Australian real estate investment trusts* (REITs)

» Global REITs (unhedged in AUD)

» International shares (unhedged in AUD)

» Australian bonds

» Australian cash

In addition to these seven sectors, we have also included the returns, net of costs, for three sample diversified indexed managed funds for the ten-year period ended 31 December 2009:

» Conservative (25%–35% allocation to shares and property)

» Balanced (65%–75% allocation to shares and property)

» Growth (75%–85% allocation to shares and property)

Performance comparison: Before-tax

Ten-year performance

Exhibit 1 shows that residential investment property (10.4% p.a.) outperformed all other investments in the past ten years followed closely by Australian shares (8.4% p.a.). Despite the global financial crisis, Australian sharemarket returns have been solid, even after taking inflation into account.

The sample managed funds are made up of a diversified selection of investments across a range of asset classes. As a result, the performance of these sample funds will naturally always lie in between the lowest and highest performing asset classes. In this study, the conservative managed funds, which mainly consist of defensive assets like bonds and cash, outperformed both the balanced and growth managed funds.

One reason for this is that the balanced and growth funds have a higher weighting to international shares, which have performed poorly over this period. By the very nature of diversified funds, they show lower volatility (less variability in returns, year to year), and have provided more consistent yearly returns as a result of their diversification across a range of asset classes.

The outperformance over the period of Australian shares over international shares is partly due to the appreciating Australian dollar (hurting unhedged overseas shares investors) and partly a result of better economic conditions in Australia versus globally.

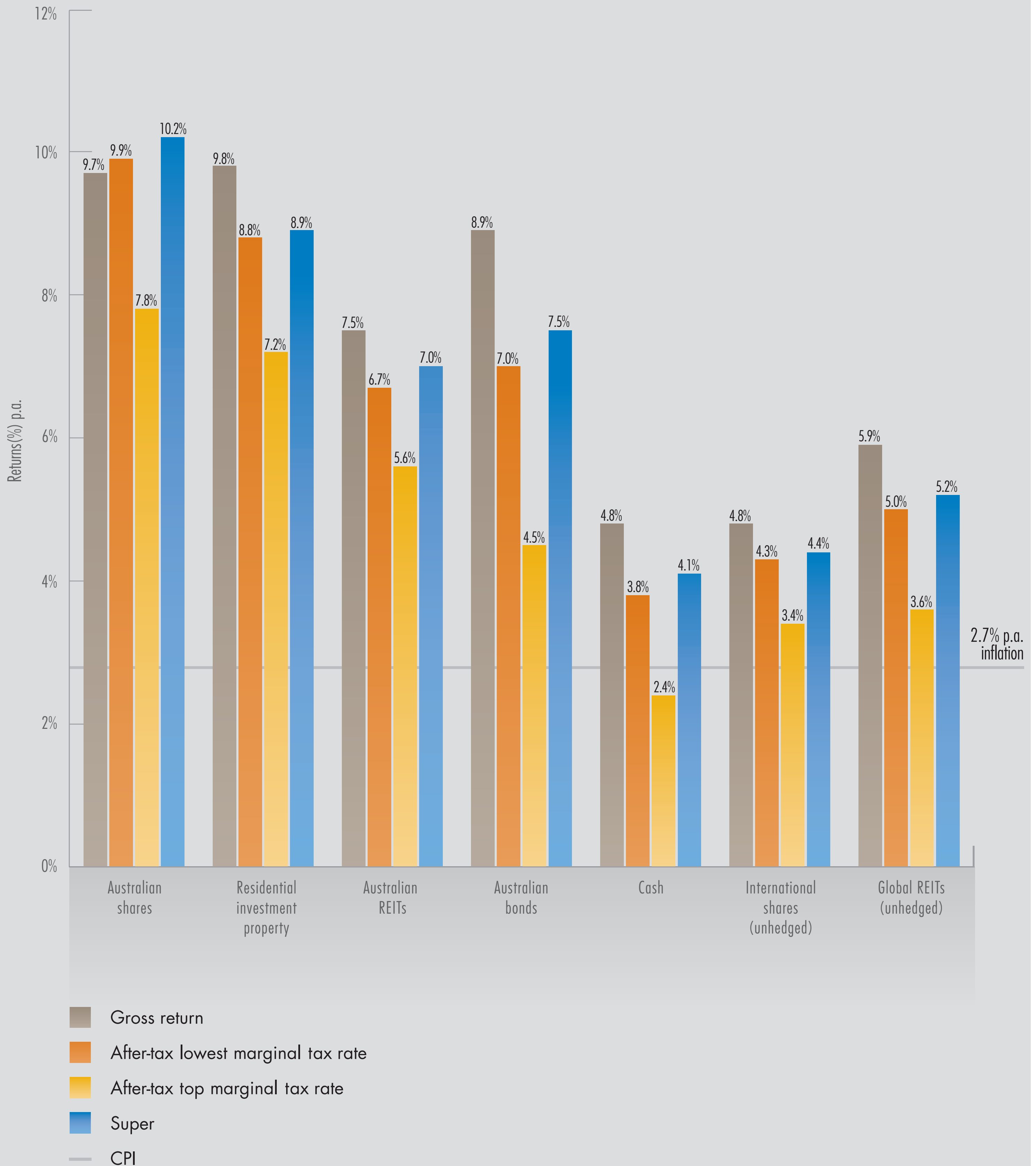
Tip: Currency hedging is a method used by investors to mitigate risk when investing internationally.

Your investments in overseas assets will be made in the asset's local currency. Hedging your overseas investment means that its value will be locked into Australian dollar terms, which may protect your investment against fluctuations in foreign currencies. Investors will tend to hedge overseas investments if they believe the Australian dollar is likely to rise.

* Although AREITs are considered a separate sector in this report, it is also a sub-sector of Australian shares.

Exhibit 2

Investment returns for the twenty years to December 2009.



Note: all returns are net of costs

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Volatility in recent periods has been extraordinarily high for shares. Short-term volatility can be thought of as an investor's trade-off for higher long-term returns. Generally speaking, growth assets like shares and AREITs will experience greater short-term volatility, yet will commonly provide higher long-term returns than defensive assets, like bonds and cash.

As such, it is important to note that short-term volatility is a normal part of investing in growth assets and investors should maintain a long-term investment time frame.

As well as having the potential to offer greater long-term returns, Australian shares also provide tax advantages to local investors, and we view the asset class to be an integral and core part of any portfolio for those with a long-term focus and time horizon.

Twenty-year performance

Exhibit 2 shows that in the past twenty years, the residential investment property sector (9.8% p.a.) has outperformed all other investment sectors before taxation but after costs. Australian shares (9.7% p.a.), and Australian bonds (8.9% p.a.) were also strong performers over the period. Australian REITs (7.5% p.a.) outperformed their overseas counterparts, global REITs (5.9% p.a.), as well as cash (4.8% p.a.) and international shares (4.8% p.a.) before tax. Importantly, all asset classes and indeed the sample balanced funds, performed well above the average annual inflation rate of 2.7%.

What has been the effect of tax on investment returns?

Our results show that tax makes a significant difference to the end outcome for investors. It is important for investors to consider tax because it's the after-tax results which matter. Essentially, tax is a cost of investing.

Overall, for the twenty-year period, at the top marginal tax rate, the effective tax rates for the Australian asset classes are listed in Exhibit 3.

Exhibit 3: Effective tax rates of top marginal tax rate investors

Asset class	Effective tax rate (approximate)
Australian shares	20%
Residential investment property	26%
Australian REITs	26%
International shares	30%
Global REITs	39%
Australian bonds	49%
Australian cash	49%

The results highlight the greater impact of personal taxation on Australian bonds and cash investments. The impact of personal taxation on Australian shares returns has been less significant, due to the introduction of dividend imputation in July 1987. Dividend imputation allows investors to offset tax already paid by a company on profits it earns (currently at 30%) against the tax on their dividends.

The impact of personal taxation on Australian REITs has also been less significant as a result of the tax deferral portion of distributions.

Lastly, the impact of personal taxation on residential investment property has also been less significant as a result of the capital gains tax discounting rule (which also applies to the other asset classes except Australian bonds and cash) and tax deferral benefits.

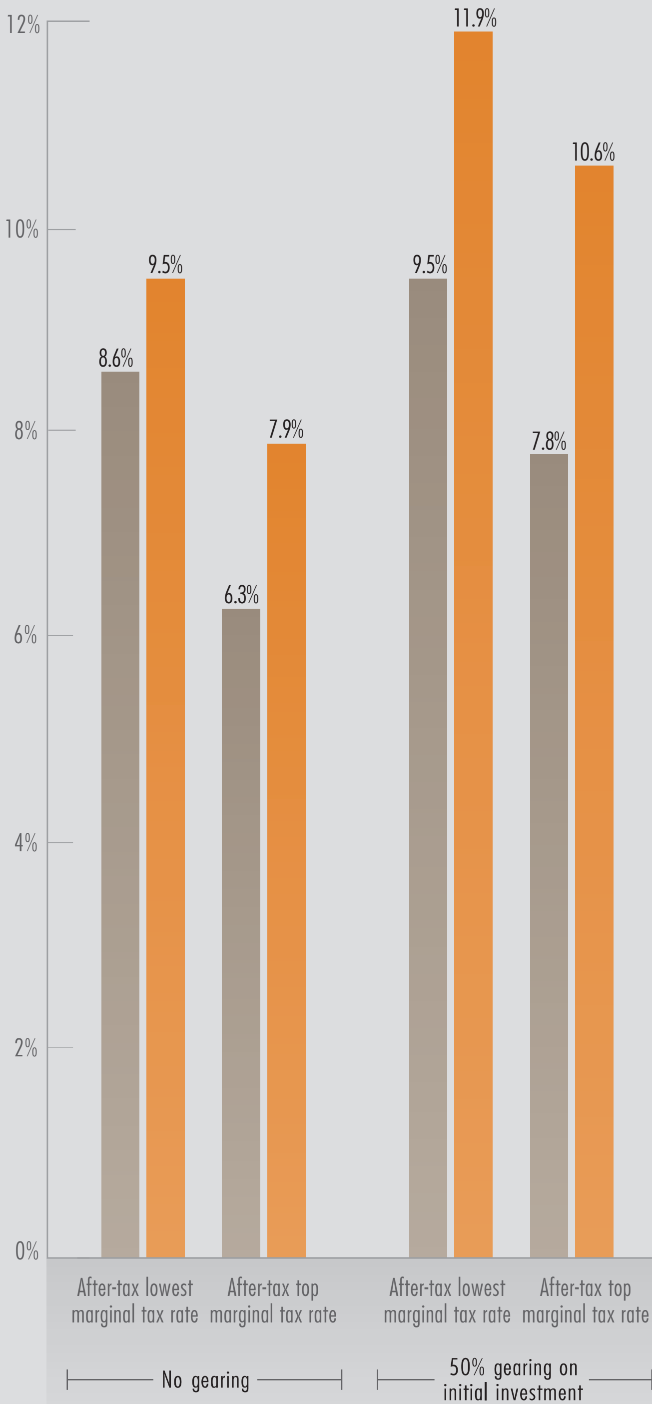
The effect of tax on ten-year performance

Taking tax into account, Exhibit 1 shows that in the past ten years, residential investment property has outperformed all other investment sectors at the lowest and highest marginal tax rates. For Australian shares, the higher after tax return for the lowest marginal tax rate compared to the before tax return is a result of the benefits of dividend imputation.

At the lowest marginal tax rate, the after-tax returns of Australian shares (8.6% p.a.), residential property (9.5% p.a.), Australian bonds (5.3% p.a.), global REITs (4.6% p.a.) and Australian REITs (3.4% p.a.) were above the average rate of inflation (3.2% p.a.) over the ten-year period. Ungedged international shares returned -2.9% p.a. and cash returned 3.2% p.a., in line with inflation.

Exhibit 4

Investment returns for the
ten & twenty years to December 2009.



Note: all returns are net of costs

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At the top marginal tax rate, the after-tax returns from residential investment property (7.9% p.a.), Australian shares (6.3% p.a.) and Australian bonds (3.3% p.a.) have exceeded inflation, while Australian REITs (2.6% p.a.) and unhedged international shares (-1.7% p.a.) fell below, and global REITs (3.2% p.a.) performed in line with inflation.

Turning to superannuation, which is taxed at a rate of 15%, returns were slightly higher than at the lowest marginal tax rate and well exceeded those at the highest marginal rate demonstrating the tax effectiveness of superannuation. Residential investment property was again the top performing sector, producing returns of 9.5% p.a. This was followed by Australian shares (8.7% p.a.), Australian bonds (5.4% p.a.), global REITs (4.7% p.a.), Australian REITs (3.4% p.a.), cash (3.3% p.a.) and international shares (-2.9% p.a.).

Twenty year performance

As shown in Exhibit 2, the Australian shares sector has outperformed all other asset classes after allowing for taxation and expenses. On a before-tax basis, the real returns (i.e., after inflation) of all asset classes have been strong.

At the lower marginal tax rate, the after-tax returns of Australian shares (9.9% p.a.), residential investment property (8.8% p.a.), Australian bonds (7.0% p.a.), Australian REITs (6.7% p.a.), global REITs (5.0% p.a.), unhedged international shares (4.3% p.a.) and cash (3.8% p.a.) were well above the average rate of inflation (2.7% p.a.).

At the top marginal tax rate, the after-tax returns from Australian shares (7.8% p.a.), residential investment property (7.2% p.a.), Australian listed property (5.6% p.a.), Australian bonds (4.5% p.a.), global listed property unhedged (3.6% p.a.) and international shares unhedged (3.4% p.a.) have exceeded inflation. Returns from cash (2.4% p.a.) fell below the average rate of inflation.

At the superannuation tax rate, returns exceeded those of both the highest and lowest marginal tax rates. Australian shares were again the top performing sector, producing returns of 10.2% p.a. This was followed by residential investment property (8.9% p.a.), Australian bonds (7.5% p.a.), Australian REITs (7.0% p.a.), global REITs (5.2% p.a.), unhedged international shares (4.4% p.a.) and cash (4.1% p.a.).

The effects of gearing

In this section, we consider the effect of gearing, or borrowing money to invest, on investment performance. Of the asset classes we've analysed, gearing is most common amongst investments in Australian shares and residential investment property.

In Exhibits 4, we have compared the ten- and twenty-year investment returns of Australian shares and residential investment property, on an after-tax basis, with and without gearing.

In calculating the after-tax returns with gearing, the following assumptions have been applied:

- Fifty percent of the initial investment is borrowed (that is, an initial gearing ratio of 0.5). Although higher gearing levels are usually seen with residential investment property, there are usually limits with gearing levels on Australian shares.
- Gearing arrangements involve interest-only loans.
- Indicative home loan interest rates (for residential property) are on average lower than margin lending rates for Australian shares. In calculating the after-tax returns, allowance has been made for the tax deductibility of interest costs.

Exhibits 4 shows that the use of gearing over the past ten and twenty years has magnified the after-tax return of both Australian shares and residential investment property. The results reflect that the performance of the two asset classes have more than offset the borrowing costs over the ten-year period. At both the lowest and highest marginal tax rates, geared residential investment property has outperformed geared Australian shares over ten years. This outperformance is partly a result of lower lending rates relating to residential investment property. Over twenty years, however, geared Australian shares have outperformed geared residential investment property at both the lowest and highest marginal tax rates.

Conclusion

The results of the report highlight two areas on which we believe investors should focus: after-tax returns and long-term returns.

Since tax is a cost of investing, investment returns should be considered after tax. Tax affects different investors and asset classes in different ways. For example, a high marginal rate taxpayer over the last twenty years for an investment in Australian shares has paid an effective tax rate of around 20%. This compares with an investment in cash or fixed interest where the effective tax rate has been around 49%.

As a result of different tax treatments, over twenty years residential investment property outperformed other asset classes on a pre-tax basis, but on an after-tax basis, most investors were better off investing in Australian shares.

The second key point is that investors should focus on longer-term returns. Australian shares, in particular, did experience significant falls as a result of the global financial crisis. However, a rebound in sharemarkets in 2009 somewhat lessened the impact of the falls.

The Australian sharemarket finished the 2009 calendar year with an impressive 37.6% return and has rallied around 60% since the market lows in March 2009. This powerful rebound illustrates the importance of choosing an appropriate strategy for your financial circumstances and adopting a longer-term perspective. Sticking with a long-term strategy and not attempting to time the markets ensures that investors participate in these sharp market rallies.

This analysis has been conducted on the following basis:

Investment comparison

- » All investment returns are determined after taking into account expenses relating to the acquisition, management and disposal of the asset. Gross returns are calculated before tax but after expenses. Net returns allow for the taxation treatment of each investment over the period of analysis. This aims to represent a realistic method of comparing the different asset classes for an investor.
- » Compound returns are calculated over a ten-year period from 1 January 2000 to 31 December 2009, and over a twenty-year period from 1 January 1990 to 31 December 2009. The returns are equivalent to the per annum compound returns that investors would have received for an investment in the particular asset class if they invested in an equivalent portfolio over the two periods.

Income tax

- » The lowest and highest marginal tax rates are currently 16.5% and 46.5%, respectively. These rates have varied slightly over the past ten and twenty years due to changes in taxation policy and the Medicare levy. These variations have been taken into account in the calculation of after-tax returns. Both bottom and top marginal rates include the Medicare levy of 1.5%.
- » The corporate tax rate was reduced from 34% to 30% from July 2001. The corporate tax rate has varied slightly over the past ten and twenty years due to changes in taxation policy. These variations have been taken into account, including the impact on the calculation of franking credits, which have an impact on after-tax returns for Australian shares.

Capital gains

- » Generally, assets acquired on or after 20 September 1985 are subject to the capital gains tax provisions. For the calculation of ten-year and twenty-year returns, capital gains tax is calculated on both the initial investment and any subsequent reinvestment of income. Cash is not subject to capital gains tax as all gains are taxed as income, therefore, subject to marginal rates. For ease of calculations and lack of Australian bonds coupon and capital data, the report assumes returns from Australian bonds are treated as income.
- » Assets acquired prior to 21 September 1999 and held for over twelve months can be assessed for capital gains tax in one of two ways. Private investors can choose to pay capital gains tax (at their marginal tax rate) on either 100% of the capital gain (with indexation of the cost base) or 50% of their capital gain (with no indexation).

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In this report, we have presented sector returns based upon the calculation method that provides the higher after-tax returns. The discounted capital gain method (as opposed to indexation) has provided the higher after-tax returns in all cases.

Capital losses

- Capital losses may be carried forward indefinitely and offset against other capital gains in future periods. An assumption has been made that the investor has other investments, either today or in the future that have produced, or will produce, capital gains against which capital losses may be offset.

Imputation credits

- Since July 2000, low tax rate investors with imputation credits remaining after offsetting all tax have been able to claim back the excess as a refund from the Tax Office. Prior to this, the excess could only be offset against income tax from other sources. An assumption has been made that, prior to July 2000, the investor has other sources of income to offset this excess against.

Gearing

- After-tax returns with gearing have also been calculated for Australian shares and residential investment property over the ten- and twenty-year periods. Half of the initial investment is assumed to be borrowed and gearing arrangements are assumed to involve interest-only loans (i.e. periodic payments do not include any repayment of principal). In addition, allowance is made for the deductibility of interest costs.
- Borrowing costs are based on data from the Reserve Bank of Australia (RBA) bulletin. For residential investment property, the standard variable rate for housing loans is used, while for Australian shares the margin loans rate is used.

Superannuation

- The investment earnings of a complying superannuation fund or retirement savings account are taxed at a rate of 15% as of 1 July 1988. Prior to this, there was no tax on superannuation earnings. The capital gains tax discount for superannuation funds is one third of the capital gains included in a superannuation fund's assessable income. The tax that a superannuation fund pays on its assessable income (earnings and taxable contributions) can be reduced through the use of imputation credits.
- In the superannuation example, it is assumed the investor is over the age of 60 when redemption of assets occurs, thus no tax is payable on a superannuation lump sum or income stream benefit payments.
- In the superannuation example, the initial investment is made from after-tax earnings so contributions tax is not deducted.

Investment measures

- The residential property measure is a population weighted average return across major capital cities. Increases in value are based on median house prices obtained from the Real Estate Institute of Australia. Data from the Australian Bureau of Statistics are used to make adjustments for capital improvements. Net rental income allows for vacancy rates, maintenance expenses, management fees, government charges, land tax and insurance. Acquisition and disposal costs include conveyancing, stamp duty and agents' fees.
- The cash measure assumes an investment of $50,000 in cash management accounts at banks (averages of the five largest banks' rates) sourced from the RBA.
- The Australian shares measure is based on investment in listed shares with price movements and dividend reinvestment consistent with the S&P/ASX All Ordinaries Accumulation Index. Allowance is made for brokerage and stamp duty (where applicable) on acquisition and disposal. Stamp duty ceased to apply from 1 July 2001 to transfers of marketable securities quoted on the Australian Stock Exchange. Dividend franking is taken into account in determining the impact of tax on dividends.
- The Australian bonds measure is based on investment in Australian Government and corporate bonds. Returns are derived from the UBS Australia Composite Bond Index. For ease of calculation and lack of available data, price movements and coupon payments are both taxed as income.
- The Australian REITs measure is based on the returns implied by the S&P/ASX 300 A-REIT (Accumulation) Index. Acquisition and disposal costs, such as brokerage and stamp duty (where applicable), have been factored into the return calculations. Assumptions have been made with respect to the tax treatment of listed property income, including the component of tax-free (abolished in July 2002) and tax-deferred income.
- The international shares (unhedged) measure is based on investment in listed shares in developed markets with price movements and dividend reinvestment consistent with the MSCI World ex Australia Gross Dividends Accumulation Index (Unhedged) in AUD. Allowance is made for brokerage on acquisition and disposal. Withholding taxes are used to offset Australian taxes in the year the dividends are received.
- The global REITs measure is based on investment in listed property securities with price movements and dividend reinvestment consistent with the FTSE EPRA/NAREIT Developed Index in AUD (unhedged). Allowance is made for brokerage on acquisition and disposal. Withholding taxes are used to offset Australian taxes in the year the dividends are received.
- The conservative managed fund measure is based on investment in an indexed managed fund with an asset allocation consistent with the industry average for funds that have between 25–35% growth assets. Growth assets include Australian shares, international shares (hedged and unhedged) and REITs. Allowance is made for buy/sell spreads on acquisition and disposal and annual investment management fees equivalent to that of a retail indexed manager. After-tax returns are not calculated due to lack of data on distributions.
- The balanced managed fund measure is based on investment in an indexed managed fund with an asset allocation consistent with the industry average for funds that have between 65–75% growth assets. Growth assets include Australian shares, international shares (hedged and unhedged) and REITs. Allowance is made for buy/sell spreads on acquisition and disposal and annual investment management fees equivalent to that of a retail indexed manager. After-tax returns are not calculated due to lack of data on distributions.
- The growth managed fund measure is based on investment in an indexed managed fund with an asset allocation consistent with the industry average for funds that have between 75–85% growth assets. Growth assets include Australian shares, international shares (hedged and unhedged) and REITs. Allowance is made for buy/sell spreads on acquisition and disposal and annual investment management fees equivalent to that of a retail indexed manager. After-tax returns are not calculated due to lack of data on distributions.

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