COLUMBIA THREADNEEDLE INVESTMENTS®

Pensions Watch | Issue 29:

What's been happening and what's on the horizon in the world of pensions

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Nature and biodiversity are our most precious assets but they don't consciously feature, in a risk or return sense, in most pension fund portfolios. In this edition of Pensions Watch, we define nature and biodiversity, reflect on the importance of the biosphere in underpinning sustainable economic activity and determine what needs to change. Ultimately, we consider how the pensions world can play its part in moving the world to a position where nature and biodiversity is replenished, and not continually depleted.

Nature and biodiversity are our most precious assets…

"We are totally dependent upon the natural world. It supplies us with every oxygen-laden breath we take and every mouthful of food we eat. But we are currently damaging it so profoundly that many of its natural systems are now on the verge of breakdown."

Sir David Attenborough, Foreword, The Economics of Biodiversity: The Dasgupta Review, 2021[1]

Who would have thought that the estimated annual economic worth of the world's seagrass is US$1tn, or US$3.4bn for its wetlands, or US$160bn for the pollination services insects provide?[2] An elephant? That's US$2.6m.[3] But each is, in carbon sequestering terms at least[4] - a supposition which neatly highlights the inextricable link between restoring and revitalising nature and biodiversity[5] and solving for climate change.

Indeed, one cannot be addressed without the other, in what's proving to be a mutually reinforcing downward spiral.[6] Indeed, the degradation of biodiversity continues to reduce nature's ability to absorb greenhouse gases, while climate change, in turn, takes a bigger toll on nature.

While there's been much discussion about the development of carbon capture technology, restoring nature and biodiversity is one of the most effective ways to drawdown and store CO2 emissions.[7] Then there's the sobering fact that about 50% of economic activity is moderately or highly dependent on the services nature provides. For instance, water regulation, flood resilience and pollination. Indeed, nature contributes anything up to US$150tn annually to the world economy.[8]

1 Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. Abridged Version. (London: HM Treasury).
2 Doughnut Economics. Seven Ways to Think Like a 21st-Century Economist. Kate Raworth. Random House. 2018. See: p.7.
3 See: Rebalance Earth. The nature opportunity. January 2024. p.9.
4 Based on the pricing of carbon per tonne in carbon trading markets.
5 Although the terms nature and biodiversity are often used interchangeably, biodiversity, or biological diversity, describes the enormous diversity of life in all of its forms, while nature is far broader, capturing all living beings as well as the features, processes and forces that exist on Earth.
6 This vicious circle comes under the spotlight in the World Economic Forum's 2024 Global Risk Report, which cites extreme weather events, critical changes to Earth systems, biodiversity loss and ecosystem collapse and natural resource shortage as the four biggest global risks to be collectively faced over the next 10 years. See: https://www.weforum.org/press/2024/01/global-risks-report-2024-press-release/
7 According to MSCI, forests, wetlands and oceans combined annually absorb a gargantuan 5.6 gigatons of carbon. See: www.msci.com/our-solutions/climate-investing/nature-and-biodiversity
8 ESG Viewpoint. Biodiversity Best Practice and Engagement Approach. Joe Horrocks-Taylor. Columbia Threadneedle Investments. December 2022. p.1.

So, if the moral argument and that based on scientific evidence isn't motivation enough for global concerted action on restoring nature and biodiversity, then the economic argument most certainly is.

…but the fixation with economic growth has accelerated the degradation of the biosphere

"Economics is the mother tongue of public policy, the language of public life, and the mindset that shapes society."

Professor Kate Raworth, Doughnut Economics. p.6

Economics matters to all of us.[9] However, the way economic activity, living standards - not to be confused with the quality of life[10] - and wealth creation are measured and reported is riddled with shortcomings. The culprit? The measurement of and fixation with Gross Domestic Product (GDP), or more precisely economic growth – the real, or inflation-adjusted, growth in GDP - and GDP per head.

The nub of the problem is that GDP only records changes in measurable economic activity and only on a gross basis. That is, it excludes the depreciation, or degradation, of assets consumed in the process of producing final goods and services – those which go to market. And, as we know, what gets measured gets managed and that which isn't, well, doesn't. Nature and biodiversity isn't and so doesn't – therefore remains a blind spot in economics. So, while nations are judged to have thriving economies in GDP terms, GDP doesn't account for the depreciation or, more correctly the degradation, of the biosphere – Earth's living organisms and systems from "the deepest root systems of trees to the dark environment of ocean trenches, to lush rain forests and high mountaintops."[11] All of which provide direct benefits to humanity, not least by absorbing carbon. Moreover, it's the diversity of life which gives the natural world its resilience.

So, despite "being the means the world economy has deployed for enjoying what is routinely celebrated as economic growth",[12] by being ignored, the world's biological assets are being decimated.[13] Indeed, according to the WWF, since 1970 there has been an almost 70% drop in the populations of mammals, birds, fish, reptiles, and amphibians, with around one million animal and plant species – almost a quarter of the global total – believed to be threatened with extinction.[14] Reinforcing this point, Professor Partha Dasgupta, author of the super-impactful The Economics of Biodiversity report notes that, "with globally measured economic activity having increased more than 13-fold in only 70 years, a rate of increase that had never remotely been experienced before… [has] come… a massive deterioration of the biosphere's health [and] perhaps the most visceral sign of environmental degradation - species extinction."[15] Likewise, Professor Kate Raworth, in her equally impactful text, Doughnut Economics, observes that, "Around 40% of the world's agricultural land is now seriously degraded… Meanwhile, over 80% of the world's fisheries are fully or over-exploited."[16] More broadly, despite the environment underpinning both the economy and society, for centuries the degradation of the biosphere has been ignored, as an accepted cost of economic growth.

… despite the economy being embedded in the biosphere

Exhibit 1: The economy is deeply embedded in and highly dependent on the biosphere

Source: The Economics of Biodiversity: The Dasgupta Review. p.17

Leading on from this is the real elephant in the room. Because of perpetual degradation, nature and biodiversity isn't being given a chance to regenerate – the regeneration of living systems being key to the ability of humanity to thrive, indeed survive. After all, the risks from nature loss can be dramatic and outside the scope of what most people tend to envisage. COVID-19 and similar zoonotic pandemics are made far more likely by nature loss. So, failing to act decisively not only jeopardises long-term prosperity but ultimately poses an existential risk.

9 As uber-economist John Maynard Keynes once observed, "The ideas of economists… both when they are right…and wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else." See: The General Theory of Employment, Interest and Money. J M Keynes. London:Macmillan. 1936. p.383. Keynes' words still ring true today, almost 90 years on.
10 See: https://hdr.undp.org/data-center/human-development-index#/indicies/HDI. The UN Human Development Index (HDI) was created to emphasise that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone.
11 See: https://education.nationalgeographic.org/resource/biosphere/
12 Dasgupta P. (2021). op.cit. p.12.
13 WWF (2020) Living Planet Report 2020 - Bending the curve of biodiversity loss. Almond, R.E.A., Grooten M. and Petersen, T. (Eds). WWF, Gland, Switzerland.
14 The key drivers of biodiversity loss are climate change, land-use change, pollution, and the direct exploitation of natural resources and invasive species. See: Columbia Threadneedle Investments (December 2022). op.cit. p.1.
15 Moreover, according to Dasgupta, "largely as a result of human activities – land- and ocean-use change in all its varieties – species and the component populations of still-extant species are becoming extinct far more rapidly than in the past." See: Dasgupta P. (2021). op.cit. pp.26-27.
16 See: Raworth (2018). op.cit. p.5.

It probably comes as no surprise then that Professors Dasgupta and Raworth, in arguing that GDP is no longer fit for purpose when it comes to judging the economic health of nations, or indeed the quality of life of its citizens, call for a fundamental rethink. According to Dasgupta, "Truly sustainable economic growth and development means recognising that our long-term prosperity relies on rebalancing our demand of nature's goods and services with its capacity to supply them."[17] Raworth, however, takes this considerably further with the introduction of the Doughnut in her best-selling, and highly accessible text (see the break out box below).

Indeed, noting that economics has become detached from the real world, both Raworth and Dasgupta believe that only by moving to a growth-agnostic economic model, will resources be used more considerately and sustainably. That is, a regenerative and distributive economy that harvests natural resources no faster than nature regenerates them while also giving back to nature in regenerating what has been destroyed or compromised in the past. Of course, reversing ecological degradation and, crucially, focusing on renewal by replenishing the biosphere and its diversity represents a significant paradigm shift to regenerative thinking and long-lasting actions. Indeed, it's quite an ask but a necessary and uncompromising one if humanity is to thrive sustainably.

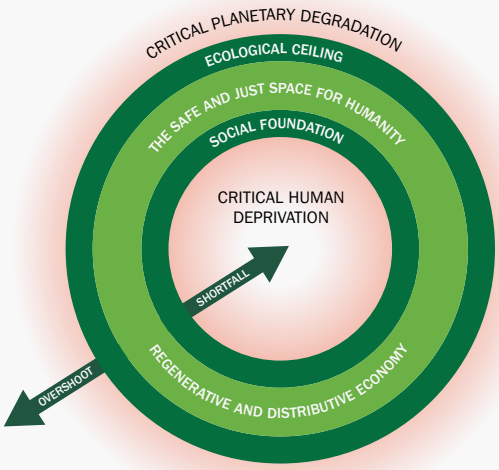
Moving from an uncompromising focus on GDP to Doughnut Economics

"Today we have economies that need to grow, whether or not they make us thrive; what we need are economies that make us thrive, whether or not they grow."

Professor Kate Raworth, Doughnut Economics. p.30

Exhibit 2: The doughnut of social and planetary boundaries

Source: Doughnut Economics p.44



Tapping into the power of visual framing, the Doughnut has become an iconic image of sustainable development. Indeed, it's one that helped underpin the creation of the UN's 17 Sustainable Development Goals (SDGs) no less.[18] Raworth describes the Doughnut as, "a compass for human prosperity in 21st century, with the aim of meeting the needs of all people within the means of the living planet." Needs and means are key here to Raworth's transformative Doughnut model, which comprises two concentric rings. These consist of a social foundation, where no one is bereft of life's essentials, and an ecological ceiling, below which humanity operates within the planetary boundaries that protect Earth's life-supporting systems. Currently, humanity's demands far exceed nature's capacity to supply the ecological goods and services we all rely on. Between these two sets of boundaries lies a doughnut-shaped space that is both ecologically safe and socially just: a space in which all of humanity can sustainably thrive.

Integral to moving humanity to the Doughnut's safe and just space are seven ways in which deeply embedded economic thought and methodologies need to change, if nature isn't (and many social factors aren't) to remain a blind spot. Within these seven paradigm shifts, that offer a pathway to a just and sustainable planet, two are instrumental to ensuring humanity moves below the ecological ceiling to a safe planetary space.

Create to regenerate – number six – is diametrically opposed to the supposedly immutable economic law which, somewhat ironically, suggests that economic growth will ultimately fix the desecration of the living world (and much else). After all, the economic axiom of grow now, clean up later simply hasn't materialised and probably never will, unless a fundamental change in thinking is engineered and translated into lasting actions. Instead, we must acknowledge that to reverse growth-inspired ecological degradation and biodiversity loss requires a focus on renewal. That is, one in which humans revert to being fully participative in, and responsible stewards of, the planet's cyclical processes of life by replenishing the biosphere – not merely striving for resource efficiency, or reining in bad behaviour. That, in turn, requires the world to be agnostic about economic growth and to break the addiction of striving for perpetually rising economic living standards (not to be confused with improved quality of life). This is Raworth's seventh strand to challenging conventional economic wisdom.

17 Dasgupta Review: Nature's value must be at the heart of economics. Renewable Natural Resources Foundation. Fred Lewsey. University of Cambridge. February 5, 2021. Somewhat reassuringly, at this year's annual World Economic Forum meeting in Davos, business leaders and economists, not just activists and scientists, were calling for humanity to live within its planetary boundaries rather than pursuing economic growth above all else. See: Climate in the spotlight at WEF. Katharine Heyhoe. Chief Scientist, The Nature Conservancy. 29 January 2024.
18 See: https://sdgs.un.org/goals

Biodiversity loss poses a material risk to business, hence asset owners

"The [degenerative] manufacturing supply chain of take, make, use, lose… runs counter to the living world… we need to recalibrate prosperity with the way that ecosystems work and… regenerate."

> *Professor Kate Raworth, Doughnut Economics. p.212 and p.239*

As the degradation of nature and biodiversity loss poses an existential threat to Earth's ecosystems, hence the global economy, it follows that it has become yet another financially material risk for asset owners, notably pension funds, and their asset managers to manage.[19] Why? Well, because the key drivers of biodiversity loss are primarily fuelled by the corporate activities of the very same companies pension funds invest in. Not only that, these same companies increasingly face nature-related risks to their business models due to the financial dependencies and impacts of their operations and supply chains on nature. Moreover, as noted in the recent Financial Markets Law Committee report, pension schemes cannot fully insulate themselves from systemic risks, such as nature loss, simply by diversifying or relying on governments and regulators to do so on their behalf.[20]

Of course, this comes at a time when asset owners are still wrestling with managing another systemic risk - the net zero transition and physical risks of climate change. However, there are advantages to tackling both climate and biodiversity loss simultaneously, as most pension funds can apply many of the lessons learnt from addressing climate change to protecting and ultimately restoring nature and biodiversity. Indeed, given the potential for nature-based solutions to assist physical resilience and carbon sequestration, most asset manager engagements with companies, conducted on behalf of pension funds, tackle both risks in tandem.

Crucially, however, there is a stronger link between a company's impacts on nature and exposure to nature-related risks than there is with climate impacts and risks, in that nature-related impacts are more spatially discrete. For instance, polluting a river impacts water quality in a local area, while releasing a tonne of CO2 impacts the global climate. In so doing, there is a greater chance of the former being fined and alienating local communities.

While climate risk management has provided businesses with a platform from which to tackle nature and biodiversity loss, the latter severely lags the former. Indeed, only 3% to 12% of European and US companies report anything on biodiversity and only 5% of companies conduct a science-based assessment of the biodiversity risks in their operations and supply chains. Moreover, most reporting lacks specificity around identified risks and their measurement, the intended impact of implemented measures and robust timelines.[21] In fairness though, assessing and measuring progress in addressing nature-related issues is immensely more complex and intangible than assessing and monitoring progress on climate risk. Additionally, many nature risks are multifaceted and intertwined and can rarely be captured in a single standardised unit of measurement.

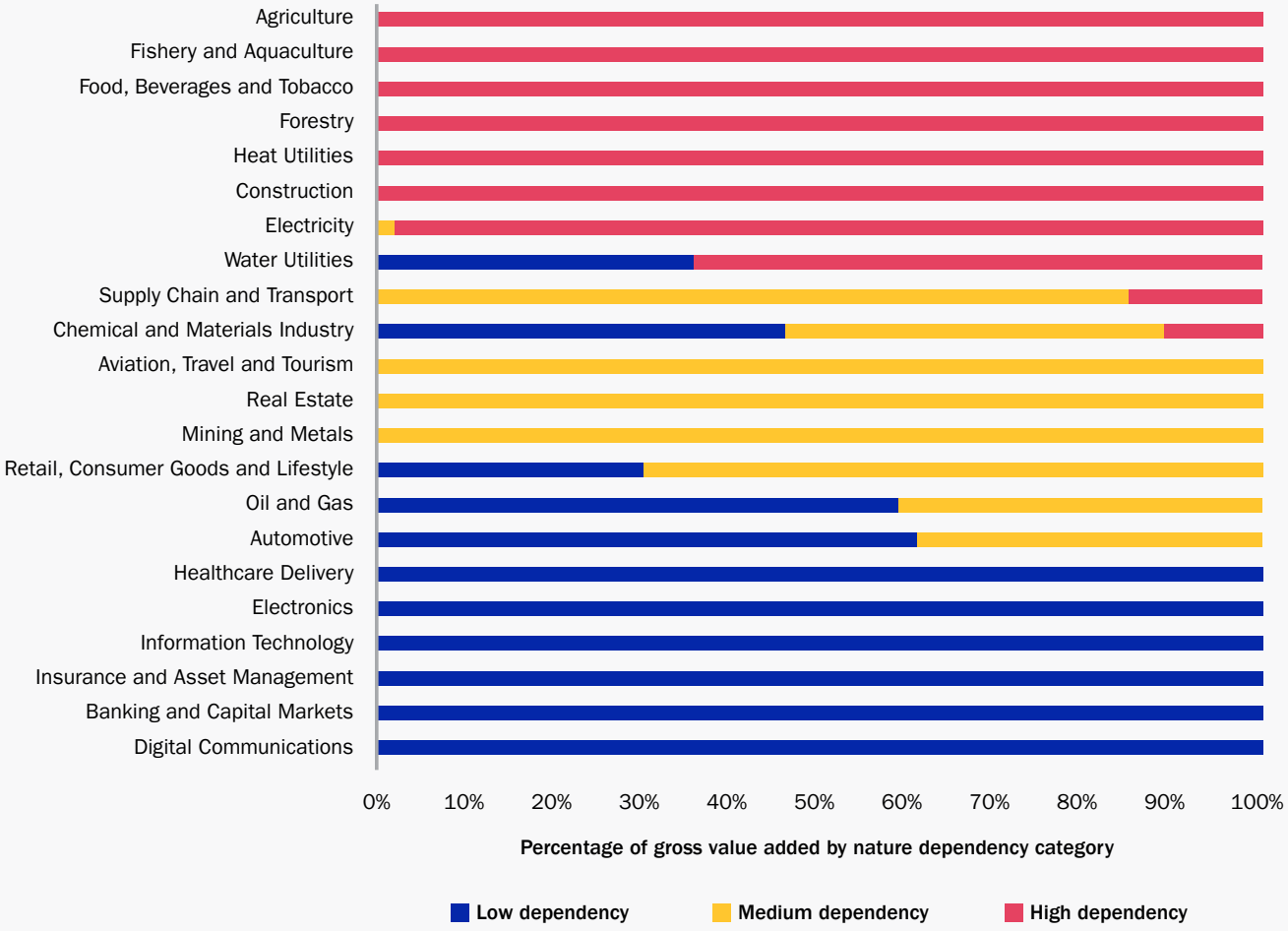
Indeed, although many sectors and companies are increasingly moving from a position of either doing nothing or simply introducing profits-boosting eco-efficiency cost cutting measures to either switching to genuinely more sustainable processes or, better still, implementing processes with zero environmental impact, few have yet to target continually replenishing, rather than more slowly depleting, the living world. That is, seeking to operate below the planet's ecological ceiling. Hence the contention that there's still some way to go before the financial costs of inaction are widely understood and the necessary actions are implemented. That said, according to, strategy and management consulting firm, McKinsey, more companies are starting to set nature positive commitments and general targets are also increasing,[22] principally as a result of being able to access relative inexpensive technologies such as satellite sensing, bioacoustics, eDNA and biodiversity modelling.

However, as the regulatory, reputational and financial risks attaching to nature loss simply cannot be ignored, companies are coming under increased scrutiny and pressure to additionally report on and address their dependencies and impacts on nature.

19 Trustees are required by law to take all financial factors into account in their investment decision making. The Financial Markets Law Committee (FMLC) in its recent report suggests that as sustainability-related issues can clearly impact an investment's risk and return, then such issues are financial factors. See: Pension Fund Trustees and Fiduciary Duties: Decision-making in the context of Sustainability and the subject of Climate Change. Financial Markets Law Committee. 6 February 2024.
20 FMCL (February 2024). Op.cit.
21 See: Rebalance Earth (January 2024). op.cit. p.6 and Columbia Threadneedle Investments (December 2022). op.cit. p.1.
22 See: https://www.mckinsey.com/industries/agriculture/how-we-help-clients/natural-capital-and-nature/our-insights/companies-are-broadening-their-commitments-to-nature-beyond-carbon. Also see: https://www.leaderspledgefornature.org/theraceison/ and https://www.businessfornature.org/call-to-action

Biodiversity and business: Are companies aware of nature's risks?

Exhibit 3: Nature dependency varies considerably by economic sector



Sources: MSCI ESG Research, World Economic Forum and PwC. 2020. "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy.", Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2020. "The Global Assessment Report on Biodiversity and Ecosystem Services."

It was noted earlier that around 50% of economic activity is nature-dependent. This is particularly true of those economic sectors which supply life's basics - food, beverages, utilities, materials and energy – but less so of IT, financial services and digital communications. Necessarily, those sectors which have the most impact and very high dependencies in their operations and supply chains on ecosystem services and biodiversity degradation are the ones who must urgently seek to protect these services for the ongoing viability of their businesses, if nothing else.

With this in mind, in September 2023, research and data provider, MSCI Research, assessed the Financial Year 2022 reporting practices of 1,686 constituents of its, broadly-based, ACWI Index.[23] Their analysis showed that current corporate disclosure practices vary considerably.

While 82% of reporting made reference to biodiversity and nature-related terms, only 8% mentioned biodiversity regulations and frameworks. Moreover, among those companies they considered to have a high exposure to biodiversity risk – in this instance assessing the land use management policies of metals, mining, agricultural products[24] and utilities companies – they found little evidence of risk management correlating with the extent of the biodiversity risks disclosures in these companies annual reports.

23 Biodiversity and business: Are companies aware of nature's risks? Shitiz Chaudhary and Arne Philipp Klug. MSCI. September 25, 2023. The MSCI ACWI Index contains 2,921 large and mid-capitalisation constituents across 23 developed and 24 emerging markets.
24 To illustrate its reliance on nature, 75% of agricultural crops, worth US$2.4tn, rely on insect pollination, which is materially impacted by declining insect populations. See: Columbia Threadneedle Investments (December 2022). op.cit. p.2.

Regulation to the rescue (once again)

Regulation has undoubtedly been the biggest and most effective driver of concerted action on climate change and so it will be in addressing the material risks pertaining to nature and biodiversity loss and capitalising on the opportunities arising from biodiversity regeneration. However, while it took some time for regulators in the UK and Europe to get to grips with climate change, they have reacted much more rapidly to the nature and biodiversity challenge.

Principal amongst these regulations is the, currently voluntary, internationally-led Taskforce for Nature-related Financial Disclosures (TNFD) disclosure framework, initiated in June 2021, with the final framework going live in September 2023.[25] Recognising the innate difficulty for any company to quantify the value of nature to its business and adopt a single measure of progress, TNFD instead provides practical guidance to companies on how to assess and address their dependencies and impacts on nature and biodiversity and capitalise on the opportunities that arise from this analysis.[26] These measures might comprise changing inputs, operations, supply chains and/or capital allocation decisions to reduce dependencies on nature or, indeed, an ecosystem service as a whole. Mirroring the TCFD framework, in being structured around the four pillars of governance, strategy, risk and impact, the TNFD framework comprises 14 recommended disclosures capturing nature-related dependencies, impact, risks and opportunities,[27] which The International Sustainability Standards Board (ISSB) will look to formalise this year for greater global consistency and comparability.[28] Crucially, to date, 319 companies globally - comprising a broad mix of geographies and industries - have already committed to making disclosures aligned with the TNFD Recommendations in their corporate reporting.[29]

Complementing the TNFD disclosures framework in helping businesses navigate the complexity of the nature-related issue maze and adopt a clear focus on the materiality of specific issues are initiatives such as Nature 100.[30] This collaborative initiative focuses on engaging companies in those sectors with the largest impacts and dependencies on nature to ensure they are taking timely and necessary actions to protect and restore nature and ecosystems. Then there's the Science Based Targets Network which, though helpful guidance, enables companies to establish whether they are playing their part in realising the vision of an equitable, net zero and nature positive future.[31]

Additionally, in building upon and complementing its existing science-based climate targets, in September 2020 the Science Based Targets Network released its first corporate science-based targets for nature.[32] And then there's the Global Biodiversity Framework, agreed at COP15 in Montreal in December 2022 which, via its Mission 2030 initiative, provides for forward-thinking companies to set, document and realise robust ambitions to reduce, reverse and ultimately restore all negative impacts on nature by 2030.[33] Likewise, the TNFD and UN PRI Spring have each set a 2030 target, based on this framework, to start reversing nature's decline.

Ultimately, the aim for all of these initiatives is to ensure corporate commitments are accompanied by clear metrics for progress tracking across all current and future operational assets and material supply chain impacts on nature. Of course, to be nature positive businesses must fully understand their current biodiversity footprint, set ambitious but realistic biodiversity targets that align with short-, medium- and long-term defined timeframes, commit resources to make the necessary changes and transparently report on progress. Undoubtedly, scenario analysis and stress testing will play an integral part of this process.[34] Suffice to say, transitioning to being nature-positive makes considerable economic sense. Indeed, the World Economic Forum's 2020 Future of Nature and Business report estimates nature-positive transitions could generate up to US$10.1tn in annual business value and create 395m jobs by 2030.[35]

Of course, improved measurement and disclosure of nature issues is key for pension funds if they are to understand the financially material risks and impacts they are potentially exposed to. As MSCI notes, "with growing regulatory and investor focus on biodiversity, we may see improved corporate disclosure levels in this area. The launch of TNFD [in particular] may also move the market toward more standardised disclosures and metrics that could help investors better assess risks from nature loss."[36] Additionally, the development of the Global Biodiversity Framework should provide clarity for policymakers and companies on the levers and level of ambition required and will help pension funds to more clearly identify risks and impacts among investee companies, unleash the power of collaboration amongst multiple stakeholders and better inform asset manager engagement with companies on behalf of pension funds.[37]

25 The TNFD is funded by European and Australian governments and philanthropic foundations, such as the WWF.
26 See: https://tnfd.global/guidance/. The TNFD provides businesses with a simple phase-by-phase approach to assessing and responding to nature-related risks and opportunities. It terms this its LEAP approach – locate, evaluate, assess, prepare.
27 The GRI and the EU Corporate Sustainability Reporting Directive (CSRD) have also released standardised reporting frameworks and metrics. See: https://www.globalreporting.org/ and https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en
28 See: https://www.ifrs.org/groups/international-sustainability-standards-board/
29 See: https://tnfd.global/engage/inaugural-tnfd-early-adopters/
30 Nature Action 100 is a global investor engagement initiative focused on driving greater corporate ambition and action to reduce nature and biodiversity loss. The Investor Policy Dialogue on Deforestation (IPDD) and UN PRI Spring are two other notable examples. The IPDD is a collaborative investor initiative set up in July 2020 to engage with public agencies and industry associations in selected countries on the issue of deforestation. UN PRI Spring is a stewardship initiative for nature, convening institutional investors to use their influence to halt and reverse global biodiversity loss by 2030. The initiative aims to address the systemic risk of nature loss to societies and long-term portfolio value creation by enhancing corporate practices on forest loss and land degradation.
31 The Science Based Targets Network is a global coalition of 80+ environmental non-profits and mission-driven organisations that collectively seeks to define what is necessary to do "enough" to stay within Earth's limits and meet society's needs.
32 See: https://sciencebasedtargetsnetwork.org/wp-content/uploads/2020/11/Science-Based-Targets-for-Nature-Initial-Guidance-for-Business.pdf.
33 196 Nations signed up to the Global Biodiversity Framework at the UN Convention on Biological Diversity (COP 15) in December 2022.
34 For more on scenario analysis and stress testing see: https://www.columbiathreadneedle.co.uk/en/inst/insights/pensions-watch-22/
35 World Economic Forum. (2020d). New Nature Economy Report II The Future Of Nature And Business. http://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf
36 MSCI (25 September 2023). op.cit.
37 Currently, these engagements principally focus on biodiversity loss, land use and deforestation, water management, disclosure and transparency.

Moreover, improved disclosures and growing engagement on nature-related issues should also help financial markets more efficiently price the associated risks and opportunities.

However, as noted earlier, rather than seeing nature and biodiversity loss solely as a risk to manage, there should also be a concerted focus on how to bolster ecosystems for stronger financial resilience, by ultimately giving back, or restoring, nature and biodiversity.[38] Of course, biodiversity net gain (BNG), as it's commonly known, is most relevant for those industries that impose material operational impacts on nature, for instance mining, oil and gas and forestry. That said, The International Union for the Conservation of Nature (IUCN) Review Protocol for Biodiversity Net Gain initiative, is but one of a number of bodies that envisions engineering a net gain for biodiversity ultimately becoming standard practice for all.[39]

Closing the funding gap

Of course, protecting and restoring nature needs to be funded and that gap, if 2030 targets are to be met, amounts to an estimated and not inconsiderable US$711bn per annum.[40]

In the UK, perhaps unsurprisingly, the government is currently the largest investor in restoring nature. However, as Rebalance Earth points out, to encourage UK investors to play their part, the government has announced a target to raise at least £500m in private finance every year by 2027, rising to £1bn by 2030. Additionally, the government has pledged £30m for a new private sector blended finance impact fund for domestic nature recovery. This will invest in projects such as carbon sequestration, biodiverse woodlands, restoring peatlands and improving water quality.

Pension funds also have an integral role to play, having become increasingly familiar with investing in ESG-themed funds, which capture a wide variety of sustainability-linked themes and objectives. Climate-themed funds are the most recent iteration of this. However, although nature and biodiversity funds exist, this investment sector is very much in its infancy. Indeed, in September 2023 MSCI Research[41] estimated that only around US$1bn was invested across 15 biodiversity-labelled funds globally. Moreover, over 90% of these funds were equity strategies focused on developed markets, albeit strategies with a low correlation to other sustainability themes.

According to MSCI, within these funds, "cyclical sectors were dominant, with industrials on average accounting for the largest sector exposure, followed by information technology and materials, with virtually no exposure to energy." Consequently, "biodiversity-labelled funds have, on average, delivered lower risk-adjusted returns versus their peers in the same thematic sphere."

Meanwhile, it was estimated that US$59bn, or 2% of the estimated US$3tn assets of sustainable funds as a whole, was invested across 134 biodiversity-related funds – the latter having a broader environmental or associated thematic mandate than just nature and biodiversity. For instance, a focus on the circular economy – one that centres on minimising waste through reusing, refurbishing and recycling. Most, however, have shallow biodiversity characteristics and are managed against an index that has been screened using a simplistic biodiversity footprinting approach.[42] Additionally, according to MSCI, "on average, [these] funds exhibited half the sustainable-impact-solutions revenue exposure as biodiversity-labelled funds."

Of course, as companies build nature-resilience and ultimately restoration into their strategic models, so nature and biodiversity-themed funds will likely proliferate, with offerings extending across multiple asset classes. Capitalising on an ever-expanding nature-related opportunity set, these themes will likely extend beyond those currently focused on the conservation or management of existing resources, such as the circular economy, forestry, regenerative agriculture and water positive initiatives.[43]

38 See: Rebalance Earth (January 2024). op.cit. p.7.
39 IUCN Business and Biodiversity Programme (2017). IUCN Review Protocol for Biodiversity Net Gain: A guide for undertaking independent reviews of progress towards a net gain for biodiversity. Gland, Switzerland: IUCN. 32pp. Created in 1948, IUCN is now the world's largest and most diverse environmental network, harnessing the knowledge, resources and reach of 1,300 member organisations and some 16,000 experts.
40 Rebalance Earth (January 2024). op.cit. p.9. US$711bn is less than 1% of world annual economic output.
41 Biodiversity Funds: Welcome to the Jungle. Rumi Mahmood and Shuang Guo. MSCI. September 20, 2023. All fund data is from MSCI ESG Research as of 14 September 2023.
42 According to the TNFD, "As financial institutions aim to understand, manage and report their impacts on nature – through financed, facilitated, insured and investment activities – the concept of a 'biodiversity footprint' has gained traction as a potential solution. Biodiversity footprint approaches seek to simplify and clarify the environmental impact of these activities. However, there is "a growing recognition" that "the lack of standardisation and transparency in defining what constitutes a [biodiversity footprint]" and the readiness to apply such footprints too simplistically, presents "a considerable challenge." See: Discussion paper on Biodiversity footprinting approaches for financial institutions. TNFD. December 2023. p.6.
43 See: Megatrends – Using long-term trends to build a sustainable portfolio. Chris Pritchard and Hugo Gravell. Barnett Waddingham. 21 February 2024. One pension scheme already factoring natural capital into its portfolio is the £900m Scottish Borders Council Pension Fund which, in January, made its first allocation to natural capital via a timberland fund. This fund aims to sell land and timber as well as carbon offsets. See: Natural Capital - Staying Alive. Mark Dunne. Portfolio Institutional. 22 February 2024.

Why does this matter?

In short, the degradation of nature and biodiversity loss, like climate change, poses a financially material, indeed systemic, risk to asset owners. Moreover, given the inextricable link between these two, potentially existential, risks, addressing both simultaneously, principally by moving companies towards adopting a best practice framework, makes considerable sense. Regulation, guidance and engagement all have a part to play in this process, as do pension funds by integrating nature and biodiversity considerations into their investment and risk management decisions. Indeed, some of Europe's very biggest pension funds already do so.[44]

Joe Horrocks-Taylor, from Columbia Threadneedle Investment's Responsible Investment Team, neatly summarises what corporate best practice looks like: "Companies at the forefront of tackling nature loss are setting a clear, quantitative strategy to address impacts on and risks from nature loss, including links to capital allocation and material sourcing decisions. Good quality plans include details of the specific actions companies will take to reduce risks and impacts and changes in operations, products or spending. The most thorough plans also consider the links between climate change and nature loss, as well as other issues like physical risks, water issues and social impacts. They are also avoiding the trap of using offsets and nature-based solutions as a quick fix to both the biodiversity and climate crises, and are taking a well-considered approach to their use, following best practice and prioritising mitigation of impacts…"

He goes on to say that, "where nature impacts or dependence are a material issue, Boards should demonstrate oversight of biodiversity matters via an executive committee member, CEO or committee with explicit responsibility for biodiversity that reports directly to the board… [Moreover] companies with the most advanced approach [should] actively seek input from all stakeholders when developing their nature strategies and on operational decisions that may have an impact on nature."[45] Of course, transitioning to being nature-positive will ultimately need to be supplemented with measures to give back, or restore, nature and biodiversity, if we are to operate within Earth's planetary boundaries. After all, the regeneration of living systems is key to the ability of humanity to thrive, indeed survive.

However, to revert back to where we started, the elephant in the room remains the obsession with continually raising economic living standards, not to be confused with improving the quality of life. To quote Partha Gusgupta, "the material standard of living of the average person in the world is far higher today than it has ever been; indeed, we have never had it so good. In the process of getting to where we are, though, we have degraded the biosphere to the point where the demands we make of its goods and services far exceed its ability to meet them on a sustainable basis."[46] In other words, until the world becomes growth-agnostic, this tension between operating within Earth's planetary boundaries and striving for ever greater levels of income and wealth will persist. To quote Kate Raworth once again, "Today we have economies that need to grow, whether or not they make us thrive; what we need are economies that make us thrive, whether or not they grow."[47] In other words, it's time for a fundamental rethink if nature and biodiversity are to remain our most precious assets.

44 Joining the LGPS CIV, in measuring, targeting their engagement with companies and documenting their exposure to nature-related risks and biodiversity loss in accordance with the TNFD framework, are Norway's Sovereign Wealth Fund - Norges Bank Investment Management - and KLP, Norway's largest pension company, and Sweden's AP7. See: Early adopters to nature related disclosure nut out challenges. Sarah Rundell. Top1000 Funds. 8 February 2024.
45 Columbia Threadneedle Investments (December 2022). op.cit. p.8. My thanks go to Joe Horrocks-Taylor for his helpful and insightful comments.
46 Dasgupta P. (2021). op.cit. p.11.
47 Raworth (2018). op.cit. p.30.

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