THIS RESEARCH REPORT EXPRESSES SOLELY OUR OPINIONS. We are short sellers. We are biased. So are long investors. So is Enviva. So are the banks that raised money for the Company. If you are invested (either long or short) in Enviva, so are you. Just because we are biased does not mean that we are wrong. Use BOC Texas, LLC's research opinions at your own risk. This report and its contents are not intended to be and do not constitute or contain any financial product advice. Investors should seek their own financial, legal and tax advice in respect of any decision regarding any securities discussed herein. You should do your own research and due diligence before making any investment decisions, including with respect to the securities discussed herein. We have a short interest in Enviva's securities and therefore stand to realize significant gains in the event that the price of such securities declines. Please refer to our full disclaimer located on the last page of this report.

COMPANY: Enviva Inc. | NYSE: EVA
INDUSTRY: Consumable Fuels

PRICE (AS OF CLOSE 10/11/2022)
USD 58.97
MARKET CAP
USD 3.9 BN

We are short Enviva (NYSE: EVA) ("Enviva" or the "Company") because we think EBITDA is inflated, it will cut its dividend, and newly discovered data suggests, in our opinion, that the Company is flagrantly greenwashing its wood procurement.

Enviva claims to be a pure play ESG Company with a healthy, self-funded dividend and cash flows to provide a platform for future growth. We think this is nonsense on all counts.

In our opinion, Enviva is a dangerously levered serial capital raiser whose deteriorating cash conversion and unprofitability will drain it of cash next year. Contrary to Enviva's claims, it generates nowhere near the cash from operations to support its dividend, let alone future capital expenditures to drive growth. Rather, Enviva's dividends are funded through capital raising. Given its already troubling leverage, we think Enviva will be forced into further dilutive equity raises, more borrowing at punitive rates, or most likely, a significant dividend cut.

We believe that Enviva is the latest ESG farce, a product of deranged European climate subsidies which incentivize the destruction of American forests so that European power companies can check a bureaucratic box. In an Orwellian twist, even though burning wood emits more CO2 per unit of heat generated than any major energy source (including coal), an arcane carbon accounting loophole subsidizes European power companies to replace coal with wood pellets derived from deforestation in the United States. All in the name of climate activism.

In our opinion, Enviva is engaging in textbook greenwashing. Hidden GPS data embedded in Enviva's Track and Trace disclosures allowed us to geolocate the Company's harvests. Satellite imagery indicates that contrary to the Company's claims, in many instances Enviva is procuring wood from the widely condemned practice of clear-cutting. Former senior Enviva sustainability and procurement executives confirmed that this practice was endemic. We also think this explains the **"exodus of sustainability leadership"** from Enviva in 2021, including the recent resignations of both authors of the Company's prominent sustainability "white paper."

Ultimately, we think that any legitimate ESG investor or allocator should be embarrassed to own this stock. But in addition to evidence of greenwashing, Enviva's troubling cash flows, dangerous leverage, and unsustainable dividend only add further momentum to the short thesis, which is why we expect the stock price to contract significantly from Enviva's current nosebleed valuation.

1. **Hidden Metadata Reveals that Enviva Procures Wood from Clear-Cutting Forests**. Enviva publicly denies clear-cutting forests, the controversial practice of removing full swaths of forest which is widely condemned by ESG investors and climate change advocates. Although Enviva refuses to disclose to watchdogs or investors the exact location of its harvests, **when we analyzed the metadata from its** Track and Trace **database, we found embedded GPS coordinates.** We think that there is a reason Enviva tried to conceal this data. When we geolocate Enviva's harvests using these GPS coordinates, **satellite imagery reveals hundreds of images of clear-cut forests, suggesting that the practice is widespread and that Enviva is misleading investors**. We corroborated this with interviews of two former senior Enviva executives, who unequivocally stated that Enviva sources wood from clear-cutting. A former senior Enviva sustainability executive lamented that the practice was routine because **clear-cutting was cheaper than other more sustainable methods of harvesting**. Ultimately, multiple strands of independent evidence, from the statements of former senior executives to satellite imagery, indicate that Enviva is procuring wood from clear-cutting, a practice roundly rejected by ESG investors and expressly discouraged by EU sustainability guidelines.

2. **Enviva Drives Demand for Deforestation**. Enviva claims that harvesting forests for wood pellets is sustainable and produces lower greenhouse gas emissions than coal because it is only harvesting **waste** left by the timber industry, scraps that otherwise would be left to rot on the forest floor. Enviva insists that it does not drive demand for deforestation or influence the harvesting decisions of landowners because the Company claims to purchase on average less than 30% of the wood from each harvest. The other 70%, according to Enviva, is higher value timber sold to other industries. Yet Enviva's own Track and Trace data shows that the Company is violating this key **threshold** and is likely driving demand for deforestation.

    a. **Enviva Track and Trace Data Contradicts Reported Harvesting Threshold**. On its website, Enviva publishes its Track and Trace data, including the total acreage harvested and the proportion of each harvest purchased by Enviva. This data shows that Enviva took greater than 30% of the volume of the harvest in over 2/3rds of the acreage harvested by the Company, including a substantial amount of acreage in which Enviva took 70-100% of the wood harvested. **According to a former high-level sustainability officer we interviewed, Enviva takes 70-90% of the volume in "plenty of tracks" because of the low prices for such wood**. The larger the proportion of a harvest taken by Enviva, the more likely Enviva's presence and payments are driving the economics that influence a decision of the landowner to cut the forest down. In our opinion, Enviva's own data provides compelling evidence that the Company is driving demand for deforestation and misleading investors regarding its procurement practices.

3. **Hardwood Forest Inventory is Decreasing Around Enviva's Facilities**. As evidence of the purported sustainability of its practices, Enviva claims that forest inventories are increasing in sourcing regions around its facilities. This is misleading, because it ignores that inventories of hardwood trees are decreasing, replaced by less expensive pine seedlings and negatively impacting forest biodiversity. Recent academic and scientific studies analyzing satellite imagery around Enviva's facilities concluded that it was "**very likely**" **that Enviva's pellet mill operations contributed to elevated rates of deforestation of deciduous trees in the area**. This ties directly to Enviva's valuation in that it directly undermines the Company's claims regarding the sustainability of its practices and its already controversial standing as an environmentally friendly stock suitable for ESG investors.

4. **"Exodus of Sustainability Leadership" in 2021**. Turnover at the CFO or chief accounting officer position can often be a sign of accounting shenanigans or even fraud, and smart investors tend to haircut a valuation when confronted with a cluster of high-profile resignations. In this case, three of Enviva's key sustainability officers resigned within months of each other in 2021. These were high profile departures, including the Chief Sustainability Officer and the co-author of the Company's sustainability white paper. Both were the public face of Enviva's attempt to attract ESG investment, making their departure akin to a CFO and chief accounting officer resigning at the same time. A former senior sustainability executive we interviewed stated that Enviva's C-level "were making too many decisions that ran contrary to the values that the Company was purporting to have." In our opinion, this lends further credence to our investment opinion that Enviva is greenwashing its ESG credentials.

5. **Evidence that Enviva Inflates Profit Margins by Providing Equipment to Loggers in Exchange for Reduced Prices**. Based on conversations with a former procurement officer, we believe Enviva may be burying some of its costs in capital expenditures, thereby inflating its EBITDA and adjusted gross profit. Specifically, the former employee told us that Enviva provides capital equipment such as woodchippers to loggers in exchange for reduced wood prices. Enviva's former VP of procurement implied that this practice was common, as it would not be feasible for loggers to cut many forests without this "**subsidy**" from Enviva. Enviva is not profitable under GAAP accounting and has reported $1 billion in capital expenditures since 2015. In our view, not only does this arrangement undermine Enviva's reported non-GAAP profitability metrics, but subsidies to logging companies further destroys the notion that Enviva plays a benign role in deforestation.

6. **Looming Dividend Cut**. Enviva trades at an eye-watering 10x tangible net asset value and 36x LTM Adjusted EBITDA because shareholders mistakenly believe that its business will continue to support its large historic dividends. However, we calculate that Enviva's business generates nowhere near the cash required to fund its dividend and that following the 2021 restructuring transaction, **Enviva's distributable and operating cash flows are now negative**. This is likely why the Company has been a serial capital raiser, raising $2.3 billion through debt and dilutive equity issuances since 2015. Based on Enviva's reported cash balance and guided capital expenditures, we calculate that Enviva's cash burn is so severe that it will run out of cash in 1H 2023. Enviva is now excessively levered (5.2x Net Debt to EBITDA) and **LTM 1H 2022 operating cash flows were negative $91 million**, meaning its only choice will be to either continue diluting shareholders with equity issuances or, more likely, cutting its dividend.

7. **Enviva Historically Overpaid for Related Party Acquisitions?** 57% of Enviva's EBITDA growth since IPO has come from acquiring pellet facilities from its largest shareholder. The Company claims that these acquisitions were made at an attractive multiple of 6-7x EV/EBITDA. Yet since these acquisitions, Enviva's cash conversion has begun to diverge materially from adjusted EBITDA. Based on the poor cash conversion, we suspect that these facilities generate half the EBITDA claimed, which would imply an acquisition multiple nearer 12x. We also calculate that Enviva paid an average price of $310 per tonne of capacity for its four most recent acquisitions from its largest shareholder, 42% more per tonne than it paid to acquire Waycross from an independent third party in 2020. Ultimately, such calculations raise not only governance concerns, but also undermine the Company's reported EBITDA and guidance.

Ultimately, we view Enviva as an ESG farce, and evidence of greenwashing in the Company's procurement processes undermines not only Enviva's suitability as an ESG investment, but future demand for its product. We do not believe that investors should reliably model the continuation of environmental subsidies for European customers to buy wood pellets procured from clear-cutting American forests in the name of climate activism. In addition to evidence of greenwashing, it's also a bad business. Enviva's troubling cash flows, dangerous leverage, and unsustainable dividend only add further momentum to the short thesis, which is why we expect the stock price to contract significantly from Enviva's current nosebleed valuation.

The Green Myth: Introducing an ESG Farce

Enviva's business model is an ESG farce built on a carbon accounting loophole. At a high level, Enviva harvests wood and other biomass from forests in the Southeastern United States for conversion into wood pellets at Enviva's manufacturing facilities. These pellets are then shipped mainly to Europe, where European power producers burn the wood to produce electricity.

International climate treaties include a grandfathered provision of the Kyoto protocol classifying the burning of forest biomass as a "renewable" energy source under limited circumstances, and this controversial loophole has allowed a burgeoning industry of deforesting biomass to masquerade as a zero-emission energy source.

Countries, principally in Europe and Asia, have taken advantage of this loophole, burning wood instead of coal to meet emissions targets. These countries dole out subsidies in the form of carbon credits for switching to wood burning, even though wood pellets emit more CO2 per unit of heat generated than any other widely used fuel source, including coal.

Financial commentator Doomberg said it best when recently summarizing this bizarre scheme:

> *"In a farce so perverted and obscene that it can only be the work of bloated and arrogant bureaucracies, a carbon accounting loophole is causing amounts of CO2 to be pumped into the atmosphere today that will take decades to abate using natural means. . . . . .All across the US Southeast, massive industrial feller bunchers are cutting down and stacking mature trees with ruthless efficiency. … Once in Europe, the pellets are burned, emitting more CO2 per unit of heat generated than any other fuel source currently used at scale (including coal, and by a wide margin). We are meant to believe this process is somehow carbon neutral.* ***The loophole that enables this orgy of deforestation boils down to how and where emissions are counted*** *. . . From the perspective of Britain and the EU, the wood pellets they burn were immaculately conceived – the manner in which the pellets arrived at their power plants is not relevant to their carbon emission calculations. By burning "carbon neutral" wood pellets and decreasing their use of coal, European environmentalists get to brag to the rest of us about what wonderful stewards of this shared planet they are, all while being among its worst offenders."*

In an Orwellian twist, despite being the leading player in an industry allegedly driving an "**orgy of deforestation,**" Enviva claims its practices are "sustainable" and pitches itself as an ESG investment.

Enviva's stock has ridden this wave of ESG euphoria to a nosebleed valuation of 36x LTM Adjusted EBITDA and 10x Price / Tangible Book Value.

Enviva's absurd valuation rests on two pillars: its dividend (and the misconception that this dividend is covered by cash flows from its existing business), and its central claim to be a pure-play ESG business in the fight against climate change.

Contrary to Company claims, we think the independent evidence indicates that Enviva is driving demand for deforestation and procuring substantial amounts of its wood from clear-cutting, a practice that is widely condemned by environmental groups and ESG investors and expressly discouraged by European sustainability guidelines. We struggle to see why European and other countries will continue to subsidize the burning of wood procured under such conditions.

The ESG portion of our investment thesis, however, is not based only on the threat that Enviva will lose some environmentally conscious investors and allocators. Rather, evidence of greenwashing, especially evidence of widespread clear-cutting, creates a real and imminent **existential threat to Enviva's contract backlog, and all future customer demand**. Enviva's customers buy wood pellets from Enviva only on the condition that the Company's procurement satisfies global climate regulations that allow its customers to switch from coal to "**sustainable** forest biomass," allowing its customers to receive lucrative carbon credits and tax subsidies.

Stated differently, we do not believe that Enviva's customers will have any use for wood pellets procured in such a manner. Nor should they.

1. Hidden Metadata Reveals that Enviva Procures Wood From Clear-Cutting Forests

Central to Enviva's claim of sustainably harvesting forest biomass is the Company's insistence that it is not procuring forest biomass from "**clear-cutting**," the environmentally destructive practice of removing full swaths of trees from a section of forest instead of selectively removing trees.

The practice of clear-cutting a forest, including the removal of all of its biomass, is a controversial practice widely criticized by ESG investors and climate change advocates. For that reason, according to one study of global biomass harvesting regulations in over 40 jurisdictions, "virtually all guidelines advise leaving some standing live or dead trees and downed wood on-site." In the draft European Commission Implementing Regulation regarding sustainability criteria for forest biomass, the European Commission promulgates that clear-cuts should be "minimized."

Enviva is sensitive to this topic and insists in its sustainability white paper that "entire mature forest stands are **not being clear-cut for pellets**."

> 6. Forest biomass production in the Southeast U.S. has the following attributes:
>   a. Harvest decisions are not driven by biomass demand.
>   b. Entire mature forest stands are not being clear-cut for pellets.
>   c. Biodiversity protections can prevent – and are preventing – the loss of sensitive forests.
>   d. There is no evidence that biomass harvest is depleting soil carbon.

Source: Enviva 2020 White Paper

In response to media criticism, a senior Enviva executive recently stated point blank in an interview with CBS News that **Enviva doesn't clear-cut forests**.

> Calloway said Enviva doesn't clear-cut forests. However, the company's own public disclosures show 90% of some harvests – including trunks – go straight to them.

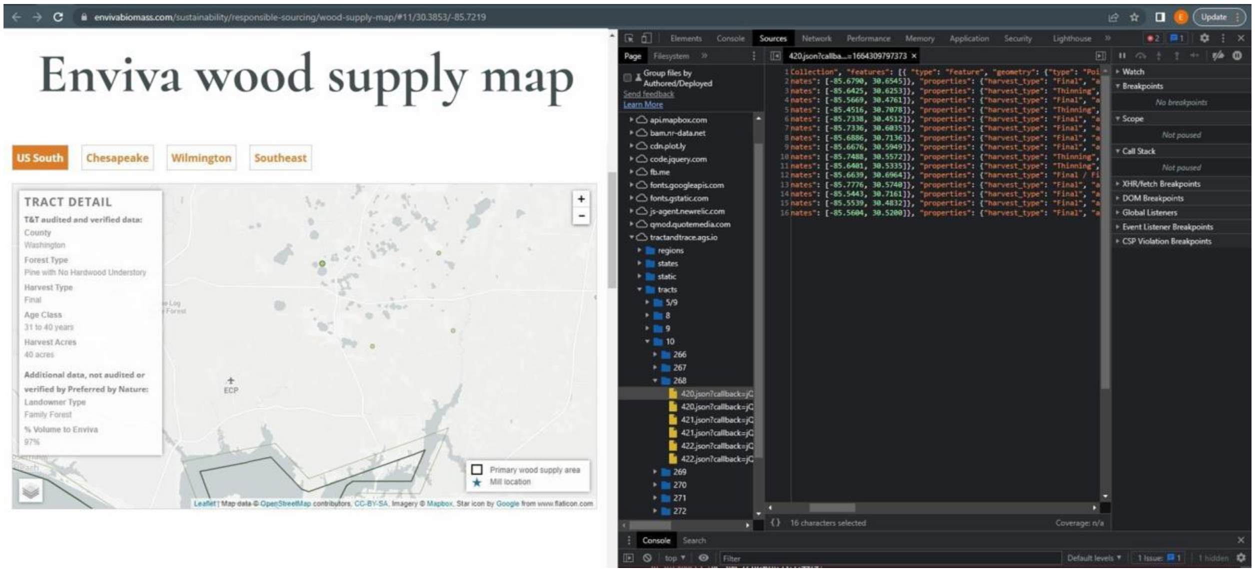
Source: CBS News

We believe, based on independent evidence, including Enviva's own hidden metadata, that this is not true. Rather, we think there is overwhelming evidence showing that Enviva sources a considerable amount of forest biomass for wood pellets from the environmentally destructive practice of clear-cutting forests.

- **Enviva's Own Embedded Metadata Indicates Widespread Clear-Cutting**

Enviva claims to be "transparent" in its sourcing practices because it provides Track and Trace data on its harvests. Yet this data is difficult for most ESG investors to audit because the Company does not explicitly provide location data. We think we know why.

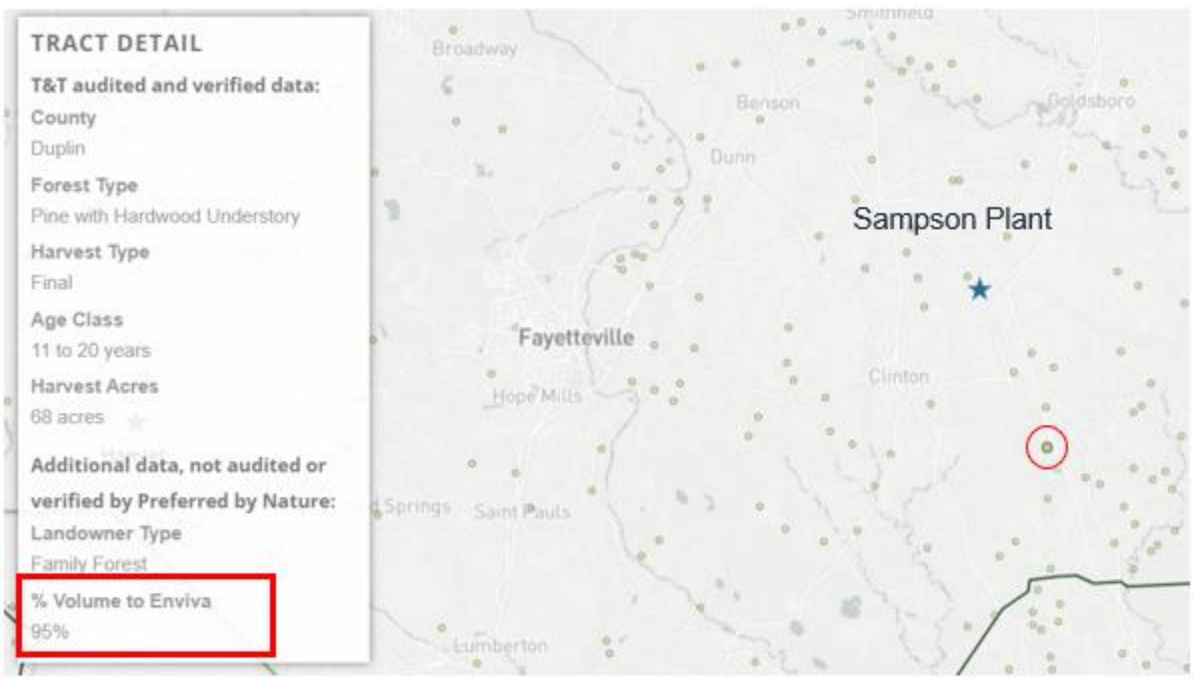
Buried in the metadata of Enviva's Track and Trace database, we **discovered** GPS coordinates of the forests harvested. Using these GPS coordinates, we were able to geolocate Enviva's harvests, revealing satellite imagery of clear-cut forests.



Source: [Enviva]

Despite repeated denials in the media and to ESG investors that it does not clear-cut forests, the satellite imagery shows countless examples of clear-cut forests at the GPS coordinates of Enviva's harvests.

For example, below are satellite images of a 68-acre harvest close to Enviva's Sampson Plant. Note that according to the [Track and Trace data], **Enviva took 95% of this harvest**.



Source: [Enviva]

The satellite imagery shows a large area of clear-cut forest at the precise GPS coordinates we found in the hidden Track & Trace metadata.

Source: [Google Earth]

As a basis of comparison, historic satellite image of the same location from early 2018 shows dense, untouched forest.

Source: Google Earth

The satellite imagery shows, in our opinion, an indisputable example of clear-cutting. As we discuss in the next section, that Enviva took 95% of the harvest suggests not only that the Company is procuring wood from clear-cut forests, but that Enviva is driving the decision to harvest.

We found **hundreds of examples** in which satellite imagery of hidden GPS coordinates appear to show clear-cutting. In many of these cases – as with the above example – Enviva took a high proportion of the harvest.

Source: [Google Earth]

Source: [Google Earth]

Source: [Google Earth]

Source: [Google Earth]()

Source: [Google Earth]()

Source: [Google Earth]()

In some instances, satellite imagery suggests that clear-cut forests were turned into housing developments, which we think is another direct violation of sustainability rules.[1]

Source: Google Earth

In our view, satellite imagery undermines the Company's claims and reveals example after example of clear-cut forests. We think that this is compelling evidence that Enviva sources from clear-cut forests and indicates that Enviva misleads ESG investors and, perhaps even its customers, regarding its procurement practices.

Furthermore, the Company buried this damning GPS information in the metadata of its Track and Trace database instead of making it readily visible for most investors and ESG watchdogs to audit. We think Enviva is engaging in the exact opposite of the "transparency in sourcing" mandated by almost all relevant regulatory guidelines and forest certification standards.

- **Former Enviva Executives Admit that Enviva Clear-Cutting is Endemic**

To corroborate our analysis, we interviewed a former senior Enviva sustainability executive, who left the Company in 2021 in what they called "an exodus of sustainability leadership." The executive lamented that "***there is a general transparency and disclosure issue with the Company***."

They explained that the reason Enviva procures wood from clear-cutting **is because clear-cutting is cheaper** than more sustainable practices:

> *"Different methods of harvest that are not clear-cuts are **much less financially attractive**, because clear-cutting is the most efficient way to go about things. But there are other methods to use that are just more expensive."*
>
> \- Former Sustainability Executive, Enviva

They even referred to clear-cutting as the "dominant form of timber harvesting in the Southeast U.S." They also said that "**<u>clear-cutting whole properties and whole trees for energy</u>**" was "**<u>happening in many locations</u>**… because of changes in timber values and pulpwood values that are leading it to be just as competitive in some spots from a price standpoint for landowners to sell their pulpwood to a bioenergy company as opposed to a pulpwood factory."

We see this as textbook **greenwashing**. Enviva disclaims the practice of clear-cutting to investors and the media, but **its own senior level sustainability executive** described the practice as endemic because it was so much cheaper than other forms of harvesting.

[1] "One of the criteria that [Enviva] have is that there's no consumption of land use change. So, say you have a huge forest where it's been sold and they're going to clear it and build houses on it and none of that fiber we would take in." – Former VP Procurement

We also spoke with a former Enviva Vice President who had previously had responsibility for Enviva's timber sourcing and procurement. He also unequivocally confirmed that Enviva sources wood from clear-cutting.

> *"There's going to be some [tracts] that are just overgrown and there's going to be a lot of underbrush and slash that's on the tract and **they are just going to clear-cut it** and start over again. . . . There's a lot of low-grade lumber, and **they're just going to clear-cut it**."*
>
> \- Former VP of Procurement, Enviva

The former VP described clear-cutting as "one of two paths" from which Enviva sources wood (the other path being to selectively harvest wood from well-managed forests). According to him, clear-cutting the unkept forests was actually the preferred path for Enviva because it produces more low-grade material suitable for use in pellet making.

> *"The majority of the fiber that we take in is low-grade . . . **so the unkept overgrown (tracts) is a better option for us**."*
>
> \- Former VP of Procurement, Enviva

Not only does this confirm that Enviva is procuring wood from clear-cut harvesting at scale, but its business model also appears to be predicated on it. That's because according to its former VP of procurement, selective harvesting of well managed forests simply doesn't produce much low-grade material of the type suitable for pellet making.

> *"Where they've done a better job of managing the forest, there's not going to be a lot of pulpwood. It's going to be more towards the saw timber side. They're going to selectively take sections where it's going to be high graded for the timber."*
>
> \- Former VP of Procurement, Enviva

In our opinion, not only do the former executive's remarks contradict the Company's statements to the media and ESG investors but adds credence to the argument that Enviva is a driving economic force behind an environmental practice (clear-cutting) that is anathema to ESG mandates and, ultimately, the sustainability of Enviva's wood pellets.

- **ESG Watchdog Reportedly Followed Truck Delivering Pellets from Clear-Cut Site Directly to Enviva Facility**

Clear-cutting as a practice is so abhorrent that several environmental groups in the Southeastern United States dedicate a large part of their resources to monitoring, investigating, and photographing Enviva's activity in local forests. In December 2021, a local member of one of these environmental groups reportedly discovered loggers in the act of clear-cutting a forest and then followed the trucks directly to Enviva's facilities.

We have obtained the photographs taken of this event in December 2021. According to the investigator, the photographs show a logging company clear-cutting a forest area in Edenton, NC and then that truck driving directly to the gates of Enviva's wood pellet plant in Ahoskie, NC, located approximately 30 miles away. In our opinion, this is further compelling evidence that Enviva is contributing to the problem, and ties clear-cut forests directly to Enviva.

<u>Photos of activity at the scene of December 2021 clear-cut</u>

Photographs of truck leaving the site carrying wood chippings

Photographs of the same truck pulling into the gates of Enviva's wood pellet plant in Ahoskie

We think it is the height of hypocrisy for ESG investors to invest in a Company that procures from clear-cutting forests. Although the Company has publicly disclaimed the practice, we think there is compelling independent evidence showing that Enviva relies on sourcing wood from clear-cutting.

In our view, this is egregious greenwashing and made worse by the fact that Enviva's valuation rests on the misconception that it is an ally in the fight against climate change.

2. Enviva Drives Demand for Deforestation

The central misconception regarding Enviva's procurement is the notion, propagated loudly by the Company, that Enviva does not drive demand for deforestation because it merely picks up the forest scraps created by other industries.

The stakes for Enviva could not be higher. According to a July 2020 study that Enviva promotes on its website, "if old forests were to be cut down specifically for biomass … biomass powered electricity would have higher GHG emissions than coal in most cases due to its lower combustion efficiency."

> When looking at the life cycle of the biomass growth and harvest process, a long-term assessment of forest management practices is critical. If old forests were to be cut down specifically for biomass, without replanting or natural regeneration, biomass powered electricity would have higher GHG emissions than coal in most cases, due to its lower combustion efficiency. However, this is not the case.

Source: *Enviva Website*

This is why Enviva, and other biomass producers, emphasize that their biomass is **only** produced from wood that is generated as a **by-product** of a sawmill operation or a planned timber harvest by non-pellet manufacturers.

Because it claims to only be picking up the **waste left on the forest floor**, Enviva concludes that it does not drive demand for harvesting. Put another way, even though Enviva provides a market for the wood and provides an additional monetary incentive to cut down forests that would otherwise continue growing, Enviva asserts that the biomass is such a low-value commodity that such additional payments do not influence the landowner's or logging company's decision to cut down forests.

> to monetize. In general, biomass is a low-value commodity that does not drive harvest decisions for landowners;

Source: *Enviva 2020 Sustainability Report*

> In this white paper, we discuss how the biomass market impacts forests. We explore how private landowners respond to market incentives to maintain their forests as forests, rather than shift their lands into other uses, and how the forest products marketplace in the Southeast United States has operated sustainably for decades. Except for rare and unusual cases, landowners do not make their harvesting decisions based on the biomass market. Instead, harvests are driven by the markets for higher-value forest products, like sawtimber. Our biomass comes from the lower-value materials that are generated as part of those harvests. Yet at a time when forest products markets are struggling, the ability of forest owners to monetize the full range of products from a harvest helps to maintain the value of working forest ownership and management.

Source: *Enviva 2020 White Paper*

However, we think there is substantial independent evidence to suggest that Enviva is misleading ESG investors regarding its procurement practices, and the notion that the Company is merely picking up waste or scraps grossly mischaracterizes Enviva's business.

Rather, Enviva's own data indicates, in our opinion, that the incremental decision to cut down a forest is likely driven by Enviva. That is because Enviva's own data shows that Enviva is buying a far larger proportion of the harvested wood than it represents to investors. Rather than picking up waste, the data shows that in many instances, Enviva is taking most of the harvested wood. Accordingly, we think the Company is clearly driving demand for deforestation and misleading investors regarding its procurement practices.

- **Enviva's Own Data Contradicts its Key Reported 30% Harvesting Threshold**

When confronted with the obvious rebuttal that Enviva's large purchases must surely drive incremental demand for deforestation, the Company retreats to a key threshold. Enviva states that "we purchase on average about **30 percent**

of the wood that is harvested from a particular piece of ground. The other **70% of the wood is higher value timber** that goes to other forest product industries, such as the sawtimber or the pulp & paper industries."

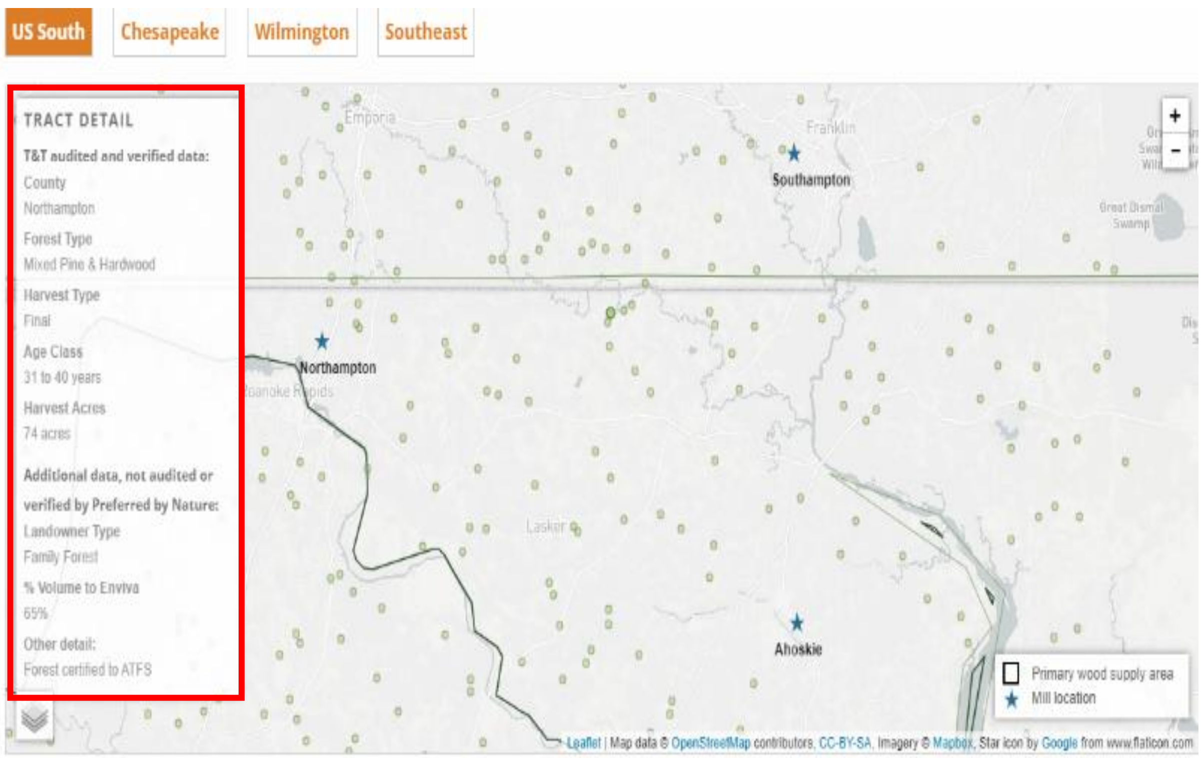
> For context, harvest for wood pellets made up 2.4 percent of the total harvest in the SE US in 2014.[9] I should add that all of the companies in the wood pellet industry – including Enviva — use low-grade wood that is a byproduct of a traditional timber harvest. When Enviva agrees to purchase wood from a supplier, we purchase on average about 30 percent of the wood that is harvested from a particular piece of ground.[10] The other 70 percent of the wood is higher-value timber that goes to other forest products industries, such as the sawtimber or pulp & paper industries.

Source: Enviva Website

Enviva's logic is simple: because it supposedly takes less than 30% of the forest harvest, its biomass purchases do not drive demand to deforest a tract. The landowner, according to Enviva, is more likely to make a deforestation decision based on 70% of the wood which is higher value timber.

Yet Enviva's own data undermines this narrative.

On its website, Enviva publishes its Track and Trace data, which contains select data regarding the Company's harvests, the type of wood cut down, the county of the harvest, the age of the trees harvested, the total acreage harvested, and **most critically**, percentage of the harvest which Enviva purchased.

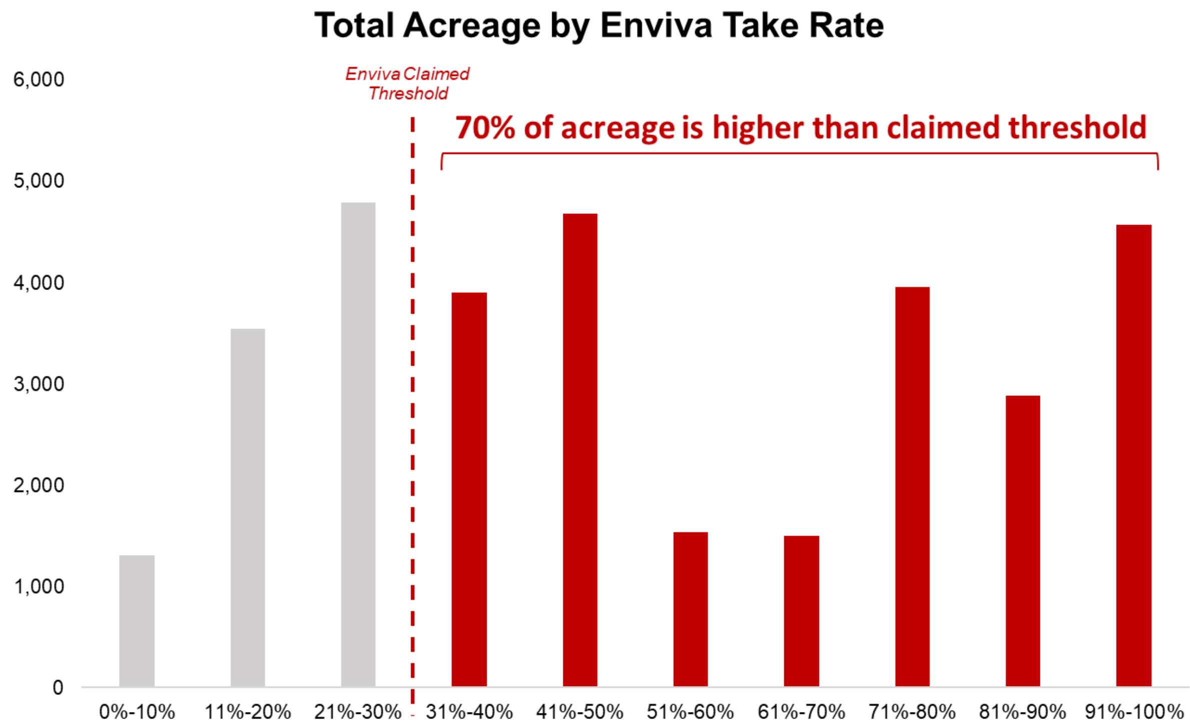


Source: Track and Trace Data

Although the website is antediluvian, we managed to scrape the data to analyze whether Enviva was honest with investors about the percentage of harvests in which its volume taken exceeded the key 30% threshold.

If the data supported the Company's claims, then we should find that most of Enviva's acreage is purchased in harvests in which the Company takes less than 30% of the volume of the forest. **But the Company's own data shows the opposite**.

When we parse Enviva's Track and Trace data by the volume of forest purchased, the data shows that Enviva's **proportion of the volume harvested exceeded its key reported threshold in 70% of the total acreage harvested by the Company**.



Source: Enviva Track and Trace Data

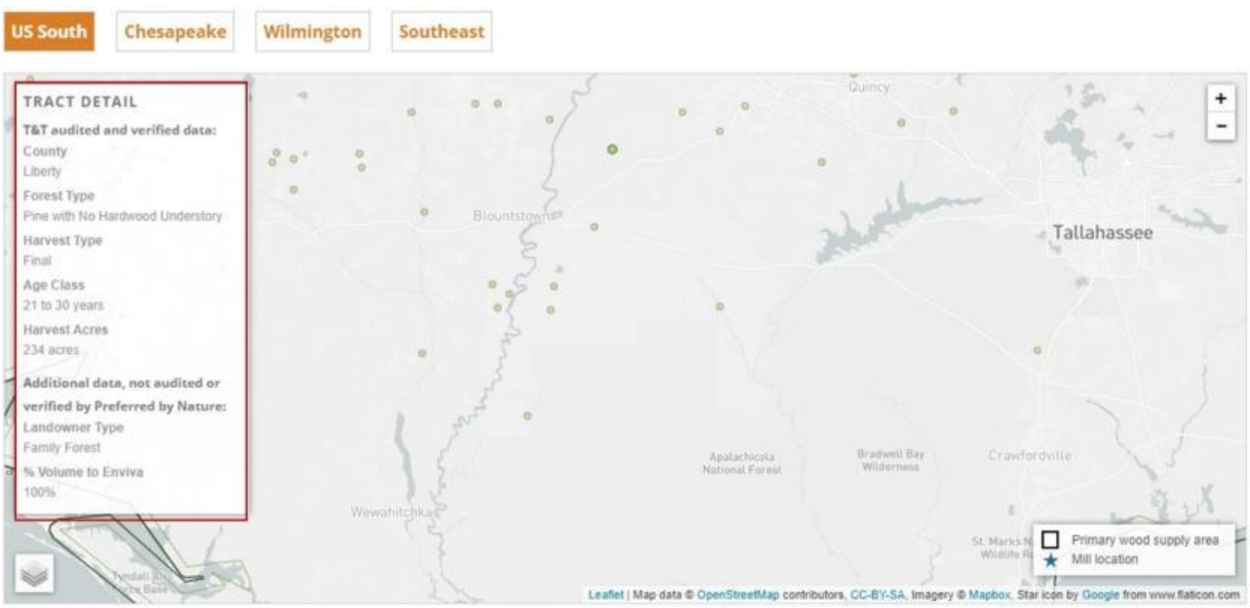
Enviva argues that it does not drive demand for deforestation because it claims to purchase less than 30% of the volume of the forest in most harvests. Yet Enviva's own Track and Trace data shows that 70% of its total acreage is harvested in cases in which Enviva is taking a much higher proportion of the wood.

Enviva's data even shows that the Company is procuring a substantial amount of wood in cases in which Enviva is purchasing 70-100% of the volume of the harvest.

In fact, Enviva's Track and Trace data shows **43** instances where Enviva took 100% of the wood from a particular final harvest, totaling over 4,100 acres.

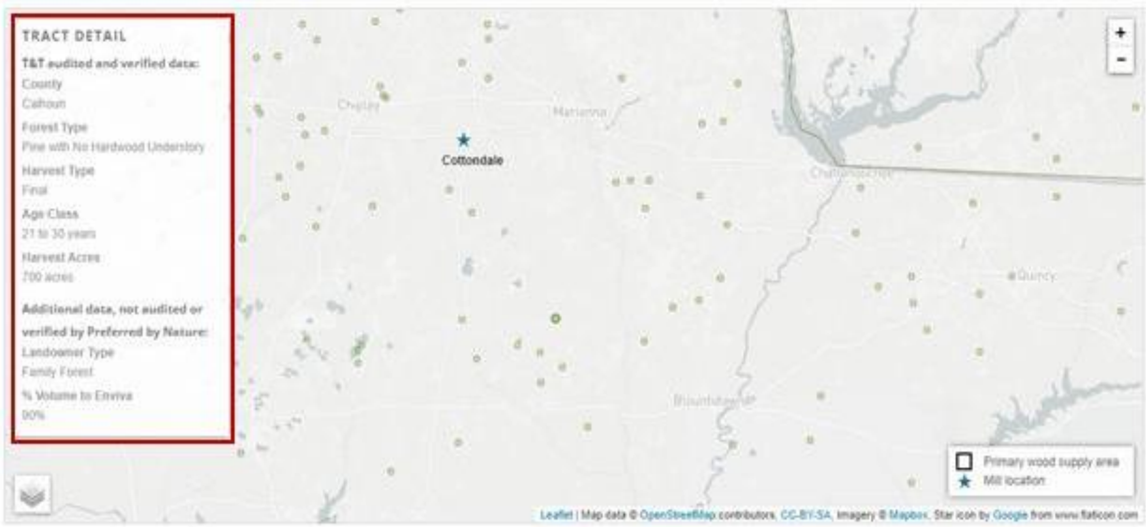
In the example below, Enviva appears to have procured from a 234-acre clearcut of forest in Liberty County, FL and taken all 100% of the 234-acre final harvest.

Source: Enviva Track and Trace Data, Google Maps



Source: Enviva Track and Trace Data

Even when Enviva is not taking 100% of a harvest, it often takes a significant percentage of a harvest from an enormous amount of acreage. In the example below, Enviva took 630 out of 700 acres of forest, 90% of the final harvest.



Source: [Enviva Track and Trace Data]()

The proportion of the harvest taken by Enviva is critical. The greater the percentage of the cut taken by the Company, the more likely that Enviva's payments were driving the decision to cut down the forest. In the examples above, Enviva took 90% and 100% of the volume of wood from the cut, which we think is compelling evidence that Enviva's presence and payment created the demand for the harvest.

Although Enviva does not disclose the density of wood procured in its Track and Trace data, we think the data clearly shows that the vast majority of the Company's biomass is procured in cases which the Company is taking a much higher proportion of the forest than it reports to investors.

Accordingly, we think this is compelling evidence, from the Company's own Track and Trace data, that Enviva is driving demand for deforestation. This is because the larger the proportion of a harvest taken by Enviva, the more likely Enviva's presence and payments are driving the decision of the landowner of whether to cut the forest down.

Notably, Enviva's own former executives confirmed this suspicion.

- **Former High-Level Sustainability and Procurement Executives Corroborate Data**

We interviewed a former sustainability executive at Enviva who confirmed this point:

> *"[Enviva] would say that they don't have influence over harvesting decisions… but there are plenty of tracks **where they are taking 70-90% of the volume because of low pulpwood prices but also in some areas with low prices that lead to clear cutting."***

- Former Sustainability Executive, Enviva

This is Enviva's own former sustainability executive who flagged the sustainability practices of the Company because contrary to Enviva's claims, **the Company is taking 70-90% in plenty of harvests**.

When we interviewed Enviva's former VP of procurement, he described instances in which Enviva's payments for biomass drove demand for clear-cutting. When a forest is growing poorly, he stated that there is often not sufficient hardwood timber for the loggers to justify cutting it down.

> *[Enviva] "provides the economics for that [clear-cutting] decision to be made because in poor performing tracts there's not enough revenue there to justify the cost of a logger going in to do that. **It's an outlet, an additional revenue source that wouldn't be there normally**."*

- Former VP of Procurement, Enviva

In such instances, without Enviva contracting with the logging company to pay for part of the harvest, the forest would not be cut down because the growth of trees is not sufficient to justify the cost to the logging company of clearing the land.

If Enviva only accounted for a small proportion of the harvest, then the Company's claims would have more credence. But as discussed above, its own Track and Trace data reveals that most of Enviva's wood is sourced from harvests in which Enviva's proportion of the harvest exceeds its stated 30% threshold.

As described by its former procurement officer, these are instances in which the logger would be less likely to cut down the forest because the economics provide insufficient financial incentive to log. As we see it, without Enviva, these forests would be left standing.

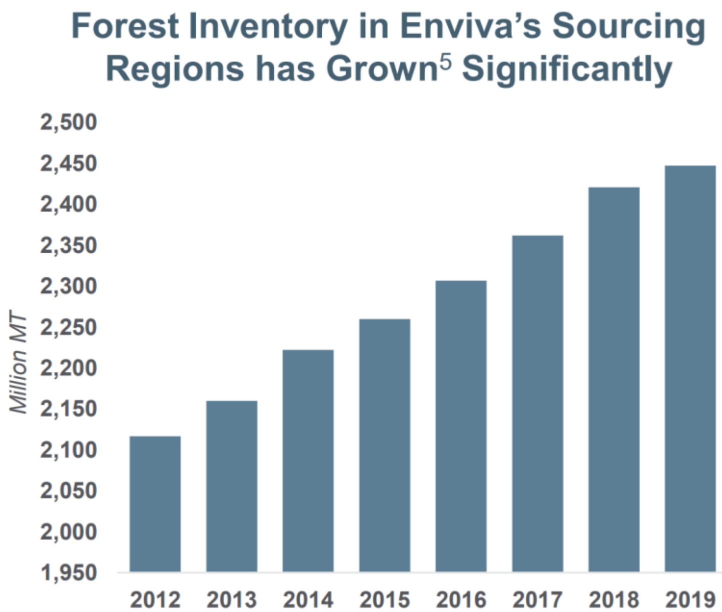
The stakes for Enviva could not be higher. Recall that according to the analysis that Enviva posts on its own website, "if old forests were to be cut down specifically for biomass, without replanting or natural regeneration, biomass powered electricity would have higher GHG emissions than coal in most cases due to its lower combustion efficiency."

The sustainability of the Company's business model is predicated on its claim that forests are not being harvested for biomass, yet in reality, we think the evidence clearly shows that Enviva is not only influencing the landowner's decision to harvest but driving market demand to cut down forest. Under Enviva's own definition of "sustainable biomass," this would suggest that the biomass burned by Enviva's customers results in higher CO2 emissions than coal.

We view this as an existential problem for Enviva, which not only undermines Enviva tenuous claims to sustainability but should ultimately crush demand for its wood pellets.

3. Enviva's Claims regarding Forest Inventory Contradicted by Independent Data

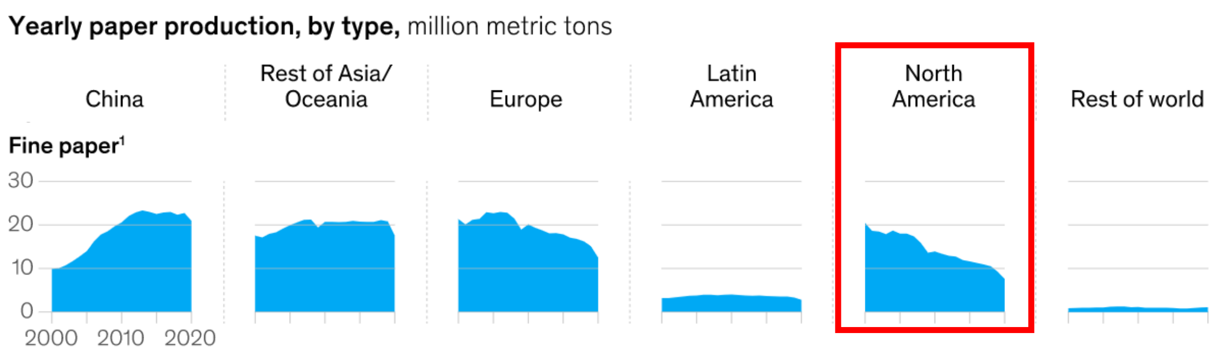
To distract ESG investors from the stunningly obvious, Enviva also asserts that its practices are sustainable because *forest inventories in Enviva's sourcing regions are growing*.



Source: Enviva Investor Presentation May 16, 2022

Enviva's logic is that cutting down trees can't possibly drive deforestation because forest inventories are increasing near its wood pellet factories.

The first obvious rebuttal is that inventories have increased in the region because of broader industry trends which have nothing to do with Enviva. For example, the US paper industry has been absolutely decimated over the past two decades, causing widespread mill closures. This, and other factors, have caused productive forest growth to outpace timber demand in the US South since 2007.



Source: McKinsey Article, April 4, 2022

The fact that more trees happen to be growing than Enviva is cutting down is a lucky coincidence for the Company. It likely has little to do with Enviva. And it may not last.

But unpack the data further and the Company's claims appear even more misleading. Enviva states that total forest inventory in its region is increasing yet fails to mention that deforestation of hardwood trees is actually increasing in the areas it operates. The reason, according to independent experts, is that hardwood trees are being cut down and replaced with much less expensive pine seedlings.

In December 2021, scientists from Clark University published a research study that analyzed satellite imagery of the areas surrounding Enviva's North Carolina and Virginia operations. That study concluded that it was "**very likely**" **that Enviva's pellet mill operations contributed to elevated rates of deforestation of deciduous trees in the area**.

> **Forest Clearing Rates in the Sourcing Region for Enviva Pellet Mills in Virginia and North Carolina, U.S.A.**
>
> To summarize, we find that the rate of forest clearing increased markedly after the initiation of pellet mill operations at Northampton, Southampton, and Ahoskie. By 2013 to 2015, the 3-mill region saw deciduous forest clearing increase by 1.34 times that of 2009 to 2012, and by 2016 to 2018 it increased by 1.51 times, based on the rates reported in Table 4. By comparison, the reference region saw an increase of only 1.18 times for 2013 to 2015 relative 2009 to 2012. However, once pellet mill operations began at the Sampson mill, deciduous forest clearing rose to 1.54 times the rate during the recession period. Thus, it is very likely that the initiation of pellet mill operations contributed to elevated rates of deciduous forest clearing in the 3-mill region beginning in the early 2010s, and in the reference region beginning in 2016.

Source: December 7, 2021 study, Forest Clearing Rates in the Sourcing Regions for Enviva Pellet Mills in Virginia and North Carolina, U.S.A.

Similarly, Enviva's customer, Drax conducted a "Catchment Area Analyses" of Enviva's supply areas. On May 21, 2020, Drax posted to its website a summary of its findings. Drax explained that the biggest change since 2000 "has been in the hardwood areas where there has been a decline of around 314,000 ha, despite the total area of timberland increasing by 31,000 ha."[2]

Enviva claims that its practices are sustainable because forest inventories are increasing in the areas it operates. Yet academic research, and even data published by Enviva's own customer, show that inventory of hardwood trees is falling, likely as a result of Enviva's procurement.

Climate scientists largely agree that while pine trees grow faster than hardwood trees, the latter absorbs more carbon from the atmosphere in the long term. Rather than support sustainability, we think this is yet another data point undermining the Company's ESG credentials and credibility.

[2] Drax attributed this to private forest owners seeking to gain a better return on investment from their forest land.

4. Exodus of Sustainability Leadership in 2021

We think there is substantial corroborating evidence of our investment opinion that Enviva is greenwashing its ESG credentials. Turnover at the CFO or chief accounting officer position can often be a sign of accounting shenanigans or even fraud, and smart investors tend to haircut a valuation when confronted with a cluster of high-profile resignations. In this case, three of Enviva's key sustainability officers resigned within months of each other. These high-profile departures include the only two named authors of the Company's prominent 2020 "White Paper" that purports to address the "sustainability, scientific, and economic principles that underpin our business."

Both were the public face of Enviva's attempt to attract ESG investment, making their departure akin to a CFO and chief accounting officer resigning at the same time.

- **Chief Sustainability Officer Resigns 2021**

Enviva claims to have robust practices in place to ensure the sustainability of its operations. Yet it has not had a Chief Sustainability Officer for the last 14 months. Until July 2021, Enviva had employed a highly credentialed, Nobel Prize winning Chief Sustainability Officer, Dr. Jennifer Jenkins. She was responsible for developing and implementing Enviva's sustainability policies related to its wood procurement. She was "responsible for Enviva's environmental stewardship" and "ensuring the sustainability and traceability of the wood supply chain."

Dr. Jennifer Jenkins

VICE PRESIDENT AND CHIEF SUSTAINABILITY OFFICER

Dr. Jenkins leads the team responsible for Enviva's environmental stewardship, from guiding the development and implementation of policies that ensure the sustainability and traceability of the wood supply chain, to interacting with policymakers and other stakeholders on regulatory matters. With a technical background in carbon cycling and ecosystem science, she brings more than 20 years of experience working in government, academia, and the

Source: Enviva (Wayback Machine)

During her time as Chief Sustainability Officer, Dr. Jenkins introduced and oversaw the Company's half yearly impact reports, signing off her letters to shareholders with "yours in forest stewardship." Given the importance of sustainability to Enviva's core business model, Dr. Jenkins arguably held one of the most important jobs in the C-Suite. Enviva also lent heavily on Dr. Jenkin's credentials as an endorsement of its practices.

LETTER FROM OUR CHIEF SUSTAINABILITY OFFICER

Dear friends and colleagues,

At this time one year ago, we were deeply engaged in planning for what we thought would be a normal, busy year. We were considering how we would allocate our time and resources for the year to come, with no idea that the world would look very different in just a matter of weeks.

What a difference a year makes.

Since the COVID-19 pandemic took hold in early 2020, we worked effectively to deliver on our goals in spite of the uncertainty we faced. And because we made good progress and found new ways to work and collaborate with partners despite the pandemic, I am especially proud to share our 2020 Impact Report.

This end-of-year Report is the last step in our annual Responsible Sourcing Policy (RSP) reporting cadence: we report on our Implementation Plans at the start of the year and then provide a mid-year progress report. Our final RSP Impact Report closes out the yearly cycle, in which we describe in more detail the progress we made over the course of the year toward the goals laid out in each one of our Implementation Plans.

Highlights of our 2020 accomplishments include publishing our first Corporate Sustainability Report, featuring a GHG Inventory, Materiality Assessment, and a discussion of our sustainability journey. We also created and reported a SASB Index, to our knowledge a first in the industry, by drawing material variables from the Biofuels, Pulp & Paper, Forest Management, and Industrials categories. In addition, we made good progress on our five-year partnership with The Longleaf Alliance to restore longleaf forest systems, we rolled out our plan for partnership with Finite Carbon on creating high-quality, credible forest offsets in our supply regions, and we partnered with GoChain to conduct a pilot program designed to enhance the traceability of our pellets using blockchain technology.

We also laid the groundwork for the key initiatives that we'll fully implement in 2021. For example, we prepared the technical approach and training to support our expanded high conservation value (HCV) process; we scoped our new system for enhanced due diligence around third-party pellet purchases; and we prepared for an internal audit to our new Track & Trace® Standard.

There's much more in the Report, so I invite you to read on.

We're looking forward to a brighter year ahead, with courage and enthusiasm, as we prepare our plans for 2021.

Yours in Forest Stewardship,

Jennifer Jenkins, PhD
Vice President and Chief Sustainability Officer

Source: Enviva 2020 Impact Report

Despite Dr. Jenkins role in the C-Suite, Enviva failed to name Dr. Jenkins as an Executive Officer of the Company. Whether this was intentional or a convenient omission, the consequence of this to Enviva's investors is that when Dr. Jenkins abruptly departed in July 2021, the Company was not required to file a press release and SEC Form 8-K announcing the departure. Consequently, to this day investors are left to speculate why the face and leader of Enviva's sustainability program suddenly and silently departed the Company.

Following her departure, the role of Chief Sustainability Officer appears to have remained unfilled. Even more notably, Dr. Jenkins' departure came within six months of the departure of another of Enviva's key sustainability executives.

- **Director of Sustainability and Climate Initiatives Resigns After 16 Months**

In January 2021, the Company's Director of Sustainability and Climate Initiatives - Alan Kroeger – resigned after less than 18 months in the role.

Director, Sustainability and Climate Initiatives
Enviva
Oct 2019 - Jan 2021 · 1 yr 4 mos
Washington D.C. Metro Area

- Managing strategy for sustainability, climate, and forest policy in US, EU, and Asia
- Identifying new ways to utilize forest carbon enhancement in biomass supply chain
- Created partnership with Finite Carbon CORE to strengthen forest conservation and bring climate finance to forest owners
- Leading stakeholder engagement with NGO and academic community for joint advocacy and research efforts
- Designed companies first climate target to become Net Zero in operations by 2030
- Coordinating Sustainability and other ESG reporting and launched company's first sustainability report

Source: Linkedin

Kroeger co-authored Enviva's white paper "seeing the forest" on sustainability practices alongside Dr. Jenkins. In other words, Enviva's two key sustainability personnel resigned within six months of one another.

We interviewed a former high-level sustainability executive at Enviva, who stated that a third sustainability executive also departed shortly after the departures of Dr. Jenkins and Mr. Kroeger. They described the three resignations as an "**exodus of sustainability leadership**." The sustainability executive cautioned that:

> *"... tradeoffs that were being made that we didn't think were warranted in slowing down the sustainability progress of the industry… There is a general transparency and disclosure issue with the Company."*

\- Former Sustainability Executive, Enviva

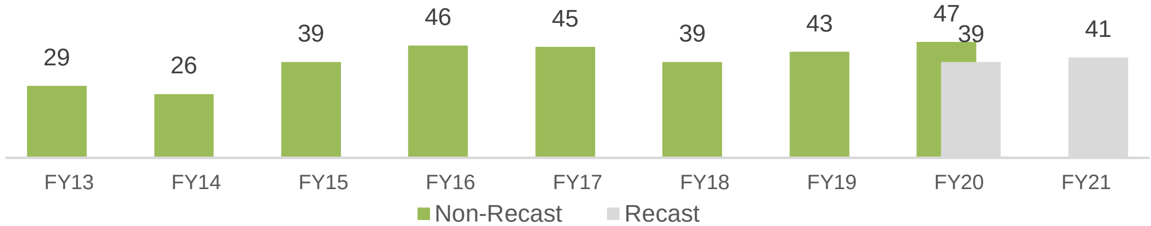
Enviva presented Dr. Jenkins and Kroeger as strong and credible authorities on its sustainability practices. By that same virtue, their sudden departures from the Company in 2021 lends further credence to our investment opinion that Enviva is greenwashing its ESG credentials.

5. Evidence that Enviva Inflates EBITDA Margins by Providing Equipment to Loggers in Exchange for Reduced Wood Prices

Enviva is not profitable under GAAP accounting. But Enviva tells investors that its business is profitable based on its self-reported Adjusted EBITDA and Adjusted Gross Margin metrics, which the Company claims have improved in recent years due to efficiency gains.

Adjusted Gross Margin is a non-GAAP metric reported by Enviva which excludes depreciation and amortization costs. Enviva tells investors that this provides a reliable measure of its profitability per ton.

Enviva Adjusted Gross Margin Per Ton (Reported)



Source: Company Filings

Adjusted Gross Margin per Metric Ton

We use adjusted gross margin per metric ton to measure our financial performance. We define adjusted gross margin as gross margin excluding asset disposals and depreciation and amortization included in cost of goods sold. We believe adjusted gross margin per metric ton is a meaningful measure because it compares our revenue-generating activities to our operating costs for a view of profitability and performance on a per metric ton basis. Adjusted gross margin per metric ton will primarily be affected by our ability to meet targeted production volumes and to control direct and indirect costs associated with procurement and delivery of wood fiber to our production plants and the production and distribution of wood pellets.

Source: Company Filings

We think that there is reason to be suspicious of such reported non-GAAP metrics.

Since 2015, Enviva's cumulative free cash flow has been negative $848 million,[3] fueled by $1 billion of capital expenditures. Based on conversations with a former employee, we believe Enviva may be burying some of its operating costs in these capital expenditures, flattering its adjusted EBITDA and gross profit metrics.

Specifically, we spoke to a former procurement executive who told us that Enviva provides capital equipment to loggers in exchange for reduced wood prices. In his own words, Enviva "actively" provides equipment to loggers to process the wood onsite, receiving lower material prices in return.

> *"[Enviva] provides equipment to loggers to bring in the chips . . .That's something that [Enviva] were actively doing is providing fixed assets to loggers that they would repay us in either the contracts price of the material."*
>
> \- Former VP of Procurement, Enviva

The mechanics appear to be as follows:

1. Enviva purchases logging equipment, recording the cash cost of the equipment as a capital expenditure on its balance sheet.
2. Enviva "provides" this equipment **as a subsidy** to loggers who use the equipment to harvest forests and produce chips.
3. In return, the logging companies offer Enviva lower prices for processed wood.
4. This reduces Enviva's cost of materials, inflating its EBITDA and gross margins.

[3] Defined as Cash from Operations (-) Total Capital Expenditures

5. The costs of the logging equipment are capitalized and buried among the Company's other sizeable capital expenditure projects. Any depreciation costs from with the equipment are excluded from Enviva's reported EBITDA and Adjusted Gross Margin metrics.

Woodchipper Transaction Illustration

Source: Illustrative Diagram by Blue Orca

We are led to believe that this arrangement is common across Enviva's practice because according to the former procurement executive, without this **subsidy by Enviva**, these contracts for low quality wood simply wouldn't make financial sense to the loggers.

> *"The reason why is there isn't / wasn't a lot of supply out there for the chips that we're looking for, and in order to get them, nobody is going to go out there and spend 500,000 dollars on a piece of equipment. To receive $23 per tonne for chips.* ***So it's a form of subsidy that Enviva has, to loggers.****"*

\- Former VP of Procurement, Enviva

The former procurement executive's statements are corroborated by Enviva's filings, including Enviva's 2019 annual report in which the Company states that it procures wood using contracts "where we [Enviva] **may also provide the harvesting equipment**."

As a result of the fragmented nature of tract ownership, we procure raw materials from hundreds of landowners, loggers, and timber industry participants, with no individual landowner representing a material fraction of any of our plants' needs. Our wood fiber is procured under a variety of arrangements, including (1) logging contracts for the thinnings, pulpwood and other unmerchandised low-grade fiber (2) in-woods chipping contracts where we may also provide the harvesting equipment and 3) contracts with timber dealers. Via our sponsor's proprietary Track & Trace® system, we maintain traceability of the primary wood that is delivered to us directly from forests. Any supplier delivering wood to one of our plants must first share the details about the forest characteristics of the tract from which the wood is sourced with our forestry staff so we can verify that it meets our strict sustainability criteria. Our supplier contracts require a certification

Source: Enviva Annual Report 2019

Furthermore, we could not find any mention of lease revenue from renting equipment in Enviva's financial statements. In our view, this appears to support the former employee's claim that Enviva received alternative consideration for the use of equipment in the form of a discount on the price of wood.

Whether or not by design, we believe that these arrangements may be materially flattering Enviva's EBITDA by burying operating expenses as capital expenditures. We believe that this is likely material to Enviva's financials given that wood sourcing costs are one of the largest variable inputs for EVA's margins.[4]

[4] *See Goldman Sachs Sell Side Note on Enviva, December 2021*.

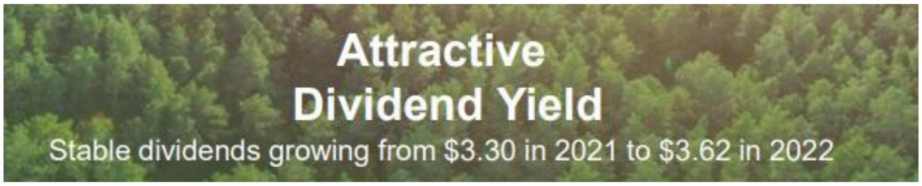
In an industry otherwise riddled with bankruptcies[5] of companies who have struggled to make a profit, our findings may explain why Enviva's reported results have diverged so starkly from similarly situated peers.

Not only are these arrangements highly alarming from an accounting and investor standpoint, but subsidies to loggers also further dispel the myth that Enviva is not contributing to deforestation.

[5] German Pellets, Rentech, Zilkha

6. Looming Dividend Cut

Enviva trades at a ludicrous valuation: 36x its self-reported Adjusted LTM EBITDA, 143x its actual LTM EBITDA, and 10x its tangible net asset value. Enviva justifies this valuation by directing investor attention to its large dividend payments, which Enviva guides will continue to rise in coming years.



Source: [Investor Presentation Q2 2022]

Enviva claims that its dividends are funded by its business, and loudly advertises to investors that it targets a "strong dividend coverage" ratio of 1.5x.[6]

Targeted Distribution Coverage Ratio is at Least 1.20 Times, on a Forward-Looking Annual Basis²

Source: Investor Presentation 2020

STRONG DIVIDEND COVERAGE

- Long-term target of 1.5x dividend coverage, which EVA is forecasting for 2025

ATTRACTIVE DIVIDEND YIELD

- Stable, growing cash flows enhance financial flexibility and provide the ability to increase dividends and return of capital to shareholders over time

Source: [Investor Presentation Q2 2022]

Yet even by the Company's own non-GAAP adjusted metrics, Enviva has failed to cover its dividend in recent periods. And it's getting worse. [7]

Enviva Reported Dividend Coverage

USDm	FY16	FY17	FY18	FY19	FY20	FY21 (Recast)	LTM-H122
Adjusted EBITDA (reported)	79	102	103	141	190	117	145
(-) Maintenance Capex (reported)	(5)	(4)	(5)	(7)	(8)	(14)	(13)
(-) Interest expense	(14)	(30)	(34)	(36)	(41)	(53)	(47)
Distributable cash flow (reported)	60	68	64	98	141	50	86
(-) Distributions to sponsor	(1)	(3)	(6)	(11)	(27)	(19)	-
Net distributable cash flow	59	64	58	87	115	31	86
Dividend to common shareholders	53	62	67	89	115	157	190
Coverage x (reported)	***1.11x***	***1.04x***	***0.86x***	***0.98x***	***0.99x***	***0.20x***	***0.45x***

Source: Company Filings.
Note: 2021 figures are presented recast.

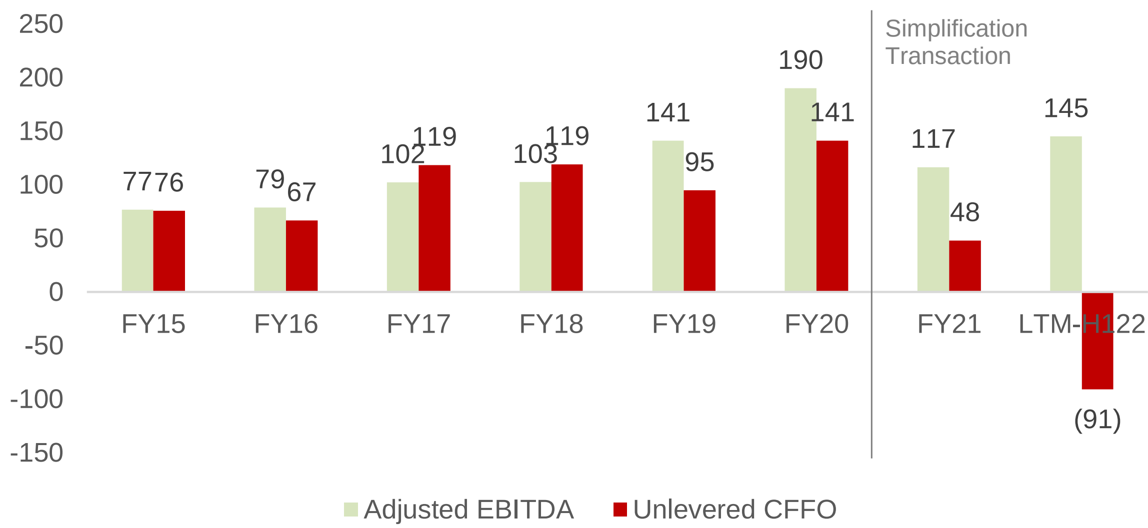
In Q4 2021, the Company underwent a restructuring transaction when it converted from its master limited partnership ("MLP") structure into a more traditional corporate structure by merging with its former parent entity ("Sponsor"). Prior to this transaction, many costs associated with operating its business were borne by the Sponsor and thus did not flow through the public company's financials.

[6] Previously Enviva targeted a "conservative coverage ratio of 1.20x"
[7] Enviva reports net distributable cash flow as adjusted EBITDA less maintenance capex (reported) and interest expenses.

Post-restructuring, the financial performance of the combined entity is substantially worse, likely because Enviva now has to recognize a number of costs, including $40 million in marketing and other costs, previously born by its Sponsor.[8] This has driven a deterioration in Enviva's own reported dividend coverage to 0.45x in LTM ending H1 2022.

Enviva's reported EBITDA has become increasingly detached from the actual cash generation of its business. Since 2019, this cash conversion has declined precipitously, fueled in part by aggressive addbacks such as "integration costs." Following the restructuring, **in the year ending H1 2022**, **Enviva's unlevered cash flow from operations was negative $91 million** vs its reported adjusted EBITDA of $145 million.

Adjusted EBITDA vs Unlevered CFFO



Source: Company Filings. FY21 presented on a fully recast basis

	Year Ended December 31, 2021		
	Recast Presentation	Adjustments	Non-Recast Presentation
		(in millions)	
Net loss	$ (145.3)	$ 112.1	$ (33.2)
Add:			
Depreciation and amortization	92.0	(2.8)	89.2
Interest expense	56.5	(11.2)	45.3
Income tax (benefit) expense	(17.0)	17.1	0.1
Early retirement of debt obligation	9.4	(9.4)	—
Non-cash equity-based compensation and other expense	55.9	(32.4)	23.5
Loss on disposal of assets	10.2	(0.1)	10.1
Changes in unrealized derivative instruments	(2.7)	—	(2.7)
Acquisition and integration costs and other	32.6	—	32.6
MSA Fee Waivers and Support Payments	25.1	36.1	61.2
Adjusted EBITDA	$ 116.7	$ 109.4	$ 226.1
Less:			
Interest expense net of amortization of debt issuance costs, debt premium, and original issue discount	52.6	(8.3)	44.3
Maintenance capital expenditures	14.0	—	14.0
Distributable cash flow	$ 50.1	$ 117.7	$ 167.8

Source: Annual Report 2021

[8] Goldman Sachs Equity Research December 2021

If we calculate Enviva's dividend coverage in terms of actual cash from operations, Enviva's dividend coverage barely eclipsed 0.5x since 2019. In FY21 and LTM H1-22, we calculate that Enviva's distributable cash flows were negative.[9]

Enviva Dividend Coverage – Blue Orca Analysis

USDm	FY16	FY17	FY18	FY19	FY20	FY21	LTM-H122
						(Recast)	
CFFO	56	87	84	54	119	33	(98)
(-) Maintenance Capex (reported)	(5)	(4)	(5)	(7)	(8)	(14)	(13)
(+) Cash interest	11	32	35	41	22	15	7
(-) Interest expense	(14)	(30)	(34)	(36)	(41)	(53)	(47)
Distributable cash flow (BOC)	47	84	80	52	93	(18)	(150)
(-) Distributions to sponsor	(1)	(3)	(6)	(11)	(27)	(19)	-
Net distributable cash flow	46	81	75	41	66	(37)	(150)
Dividend to common shareholders	53	62	67	89	115	157	190
Coverage x (BOC)	***0.88x***	***1.30x***	***1.11x***	***0.46x***	***0.57x***	***NA***	***NA***

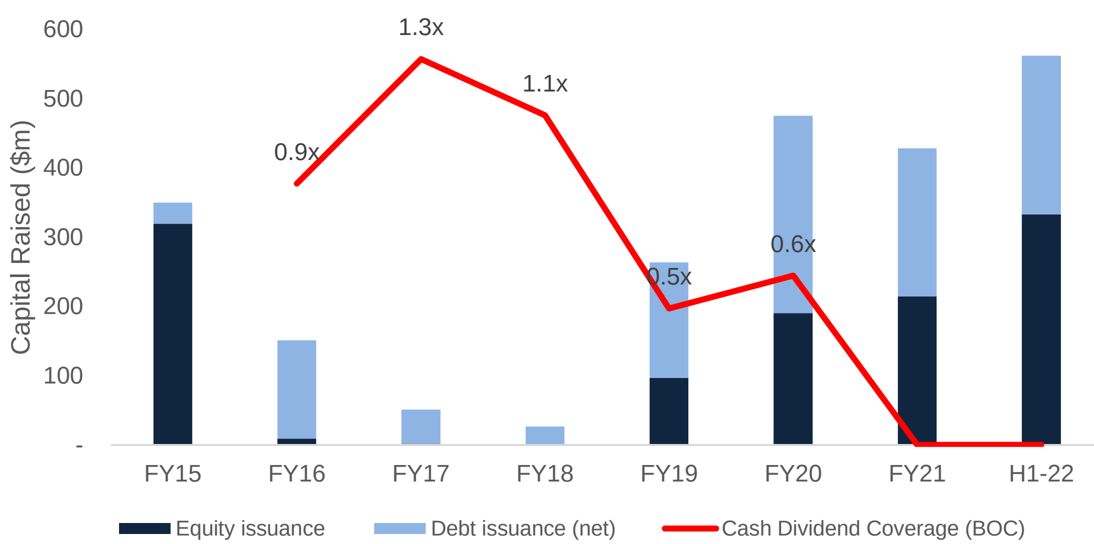
Source: Company Filings.

Note: FY21 and LTM H1 22 presented on a fully "recast" basis

Not only is Enviva struggling to fund its dividend, but the Company is also not generating positive cash flow full stop. This undermines the key narrative Enviva tells investors; that its dividend payments are covered by its reported non-GAAP profits.

To bridge this gap between its cash flows and dividend payments, Enviva has relied on debt and equity raises, which have totaled $2.3 billion[10] since 2015.

Enviva Capital Raising vs Dividend Coverage



Source: Company Filings. H1-22 includes $250m Jul-2022 Green Bond issuance

But this is not sustainable. Since 2015, the Company's share count has nearly tripled, increasing Enviva's dividend burden and diluting shareholders. The Company's leverage also looks stretched: we calculate Enviva's leverage at

[9] Note, this calculation is generous since it does not account for Enviva's significant equity compensation payments, which have been propped up by Enviva's high stock price and have resulted in substantial dilution to shareholders.

[10] *H1-22 includes $250m Jul-2022 Green Bond issuance*

5.2x Net Debt to FY22 EBITDA, which is quickly approaching the recently renegotiated maximum leverage ratio allowed under its revolver facility of 5.75x EBITDA.[11]

Enviva Leverage Ratio

USDm		%	Due	$m	/FY22 EBITDA
2026 senior unsecured	Fixed	6.5%	2026	748	3.1x
Senior secured RCF	Variable	Eurodollar + 1.5%-2.75%	2026	430	1.8x
Green bonds	Fixed	6.0%	2052	250	1.0x
New Market Tax Credit Loans				29	0.1x
Seller note				26	0.1x
Other loans				4	0.0x
Finance leases				21	0.1x
Gross Debt				**1,507**	**6.3x**
(-) Cash as of H1-22				(13)	(0.1)x
(-) Proceeds from Green Bond				(250)	(1.0)x
Net Debt				**1,244**	**5.2x**

Source: Company Filings. FY22 EBITDA as per Capital IQ Consensus

All considered, Enviva's capacity for further capital raising now looks limited. Which should concern investors because, based on Enviva's reported cash balance and guided capital expenditures, we calculate that even with recent green bonds, Enviva's cash burn is so severe that it will run out of cash next year.

By our estimates, Enviva's available liquidity of $434 million – most of which is from recently raised debt facilities, will run out in the first half of 2023.

Enviva Available Liquidity

USDm	Q2-22
Cash and equivalents	13
Available under revolving credit facility	136
Other	36
Total available liquidity	**184**
Tax-exempt green bonds - July'22	250
Total PF liquidity	**434**

Source: Enviva H1-22 Report, Earnings Call Q2-22

This leaves Enviva with unpalatable options in the near term (1H 2023). Either the Company can further lever up its balance sheet, further dilute shareholders with additional equity issuances, or cut the dividend. We think the latter is most likely.

Ultimately, we think this short thesis is compelling because of the interplay between the evidence of greenwashing and the Company's troubling financial situation. We do not believe that ESG investors will continue to indulge in Enviva's pretentions to help fight climate change while driving deforestation and procuring wood from clear-cutting. For other investors, we believe that Enviva's balance sheet is so stretched that the Company will have no choice but to cut its dividend.

[11] Enviva Interim Report

7. Enviva Historically Overpaid for Related Party Acquisitions?

Since going public in 2015, Enviva has grown EBITDA by acquiring new pellet plants from a related party.[12] Between 2015 and 2021, Enviva acquired a total of five new plants and a port terminal from a joint venture owned by its largest shareholder at a combined cost of more than $882 million, funded mostly with debt.

These related party acquisitions have accounted for 57% of the Company's run-rate EBITDA growth since IPO.[13]

Enviva used this supposed EBITDA growth to justify increased distributions. These disproportionately benefited the Company's Sponsor, whose Incentive Distribution Rights ("IDRs") payments increased 27x between 2016 and 2020. In the same time frame, Enviva's dividends per share to common stockholders increased just 1.6x.[14] When Enviva paid $870 million to acquire its Sponsor in 2021, the acquisition price was based on a forward valuation of these IDR payments.

Exhibit 36: EVA has historically seen growth primarily through drop downs from the sponsor
Historical drops and multiples

Plant Acquisitions

	Annnouncement Date	Seller	Capacity (MTPY)	Cost ($mn)	EBITDA ($mn)	Transaction Multiple	$ Cost per Ton	$ EBITDA per Ton
Lucedale Plant	June 2021	Sponsor	750,000	$215	$28.5	7.5x	$287	$38
Waycross Plant	June 2020	3rd Party	800,000	$175	$26.9	6.5x	$219	$34
Greenwood Plant	June 2020	Sponsor	500,000	$172	$26.5	6.5x	$344	$53
Hamlet Plant	March 2019	Sponsor	600,000	$189	$27.5	6.9x	$315	$46
Sampson Plant	November 2016	Sponsor	600,000	$175	$27.0	6.5x	$292	$45
Southampton Plant	December 2015	Sponsor	510,000	$131	$20.0	6.6x	$257	$39

Source: Goldman Sachs Initiation Sep 2021

Enviva tells investors that these acquisitions were made on favorable terms to minority shareholders – dispelling potential concerns around the related party nature of the transactions. As evidence, Enviva – and sells-side analysts – point investors to the favorable EV/EBITDA multiple of 6.0x-7.0x paid for the assets.

But Enviva's incremental cash flows from the acquisitions do not, in our view, support the EBITDA figures claimed by the Company.

- ***Incremental Cash Flow Implies Acquisition Multiple Nearer 12.0x***

From 2015 to 2020, Enviva's EBITDA reportedly increased by $113 million yet the Company's unlevered Cash from Operations increased by just $65 million.

In other words, the EBITDA which Enviva supposedly acquired does not seem to have translated into cash flow for shareholders. Of the incremental EBITDA acquired since 2015, just 58% translated into cash for shareholders.

Acquired EBITDA vs Acquired CFFO (FY20)

	2015	2020	Delta ('15-'20)
Adj. EBITDA	77	190	*113*
CFFO	66	119	
(+) Cash Interest	10	22	
Unlevered CFFO	76	141	*65*
% of EBITDA	*99%*	*74%*	***58%***

Source: Company Filings

[12] These "dropdown" acquisitions are a common structure amongst MLPs. Enviva acquired these assets from JVs between its sponsor and John Hancock.
[13] Goldman Sachs Initiation Report September 2021.
[14] Enviva's distribution growth has disproportionately benefited its Sponsor via IDR arrangements.

The weak cash conversion is even more remarkable considering the $23 million of support payments Enviva received from the Sponsor in FY20,[15] intended to make the Company whole during the ramp up phase of the acquired assets ("MSA Waiver Payments"). When these temporary support payments ended following the 2021 restructuring transaction, Enviva's cash flow deteriorated even further.

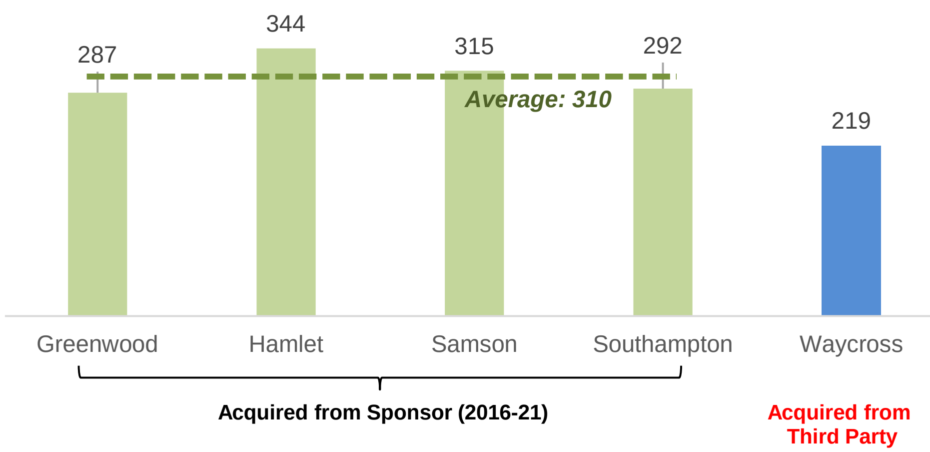
This cash conversion is so poor that we question Enviva's reported EBITDA figures for these acquired assets. Taken at face value, the incremental cash from operations implies an acquisition multiple for these assets of 12x, which is much higher than the 7x touted by the Company.

- ***Enviva Paid 42% More Per Ton for Related Party Acquisitions than Third Party Acquisitions***

To sense check this, we decided to compare the price paid per ton of capacity for Enviva's related party acquisitions vs its acquisition from an independent third party.

Enviva paid an average price of $310 per ton of capacity for its four most recent acquisitions from its Sponsor, which is 42% more than it paid to acquire Waycross from an independent third party in 2020.

EV/Capacity ($/Ton)



Source: Company Filings, Goldman Sachs

Based on the evidence, we believe that Enviva likely overpaid for the related party acquisitions, and that the true EBITDA contribution from these acquired assets is lower than the Company claims. Ultimately, such calculations raise not only governance concerns, but also undermine the Company's reported EBITDA and guidance.

Ultimately, we view Enviva as an ESG farce, and evidence of greenwashing in the Company's procurement processes undermines not only Enviva's suitability as an ESG investment, but future demand for its product. We do not believe that investors should reliably model the continuation of environmental subsidies for European customers to buy wood pellets procured from clear-cutting American forests in the name of climate activism. In addition to evidence of greenwashing, Enviva's troubling cash flows, dangerous leverage, and unsustainable dividend only add further momentum to the short thesis, which is why we expect the stock price to contract significantly from Enviva's current nosebleed valuation.

[15] FY20 Annual Report

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