Diversified Strategies for DC

Many defined contribution (DC) schemes aim to help members target more stable performance and counter periods of poor or volatile returns.

Asset classes perform differently at different times. For example, growth assets like equities, provide better returns in favourable environments but considerably worse returns in stressed markets.

So, portfolios with a limited number of asset classes are likely to experience periods of underperformance or heightened market volatility.

By diversifying across multiple asset classes you can reduce the volatility of your portfolio and stabilise returns.

Asset Class Annual Returns, 2009-2017 (%)

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</tr>
</thead>
<tbody>
<tr>
<td>High Yield</td>
<td>57.3</td>
<td>23.8</td>
<td>16.3</td>
<td>19.6</td>
<td>15.7</td>
<td>11.8</td>
<td>11.3</td>
<td>15.0</td>
<td>18.0</td>
</tr>
<tr>
<td>REITs</td>
<td>25.8</td>
<td>20.5</td>
<td>7.2</td>
<td>13.2</td>
<td>12.2</td>
<td>11.3</td>
<td>10.9</td>
<td>8.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Commodities</td>
<td>10.3</td>
<td>8.9</td>
<td>6.4</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Global Equities</td>
<td>5.9</td>
<td>8.9</td>
<td>-5.8</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
<td>11.8</td>
</tr>
<tr>
<td>Corp Bonds</td>
<td>5.9</td>
<td>-1.2</td>
<td>5.4</td>
<td>-12.7</td>
<td>-11.2</td>
<td>-20.3</td>
<td>-7.1</td>
<td>-7.1</td>
<td>-7.1</td>
</tr>
<tr>
<td>Gvnt. Bonds</td>
<td>-4.8</td>
<td>-7.2</td>
<td>-12.7</td>
<td>-5.4</td>
<td>-11.2</td>
<td>-20.3</td>
<td>-7.1</td>
<td>-7.1</td>
<td>-7.1</td>
</tr>
</tbody>
</table>

Source: Morningstar Direct, as of 31 December 2017.
Past performance is not a guarantee of future results.
HOW TO DIVERSIFY

Diversification can be achieved using a variety of approaches but, in DC, schemes need solutions that can be delivered at a low cost for members.

In the past, this has made introducing diversification difficult as it has been implemented either direct or through active investments which can both be expensive.

Today, there are ways diversification can be implemented at low cost in both an active and indexed approach.

Two Approaches to Diversification
We believe there are two approaches that are suitable for DC schemes:

**DYNAMIC**

The Active Approach
The right assets at the right time.

**STRATEGIC**

The Indexed Approach
Optimise asset class weights to maximise diversification.

State Street Global Advisor’s Diversified Funds

<table>
<thead>
<tr>
<th>Fund</th>
<th>Asset Mix</th>
<th>Asset Allocation</th>
<th>Investment Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Diversified</td>
<td>Equities, Bonds, Alternatives</td>
<td>Dynamic</td>
<td>The fund uses proven market-aware intelligence and portfolio management skill to dynamically change asset allocations to target an optimised balance of risk and return.</td>
</tr>
<tr>
<td>Strategic Diversified</td>
<td>Equities, Bonds, Alternatives</td>
<td>Strategic</td>
<td>The fund seeks long-term returns similar to equities but with lower volatility by using long-term forecasts to optimise asset class weights and maximise diversification.</td>
</tr>
<tr>
<td>Diversified Alternatives</td>
<td>Bonds, Alternatives</td>
<td>Strategic</td>
<td>The fund invests across a wide range of alternative asset classes, markets and securities to diversify away from equities and reduce the overall volatility of the portfolio.</td>
</tr>
</tbody>
</table>
The Dynamic Diversified fund offers DC schemes an innovative, cost-efficient and liquid solution that targets both growth and capital preservation. Indexed components allow it to remain nimble, enabling quick and decisive shifts to ensure we run the most optimal asset allocation mix for the prevailing risk environment.

**Key Facts**
- Liquid diversified growth fund targeting cash +4% per annum
- Reduces volatility with market-responsive dynamic asset allocation
- Significant shifts in asset allocation via skillfully managed in-house index funds
- Asset mix is actively optimised throughout the life of the investment
- Combines the best of active and passive

**The Right Assets at the Right Time**
The objective for this fund is to vary portfolio risk according to market volatility. When risk is rising, caution is required and the fund moves into safer asset classes. When markets are expected to be calmer, we can comfortably add more growth-seeking assets.

**Investment Process**

**DETERMINE MARKET REGIME**
- **Equity Volatility**
  - EUPHORIA
  - LOW RISK AVERSION
- **Currency Volatility**
  - NORMAL
  - HIGH RISK AVERSION
- **Credit Spreads**
  - CRISIS

**OPTIMISE THE ASSET MIX**
- **Growth**
- **Moderate**
- **Defensive**

**WHY INVEST IN THE FUND?**
- Forward-looking, dynamic asset allocation
- Absolute return focus
- Sophisticated risk management and drawdown limitation
- Established track record
- Long-only and unleveraged
- Experienced team using a disciplined framework

**Growth Assets**
- **COMMODITIES**
- **CONVERTIBLE BONDS**
- **EM BONDS**
- **EQUITIES**
- **HIGH YIELD BONDS**
- **INFRASTRUCTURE**
- **PROPERTY**

**Moderate Assets**
- **CREDIT**
- **GOVT BONDS LONG DATED**

**Defensive Assets**
- **CASH**
- **SHORT-DATED GOVERNMENT BONDS**
- **IMPLIED VOLATILITY**

Indicative weights for illustration purposes only.
STRATEGIC DIVERSIFIED FUND

The Strategic Diversified fund seeks to achieve long-term returns similar to equities but with lower volatility. We use our experience as a leading indexation manager to gain broad asset-class exposure using predominantly index building blocks. This enables the fund to be both diversified and cost-effective.

Key Facts
- Targets Cash + 3-4% per annum
- Broad diversification to reduce volatility
- Bespoke methodology focuses on downside risk
- Lower cost structure than active portfolios
- Liquid, daily, cost-effective fund access

Building a Better Portfolio
We believe the right asset allocation rather than stock selection has the largest impact on portfolio returns. This fund was created using our long-term expected return forecasts and estimated correlation of each asset class. We then optimise the asset allocation on a quarterly basis. This approach aims to maximise diversification as well as the risk and return characteristics of the fund.

WHY INVEST IN THE FUND?
- Access to broad diversification
- Focus on risk reduction
- Targets equity like returns
- Established track record
- Low cost

Target Asset Allocation
- Developed Equities 44.5%
- Emerging Equities 5.5%
- Emerging Market Bonds 9%
- High Yield Bonds 8.5%
- Corporate Bonds 6%
- Commodities 6.5%
- Absolute Return 12%
- Infrastructure 6.5%
- Real Estate 4%
- Total 120%

Source: SSGA, 31 December 2017. Target asset allocations shown are as of the date indicated and are subject to change.

Investment Process

MODEL OPTIMISING

TEAM INSIGHTS

Integrated Risk Management
- Diversification
- Absolute Return
- Target Volatility Triggers
- Equity Buy/Write

QuARTERLY

1Target Volatility Triggers are in-built monitoring and adjustment mechanisms which help to limit the impact of market volatility. Should volatility move above the pre-set target level, equity exposure is automatically reduced and switched into cash. 2Equity Buy/Write is an investment strategy involving the purchase of an equity and the sale of a call option on that equity. It is designed to generate additional income from the option premium and can also reduce the risk of the investment.
The Diversified Alternatives Fund seeks to reduce the volatility of your total portfolio and achieve a strong balance of risk and return. It aims to do this by providing exposure to a range of alternative asset classes that have a low correlation to equities.

Key Facts
- Targets Cash +2.5% per annum
- Diversified exposure to non-equity growth assets
- Low correlation to equities to maximise diversification benefits
- Optimised to minimise downside risk
- Liquid, daily, cost-effective fund access

Targeted, Cost-effective Diversification
We created this fund using our long-term expected return forecasts and estimated correlation of each asset class. It was designed to be included in a predominantly equity based portfolio to help maximise the risk and return characteristics of the overall portfolio.

Target Asset Allocation
- 5.5% Real Estate
- 14.5% Commodities
- 22.5% Absolute Return
- 4.5% Infrastructure
- 18% Corporate Bonds
- 20% High Yield Bonds
- 15% Emerging Market Bonds

Source: SSGA, 31 December 2017. Target asset allocations shown are as of the date indicated and are subject to change.

Why Invest in the Fund?
- Access to broad, non-equity diversification
- Focus on risk reduction
- Established track record
- Low cost

Investment Process
- Asset Class Expected Returns
- Asset Class Risks
- Constraints

Integrated Risk Management
- Diversification
- Absolute Return
Your DC Partner

At SSGA, our DC expertise runs deep. Drawing upon a global perspective, we help scheme sponsors and service providers solve local challenges. Understanding that every employer, scheme and service provider may be unique, we bring extensive resources to the table to help you design, implement and manage the best possible solutions.

With 30 years of DC experience and £367 billion* in global DC assets, our dedicated team is passionate about retirement and committed to creating better outcomes for scheme members.

To understand more about diversified strategies for DC, please contact: ukdc@ssga.com | ssga.com/ukdc

*As at 31 December 2017. State Street Global Advisors is the investment management arm of State Street Corporation.
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Standard deviation is a historical measure of the volatility of returns. If a portfolio has a high standard deviation, its returns have been volatile; a low standard deviation indicates returns have been less volatile. Standard Deviation is normally shown over a time period of 36 months, but the illustrations noted above may reflect a shorter time frame. This may not depict a true historical measure, and shouldn’t be relied upon as an accurate assessment of volatility.

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