

The Forensic Carbon Accountant: JBS SLB

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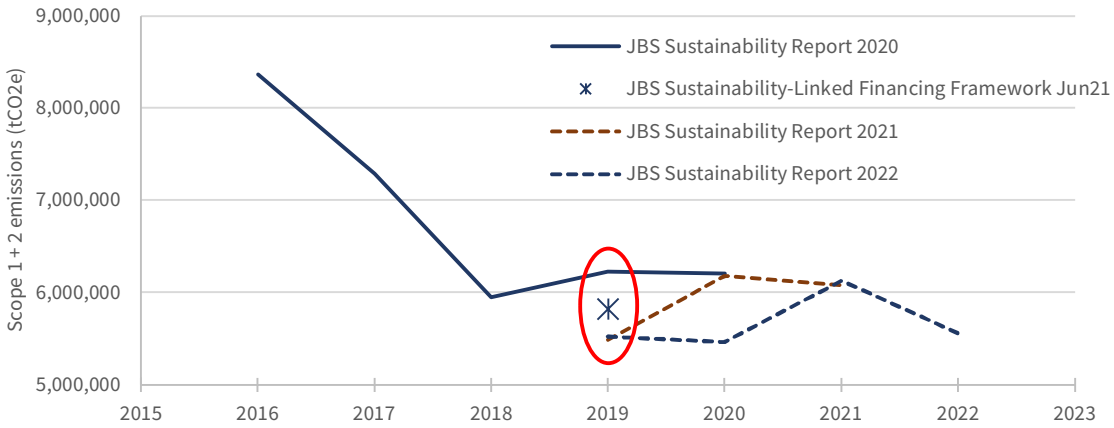
JBS, a Brazilian meat producer, is a company with significant sustainability issues linked to deforestation. It is currently seeking a US stock listing, which is raising scrutiny of both its environmental commitments and its corporate governance.[1]

Emissions reporting is an essential input into influencing the climate crisis: "what you don't measure, you can't manage". The Forensic Carbon Acountant investigates emissions disclosures for investors, to support aligning portfolios with net zero targets.[2]

JBS has issued three Sustainability-Linked Bonds (SLBs), with a coupon step-up linked to emissions intensity commitments. In this report we analyse JBS' emissions reporting to understand the implications for bondholders. We give the following takeaways:

- JBS has reported its 2019 Scope 1 + 2 emissions (at least) four times, with each being different (see Figure 1). JBS reporting acknowledges the adjustments but offers no explanation. **In our view, this shows minimal commitment to transparency around sustainability performance, which forms a key part of investor dialogue.**
- **SLB investors have an opportunity to request clarification from JBS.** SLBs derive their value from issuer KPIs, here Scope 1 + 2 emissions intensity, and so the burden of transparency on JBS is higher. SLB investors can demand explanation and scrutiny of restatements.
- A number of the lead arrangers of JBS' recent bonds have deforestation policies that, according to our analysis, would make them unable to accept business from JBS. **This raises concerns about JBS' ability to maintain banking relationships, which may make it more difficult to access finance in the future.**

Figure 1. JBS Scope 1 + 2 emissions. Source: JBS.



[1] "Meatpacker JBS Listing in NYC Would Be an ESG Nightmare", Bloomberg, 5 Sep 2023.
[2] For her first report, please see "The Forensic Carbon Accountant: green bond carbon footprint", AFII, 28 Jun 2023.

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Context

JBS, a Brazilian meat processing company, has a controversial reputation with regards to its sustainability commitments.

JBS' headline claim is to achieve net zero by 2040.[3] This has been publicly challenged in terms of its consistency with other JBS business objectives, and indeed the absolute feasibility of this ambition.[4]

In 2021, JBS issued three Sustainability-Linked Bonds (SLBs).[5] The proceeds were for general corporate purposes, however they each had a coupon linked to reductions in Scope 1 + 2 emissions intensity.[6] These bonds have been the subject of an SEC complaint by Mighty Earth,[7] an NGO. The allegation centres on the fact that JBS' increasing emissions trend and lack of environmental disclosures make it impossible for these instruments to be considered sustainable.

We recognise concerns in the nascent SLB market,[8] but in this situation we highlight one positive of such issuance; the SLBs are a financial derivative on JBS' emissions intensity, in that they derive their value from the emissions intensity values. This provides the financial market for more impetus in requiring disclosure and accuracy of relevant information. Where investors have an asset whose value depends on a sustainability disclosure, there is increased scope to analyse and indeed insist on verification of relevant reporting.

In this note we review JBS sustainability reporting, through the eyes of the SLB market. SLB investors hold the key to gaining answers, where our analysis finds unclear results.

JBS capital raising

Since the three SLBs issued in 2021, JBS has not returned to the sustainable debt market. JBS withdrew from an attempt to IPO its US unit in 2017.[9] It is again seeking a US listing,[10] with environmental, transparency and governance concerns being raised.[11] In July 2023 it became a public reporting company under the Securities Exchange Act, which is reported to have contributed to the strong performance of its bonds.[12]

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[3] "JBS Sustainability Home", JBS, accessed 15 Sep 2023.
[4] "Behind the curtain of the JBS net zero pledge", Institute for Agriculture & Trade Policy, 21 Oct 2021.
[5] We note that JBS itself mentions four debt issuances linked to sustainability targets in 2021 on p24 of its Institutional Presentation including 4Q21 and 2021 results (here), however we only see three in 2021 (one issued by Pilgrim's Pride in April, one by JBS USA Food Co in June and one by JBS USA Lux SA/JBS USA Food Co/JBS USA Finance Inc in December). For full details of the bonds we see, please refer to Table 3.
[6] Using only Scope 1 + 2 failed to capture the majority of JBS' emissions. We proposed a stronger structure in "JBS: A meaty SLB impact proposal", AFII, 16 Aug 2022.
[7] "Mighty Earth files complaint with US Securities and Exchange Commission against JBS 'green bonds'", Mighty Earth, 18 Jan 2023.
[8] "Sustainability bond market stumbles as investors get picky", FT, 15 Feb 2023.
[9] "Brazil's JBS withdraws IPO of US unit", FT, 16 Oct 2017.
[10] "Environmental activists pressure US regulators to halt JBS listing", Reuters, 23 Aug 2023.
[11] "Brazilian meat giant JBS' plans to list on the New York Stock Exchange could be biggest climate risk IPO in history", Mighty Earth, 24 Aug 2023.
[12] "JBS Push for Extra US Scrutiny Is Paying Off With Meak Packer's Debt Investors", Bloomberg, 21 Aug 2023.

In Sep 2023 JBS issued a two tranche USD bond deal totalling $2.5bn (full details shown in Table 1). With an oversubscription ratio of 2.4x and 3.1x, this puts demand lower than recent averages of 3.3x in August, and 3.4x in the first half of September.[13]

Table 1. Details of JBS bond issuance in Sep 2023. Source: Bloomberg, accessed 18 Sep 2023.

Issuer	Ticker	Size	Maturity	Coupon	144a ISIN	REGS ISIN	Book Size Cover Ratio
JBS USA LUX SA/FOOD/LUX	JBSSBZ	1.6	15-Mar-34	6.75%	US47214BAA61	US47214BAB45	2.4x
JBS USA LUX SA/FOOD/LUX	JBSSBZ	0.9	15-Nov-53	7.25%	USL5659AAA53	USL5659AAB37	3.1x

These bonds, rated BBB-, were priced in the same week as Minerva, a BB-rated Brazilian beef producer, issued $1bn of acquisition financing, making it a busy week for beef bonds,[14] which may have hampered demand.

Outstanding SLBs

JBS has issued three SLBs (as shown in Table 2). The first was issued by the subsidiary Pilgrim's Pride Corp with an entity specific Sustainability-Linked Financing Framework (SLFF).[15] The JBSSBZ 3.625% 32s references the JBS Group SLFF dated Jun 2021.[16] The JBSSBZ 3% 32s references the JBS USA SLFF dated Nov 2021.[17,18]

Table 2. JBS SLB details. Source: bond prospectuses.

Bond	SSLF	Observation Date	Target (vs 2019 baseline)	Seems linear?
PPC 4.25% 31s	PPC Mar21	YE 2025	17.69%	N
JBSSBZ 3.625% 32s	JBS Jun21	YE 2025	16.36%	Y
JBSSBZ 3% 32s	JBS USA Nov21	YE 2026	20.30%	N

All bonds include the same single KPI, Scope 1 + 2 emissions intensity, with emissions compared to total weight of production. The Sustainability Performance Target (SPT) quoted in all SLFF, and referenced on JBS' website, commits to a 30% reduction compared to a year-end 2019 baseline. The SLFF states that progress is expected to be linear, which enables interim targets from 2025 to be defined.

The JBSSBZ 3.625% 32s uses an observation date of year-end 2025, and a target of 16.36% which is the linear interpolation of the 30% target. Both JBSSBZ 3% 32s and PPC 4.25% 31s have targets that do not seem to be linear interpolations of the 30% target, despite being described as such. Indeed, they seem to be more ambitious.[19]

[13] These averages are for USD issued corporate deals over $0.5bn where data was available, sourced from Bloomberg.
[14] For our analysis of the Minerva deal please see "Minerva bond issuance: beef up your due diligence", AFII, 5 Sep 2023.
[15] "Pilgrim's Sustainability-Linked Bond Framework", JBS, Mar 2021.
[16] "JBS Sustainability-Linked Bond Framework", JBS, Jun 2021.
[17] "JBS USA Lux S.A. Sustainability-Linked Bond Framework", JBS, Nov 2021.
[18] We observe that JBS Group released a second SLFF in Oct 2021 with a KPI linked to the number of heads of cattle reported in the JBS Transparency Livestock Platform, but to our knowledge no SLBs have been issued using this. It can be found "JBS Sustainability-Linked Bond Framework", JBS, Oct 2021.
[19] We have reached out to JBS and PPC Investor Relations teams for clarity, but at the time of publication not yet received an explanation.

Bond exchanges

As Table 3 shows, each of the three bonds has been subject to exchanges, and therefore has multiple issuances and ISINs. The 3.625% 32s, which were originally issued by JBS USA Food Co, were exchanged for a bond issued by the combined entity JBS USA Lux SA / JBS USA Food Co / JBS USA Finance Inc, with additional guarantees.[20] All bonds, originally issued under dual 144A/REGS format, seem to have been exchanged for bonds registered under the Securities Act, which we interpret as further preparation for a US stock-listing. While these exchanges probably form part of a justifiable liability management exercise, they do unfortunately complicate the bond issuances, and make pricing analysis more difficult.

Table 3. JBS SLBs. Source: Bloomberg, accessed 18 Sep 2023.

Issuer	Ticker	Issue Date	ISINs	Currency	Coupon	Maturity	Amount Issued (mm)	Amount Outstanding (mm)
Pilgrim's Pride Corp	PPC	08-Apr-21	USU72068AG11 / US72147KAF57	USD	4.25%	15-Apr-31	1,000	2
Pilgrim's Pride Corp	PPC	15-Feb-23	US72147KAJ79	USD	4.25%	15-Apr-31	998	998
JBS USA Food Co	JBSSBZ	15-Jun-21	USL5S59NAA30 / US46592QAA76	USD	3.625%	01-Jan-32	1,000	31
JBS USA LUX SA / JBS USA Food Co / JBS USA Finance Inc	JBSSBZ	19-Aug-22	USL56608AP43 / US46590XAT37	USD	3.625%	01-Jan-32	969	36
JBS USA LUX SA / JBS USA Food Co / JBS USA Finance Inc	JBSSBZ	21-Aug-23	US46590XAU00	USD	3.625%	01-Jan-32	933	933
JBS USA LUX SA / JBS USA Food Co / JBS USA Finance Inc	JBSSBZ	01-Dec-21	USL56608AG44 / US46590XAD84	USD	3.00%	15-May-32	1,000	17
JBS USA LUX SA / JBS USA Food Co / JBS USA Finance Inc	JBSSBZ	21-Aug-23	US46590XAP15	USD	3.00%	15-May-32	983	983

Restatement language

We observe the following language on page 192 of the offering memorandum for the 3.625% 32s. A variation is present in the other two prospectuses. This presents the potential for restatement, which investors need to scrutinise.

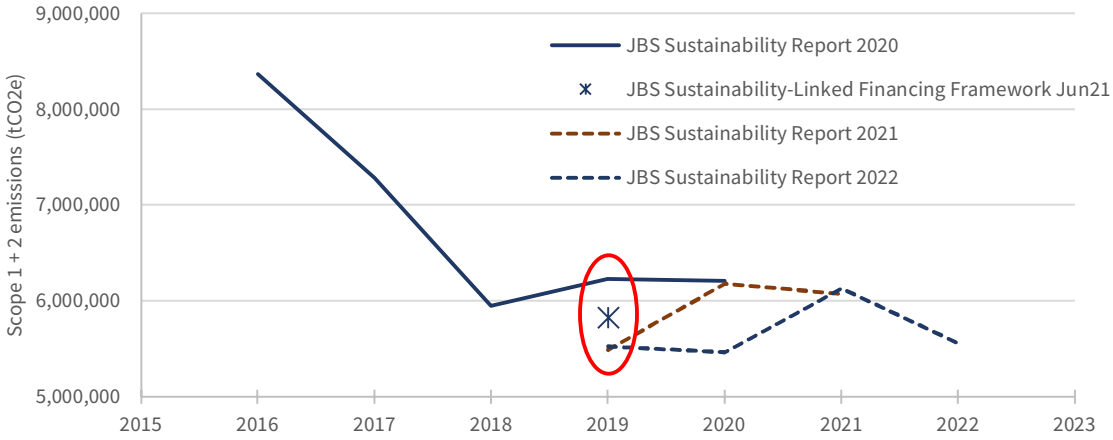
"Sustainability Performance Target" means the Global Greenhouse Gas Emissions Intensity reduction target of 16.364% by December 31, 2025, from a 2019 baseline as set forth in the Sustainability-Linked Bond Framework. […] Based on current, unverified emissions data, a 16.364% reduction in Global Greenhouse Gas Emissions Intensity implies an emissions intensity no higher than 0.2252 tCO2e/MT produced for the year ended December 31, 2025. ***If an External Verifier revises the 2019 baseline, the Sustainability Performance Target will adjust to be the same 16.364% reduction from the verified baseline****. Changes to the baseline and resulting changes to the Sustainability Performance Target will be publicly disclosed as part of reporting obligations detailed in the Sustainability-Linked Bond Framework."*

[20] "JBS USA Lux SA commences exchange offers and consent solicitations for JBS USA Food Company's 2.5% senior notes due 2027 and 3.625% sustainability-linked notes due 2032", PR Newswire, 2 Aug 2022.

Emissions reporting

As the text above explains, JBS anticipated the scenario of baseline restatement for its SLBs. Here we analyse data for JBS Group, referenced in JBSSBZ 3.625% 32s, as that is the level of reporting that is most consistent.

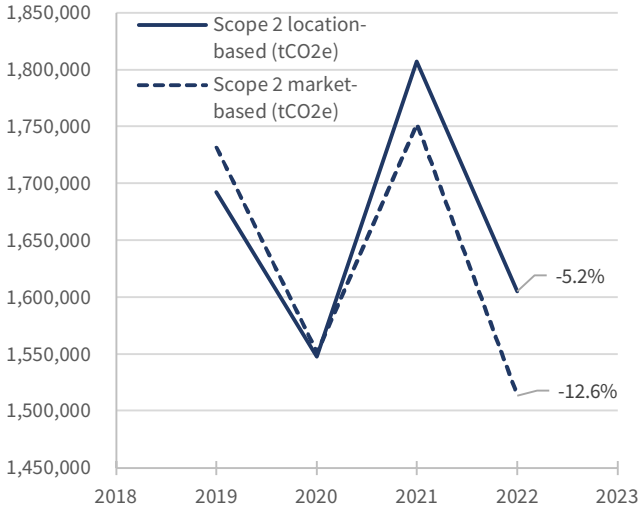
Figure 2. JBS Scope 1 + 2 emissions. Source: JBS.



Historical emissions intensity data was included in the SLFF, and it reports emissions data annually in the sustainability reports. The most recent 2022 report also included emissions intensity figures. There have been significant restatements of the 2019 figure, the baseline for SLB targets.

Figure 2 shows the emissions figures from JBS sustainability reports. The 2019 figure in particular has been amended, with a reduction of 5.2% from the SLFF to most recent reporting from 2022.

Figure 3. JBS SA Scope 2 emissions. Source: JBS sustainability report 2022.



The bulk of reduction is driven by Scope 1 emissions, but we note there has also been a shift from location-based Scope 2 emissions to market-based emissions. Methodologically, market-based reporting includes using the specific emissions of purchased electricity, and so generally represents a reduction in emissions. Figure 3 shows the historic data for location-based and market-based Scope 2 emissions,[21] which shows that market-based emissions are actually higher in 2019, and now lower in 2022, so with a much more dramatic reduction trend over the period. This shift alone contributes to an extra reduction of 130,683 tCO_2e between 2019 and 2022, or 2.4% of JBS SA's total emissions (according to their 2022 sustainability report). In the context of an implied three-year reduction target of 8.2%, this shift is significant.

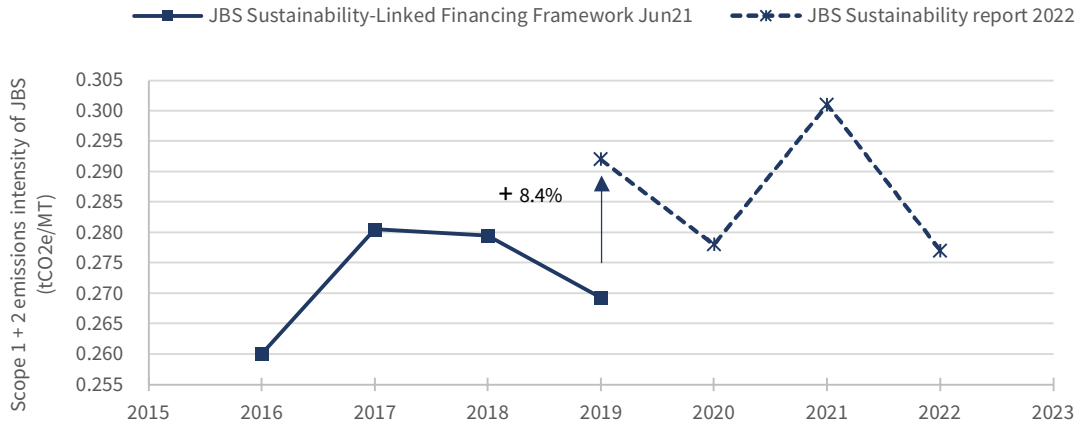
[21] "The CO_2lumnist: Market versus location-based scope 2 emissions", Robeco, 19 Aug 2021.

There is controversy around the choice of using the Scope 2 reporting method, and we acknowledge that it is easier to make reductions in market-based methods, by making active choices around electricity purchasing. That this also contributes to a restatement higher of 2019 emissions is what seems strange.

KPI reporting

Figure 4 shows the emission intensity figures from SLFF to Sustainability Report 2022. There has been an increase in the 2019 baseline figure of +8.4%.

Figure 4. JBS emissions intensity reported figures. Source, JBS.



Combining this with the data from Figure 2, where absolute emissions have reduced by -5.2%, suggests the denominator of the intensity has significantly reduced; indeed, these numbers give an implied restatement of total product -13.2%.

This is not an emissions number, but a measure of the size of the JBS business. We struggle to see how external verification could cause a restatement of this size. Over the period between Jun 21 (publication of the SLFF) and Aug 23 (publication of the 2022 sustainability report), we believe JBS has net bought businesses,[22] which should have increased production.

The baseline has been restated to be higher by over half the reduction needed to achieve the SLB target. SLB bondholders need to scrutinise this adjustment, to understand if it is appropriate.

Banking relationships

Out of the fifteen banks that acted as joint lead managers for the four aforementioned deals, eight have deforestation/land conversion policies and five specifically address the beef production sector (see Table 4). **After assessing their policies, we assess that Barclays, BBVA, Citi, ING and Rabobank policies should have deterred their participation in the deal.**

Barclays appears to have the most explicit and rigorous policy associated with beef. Notably, the bank requires beef companies to "*prohibit the production or primary processing of beef on/from areas in the Amazon cleared or converted after 2008.*" As the statement makes no distinction between legal and illegal deforestation, we deduce that it includes all types of deforestation. However, JBS committed to eliminate only illegal deforestation from its supply chains and without specifically stating 2008 as a reference point.

[22] "JBS Mergers and Acquisitions Summary", mergr.com, accessed 20 Sep 2023.

Both ING and Rabobank's deforestation policies require the banks to exclude clients with activities that contribute to "*conversion or deforestation of high conservation value areas".* It is worth noting that a recent report from Profundo estimates that "*over the period 2000-2022, Rabobank's financing in Brazil may have been directly or indirectly linked to 387,700 hectares of deforestation*."[23]

Lastly, Citi's policy should prevent the bank to engage with clients whose "*production or trade in any product or activity deemed illegal under the host country laws or regulations*". However, JBS' commitments to end illegal deforestation in its supply chains is set to take effect in 2025. Given the potential for JBS to still be involved in illegal deforestation until then, the company should be excluded from Citi's clients' scope.

While policies of other banks may touch upon deforestation, we did not come across any explicit language that would outright prohibit their involvement with JBS. These policies tend to primarily emphasise engagement and promotion of sustainable practices. For instance, BTG Pactual encourages its clients to adopt sustainable practices but does not disqualify clients for failing to meet strong sustainability commitments.

Table 4. JBS issuance managers deforestation policies. Source: AFII.

Joint lead manager	General deforestation policy	Cattle-linked deforestation policy	Should the policy prevent the bank to have JBS as a client?	Policy/framework link
Banco Bradesco BBI SA	Insufficient information			
Banco BTG Pactual SA	Y	Y	N	Social, Environmental and Climate Responsibilities Policy (2023)
Banco Safra SA	Insufficient information			
Barclays Capital	Y	Y	Y	Forestry & Agricultural Commodities Statement (2023)
BB Securities Ltd	Y	N	N	Socio-environmental Guidelines (2020)
BBVA Securities Inc	Y	Y	N	
BMO Capital Markets Corp	Insufficient information			
BofA Securities	Y	N	N	Bank of America Corporation Environmental and Social Risk Policy (ESRP) Framework (2022)
Citigroup Global Markets Inc	Y	Y	Y	Environmental and Social Policy Framework (2023)
ING Financial Markets LLC	Y	Y	Y	ING's stance on deforestation
Mizuho Securities USA LLC	N	N	N	
Rabo Securities USA Inc	Y	N	Y	Sustainable Policy Framework
RBC Capital Markets LLC	N	N	N	
Santander US Capital Mkt	Y	N	N	Environmental, social & climate change risk management: activities that require special attention and prohibited activities
Truist Securities Inc	N	N	N	

[23] "€ 0.7 billion in profits, € 66 billion in damages Rabobank's destructive financing of deforestation in Brazil", Profundo, 5 Jul 2023.

Conclusions

JBS is a company with major environmental issues that will potentially feed into financial returns as their business becomes unsustainable.[24]

They have issued SLBs, where the impact and motivation has been challenged. Nevertheless, by writing a derivative on its sustainability performance, investors have a role to play in demanding transparency and verified reporting that the SLBs can reference.

Emissions figures from JBS have been restated every time they are reported. The amendments are acknowledged, but no details or justification are given. The SLB language does allow for restatements, where externally verified.

SLB investors have an opportunity to challenge JBS to justify its restatements and improve transparency on its environmental impact. Without clear and reliable sustainable reporting, investors cannot make informed decisions, and issuers cannot be held accountable for their environmental impact.

It appears that some banks that were managers for the most recent deal have policies that could preclude such activity. This raises concerns around JBS' ability to maintain banking relationships, which could affect its ability to access finance in the future.

This investigation is particularly timely, given JBS' current ambition to seek a US listing of its shares is warranting further scrutiny of its sustainability and governance, as reported by *GlobalCapital*.[25]

[24] For example read our analysis of the impact of recent EU Deforestation regulation on soy traders "EU deforestation law: fire on the horizon for soy traders?", AFII, 13 Sep 2023.
[25] "JBS relisting plan puts corporate governance on trial", Global Capital, 20 Sep 2023.

Appendix 1 – JBS emissions reporting

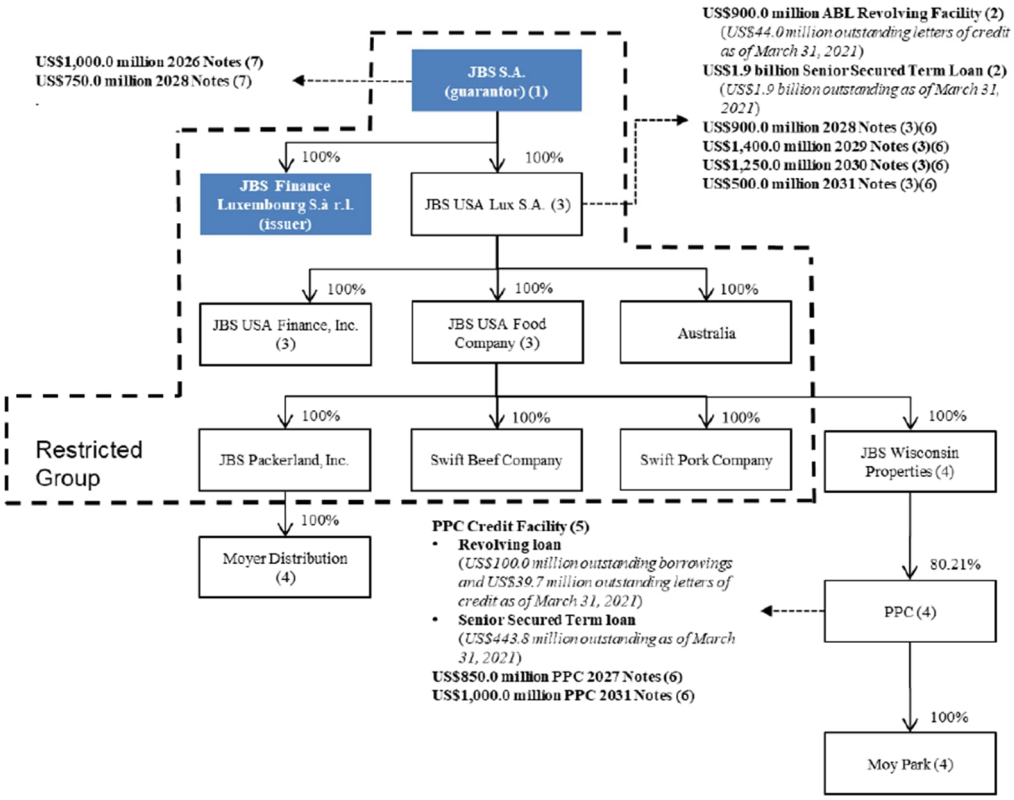
Table 5. JBS emissions reporting. Source: JBS. Calculated numbers in italics

Source	Data	2016	2017	2018	2019	2020	2021	2022
JBS Sustainability Report 2019	Scope 1 (tCO2e)	6,553,358	5,504,610	4,379,352	4,593,548			
link	Scope 2 (tCO2e)	1,814,794	1,780,516	1,550,525	1,615,548			
	Scope 1 + 2 (tCO2e) - calculated	*8,368,152*	*7,285,125*	*5,929,876*	*6,209,095*			
JBS Sustainability Report 2020	Scope 1 (tCO2e)	6,553,358	5,504,610	4,396,674	4,608,285	4,650,216		
link	Scope 2 (tCO2e)	1,814,794	1,780,516	1,550,525	1,615,690	1,554,087		
	Scope 1 + 2 (tCO2e) - calculated	*8,368,152*	*7,285,125*	*5,947,199*	*6,223,975*	*6,204,304*		
JBS Sustainability-Linked Financing Framework Jun21	Scope 1 (tCO2e)				4,155,811			
link	Scope 2 (tCO2e)				1,668,125			
	Scope 1 + 2 (tCO2e) - calculated	6,024,909	5,787,948	5,816,679	5,823,936			
	Emissions intensity (tCO2e/MT)	0.260	0.280	0.279	0.269			
JBS Sustainability Report 2021	Scope 1 (tCO2e)				3,871,557	4,625,832	4,675,368	
link	Scope 2 (tCO2e)				1,615,690	1,554,087	1,399,521	
	Scope 1 + 2 (tCO2e) - calculated				*5,487,247*	*6,179,919*	*6,074,889*	
JBS Sustainability Report 2022	Scope 1 (tCO2e)				3,791,569	3,912,571	4,376,827	4,045,137
link	Scope 2 location-based (tCO2e)				1,692,410	1,547,699	1,807,372	1,605,115
	Scope 2 market-based (tCO2e)				1,731,526	1,551,270	1,752,367	1,513,548
	Scope 1 + 2 market-based (tCO2e) - calculated				*5,523,095*	*5,463,841*	*6,129,194*	*5,558,685*
	Emissions intensity market-based (tCO2e/MT)				0.292	0.278	0.301	0.277

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Appendix 2 – JBS corporate structure

Figure 5. JBS Corporate Structure. Source: Prospectus for JBS 3.625% 32s.



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