

---

## Building World Allocation Funds

**Marlena Lee**  
Global Head of Investment Solutions

April 2025

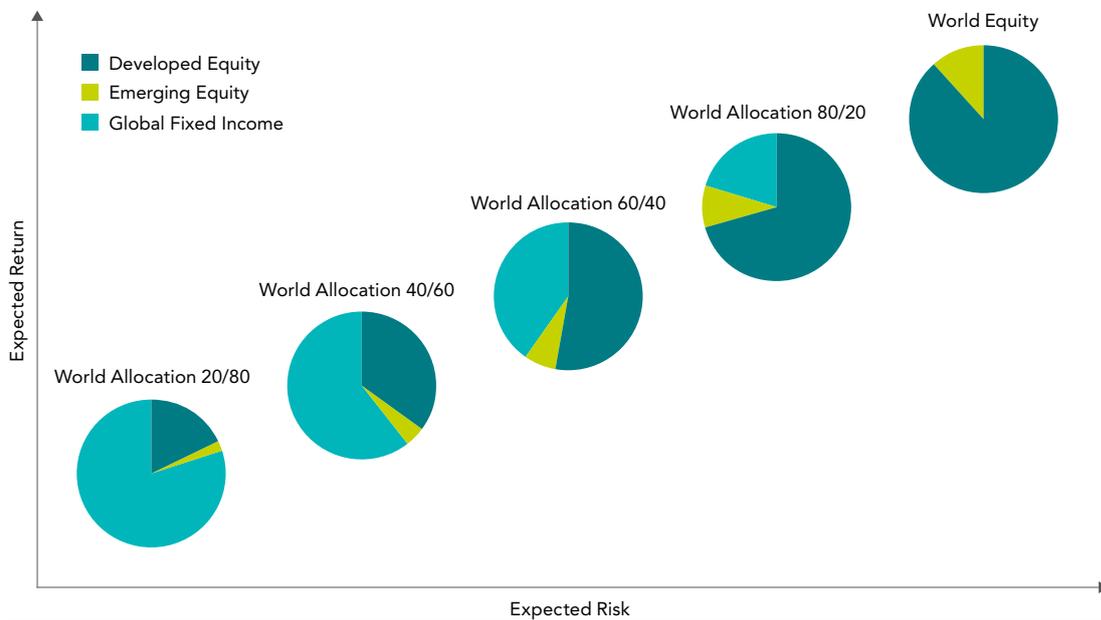
Determining an appropriate asset allocation is a critical step in helping investors achieve their long-term investment goals. However, there is no single right answer when it comes to asset allocation. Different asset allocations may be appropriate for different investors, depending on their needs, sensitivities and risk tolerances. Some general guidelines are useful. For example, the portfolio's return potential should be supported by robust theoretical and empirical evidence. Further, portfolios should be well diversified and managed in a cost-effective manner. Using Dimensional's World Allocation Funds as case studies, this paper illustrates how Dimensional builds asset allocation solutions that incorporate these principles while providing choices to meet varying client needs.

## Dimensional's World Allocation Funds

Dimensional manages World Allocation Funds designed to help investors with different preferences and risk tolerances meet their long-term goals. These portfolios leverage Dimensional's systematic, value-added approach, offering broad diversification, emphasis on stocks and bonds with higher expected returns and flexible, cost-conscious implementation.

**Exhibit 1** illustrates the composition of Dimensional's World Allocation Funds. Each provides diversified exposure to stocks and bonds through direct investments and/or by drawing from numerous underlying Dimensional funds that cover a wide range of markets and asset classes. Direct investments and/or underlying funds are combined using a thoughtful and disciplined approach to asset allocation. Important considerations include the split between equity and fixed income, the allocation across countries and regions, the degree of emphasis on higher expected returns across stocks and bonds and the approach to hedging currencies. These considerations are continuously upheld through disciplined rebalancing procedures. Dimensional's portfolio managers monitor asset class weights daily and seek to reduce turnover and trading costs by using dividends or other cash flows to systematically rebalance the World Allocation Funds to maintain the desired asset allocation.

EXHIBIT 1: Dimensional's World Allocation Funds

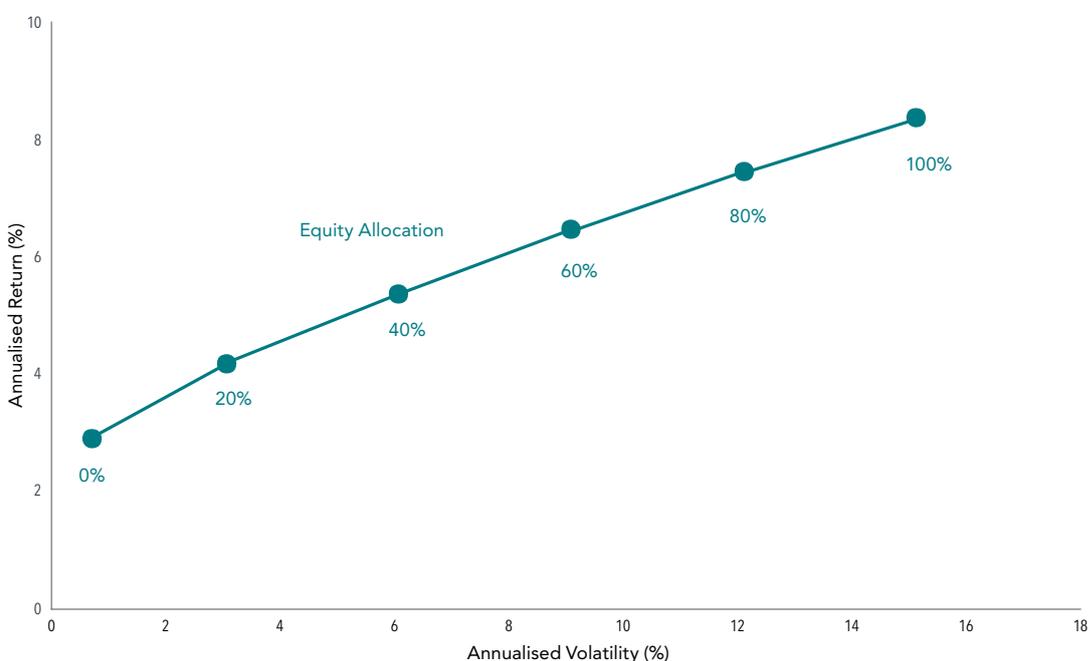


As of December 31, 2024. Holdings are subject to change.

## Allocating Between Equity and Fixed Income

Dimensional’s World Allocation Funds offer five distinct combinations of equities and fixed income, with target allocations of 20%, 40%, 60%, 80% and 100% to world equities. The split between equities and fixed income is one of the most effective tools an investor can use to balance expected returns and risk. **Exhibit 2** shows the historical annualised return and volatility of portfolios that combine one-month US Treasury bills (T-bills) and world equities from 1988 to 2024. Different investors may hold portfolios that fall anywhere along this spectrum of equity allocations.

EXHIBIT 2: Annualised Return and Volatility of Portfolios Containing One-Month US Treasury Bills and World Equities, 1988–2024



**Past performance is not a guarantee of future results.**

In USD. Performance may increase or decrease as a result of currency fluctuations. Equities are represented by the MSCI All Country World Index (gross div.). MSCI data © MSCI 2025, all rights reserved. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Bloomberg data provided by Bloomberg.

The five World Allocation Funds are designed to satisfy the asset allocation needs for several broad investor cohorts. The World Equity Fund, which is an all-equity option, may be suitable as a stand-alone solution for investors who are focused on growth of wealth and are willing to tolerate higher volatility for potentially greater returns. At the other end of the spectrum, the World Allocation 20/80 Fund may be more appropriate for investors who prioritise capital preservation or are highly sensitive to volatility but still seek some capital appreciation. The World Allocation 80/20, 60/40 and 40/60 Funds represent solutions that balance growth potential and capital preservation to varying degrees. **Exhibit 3** compares historical volatility and largest drawdowns for the five World Allocation Funds.

**EXHIBIT 3: Volatility and Largest Drawdowns of the World Allocation Funds**

*Based on monthly returns since common first full month of the funds, ending December 31, 2024<sup>1</sup>*

	Annualised Volatility	Largest Drawdown
World Allocation 20/80 Fund	3.2%	-6.3%
World Allocation 40/60 Fund	5.5%	-9.9%
World Allocation 60/40 Fund	8.0%	-14.4%
World Allocation 80/20 Fund	10.5%	-19.5%
World Equity Fund	12.7%	-22.5%

1. Common first full month of the funds is 11/2015. In GBP.

These portfolios can be blended with other funds to tailor allocations that address the needs and sensitivities of many investors. For example, investors may have needs or preferences for specific types of equities or fixed income. The World Allocation Funds can be combined with individual funds to customise the asset allocation within equities and fixed income.

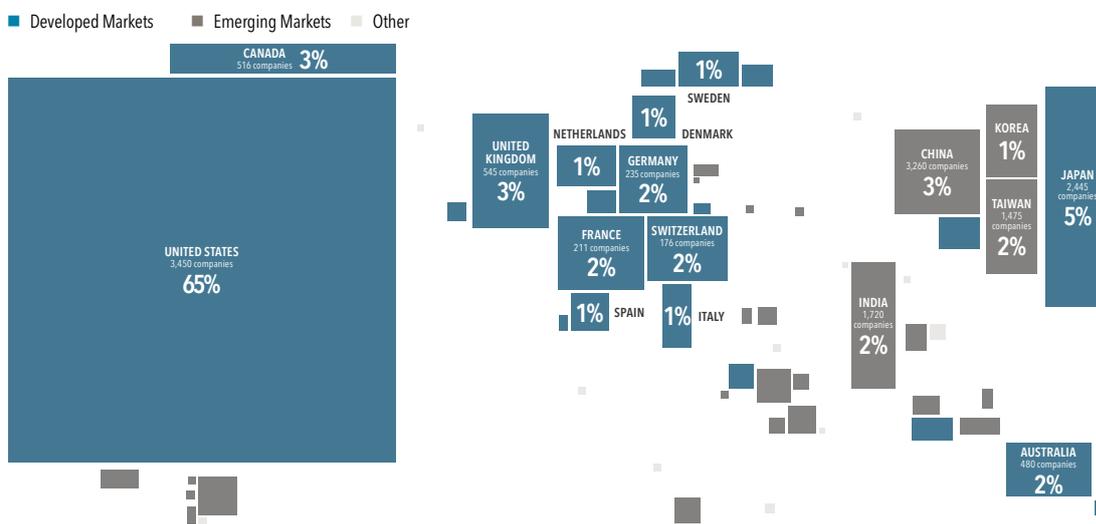
## Equity Allocation

Asset allocation decisions extend beyond the broad split between equity and fixed income. Within equity markets, for example, investors must decide the appropriate allocation across regions and markets.

The World Allocation Funds offer broad exposure to global stock markets. Dimensional believes that global diversification is an effective way to mitigate country-specific risks. It can also meaningfully expand an investor’s opportunity set. From the standpoint of a European investor, for example, non-European developed and emerging markets together represented 87% of global stock markets as of the end of December 2024 and included thousands of listed companies.

A logical starting point for allocating across global stock markets is market capitalisation weights. The global market portfolio holds all securities, and therefore all countries, according to their market capitalisation weights. It is well diversified and incorporates the aggregate forward-looking expectations of all market participants. Weighting countries by market capitalisation also lends itself to efficiency from a trading and turnover standpoint, as country weights linked to market capitalisation naturally adjust as market prices change. Exhibit 4 shows the country weights as of the end of 2024 in the global market portfolio.

**EXHIBIT 4: There's a World of Opportunity in Equities**  
*Percent of world market capitalisation as of December 31, 2024*



**Diversification neither assures a profit nor guarantees against loss in a declining market.**

*Market cap data is free-float adjusted and meets minimum liquidity and listing requirements. Dimensional makes case-by-case determinations about the suitability of investing in each emerging market, making considerations that include local market accessibility, government stability and property rights before making investments. China A-shares that are available for foreign investors through the Hong Kong Stock Connect program are included in China. 30% foreign ownership limit and 25% inclusion factor are applied to China A-shares. Many nations not displayed. Totals may not equal 100% due to rounding. For educational purposes; should not be used as investment advice. Data provided by Bloomberg.*

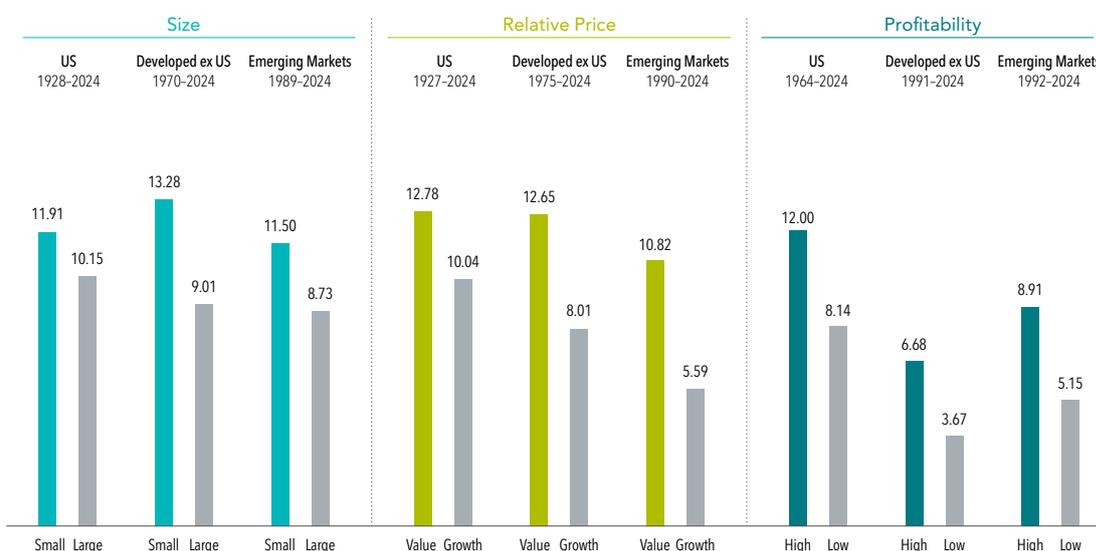
*Free float: In general, describes the number of publicly traded shares of a company.*

## Emphasis on Higher Expected Returns

Decades of theoretical and empirical research have provided investors with valuable insights about drivers of expected returns in equity markets. Valuation theory provides a framework, linking expectations about a firm’s future cash flows to its current value through a discount rate (or, equivalently, the expected return on the stock). Using the valuation framework, we can expect small capitalisation stocks to outperform large capitalisation stocks, low relative price stocks (value) to outperform high relative price stocks (growth) and stocks with higher profitability to outperform low profitability stocks. **Exhibit 5** shows that in markets around the world, stocks with these characteristics have exhibited higher average returns.

### EXHIBIT 5: Dimensions of Expected Returns

*Illustrative index performance: annualised compound returns (%) in US dollars*



**Past performance is no guarantee of future results. Actual returns may be lower.**

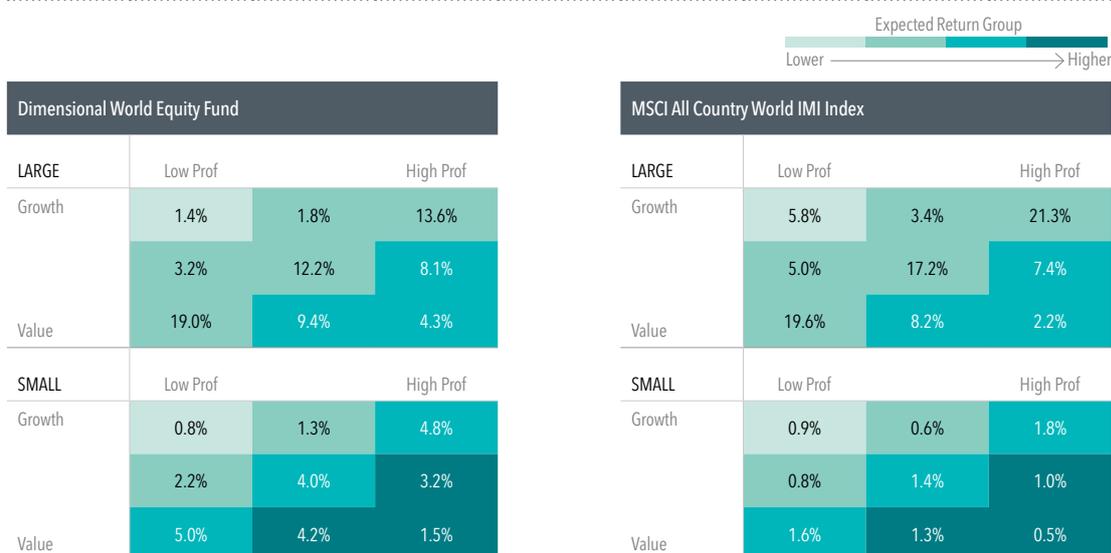
*In USD. Performance may increase or decrease as a result of currency fluctuations. Bars are represented by the following indices, in order. Dimensional US Small Cap Index, S&P 500 Index, Dimensional International Small Cap Index, MSCI World ex USA Index (gross div.), Dimensional Emerging Markets Small Index, MSCI Emerging Markets Index (gross div.), Fama/French US Value Research Index, Fama/French US Growth Research Index, Fama/French International Value Index, Fama/French International Growth Index, Fama/French Emerging Markets Value Index, Fama/French Emerging Markets Growth Index, Fama/French US High Profitability Index, Fama/French US Low Profitability Index, Fama/French International High Profitability Index, Fama/French International Low Profitability Index, Fama/French Emerging Markets High Profitability Index, Fama/French Emerging Markets Low Profitability Index. S&P data © 2025 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data © 2025, all rights reserved. Indices are not available for direct investment; therefore their performance does not reflect the expenses associated with the management of an actual portfolio. Dimensional and Fama/French indices represent academic concepts that may be used in portfolio construction and are not available for direct investment or for use as a benchmark. See "Appendix: Index Descriptions" for descriptions of Dimensional and Fama/French index data.*

Well-structured portfolios that pursue premiums associated with small market capitalisation, low relative price and high profitability have higher expected returns than the market portfolio. The equity portions of the World Allocation Funds consist of direct investments and/or Dimensional equity funds that invest in developed and emerging markets. Together, these holdings create a global total market solution with an integrated emphasis on stocks with higher expected returns.

By illustration, Exhibit 6 shows the weight of the World Equity Fund in areas of the market defined by their size, relative price and profitability characteristics. The shading of the squares is darker in parts of the market with higher expected returns. For example, the darkest squares are those that represent small capitalisation stocks with higher profitability and more of a value orientation. Compared to the market-capitalisation-weighted index shown, the portfolio intentionally tilts towards parts of the market with higher expected returns and away from areas with lower expected returns.

Dimensional also seeks to add value in the World Allocation Funds through a flexible, cost-conscious portfolio management approach. This daily process allows portfolio managers to consider multiple inputs, such as market liquidity, potential trading costs and short-term drivers of return, while maintaining the portfolio’s intended characteristics.

**EXHIBIT 6: Positioned for Higher Expected Returns**  
 Weight allocation by relative price and profitability as of December 31, 2024



**Actual returns may be different than expected returns. There is no guarantee that the strategy will be successful. Expected return groups used in this analysis determined by Dimensional and consider size, value and profitability jointly in determining expected return groups across the market.**

*Indices are not available for direct investment. MSCI data © 2025, all rights reserved.  
 Source: Dimensional using Dimensional data. Size, relative price and profitability defined by Dimensional as follows. In the US, Large Cap is defined as approximately the largest 90% of market capitalisation and Small Cap the smallest 10%. In developed markets except the US, Large Cap is defined as approximately the largest 87.5% of market capitalisation in each country or region and Small Cap the smallest 12.5%. In emerging markets, Large Cap is defined as approximately the largest 85% of market capitalisation in each country or region and Small Cap the smallest 15%. Designations between value and growth are based on price-to-book ratios. Value is defined as the 33% of market cap with the lowest price-to-book ratios by size category, and growth is the highest 33%. Profitability is measured as operating income before depreciation and amortisation minus interest expense scaled by book. High Profitability is defined as the 33% of market cap with the highest profitability by size category, and low profitability is the lowest 33%. REITs and utilities, identified by GICS code, and stocks without size, relative price or profitability metrics are excluded. Weights may not total 100% due to rounding. Holdings are subject to change. The criteria Dimensional uses for assessing securities on company size, relative price and profitability are subject to change from time to time and may differ from the criteria a third-party manager may use.*

Investors should consider balancing the pursuit of higher expected returns with their tolerance for deviations from market capitalisation weights. An important consideration is the risk that the size, value and profitability premiums will not materialise over the relevant investment period. Although these premiums appear on average in historical data, they can be volatile and at times have experienced long periods of underperformance. History shows that the individual premiums

do not necessarily move in lockstep, so blending multiple premiums in the same portfolio can help smooth the volatility of the individual premiums and thus improve the potential reliability of performance over time.

In addition to integrating multiple premiums, Dimensional believes that controlled tilts and broad diversification across countries, stocks and sectors are important risk controls. The World Allocation Funds focus on equities with higher expected returns while maintaining broad diversification. For example, the equity portion of the World Equity Fund included over 13,000 securities across 47 countries as of December 2024.

Portfolio volatility is another common risk metric. However, the volatility of well-diversified portfolios that emphasise the size, value and profitability premiums need not be much higher than the overall market portfolio. For example, the annualised volatility of the World Equity Fund was 12.5% versus 11.7% for the MSCI All Country World IMI Index for the 10 years ending December 31, 2024.<sup>1</sup>

---

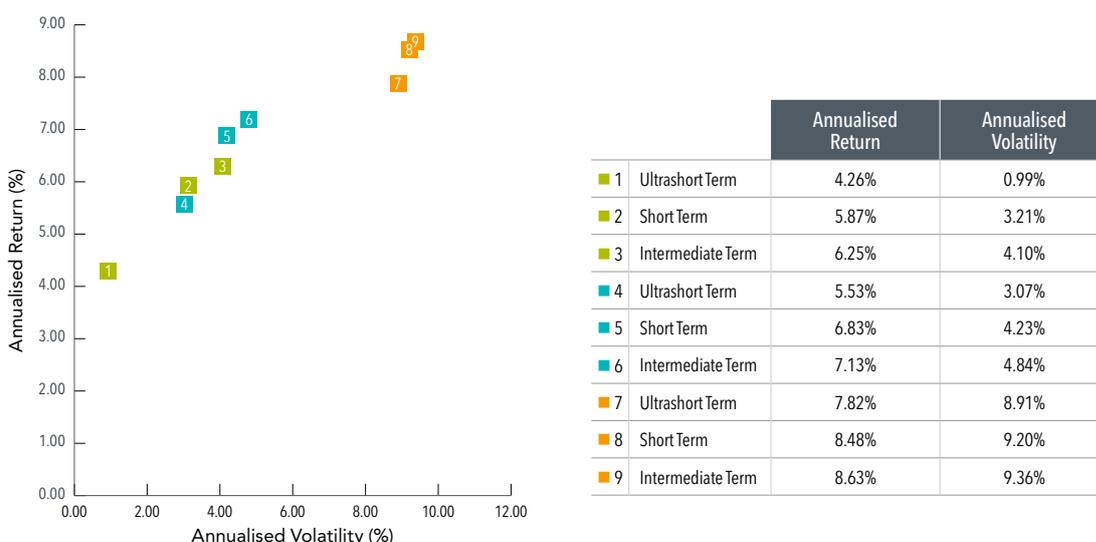
1. MSCI index includes net dividends. In GBP.

## Fixed Income Allocation

Fixed income solutions can be customised to meet a wide range of investor goals. One common use for fixed income is to control overall portfolio volatility. Investors can tailor their fixed income solution to pursue term and credit premiums while staying consistent with a desired portfolio risk profile. Portfolios with large equity allocations can typically afford larger exposures to term and credit risk without significantly impacting the volatility of the portfolio. More risk-averse investors can reduce their equity allocations and take a more conservative approach within fixed income.

Exhibit 7 illustrates the impact of additional term and credit risk on overall portfolio return and volatility. Portfolios in light green are 100% invested in fixed income. Light blue and orange represent portfolios that are invested 80% and 40% in fixed income, respectively, with the remainder in world equities. The fixed income portion of the portfolio is invested in either one-month US T-bills (“Ultrashort Term”), the Bloomberg US Government/Credit Index 1–5 Years (“Short Term”) or the Bloomberg Intermediate US Government/Credit Index (“Intermediate Term”).

EXHIBIT 7: Impact of Term and Credit on Strategies Containing 100%, 80% and 40% Fixed Income, 1976–2024



**Past performance is not a guarantee of future results.**

*In USD. Performance may increase or decrease as a result of currency fluctuations. Equities represented by the MSCI World Index (net div.) from 1976 to 1998 and the MSCI All Country World Index (net div.) from 1999 to 2024. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Ultrashort Term is one-month US Treasury bills. Data provided by Morningstar, Inc. Short Term is the Bloomberg US Government/Credit Index 1–5 Years. Intermediate Term is the Bloomberg US Government/Credit Bond Index Intermediate. MSCI data © MSCI 2025, all rights reserved. Bloomberg data provided by Bloomberg.*

Riskier fixed income investments can have a large impact on volatility when the fixed income allocation is evaluated in isolation, or in portfolios with large fixed income allocations. For example, the annualised volatility of the 100% fixed income portfolio was 0.99% when invested in one-month US T-bills, but 4.10% when invested in intermediate-term bonds, an increase of over four times. However, the volatility impact diminishes substantially in portfolios with larger allocations to equity. In the hypothetical 60/40 Portfolio, the annualised volatility only increased from 8.91% to 9.36% when one-month T-bills were replaced by intermediate-term bonds.

Meanwhile, annualised returns increased from 7.82% to 8.63%. An increase of 0.45% in volatility to pursue higher returns might be an appealing tradeoff for investors who are already bearing meaningful volatility risk from equities.

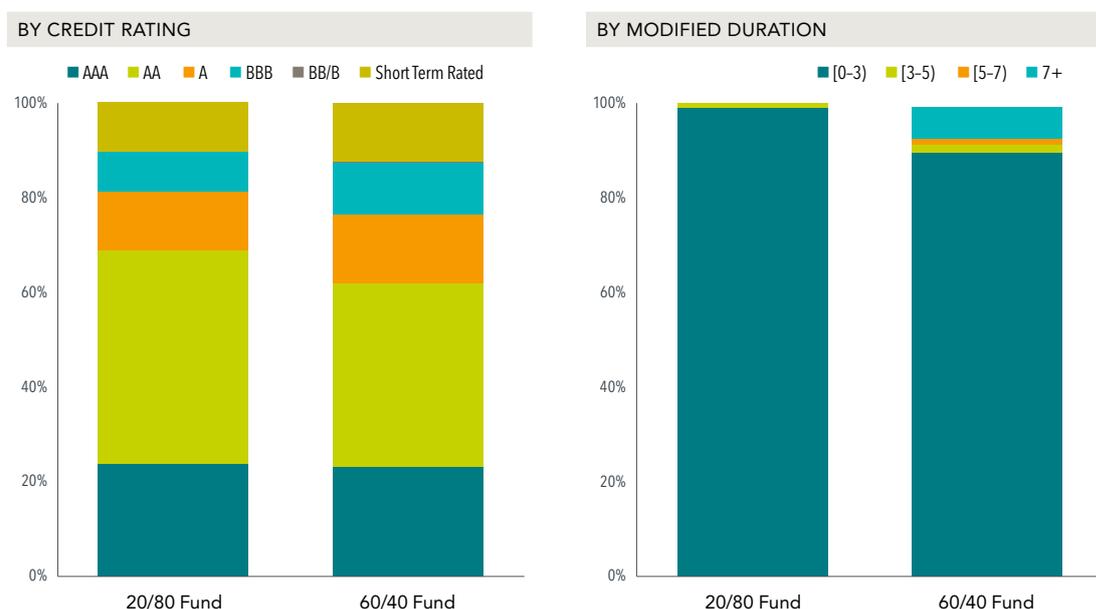
Dimensional's World Allocation 20/80 and 60/40 Funds (the "20/80 Fund" and "60/40 Fund") illustrate how investors might customise the composition of their fixed income allocations depending on their goals. Both funds employ broad diversification as they seek to increase the reliability of outcomes, add flexibility to improve execution and help reduce single-issuer risk. Both employ a dynamic, market-based approach to target term and credit premiums when it makes sense to do so. However, they seek different levels of term and credit exposure.

The 20/80 Fund is designed to meet the needs of a more conservative investor who may have an overall goal of capital and purchasing power preservation, with some capital appreciation. Given these goals, the composition of its fixed income portion focuses on higher credit quality and constrains the fund's duration.

In comparison, the 60/40 Fund, with its higher weight in equities, is designed for investors seeking more capital appreciation. Consistent with this goal, the combination of fixed income funds held by the 60/40 Fund may pursue longer duration and a greater allocation to lower credit quality securities than that of the 20/80 Fund. This gives the 60/40 Fund greater flexibility to target term and credit premiums in both short- and intermediate-grade fixed income.

**Exhibit 8** compares the allocations of the two funds by credit and by modified duration. These allocations will vary over time depending on the environment and the opportunity to pursue higher expected returns by taking on additional term or credit exposure.<sup>2</sup> For example, as of the end of 2024, a period when global yield curves were relatively flat, both funds had almost their entire fixed income allocation in bonds with durations of less than three years. However, even in this environment, the average maturity of a bond in the 60/40 Fund was longer than that in the 20/80 Fund, 1.3 years versus 0.2 years, respectively.

**EXHIBIT 8: Fixed Income Component of the 20/80 Fund and 60/40 Fund**  
As of December 31, 2024



*Credit quality is subject to change. Credit ratings do not eliminate market risk. Credit quality is a measure of an issuer's ability to make timely repayments of interest and principal. Rating service Standard & Poor's uses a letter grade to indicate credit quality.*

*Credit rating agencies Moody's Investor Service, Fitch Ratings and Standard & Poor's Corporation rate the credit quality of debt issues. For reporting purposes, we generally assign a composite rating based on stated ratings from Nationally Recognized Statistical Ratings Organizations ("NRSROs"). For example, if Moody's, Fitch and S&P all provide ratings, we assign the median rating. In certain instances, such as Pre-Refunded Municipals and US Treasury and Agency securities, we will assign the internal Dimensional rating. The internal Dimensional rating can only be as high as the highest stated credit rating from an NRSRO.*

These examples illustrate how the targeting of term and credit premiums can be tailored for investors who want to customise the overall volatility of their portfolios. However, investors may have other goals for fixed income. For example, short-term, high-quality fixed income can help investors meet capital preservation goals. Investors who want to manage specific future liabilities may need a solution that matches the duration of their liabilities. In summary, asset allocation in fixed income should consider the investor's overall investment objective.

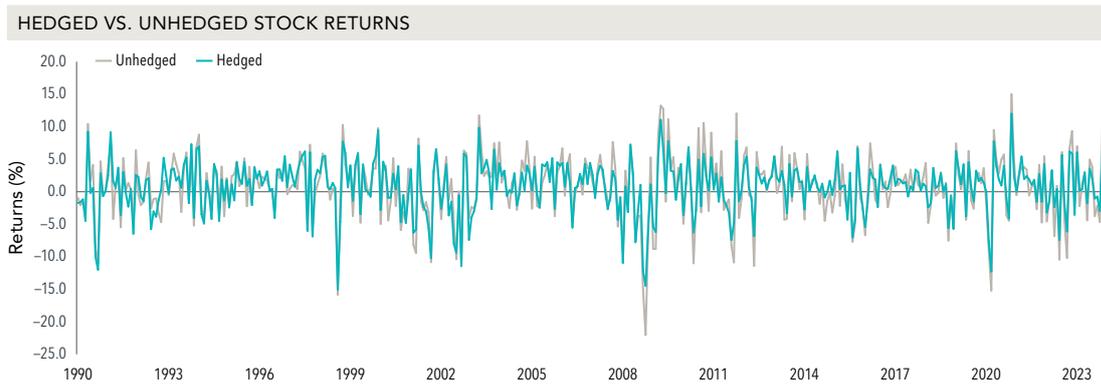
2. For additional information, see Mingzhe Yi, "Higher Expected Returns with Systematic Fixed Income," *Insights* (blog) Dimensional Fund Advisors, June 5, 2024.

## Currency Hedging

The return on world portfolios depends both on the return of the asset and on the return of the currency. How should investors decide if and when to hedge their currency exposure?

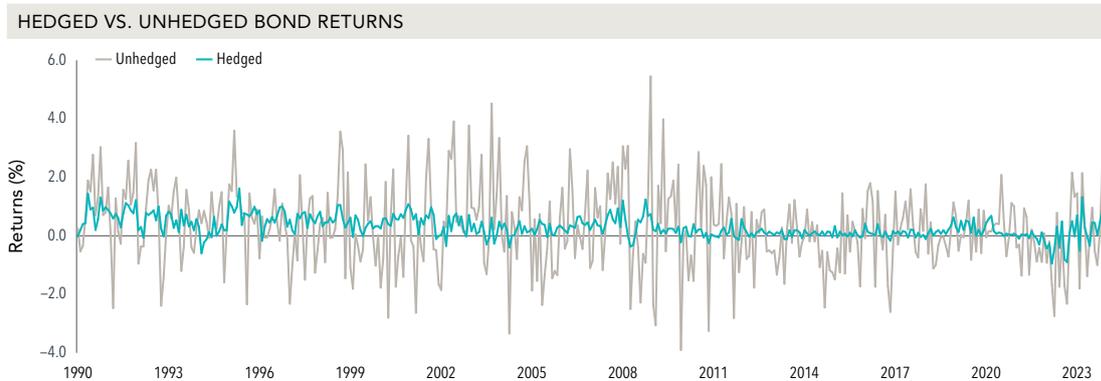
One important consideration for the hedging decision is the impact of currency volatility on overall portfolio volatility. The standard deviation of an unhedged equity portfolio is primarily driven by the volatility of equity; thus, unhedged and hedged equity portfolios have similar standard deviations. Conversely, the standard deviation of unhedged fixed income is dominated by currency volatility. Therefore, hedging currencies can meaningfully reduce the volatility in fixed income portfolios. **Exhibit 9** illustrates this result. The top panel shows monthly returns for hedged versus unhedged equities, while the bottom panel shows monthly returns for hedged versus unhedged bonds.

**EXHIBIT 9: Impact of Currency Hedging on Return Volatility**



**Past performance is not a guarantee of future results.**

*Stock returns measured as an equal-weighted portfolio of nine MSCI country indices. Sample includes Australia, Canada, Germany, Japan, Norway, Sweden, Switzerland, the United Kingdom and the United States. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Source: Dimensional calculations using MSCI index data. MSCI data © MSCI 2025, all rights reserved.*



**Past performance is not a guarantee of future results.**

*Unhedged bond returns are measured using the FTSE World Government Bond Index 1-3 Years Index (unhedged). Hedged bond returns are measured using the FTSE World Government Bond Index 1-3 Years Index (hedged to USD). FTSE fixed income indices © 2025 FTSE Fixed Income LLC. All rights reserved. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.*

The equity exposure held by the World Allocation Funds is unhedged. Since the volatility of hedged and unhedged equities is similar, this decision does not significantly affect the overall volatility of these portfolios. By contrast, Dimensional hedges currency exposure in the fixed income allocations of the World Allocation Funds, aligning with the role of bonds in mitigating overall portfolio volatility.

---

## Conclusion

Using Dimensional's World Allocation Funds as examples, this paper highlights some of the key considerations that go into building an asset allocation solution. Along with the broad split between equities and fixed income, it is important to consider the specific characteristics within the equity and fixed income allocations, such as exposure to drivers of higher expected returns. Investors should consider their investment goals, risk tolerances and time horizons when determining an appropriate asset allocation. While no portfolio is appropriate for every investor, Dimensional's World Allocation Funds are designed to be effective, value-added solutions that can help many investors pursue their investment goals.

---

## Appendix: Index Descriptions

**Dimensional US Small Cap Index** was created by Dimensional in March 2007 and is compiled by Dimensional. January 1975–present: Market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the Eligible Market. The Eligible Market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: Non-US companies, REITs, UITs, and Investment Companies and companies with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Source: CRSP and Compustat. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of each month of the year. The calculation methodology for the Dimensional US Small Cap Index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the Dimensional US Small Cap Index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index. June 1927–December 1974: Market-capitalization-weighted index of securities of the smallest US companies whose market capitalization falls in the lowest 8% of the total market capitalization of the Eligible Market. The Eligible Market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: Non-US companies, REITs, UITs, and Investment Companies. Source: CRSP and Compustat.

**Dimensional International Small Cap Index** was created by Dimensional in April 2008 and is compiled by Dimensional. January 1990–present: Market-capitalization-weighted index of small company securities in the eligible markets, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and United Kingdom. Exclusions: REITs and Investment Companies. Source: Bloomberg. The calculation methodology for the Dimensional International Small Cap Index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the Dimensional International Small Cap Index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index. July 1981–December 1989: Created by Dimensional. Includes securities of MSCI EAFE countries in the bottom 10% of market capitalization, excluding the bottom 1%. All securities are market capitalization weighted. Each country is capped at 50%. Rebalanced semiannually. January 1970–June 1981: 50% Hoare Govett Small Companies Index (hgsmall.ind), 50% Nomura Small Companies Index (nomura.ind).

**Dimensional Emerging Markets Small Index** was created by Dimensional in April 2008 and is compiled by Dimensional. January 1990–present: Market-capitalization-weighted index of small company securities in the eligible markets, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, South Korea, Taiwan, Thailand, and Turkey. Exclusions: REITs and Investment Companies. Source: Bloomberg. The calculation methodology for the Dimensional Emerging Markets Small Index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the Dimensional Emerging Markets Small Index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index. January 1989–December 1989: Fama/French Emerging Markets Small Cap Index.

**Fama/French US Value Index:** Provided by Fama/French from CRSP securities data. Includes the lower 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973).

**Fama/French US Growth Index:** Provided by Fama/French from CRSP securities data. Includes the higher 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973).

**Fama/French International Value Index:** 2008–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy of MSCI EAFE countries in the lower 30% price-to-book range. 1975–2007: Provided by Fama/French from MSCI securities data.

**Fama/French International Growth Index:** 2008–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy of MSCI EAFE countries in the higher 30% price-to-book range. 1975–2007: Provided by Fama/French from MSCI securities data.

**Fama/French Emerging Markets Value Index:** 2009–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy using IFC investable universe countries. Companies in the lower 30% price-to-book range; companies weighted by float-adjusted market cap; countries weighted by country float-adjusted market cap; rebalanced monthly. 1989–2008: Provided by Fama/French from IFC securities data. IFC data provided by International Finance Corporation.

**Fama/French Emerging Markets Growth Index:** 2009–present: Provided by Fama/French from Bloomberg securities data. Simulated strategy using IFC investable universe countries. Companies in the higher 30% price-to-book range; companies weighted by float-adjusted market cap; countries weighted by country float-adjusted market cap; rebalanced monthly. 1989–2008: Provided by Fama/French from IFC securities data. IFC data provided by International Finance Corporation.

**Fama/French US High Profitability Index:** Courtesy of Fama/French from CRSP and Compustat securities data. Includes all stocks in the upper 30% operating profitability (OP) range of NYSE eligible firms. Rebalanced annually in June. OP for June of year  $t$  is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in  $t-1$ .

**Fama/French US Low Profitability Index:** Courtesy of Fama/French from CRSP and Compustat securities data. Includes all stocks in the lower 30% operating profitability (OP) range of NYSE eligible firms. Rebalanced annually in June. OP for June of year  $t$  is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in  $t-1$ .

**Fama/French International High Profitability Index:** Courtesy of Fama/French from Bloomberg securities data. Includes stocks in the upper 30% operating profitability (OP) range in each region; companies weighted by float-adjusted market cap. Rebalanced annually in June. OP for June of

year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1.

**Fama/French International Low Profitability Index:** Courtesy of Fama/French from Bloomberg securities data. Includes stocks in the lower 30% operating profitability (OP) range in each region; companies weighted by float-adjusted market cap. Rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1.

**Fama/French Emerging Markets High Profitability Index:** Courtesy of Fama/French from Bloomberg and IFC securities data. Includes stocks in the upper 30% operating profitability (OP) range in each region; companies weighted by float-adjusted market cap. Rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, selling, general and administrative expenses divided by book equity for the last fiscal year end in t-1.

**Fama/French Emerging Markets Low Profitability Index:** Courtesy of Fama/French from Bloomberg and IFC securities data. Includes stocks in the lower 30% operating profitability (OP) range in each region; companies weighted by float-adjusted market cap. Rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, selling, general and administrative expenses divided by book equity for the last fiscal year end in t-1.

The Dimensional and Fama/French Indices reflected above are not “financial indices” for the purpose of the EU Markets in Financial Instruments Directive (MiFID). Rather, they represent academic concepts that may be relevant or informative about portfolio construction and are not available for direct investment or for use as a benchmark.

**The Dimensional Indices have been retrospectively calculated by Dimensional Fund Advisors LP and did not exist prior to their index inception dates.** Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year.

**Results shown during periods prior to each index’s inception date do not represent actual returns of the respective index. Other periods selected may have different results, including losses.** Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains.

Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP.

---

**FOR PROFESSIONAL USE ONLY. NOT FOR USE WITH RETAIL INVESTORS OR THE PUBLIC.**

The information in this material is intended for the recipient's background information and use only. It is provided in good faith and without any warranty or representation as to accuracy or completeness. Information and opinions presented in this material have been obtained or derived from sources believed by Dimensional to be reliable, and Dimensional has reasonable grounds to believe that all factual information herein is true as at the date of this material. It does not constitute investment advice, a recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. Before acting on any information in this document, you should consider whether it is appropriate for your particular circumstances and, if appropriate, seek professional advice. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized reproduction or transmission of this material is strictly prohibited. Dimensional accepts no responsibility for loss arising from the use of the information contained herein.

This material is not directed at any person in any jurisdiction where the availability of this material is prohibited or would subject Dimensional or its products or services to any registration, licensing, or other such legal requirements within the jurisdiction.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

**RISKS**

**Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful.**

Performance data shown represents past performance and is not a guarantee of future results. Current performance may be higher or lower than the performance shown. Performance may increase or decrease as a result of currency fluctuations.

The principal risks of investing in the Dimensional funds may include one or more of the following: market risk, small companies risk, risk of concentrating in the real estate industry, foreign securities and currencies risk, liquidity risk, political risk, tax risk, settlement risk, risk associated with availability of market information, emerging markets risk, banking concentration risk, interest rate risk, risk of investing for inflation protection, fixed income risk and/or fund-of-funds risk. To more fully understand the risks related to an investment in the funds, investors should carefully read each fund's prospectus, KID and KIID.

Fixed income securities are subject to increased loss of principal during periods of rising interest rates and may be subject to various other risks, including changes in credit quality, liquidity, prepayments, and other factors. Small cap securities are subject to greater volatility than those in other asset categories. Environmental and social screens may limit investment opportunities for the fund. International investing involves special risks such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks. Sector-specific investments can also increase investment risks.

**WHERE ISSUED BY DIMENSIONAL IRELAND LIMITED**

Issued by Dimensional Ireland Limited (Dimensional Ireland), with registered office 25 North Wall Quay, Dublin 1, D01 H104 Ireland. Dimensional Ireland is regulated by the Central Bank of Ireland (Registration No. C185067).

Directed only at professional clients within the meaning of Markets in Financial Instruments Directive (MiFID) (2014/65/EU).

**WHERE ISSUED BY DIMENSIONAL FUND ADVISORS LTD.**

Issued by Dimensional Fund Advisors Ltd. (Dimensional UK), 20 Triton Street, Regent's Place, London, NW1 3BF. Dimensional UK is authorised and regulated by the Financial Conduct Authority (FCA) - Firm Reference No. 150100.

Directed only at professional clients as defined by the rules of the FCA.

Dimensional UK and Dimensional Ireland issue information and materials in English and may also issue information and materials in certain other languages. The recipient's continued acceptance of information and materials from Dimensional UK and Dimensional Ireland will constitute the recipient's consent to be provided with such information and materials, where relevant, in more than one language.

Performance information is provided by Dimensional, as at the date of the material unless otherwise specified. To obtain performance data current to the most recent month-end, visit [dimensional.com](http://dimensional.com). Average annual total returns include reinvestment of dividends and capital gains.

This is a marketing communication. Please refer to the prospectus of the UCITS, KID and KIID before making any final investment decisions.

The World Allocation 20/80 Fund, World Allocation 40/60 Fund, World Allocation 60/40 Fund, World Allocation 80/20 Fund and World Equity Fund are sub-funds of Dimensional Funds plc (the "Dimensional funds") which is structured as an umbrella fund with segregated liability between sub-funds, established as an open-ended investment company with variable capital under the laws of Ireland with registration number 352043. Dimensional Funds plc is authorised by the Central Bank of Ireland as an undertaking for collective investment in transferable securities (UCITS).

Dimensional funds are offered solely under the terms and conditions of the respective fund's current prospectus and applicable UCITS Key Investor Information Document (KIID) and applicable Packaged Retail and Insurance-based Investment Products (PRIIPs) - Key Information Document (KID). Consider the investment objectives, risks, and charges and expenses of the Dimensional funds carefully before investing. For this and other information about the Dimensional funds, please read the prospectus, KID and KIID carefully before investing. The latest version of the prospectus, applicable UCITS KIID (available in English) and applicable PRIIPs KID (available in English and the appropriate local language) may be obtained at [www.dimensional.com](http://www.dimensional.com) or by contacting the fund's administrator at +353 1 242 5536, its distributor Dimensional Ireland Limited at +353 1 576 9750 or, if in the United Kingdom, its sub-distributor Dimensional Fund Advisors Ltd., at +44 (0)20 3033 3300.

In addition, a summary of investor rights is available at [www.dimensional.com/ssr](http://www.dimensional.com/ssr). The summary is available in English.

Dimensional Funds plc is currently notified for marketing into a number of EU member states under the UCITS Directive. Dimensional Funds plc can terminate such notifications for any Dimensional funds at any time using the process contained in Article 93a of the UCITS Directive. Dimensional Funds plc are also recognised in the United Kingdom by the Financial Conduct Authority under the UK's Overseas Funds Regime and can be marketed in the UK.

**NOTICE TO INVESTORS IN SWITZERLAND:** This is advertising material.

#### **FOR LICENSED OR EXEMPT FINANCIAL ADVISORS AND INSTITUTIONAL INVESTORS IN SINGAPORE**

This material is deemed to be issued by Dimensional Fund Advisors Pte. Ltd. (UEN:201210847M), which is regulated by the Monetary Authority of Singapore and holds a capital markets services license for fund management.

**This material is not an advertisement, has not been reviewed by the Monetary Authority of Singapore or the Central Provident Fund (CPF) Board, and should not be shown to prospective retail investors.**

For use by institutional investors and licensed or exempt financial advisors only in Singapore for internal training and educational purposes and not for the purpose of inducing, or attempting to induce, such institutional investors or financial advisors to make an investment. Not for use with the public.

#### **SINGAPORE**

The Dimensional funds discussed herein are offered solely under the terms and conditions of the respective fund's Singapore prospectus (which incorporates the Ireland prospectus) and Product Highlights Sheet or, if applicable, the fund's Singapore Information Memorandum (together, the "Offering Documents"). The value of the investment can reduce as well as increase and therefore, the return on the investment necessarily will be variable. Consider the investment objectives, risks, and charges and expenses of the Dimensional funds carefully before investing. For this and other information about the Dimensional funds, please read the Offering Documents carefully before investing. The latest version of the Offering Documents may be obtained by contacting a Dimensional representative.

**The value of the shares in any fund and the income accruing to the shares, if any, may fall or rise and therefore, the return on the investment necessarily will be variable. Past performance is not necessarily indicative of the future performance. Performance may increase or decrease as a result of currency fluctuations. Any extraordinary performance may be due to exceptional circumstances which may not be sustainable. Investors should note that the funds may from time to time use or invest in financial derivative instruments for hedging and/or efficient portfolio management purposes.**

#### **FOR PROFESSIONAL INVESTORS IN HONG KONG**

This material is deemed to be issued by Dimensional Hong Kong Limited (CE No. BJE760), which is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

For use by licensed financial advisors and institutional investors who are "professional investors" (as defined in the Securities and Futures Ordinance [Chapter 571 of the Laws of Hong Kong] and its subsidiary legislation) only in Hong Kong. This material is provided solely for internal training and educational purposes and is not for the purpose of inducing, or attempting to induce, such financial advisors and institutional investors to make an investment nor for the purpose of providing investment advice. Not for use with the public. This material is not intended to constitute and does not constitute marketing of the services of Dimensional Hong Kong or its affiliates to the public of Hong Kong.

Financial advisors in Hong Kong shall not actively market the services of Dimensional Hong Kong Limited or its affiliates to the Hong Kong public.

#### **HONG KONG**

**WARNING** – This document has not been reviewed nor endorsed by any regulatory authority in Hong Kong. Hong Kong residents are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

The sub-fund(s) referred to in this document are not authorised by the Securities and Futures Commission (the "SFC") in Hong Kong pursuant to Section 104 of the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (the "SFO"). These materials have not been approved by the SFC in Hong Kong, nor has a copy of them been registered with the Registrar of Companies in Hong Kong. Accordingly:

(a) The sub-fund(s) may not be offered or sold in Hong Kong by means of this document or any other document other than to "professional investors" within the meaning of Part 1 of Schedule 1 to the SFO and any rules made under the SFO, or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong) ("CWUMPO") or which do not constitute an offer or invitation to the public for the purposes of the CWUMPO or the SFO; and

(b) no person shall issue or possess for the purpose of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the sub-fund(s) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so in (a) above or under the laws of Hong Kong) other than with respect to the sub-fund(s) which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors".