



The Allocation Illusion

Measuring country risk exposures in
Defined Contribution Pension portfolios



in collaboration with



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Foreword

In a globally diversified corporate landscape, it is typical – and beneficial – for businesses to be exposed to an array of different economies. Appealing to an international marketplace allows them to target a greater number of customers, each of them offering a potential contribution to revenues.

While an international outlook is attractive to business leaders and shareholders alike, this can present challenges for those seeking to understand a company's, and collectively a market's, true exposure to economies beyond its domestic borders. This is especially relevant to investors and savers, who may not understand that the country of a company's primary stock market listing does not necessarily reflect the geographical diversity of its revenue base.

This has particular bearing in the ever growing world of Defined Contribution (DC) pensions where auto-enrolment is expected to boost the number of individuals enrolled in DC workplace pension schemes to nine million people by 2018¹ and the value of the assets invested in DC schemes, currently estimated to be around £275 billion, to at least double that by 2022.² Within this, many people are having their assets placed into DC default arrangements with the expectation that their portfolios being globally diversified. The following report throws the spotlight on this, offering

some surprising conclusions about the gap between these schemes' apparent exposure to global economies and the reality. There is nothing new in the concept that listings do not necessarily indicate companies' true exposure to foreign markets and economies but this is a less familiar concept to the public at large.

We do not make any recommendations or anticipate a change in behaviour as a result of this information, but as auto-enrolment increasingly becomes the norm in the UK, individual pension investors mandatorily enrolled in Defined Contribution schemes (and those charged with the governance of these arrangements) may not fully understand their geographic exposure mix.

Assisting this new generation of pension investors is an important step towards greater transparency and accountability and we hope that the research in these pages aids public understanding of this critical investment decision.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/223031/wpr_digest_0712.pdf

² http://webarchive.nationalarchives.gov.uk/20131101164215/http://www.offt.gov.uk/shared_offt/market-studies/oft1505

Executive Summary

Measuring country exposure in UK defined contribution default funds based on funds' allocation to stocks by country of corporate registration provides a fundamentally inaccurate picture.

Listings-based analysis significantly overstates a fund's exposure to the domestic UK economy. A truer picture emerges from an economic exposure analysis, which measures a company's reliance on foreign economies by revenue.

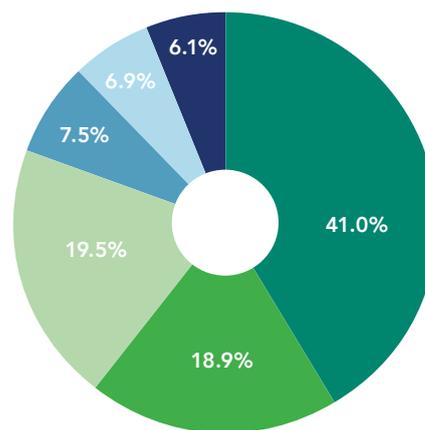
The full analysis can be found below:



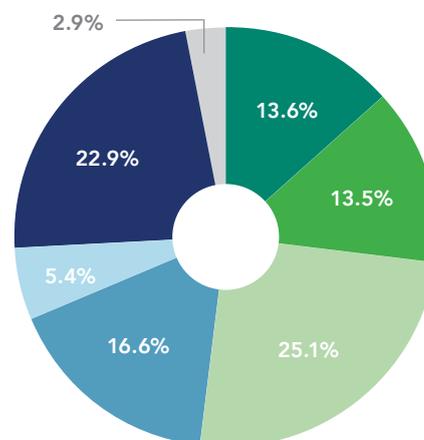
Highlights from the report include:³

- Based on country exposure by listing, default funds have an average stated allocation of 41% towards UK companies
- Based on economic exposure analysis, focusing on where revenues are accrued, default funds' actual exposure to the UK economy is only 13.6%
- Based on exposure by listing, exposure to Emerging Market companies is 6.1%; but exposure to Emerging Market economies is 22.9%, almost double the exposure to the UK
- Based on exposure by listing, exposure to North American companies is 19.5%; by economic exposure to the North American economy, it is 25.1%
- Based on exposure by listing; exposure to Japanese companies is 7.5%; by economic exposure to Japan's economy, it is 16.6%

GEOGRAPHIC ALLOCATION WEIGHT AS AT 31 MARCH 2014



MSCI ECONOMIC EXPOSURE WEIGHT



3 All data in this summary is weighted on funds' size

* MSCI Investable Market Indexes (IMI) encompass large, medium and small cap stock in each market

** Countries that are not covered by the MSCI Global Investable Market Index framework

Study in full

Having just come through one of the worst economic downturns in living memory, investors and savers alike are coming to terms with our new economic reality. From a pensions perspective, this new normal has seen a continued move away from Defined Benefit structures to Defined Contribution spurred on by the introduction of auto-enrolment.

It has created a low interest rate environment and has sharpened our attitude to risk like never before. Indeed the swathes of global financial regulation that has followed the downturn is almost exclusively driven by a desire to manage risk, risks to governments, to corporates and to individual savers.

The short to medium term outlook however is likely to see a number of changes to the backdrop. Interest rates that have hitherto remained low are likely to start rising as the Bank of England, ECB, Federal Reserve, Bank of Japan and the like look to drive growth and manage national debt through inflation and Quantitative Easing (QE) is going to have to start unwinding at some point. Yet growth still remains slow. The most recent World Economic Outlook Report from the IMF entitled "Legacies, Clouds, Uncertainties"⁴ highlights the downward revision to global growth forecasts:

“ Largely due to weaker-than-expected global activity in the first half of 2014, the growth forecast for the world economy has been revised downward to 3.3 percent for this year, 0.4 percentage point lower than in the April 2014 World Economic Outlook (WEO). ”

There are a variety of reasons for this slow growth around the world but with so many moving parts and memories of the recent crisis still fresh in their minds, many investors, particularly those managing their own pension funds, are seeking a very prudent approach to risk, hedging exposure where appropriate. The findings of this report undertaken in partnership between the Society of Pension Professionals and OM Asset Management, with data and analysis provided by MSCI, show that country risk exposure may be somewhat different to that presented at face value by default fund allocations.

Olivier Lebleu, Head of International Business at OM Asset Management PLC commented,

“ Default plan design is mostly built around asset allocation models that seek to diversify risk based on funds with a stated geographic exposure. That is perfectly understandable but it does beg the question of whether the diversification that is being sought is being achieved, given the very different economic exposures embedded in supposedly ‘pure play’ regional or single country funds? ”



4 <http://www.imf.org/external/pubs/ft/weo/2014/02/pdf/text.pdf>

Comparing a weighted average equity allocation of almost £20 billion of default funds against the actual economic exposure of the companies invested in by these funds using data from MSCI, reveals a significant difference between funds' headline country exposures and the reality of the extent to which their revenues are dependent upon a variety of non-domestic markets.

The following table, weighted by fund size, indicates the size of this difference:

Index	Geographic Allocation Weight (as at 31 March 2014)	MSCI Economic Exposure Weight
UK IMI	41.0%	13.6%
Europe ex UK IMI	18.9%	13.5%
North America IMI	19.5%	25.1%
Japan IMI	7.5%	16.6%
Pacific ex Japan IMI	6.9%	5.4%
EM and FM IMI	6.1%	22.9%
Other*	-	2.9%
Total	100%	100%

* Countries that are not covered by the MSCI Global Investable Market Index framework

Measured by country of listing, the DC default funds surveyed reported a UK company equity weighting of between 27% and 65%, meaningfully above the slightly less than 14% exposure to the UK market registered on an economic exposure basis. The differential between Emerging Markets exposure on a listing and economic exposure basis is similarly large, with the default funds reporting a weighting of on average 6.1% based on the former measure but showing an exposure of almost 23% to EM economies when assessed on an economic exposure basis (i.e. almost four times the face value level). What is perhaps most worthy of note is that DC default fund exposure to emerging market economies on an economic exposure basis is almost double that of its exposure to the UK. However before pension investors raise an alarm, it is worth pointing out that corporate exposure to the emerging markets is predominantly driven by large, developed market corporations which typically have a very clear understanding of their emerging market investments and exposure. Nevertheless, if pension funds have taken asset allocation

decisions with the goal of diversifying geographic risk – and potentially using geographic exposure as a hedge in an environment where interest rates will, in different parts of the world, change in the short term, potentially impacting corporate earnings – it is important that these funds have an increasing awareness of the economic risk factors to which they are exposed.

Duncan Buchanan, President of the Society for Pension Professionals, commented:

“ *The primary purpose of this research is simply awareness. We neither anticipate nor recommend a specific change in investor behaviour as a result of the study. While the UK weighting by economic exposure is significantly below that suggested by an analysis of listings, we should remember that according to the 2013 IMF figures, the UK only contributes 2.28% to global GDP so a lower allocation in a globally diversified portfolio may actually be more appropriate.* ”

As default funds, their nature dictates that they be well diversified. But while security is paramount, so is the taking of managed risks to generate returns. A fund targeting returns of 5% may elect to select stocks with a meaningful revenue base in non-domestic markets, including emerging markets, where volatility can often be higher yet hold the promise of faster economic growth.

Equally, the difference between the two measures could simply reflect the international nature of modern business, especially for an economy with the UK's global outlook.

Returns are driven by risk but pension investors often expect investment managers to seek them with the lowest risk profile possible. It may be necessary for funds to choose stocks with meaningful economic exposure to markets other than those suggested by their primary listing, but the 17-percentage point differential between the exposure to the UK economy suggested by listings and that revealed by an economic exposure analysis is likely to come as a surprise, as will the 19-point differential for Emerging Markets.

This research is intended to get pension investors thinking not just about the country risks that they believe they are exposed to, but the actual risks they really do run as a result of their fund managers' stock selections. Ultimately the danger is that a hedging and risk management strategy may be based on an exposure that is somewhat distant from the reality.

In conclusion Duncan Buchanan, President of the Society of Pension Professionals added:

“ With auto-enrolment set to drive more and more people into default fund strategies we hope that this report

encourages more pension savers and investors to take a greater interest in the risk profile of their savings as part of ensuring the best possible outcomes for their retirement. ”

Summarising the situation, Olivier Lebleu, Head of International Business at OM Asset Management plc commented:

“ With the help of the SPP and MSCI, we have been able to start 'lifting the veil' on the issue of how DC plans allocate savers' assets. Much more analysis needs to be done and we call on the industry to participate more fully in the kind of open and transparent debate which can only enhance every industry participant's standing amongst the saving public. ”

Steven Kowal, Executive Director in MSCI's Index Business for EMEA and South Asia, observes:

“ When diversifying a portfolio geographically, the country where a company has its headquarters registered is becoming increasingly less relevant than where its revenues are derived. I'm sure many savers will be surprised to learn that the representative sample portfolio, with 41% allocated to UK companies, would have a 17% exposure to the Japanese economy and 23% to Emerging Market countries. At the same time, the bias towards "home" country companies is declining as professional investors expand their options to take advantage of the global universe of investments. MSCI's Economic Exposure data enables investors to more fully assess where country economic exposures lie in portfolios and private pension investors may also benefit from having such a view. ”

“ However before pension investors raise an alarm, it is worth pointing out that corporate exposure to the emerging markets is predominantly driven by large, developed market corporations which typically have a very clear understanding of their emerging market investments and exposure. ”

Highlighting the issue at a Corporate Level

Three company samples indicate the scale of the issue by basing portfolio geographic country exposure on a companies' country of domicile alone. AstraZeneca, HSBC and Vodafone, which on a by-listing basis would qualify as allocations to the UK, in reality derive only a small portion of their income from the UK market, as shown by the economic exposure analysis charts below. These show the breakdowns of international and domestic exposure, and the top percentage-markets by economic exposure.

% of Revenues derived from:		
 AstraZeneca	 HSBC	 vodafone
International Exposure 93.4%	International Exposure 96.2%	International Exposure 88.4%
Domestic (UK) Exposure 6.6%	Domestic (UK) Exposure 3.8%	Domestic (UK) Exposure 11.6%
USA 39.6%	HONG KONG 19.4%	GERMANY 17.8%
JAPAN 9.8%	USA 11.6%	UK 11.6%
UK 6.6%	CHINA 6.4%	ITALY 10.8%
CHINA 5.4%	BRAZIL 6.4%	S.AFRICA 10.3%
FRANCE 4.9%	GERMANY 5.2%	INDIA 9.8%

Methodology

A sample of defined contribution default funds with collective assets under management totalling £19.34 billion was collected by the Society of Pension Professionals, and broken down by the percentage of assets allocated by geography.

MSCI mapped each country / region allocation to a corresponding MSCI index and conducted its Economic Exposure analysis for each. The resulting country exposures for each were aggregated across the sample to come up with the comparative data used in the tables in this report. The results were weighted according to fund size. Data was collected and analysed as at 31 March 2014.

MSCI Economic Exposure Methodology

Economic Exposure - where companies obtain their revenues

With the continued integration of world markets, companies are increasingly exposed to economic activity beyond their domestic borders. Understanding the geographic distribution of company revenues — both current and historical — in this global context can significantly enhance the investment decision processes for constructing, analysing and managing portfolios.

The **MSCI Economic Exposure** methodology applies a simple and transparent method for quantifying a firm's economic exposure to the range of countries and

regions that generate its revenues. This approach is reliable and consistent, despite significant disparities in the way companies report their revenues across geographic segments.

MSCI breaks out each stock's reported revenues into country-by-country estimates. Using this, investors can then examine an equity portfolio and determine its economic exposure by aggregating the revenues of its constituents at a country or regional level.

For more information about MSCI Economic Exposure Methodology, please visit <http://www.msci.com/products/>

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MSCI

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The company's flagship product offerings are: the MSCI indexes with over USD 9.5 trillion estimated to be benchmarked to them on a worldwide basis;⁵ Barra multi-asset class factor models, portfolio risk and performance analytics; RiskMetrics multi-asset class market and credit risk analytics; IPD real estate information, indexes and analytics; MSCI ESG (environmental, social and governance) Research screening, analysis and ratings; and FEA valuation models and risk management software for the energy and commodities markets. MSCI is headquartered in New York, with research and commercial offices around the world.

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