Cutting Deforestation from Our Pensions

How your money can help protect the planet
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Foreword

There's a famous old saying
“If a tree falls in a forest, and no-one hears, does it actually make a sound?”

Suddenly this old saying has become one of the world’s most important questions. Because while most of us in the UK may not feel the effects of the forests falling as we do temperatures climbing or flood waters rising, those falling trees are making a mighty sound - the sound of nature crashing out of sync with every acre of forest lost.

And although we may not hear the trees crashing to the ground, we are all deeply connected to deforestation.

We're connected as consumers, as citizens, and - as this report so powerfully highlights - savers, investors and pensions holders too.

Because it is OUR money – managed on our behalf through our pensions – that is being invested in the companies that are driving deforestation, damaging the environment, and threatening lives and livelihoods across the planet.

In the short term our money is contradicting our values, but in the long term it’s undermining the very futures we’re meant to be saving for.

But it doesn’t have to be this way.

When citizens uncover the impacts of their investments – and discover the power of their pensions – they want to make their money matter. They want their pensions tackling the climate crisis, improving the lives of the world’s poorest, and restoring nature, not destroying it.

The important, final piece of the puzzle is that defending the earth doesn’t have to cost the earth.

As this report demonstrates, if our money is cleverly and consistently applied to support the industries and business that are restoring, not jeopardise, our natural environment, both profits and the planet can come out on top.

So, with a growing citizen movement to make money matter, an urgent social and environmental need to end deforestation, and the economic opportunity presented by nature-positive investment, now is the time for heroic action.

Now is the time for us all to pay attention to the trees falling in the forests of the world, and make sure we cut deforestation from our pensions for good.

Because when all is said and done - what’s the point in inheriting a pension in a world on fire, a world where the balance of nature has been forever broken?
Our planet is our only home
It doesn’t matter if you have a brick house in the city, a wooden house in the countryside or a straw house in the forest. Any house you have will be on the only ground capable of sheltering us all: Mother Earth’s lap.

Our true home gives us water and food, now asks for help. Are you listening?

We, Indigenous peoples and traditional communities around the world, we are responsible for extremely well protected and preserved areas because our livelihoods don’t harm the forests, the waters or the atmosphere. Despite this, we are the first to feel the impacts caused by climate change in our territories. For those who depend directly on the food and medicines provided by Mother Earth, we immediately feel the consequences when a plant fails to flower and bear fruit at the right time, when a drought lasts longer than it should, when the migratory flows of animals change, when fish are scarce, and when the fires become uncontrolled and cause respiratory diseases.

In 2021 alone, in Brazil, the destruction of forests was 29% greater than in 2020. More than 10,000 km² of native forest were destroyed that year. The destruction of the forests also causes the destruction of biodiversity, it limits the planet’s ability to regulate climate, and the rich cultures of those who live in the forests disappear. Together with the forest, we also lose the sociobiodiversity that is stored in the genes of plants, the stories of our elders, and the knowledge of our shamans.

Despite knowing this, the governments gathered at COP26 were not able to make significant commitments in favor of combating climate change. I was there, together with countless Indigenous representatives. We were not even called to the real negotiation tables. We are always only involved in sideline conversations to those who decide the course of our lives and the future of our mother Earth.

It is past the time for the center of our concerns to be about what keeps us alive a healthy planet! We must bring it to the center of debates in the financial sector, capital markets, real estate market, to the center of technological innovations, to the center of our children’s education, in short, to the center of all the different aspects of our lives.

Have you ever thought about how to bring this subject into your life? Think about it! Think about the footprint you will leave on this ground that welcomed you, and make it the most precious trace you can. The time has come for a renewal, the renewal of affection, reforest minds and to spread love. Only these things can save humanity.

You have power to help save the forests. The power to help protect Mother Earth, and to protect the lives of all who live on the planet. Through the simple steps outlined in this report, you can use your voice to change the way your pension is invested – to protect nature, livelihoods, and create a world that you will actually want to retire into.
The top line: our pensions are driving deforestation

We all rely on forests to protect people and planet, to store carbon, to help us tackle climate change, to produce food, and to preserve biodiversity. Yet through our pensions, we invest billions of pounds into companies and financial institutions that lead to their destruction:

Our pensions are supposed to provide for our futures, but they’re putting them at risk

There’s £2.7 trillion in UK pension funds. This money – which belongs to savers across the UK – is designed to provide for our future. And, in how it’s invested, this money will shape the future world we retire into.

Despite this mandate, our report shows that pension funds and their asset managers continue to invest in industries and companies which go against our values, damage the environment, and jeopardise the very futures we’re saving for. This includes investing in companies which have a high risk of deforestation within their activities and supply chains.

These investments cause significant social, economic and environmental damage, destroying nature and putting lives and livelihoods around the world at risk. Furthermore, they make it almost impossible for us to meet our global climate targets.

£300 billion
In the UK alone, over £300 billion of pension fund investments are in companies and financial institutions with a high risk of driving deforestation.²

£2 of every £10
For every £10 you save in your pension, £2 is linked to deforestation.³

31%
In total, 31% of UK pension fund public equity and corporate bond investments are in companies and financial institutions with a high risk of causing deforestation.⁴

As well as harming the planet, investing in deforestation can harm your money, too.
Investments made by UK pensions could be at risk of losing value because of their links to deforestation.
This report launches an urgent call to action for UK pension funds to assess and tackle deforestation risk.

Specifically, this report calls for:

• Individual pension holders (you) to call on your pension provider to commit to going deforestation free.

• For pension funds to commit to achieving deforestation-free portfolios, and to take immediate action to start eliminating deforestation by understanding their exposure, setting effective policies, monitoring and engaging investee companies and asset managers, and disclosing progress against goals.

• For government and regulators to take urgent steps to ensure that the UK is a global leader in achieving deforestation-free pension funds by setting out mandatory requirements for the finance sector on deforestation – including due diligence and disclosure.

It’s your money, and your power. You can have a say to make sure it builds a world you actually want to retire in.

We hope this report starts a movement that cuts deforestation out of our pensions – permanently – and ensures everyone, everywhere, has a pension they can be proud of.

Our research shows the critical role pensions can play in protecting nature and tackling the climate crisis – all by stopping deforestation in their portfolios

SYSTEMIQ, Global Canopy and Make My Money Matter reviewed the UK pension industry’s level of exposure to deforestation with the generous support of Partnerships 4 Forests.

Our research finds that:

£300 billion
• Over £300bn of UK pension fund investments are in companies and financial institutions with high deforestation risk.

£2 of every £10
• On an individual level, for every £10 you save, £2 is linked to companies and financial institutions with a high risk of deforestation.

31%
• In total, 31% of UK pension fund public equity and corporate bond investments are in high deforestation risk companies and financial institutions.

Such investments are not only bad for people and planet, they’re bad for our money too. As these industries are more exposed to climate risk and increasing regulation, our money could be put at risk as companies lose value and become uninvestable in the future if they do not change their practices.

The good news is that the alternative is a win-win. Shifting to deforestation-free practices - alongside investing in more regenerative, nature-positive solutions - will not only tackle climate change and mitigate financial risk, it can also unlock over £3 trillion in new business opportunities each year by 2030.

So pension funds which act to stop deforestation will help tackle climate change, protect nature and communities and reduce investment risk in our pensions.

Definition of Deforestation:
According to the Accountability Framework, deforestation is the loss of natural forest as a result of: i) conversion to agriculture or other non-forest land use, ii) conversion to a tree plantation, or iii) severe and sustained degradation.

To show your support for deforestation-free pensions, visit www.makemymoneymatter.co.uk/deforestation

£300 billion
\[\text{Over £300bn of UK pension fund investments are in companies and financial institutions with high deforestation risk.}\]

£2 of every £10
\[\text{On an individual level, for every £10 you save, £2 is linked to companies and financial institutions with a high risk of deforestation.}\]

31%
\[\text{In total, 31\% of UK pension fund public equity and corporate bond investments are in high deforestation risk companies and financial institutions.}\]
Why we need forests

Forests play a crucial role in people's livelihoods and the stability of our planet.

Figure 1: The importance of forests for our future

Mitigating climate change:
- Forests absorb GHG emissions and play a critical role in local cooling power to regulate climate.

Fundamental to biodiversity:
- Forests are crucial to maintain biodiversity and are home to 80% of world's life on land.\(^4\)
- Biodiversity is fundamental to human life because it supports everything in nature that we need to survive: food, clean water, medicine and shelter.

Support livelihoods to thrive:
- 2 billion people's livelihoods depend on the forests – work, culture and home.\(^7\)
- Of the people living in extreme poverty, 90% are dependent on forests for their livelihoods.

Produce food for the world:
- Healthy and intact forests provide ecosystem services that underpin food production such as maintenance of local, regional and global water cycles, water security and crop productivity.

Provides protection and security:
- Forests supply us with medicine and control disease.
- Forests provide safety from climate-related disasters due to the stability of their extensive root systems.

Why forests matter to your pension

As well as all the issues detailed here, deforestation is threatening the security of your pension, and your ability to retire comfortably due to financial risks associated with investing in deforestation linked companies.
But our pensions are helping to destroy them

Companies, sectors and projects that our pensions invest in are destroying forests at an alarming rate.

Latest estimates show the world is losing the equivalent of 30 football fields of forests every minute. This has devastating consequences for the environment, for those who live and rely on forests, and for people all over the world connected by food, supply chains and weather systems.

How your pension investments are contributing to deforestation

The money we save into our pensions is invested in companies and financial institutions all around the world. This includes companies in agriculture and food, which chop down thousands of hectares of forest to grow cocoa, manufacture palm oil, or farm cattle. It includes infrastructure companies, which may clear forests to make room for their construction. It includes oil, gas, mining, and retail companies, which also contribute to deforestation in their supply chains. And many of us, through our pensions, also invest in banks and insurers, which lend money to and insure such companies. So, either directly or indirectly, most of us will have pension investments that contribute to deforestation.

To date, investment in activities that destroy natural ecosystems is nearly 40 times higher than money invested to protect and restore nature.9

New regenerative business models could be the key to building more diverse, future-proofed and climate-resilient portfolios, but they must grow fast and that requires capital. The financial industry must not only commit to net zero and deforestation-free supply chains, but they must also find opportunities to invest in nature-positive companies.9

Morten Rosse, Chief Investment Officer Partnership 4 Forests, Partner SYSTEMIQ

Accelerating climate change: As forests are cut down their stored carbon is released into the air. Without halting deforestation we will not achieve our climate targets and climate related disasters will increase.

Food insecurity: Destroying forests reduces crop productivity and irrigation. Without forests, we will not be able to produce sufficient, affordable and healthy food for a growing population.

Biodiversity loss: The Amazon rainforest is one of the most biodiverse places on earth. However, in January 2022, an area almost 4 times bigger than Liverpool was lost.10

Displacement of Indigenous peoples and local communities. Deforestation means that areas of cultural importance are being destroyed and Indigenous peoples and local communities are facing threats and violence in connection with deforestation. In 2020, 227 lethal attacks were recorded on people defending their homes, land and livelihoods.11

Disease and ill health: Deforestation and land use change are direct drivers of pathogen transmissions from wildlife to humans, e.g. SARS, MERS, Ebola and potentially COVID-19.

Examples of Negative Impact of Deforestation

We are destroying forests at an alarming rate which is having disastrous consequences. Every minute 30 football fields of forest are being destroyed. This is equivalent to the size of London being lost each week, resulting in disastrous consequences:
High risk sectors linked to deforestation

Our footprint analysis shows that 31% of UK pension fund public equity and corporate bond investments are in companies and financial institutions with a high risk of causing deforestation. This means our money on average - £6,510 per pension - is invested in companies which are at high risk of driving activities that destroy nature, accelerate climate change, increase food and water insecurity and damage the lives and livelihoods of local and Indigenous peoples.

But it doesn’t have to be this way.

With £2.7 trillion in assets under management, the UK pensions industry has enormous influence and can play a significant role in tackling deforestation. The pensions industry can use its power to transform companies by acting as strong stewards, by investing in new businesses that help protect natural ecosystems, and by taking money away from the most harmful, destructive investments.

Figure 2: High-risk sectors linked to deforestation directly and indirectly. Your pension underpins how they operate.
Investing in deforestation threatens your pension, as well as the planet

Not only is deforestation fueling an environmental and social crisis, it also threatens your ability to retire comfortably. Companies linked to deforestation are increasingly exposed to risk – from changing regulation, fines, pressure from consumers, and the physical impacts of climate change that they themselves are accelerating.

Our pension money is invested in companies to enable it to grow. But companies that are exposed to this kind of risk can fall in value – so unless they change, they likely will prove bad investments for our money in the long term.

Investing in companies linked to deforestation means our pension money is exposed to two kinds of risk:

1. **Physical risk** - the risk to a company from extreme weather events and environmental shocks such as drought or flood, or longer-term changes in temperature and biodiversity loss.

   This can be seen in Brazil, where weather shocks including drought and frost are disrupting core export commodities, such as coffee and sugar, leading to crop damage, higher prices, revenue loss and wage and income drops across the country. Therefore, physical risk, which is accelerated by deforestation, can damage companies’ performance and revenue, and your investment returns.

2. **Transition risk** - risk to a company from changes in regulation, laws, consumer behavior and market systems.

   Increasing pressure from governments, consumers and investors on the environmental and social impacts of deforestation means that companies could face regulatory or financial barriers, alongside consumer backlash threatening their reputation, their bottom line and ultimately investor returns.

New regulation aimed at curbing deforestation

- A new EU draft legislation aims to curb deforestation overseas by forcing companies to prove that they are deforestation free by collecting detailed information, including geographical coordinates. It targets all deforestation driven by agricultural products, but specifically for high-risk commodities including beef, palm oil, coffee, cocoa, wood and soy. If companies fail to comply, their products will be banned from the European single market.

- The UK has set out a law to curb illegal deforestation across supply chains. The legislation makes it illegal for businesses to use products unless they comply with local laws to protect natural areas.

- With 105 countries now committing to reduce and reverse deforestation by 2030, we are likely to see more of these types of measures on companies and financial institutions across the world.
Your pension could contribute to deforestation at every level of the financial system

Figure 3: Money flow from your earnings to deforestation practices, including the governance and ability to influence between stakeholders

- A lack of information for pension holders and employers means it’s difficult to find out what their pensions are actually investing in.
- A lack of transparency for pension funds means it’s difficult to trace investments linked to deforestation.
- A lack of data across supply chains makes it challenging to attribute accountability to deforestation.
- As a result, pension investments typically end up contributing to climate change, or driving deforestation, rather than funding the solutions needed to tackle these problems.
How the pensions industry can be part of the solution

The £2.7 trillion in UK pensions and the $50 trillion globally has enormous power.

With their financial muscle, political influence and global platform, pension funds can play a decisive role in ending deforestation and associated human rights abuses.

Our pension funds are shareholders in thousands of companies around the world, and as such can engage with these companies to drive out deforestation from their practices by voting on company business and remuneration of directors. They can also increase investments in nature-based solutions, reduce funding to the worst actors driving deforestation, and use their platform to drive change at a global level.

In doing so, they can play a critical role in tackling the climate crisis, while taking advantage of the growing investment opportunities offered by nature-based solutions.

Many leading pension funds have made robust commitments to tackle climate change by committing to net zero, including halving emissions this decade. These funds now need to go a step further and integrate deforestation commitments in to their plans - a critical step in achieving net zero emissions.

Put your money where you want the world to go. It is as simple and as powerful as that*

Christiana Figueres, Founder of Global Optimism and Former Executive Secretary, UNFCCC

*Figueres, C. (2020). Put your money where you want the world to go. It is as simple and as powerful as that. Global Optimism.
To stop deforestation, pension funds must work actively with their asset managers and the companies they invest in

The scale of the problem is pronounced, and we are developing guidance to support pension funds but, at a minimum, they must take the following urgent steps:

- **Commit to deforestation-free portfolios** – pension funds should make deforestation commitments including working towards total deforestation-free portfolios
- **Understand their exposure to deforestation** – use guidance and best practice to understand where deforestation risk exists in their portfolios
- **Set clear deforestation policies and plans** – pension funds should set out clear policies on deforestation, conversion and associated human rights abuses - and integrate deforestation into their net zero transition plans. Any plan should include short-term milestones including elimination of commodity-driven deforestation at the companies in their investment portfolios and in their financing activities by 2025
- **Require asset managers and investee companies to act on deforestation** – be an active robust steward by giving clear instruction to their asset managers and investee companies on expectations, and holding them to account on delivery through monitoring and engagement, with escalation policies for both
- **Disclose their deforestation exposure and progress** – communicate to scheme members on the extent of deforestation in their pension

What is happening on the regulatory front? The TCFD and TNFD

The Taskforce on Climate-related Financial Disclosures (TCFD) and the Taskforce for Nature-related Financial Disclosures (TNFD) are risk management and disclosure frameworks. They help companies report and act on climate and nature related risks. These are voluntary frameworks, but the TCFD already has over 1,500 companies supporting the recommendations in anticipation that they will become mandatory in many countries around the world in the next few years. In the UK it is now required that certain pension schemes produce TCFD reports, and in 2022, the UK plans to make TCFD Mandatory for the largest UK-registered companies. We could see similar support for TNFD as the framework develops, which could shift investment decision-making and boost supply chain transparency to tackle deforestation.

What does “deforestation free” mean for pension schemes?

- Working towards a goal of deforestation-free portfolios based on accepted industry and NGO definitions – including eliminating associated human rights abuses.
- Short-term focus on elimination of commodity-driven deforestation at the companies in their investment portfolios and in their financing activities by 2025 - primarily through active stewardship including priority engagement with holdings that are highly exposed to deforestation risks or impacts.
- Action on wider deforestation across all sectors and asset classes, as soon as possible, as data increasingly becomes available.

Many financial institutions are already taking action on deforestation

During COP26, CEOs from more than 30 financial institutions, with over $8.7 trillion in global assets, including UK pension funds Aviva and The Church of England, committed to eliminate commodity-driven deforestation, demonstrating growing awareness and industry action on deforestation.

How can pension funds work with Make My Money Matter, Global Canopy and SYSTEMIQ to tackle deforestation?

1) Join the 30 financial institutions who signed up at COP26 to tackle deforestation - you can do that [here](#).
2) Start talking internally about how you can tackle deforestation, including by taking the steps outlined above
3) Help us develop guidance for pension funds with our deforestation-free working group - email [Emma](mailto:Emma).
More money needs to be channelled into nature positive investments – creating healthy returns, and building a healthy planet.

Beyond removing deforestation from their investments, there’s also a huge opportunity for pension funds to capitalise on investments in nature positive and forest friendly companies. This includes conservation, restoration and sustainable management of forests. Research has shown that investing in more sustainable food and land use could generate almost £3 trillion a year in new business opportunities by 2030.16 Financial institutions are starting to create opportunities to invest in nature by launching funds specifically on nature conservation and restoration. However, investors should be careful to invest in high quality ‘nature-based solutions’ that ensure the rights of Indigenous peoples and local communities are respected.

And defending the earth doesn’t have to cost the earth. Such investment opportunities are married to a growing body of evidence that sustainable funds are matching or outperforming traditional, default investments. Morningstar examined the performance of 745 Europe-based sustainable funds and found the majority of such funds had done better than non-sustainable funds over one, three, five and 10 years.17

Beyond Meat uses 93% less land than a beef burger – and had one of the most successful IPOs in history

Innovative companies are becoming even more attractive financially. Beyond meat, the plant-based burger presents an opportunity for huge potential reduction in deforestation associated with beef production by enabling plant based diets. This shows that being good for the planet, can also be good for your investments too.
What you can do

Your money has power.

There’s £2.7 trillion in pension funds in the UK alone. By making sure that this money is invested in businesses that protect nature and respect human rights, we can create a more regenerative economy, tackle climate change, restore biodiversity, and protect the livelihoods of the 2 billion people that depend on forests.

And you can drive this change.

You can demand that your pension money stops destroying forests, damaging nature, accelerating climate change and harming livelihoods. Your money and your voice can be transformative.

The public has this huge weapon in their armory when fighting for the planet – the trillions of pounds in their pensions. Now is the time to use it.”

Richard Curtis

1. Ask your pension fund to commit to deforestation-free portfolios.

It’s time to tell your pension fund that you care where your money is going and what kind of impact it’s having – including ensuring that it’s deforestation free. Sign the Make My Money Matter petition here calling for all pension providers to commit to going deforestation free.

2. Ask your employer where your company pension is invested.

Chances are that your employer doesn’t know the impact your company pension has, or that it’s important to you. It’s time to change that – ask them where your company’s pension money is invested and raise awareness about the impact that pensions can have.

- Here’s an email which asks about your company’s pension investments, raises awareness on deforestation and shows your employer how they can call on your pension fund/provider to commit to deforestation-free pensions.

3. Find out more and spread the word.

Find out where your money’s going, what impact it’s having and demand better from your provider.

- Once you’ve taken action, help spread the word. Greening your pension is 2tx more powerful at cutting your carbon footprint than giving up flying, going veggie and switching energy provider combined. Tell your friends and family of the importance of your pensions, and you can help us grow the movement to make all our money matter.
Appendix: Methodology

The analysis by SYSTEMIQ followed the approach outlined below.

1. Defining Scope
   • The total value of the UK’s Pension Schemes Assets Under Management (AuM) equals £2.7 trillion (2019).
   • Breakdown of this into asset classes provided by ONS market access data.
   • The scope of our analysis covers £988 billion, 36% of the total, including public equities (30%) and corporate bonds (6%).
   • Derivatives, Cash & cash equivalents, Government bonds, Other equity, Real estate and Other/Alternatives have been excluded from the analysis. These are excluded given the complexity of unpacking and assigning a level of deforestation risk for these asset classes, where data and public methodologies are unavailable. This means that it is likely our total amount of deforestation risk is an underestimate as deforestation will be linked to these asset classes that are currently out of scope.
   • For example, our final results excluded real estate and infrastructure; however, these are both considered high risk on the ENCORE data set due to the clearing of land and degradation. As we currently do not have a clear view of the geography of UK pension fund investments, we decided to exclude until we have better transparency over these investments.

2. Deforestation Analysis
   • There’s a large number of UK pension funds and limited data available when it comes to what they invest in. So to work out the amount of money in UK pensions linked to deforestation we took a top-down approach.
   • For deforestation linked to public equity investments, we used the MSCI world index as a proxy for average pension fund holdings.
   • Given the large number of companies on the MSCI list, we took an 80/20 approach, and assessed 520 of the ~1,600 companies and financial institutions in the MSCI World Index, which count for 80% of the total investment, and extrapolated this data to the whole list.
   • To work out the deforestation linked to UK pension funds, we combined several data sets that have ranked companies on their deforestation risk. When assigning a level of risk and deciding the source to use for the risk assessment, a hierarchy was applied to use company or financial institution level assessments first and then sector level assessments where organization-level data was not available, in the below order, a-d:

   a. Forest 500 – Company Rankings.
      Forest 500 company assessment ranks 350 companies that have the greatest influence within global forest risk commodity supply chains. These include soy, beef, leather, palm, timber, and pulp and paper. Our analysis takes the ‘Reporting and Implementation’ score across each commodity for each company, giving a percentage score for every company. The risk assessment includes assessing progress on commitments, cut-off dates, stakeholder collaboration, commodity-specific risk assessments, assessments on operations and supply chains, mechanisms to identify and remedy social and environmental impacts, and report volume of commodity production or usage. Better performing companies will have a higher percentage score. The level of risk threshold applied to the scoring is:
         → 0-33% - High Risk
         → 33-55% - Medium Risk
         → 55%+ - Low Risk

   b. Forest 500 – Financial Institution Rankings. Forest 500 FI assessment ranks the 150 financial institutions that invest in and lend to the 350 companies with the greatest influence on tropical deforestation. High, medium and low risk was allocated to each Financial Institution according to their absolute investments into the high, medium and low risk companies (see above)

   c. Forest and Finance Forest & Finance assesses the finance received by over 300 companies directly involved in high risk commodities which impacts natural tropical forests in high risk regions. All Financial Institutions in the Forest and Finance data set are considered high risk because this study has specifically looked at companies with a known high risk to deforestation.

   d. Encore Sector Analysis. ENCORE data allocates Very High and High risk to sectors directly associated with deforestation. The data set only focuses on direct impacts. Those tagged as ‘Indirect Exposure – Unknown risk’ are those that operate in sectors which have risk of being indirectly linked to deforestation, but organization-level data is not available. This is often because there is limited data for that sector or company which means it’s not currently possible to allocate high, medium or low risk.
   • More detail on how each data set classifies high risk is included in the table below ‘Definition of risk’.

   • The deforestation data sets were overlaid with the MSCI list to allocate high, medium or low risk deforestation to each company and financial institution.

   • The impact of each company and financial institution was weighted based upon their proportion of investment in the index.

   • To identify deforestation linked to corporate bonds, we extrapolated the same methodology used for public equities because we assumed that investments into corporate bonds will have the same deforestation risk as investments into equities.

   • To identify the deforestation risk in individual pension pots, we based the assessment on Direct Contribution pensions schemes, and assumed an asset class mix of 70% public equity/corporate bonds. We picked DC schemes for the illustration because this is where the majority of member and asset growth is coming (as opposed to declining Direct Benefit schemes).

   • These tend to have a higher proportion of equity investments than DB schemes (and than the pensions sector overall asset class split).
## Definition of risk: how each data set classified high risk

<table>
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<th>Data set</th>
<th>High risk definition</th>
<th>How we applied thresholds</th>
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<tbody>
<tr>
<td>Forest 500</td>
<td>Scoring indicators for high risk included:                                                                                           • Poor commitments on reporting and commitment implementation is not verified</td>
<td>Aligned to Forest 500 methodology:</td>
</tr>
<tr>
<td></td>
<td>• Lack of cut-off dates on commitments</td>
<td>• 0-33% - High Risk</td>
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<tr>
<td></td>
<td>• No reporting on the participation of other stakeholders</td>
<td>• 33-55% - Medium Risk</td>
</tr>
<tr>
<td></td>
<td>• No commodity-specific risk assessments, and no assessment to ensure compliance with laws</td>
<td>• 55%+ - Low Risk</td>
</tr>
<tr>
<td></td>
<td>• No grievance mechanisms to identify and remedy adverse social and environmental impacts linked to their operations and/or supply chain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The volume of commodity production or usage is not reported</td>
<td>(upstream companies only)</td>
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<tr>
<td></td>
<td>(upstream companies only)</td>
<td>• The company does not conduct or facilitate environmental and social impact assessments for new site development or land acquisition</td>
</tr>
<tr>
<td></td>
<td>• The company does not publicly report their production sites/location of land holdings, and/or location of company-owned processing facilities</td>
<td>• The company does not monitor compliance of production or primary processing operations that it owns, manages, or otherwise controls</td>
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<tr>
<td></td>
<td>• The company does not monitor compliance of production or primary processing operations that it owns, manages, or otherwise controls</td>
<td>(downstream companies only)</td>
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<tr>
<td></td>
<td>(downstream companies only)</td>
<td>• The company does not publicly report, monitor and/or verify their supplier or supply chain</td>
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<td></td>
<td>• The company does not engage with non-compliant supplier operations and suppliers in order to address and remedy</td>
<td>• The company does not disclose how many suppliers or producers are engaged, or excluded from their supply chains</td>
</tr>
<tr>
<td></td>
<td>• The company does not disclose how many suppliers or producers are engaged, or excluded from their supply chains</td>
<td></td>
</tr>
</tbody>
</table>

### Forest 500 financial institutions

High, medium and low risk was allocated to each Financial Institution according to their absolute investments into the high, medium and low risk companies from the Forest 500 data set (see above).

### Forest and finance

All data included from this data set is high risk. It involves all financial institutions that are directly involved in forest risk sector (beef, soy, palm oil, pulp and paper, rubber and tropical timber) supply chains, and whose operations may impact natural tropical forests in Southeast Asia, Central and West Africa, and in parts of South America.

### Encore

Very High and High risk to sectors directly associated with deforestation

- Very High materiality rating includes industries involved in land clearing, conversion and degradation due to drilling, manufacturing, use of vehicles and heavy machinery, and transport associated with the industry.
- High risk materiality includes use of products that can lead to fire, intensive agriculture, drilling, industry with a spatial footprint and includes roads railways, pipelines for transport of products

Encore had already classified the companies as very high and high risk determined by how directly the industry is associated with deforestation.
Results: Allocation of risk across MSCI companies and financial institutions weighted by value

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Indirect Exposure – Unknown risk</th>
<th>Negligible Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company</strong></td>
<td>20%</td>
<td>6%</td>
<td>20%</td>
<td>3%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Financial Institutions</strong></td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>31%</td>
<td>8%</td>
<td>22%</td>
<td>4%</td>
<td>36%</td>
</tr>
</tbody>
</table>

The £306bn total figure (above, in report findings) is calculated by taking 31% of the £988bn in scope.

The £2 in every £10 figure is calculated by taking 31% of the assumed 70% of DC investments in scope.

Limitations
- We only assessed £0.99 trillion of the £2.7 trillion in AUM in UK pension funds, therefore we expect our analysis to be conservative, i.e. it is likely that our calculations will underestimate the deforestation-exposure as there is c.£1.7tr trillion assets that are out of scope in this analysis.
- Limited data and disclosure from companies on supply chain and sourcing means that data on deforestation is limited.
- We used the MSCI World index as a proxy for a public equity investment universe because of the lack of transparency and information on pension fund holdings. This will not be an exact representation of all UK pension funds equity/corporate bond investments.

Data Sources:
- MSCI World Index
- Forest 500
- Forest and Finance
- Encore
- ONS Market asset class data

2. Based on analysis of public equities and corporate bonds in UK pension funds. Methodology for the analysis is outlined in the appendix. Given the lack of data available on deforestation, we consider these numbers to be an underestimate.
3. Based on an average Direct Contribution scheme pension pot of £30,000 containing 70% public equity/corporate bonds.
4. When including medium risk in the analysis, the proportion of deforestation increases by 8%.
14. Using the MSCI World Index as a proxy for UK pension fund portfolios, cross referenced with publicly available data sets on companies and financial institutions linked to deforestation, we analyzed the proportion of companies in UK portfolios that have high deforestation risk.
15. Based on an average Direct Contributions scheme pension pot of £30,000 containing 70% public equity/corporate bonds.