

UK biodiversity – a credit to the nation?

August 2024

Those of us old enough to remember the fly-strewn windscreens of the 20th century have firsthand experience of the decline in insect populations over the last 25 years. That's just one of many stark examples of biodiversity loss; it isn't just an issue affecting places far away. According to the 2023 State of Nature report, the UK is now one of the most nature-depleted countries on Earth, with nearly one in six species threatened with extinction.

While nature is declining quickly in the UK, there are also areas where the UK is paving the way, taking steps to tackle biodiversity loss. Developments such as the Dasgupta Review on the economics of biodiversity, the commitment to protect at least 30% of land and marine areas by 2030 and Biodiversity Net Gain show that the UK has the potential to be a leader in the global race to tackle nature loss.

Introduction to UK biodiversity

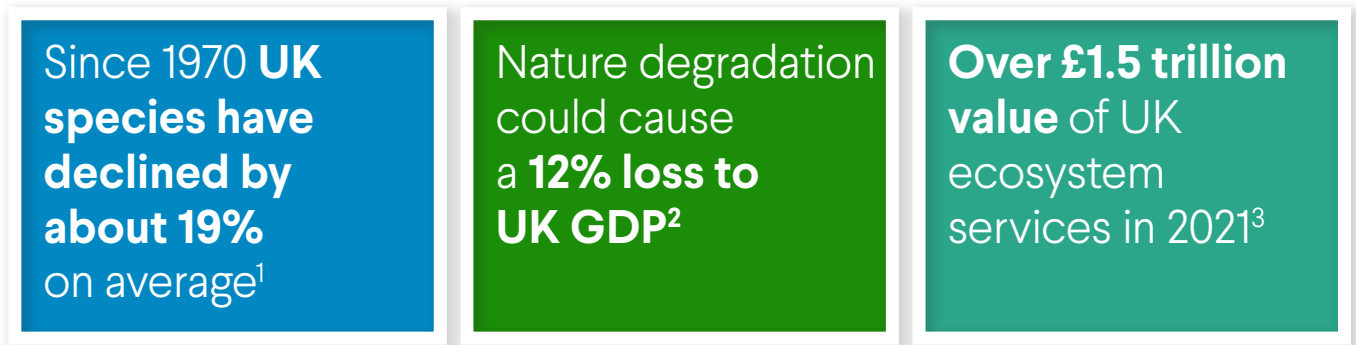
According to the [Green Finance Institute](#), nature degradation is slowing the UK economy and could lead to a 12% loss in UK GDP in the years ahead, a larger impact than the global financial crisis or Covid-19. The [State of Nature report](#) highlighted that the UK is ranked in the bottom 10% globally for biodiversity depletion, in last place among the G7 nations.

One in six UK species are threatened with extinction. Out of the natural habitats that are important for wildlife, only 14% were found to be in a "good" ecological state. The two main causes of biodiversity decline in the UK are unsustainable farming and climate change. Although only 1% of the working population is employed in agriculture, agricultural land accounts for 70% of the UK's total land

area. The push to increase productivity and profit in farming, coupled with a challenging economic landscape and worsening climate change pressures, has had a detrimental impact on UK biodiversity.

The [Dasgupta Review](#) on the Economics of Biodiversity, commissioned by the UK Treasury and published in 2021, emphasised the importance of protecting biodiversity for our economic prosperity. The report included a framework to help account for nature in economics and finance. Agriculture, manufacturing and utilities face a particularly high level of nature-related financial risk, including from flooding, water scarcity and pollution, so should be areas of focus for investors looking to tackle biodiversity loss in their portfolios.

Figure 1: UK nature crisis



As an island, Britain has over 18,000 miles of coastline. Coastal and marine ecosystems are particularly under pressure, driven by threats such as overfishing, pollution and climate change. However, the UK is currently one of only two countries that have designated over 30% of their waters as marine protected areas. Our publication on [Why Oceans and Marine Biodiversity Matter](#) sets out some actions that investors can take to tackle marine issues.

Biodiversity is quickly moving up the agenda for UK companies and asset owners. Some of the key actions are making agriculture more sustainable, reducing overexploitation of biodiversity and supporting the restoration of the habitats that support UK biodiversity. Recent guidance such as the [Taskforce on Nature related Financial Disclosures](#) framework, launched in September 2023, also supports a greater focus on nature-related impacts and companies' dependence on nature.

UK biodiversity timeline

Devolution has caused different parts of the UK to take different approaches to tackling the biodiversity crisis. However, there are UK-wide commitments to international agreements aiming to address this important issue. In December 2022, the UK was one of nearly 200 countries to commit to the Kunming-Montreal Global biodiversity [framework](#), including the headline 30x30 target to protect and restore 30% of our lands and oceans by 2030.

The following timeline sets out some of the milestones for UK biodiversity.

Figure 2: UK biodiversity timeline



There has been a growing trend towards stronger nature regulation, particularly in Europe, including the [EU Corporate Sustainability Reporting Directive](#) (CSRD) and the [EU Deforestation Regulation](#), which both become mandatory requirements in 2024. The next section introduces Biodiversity Net Gain, which is coming into force in England in 2024/25.

¹<https://www.wildlifetrusts.org/news/landmark-report-shows-uk-wildlifes-devastating-decline>.

²<https://www.greenfinanceinstitute.com/insights/assessing-the-materiality-of-nature-related-financial-risks-for-the-uk/>.

³<https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalaccounts/2023>.

Biodiversity Net Gain

The UK Government's Environment Act 2021 introduced a mandatory requirement for Biodiversity Net Gain (BNG), which mandates that all planning applications in England must demonstrate how a development will protect habitats and "enhance biodiversity" by at least 10%.

BNG came into force in February 2024 for large property developments, April 2024 for small property developments and is due to apply to infrastructure projects from November 2025. The net gain can be delivered in one of the following ways:

1. On-site, which is the preferred option.
2. Off-site, by securing an appropriate compensation site, ideally in a like-for-like habitat.
3. Through statutory biodiversity credits (see below), where a development cannot be achieved through the other two methods.

UK biodiversity credit schemes

Biodiversity credit schemes are innovative market-based mechanisms designed to finance conservation and restoration efforts by translating ecological improvements into measurable units of change, otherwise known as 'credits'. These credits, which represent verified positive impacts on biodiversity, can be purchased by businesses or individuals looking to balance their environmental impact or fulfil corporate sustainability goals.

There are two types of biodiversity credit, as set out below:

**Statutory credits:
Regulated national regime for trading**

**Voluntary credits:
Nature positive contributions traded
by actors on a voluntary basis**

The primary purpose of credit schemes is to mobilise private investment into biodiversity projects, providing essential financial support to conservation activities that might otherwise lack sufficient funding from other sources such as government or philanthropy. We expect actors who need to comply with Biodiversity Net Gain will generate demand for statutory credits, and voluntary credits can play a role in meeting nature targets.

In the UK, such schemes are gaining traction as vehicles for funding local biodiversity conservation efforts. The emergence of this sector is driven by a critical need to bridge the substantial financing gap for nature in the UK, which has been identified in [several reports](#), suggesting that billions are required annually to meet biodiversity and environmental targets. Meeting this need is further supported by global initiatives such as the Kunming-Montreal Global Biodiversity Framework, which seeks to mobilise substantial financial resources for biodiversity and ecosystem protection and restoration.

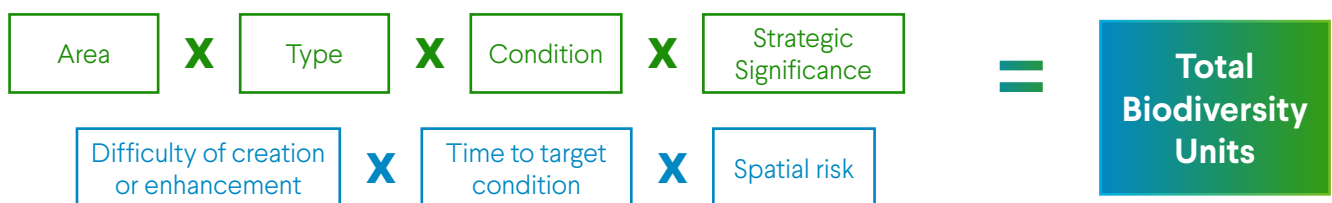
Statutory mechanism: DEFRA biodiversity metric

The biodiversity metric set out by the Department for Environment, Food & Rural Affairs (DEFRA) is at the heart of UK biodiversity net gain. It illustrates how biodiversity can be measured in practice, both for new developments and for statutory biodiversity credit markets.

The calculation aims to ensure that developments result in an improved natural habitat. Irreplaceable habitats (such as ancient woodland) are very difficult and time consuming to recreate once destroyed, so the BNG requirement does not apply to these.

The statutory metric measures the biodiversity value of a habitat by calculating its number of biodiversity units before and after a development. There are three types of units: area habitat, hedgerow and watercourse. The formula is set out below.

Figure 3: biodiversity unit calculation



This takes into account the following features to compare the baseline and post-intervention positions and calculate a net change in biodiversity units:

- **Area** – measured in hectares
 - **Type** – which assesses the distinctiveness of each habitat (from very high to very low)
 - **Condition** – state of a parcel of habitat from good to poor
 - **Strategic significance** – local importance based on location and habitat type (from high to low), can refer to the [Local Nature Recovery Strategy](#) set by the local authority
 - **Additional risk factors** around timescales, spatial risks and potential difficulties
- The expectation is that there will be a regular review of the biodiversity metric with recommendations from Natural England every 3–5 years. The application of the metric, and use of biodiversity credits more generally, should follow the mitigation hierarchy, where actors should:
1. avoid creating negative environmental impacts as far as possible
 2. minimise the extent of environmental impacts that cannot be avoided
 3. only when every attempt has been made to do these two steps, use credits to offset residual impact.

BNG and the DEFRA metric have helped bring nature up the agenda and drive conversations around nature restoration in the UK. However, we should highlight some potential issues with the net gain metric and BNG more widely:

- Lack of implementation resource, both within local authorities and with too few experts to support measurement.
- Also increases the complexity of the planning process.
- Mostly focused on habitat, not species biodiversity, ecosystem health or genetic resilience – causes a risk of greenwashing if net gain fails to benefit local species.
- Leveraging regulation could lead to detrimental uniformity – eg lots of grassland or spruce-based monoculture.
- Doesn't capture social issues related to biodiversity.
- Land-price increases and growing concentration of ownership can price out other actors from taking positive actions for nature (eg communities and NGOs focused on conservation).

Voluntary biodiversity mechanisms

In parallel to the development of BNG and statutory credits, the emergence of voluntary biodiversity credit schemes in the UK has been significant, as set out in Table 1. However, the market faces some challenges and remains stagnant. At the time of writing, there have not been any voluntary biodiversity credit sales recorded in the UK.

Table 1: Examples of UK Voluntary Biodiversity Schemes

Scheme	Credit Calculation	Nature-Based Outcomes	Project Length	Credit Size	Credit Price
Credit Nature	1 point uplift on the Ecosystem Condition Index = 10 nature credits per hectare	Hollistic ecosystem uplift with multiple services and benefits, including carbon. Also incorporates species and habitat approach	10-30 years +	1000m2	£20-60
Earthly	BNG / DEFRA metric	Habitat approach	30 years	9m2	£50-250
Plan Vivo	1 restoration credit = 1% uplift of the multimetric per hectare	Nature based carbon approach with biodiversity co-benefits	10-30 years	1 hectare	TBD
RePlanet / Wallacea Trust	1 credit = 1% uplift or avoided loss of the median value of the metrics	Nature based carbon approach with biodiversity co-benefits	20-30 years	1 hectare	\$5-30
SEED Index	Biodiversity uplift, species bioabundance & system change	TBD	30 years +	TBD	TBD

The CreditNature case study below sets out how voluntary credit schemes can work in practice.

Demand exists for biodiversity credits, and there is supply, but developers are struggling to sell their credits. This inertia is due to a number of reasons, but the primary blockers seem to be:

A. Greater focus from companies on making interventions within their value chains to align with emerging disclosure frameworks (e.g. TNFD).

B. Companies looking to invest beyond their value chain have a general lack of confidence in the market and would rather not be first movers

C. Corporates waiting to see what comes out of the UK [Nature Markets Dialogue](#) with specific attention paid to what levels of voluntary requirements might emerge

This lack of confidence stems from a combination of factors, ranging from fears of greenwashing (that have spilled over from the voluntary carbon market) to a lack of understanding about biodiversity and ecosystems. These are inherently complex owing to their multifaceted nature, which presents unique challenges in standardisation and valuation.

So, what could be the key drivers to unlocking demand in this nascent market?

- ◆ **Regulatory Frameworks:** clearer regulatory pathways can support the contribution of various economic sectors to meeting biodiversity targets. We have seen the influence of regulatory pathways for carbon emissions, particularly in jurisdictions that have established comprehensive climate policies, in helping the voluntary carbon market to mature.
- ◆ **Preparation of Nature Strategies:** robust corporate strategies that incorporate a clear set of commitments and budgets relating to nature restoration.
- ◆ **Recognition of the inextricable link between climate and nature crises:** recognition that investment in nature and ecosystems is one of the most viable nature-based solutions to [mitigate and adapt to climate change](#).
- ◆ **Market Confidence:** establishing high-integrity markets with robust standards and clear accreditation processes is essential to attract investment. These markets must provide assurances that the environmental benefits are real and verifiable (such as aligning with the British Standards Institution's [guiding principles for UK nature markets](#)). Furthermore, emerging credit schemes must adhere to high-integrity principles for themes such as **additionality**¹ and **durability**.²
- ◆ **Bundling of Ecosystem Services:** there is increasing demand from corporates to purchase as many material ecosystem services from one credit product as possible. Rather than buying different ecosystem service credits from different suppliers (eg one credit for carbon, one credit for biodiversity), companies would prefer to source a single holistic credit that delivers multiple services at once.
- ◆ **Innovation in Financial Mechanisms:** developing practical and scalable market designs that can efficiently handle biodiversity credit transactions is vital.

¹**Additionality** refers to the requirement that the positive biodiversity outcome from a project that generates credits would not have occurred without the project intervention.

²**Durability** means that the biodiversity outcomes on which credits are based are expected to persist for an extended period.

◆◆◆ CASE STUDY: CREDITNATURE

[CreditNature](#) is a nature fintech company operating within the field of biodiversity and voluntary nature credit markets in the UK. It aims to mobilise investment into nature restoration and support a rural economy that is resilient and regenerative, while offering corporate investors a way to secure sustainable business growth and evidence nature-positive activity.

CreditNature is working with support from the Scottish Government, NatureScot and the Scottish Environment Protection Agency to develop the market infrastructure for a voluntary nature credit market in Scotland. To achieve this, they have developed two types of nature asset:

1. **Nature Investment Certificates:** which represent a one-hectare investment in a verified nature-restoration area, priced to cover project costs. These finance project activities, and yield nature credits and other agreed benefits such as rights to specific ecosystem services.
2. **Nature Credits:** which represent verified improvements in ecosystem condition and can be claimed, reported or traded.

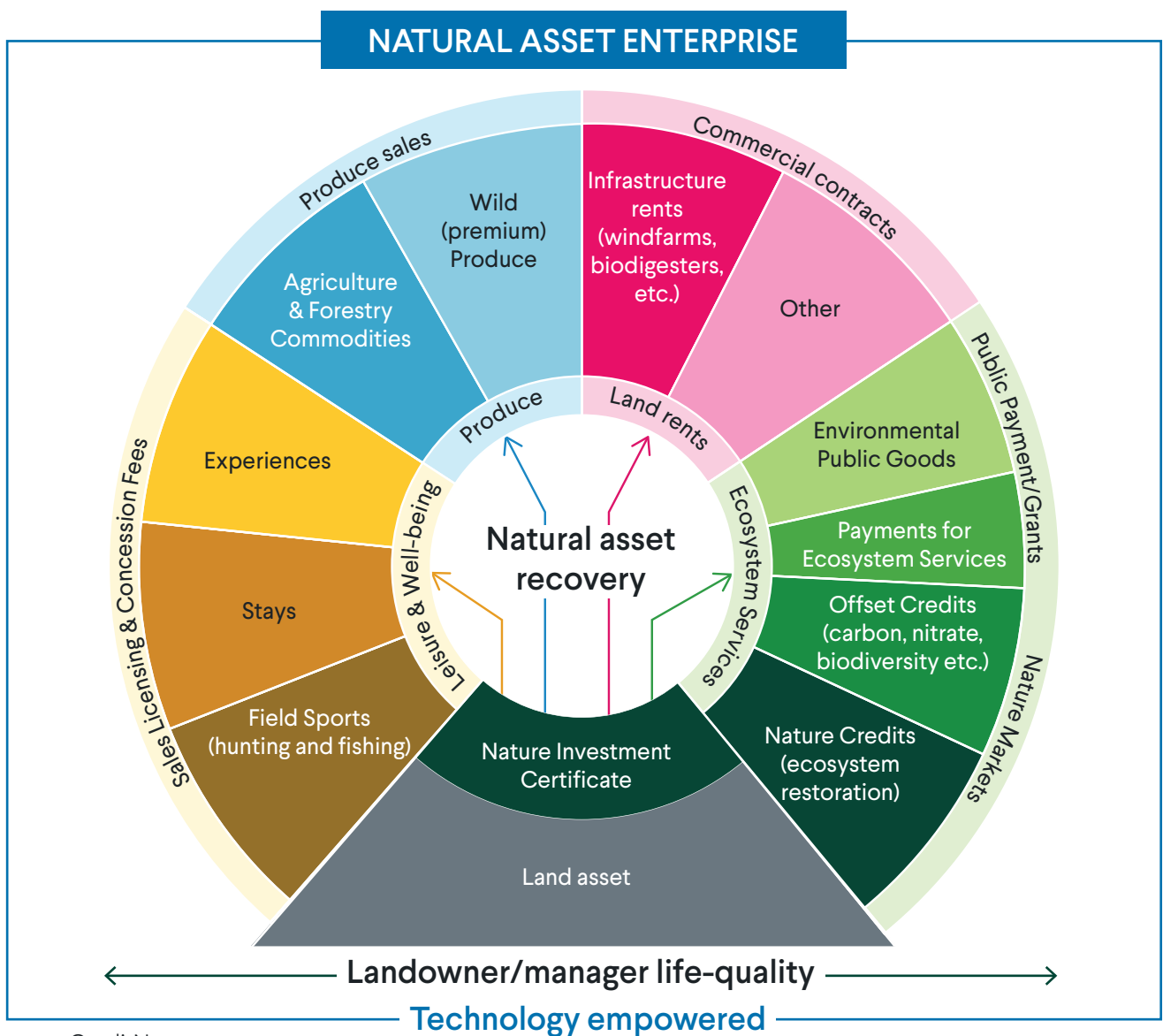
The underlying methodology upon which these assets are based is the NARIA (Natural Asset Recovery Investment Analytics) Framework. This framework is designed to translate complex ecosystem and biodiversity data into practical and quantifiable units that can be accounted for in finance to underpin nature assets like biodiversity credits or KPIs linked to nature impact.

Within NARIA sits CreditNature's accredited method for measuring the condition of terrestrial ecosystems, The Ecosystem Condition Index (ECI). The ECI is scored from 0 to 100 and measures four key processes that contribute to ecosystem integrity. The ECI has been accredited under the [Accounting for Nature Standard](#) and is valid for use in the UK and Europe. Land management that improves the ECI score should:

- Enhance biodiversity and support wildlife comeback.
- Retain and sequester carbon in the whole system (eg soils, trees and animals) to ensure that carbon stocks are more durable and resilient to the risks of disease, drought and wildfire.
- Recover natural hydrology, improving water quality and reduce flood and drought risk.
- Create assets for flourishing nature-based enterprises generating revenues from ecotourism, ecosystem service credits and premium produce.

Investing in improving the integrity of ecosystems as infrastructure will help to address the interlinked nature and climate crises. This approach aims to create a 'Natural Asset Enterprise' – a resilient wellbeing economy that benefits from a multitude of services and revenue streams (see Figure 4).

Figure 4: Natural Asset Enterprise



Source: CreditNature

Biodiversity credit providers such as CreditNature aim to offer companies and asset owners – including those making disclosures under frameworks such as TNFD and CSRD or reporting against specific biodiversity targets – with a transparent and certifiable way of accounting for the recovery of natural assets. This can, in principle, enable better investment, policy and management decisions regarding natural capital allocations.

Potential actions for investors

Nature should be a component of investment due diligence, as it can have a material impact on risk/return. Since Biodiversity Net Gain has become mandatory, this is particularly important for UK property and infrastructure investments, which need to explicitly consider nature impacts. BNG is also likely to be a catalyst for the wider development of the UK biodiversity credit market.

Some key takeaways for UK investors include:

Tackling biodiversity asset exposure

- ◆ Investors increasingly need to develop a granular understanding of the location of their assets (in line with the [TNFD guidance for Financial Institutions](#)) and identify any overlaps with sensitive biodiversity areas, particularly for UK property or infrastructure.
- ◆ Understanding exposure to key sectors also plays an important role. Agriculture, for instance, has a material impact on biodiversity in the UK.
- ◆ Consider biodiversity implications as part of investment manager and mandate selection.
- ◆ Investors should engage with their asset managers and express stewardship expectations for addressing systemic issues such as loss of nature and biodiversity, including for UK assets.
- ◆ Asset owners can support collaborative nature initiatives such as the [TNFD Forum](#), [Nature Action 100](#) or [PRI Spring](#).
- ◆ Mechanisms such as CreditNature's Nature Investment Certificates can enable investors to bundle multiple ecosystem services into one holistic nature project, creating an enhanced return on impact

New opportunities from biodiversity markets

- ◆ Sustainable agriculture is a growing asset class in its own right. Natural capital investors should understand how regenerative farming can benefit from alternative sources of return, including those linked to carbon and biodiversity credits.
- ◆ As nascent biodiversity markets mature, there may be opportunities for investors to create financial return alongside creating positive nature impact.
- ◆ For instance, investors can have a positive local impact while achieving their environmental goals, particularly if it becomes possible to bundle biodiversity benefits with other ecosystem services eg carbon offsets to support their net-zero strategy.

You can find out more about key issues related to nature and biodiversity in the Hymans Robertson [Nature Hub](#). Please get in touch if you'd like to discuss how to address biodiversity issues in your asset portfolio.

To learn more about [CreditNature](#) and its accredited methodology for restoring ecosystems, please get in touch with Ed Pragnell or the wider CreditNature team.

HYMANS  ROBERTSON



André Ranchin
Investment Consultant
and Biodiversity Lead

andre.ranchin@hymans.co.uk

 **creditnature**



Ed Pragnell
Nature Finance Lead

edmund.pragnell@creditnature.com



Important information

This communication has been compiled by Hymans Robertson LLP[®] (HR) as a general information summary and is based on its understanding of events as at the date of publication, which may be subject to change. It is not to be relied upon for investment or financial decisions and is not a substitute for professional advice (including for legal, investment or tax advice) on specific circumstances. HR accepts no liability for errors or omissions or reliance on any statement or opinion. Where we have relied upon data provided by third parties, reasonable care has been taken to assess its accuracy however we provide no guarantee and accept no liability in respect of any errors made by any third party

General Investment Risk Warning

Please note the value of investments, and income from them, may fall as well as rise. This includes but is not limited to equities, government or corporate bonds, derivatives and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of investments. As a result, an investor may not get back the full amount of the original investment. Past performance is not necessarily a guide to future performance.

London | Birmingham | Glasgow | Edinburgh

T 020 7082 6000 | www.hymans.co.uk

Hymans Robertson LLP is a limited liability partnership registered in England and Wales with registered number OC310282. Authorised and regulated by the Financial Conduct Authority and licensed by the Institute and Faculty of Actuaries for a range of investment business activities.

© Hymans Robertson LLP 2024. All rights reserved.