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The role of global equities – for Australian investors

Research brief

July 2013

Australia represents less than 4% of the global market capitalisation as at 31 December 2012, yet Australian investors hold an average allocation of 18 times its market capitalisation. While Australian shares offer attractive after-tax return benefits from dividend imputation, an allocation to global equities can improve portfolio diversification for Australian investors.

This brief provides a summary of Australia's home country bias, the risks, returns and costs of holding global equities and the impact of foreign currency.

Australia's home country equity bias

The size of Australia's home country equity bias depends on a range of factors including familiarity, tax, currency volatility and transaction costs. Interestingly, this bias has fallen nearly 10% since 2001 as investors recognise the value of international diversification.

Benefits of holding global equities

Global equities provide exposure to a diverse range of countries, sectors and industries and can provide a hedge against country specific risk. The Australian share market is highly concentrated in the finance and mining sectors, which together constitute more than 60% of the S&P/ASX 300 Index.

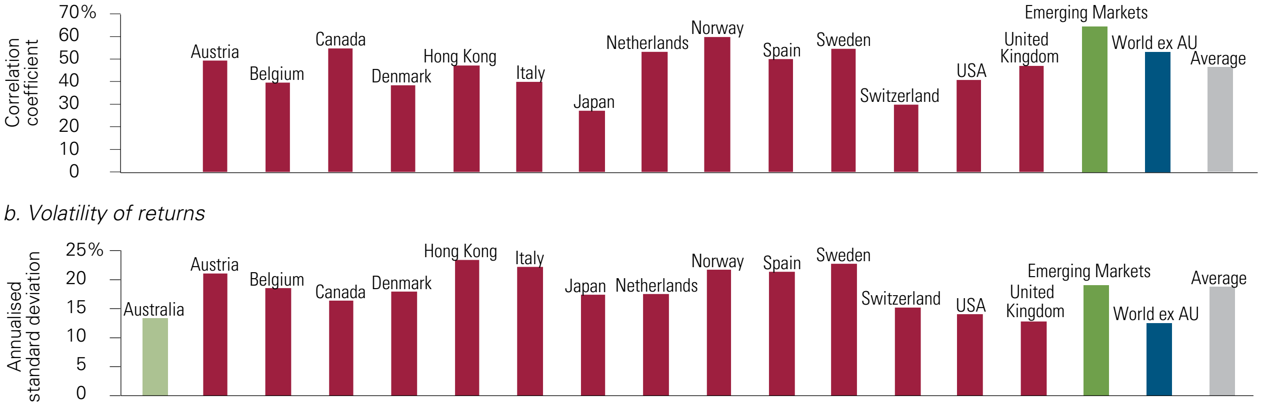
Figure 1 show the correlations between the returns and volatilities of various international share markets and Australia. Australia is not perfectly correlated to other markets and the correlations of both returns and volatilities between countries are highly dynamic.

Lower relative volatility and correlations between Australian and global equities improve diversification benefits. Correlations and volatilities change over time as individual countries and regions perform differently. This reflects changes in technological specialisations, fiscal and monetary policies and government regulations over time.

Figure 1	Correlations and volatilities of equity returns by countries and regions over a thirty year period ending 31 December 2012

a. Correlations of returns in global equity markets with the Australian equity market

b. Volatility of returns



Note: Country and regional returns represented by MSCI total return indices in Australian dollars and dates from 1982 through 31 December 2012.
MSCI Emerging Markets dates from January 1988 to December 2012.
For more information see rolling correlations and volatilities below

Sources: FactSet data as at 31 January 2013, Vanguard analysis

Financial theory

The key reasons for investing in global equities are to diversify returns and/or reduce risk in portfolios. This is why diversification across both country and sectors is important.

Financial theory approaches country allocation from a market cap perspective. This method assumes markets are efficient and that stock prices reflect all available information.

While market cap-weightings might suggest an Australian investor should invest 96.2% of their portfolio in global equities, the reality will be quite different. The fact that the average weighting to Australian equities is about 73% shows there is a strong home country preference. This could be due to factors such as domestic familiarity, currency, risk and transaction costs. The taxation benefits of the dividend imputation system may also be an important factor.

Minimum-variance analysis – a useful starting point

Combining historical minimum-variance analysis with a market cap-weighting approach gives a sense of the potential volatility improvements global equities can provide to a portfolio. For example, adding global equities to an Australian equity portfolio has historically reduced volatility to less than 2% for a 100% equity portfolio with a 50/50 split between Australian and global equities.

It's important to note that mean variation analysis is backward looking and is very dependent on the time period selected. As such, it should be used as a starting point rather than a concrete rule.

Global diversification benefits are dynamic

Vanguard's research shows that the maximum diversification benefit is achieved with different weightings of Australian and global equities over different time periods. For example, over the ten years to December 2001, a 10% allocation to global equities would have provided a 5.2% reduction in volatility while a 50% allocation to global equities would have produced a 16.3% reduction in volatility – the maximum over this period.

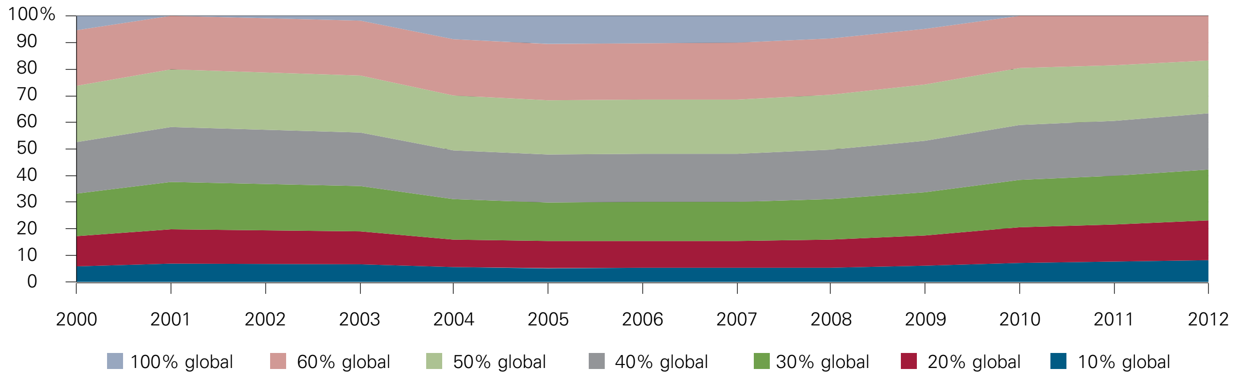
Given the dynamic nature of correlations and volatilities, they provide an indicative rather than concrete guide to possible country asset allocations. **Figure 2** on the next page shows the average maximum diversification benefit (reduction in volatility) for different global equity allocations over rolling ten year periods.

Falling correlations and volatility improve diversification

Recent falling correlations have increased the diversification benefits of investing in global equities in the short term, although over the longer term correlations have remained relatively stable – this is illustrated in **Figure 3** on the next page.

As **Figure 3** illustrates, Australian and global equities were highly correlated during the global financial crisis. Correlations have fallen since late 2010 and diversification benefits have increased due to the fall in the relative volatility of global equities.

Figure 2 Average maximum volatility reduction achieved by including global equity



Source: FactSet data dated as at 31 December 2012, Vanguard calculation

Going forward, global equity correlations are likely to remain less than perfect. Several studies have found little evidence to confirm an increase in global synchronisation in business cycles despite increases in global trade flows, developed market integration and the introduction of the euro.

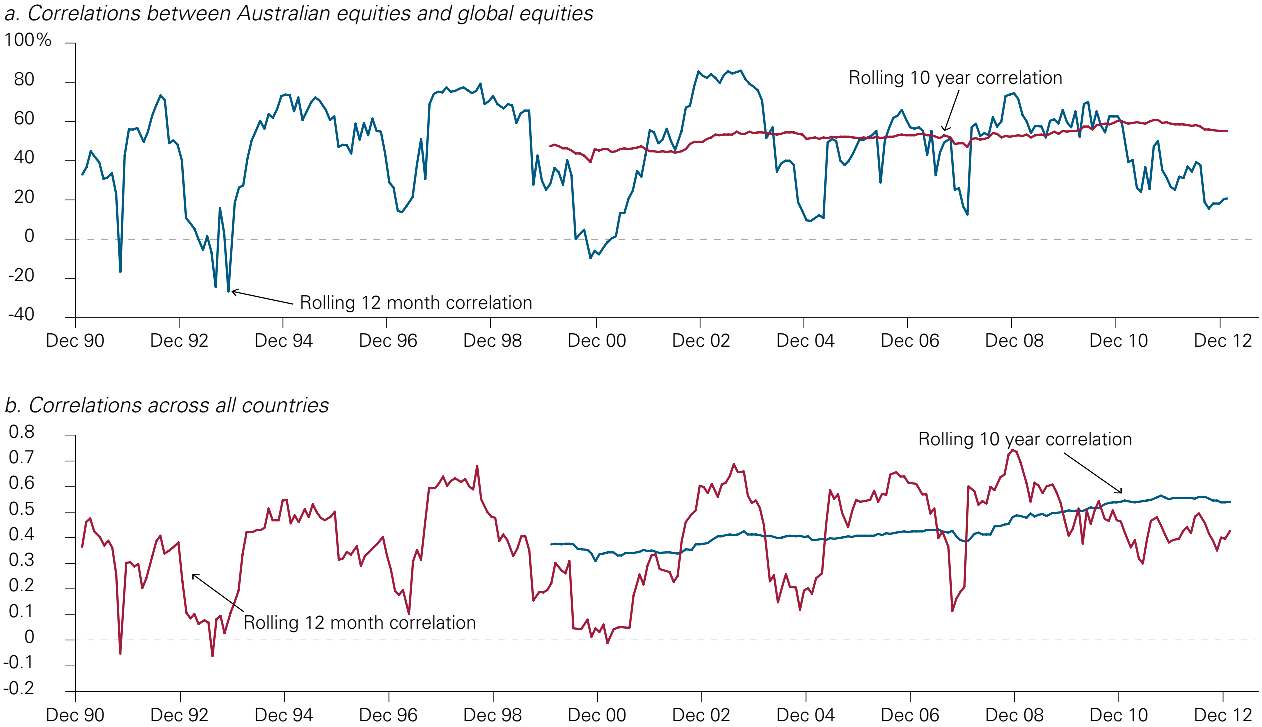
Lower volatility, combined with falling correlations can enhance the impact of a globally diversified portfolio. Volatility of Australian and global equities has moved in the same direction over time but global equities have experienced lower relative spikes, on average, since 2005.

Diversification of return opportunities

Although lower average portfolio volatility is expected over the long term, an immediate benefit of global diversification is the opportunity to participate in regional markets which are performing differently. For example, while Australia leads over some time periods, another market will lead over others.

By including broadly diversified global equities with Australian equities, an investor's return should fall between those of the Australian and global market. For example, during the 1990s to 2000 global equities outperformed Australian equities, while from

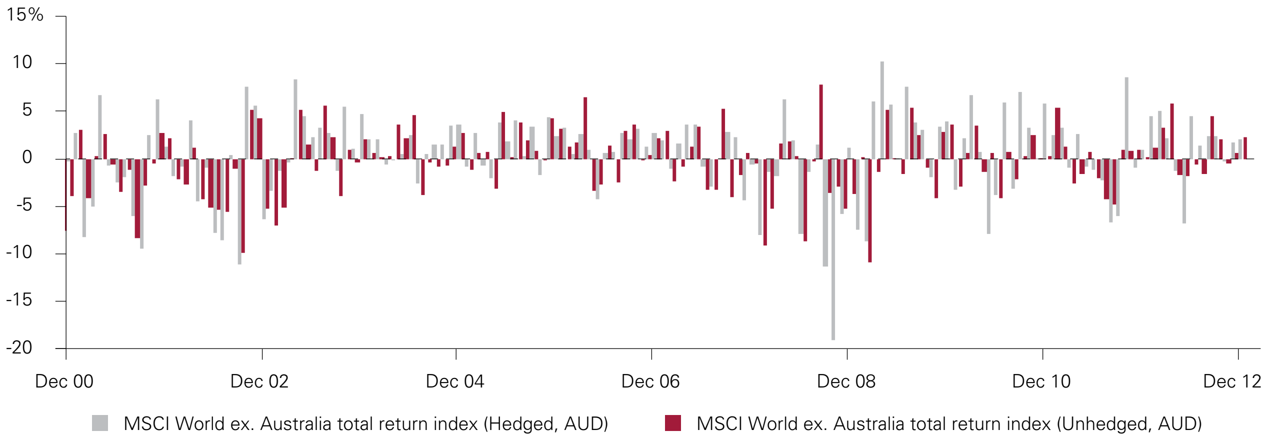
Figure 3 Falling correlations mean more impact through diversification



Notes: Country returns represented by MSCI country indices. Data through 31 December 2012.

Sources: FactSet data dated January 2013

Figure 4 Monthly performance in Australian dollars of hedged versus unhedged returns.



Source: FactSet data through 31 December 2012. dated 8 January 2013

2000 to 2008 Australian equities outperformed. Global equities outperformed again in 2010 until late 2012.

While including global equities can have a negative impact during periods of underperformance, investors have experienced diversification benefits in the form of greater returns over time.

Currency considerations

Investing in global equities provides exposure to underlying currencies, which can cause fluctuations in performance particularly over shorter periods. Over the longer term currency exposure tends to have a smaller impact.

The comparison between hedged and unhedged returns is an important issue for Australian investors. Vanguard's research shows that the relative return or hedge impact is positive over the short and long term, and suggests that hedging back to the Australian dollar produces a higher return but with higher volatility. However, the higher costs involved in hedging can negate the higher return, while the higher volatility can reduce the value added on a risk-adjusted returns basis.

Deciding whether to hedge or not requires careful consideration of a number of issues which can vary from investor to investor. These include:

- Investor's time horizon
- Size of exposure to international equities
- Risk tolerance
- Level of correlations between currency and equity market returns

How much should Australian investors allocate to international equities?

While a material weighting to global equities provides diversification of return opportunities and reduces country specific risk, the optimal weighting for each client will vary. This decision should take into account other factors such as the investor's risk/return profile, timeframe, behavioural tendencies, costs and tax impact (particularly the benefits of dividend imputation).

Vanguard's research suggests that the optimal global equity allocation should be somewhere between the minimum variation 50% weighting and 96.2% market cap-weighting. The higher weighting may suit investors seeking to be closer to market-proportional weighting or those who are hoping to gain potentially greater diversification benefits and are less concerned with the potential risks and higher costs.

Allocations closer to 50% may offer a greater balance between the benefits of diversification, currency volatility risks, investor preferences and costs.

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