ABOUT PLANET TRACKER

Planet Tracker is a non-profit financial think tank aligning capital markets with planetary limits. It was created to investigate the risk of market failure related to environmental limits. This investigation is primarily for the investor community where environmental limits, other than climate change, are often not aligned with investor capital. Planet Tracker generates breakthrough analytics to redefine how financial and environmental data interact with the aim of changing the practices of financial decision makers to help avoid both environmental collapse and financial failure.

FOOD AND LAND USE TRACKER

Food and Land Use Tracker combines science-based food system research, environmental metrics and public company financial analytics to reveal the systemic market and company consequences of failing to achieve sustainable and net zero deforestation-free food systems by 2030 and on to 2050. Our research and engagements aim to catalyse change through pressure applied via investor policies and financial products which support the adoption of sustainable practices within global food systems. Food and Land Use Tracker is a part of the wider Planet Tracker group of Initiatives.

In this new Briefing Paper, we articulate the link between deforestation, indices and exchange traded funds.

ACKNOWLEDGEMENTS

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UNDERSTANDING EXCHANGE TRADED FUNDS

An Exchange Traded Fund (ETF) is an exchange listed investment vehicle which invests in a basket of stocks, bonds or other assets such as commodities or currencies. The majority of ETFs are designed to track the performance of an underlying index such as the S&P500 or Bovespa, sectors such as renewable energy or technology, or themes such as climate change. ETFs appeal to investors as they offer exposure to a broad range of diversified stocks through a single investment at a low cost.

Three components are particularly relevant when assessing how ETFs are linked to natural capital and specifically deforestation-related risks and what can be done to mitigate those risks:

**TYPE** - ETFs are commonly either physical or synthetic:

- **Physical ETFs**: Track a target index by buying and owning all, or some, of the underlying assets of the index. A Consumer Staples S&P500 ETF would buy and hold all companies classified as Consumer Staples businesses in the S&P500 Index, for example.

- **Synthetic ETFs**: Instead of buying and holding the underlying securities or assets, synthetic ETFs use financial derivatives (typically swaps) to track the performance of the underlying securities or assets. The ETF provider enters into a contract with a counterparty (usually a bank) and the counterparty guarantees that the swap will return the value of the respective benchmark the ETF is tracking. Synthetic ETFs can be bought or sold like shares, similar to traditional ETFs.

- **Smart beta**: Smart beta ETFs use rules-based systematic approaches to select stocks and weightings from an index based on factors other than market capitalisation.

**INVESTMENT STYLE** - ETFs are commonly managed through either active or passive investment strategies:

- **Active management**: An active ETF manager will handpick stocks or other securities to buy and then compare the returns that they make against the benchmark. Active managers try to beat the returns of a benchmark index. Good stock selection is designed to pick the companies that the portfolio manager believes will outperform others within the index. The manager does not buy all the index stocks; only those that they forecast to give a superior risk and return profile.

- **Passive management**: Also known as 'tracking the index', passive ETFs typically buy all the securities in the underlying benchmark index in the same proportion as their weighting in the index. Passive ETFs are often managed by an automatic portfolio management system.

- **Smart beta or factor-based**: Smart beta ETFs use a blended rules-based systematic approach to select stocks and weightings from an index based on factors other than market capitalisation, for example value stocks or growth stocks.

**TRANSPARENCY** - ETFs typically disclose their holdings on a daily basis. However, some ETFs such as semi-transparent ETFs, recently approved by the US Securities Exchange Commission (SEC), reveal the composition of their portfolio less frequently or mask their true holdings via proxy securities or weightings.
In this report, we focus on deforestation as an example of natural capital risk embedded in equity markets and in ETFs in particular, but our findings and recommendations are applicable to other natural capital risks.

**KEY FINDINGS**

The rise of ETFs disseminates deforestation risk in equity and bond markets. Exchange Traded Funds (ETFs) offer liquid, cost and capital gains efficient investment products for investors to access a portfolio of underlying companies or track an index. ETFs, and their investors identified in this report, indirectly enable deforestation via investing in indices holding 380 publicly listed companies linked to deforestation.\(^1\) While some mutual funds are committing to address deforestation risk, ETF sponsors to date have not acted on sustainability statements by structuring instruments explicitly excluding equities linked to deforestation.\(^2\)

Investors in ETFs might unknowingly finance companies linked to deforestation. Planet Tracker analysed 26 public companies involved in the production, processing and trade of soybeans and with links to deforestation. This report identifies USD 9.3 billion held by equity-based ETFs in these companies. The top 10 asset managers with underlying funds identified as investors in these ETFs include Bank of Montreal, Bank of America, Morgan Stanley, BlackRock, Goldman Sachs, Wells Fargo, UBS, Envestnet and Northwestern Mutual.

The return of synthetic ETFs and the development of semi-transparent ETFs hide entrenched deforestation risk from ETF investors. Synthetic ETF issuances are on the rise following a decline in popularity after the 2009/10 financial crisis when the EU Commission warned that they could contribute to systemic risk. Synthetic ETFs do not hold the securities they track but use financial derivatives, usually swaps, to replicate their performance. As a result, a lack of transparency means their investors may unknowingly be financing companies linked to deforestation. For example, Planet Tracker identified four synthetic ETFs invested in soybean companies historically linked to deforestation. The same transparency issue applies for newly created semi-transparent ETFs, where holdings do not have to be disclosed on a daily basis.

Seven companies have the power to dramatically remediate deforestation risk in the ETF market. Active ETF sponsors can and should mitigate deforestation risk in their holdings. One action available is to increase deforestation transparency by clearly labelling companies linked to deforestation in ETF disclosures and documentation. Passive ETF sponsors are restricted in remediating deforestation links on their own. They could however pressure index providers to ensure that natural capital-related issues such as deforestation are one of the rules-based factors that are considered when deciding on the inclusion of a company’s stock in an index. Certain index-based ETFs already apply clearly defined environmental, social and governance (ESG) exclusions, for example on climate change grounds, as an option for concerned investors. Both the ETF industry and the index industry are highly concentrated, meaning that BlackRock (iShares), Vanguard, State Street Global Advisors on the one hand, and MSCI, FTSE Russell, S&P Dow Jones and Bloomberg on the other, together have disproportionate power to mitigate deforestation risk (as well as other natural capital risks) in the ETF market, as they respectively control c.70% of the ETF and index markets.

ETF sponsors should target a fast reduction of deforestation-linked companies from their universal product offerings. This could be achieved by mirroring performance using synthetic structures. In parallel, sponsors can issue their own ETFs which exclude deforestation linked equities. Part of this transition should involve ETF sponsors exerting stewardship pressure on index providers to design indices excluding stocks linked to deforestation.
DEFORESTATION RISK IS RISING IN THE ETF INDUSTRY

CONTEXT: DEFORESTATION AND EQUITY MARKETS

Global deforestation has grown at a substantial rate
At the current rate of deforestation, all of the world’s forests could disappear in 100 years. From 2001 to 2019, 386 million hectares of tree cover were lost globally, equivalent to a 9.7 per cent decrease in tree cover since 2000. Two-thirds of this loss took place in Brazil, Canada, China, Democratic Republic of Congo (DRC), Indonesia, Russia and the USA. While wildfires are a primary driver of tree cover loss in Russia or Canada, commodity-driven deforestation and/or agriculture are the key factors driving the reduction in tree cover in Brazil, Indonesia and DRC.

Investors in at least 380 publicly listed companies are exposed to deforestation risk
Deforestation Free Funds, an initiative of NGOs As You Sow and Friends of the Earth, has established a list of 380 publicly listed companies with links to deforestation. Those companies typically produce, process and trade palm oil, paper/pulp, rubber, timber, cattle or soybean. Compiled from independent research as well as from existing resources within the civil society research and investor advocacy communities on forest-risk companies - including Forests & Finance, Forest500, CDP Forests, Supply Change.org and ZSL SPOTT - the list provides evidence linking each company to deforestation.

Equity investors in these companies (including via ETFs) enable deforestation
Equity investors, mutual funds, ETF and index investors all indirectly (and often unknowingly) facilitate deforestation as their investment supports the capital stock of companies linked to land use change. For instance, if investors buy an ETF replicating the performance of the Brazilian Bovespa Index, they will indirectly facilitate deforestation as that index includes companies such as JBS, Minerva and Marfrig Global Foods, that have links to deforestation.

THE ONGOING TRANSITION FROM MUTUAL FUNDS TO ETFs HIDES DEFORESTATION RISK

ETFs are steadily and rapidly gaining share from mutual funds
The ETF industry is a fast-growing one. Between 2003 and 2019, global assets under management (AUM) invested in ETFs grew by 24 per cent per annum on average. At the end of July 2020, USD 6.7 trillion was invested in the ETF industry, five times more than in 2010 – see Figure 1.

Figure 1: ETFs – Assets under Management (in USD billions). As of September 2020
As a result, ETFs have steadily gained market share from mutual funds. In the US for instance, as of March 2020, passive funds accounted for 41 percent of combined mutual funds and ETF AUM, up from three percent in 1995 and 14 percent in 2005.\(^\text{13}\)

This growth in market share is important because as a result ETF sponsors are more able to play an influential role in corporate engagement and stewardship. Shareholder voting rights are one illustration of this leverage. Whilst some mutual funds have implemented commitments to tackle deforestation by publicly voting in support of shareholder resolutions aimed at reducing deforestation, ETF sponsors have historically voted against or abstained from these resolutions as illustrated in Case Study 1. By failing to support such resolutions ETF sponsors are blocking stewardship efforts, and fundamentally positive market change, brought forward by other investors including mutual funds.\(^\text{14, 15}\)

**CASE STUDY 1**

**Doubling Down on Deforestation: How the Big Three Asset Managers Enable Consumer Goods Companies to Destroy the World’s Forests**

In 2020, research from Profundo and Friends of the Earth using data provided by Proxy Insight analysed the proxy voting records of BlackRock, Vanguard and State Street on shareholder resolutions raised to address corporate level deforestation. Their report analysed shareholder voting behaviour on deforestation-related resolutions brought against eight corporate members of the Consumer Goods Forum (CGF). Under the 2010 CGF, member companies publicly committed to achieve zero-net deforestation supply chains by 2020. The research found that, ‘since 2012, shortly after the CGF made its commitment to end deforestation in its supply chains, BlackRock, Vanguard and State Street have voted against or abstained from all 16 shareholder resolutions calling for action on deforestation, effectively taking a stance against industry change’.\(^\text{16}\)

**The return of synthetic ETFs spreads deforestation risk**

Synthetic ETFs first appeared in Europe in 2001 and accounted for more than one-third of ETF assets in Europe as of 2013.\(^\text{17}\) Their market share fell after the financial crisis and the EU Commission warned that they could contribute to systemic risk, with EU regulators even considering banning their sale to retail investors in 2011.\(^\text{18}\)

Ever-increasing pricing competition between fund sponsors to lower the total expense ratio (TER)\(^\text{b}\) of funds is catalysing a renewed growth in synthetic ETFs, with BlackRock launching their first swap-based synthetic ETF in a decade in September 2020.

Synthetic ETFs use derivatives and swap-based investment strategies rather than holding ‘physical’ assets such as company shares. By not buying the underlying assets, this strategy is typically less expensive relative to physical ETFs, with, for instance, an average difference of 10 basis points (0.10%) between the TER of physical and synthetic ETFs in Europe.\(^\text{19}\)

As pricing becomes more competitive, Planet Tracker expects synthetic ETFs to fill a larger proportion of the ETF market, especially as hidden costs such as the cost of the swap are not included in the TER of synthetic ETFs,\(^\text{20}\) which therefore appear cheaper.

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\(^{b}\) The total expense ratio (TER) is a measure of the total costs associated with managing and operating an investment fund such as an ETF. Aggregated costs incorporate management fees and additional expenses, such as trading fees, legal fees, auditor fees, and other operational expenses. Certain synthetic ETFs offer a TER of 0 per cent
Synthetic ETFs lack investor transparency into deforestation-related holdings

Relative to physical ETFs, which report on the underlying stocks or index held by the fund on a daily basis, the structure of synthetic ETFs (and notably the use of a collateral which does not necessarily include stocks of the underlying index tracked) acts as a transparency barrier. Investors in these instruments are unable to determine the underlying derivatives used to replicate the index tracked by the ETF - as illustrated in Case Study 2.21, 22

Furthermore, the counterparty used in the swap is almost always a bank, which in turn, assists in the financing of deforestation. Counterparty risk in accurately mirroring the performance of the underlying stocks remains an important factor. ETF sponsors should ensure banks acting as synthetic counterparties maintain high stewardship standards in tackling deforestation across public policy commitments and voting behaviour.

Loss of voting power is another drawback of synthetic ETFs. Because no shares are owned, sponsors and investors in synthetic ETFs hold no voting rights attached to these shares and therefore have no opportunity to participate in shareholder resolutions seeking to address corporate deforestation exposure or risks.

**CASE STUDY 2**

**BlackRock - iShares S&P 500 Swap UCITS**

In September 2020, BlackRock launched the iShares S&P 500 Swap UCITS ETF (I500), their first swap-based synthetic ETF in a decade. This move came as a surprise to many in the industry, as BlackRock was previously a prominent critic of the counterparty risk embedded in synthetic ETFs. At launch, one swap position within the ETF, Tyson Foods, represented 1.3 per cent of the underlying portfolio. In the same month, Tyson scored a low 1 out of 5 in the Forest 500 rankings with a soybean sector aggregated score of 21/86. This score combines an assessment of commitment strength\(^d\) (12/36), reporting and implementation\(^e\) (5/34) and social consideration\(^f\) (4/16) in addressing deforestation. As one of the leading 10 global suppliers of animal feeds, Tyson has been linked to deforestation through soybeans used in feed products. Tyson at the time of this report has no commitment to protect primary forests and no net zero-deforestation commitment in their supply chain.

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c  UCITS stands for Undertakings for the Collective Investment in Transferable Securities. This refers to a regulatory framework that allows for the sale of cross-Europe mutual funds.

d  Commitment Strength: Total score for the type, scope and ambition of a commodity commitment.

e  Reporting and Implementation: Total score for reporting and implementation against commodity commitments.

f  Social Consideration: Total score for social considerations addressed within commodity commitments.
SEMI-TRANSPARENT ETFs COULD MASK LINKS TO DEFORESTATION COMPANIES

The necessity for ETF managers to disclose their holdings daily can lead to a leakage of their investment strategy. In approving “semi-transparent” ETF structures, the US Securities and Exchange Commission (SEC) has removed this requirement. Compared to transparent ETFs, semi-transparent ETFs either reveal the portfolio less frequently or mask the true holdings via proxy securities or weightings.23

They allow asset managers to replicate the holdings of well-known mutual funds through an ETF (i.e. a cheaper alternative), with a view to capturing some of the growth of the ETF industry without running the risk of being front-run or copied. Fidelity, American Century, Legg Mason and T Rowe Price have been among the first to launch active, non-transparent ETFs so far this year.24, 25

The rise of active semi-transparent or non-transparent ETFs creates a transparency risk when it comes to natural capital questions such as deforestation, in so far as it theoretically allows asset managers to own shares of a deforestation-risk company without disclosing the fact at the time.

Because many of the new ETFs recently launched by asset managers are “mirror” ETFs, which replicate the composition of existing mutual funds, any deforestation-risk company held in the mutual fund will also be held via the ETF, effectively increasing the total assets invested in such a company and only disclosing this exposure with a time lag.

As pricing becomes more competitive, Planet Tracker expects semi-transparent ETFs to fill a larger proportion of the ETF market as they replace mutual funds – see Figure 2.

**Figure 2: Estimated Total Expense Ratio of Different Types of ETFs.**26
Deforestation-risk mitigation in ETFs relies on identifying key decision-makers

The ongoing growth of ETFs and the current trends in the ETF industry result in a spread of natural-capital risks such as deforestation into a wide variety of equity instruments. To be able to mitigate those risks, it is key to determine which stakeholder is the ultimate decision-maker. This depends on the type of instrument used - see Figure 3, where the ultimate decision-maker is outlined in black.

ETF sponsors are not always responsible for the holdings in the ETFs they manage

For mutual funds, the fund manager (also known as a portfolio manager) has the ultimate responsibility for an investment decision. Active fund managers in mutual funds can exclude deforestation-risk companies should they wish to do so when permitted by their investment mandate described in the fund prospectus. Index providers can also, in theory, exclude or include companies from indices they create and are therefore responsible for any deforestation risk embedded in their index products. The situation for ETF sponsors is more complicated and depends on the type of ETF considered. ETF sponsors are ultimately responsible for the deforestation-risk linked to the holdings in the ETFs they offer to their clients (see orange-coloured boxes in Figure 3).

Mirror ETFs - where a mutual fund replicates its holdings through an ETF – are an exception, where the fund manager of the mutual fund mirrored in an ETF is ultimately responsible for the holdings in the ETF. However, in practice, the sponsor of the mirror ETF and the mutual funds are often the same company. Index-based ETFs (or passive ETFs) are another, much larger exception, since they account for the vast majority of existing ETFs in terms of assets under management.
PASSIVE ETF SPONSORS CAN REMEDIATE DEFORESTATION LINKS BY WORKING WITH INDEX PROVIDERS OR SELF-INDEXING

Passive ETF sponsors are restricted in remediating deforestation links
A structural failure exists which prevents investors in these ETFs from engaging the ETF sponsors to implement more stringent deforestation-related controls. For instance, the SPDR S&P 500 (ticker: SPY), iShares Core S&P500 ETF (ticker: IVV) and Vanguard S&P 500 ETF (ticker: VOO) replicate the S&P 500, an index maintained by S&P Dow Jones Indices. Even if BlackRock commits to not investing in deforestation-risk companies, because the S&P 500 includes deforestation-risk companies, the rules-based structural ETF design means that BlackRock has no choice but to also “invest” in those companies via the iShares Core S&P500.

CASE STUDY 3

Deforestation Risk at BlackRock ETFs
In August 2019, NGOs Friends of the Earth and Amazon Watch and research firm Profundo released a report scrutinising the role of BlackRock as one of the three shareholders in 25 of the world’s largest publicly traded deforestation-risk companies. Among the key findings of the report, the authors found that BlackRock’s investment in deforestation-risk companies increased between 2014 and 2018 to reach USD 1.6 billion and that the vast majority of that investment (94 per cent in 2018) is made via index funds.

Another finding of the report is that multiple ESG funds managed by BlackRock own deforestation-risk companies. At the time of this report, all of those ESG funds are based on MSCI ESG indices.

The claim made by BlackRock that “Third party index providers determine the companies included in a particular index. Investors cannot selectively divest companies from an index fund” is disputed by the authors of the report, who argue that “it is not true that BlackRock has no control over what these funds contain, nor over its increasing preference for a passive investing approach”.

Planet Tracker agrees that increasingly skewing its assets towards ETFs and index funds is a choice that BlackRock makes - although market forces push the company in that direction. It is also true that by deciding to construct or operate an ETF or index fund that tracks an underlying index containing shares of deforestation-risk companies, BlackRock implicitly discounts the reputational, operational and natural-capital related risks associated with that investment decision.

However, once a decision to maintain a given index fund or ETF that replicates an index is made, we agree with BlackRock that it has little control over the changes in the constituents of such index.

BlackRock, as a major user of index provider services, can however:

• Issue their own ETFs which exclude deforestation linked equities e.g. an S&P 500 ex-deforestation ETF. As an illustration in November 2020 BlackRock issued the iShares Developed World Fossil Fuel Screened Equity Index Fund. This ETF was developed in collaboration with Oxford University Endowment Management to realise Oxford University’s commitment to divest from fossil fuel companies.
• Use blended ETF instruments deploying synthetics to mirror the performance of deforestation-related equities within an ETF negating the need to own the stocks.
• Exert stewardship pressure on these providers to design indices excluding stocks linked to deforestation.
• Transparently label indices containing deforestation related equities.
• Vote in favour of corporate shareholder resolutions addressing deforestation activities, risks or exposures.
Leveraging the authority of index providers
At present, the majority of ETF investment is made via passive investing and the majority of passive investing uses index investing. As a result, the highly concentrated industry of index providers (led by MSCI, S&P Dow Jones Indices and FTSE Russell, excluding exchanges), exercises growing leverage as these companies steer investments through the indices they create and maintain.\(^{30}\)

Whether companies or countries are included in an index is based on criteria determined by index providers, with repercussions on investment flows (including via ETFs), standards for corporate governance and investor access.

Just as index providers influence important effects on corporate governance and the economic policies of countries, the natural capital-related decisions they make when constructing or updating an index have cascading repercussions on the ground.\(^{31}\)

The onus is therefore on the index providers like such as MSCI, FTSE Russell, S&P Dow Jones and Bloomberg to ensure that the specific deforestation risk associated with one or several companies is not artificially distributed to the wider financial system via the inclusion of these companies in indices.

Passive ETF sponsors could pressure index providers
Whilst passive ETF sponsors appear to have little leverage in ensuring that the indices upon which they build do not include deforestation-linked companies, one should not forget that index-based ETF sponsors are the key clients of index providers, meaning that they could lobby for deforestation-free indices should they wish to do so. This is especially true since the ETF sponsor industry is very concentrated, just like index providers.

Just seven companies together have the power to dramatically remediate deforestation risk
Creating and managing indices is a complicated, expensive and intensive process. These barriers to entry have worked to maintain the concentrated market share of the historical major index and ETF providers listed below.

Even though a total of 8,268 ETFs provided by 465 different companies and listed on 71 exchanges in 58 countries exist,\(^{32}\) only three companies control around 71 per cent of the total ETF market: BlackRock, Vanguard, and State Street – see Figure 4.\(^{33}\)

![Figure 4: ETF Market Share by Provider (2018).]
Similarly, four companies control around 60% of the index market, which are MSCI, S&P Dow Jones, FTSE Russell, Bloomberg - see Figure 5. Therefore with the above listed BlackRock, Vanguard and State Street Global Advisors, these seven together have the power to dramatically remediate deforestation risk embedded in the ETF/index industries.

Figure 5: Market Share of Index Providers (2019).

Alternatively, ETF sponsors could bypass index providers and self-index. If passive ETF sponsors looking to mitigate deforestation risk do not agree with index providers, they could opt to self-index. This means that they could build their own indices that meet their needs (and also reduce their fees in the process). Fidelity has already done so, for instance.

Recently, Legal & General Investment Management (LGIM) launched a range of fixed income ESG ETFs. Interestingly these were launched with JP Morgan as they were willing to create LGIM’s preferred indexes. LGIM commented that a number of index providers were unable to assist ‘because it undermined their existing business.

Planet Tracker therefore argues that index providers should work towards the adoption of a framework that will help them consider natural capital-related issues such as deforestation as one of the factors that set the inclusion/exclusion of a company’s stock in an index and that passive ETF sponsors should encourage them to do so. Failing that, ETF providers could well decide to self-construct indices that meet these natural capital criteria.

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8 One effective way to start that work would be to channel discussions via the Index Industry Association (IIA), a non-profit organisation based in New York that represents the global index industry. According to IIA, there are 3 million indices globally – almost five times more than the number of listed equities.
ACTIVE ETF SPONSORS CAN AND SHOULD MITIGATE DEFORESTATION RISK IN THEIR HOLDINGS

Active ETFs are capturing market share
As of March 2020, 97 per cent of ETF assets were allocated to passive funds.³⁷ Faced with growing fee-related competition, the shape of the ETF industry is changing. In the first half of 2020 net inflows into active ETFs were USD 26.7 billion, up from USD 16.4 billion by the same point in 2019.³⁸

J.P. Morgan Research forecasts continued mid-term growth in new active ETF issuances. Their Global ETF Study 2020 found that by 2023, 40 per cent of ETF allocation in their client portfolios would be in active or smart beta ETFs based on responses from 320 global institutional ETF investors. By 2023 respondents also estimate that 21 per cent of overall client portfolios would be in active ETFs compared with just 12 per cent in 2020.³⁹

Active ETFs can exclude deforestation-linked companies
Unlike passive ETFs, active managers have the discretion to select which companies are included or excluded in an ETF. When launching an ETF, managers are able to create investing rules excluding companies on deforestation grounds in the same way that they may bar a weapons manufacturer⁴⁰ or fossil fuel company⁴¹.

Asset screening creates an opportunity for ETF sponsors to gain a competitive sales advantage. By applying and transparently implementing policies preventing companies misaligned with sustainability objectives from being included in the ETF – such as not complying with net-zero deforestation supply chains, Paris Agreement alignment or those involved in illegal land use change – active ETF sponsors can attract responsible and ESG-focused investors.

Planet Tracker therefore urges the sponsors of active ETFs and asset managers that operate an actively managed ‘mirror ETF’ to consider natural capital-related issues in their investment decisions, in the same way they should when managing a mutual fund.

EXPOSING THE LINKS BETWEEN SOYBEAN-RELATED DEFORESTATION, ETFs AND INDEX PROVIDERS

Investors are exposed to soybean companies linked to deforestation via ETFs
Within the list of 380 listed companies compiled by Deforestation Free Funds, Planet Tracker identified 26 engaged in the production, processing and trading of soybean and related products – see Table 1.⁴² When combined, these 26 companies have a market capitalisation of USD 266 billion.⁴³ Soybeans are the second largest driver of deforestation in tropical countries after cattle, with around 500,000 hectares of land deforested for soy in major soy-producing tropical countries such as Brazil every year.

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³⁷ As of August 2020.
Table 1: List of Companies that Produce or Deal Soy, as Listed on Deforestation Free Funds.

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Market Value (USD mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neste</td>
<td>Finland</td>
<td>40,476</td>
</tr>
<tr>
<td>Glencore</td>
<td>United Kingdom</td>
<td>28,023</td>
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<tr>
<td>Hormel Foods</td>
<td>United States</td>
<td>26,770</td>
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<tr>
<td>Archer-Daniels Midland</td>
<td>United States</td>
<td>25,848</td>
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<tr>
<td>Tyson Foods</td>
<td>United States</td>
<td>21,648</td>
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<tr>
<td>Associated British Foods</td>
<td>United Kingdom</td>
<td>19,585</td>
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<tr>
<td>Wilmar International</td>
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<td>Charoen Pokphand Foods</td>
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<td>Bunge</td>
<td>United States</td>
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<td>Marfrig Global Foods</td>
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<td>COFCO Meat Holdings</td>
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<td>Minerva</td>
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<tr>
<td>Terra Santa Agro</td>
<td>Brazil</td>
<td>121</td>
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<tr>
<td>Ruchi Soya Industries</td>
<td>India</td>
<td>31</td>
</tr>
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</table>
The largest 20 ETFs that own at least one of these 26 companies are presented in Table 2.

**Table 2: List of the 20 Largest ETFs (by AUM) that Invest in a Company that Produces or Deals Soy, as Listed on Deforestation Free Funds.**

<table>
<thead>
<tr>
<th>Rank</th>
<th>ETF Sponsor</th>
<th>ETF Name</th>
<th>Fund AUM (USD mn)</th>
<th>Universe Holdings (USD mn)</th>
<th>Universe Exposure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>State Street Corp</td>
<td>SPDR S&amp;P 500 ETF Trust</td>
<td>326,643</td>
<td>654</td>
<td>0.20%</td>
</tr>
<tr>
<td>2</td>
<td>BlackRock Inc</td>
<td>iShares Core S&amp;P 500 ETF</td>
<td>238,142</td>
<td>475</td>
<td>0.20%</td>
</tr>
<tr>
<td>3</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard Total Stock Market ETF</td>
<td>191,142</td>
<td>332</td>
<td>0.17%</td>
</tr>
<tr>
<td>4</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard S&amp;P 500 ETF</td>
<td>172,948</td>
<td>352</td>
<td>0.20%</td>
</tr>
<tr>
<td>5</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard FTSE Developed Markets ETF</td>
<td>85,005</td>
<td>313</td>
<td>0.37%</td>
</tr>
<tr>
<td>6</td>
<td>BlackRock Inc</td>
<td>iShares Core MSCI EAFE ETF</td>
<td>81,159</td>
<td>337</td>
<td>0.42%</td>
</tr>
<tr>
<td>7</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard Value ETF</td>
<td>59,771</td>
<td>248</td>
<td>0.41%</td>
</tr>
<tr>
<td>8</td>
<td>BlackRock Inc</td>
<td>iShares MSCI EAFE ETF</td>
<td>51,367</td>
<td>248</td>
<td>0.48%</td>
</tr>
<tr>
<td>9</td>
<td>BlackRock Inc</td>
<td>iShares Russell 1000 Value ETF</td>
<td>42,273</td>
<td>171</td>
<td>0.40%</td>
</tr>
<tr>
<td>10</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard Mid-Cap ETF</td>
<td>40,291</td>
<td>322</td>
<td>0.80%</td>
</tr>
<tr>
<td>11</td>
<td>BlackRock Inc</td>
<td>iShares MSCI USA Min Vol Factor ETF</td>
<td>33,599</td>
<td>292</td>
<td>0.87%</td>
</tr>
<tr>
<td>12</td>
<td>BlackRock Inc</td>
<td>iShares Russell Mid-Cap ETF</td>
<td>23,851</td>
<td>181</td>
<td>0.76%</td>
</tr>
<tr>
<td>13</td>
<td>State Street Corp</td>
<td>SPDR S&amp;P Dividend ETF</td>
<td>16,818</td>
<td>249</td>
<td>1.48%</td>
</tr>
<tr>
<td>14</td>
<td>State Street Corp</td>
<td>Consumer Staples Select Sector SPDR Fund</td>
<td>13,621</td>
<td>473</td>
<td>3.47%</td>
</tr>
<tr>
<td>15</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard Mid-Cap Value ETF</td>
<td>10,747</td>
<td>157</td>
<td>1.47%</td>
</tr>
<tr>
<td>16</td>
<td>Invesco Ltd</td>
<td>Invesco S&amp;P 500 Low Volatility ETF</td>
<td>8,536</td>
<td>172</td>
<td>2.02%</td>
</tr>
<tr>
<td>17</td>
<td>BlackRock Inc</td>
<td>iShares plc - iShares Core FTSE 100 UCITS ETF</td>
<td>8,320</td>
<td>202</td>
<td>2.43%</td>
</tr>
<tr>
<td>18</td>
<td>ProFunds Group</td>
<td>ProShares S&amp;P 500 Dividend Aristocrats ETF</td>
<td>6,827</td>
<td>193</td>
<td>2.82%</td>
</tr>
<tr>
<td>19</td>
<td>Vanguard Group Inc/The</td>
<td>Vanguard Consumer Staples ETF</td>
<td>5,672</td>
<td>196</td>
<td>3.46%</td>
</tr>
<tr>
<td>20</td>
<td>Northernrust Corp</td>
<td>FlexShares Global Upstream Natural Resources In</td>
<td>3,419</td>
<td>342</td>
<td>10.02%</td>
</tr>
</tbody>
</table>

Source: Bloomberg accessed 04/12/2020
The 10 largest institutional shareholders in these ETFs holding USD 467 billion of assets are presented in Table 3.

Table 3: List of Top 10 Financial Institutions by Exposure to Universe

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution Name</th>
<th>Holdings Market Value (USD mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wittington Investments Ltd/UK</td>
<td>11,783</td>
</tr>
<tr>
<td>2</td>
<td>Vanguard Group Inc/The</td>
<td>10,375</td>
</tr>
<tr>
<td>3</td>
<td>BlackRock Inc</td>
<td>9,944</td>
</tr>
<tr>
<td>4</td>
<td>Guangzhou Haihao Investment Co Ltd</td>
<td>7,888</td>
</tr>
<tr>
<td>5</td>
<td>State Street Corp</td>
<td>4,763</td>
</tr>
<tr>
<td>6</td>
<td>J&amp;F Investimentos SA</td>
<td>4,197</td>
</tr>
<tr>
<td>7</td>
<td>Kuok Brothers Sdn Bhd</td>
<td>3,690</td>
</tr>
<tr>
<td>8</td>
<td>T Rowe Price Group Inc</td>
<td>2,860</td>
</tr>
<tr>
<td>9</td>
<td>State Farm Mutual Automobile Insurance Co</td>
<td>2,824</td>
</tr>
<tr>
<td>10</td>
<td>Capital Group Cos Inc/The</td>
<td>2,611</td>
</tr>
</tbody>
</table>

Synthetic ETFs exposed to soybean deforestation-linked companies
Planet Tracker identified four synthetic ETFs exposed to soybean companies linked to deforestation – see Table 4. Investors in these synthetic ETFs may not be aware their capital could facilitate deforestation.

Table 4: Synthetic ETFs Exposed to Soybean Producers, Processors and Traders Linked to Deforestation.

<table>
<thead>
<tr>
<th>Deforestation-linked company</th>
<th>ETF Sponsor</th>
<th>ETF Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associated British Foods</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers Stoxx Europe 600 Food &amp; Beverage Swap UCITS ETF</td>
</tr>
<tr>
<td>Neste Corporation</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers Stoxx Europe 600 Basic Resources Swap UCITS ETF</td>
</tr>
<tr>
<td>Glencore</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers Stoxx Europe 600 Basic Resources Swap UCITS ETF</td>
</tr>
<tr>
<td>Archer-Daniels Midland</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers S&amp;P 500 Swap UCITS ETF</td>
</tr>
<tr>
<td>Hormel Foods</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers S&amp;P 500 Swap UCITS ETF</td>
</tr>
<tr>
<td>Tyson Foods</td>
<td>Deutsche Bank AG</td>
<td>Xtrackers S&amp;P 500 Swap UCITS ETF</td>
</tr>
</tbody>
</table>
This paper calls for index providers, ETF sponsors and investors to issue a public pledge committing to reduce deforestation risk in their holdings or indices. Pledges should include, but not be limited to, actions including:

**Active ETF sponsors should**
- Target a fast reduction of deforestation related companies from their universal product offerings. This could be achieved by mirroring performance using synthetic structures.
- Issue their own ETFs which exclude deforestation linked equities.
- Disclose and publicly label the proportion of their holdings that incorporate deforestation risk within qualifying instruments.
- Publish policies and processes demonstrating that natural capital-related issues such as deforestation are factored into the design of ETF products.
- Vote in favour of corporate shareholder resolutions addressing deforestation activities, risks or exposures.
- Exert stewardship pressure on index providers to design indices excluding stocks linked to deforestation.

**Passive ETF sponsors should**
- Disclose and publicly label the proportion of their holdings that incorporate deforestation risk.
- Vote in favour of corporate shareholder resolutions addressing deforestation activities, risks or exposures.
- Exert stewardship pressure on index providers to design indices excluding stocks linked to deforestation.
- Failing that, issue their own ETFs which exclude deforestation linked equities. This could be achieved by mirroring performance using synthetic structures.

**Index providers should**
- Disclose the proportion of their indices that incorporate deforestation risk.
- Work with ETF sponsors towards the exclusion of deforestation-linked companies in indices.
- Launch deforestation-free indices.

**Investors in ETFs should**
- Engage ETF sponsors to publicly disclose and label deforestation risk products.
- If no disclosure is available, use tools such as Deforestation Free Funds to check the proportion of the ETF holding that incorporates deforestation risk.
- Target a fast reduction of that proportion across their investment portfolios.
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