Capturing the carbon opportunity

An introduction to the new frontier in Forestry investment

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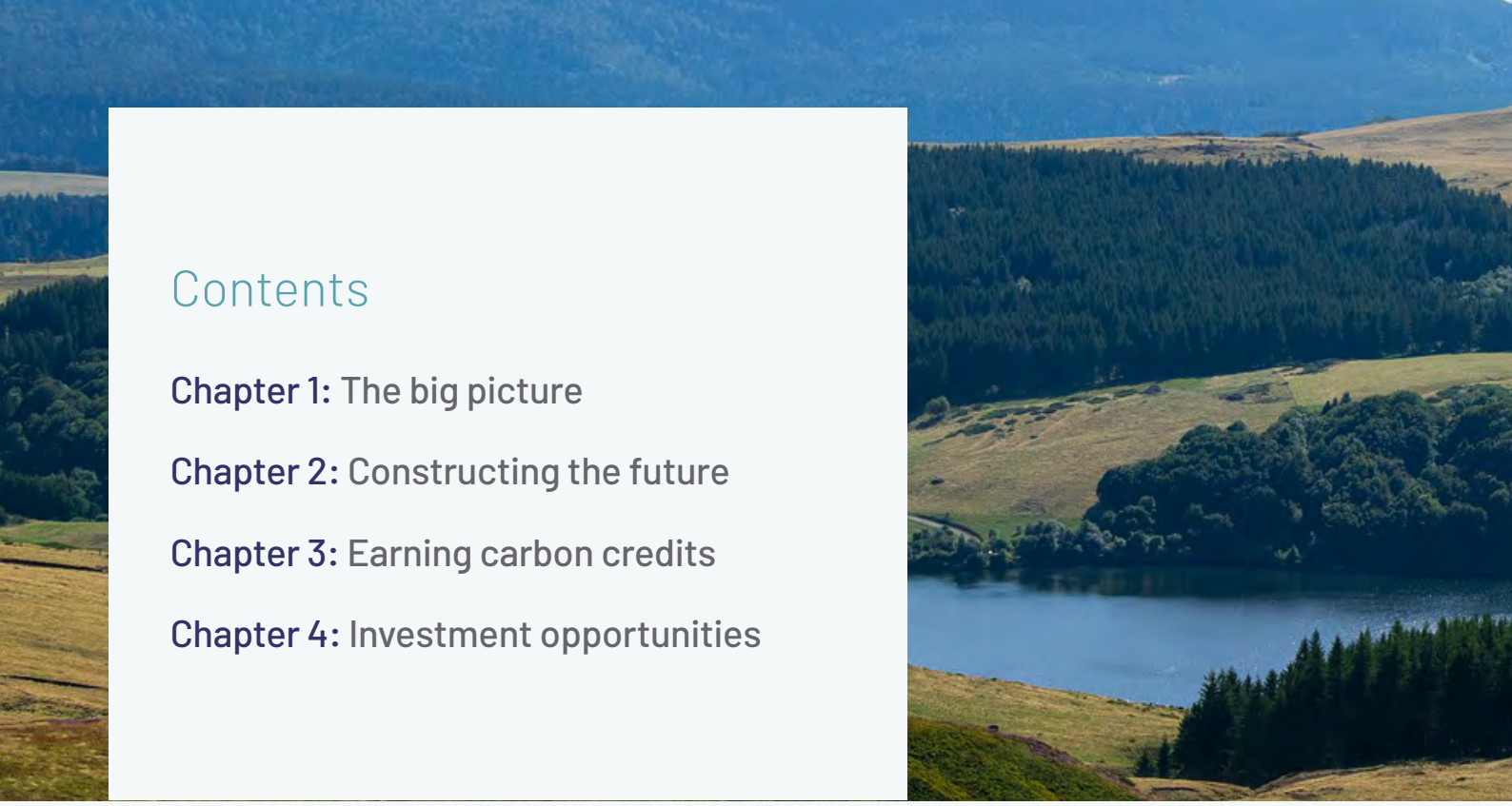
March 2021



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Introduction

As the world endeavours to confront the existential threat posed by climate change, sustainable investment opportunities are increasingly emerging.

Sustainable forestry is already a proven core alternative asset class, but its ability to lock up carbon in perpetuity means that it has grown in importance as global economies strive to decarbonise and hit 'net zero' targets.

Forestry has several unique advantages aside from its ability to sustainably produce a 'negative carbon' basic raw material into a growing market. Investors have long been attracted to the uncorrelated nature of the Forestry asset class, which is underpinned by biological growth that occurs irrespective of the global economic cycle.

With a flexible harvesting window of c.15 years, forestry owners can simply 'warehouse' their timber by not cutting. The trees continue to add both volume and value, which can be realised when prices are optimal.

Whilst these factors have always been the case, the race to net zero has created a new catalyst for Forestry, for the following reasons.

1. Wood is increasingly being used as sustainable building material in place of steel, aluminium and concrete, increasing timber demand from a growing urban population and a global housing shortage

2. In certain jurisdictions, forests can earn carbon credits which can be monetised by selling the credit to companies wishing to offset their emissions. A carbon credit represents the permanent removal of a tonne of CO_2e from the atmosphere

Forestry investors are in a position to potentially capture a return from both. In this paper, Gresham House outlines the favourable investment case and our preferred geographies for capturing superior risk adjusted returns for each of these forestry investment opportunities.

The views expressed herein are at the time of publishing (March 2021) and as such are subject to change.

Chapter 1: The big picture

Towards net zero

Man-made activities are significantly contributing to climate change through the emissions of greenhouse gases.

Policymakers recognise the looming crisis. Under the 2015 Paris Agreement, 197 countries committed to ensure global temperatures do not rise more than 2°C above pre-industrial age levels, and to try to limit the temperature increase to no more than 1.5°C by the end of the century.[1]

To achieve this goal, countries have passed in law significant reductions in global carbon emissions. Most targets are converging to reach 'net zero' by 2050, together with nearer term reduction targets by 2030.

A reduction in net emissions can be achieved by either avoiding or reducing carbon emissions.

Forestry helps avoid carbon emissions by replacing unsustainable building materials with wood, while also mitigating carbon emissions into negative emissions by absorbing carbon from the atmosphere as trees grow.

'Net zero' means the remaining carbon emissions that cannot be further avoided or reduced are fully offset by measures that actively take carbon out of the atmosphere, via Negative Emissions Technologies (NETs) such as growing trees.

1. United Nations, unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

Focusing on what works

Net zero emissions is expected to be achieved through a combination of 'avoid, reduce and mitigate'.

Avoid

Actively seek ways to avoid carbon emissions. Strategic decisions that create inherently less carbon-intensive products and operations (e.g. clean energy, using wood instead of steel in construction)

Reduce

Where emissions aren't possible to avoid, look for opportunities to reduce consumption and carbon footprint (e.g. investing in retrofitting green office spaces)

Mitigate

Emissions that cannot be avoided or reduced can be offset by investing in projects that help absorb CO_2 (e.g. purchasing carbon credits from forest owners)

As much as 17bn tonnes of CO_2 must be removed from the air by 2050 if global warming is to be kept below the 2°C target - and even more will be needed to hit 1.5°C.[1] Trees take CO_2 from the air and release oxygen, soaking up and storing carbon. 45% of the carbon stored on land is tied up in the world's forests.

Forestry is one of the tools available to reduce or mitigate carbon emissions, which collectively are known as Negative Emission Technologies (NETs). NETs range from prospective carbon capture and storage technologies (CCS) to Natural Climate Solutions (NCS) such as soil improvements, afforestation and reforestation.

All NETs will help in the fight to reduce carbon emissions, but we believe NCSs are likely to be the simplest, cheapest and most impactful. CCS technologies are very early-stage, small scale and expensive: currently US$600-1,000/t$CO_2$. It is hoped this can be reduced to US$100-300/t$CO_2$ in real terms, but still well above current and forecast carbon credit prices that forest owners can earn.[2]

Corporate entities are focusing on natural solutions such as forestry as a result. In one study of 26 companies announcing net-zero targets in 2019-20, 24 were focused on natural solutions rather than more technical tools.[3]

Greenhouse gas (GHG) emissions (GtCO_2e/year)

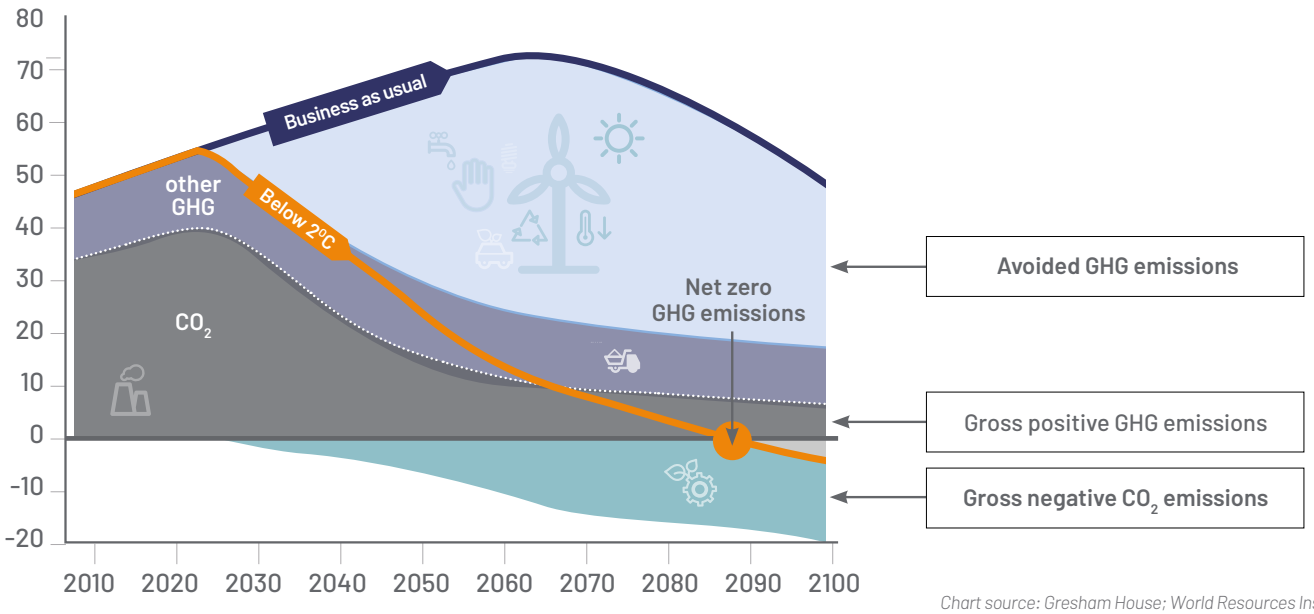


Chart source: Gresham House; World Resources Institute

1. Energy and Climate Intelligence Unit - Negative emissions: why, what, how? eciu.net/analysis/briefings/net-zero/negative-emissions-why-what-how
2. Assessing the role of carbon dioxide removal in companies' climate plans, Greenpeace briefing, Jan 2021
3. Wood - Building the bioeconomy - issuu.com/fedustriapub/docs/wood-building-the-bioeconomy-final-version-22.10.2

The advantages of NCSs are numerous.

- They are the most cost-effective negative emissions technology currently available
- Examples such as afforestation, reforestation and forest conservation may provide as much as 30% of what is required to limit temperature rises to 2°C[1]
- They provide environmental, social and economic benefits such as flood prevention and community spaces, jobs and eco-tourism
- Their products, such as wood, provide valuable and clean sustainable and renewable materials

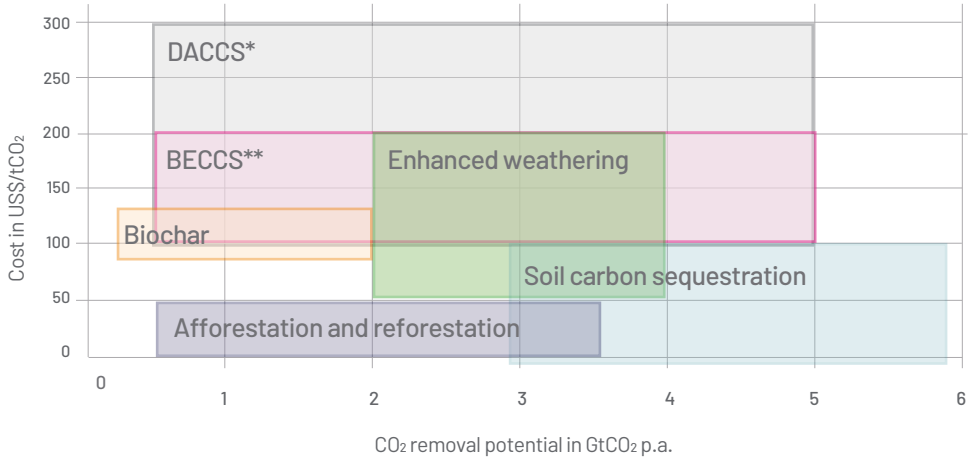
As a result, NCS are developing into their own entirely new industry, initially powered by carbon credits and the revenue this brings.

This will unlock new business models and investment opportunities for avoided deforestation, reforestation and afforestation, and land restoration.

"A portfolio of NETs with immediate forestry action is required to limit global warming at 1.5–2°C"

– UNPRI[1]

Carbon removal cost comparison



**Direct Air Capture with Carbon Storage*

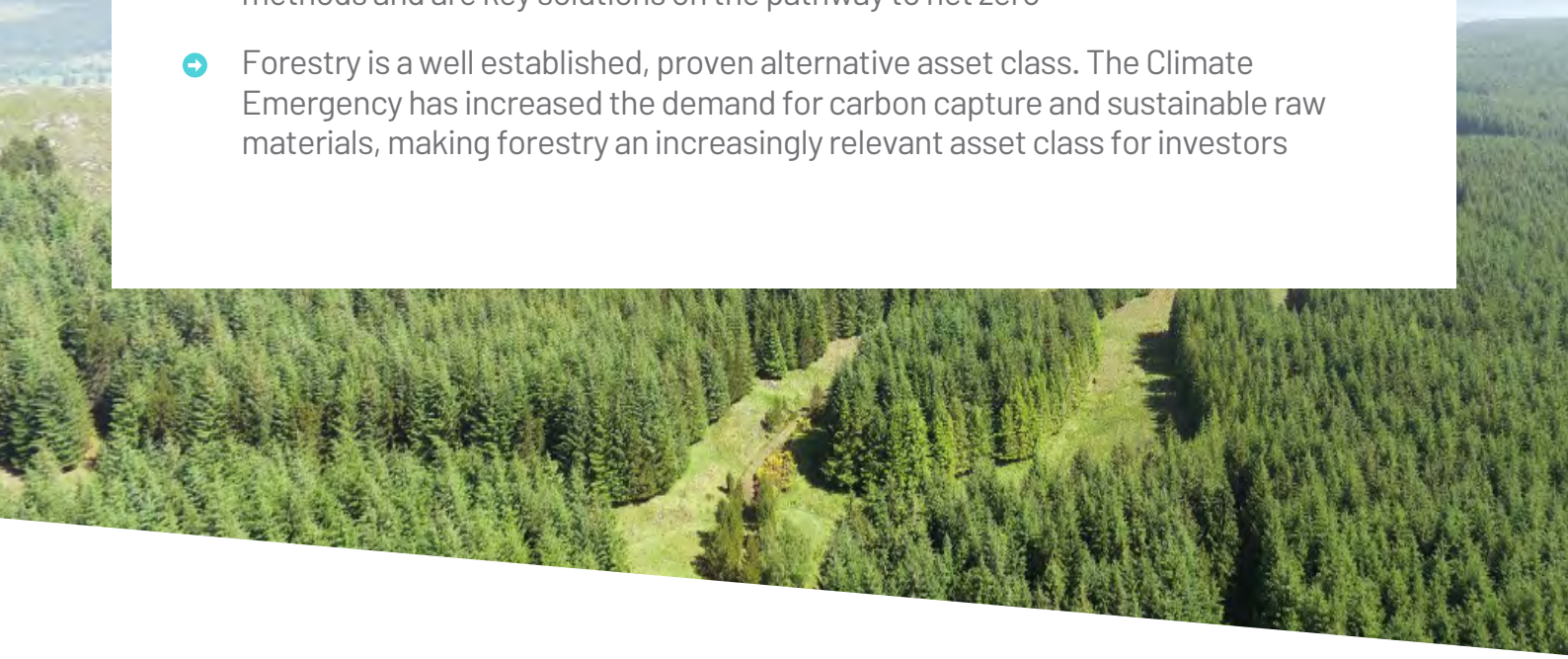
*** Bioenergy with Carbon Capture and Storage*

Chart source: Gresham House; UNPRI

1. PNAS, 2017 - www.pnas.org/content/114/44/11645

Chapter 1: Key takeaways for investors

- From countries and companies to individuals, tackling climate change is at the top of the agenda – and one way we can help is to reach net zero
- Net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away
- Afforestation and reforestation are the most cost effective carbon capture methods and are key solutions on the pathway to net zero
- Forestry is a well established, proven alternative asset class. The Climate Emergency has increased the demand for carbon capture and sustainable raw materials, making forestry an increasingly relevant asset class for investors



Chapter 2: Constructing the future

Timber demand

The long-term outlook for timber demand and conventional forestry remains strong, driven by **three key global megatrends** that underpin the potential for long term attractive returns.

1. Urbanisation

2. Housing Shortage

3. Decarbonisation

Timber demand is driven by the residential and commercial construction and refurbishment industries.

As the world's population continues to grow and the trend of urbanisation continues to accelerate, together with a global housing shortage, the demand for timber is expected to continue to increase.

When coupled with policymakers' requirement to balance the world's future construction needs against their pledges to lower emissions and decarbonise, it requires building new homes in a much cleaner way.

Wood is a low carbon substitute building material with characteristics equivalent to - or better than - concrete, steel and aluminium.

Driven by urbanisation, housing demand, and decarbonisation, Gresham House forecasts a near three-fold increase in global demand for timber over the next 30 years – a rise of 3% p.a.[1]

Global industrial roundwood consumption

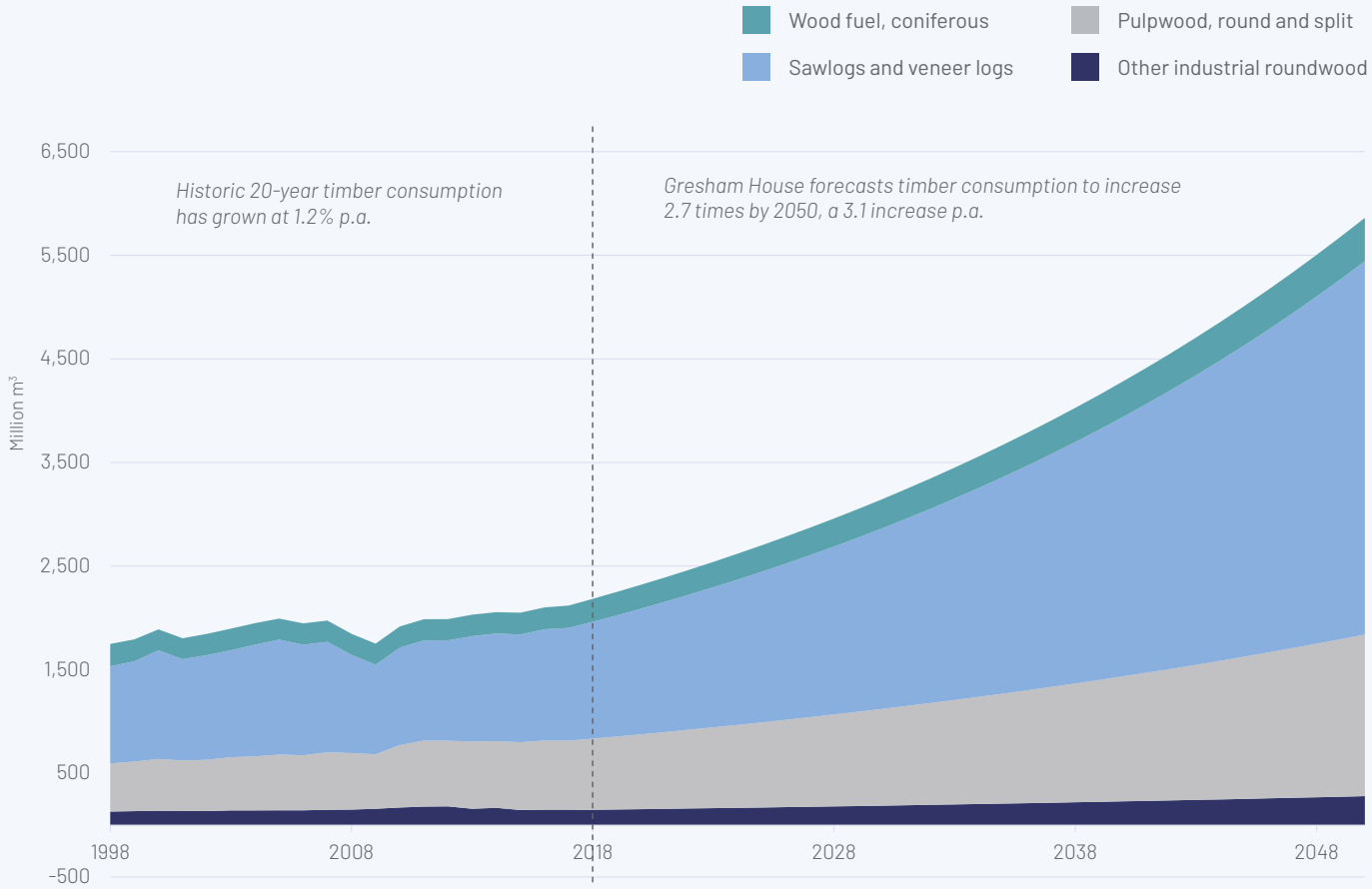
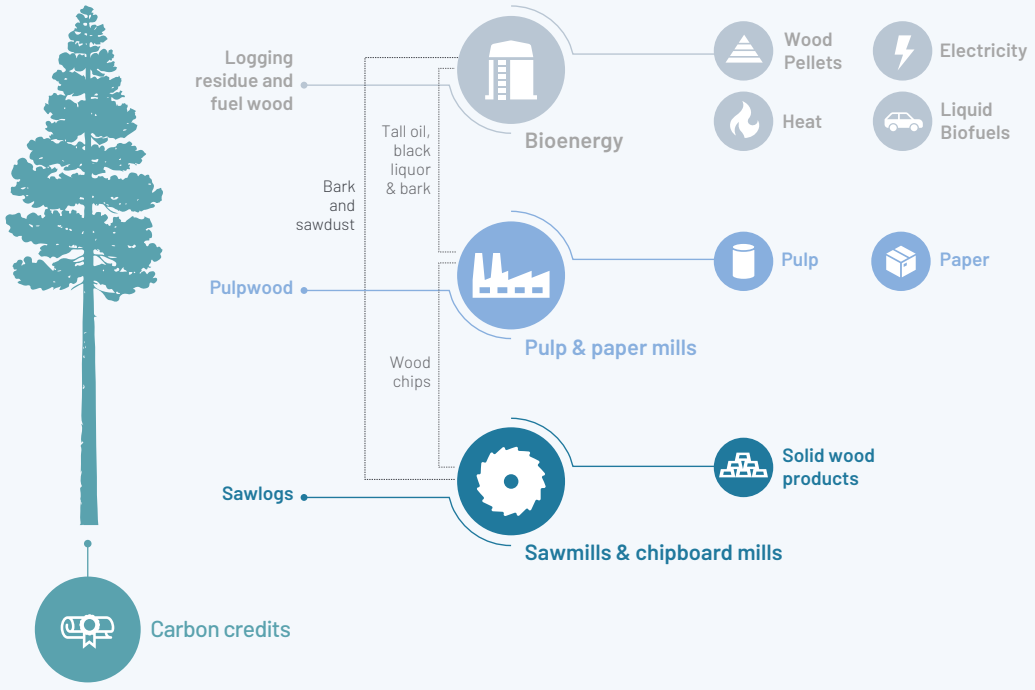


Chart source: FAO Forest Product Statistics 2018; Gresham House Global Timber Outlook 2020

Softwood timber is a fundamental constituent of several essential industries



75% construction / ancillary

15% biomass / energy

10% pulp and paper packaging

1. *Gresham House Global Timber Outlook 2020, p3*

Constrained supply

The outlook for timber prices and therefore forest owners remains very positive in light of continued timber supply constraint.

The vast majority of construction-quality global commercial timber supply is sourced from temperate forests where climates permit the growing of softwood timber.

These are found in the northern hemisphere (Canada, US, Northern Europe, Russia) and plantations in Oceania (New Zealand and Australia). With a fixed land area and low afforestation rates, commercial plantations will not be able to meet increasing demand.

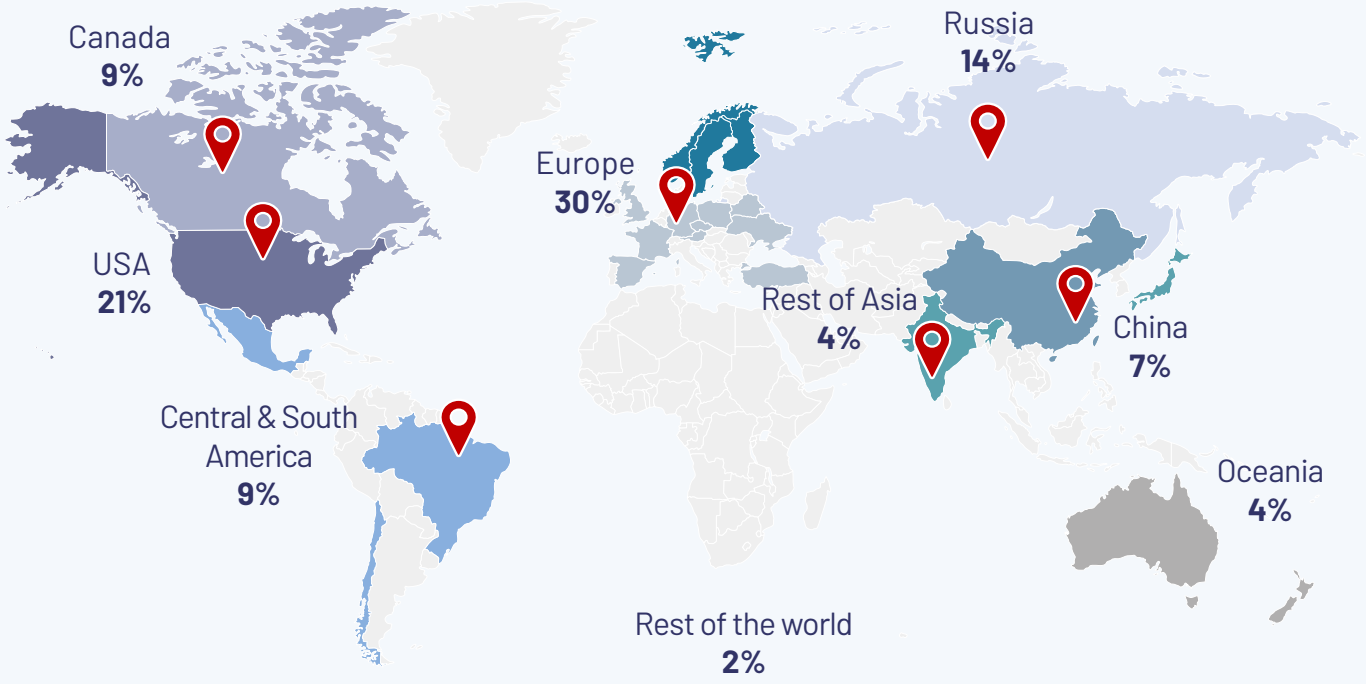
Global growth rates of softwood species range from 30–100 years before the timber is considered mature and ready for harvesting.

- Global industrial softwood timber is sourced from temperate forests in the northern hemisphere
- Growth rates of softwood species range from 30-100 years before the timber is ready for harvesting
- Afforestation and replanting will not increase supply of mature timber in the medium term

As such, even if softwood afforestation levels were to increase rapidly, supply would not be impacted for at least 30 years from today at the earliest.

Set against the constrained supply, timber prices and forest values are predicted to rise between now and 2050, to the benefit of today's forest owners.

Finite supply of accessible timber



Graphic source: Gresham House

Urbanisation

Urbanisation will drive demand for timber

The United Nations (UN) forecasts that the world's population will increase by 10% to 8.6bn by 2030. It expects urban migration to drive even faster growth of the urban population, which will rise 18% to 5.2bn by the end of this decade. By 2050, the UN suggests there will be 6.7bn of us living in urban locations, a rise of 52% and an extra 2.3bn people.

When China experienced an extra 404m people moving to urban areas in the last 20 years, a 96% increase, timber consumption also increased by the same amount. Similar timber consumption increases have been experienced in other countries that have developed over the past 20 years.[1]

It is not just the wave of migration that increases timber demand. Urban economies increase income per capita and total wealth, enabling people to transition from mass built public housing into family homes – suburbanisation – which require even more resources, particularly timber.

In the UK, for example, while the total number of housing starts has remained largely flat since the 1970s, the housing mix has shifted from local authority council homes to private homes, with timber demand increasing. A similar story can be seen in the US.

With the average single-family suburban home requiring three times as much timber as a unit in a multi-family dwelling, timber consumption increases as societies suburbanise.

Moreover, as the proportion of private homes increases, we believe that the home improvements sector becomes a more significant source of timber demand. In the US and other developed economies, the housing sector now accounts for 35% of all timber consumption over the whole construction industry.[2]

Even as housing starts begin to level off in mature economies, timber consumption continues to increase. The overall effect is that there is a clear link between the economic growth driven by urbanisation and increasing demand for timber. Global GDP is expected to grow at an average rate of 2.6% a year until 2050.[3]

Population (bn)	1990	2020	Change	2030	Change	2050	Change
Global	5.3	7.8	+47%	8.6	+10%	9.8	+25%
Urban	2.3	4.4	+91%	5.2	+18%	6.7	+52%
% Urban	43%	56%		60%		68%	

Chart source: United Nations World Population Prospects, 2019

1. *Gresham House Global Timber Outlook 2020, p9-12; United Nations*
2. *Wood - Building the bioeconomy - issuu.com/fedustriapub/docs/wood-building-the-bioeconomy-final-version-22.10.2*
3. *PwC, How will the global economic order change by 2050? https://www.pwc.com/gx/en/world-2050/assets/pwc-world-in-2050-summary-report-feb-2017.pdf*

Housing shortage

The housebuilding shortage globally will continue to drive demand for timber, independent of more urbanisation.

Current levels of housing starts are low by historical standards, as shown below.

The US housing stock continues to age, with the median age of houses now approximately 40 years old, a record high.[1] Housing starts in the UK are currently at 201,990, well below the 300,000 annual target[2]. There is consensus amongst UK political parties to increase housebuilding.

A comparable housing shortage is seen in many developed countries. The number of young adults living with their parents is either at, or close to, an all-time high.[3]

The housing shortage and the resultant consistent level of housebuilding required, particularly in mature economies, drives timber demand and prices.

US housing starts and long-term average

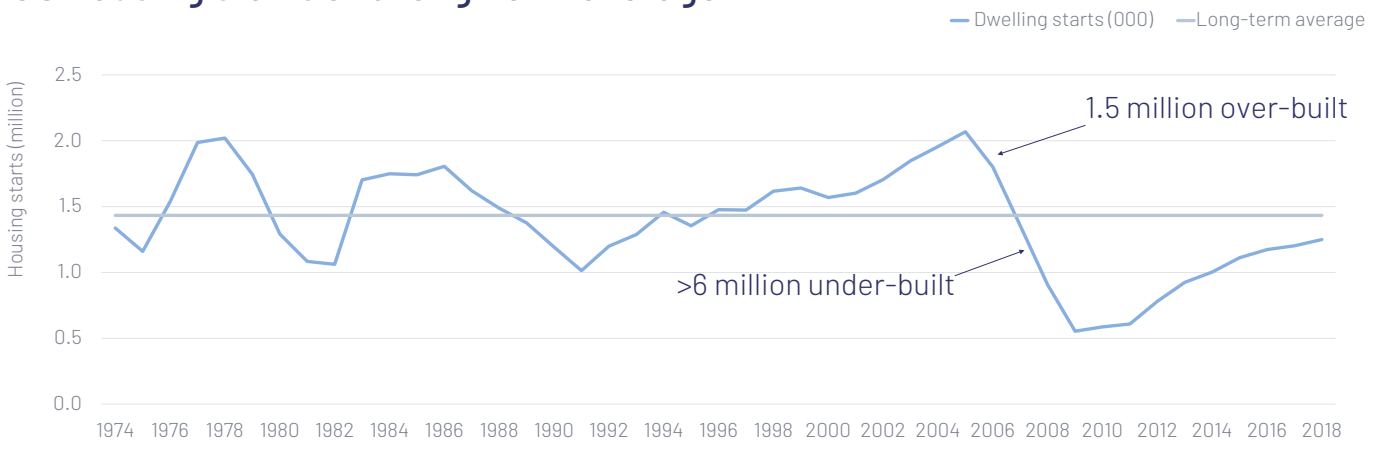


Chart source: Federal Reserve Economic Data and Norbord, Raymond James Institutional Investors Conference March 2018

Housing levels in England

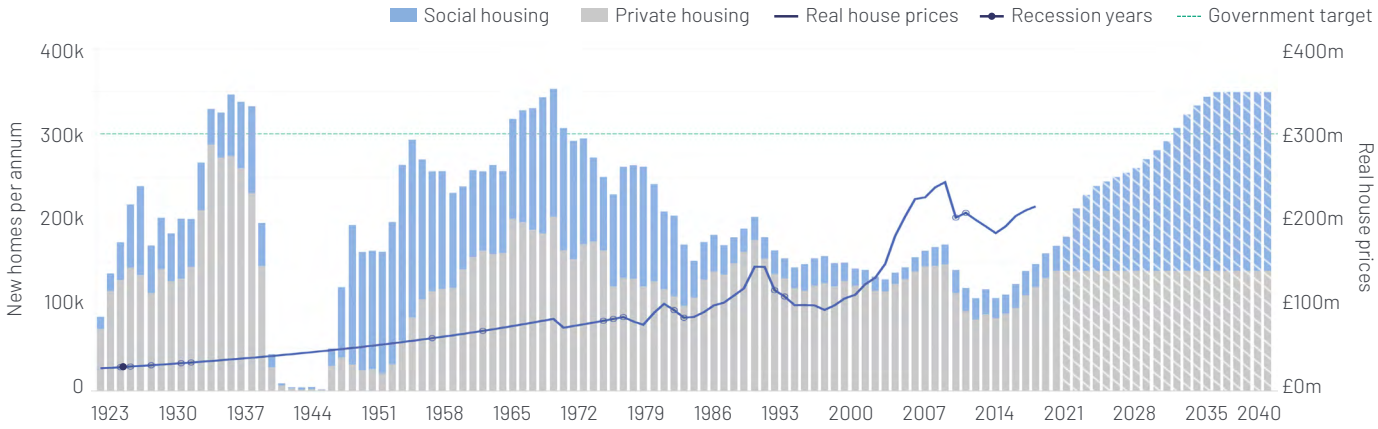


Chart source: Shelter, a vision for social housing: england.shelter.org.uk/support_us/campaigns/a_vision_for_social_housing

1. NAHB, US Census, Hoya Capital, seekingalpha.com/article/4274790-housing-sector-leads-stocks-to-record-week
2. Gresham House Global Timber Outlook 2020, p38
3. PEW Research - Fact Tank: In the US and abroad more young adults are living with their patents, May 2016

Decarbonisation

The move to net zero

The timber demand from both urbanisation and housebuilding levels is expected to be supercharged by the need to build our future in a much cleaner way, and the role that wood plays in achieving that need.

Net zero carbon emission targets require building our futures in a much cleaner, low carbon manner.

Wood is a low carbon substitute building material with equivalent or better characteristics than concrete, steel and aluminium in both residential and commercial construction.

The construction industry is a major source of resource extraction and carbon emissions, contributing around 36% of all CO_2 emissions. As a result, the EU has set a target to reduce emissions from construction by 90% by 2050.[1]

Not only is wood cleaner, thanks to technological developments in engineered timbers such as cross-laminated timber (CLT) and glulam, wood now has construction qualities equivalent to - or better than - concrete, steel and aluminium.

During production, one tonne of:

- Concrete **releases 159kg CO_2**
- Steel **releases 1,240kg CO_2**
- Aluminium **releases 9,300kg of CO_2**
- Wood ***absorbs*** **a net 1,700kg of CO_2**

Source: New Zealand Forestry Owners Association - Forestry Facts and Figures 2018 nzfoa.org.nz/images/stories/pdfs/facts_figures_2017_2018v2.pdf

Timber versus other building materials

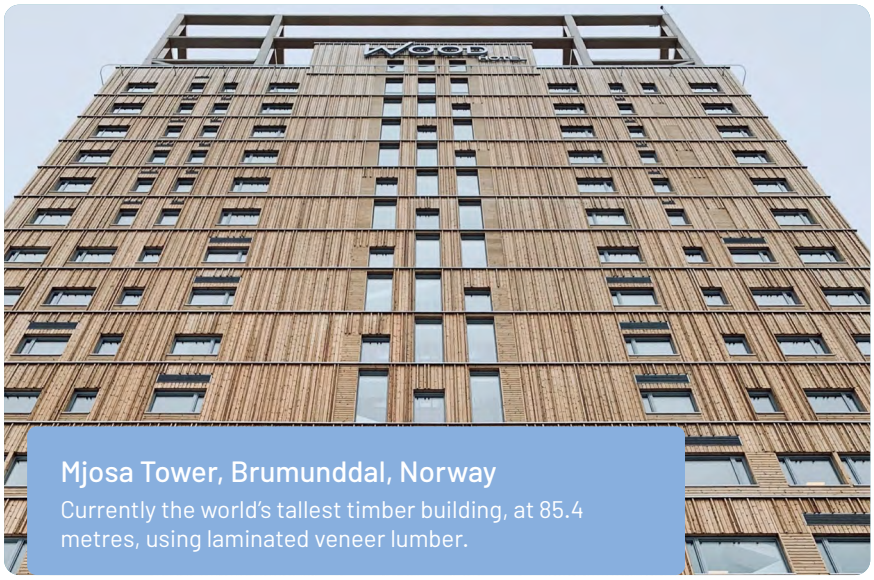
- CLT is made by placing layers of parallel beams atop one another perpendicularly, then gluing them together to create material with steel-like strength
- Wood is **lighter** than concrete, steel and aluminium, and can be assembled offsite, requiring fewer site deliveries and enabling reduced construction times and costs
- Timber has **superior insulation properties**, reducing energy consumption and lowering operating emissions. Wood's unique cellular structure makes it a poor conductor of heat and ten times more insulating than concrete, 400 times more than steel and 1,700 times more than aluminium. A 2.5cm thick timber wall panel provides better thermal resistance than an 11.5cm brick wall[1]
- Ongoing fire testing on new materials such as CLT means that building codes are changing to allow greater use of these materials in construction

1. Wood - Building the bioeconomy - European Commission - October 2019 issuu.com/fedustriapub/docs/wood-building-the-bioeconomy-final-version-22.10.2

The replacement of dirty, heavy building materials with wood is set to transform timber demand - as well as the face of our cities' architecture.

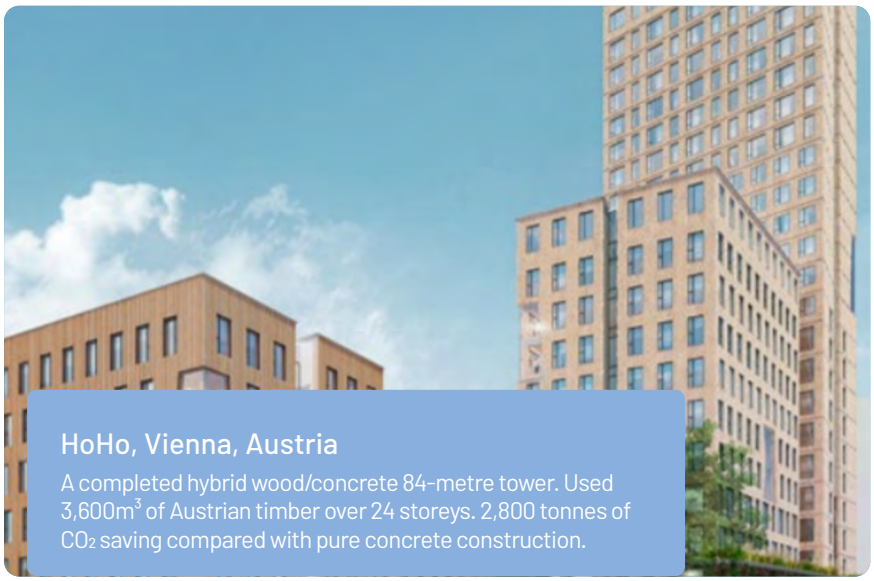
Timber buildings and towers - 'plyscrapers' - are starting to spring up everywhere. The city of Helsinki built four similar five-storey apartment blocks, two in wood and two with concrete.

The production of materials used in the timber buildings had a 74% lower carbon footprint.[1] France recently enacted a law requiring 50% wood or sustainable products in public buildings from 2022.[2]



Mjosa Tower, Brumunddal, Norway

Currently the world's tallest timber building, at 85.4 metres, using laminated veneer lumber.



HoHo, Vienna, Austria

A completed hybrid wood/concrete 84-metre tower. Used 3,600m^3 of Austrian timber over 24 storeys. 2,800 tonnes of CO_2 saving compared with pure concrete construction.

1. Wood - Building the Bioeconomy - European Commission - October 2019
2. The Times, 11 February 2020: Macron - Use more wood in our buildings.

Chapter 2: Key takeaways for investors

- Population growth and urbanisation are set to drive rapidly increasing demand for new housing and other types of construction over the next few decades, increasing demand for timber
- Timber is a natural substitute for materials such as steel, concrete and aluminium throughout the construction process. Its advantages include a net positive effect on carbon emissions – compared to the negative impact of other materials – as well as attributes that enable constructors to work more flexibly and quickly
- Producers of timber, including investors in commercial forestry, are therefore in a strong position to potentially capture excess real returns while the world decarbonises
- Forestry is a sustainable asset-backed investment that fits well into the ESG portfolios that investors increasingly demand

Chapter 3: Earning carbon credits

Carbon credits put a monetary price on pollution. One carbon credit represents the purchase of one tonne of CO_2 or carbon dioxide equivalent (CO_2e) emissions.

Trees take CO_2 from the air and release oxygen, soaking up and storing carbon. Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide. In certain jurisdictions, forest owners can earn a carbon credit for each tonne of carbon dioxide emissions absorbed by their forest each year.

Forestry is an important source of carbon credits for the growing numbers of companies that need to purchase them.

As such, it represents an attractive investment opportunity, with the potential for a high cash yield and returns that are uncorrelated to other asset classes.

Forestry investors have the opportunity to benefit from the rising demand and prices of carbon credits around the world, as policymakers increasingly turn to this tool for reducing and offsetting emissions.

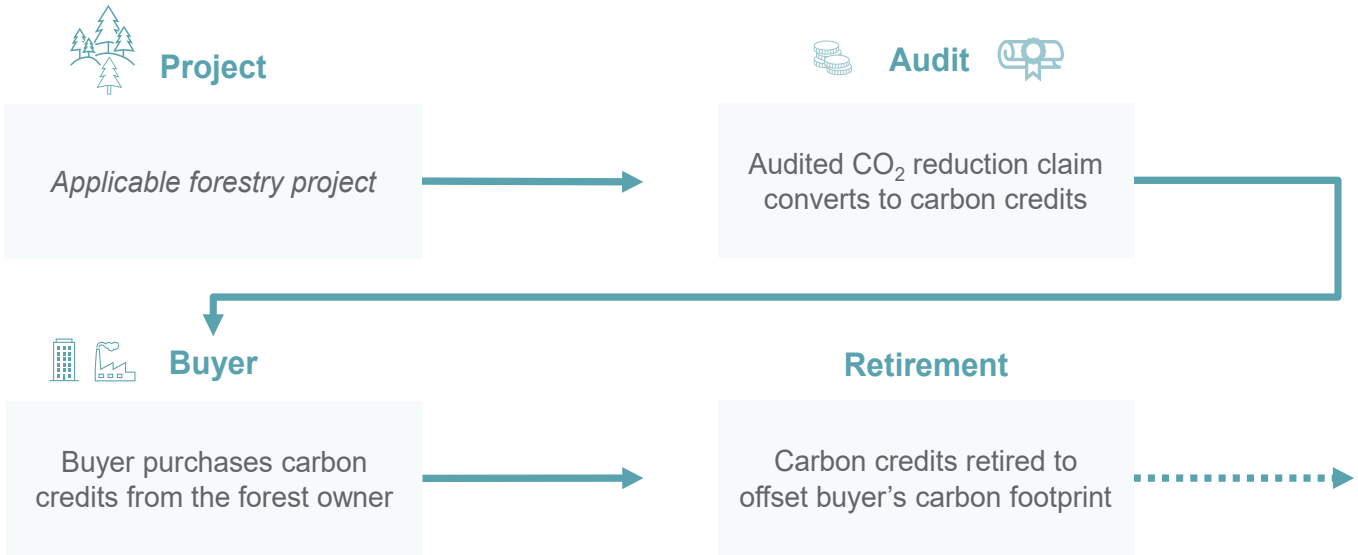
Meeting net zero

Meeting the net zero target requires a concerted and collaborative effort from governments, companies, organisations and individuals.

The tool most governments have adopted to incentivise the private sector to reduce emissions is an Emissions Trading Scheme (ETS). ETSs put a price on carbon, thereby encouraging companies to reduce emissions. In certain jurisdictions, forests are part of the ETS earning carbon credits.

Outside of formal ETSs, an increasing number of companies are including net zero targets in their mission statements and taking action themselves, offsetting their unavoidable emissions through the purchase of carbon credits.

What is a Forestry Carbon Offset Credit?



Source: Refinitiv, Carbon Market Year in Review, 22 January 2019; Gresham House 2021

Market opportunities

Carbon credit markets vary internationally, almost on a per country basis. Certain ETSs exclude forestry, such as the European ETS, but these are evolving.

Some ETSs are now well established and specifically targeting carbon forestry (such as New Zealand and California), with good demand/supply dynamics and minimum pricing guarantees for carbon credits. Others are still on a voluntary basis and are utilised by companies that fall outside of an ETS or have self-imposed more stringent carbon emissions targets.

In broad terms, forestry projects may generate two types of credit, compliance credits and voluntary credits.

Compliance credits

Compliance credits are suitable for businesses that are legally required to purchase carbon credits in order to offset emissions generated by their business operations within a certain country's ETS or jurisdiction.

This is particularly prevalent in industries such as energy and power. Such businesses are awarded an emissions allowance, but must purchase credits that exceed this level. With allowances typically reducing over time as policymakers work towards Paris Agreement commitments, the demand for and hence price of compliance carbon credits has increased.

This trend has been accelerated by the difficulty of cost effective clean technologies in many industrial sectors. Forestry generates carbon credits which are purchased through an ETS with well-established schemes now operating in New Zealand, Australia and California.

These all include forestry as a source of carbon credits, with carbon credits from forestry known as carbon credit offsets.

Voluntary credits

Voluntary credits are purchased by businesses to offset the emissions produced from their operations in a 'voluntary manner'.

These businesses are typically outside of industries covered by carbon regulation, but which nonetheless wish to work towards net zero emission targets and therefore buy credits voluntarily.

Voluntary credits are verified by third-party accreditors auditing natural carbon solution (NCS) projects such as afforestation, reforestation and forest conservation.

The number of businesses seeking voluntary credits continues to grow as the climate change agenda gathers pace, from sectors ranging from transport, technology and financial services.

Globally, between 2016 and 2018, voluntary credit transactions increased by 52.6% and 48.5% in volume and value terms respectively.[1]

Both compliance and voluntary carbon credits are an important tool in working towards net zero emissions. In the wake of the Paris Agreement, policymakers are set to accelerate their efforts and it is therefore expected that demand for both types of credit will continue to increase and prices will rise accordingly.

1. Ecosystem marketplace, ecosystemmarketplace.com/articles/voluntary-carbon-volume-hits-seven-year-high-on-demand-for-natural-climate-solutions/

Key compliance markets for forest carbon credits

Chart source: ICAP, 2020

Different forestry investment types play different roles dependent on the carbon market

In some regions, including the compliance markets of New Zealand and California, existing forestry can generate carbon credits for purchase by businesses, with policymakers recognising the carbon capture benefits that maintaining and sustaining existing forestry provides.

In other areas, existing forestry does not generate carbon credits. In the UK and Australia, for example, all existing forestry is counted as part of the country's national carbon budget, so its carbon capture benefits are already accounted for.

New planting schemes, by contrast, can generate voluntary carbon credits in the UK and Australia, if they meet criteria including:

- they are planted on non-organic soils
- they are not planted on land that has been forested in the previous 25 years
- the planting is financially viable only because carbon credits can be sold i.e. the concept of 'additionality'

While forestry is not always the only source of carbon credits, it plays an increasingly important role in generating the credits purchased by businesses both compulsorily and on a voluntary basis

For example, forest-based offsets have provided over 80% of the offsets utilised by the Californian system since 2013.[1]

In many jurisdictions, particularly voluntary ones, forestry owners have the flexibility to focus on both conventional timber forestry and carbon forestry, choosing to grow some of the forest for harvesting and some for carbon.

Carbon typically adds an extra 100 bps to the return in these cases.

1. WCI Offsets Market Review & Outlook: Supply and Demand Dynamics After AB 398

Global carbon markets are growing

Global carbon markets have grown almost 5x in value between 2017-2019 to €194bn.[1] Carbon credit prices are set to continue to rise as policymakers set more demanding emission allowances and as businesses and industry bodies increase participation in such schemes.

A number of regulatory bodies – in industries including aviation and shipping - now require members to offset their carbon emissions. There is also a growing number of country or regional focused carbon pricing initiatives, and these cover only 20% of annual global emissions, indicating significant room for expansion.

Voluntary credit prices, meanwhile, can vary markedly, with the potential for high prices, depending on their suitability for particular buyers.

A water company, for example, may be prepared to pay more for a flood prevention project generating a credit and/or a project which is situated in the same country the company operates in.

Voluntary carbon credits are typically bought and sold by carbon traders who match projects with clients.

There has been considerable further talk in the press in 2021 regarding how governments and companies should be preparing for $100 a tonne carbon prices by 2030 in order to drive a meaningful and sustainable drop in carbon emissions.[3]

Global carbon pricing initiatives and share of global emissions

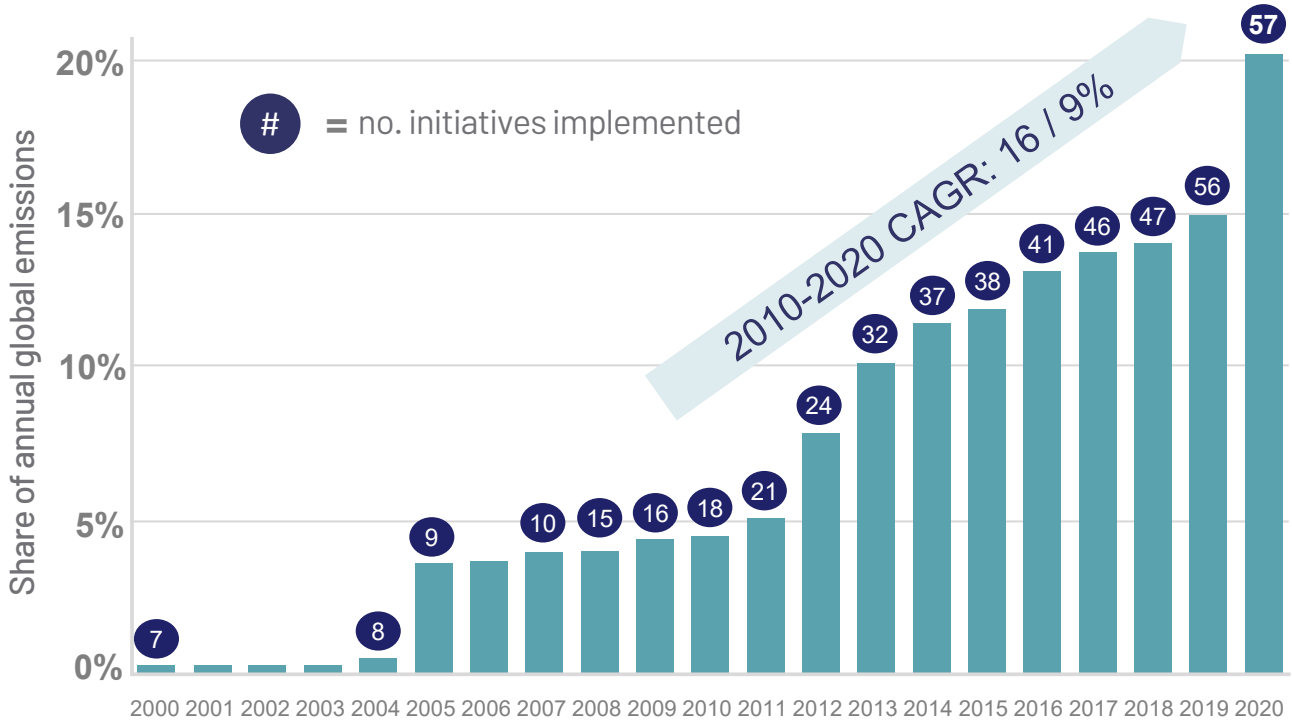


Chart source: World Bank, 2019 State and Trends of Carbon Pricing; Gresham House

1. *Programme for the Endorsement of Forest Certification*
2. *Deloitte: deloitte.com/us/en/insights/industry/financial-services/esg-investing-performance.html*
3. *ember-climate.org/data/carbon-price-viewer/*

Chapter 3: Key takeaways for investors

- Investors in forestry have the potential to capture a return by generating and selling carbon credits which businesses can buy in order to meet their carbon emission targets
- Demand for these credits is growing rapidly, with many companies required to meet increasingly stringent legislation, and others moving to reduce their net emissions on a voluntary basis
- Carbon credits generated from forestry offer the potential for long-term and high cash yielding returns, underpinned by demand from large and stable corporate entities for carbon credits each year
- The risk-return profile of carbon forestry is uncorrelated to other asset classes, while also offering a positive climate and environmental impact

Chapter 4: Investment opportunities

There has never been a more relevant time to add forestry to a diversified investment portfolio.

- Demand for timber and timber products is expected to increase as the world seeks to manage the growing need for construction – particularly in the context of urbanisation – and the damaging carbon footprints of materials such as steel, concrete and aluminium
- Carbon forestry will benefit as policymakers make even greater use of carbon credits to achieve their goal of limiting temperature increases to between 1.5°C and 2°C

Investors in global forestry have benefited from attractive long term real returns with little correlation to mainstream asset classes whilst providing a positive correlation to inflation.

Forestry therefore offers an attractive risk-return profile, the opportunity for portfolio diversification and a hedge against inflation in a sustainable investment.

Forestry owners are able to capture the carbon opportunity in three ways:

1. Acquiring conventional commercial forestry to harvest and supply wood to a growing and decarbonising world

2. Acquiring carbon forests to generate and sell carbon credits to a greener world. Investors may invest in a portfolio with:

- a mix of timber or carbon (exposure to favourable and uncorrelated asset classes)
- different crop ages (potential for income or capital growth)
- geographic exposure (to diverse end markets)

3. Acquiring land for afforestation with a mix of commercial forestry and carbon income

Past performance is not a reliable indicator of future performance. Capital at risk.

1 Potential for attractive long-term returns

2 Portfolio diversification

3 Inflation protection

4 Sustainability

1. *An investor guide to negative emission technologies and the importance of land use, 2020. www.unpri.org/land-use-implications/an-investor-guide-to-negative-emission-technologies-and-the-importance-of-land-use/6644.article*
2. *Vivid Economics (American University, 2020)*

Opportunities across forestry and forest carbon

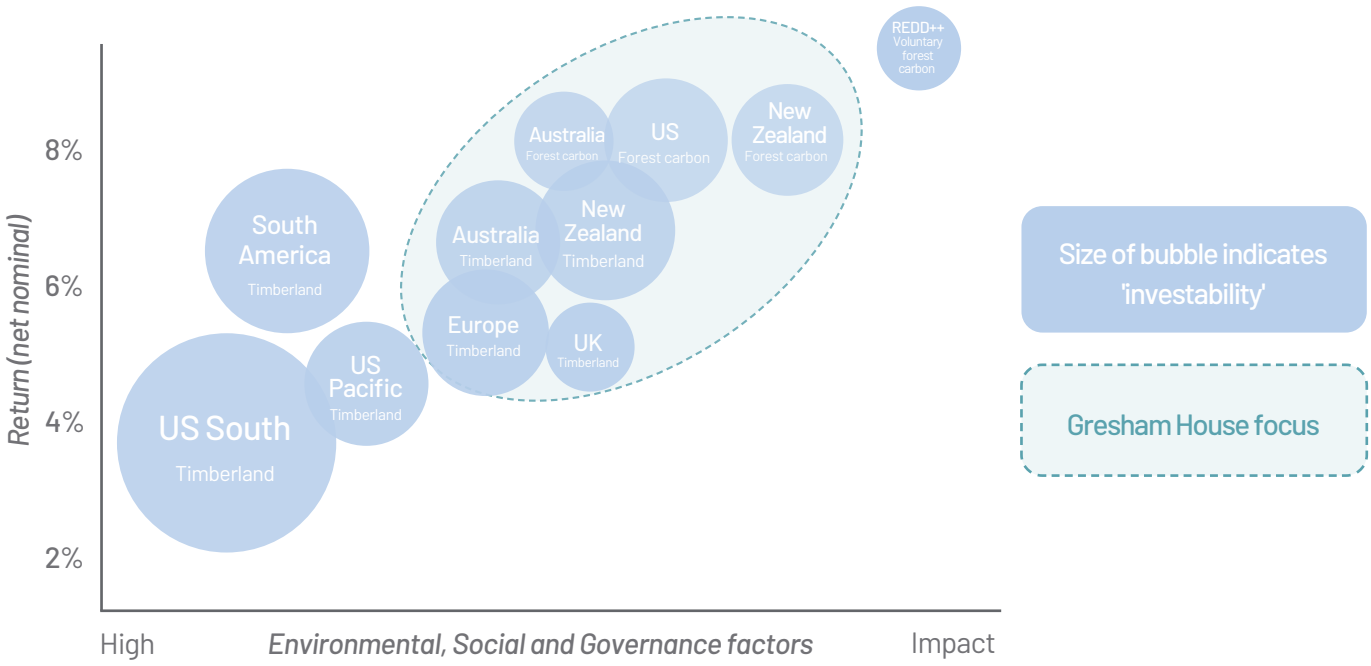


Chart source: Gresham House, 2021. Investability is a mix of asset availability and liquidity.

Potential returns by geography and sector

	Timberland *UK, Europe*	Timberland *New Zealand, Australia*	Forest carbon *Compliance markets*
Potential return profile	*High capital growth with income*	*High capital growth with income*	*High income*
End market	Domestic construction	Domestic & export construction (China/Asia)	Carbon markets
Rotation cycle	27-80 years	20-30 years	30 years / permanent
Cash flow type	Spot markets	Spot markets and fixed offtakes	Spot markets and and fixed offtakes
Return (net nominal)	4-6%	5-8%	8-10%

Chart source: Gresham House, 2021. Capital at risk.

Past performance is not a reliable indicator of future performance. Capital at risk.

Gresham House sees the following exposures and geographies as having the most favourable long term market conditions:

New Zealand – Carbon forestry

New Zealand's carbon scheme is one of the oldest and most well-established ETS and has very favourable demand / supply dynamics. The NZ government has repeatedly increased the pricing of carbon credits and there is a consultation to increase prices further, to the benefit of forest owners.

Ireland – Commercial forestry

The Republic of Ireland has strong export markets, predominately to the UK, Germany and The Netherlands' housing and construction industries. Rapid tree growth rates, due to its optimum climate and nutrient rich soils, produce high grade construction timber quickly.

Australia and New Zealand – Commercial forestry with carbon enhancement

Advantageous logistics to Asia, the world's biggest and fastest growing timber market. Excellent growing conditions and strong policies for forestry expansion and carbon management.

UK – Commercial forestry with carbon enhancement

The UK imports c.81% of its timber, making it the world's third largest wood importer – a strong competitive advantage for UK wood producers. The country also benefits from high levels of housebuilding due to the chronic housing shortage, with strong political will to continue to increase housing starts. The UK is also one of the leading countries in imposing stringent net zero carbon targets. New afforestation brings additional income in the form of carbon credits.

Europe (focus on The Baltics) – Commercial forestry

Exports the majority of its timber to Western European economies, best set to decarbonise their economies rapidly. Baltic timber achieves similar prices to Sweden thanks to its modern timber processing industry, but land prices are still 50% lower. Fragmented forest ownership provides the potential for a strategic premium from aggregation.

Not investment advice. Past performance is not a reliable indicator of future performance. Capital at risk.

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About Gresham House

Gresham House is an LSE-quoted specialist alternative asset management group, dedicated to sustainable investing across a range of strategies, with expertise in forestry, housing, sustainable infrastructure, renewable energy and battery storage, public and private equity. We actively manage c.£3.9 billion[1] of assets on behalf of institutions (including pension funds), family offices, charities and endowments, private individuals.

Gresham House is well-positioned to provide differentiated alternative investment opportunities to pension funds, allowing them to diversify their asset allocation and deliver on income requirements, without exposure to 'traditional' stock market volatility.

As a signatory to the UN-supported Principles for Responsible Investment (PRI), Gresham House is committed to operating responsibly and sustainably, taking the long view in delivering sustainable investment solutions.

Gresham House is the largest forestry asset management group in the UK and Ireland, with c.140,000 ha. of forests under management.

GREEN ECONOMY
LONDON STOCK EXCHANGE

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PRI Principles for Responsible Investment

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1. Trading Statement as at 28 January 2021, unaudited.

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