

# SECOND PARTY OPINION

## on Carrefour's Sustainability-Linked Bond Framework

Moody's ESG Solutions considers that Carrefour's Sustainability-Linked Bond Framework is aligned with the five core components of ICMA's Sustainability-Linked Bond Principles (SLBP) 2020.



### Framework

	Weak	Limited	Robust	Advanced									
KPIs' Relevance*					<div>Characteristics of the Framework</div> <table><tr><td>Audit of the Data</td><td>Yes</td></tr><tr><td>Three-year Historical Data</td><td>For KPI 1.a, KPI 2 and KPI 3</td></tr><tr><td>Nature of the Impacts on the Bond's Characteristics</td><td>Financial</td></tr><tr><td>Disclosure of measures to achieve the SPT(s)</td><td>Yes</td></tr></table>	Audit of the Data	Yes	Three-year Historical Data	For KPI 1.a, KPI 2 and KPI 3	Nature of the Impacts on the Bond's Characteristics	Financial	Disclosure of measures to achieve the SPT(s)	Yes
Audit of the Data	Yes												
Three-year Historical Data	For KPI 1.a, KPI 2 and KPI 3												
Nature of the Impacts on the Bond's Characteristics	Financial												
Disclosure of measures to achieve the SPT(s)	Yes												
Targets' Ambition													
SDG Mapping	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>												

\*Moody's ESG Solutions' opinion on the KPIs' relevance is a consolidation of the materiality assessment of all 4 KPIs. However, KPI 1.A, on its own, does not address Scope 3 emissions. Therefore, Moody's ESG Solutions considers that KPI 1.A, on its own, is partially relevant, core and material to the company's business strategy for its current and future operations and partially reflects relevant sustainability challenges for its industry sector (see p.2).

### Sustainability Performance Targets (SPTs)

#### KPI 1.A: GHG emissions, Scope 1 and 2 (kilotons CO<sub>2</sub>e)

- Reduce Scope 1 and 2 emissions by 30% by 2025, 50% by 2030, 70% by 2040, compared to 2019

#### KPI 1.B: GHG emissions, Scope 3 (megatons CO<sub>2</sub>e) from purchases of goods and services

- Reduce Scope 3 emissions (from purchases of goods and services) by 20 megatons (Mt) by 2030, compared to 2019

#### KPI 2: Tonnes of packaging avoided (tonnes, cumulative since 2017)

- Reach 20,000 tonnes of avoided packaging by 2025, compared to 2017

#### KPI 3: Food waste generated by stores (tonnes / m<sup>2</sup> of floor space)

- Reduce food waste by 50% by 2025, compared to 2016

	2016	2017	2018	2019†	2020	2021	2025*	2027*	2030*	2040*
KPI 1.A	-	-	2,031	1,857	1,600	1,483	1,300	1,124	929	557
KPI 1.B	-	-	-	66.6**	-	-	-	61.6**	46.6**	-
KPI 2	-	938	1,867	3,460	6,212	11,068	20,000	21,500	-	-
KPI 3	13.07	-	-	11.80	9.32	9.06	6.53	5.88	-	-

\* Trigger event

\*\* The Issuer has not provided any figures for KPI 1.B. These figures are calculations by Moody's ESG Solutions based on the Issuer's report that the 30% reduction target is based on an approximate estimation of 20Mt CO<sub>2</sub>e, and the 5Mt intermediary target provided for 2027. The Issuer reports that it will precise the full Scope 3 calculations in the future.

### Issuer

#### ESG Performance as of December, 2021

	Weak	Limited	Robust	Advanced
Environment				
Social				
Governance				

#### ESG Controversies

Number of controversies	11
Frequency	Isolated
Severity	High
Responsiveness	Reactive



#### Involvement in Controversial Activities

- ☒ Advanced
 ☐ Limited
 ☒ Robust
 ☐ Weak

- ☐ Animal welfare
 ☐ Fossil Fuels industry
 ☐ High interest rate lending
 ☐ Pornography  
☐ Cannabis
 ☐ Coal
 ☐ Human Embryonic Stem Cells
 ☐ Reproductive medicine  
☐ Chemicals of concern
 ☐ Gambling
 ☐ Military
 ☒ Tobacco  
☐ Civilian firearms
 ☒ Genetic engineering
 ☐ Nuclear power
 ☐ Unconventional oil and gas  
☒ Alcohol

## Key Findings

### Note on the score of the relevance of KPIs:

The Issuer has communicated to Moody's ESG Solutions that the relevant final terms of a given bond issue will specify the KPI(s), SPT(s), and trigger date(s) applicable to that specific issue: the documentation may specify any one, or any combination of, KPI(s) and associated SPT(s) and target observation date(s). For Carrefour, this is of particular importance as KPI 1.A (Scope 1 and 2 emissions) represents only 1.8% of the Issuer's overall GHG emissions, with KPI 1.B (Scope 3, purchases of goods and services only) covering an additional 70.7% of overall GHG emissions. If the Issuer were to issue a sustainability-linked instrument using only KPI 1.A but not any of the other KPIs, the majority of the environmental negative impact of the company would not be addressed. According to our methodology, a specific instrument linked only to KPI 1.A would be only partially aligned with the SLBP.<sup>1</sup> Moody's ESG Solutions considers that the overall relevance of the 4 selected KPIs together is robust: weak for KPI 1.A and advanced for KPIs 1.B, 2, and 3.

We consider Carrefour's Sustainability-Linked Bond Framework to be aligned with the five core components of the SLBP.

### Selection of the Key Performance Indicators (KPIs) – aligned with the SLBP

- The KPIs are clearly defined, including the unit of measurement, the rationale and process to select the KPI, the calculation methodology and the scope, and they are publicly disclosed in the Framework.
- The KPIs are measurable and are externally verifiable.
- The calculation methodology is consistent, and the Issuer commits to inform the investors of changes in the methodology.
- The KPIs were previously disclosed (except for KPI 1.B) and there are historical externally verified KPI values covering at least the previous 3 years (except for KPI 1.B).
- The definitions of KPIs 1.A, 1.B, and 3, rely on external references allowing their benchmark. The definition of KPI2 does not rely on external references but is able to be benchmarked.
- The selected KPIs reflect several of Issuer's most material sustainability issues for its current and future operations, as well as some of the most relevant sustainability challenges for its sector. In addition, the KPIs reflect some of the most material issues in the Issuer's materiality matrix and they cover between 50-90% of the activities.

### Calibration of the Sustainability Performance Targets (SPTs) – aligned with the SLBP

- The SPTs are consistent with the Issuer's existing targets set in its sustainability strategy.
- The SPTs demonstrate a robust level of ambition.
- The timeline, baseline (except for KPI 1.B and KPI 3) and trigger events are clearly disclosed and the Issuer has set relevant intermediary targets allowing sufficient visibility on the KPIs' performance.
- The means for achieving the SPTs are disclosed and are considered credible.

### Bond Characteristics – aligned with the SLBP

- The potential variation of the bond financial and/or structural characteristics depending on whether the selected KPI(s) would reach (or not) the predefined SPT(s) is clearly defined in the Framework and is disclosed to investors in the bond documentation.
- The meaningfulness of the variation of the SLB's structural and/or financial characteristics cannot be assessed due to the lack of comparison data.

### Reporting– aligned with the SLBP and best practices identified by Moody's ESG Solutions

- The Issuer has committed to disclose all relevant information in public documentation available on a dedicated section of Carrefour's Universal Registration Document or published on its website as a separate report or document (including information on the performance of KPIs, information enabling investors to monitor the level of ambition of the SPTs and baselines).
- The reporting on the KPI(s) will be published annually until maturity of the Bond.
- The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements.
- The selected KPIs' related data are covered by an internal and external verification.

<sup>1</sup> For more details on our methodology, please see: <https://esg.moody's.io/insights-analysis-reports/a-materiality-lens-is-key-to-assessing-the-credentials-of-sustainability-linked-debt-instruments>

Verification– aligned with the SLBP and best practices identified by Moody's ESG Solutions

- The performance of each KPI against each SPT will be covered by an external verification, on an annual basis and in case of material changes impacting the SLB's financial and/or structural characteristics (such as a trigger event), until the maturity of the Bond.
- The verification assurance report will be publicly available on the Issuer's website.

## Type of External Reviews supporting this Framework

<input checked="" type="checkbox"/>	Pre-issuance Second Party Opinion	<input checked="" type="checkbox"/>	Independent verification of KPI(s) reported data
<input checked="" type="checkbox"/>	Independent verification of SPT(s) achievement		

## Contact

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# SCOPE

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Moody's ESG Solutions was commissioned to provide an independent Second Party Opinion ("SPO") on the integration of four environmental factors to the Sustainability-Linked Bond(s) (the "Bond(s)") issued by Carrefour ("Issuer") in compliance with the Sustainability-Linked Bond Framework (the "Framework") created to govern their issuances.

Of note, Sustainability-linked debt instruments are intended to finance general corporate purposes. As opposed to other sustainable financial instruments such as green/social bonds or loans, these instruments are agnostic on how funds are used. The main feature of this type of financing is the variation of the bond's financial and/or structural characteristics, depending on whether the Issuer achieves predefined sustainability/ ESG objectives.

Our opinion is established using our Environmental, Social and Governance ("ESG") assessment methodology and the International Capital Market Association's (ICMA) Sustainability-Linked Bond Principles ("SLBP"), voluntary guidelines, published in June 2020. This opinion is strictly limited to the integration of four environmental factors to the Bond(s). This opinion does not cover the integration of broader sustainability factors (i.e. social and governance), or the labelling of the Bond(s) where the final decision is left to Carrefour. This opinion does not constitute a verification or certification.

Our opinion is built on the review of the following components:

1. Framework: we assessed the Framework, including the coherence between the Framework and the Issuer's environmental commitments, and the Framework's alignment with the five core components of the SLBP 2020.
2. Issuer<sup>2</sup>: we assessed the Issuer's ESG performance, its management of potential stakeholder-related ESG controversies and its involvement in controversial activities<sup>3</sup>.

Our sources of information are multichannel, combining data (i) gathered from public sources, press content providers and stakeholders, (ii) from Moody's ESG Solutions' exclusive ESG rating database, and (iii) information provided from the Issuer, through documents.

We carried out our due diligence assessment from April 26, 2022 to May 25, 2022. We consider that we were provided access to all documents and interviewees we solicited. To this purpose, we made reasonable efforts to verify the accuracy of all data used as part of the assessment.

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<sup>2</sup> Carrefour is part of Moody's ESG Solutions rating universe - the last ESG rating was performed in December 2021.

<sup>3</sup> The 17 controversial activities screened by Moody's ESG Solutions are: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Fossil Fuels industry, Coal, Gambling, Genetic engineering, High interest rate lending, Human Embryonic Stem Cells, Military, Nuclear power, Pornography, Reproductive medicine, Tar sands and oil shale, and Tobacco.

# COHERENCE

Coherent
Partially coherent
Not coherent

Moody's ESG Solutions considers that the selected KPIs are coherent with Carrefour's strategic sustainability priorities and sector issues and that they contribute to achieving the Issuer's sustainability commitments.

Carrefour's sustainability commitments are set in its Corporate Social Responsibility (CSR) strategy<sup>4</sup>, which is structured around the following policy areas:

- Products: Developing products and responsible purchasing
- Stores and operations: Limiting the environmental impact of its activities
- Customers and partners: Promoting quality relationships and getting its partners involved
- Employees: Growing and moving forward together to transform its business
- Responsible business conduct: Ensuring ethical and fair practices

In particular, for the "Products" policy area, the topics of interest are the following:

- Guaranteeing product quality, compliance and safety
- Promoting and developing sustainable agriculture
- Sourcing high-risk raw materials
- Protecting forests and biodiversity
- Promoting sustainable fishing and aquaculture
- Committing to eco-design and a circular economy for packaging

Regarding the "Stores and operations" policy area, the topics of interests are the following:

- Combating food waste
- Limiting pollution at Carrefour's sites and restoring biodiversity
- Fighting and preparing for climate change
- Promoting responsible water consumption

For each of the above CSR policy areas, the Group defines specific commitments linked to quantified targets. The most relevant targets in the context of the integration of environmental factors to the Sustainability-Linked Bonds contemplated by Carrefour are the following:

- Reduce the amount of packaging placed on the market with a goal to save 20,000 tonnes of packaging placed on the market by 2025 (cumulative from 2017), including 15,000 tonnes of plastic<sup>5</sup>. Carrefour will pursue this trajectory with a target of 21,500 tonnes of packaging saved by 2027 including 16,000 tonnes of plastic.
- Developing reusable, recyclable or compostable packaging with a goal of 100% reusable, recyclable or compostable packaging by 2025 for Carrefour brands.
- Reduce food waste through the Consumer Goods Forum (CGF) goal of reducing food waste by 50% by 2025 compared with 2016. Carrefour will pursue this trajectory with a target of 55% reduction by 2027<sup>6</sup> versus 2016.
- Reduce the Group's GHG emissions and minimising the climate risks to which its business is subject through the objective of reducing its Scope 1 and 2 GHG emissions by 30% by 2025, 39.5% by 2027<sup>7</sup>, 50% by 2030, and 70% by 2040, and reducing its indirect (Scope 3) GHG emissions by 29% by 2030, compared to 2019. To be noted, Carrefour's Scope 1 and 2 targets were updated in 2021. The Science Based Target Initiative (SBTi)<sup>8</sup> has approved Carrefour's 2020 targets on Scope 1, 2 and 3 in line with a well below 2°C pathway. The updated 2021 Scope 1 and 2 targets have not yet been approved by the SBTi.

Besides the CSR commitments and objectives, it is also worth mentioning that Carrefour has a Food Transition strategy<sup>9</sup> aimed at transforming the food system by offering customers healthy, planet-friendly products at an affordable price. As part of this strategy, Carrefour launched the Food Transition Pact in 2020<sup>10</sup>, which aims to unite its partner suppliers around five common objectives on the themes biodiversity, climate, packaging, health and nutrition.

Moody's ESG Solutions considers that the selected KPIs are coherent with Carrefour's strategy and priorities in terms of sustainability and contribute to the achievement of the of its environmental objectives.

<sup>4</sup> <https://www.carrefour.com/en/csr/csr-commitment>

<sup>5</sup> The Issuer has communicated in its framework that given that Carrefour's CSR index results were above the targets set for 2020, the company has revised its packaging reduction target to 20,000 tonnes by 2025, including 15,000 tonnes of plastic.

<sup>6</sup> This target has been included in Carrefour's 2022 Sustainability-Linked Bond Framework.

<sup>7</sup> Ibid.

<sup>8</sup> The Science Based Targets initiative is a collaboration between CDP, the United Nations Global Compact, World Resources Institute and the Worldwide Fund for Nature (WWF) <https://sciencebasedtargets.org/>

<sup>9</sup> <https://www.carrefour.com/en/group/food-transition>

<sup>10</sup> <https://www.carrefour.com/en/csr/commitment/food-transition-pact>

# FRAMEWORK

The Issuer has described the main characteristics of the Bond(s) within a formalised Framework (the last updated version was provided to us on May 6, 2022) which covers the five core components of the SLBP 2020. The Issuer has committed to make this document publicly accessible on its website at the first issuance date, in line with good market practices.

## Alignment with the Sustainability-Linked Bond Principles

### Selection of the Key Performance Indicators (KPIs)



Table 1. Analysis of the KPIs selected by the Issuer

#### KPI 1.A: GHG EMISSIONS (SCOPE 1 AND 2)

#### KPI 1.B: GHG EMISSIONS (SCOPE 3, PURCHASES OF GOODS AND SERVICES ONLY)

#### KPI 2: CUMULATIVE TONNES OF PACKAGING AVOIDED

#### KPI 3: FOOD WASTE GENERATED BY STORES

#### Definition: Clarity And Disclosure

The KPIs are clearly defined, including the unit of measurement, the rationale and process to select the KPIs, the calculation methodology and the scope. They are publicly disclosed in the Framework and in this SPO.

#### KPI 1.A:

The rationale for the selection of KPI 1.A, Scope 1 and 2 GHG emissions, is reflected in the Issuer's commitment to combat climate change through achieving carbon neutrality by 2040 and reduce the environmental impacts of its operations. The Issuer reports that gas, electricity and refrigerants consumed in stores are Carrefour's main direct sources of GHG emissions.

The KPI's calculation methodology and coverage are the following:

Scope 1 & 2 GHG emissions (tCO<sub>2</sub>e) linked to energy consumption (electricity, gas and fuel oil) and to store refrigerant, using conversion factors (from kWh and kg to kg CO<sub>2</sub> equivalent) from internationally recognised organisations, such as the IPCC (Intergovernmental Panel on Climate Change) and the IEA (International Energy Agency). Business Units also have the option of using specific national factors.

Scope 1 and 2 account for around 1.8% of Carrefour's total GHG emissions. The KPI covers integrated stores<sup>11</sup> in the Group's integrated countries (Argentina, Belgium, Brazil, Spain, France, Italy, Poland, Romania, Taiwan).

#### KPI 1.B:

The rationale for the selection of KPI 1.B Scope 3 emissions from purchased goods and services is reflected in the Issuer's commitment to combat climate change and through its Climate Action Plan which aims to reduce Carrefour's indirect GHG emissions.

The KPI's calculation methodology and coverage are the following:

Scope 3 GHG emissions (tCO<sub>2</sub>e), using supplier data collected annually and then compared to previous years. The methodology is in line with the GHG Protocol Scope 3 Standard.

<sup>11</sup> All integrated stores represent between 50% and 90% of the company's total activity.

The Issuer reports that this KPI will be based on specific emissions reductions implemented by suppliers<sup>12</sup>, through its 20 Megaton project<sup>13</sup>, which will track Scope 3 emissions from purchases good and services through a collaborative online platform, co-developed with PepsiCo and more than twenty of Carrefour's international suppliers. The scope of the KPI will cover suppliers reporting their emissions on the 20 megaton platform, which is open to all suppliers of Carrefour. To note, however, that the engagement will begin with suppliers that opt in to the Food Transition Pact, a voluntary initiative. The Issuer reports that 114 suppliers are signed up to the Food Transition Pact as of 2021, up from 26 in 2020, and that the aim is to reach 300 by 2025. However, Moody's ESG Solutions has no visibility on the proportion of total suppliers that this constitutes.

#### KPI 2:

The rationale for the selection of KPI 2, tonnes of packaging avoided, is reflected in the Issuer's commitment to reduce its environmental impact of its operations and contribute to pushing its industry toward more reasonable and measured use of packaging, and promote eco-design and the circular economy.

The KPI's calculation methodology and coverage are the following:

Packaging avoided (metric tonnes, cumulative since 2017): weight of packaging saved or plastic avoided is multiplied by the number of applicable products sold. The KPI covers all integrated stores<sup>14</sup> in the Group's integrated countries (Argentina, Belgium, Brazil, Spain, France, Italy, Poland, Romania, Taiwan).

#### KPI 3:

The rationale for the selection of KPI 3, reduction of food waste, is reflected in the Issuer's commitment to improve its operations, reduce its environmental footprint, and work with groups such as the Consumer Goods Forum to ensure usable, nutritious food does not go to waste.

The KPI's calculation methodology and coverage are the following:

Food waste generated in-store, normalised by store size (measured as tonnes/m<sup>2</sup> of store floor area). The calculation method is based on the standard food waste accounting referent of the Food Loss and Waste Accounting and Reporting Standard (or FLW Standard). The KPI covers all integrated stores<sup>15</sup> in the Group's integrated countries (Argentina, Belgium, Brazil, Spain, France, Italy, Poland, Romania, Taiwan).

### Measurability, Benchmark And Verifiability

The KPIs are measurable and externally verifiable.

An external third-party has provided reasonable assurance on KPI 1.A in Carrefour's Universal Registration Document (URD)<sup>16</sup>. KPI 2 and KPI 3 are also included in the URD which is reviewed annually by the third party auditor although they have not received a reasonable assurance. The Issuer reports that KPI 1.B will be externally verified in the future.

The calculation methodology is consistent for all KPIs and the Issuer commits to inform investors of changes in the methodology.

KPI 1.A, KPI 2 and KPI 3 were previously disclosed, and historically externally verified values have been provided covering at least the 3 previous years.

KPI 1.B was not previously disclosed and there was no external verification.

The definition of KPI 1.A, KPI 1.B, and KPI 3 rely on external references allowing their benchmark.

The definition of KPI 2 does not rely on external references but is able to be benchmarked.

KPI 1.A relies on the GHG protocol<sup>17</sup>, Carbon Disclosure Project (CDP)<sup>18</sup>, the TCFD guidelines<sup>19</sup> and for conversion factors (from kWh and kg to kg CO<sub>2</sub> equivalent), calculation methods from internationally recognised organizations are used, such as the IPCC (Intergovernmental Panel on Climate Change)<sup>20</sup> and the IEA (International Energy Agency)<sup>21</sup>.

<sup>12</sup> Although Carrefour reports to have an external expertise to ensure the calculations of typical Scope 3 emissions through the use of monetised emission factors, multiplied by sales in product groups, it reports that that these calculations remain estimates which is why it has decided to opt for the 20 megaton project, which reportedly uses a more "robust" KPI based on specific emissions reduction with suppliers.

<sup>13</sup> <https://www.20megatons.com/>

<sup>14</sup> All integrated stores represent between 50% and 90% of the company's total activity.

<sup>15</sup> Ibid

<sup>16</sup> <https://www.carrefour.com/sites/default/files/2022-05/Carrefour - 2021 Universal Registration Document 0.pdf>

<sup>17</sup> <https://ghgprotocol.org/>

<sup>18</sup> <https://www.cdp.net/en>

<sup>19</sup> <https://www.fsb-tcfd.org/>

<sup>20</sup> <https://www.ipcc.ch/>

<sup>21</sup> <https://www.iea.org/>



KPI 1.B refers to the GHG Protocol<sup>22</sup> Scope 3 standard.

KPI 3 relies on the standard food waste accounting referent of the Food Loss and Waste Accounting and Reporting Standard (or FLW Standard)<sup>23</sup>.

### Relevance And Materiality

The selected KPIs reflect the Issuer's most material sustainability issues for its current and future operations, as well as the most relevant sustainability challenges for its sector. In addition, the KPIs reflect one of the most material issues identified by the Issuer in its materiality matrix and they cover between 50-90% of its activities.

#### KPIs 1.A and 1.B:

KPIs 1.A and 1.B, taken together, reflect one of the most material sustainability issues for the Issuer's current and future operations, as well as one of the most relevant sustainability challenges of the sector, and together cover 72.5% of activities.

If used together, the relevance of KPI 1.A and KPI 1.B is considered advanced regarding the Issuer's activity and sector issues. If used separately, the relevance of KPI 1.A is considered weak, and the relevance of KPI 1.B is considered advanced.

Moody's ESG Solutions considers that, on its own, KPI 1.A is partially relevant, core and material to the company's business strategy for its current and future operations and partially reflects relevant sustainability challenges for its industry sector. This is because KPI 1.A only covers 1.8% of the Issuer's GHG emissions, which Moody's ESG Solutions considers to represent only a marginal part of the company's environmental footprint.

Moody's ESG Solutions considers KPI 1.B to reflect one of the most material sustainability issues for the Issuer's current and future operations, as well as one of the most relevant sustainability challenges of the sector, and it covers 70.7% of activities.

The 2021 UN Framework Convention on Climate Change (UNFCCC) report issued by the Intergovernmental Panel on Climate Change acknowledges the possibility of harmful climate change due to increasing and irreversible GHG levels<sup>24</sup>. Furthermore, the 2015 Paris Agreement signed in 2016 by the United Nations member states established a global framework to avoid severe climate change by keeping global warming well below 2°C and pursuing efforts to keep it below 1.5°C. It also aims to strengthen businesses' ability to deal with the effects of climate change and to support them in their efforts<sup>25</sup>.

Both the UNFCC report and the Paris Agreement stress that it is crucial and indispensable for companies to set science-based targets for Scope 1, 2, and 3 emissions to help meet the Paris Agreement's goals and to be externally assessed, such as by the SBTi – which mandates that companies with value chain emissions that account for more than 40% of total GHG emissions set a Scope 3 target – to demonstrate the target's alignment with the most recent climate science. Carrefour's 2020 targets on Scope 1, 2 and 3 have been approved against a well below 2°C scenario by the SBTi. The 2021 targets on Scope 1 and 2 (50% reduction by 2030 and 70% by 2040, compared to 2019) have been reviewed by Carrefour to be aligned with a 1.5°C pathway, although the targets have not been approved by the SBTi.

Besides focusing on reducing emissions under companies direct operational control or ownership, it is crucial for companies to set targets covering emissions from their value chains, which often represent the largest portion of companies GHG inventories. For companies involved in the food and beverages supply chain, Scope 3 emissions are estimated to represent more than 75% of total GHG emissions<sup>26</sup>. In the case of Carrefour, Scope 1 and 2 emissions account for 1.8% for its total emissions, and Scope 3 emissions for 98.2%<sup>27</sup> (purchases of goods and services (72%), the use of products sold (12%) and upstream transport of goods (5%)).

In its Framework, Carrefour has disclosed targets to reduce its Scope 1 and 2 GHG emissions by 30% by 2025, 50% by 2030 and 70% by 2040 (KPI 1.A and accompanying SPTs), as well as targets to reduce its Scope 3 emissions from purchases of goods and services by 30% by 2030 (KPI 1.B and accompanying SPTs).

Given that KPI 1.A covers 1.8% of all emissions, and that KPI 1.B covers 72% of all Scope 3 and therefore 70.7% of all GHG emissions, the two KPIs together account for 72.5% of Carrefour's total GHG emissions, a significant majority.

Moreover, 'Climate – stores and e-commerce,' 'Climate – transport and e-commerce,' and 'Sustainable relationships and partnerships with suppliers' are all identified as material issues in Carrefour's 2021 materiality analysis, publicly disclosed

<sup>22</sup> <https://ghgprotocol.org/>

<sup>23</sup> <https://flwprotocol.org/flw-standard/>

<sup>24</sup> [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_Full\\_Report.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf)

<sup>25</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

<sup>26</sup> Tidy, M. et al. 2016. The Role of Supplier Relationship Management in Reducing Greenhouse Gas Emissions from Food Supply Chains: Supplier Engagement in the UK Supermarket Sector. Journal of Cleaner Production

<sup>27</sup> <https://www.carrefour.com/en/csr/commitment/reducing-ghg-emissions>



in its Universal Registration Document 2021<sup>28</sup>.

#### KPI 2:

Moody's ESG Solutions considers that the selected KPI reflects one of the Issuer's most material sustainability issues as well as one of the most material challenges for its sector.

The relevance of KPI 2 is considered advanced regarding the Issuer's activity and sector issues.

More than 400 million tonnes of plastic are produced each year worldwide<sup>29</sup>, with 36% used for packaging<sup>30</sup>, and the figure is constantly on the rise. Because packaging is considered throw-away by nature and of low cash value, and because collection infrastructures are not highly effective, the environmental impact is very considerable, as we can see with the proliferation of waste plastic in the ocean. To address this issue and as part of its 'Anti-waste law for a circular economy'<sup>31</sup>, France is developing a national strategy for the reduction, reuse, re-employment and recycling of single-use plastic packaging, in consultation with the industrial sectors concerned, local authorities and consumer and environmental protection associations. This strategy will define the sectoral or general actions and measures to be implemented to achieve the "3Rs" following objectives": (i) a target of 20% reduction in single-use plastic packaging by the end of 2025, at least half of which will be achieved through reuse and recycling, (ii) a target of 100% reduction of "unnecessary" single-use plastic packaging, such as plastic blisters around batteries and light bulbs, by the end of 2025 and (iii) a target of 100% recycling of single-use plastic packaging by January 1, 2025.

In addition, the National Pact on Plastic Packaging<sup>32</sup> (of which Carrefour is a signatory) commits companies to (i) establish a list of packaging to be designated as problematic or unnecessary and for which measures for its elimination must be taken, (ii) collectively achieve 60% of plastic packaging effectively recycled by 2022 and (iii) eco-designing packaging to make it 100% reusable, recyclable or compostable by 2025.

Moreover, "Packaging" is identified as one the most important issues in Carrefour's 2021 materiality analysis, publicly disclosed in its Universal Registration Document 2021<sup>33</sup>.

#### KPI 3:

Moody's ESG Solutions considers that the selected KPI reflects one of the Issuer's most material sustainability issues as well as one of the most material challenges for its sector.

The relevance of KPI 3 is considered advanced regarding the Issuer's activity and sector issues.

In France, food losses and waste represent 10 million tonnes of products per year, with an estimated commercial value of 16 billion euros<sup>34</sup>. Food waste represents an unnecessary withdrawal of natural resources, such as arable land and water, and greenhouse gas emissions that could be avoided. The latter are estimated by the Ademe to represent 3% of all national emissions. All stages of the food chain, production, processing, distribution and consumption, contribute to food loss and waste. The Ademe study on the state of the art of the masses of food waste and its management at the different stages of the food chain shows that the distribution of these losses and waste is as follows: 2% of food waste is generated at the agricultural production stage, 21% at the transformation stage, 14% at the retail stage, 14% at restaurants and in catering, and 19% in domestic consumption. To address this issue and as part of its 'Anti-waste law for a circular economy', France has introduced a series of measures in favour of the fight against food waste. The law sets the goal of reducing food waste by 50% from its 2015 level in food distribution and collective catering by 2025 and by 50% from its 2015 level in consumption, production, processing and commercial catering by 2030. The ambition of the law is also a better management of stocks in order to limit the waste which results from it: the deadline of consumption, the date of minimum durability and the number of batch will have to be integrated into the codifications of the products to allow a better computerized treatment of stocks. The law also provides for the creation of a national label "anti-food waste" to promote initiatives.<sup>35</sup>

Moreover, "Food waste" is identified as one the most important issues in Carrefour's 2021 materiality analysis, publicly disclosed in its Universal Registration Document 2021<sup>36</sup>. Indeed, food waste is the issue with the single greatest importance for stakeholders out of all the issues considered in Carrefour's 2021 materiality analysis.

<sup>28</sup> [https://www.carrefour.com/sites/default/files/2022-05/Carrefour\\_-\\_2021\\_Universal\\_Registration\\_Document\\_0.pdf](https://www.carrefour.com/sites/default/files/2022-05/Carrefour_-_2021_Universal_Registration_Document_0.pdf)

<sup>29</sup> <https://www.unep.org/interactives/beat-plastic-pollution/>

<sup>30</sup> Ibid

<sup>31</sup> [https://www.ecologie.gouv.fr/loi-anti-gaspillage-economie-circulaire-1#scroll-nav\\_\\_2](https://www.ecologie.gouv.fr/loi-anti-gaspillage-economie-circulaire-1#scroll-nav__2)

<sup>32</sup> <https://www.ecologie.gouv.fr/signature-du-pacte-national-sur-emballages-plastiques>

<sup>33</sup> [https://www.carrefour.com/sites/default/files/2022-05/Carrefour\\_-\\_2021\\_Universal\\_Registration\\_Document\\_0.pdf](https://www.carrefour.com/sites/default/files/2022-05/Carrefour_-_2021_Universal_Registration_Document_0.pdf)




<sup>34</sup> <https://www.ecologie.gouv.fr/gaspillage-alimentaire-0>

<sup>35</sup> Ibid

<sup>36</sup> [https://www.carrefour.com/sites/default/files/2022-05/Carrefour\\_-\\_2021\\_Universal\\_Registration\\_Document\\_0.pdf](https://www.carrefour.com/sites/default/files/2022-05/Carrefour_-_2021_Universal_Registration_Document_0.pdf)

### SDG Contribution

The selected KPIs are likely to contribute to 3 of the United Nations' Sustainable Development Goals ("SDGs"), namely:

KPI	SDG	SDG TARGETS
KPI 1.A: GHG Emissions (Scope 1 and 2) KPI 1.B: GHG emissions (Scope 3, purchases of goods and services only)	 7 Affordable and Clean Energy	7.2 By 2030, substantially increase the share of renewable energy in the global energy mix. 7.3 By 2030, double the global rate of improvement in energy efficiency.
KPI 2: Tonnes of packaging avoided KPI 3: Food waste generated by stores	 12 Responsible Production and Consumption	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse. 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
KPI 1.A: GHG Emissions (Scope 1 and 2) KPI 1.B: GHG emissions (Scope 3, purchases of goods and services only)	 13 Climate Action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

## Calibration of the Sustainability Performance Target (SPT)

Not Aligned	Partially Aligned	Aligned	Best Practices
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### Ambition

#### KPI 1.A: GHG EMISSIONS (SCOPE 1 AND 2)

By using the reduction of the absolute value of Scope 1 and 2 GHG emissions per year, the data set should show positive or negative KPI trends, reflecting the Issuer's commitment to fight climate change, thus enabling investors to make an appropriate assessment of the overall environmental performance.

Table 2 –GHG emissions, Scope 1 and 2 (measured in tonnes of CO2e)

	REPORTED DATA					OBJECTIVES				
KPI 1.A	2010 <sup>a</sup>	2018 <sup>b</sup>	2019 (Baseline)	2020	2021	2025*	2027 <sup>c</sup> *	2030*	2040*	
	3,009,535	2,031,138	1,857,132	1,599,584	1,483,001	1,299,992	1,123,565	928,566	557,140	
Annual variation			-8.6%	-13.9%	-7.3%					
Total variation (2010-2019)	-38.3%									
Total variation compared with the baseline (to 2025, 2027, 2030, 2040)			-30%							
			-39.5%							
			-50%							
			-70%							
Average annual variation (2010-2019)	-5.2%									
Average annual variation (2018-2021)		-9.95%								
Average annual variation compared with the baseline (to 2025/2027/2030/2040)			-5.77%							
			-6.09%							
			-6.11%							
			-5.57%							

<sup>a</sup> Data retrieved from Carrefour's 2020 CSR & Food Transition Report<sup>37</sup>

<sup>b</sup> Data retrieved from Carrefour's 2020 CSR & Food Transition Report<sup>38</sup>

<sup>c</sup> To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation. However, for this KPI, it acts as an intermediate target between already existing, publicly disclosed goals for 2025, 2030 and 2040 that are included in the Issuer's 2021 Universal Registration Document.\*Trigger events

<sup>37</sup> <https://www.carrefour.com/en/csr/performance>

<sup>38</sup> Ibid

The SPTs are consistent with the Issuer's existing targets set out in its sustainability strategy and its annual reporting.

Based on several points of comparison, Moody's ESG Solutions considers that Carrefour's target demonstrates a **robust**<sup>39</sup> level of ambition.

The timeline, baseline, and trigger events are clearly disclosed.

#### Business-as-usual Trajectory Benchmark Analysis

The SPTs demonstrate a trend aligned with the Issuer's Business as Usual (BaU).

The Issuer has provided historical data on the KPI, which indicates that there has been a continuous decrease of absolute GHG emissions (Scope 1 and 2) over the years. Data show that between 2010 and 2019 (the baseline), absolute GHG emissions decreased by 39% in comparison to the 2010 value, which represents an average annual decrease of 5.2%. The average annual decrease between 2018 and 2021 reached 9.95%.

The target set for 2025 represents a 30% decrease compared with the 2019 baseline and an average annual decrease of 5.77%. For each of the trigger event targets (2025, 2027, 2030, 2040), the average annual reduction rate compared to the 2019 baseline stays in a very similar range, between 5.57% and 6.11%, to the BaU average annual reduction of 5.2% achieved between 2010 and 2019. However, the projected average annual variation for all these targets is somewhat less ambitious than the company's past historical performance when considering the 2018-2021 period, when average annual reductions of 9.95% were achieved. Therefore, Moody's ESG Solutions considers that the SPTs are in line with the long-term BaU trajectory of the Issuer.

#### Sector Peers Benchmark

The SPTs demonstrate a robust level of ambition compared to sector peers' performances.

The 2025, 2030 and 2040 SPTs (reduction of 30% by 2025, 50% by 2030, and 70% by 2040, compared to the 2019 baseline) are considered more ambitious than many peers' targets at European and world levels, including among those in the database of Moody's ESG Solutions 'Supermarkets' sector. For example, Carrefour's targets appear to be more ambitious than those of Casino<sup>40</sup>, a French competitor, which has set targets to reduce Scope 1 and 2 emissions by 18% by 2025 and 38% by 2030, compared to a 2015 baseline, or of Jeronimo Martins<sup>41</sup>, a Portuguese competitor, which has set a target to reduce Scope 1 and 2 per by 5% per €1000 of sales from 2018 to 2020. The targets of Dutch-Belgian Ahold Delhaize<sup>42</sup>, to reduce Scope 1 and 2 GHG emissions by 50% from 2018 to 2030, appear to be in line with Carrefour's targets.

There are, however, several peers with targets more ambitious than Carrefour's. For example, all three of the UK's largest supermarket firms, for instance, have more ambitious targets. The Co-operative Group<sup>43</sup> has a target to reduce operational Scope 1 and 2 emissions by 50% by 2025 compared to 2016—a target it already reached in 2021, three years early, leading the firm to promise to set new targets in 2022. Tesco<sup>44</sup> has a target to reduce Scope 1 and 2 emissions by 60% by 2025, compared to 2015. Sainsbury's<sup>45</sup> has a medium-term target in line with Carrefour's—of a 50% reduction in Scope 1 and 2 by 2030—but a more ambitious long-term target, of 100% emissions reduction (i.e. net zero) by 2040. Many Nordic peers also have targets more ambitious than Carrefour's on this KPI and SPT. Coop amba<sup>46</sup>, of Denmark, has pledged to reduce Scope 1 and 2 emissions by 91% by 2030, compared to 2018. Kesko<sup>47</sup>, of Finland, has set a similar target to reduce its Scope 1 and 2 emissions by 90% by 2030, compared to a 2020 baseline.

Overall, the ambition of the SPT appears to be above the average for the sector but not amongst the top performers.

#### Official International Targets and Scenarios Benchmark Analysis

The SPTs demonstrate a robust level of ambition compared to sector standards.

According to the SBTi<sup>48</sup>, a certain number of companies pertaining to the 'Food and Staples Retailing' sector have disclosed Scope 1 and 2 GHG emissions reduction targets, while some other companies have not. By virtue of falling into the category of companies having disclosed a well-below 2°C scenario-aligned 2030 target, and having the targets validated accordingly, the Issuer appears to be aligned with official international targets, although not with the most ambitious international standard which align targets with a 1.5°C scenario.

Note, however, that the comparison in the SBTi is still using Carrefour's previous, less ambitious targets of a 30% reduction in Scope 1 and 2 by 2030, and 55% by 2040, which were in use until 2020 before being updated. Although the newest Scope

<sup>39</sup> Moody's ESG Solutions scale of assessment: Weak / Limited / Robust / Advanced

<sup>40</sup> Casino's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>41</sup> <https://www.jeronimomartins.com/en/responsibility/respecting-the-environment/climate-change/>

<sup>42</sup> Ahold Delhaize group's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>43</sup> The Co-operative group's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>44</sup> Tesco's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>45</sup> Sainsbury's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>46</sup> Coop amba's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>47</sup> Kesko's Scope 1 and 2 targets are available in SBTi's website: <https://sciencebasedtargets.org/companies-taking-action>

<sup>48</sup> <https://sciencebasedtargets.org/companies-taking-action?sector=Food%20and%20Staples%20Retailing#table>

1 and 2 reduction targets have not been approved or validated by the SBTi, the Issuer claims that they are in line with a 1.5°C scenario. To be in line with a 1.5°C scenario, the SBTi approach requires an annual linear reduction rate equal to or higher than 4.2%<sup>49</sup>. Therefore, Carrefour's target appears to be compatible with a 1.5°C scenario given that on average, its Scope 1 and 2 emissions are expected to decrease annually by 5.57% by 2040, compared to the 2019 baseline.

#### MEASURES TO ACHIEVE THE SPT

The means to achieve the SPT are disclosed in the Framework and are considered credible.

The SPT will be achieved through three main strategies:

- Reducing energy consumption;
- Increasing the proportion of renewable energy in energy consumption;
- Reducing refrigerant-related CO<sub>2</sub> emissions by phasing out hydrofluorocarbon (HFC) refrigerants and limiting coolant fluid leakage.

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<sup>49</sup> <https://sciencebasedtargets.org/resources/files/SBTi-criteria-legacy.pdf>

### KPI 1.B: GHG EMISSIONS (SCOPE 3, PURCHASES OF GOODS AND SERVICES ONLY)

By reducing the Scope 3 GHG emissions from purchases of goods and services, the data set should show positive or negative KPI trends, reflecting the Issuer's commitment to reduce combat climate change, thus enabling investors to make an appropriate assessment of the overall environmental performance.

Table 3 –Scope 3 emissions from purchases of goods and services (megatons CO<sub>2</sub>e)

	CALCULATED DATA				OBJECTIVES	
KPI 2 (megatons CO <sub>2</sub> e)	2019 (Baseline)	2020	2021	2022	2027 <sup>a*</sup>	2030 <sup>*</sup>
	66.6 <sup>**</sup>	-	-	-	61.6 <sup>**</sup>	46.6 <sup>**</sup>
Average annual variation compared with the baseline (%)	-0.97%					-8.88%
	-3.19%					
Total reduction (%)	-7.5%					-24.4%
	-30%					
Average annual reduction 2019-2027, 2027-2030, and 2019-2030 (megatons CO <sub>2</sub> e)	0.625					5
	1.82					

<sup>a</sup>To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

\*Trigger event

\*\* Moody's ESG Solutions calculations for the estimated amount—the Issuer has not disclosed values for this KPI. These figures are calculations by Moody's ESG Solutions based on the Issuer's report that the 30% reduction target equates to 20Mt CO<sub>2</sub>e, and the 5Mt intermediary target provided for 2027.

The SPT is consistent with the Issuer's existing targets set out in its sustainability strategy and its annual reporting.

Carrefour's commitment to the goal of reducing its Scope 3 emissions from purchases of goods and services by 20 megatons, equating to 30%, is publicly disclosed and part of its sustainability strategy. To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

Based on several points of comparison, Moody's ESG Solutions considers that Carrefour's target demonstrates a robust<sup>50</sup> level of ambition.

The timeline and trigger event are clearly disclosed. An area for improvement is to transparently disclose the baseline and the KPI related data.

#### Business-as-usual Trajectory Benchmark Analysis

The Issuer has not previously disclosed this KPI, and there was no verification. Carrefour reports that disclosure and external verification of this KPI will not commence until 2022. Given the lack of historical data, it is not possible for Moody's ESG Solutions to conduct a backward-looking Business as Usual trajectory analysis.

However, Moody's ESG Solutions notes that given the Issuer's intermediate target for 2027 and the final target for 2030 are both expressed in absolute terms — a 5 megaton CO<sub>2</sub>e reduction in Scope 3 "purchased goods and services" emissions by 2027, compared to 2019, and 20 megatons by 2030, the forward-looking projected trajectory can be evaluated. Reaching the intermediate goal by 2027 requires an average reduction in emissions of just 0.97%, or 0.625 megatons annually, between 2019 and 2027, whereas reaching the final 2030 target after the 2027 goal is reached requires the reduction in average annual

<sup>50</sup> Moody's ESG Solutions scale of assessment: Weak / Limited / Robust / Advanced



emissions to jump to 8.88%, or 5 megatons per year. Moody's ESG Solutions notes that this trajectory assumes that the annual amount of reduction of emissions can feasibly rise by a factor of 8 from 2019-2027 to 2027-2030, which may be optimistic.

#### Sector Peers Benchmark

This SPT demonstrates a robust level of ambition compared to sector peers' performances.

Given the particular calculation methodology used for this KPI, in which it covers only a portion of Scope 3 emissions, for "purchased goods and services," accounting for 72% of Scope 3, Moody's ESG Solutions' capacity to appropriately compare the performance with relevant sector peers is somewhat restricted. Therefore, this section also makes use of the additional target set by Carrefour covering all of its Scope 3 emissions, of a 29% reduction from 2019 to 2030.

The ambition of Carrefour's target is considered in line with many peers' targets at European level, including among those in SBTi's 'Food and Staples Retailing' sector classification<sup>51</sup> and Moody's ESG Solutions 'Supermarkets' sector.

Most of the companies included in our 'Supermarkets' sector do not disclose targets related to Scope 3 GHG emissions, and among peers that have, some appear to have set targets that are less ambitious than Carrefour's SPT. For example Ahold Delhaize has set a target to reduce Scope 3 by 15% by 2030, compared to a 2018 baseline, which is less ambitious than Carrefour's 2030 target. METRO AG commits to reduce absolute scope 3 GHG emissions 15% by 2030 from a 2018 base year, which also appears less ambitious than Carrefour's target.

On the other hand, Carrefour's target appears to be in line with the majority of peers that disclose Scope 3 targets. For example, Co-operative Group commits to reduce Scope 3 emissions (including from purchased goods and services) by 11% by 2025 compared to a 2016 baseline, which appears slightly more ambitious than Carrefour's 2027 intermediary target but less ambitious than the 2030 target. Tesco commits to reduce its Scope 3 GHG emissions (including from purchased goods and services by 17% by 2030), using a 2015 base-year. Sainsbury's commits to reduce absolute scope 3 GHG emissions (including from purchased goods and services) by 30% by 2030 from a 2019 base year in line with Carrefour's target. Similarly, Kesko of Finland has set a target to reduce Scope 3 emissions by 17% by 2026 compared to a 2020 baseline, which appears aligned with Carrefour's 2030 target. Casino has set a target to reduce Scope 3 emissions by 10% by 2025, compared to a 2018 baseline, which is more ambitious than Carrefour's 2027 intermediate target.

#### Official International Targets and Scenarios Benchmark Analysis

The SPT demonstrates an advanced level of ambition compared to sector standards.

Although the lack of disclosed values complicates analysis for this KPI and SPT, the expected pace of emissions reductions can be compared with international standards such as the Science-based Targets Initiative.

Considered over the entire 2019-2030 period, the 30% reduction in Scope 3 emissions for purchased goods and services equates to an annualised reduction of 3.2% per year, which is more than the 2.5% annual linear that the SBTi considers to be the minimum for well-below 2°C scenarios<sup>52</sup>, but less than the 4.2% annual linear reduction aligned with a 1.5°C scenario. However, the projected annualised reduction of 0.97% between 2019 and 2027 is well below both of these requirements, whereas the projected annualised reduction of 8.88% between 2027 and 2030 is well above these requirements.

The fact that Carrefour has set a Scope 3 target is in line with SBTi recommendations (Scope 3 targets are recommended when Scope 3 exceeds 40% of total GHG emissions, and in this case they are 98.2%), as is the target's focus on purchased goods and services. However, the way Carrefour has set up this particular Scope 3 SPT, as equivalent to 20Mt CO<sub>2</sub>e, does go against the SBTi's recommendation that "companies should not set targets to reduce emissions by a specified mass of GHGs."<sup>53</sup> Nonetheless, Carrefour's corporate target on Scope 3 has been approved by the SBTi, although not validated.

To note, for supermarkets and retail, there is no applicable sector-specific standard on emissions, so the above analysis is based on emissions standards applicable across sectors.

#### MEASURES TO ACHIEVE THE SPT

The means to achieve the SPT are disclosed in the Framework and are considered credible.

The SPT will be achieved primarily through engagement with suppliers. Carrefour is engaging its suppliers to reduce 20 megatons of CO<sub>2</sub> emissions by 2030 linked to the production of products per year. As part of this operational target, the Issuer has set an intermediate target of a 5 megaton reduction of emissions by 2027. Progress toward this ambition will be tracked through a collaborative online platform<sup>54</sup>, co-developed with PepsiCo and more than twenty of Carrefour's international suppliers. Carrefour reports that it will begin to collect data from suppliers that have signed up in its 'Food

<sup>51</sup> <https://sciencebasedtargets.org/companies-taking-action>

<sup>52</sup> <https://sciencebasedtargets.org/resources/files/SDTi-criteria-legacy.pdf>

<sup>53</sup> <https://sciencebasedtargets.org/resources/legacy/2017/04/SDTi-manual.pdf>

<sup>54</sup> <https://www.20megatons.com/>

Transition Pact<sup>55</sup>, a voluntary initiative that requires suppliers that have signed the agreement to establish an action plan in a minimum of three of five pillars (packaging, biodiversity, transparency, climate, responsible products), participate in the monitoring of its implementation and to disclose the results in Carrefour's food transition platform.

Of note, only the 'Climate' pillar of the Food Transition Pact requires suppliers to set GHG emission targets, and given that the above means to achieve the SPT are based on a voluntary initiative, it is unclear as to what specific pillar and related action plan each supplier may commit to. Therefore, the success on the KPI's achievement will depend on the coverage of suppliers agreeing to set GHG reduction targets and reporting on these, as well as on the success of the implementation of the relevant action plans.

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<sup>55</sup> <https://www.carrefour.com/en/csr/commitment/food-transition-pact>

## KPI 2: CUMULATIVE TONNES OF PACKAGING AVOIDED

By using the cumulative absolute amount of packaging avoided since 2017, the data set should show positive or negative KPI trends, reflecting the Issuer's commitment to reduce its environmental footprint, thus enabling investors to make an appropriate assessment of the overall environmental performance.

Table 4 –Cumulative packaging avoided (measured in tonnes since 2017)

	REPORTED DATA					OBJECTIVES	
KPI 2 (cumulative tonnes)	2017 <sup>a</sup> (Baseline)	2018	2019	2020	2021	2025*	2027 <sup>b*</sup>
	938	1,867	3,460	6,212	11,068	20,000	21,500
Tonnes avoided per year	938	929	1,593	2,752	4,856		
Annual variation (%)		-0.9%	71%	69%	76%		
Average annual avoided (tonnes, 2017-21)	2,213						
Average annual avoided (tonnes, 2021-25)					2,233		
Average annual avoided (tonnes, 2025-27)						750	

<sup>a</sup>Data retrieved from Carrefour's Universal Registration Document 2017

<sup>b</sup>To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

\*Trigger events

The SPTs are consistent with the Issuer's existing targets set out in its sustainability strategy and its annual reporting.

Carrefour has been committed to the goal of reaching a cumulative 20,000 tonnes of packaging avoided for multiple years, and re-iterates its commitment in its annual reporting. To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

Based on several points of comparison, Moody's ESG Solutions considers that Carrefour's target demonstrates a limited<sup>56</sup> level of ambition.

The timeline, baseline, and trigger events are clearly disclosed.

### Business-as-usual Trajectory Benchmark Analysis

The 2025 SPT demonstrates a trend aligned with the Issuer's Business as Usual, whereas the 2027 SPT demonstrates a negative trend compared to the BaU.

The Issuer has provided historical data on the KPI demonstrating that between 2016 and 2021, the average annual amount of packaging avoided per year was 2,213 tons (though this varied between 929 tons and 4,856 tons). In order to reach the 2025 SPT of a total of 20,000 tons of avoided packaging, the Issuer needs to maintain very similar levels, hitting an average of 2,233 tons of packaging avoided between 2021 and the end of 2025. Thus, the projected amount of packaging avoided per year through 2025 continues on the same trajectory as previously.

<sup>56</sup> Moody's ESG Solutions scale of assessment: Weak / Limited / Robust / Advanced

However, the Issuer's 2027 SPT of a cumulative 21,500 tons of packaging avoided presumes a much less ambitious trajectory from 2025 to 2027, only needing an additional 750 tons of packaging to be avoided per year, a significant slowing down from well over 2000 tons per year.

Moreover, the data provided by Carrefour only covers a part of the total packaging. The data is linked to Carrefour's own-branded products that account for 30% of the products sold in their integrated stores in some European countries, which represent 70% of the company's revenues and more than 123,000 tonnes of packaging per year. Moody's ESG Solutions considers that the company's targets of 20,000 tonnes of waste avoided over an 8 year period, and 21,500 over a 10 year period, is tackling only a minor part of the total packaging handled by Carrefour.

#### Sector Peers Benchmark

The SPT demonstrates a robust level of ambition compared to sector peers' performances.

To be noted that given the calculation methodology used for this KPI is currently not widely used, there is no direct, relevant sector peers' benchmark for the defined KPI and SPT. As a result, Moody's ESG Solutions' capacity to appropriately compare the performance with relevant sector peers is limited.

According to our methodology, most of the companies included in our 'Supermarkets' sector do not disclose targets related to the reduction of the impact of their 'own-branded products'. For those disclosing a quantified target, Carrefour appears to be among the most ambitious.

For 'non-owned products', a majority of companies included in the Moody's ESG Solutions 'Supermarkets' sector have disclosed targets either related to the inclusion of recycled plastic in packaging sold (in relative values) or related to the reduction of plastic consumption (e.g. through the end of single-used plastics), which appear to be overall aligned with Carrefour's targets to reducing the impact of its packaging.

#### Official International Targets and Scenarios Benchmark Analysis

For supermarkets and retail, there is no applicable sector standard or scenario benchmark for the defined KPI and SPT. As a result, this benchmark analysis has been deactivated.

#### MEASURES TO ACHIEVE THE SPT

The means to achieve the SPT are disclosed in the Framework and are considered credible.

The SPT will be achieved through four main strategies:

- Participating in the market transformation through joint initiatives and partnerships;
- Getting customers involved: Zero plastic challenge, Défi Zéro Plastique;
- Collaborating with partners to create innovative solutions: Loop, (Re)set packaging;
- Making initiatives visible in stores: Developing bulk grocery shopping (over 1,000 stores equipped), Possibility of bringing refillable containers to all stores.

As part of its plastic and packaging reduction initiatives, Carrefour is targeting 100% reusable, recyclable, or compostable packaging for its own-brand products by 2025.

### KPI 3: FOOD WASTE GENERATED BY STORES

By using the amount of food waste generated by stores, normalised by store floor area, the data set should show positive or negative KPI trends, reflecting the Issuer's commitment to fight against waste, thus enabling investors to make an appropriate assessment of the overall environmental performance.

Table 5 – Food waste generated by stores (measured in tonnes / m<sup>2</sup> of floor space)

KPI	REPORTED DATA						OBJECTIVES	
	2016 (Baseline)	2017	2018	2019	2020	2021	2025*	2027 <sup>a*</sup>
	13.068			11.8	9.317	9.056	6.534	5.881
Overall variation (%)	-9.7%							
	-28.7%							
	-30.7%						-27.8%	
	-50%							
	-55%							

<sup>a</sup>To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

\*Trigger events

The SPTs are consistent with the Issuer's existing targets set out in its sustainability strategy and its annual reporting.

Carrefour has been committed to the goal of 50% food waste reduction by 2025, from 2016 levels, for multiple years, and re-iterates its commitment in its annual reporting. The objective represents an average annual reduction of 5.5% in food waste.

To note, the 2027 additional target is more recent and has been added into the newest version of the Issuer's Sustainability-Linked Bond Framework, but is not yet included in any other public documentation.

Based on several points of comparison, Moody's ESG Solutions considers that Carrefour's target demonstrates an advanced<sup>57</sup> level of ambition.

The timeline, and trigger events are clearly disclosed. An area for improvement is to disclose the baseline figures in public documentation.

#### Business-as-usual Trajectory Benchmark Analysis

The SPT demonstrates a robust level of ambition compared to the Issuer's Business as Usual (BaU).

The Issuer has provided historical data on the KPI, which indicates that there has been a continuous decrease over the years since 2016. Data also show a consistent decrease between the KPI's performance over the 5 past years (2016-2021), with an overall decrease of 30.7% equating to an annualised 7.1% (using the compound annual growth calculation), while the decrease between 2021 and 2025 is estimated at -27.8%, or an annualised 7.8%, demonstrating a trend aligned with the company's BaU. Considering the additional trigger event and target for 2027 yields a similar analysis—over the six years between 2021 and 2027, the decrease is estimated at an annualised 6.9%, in line with the BaU trajectory.

<sup>57</sup> Moody's ESG Solutions scale of assessment: Weak / Limited / Robust / Advanced

### Sector Peers Benchmark

The SPTs demonstrate an advanced level of ambition compared to sector peers' performances.

Carrefour's target to reduce its food waste by half by 2025 compared to 2016 appears to be more ambitious than its sector peers. For instance, as of today, French large-scale distribution companies such as Casino and Auchan have not disclosed any quantified targets in terms of food waste reduction. Both Belgian-Dutch group Ahold Delhaize and Tesco aim to reduce their food waste by 50% by 2030 compared to 2016, while Carrefour aims to achieve this same target by 2025. Portuguese company Jeronimo Martins aims reduce the Group's food waste by 50% by 2025 compared to 2016, which is in line with Carrefour's target.

### Official International Targets and Scenarios Benchmark Analysis

The SPTs demonstrate an advanced level of ambition compared to sector standards. The European Union and the EU countries and notably the food and drink industry are committed to the current indicative EU wide food waste reduction target of 30% by 2025 and 50% by 2030<sup>58</sup>, which are in line with the UN Sustainable Development Goal (SDG) 12.3<sup>59</sup> target to "*halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses, by 2030*".

In addition, the French 'Anti-waste law for a circular economy' has introduced a series of measures in favour of the fight against food waste. The law sets a goal of reducing food waste by 50% from its 2015 level in food distribution and collective catering by 2025 and by 50% from its 2015 level in consumption, production, processing and commercial catering by 2030.<sup>60</sup>

### MEASURES TO ACHIEVE THE SPT

The means to achieve the SPT are disclosed in the Framework and are considered credible. The SPTs will be achieved through three main strategies following Carrefour's food waste reduction policy<sup>61</sup>:

- Adopting a more professional approach to waste at stores: matching stock levels to demand flows, running special offers as use-by dates approach, devising product second-life solutions, making donations to food aid charities or subsidised grocery stores and recycling waste;
- Developing solutions with suppliers: extending the shelf life of Carrefour's own-brand products, conducting surveys on production waste, and selling visually defective products that are as good and safe as non-defective ones, etc.;
- Consumer education on waste reduction: raising awareness, offering support, and developing innovative solutions such as the Too Good to Go pact bringing together industry, retail, trade organisations, and digital operators.

<sup>58</sup> [https://ec.europa.eu/food/food/food-waste/eu-actions-against-food-waste\\_en](https://ec.europa.eu/food/food/food-waste/eu-actions-against-food-waste_en)

<sup>59</sup> <https://sustainabledevelopment.un.org/sdg12>

<sup>60</sup> <https://www.ecologie.gouv.fr/loi-anti-gaspillage-economie-circulaire-1>

<sup>61</sup> <https://www.carrefour.com/en/csr/commitment/combating-food-waste>



## Bond Characteristics



The potential variation of the bonds financial and/or structural characteristics depending on whether the selected KPIs would reach (or not) the predefined SPTs is clearly defined in the Framework, and is disclosed to investors in the bond documentation.

Carrefour confirms that the bond(s) issued under this Framework will be subject to variations in their financial characteristics depending on the achievement of the defined trigger events. The exact mechanism and impacts will be detailed for each bond in the corresponding bond documentation (i.e. final terms).

If the SPT is not met at the target observation date (i.e. the date on which the relevant target should be achieved), it will trigger an interest step up (which will be specified in the relevant final terms).

The Issuer also reports that, if for any reason, Carrefour does not publish the applicable sustainability performance report, the assurance report or, if applicable, the SPT verification assurance certificate, before the date falling five business days prior to the date specified as being an interest step up payment date in the terms and conditions of the SLBs, the interest step up will be applicable.

For the avoidance of doubt, the Issuer reports that the relevant final terms of a given bond issue will specify the KPI(s), SPT(s), and trigger date(s) applicable to that specific issue: the documentation may specify more than one SPT(s) and more than one target observation date.

The meaningfulness of the variation of the SLB's structural and/or financial characteristics cannot be assessed due to i) lack of details of financial implications at Framework level and ii) lack of comparison data.

\*Moody's ESG Solutions considers that, as of today, there is insufficient information and market precedent to appropriately assess the potential best practices regarding the bond characteristics' variation. In this sense, the "Aligned" level is currently considered to be the highest level achievable by Carrefour on this pillar.

## Reporting

Not Aligned

Partially Aligned

Aligned

Best Practices

KPI 1.A: GHG EMISSIONS (SCOPE 1 AND 2)

KPI 1.B: GHG EMISSIONS (SCOPE 3, PURCHASES OF GOODS AND SERVICES ONLY)

KPI 2: CUMULATIVE TONNES OF PACKAGING AVOIDED

KPI 3: FOOD WASTE GENERATED BY STORES

## Reporting Accessibility And Frequency

The Issuer has committed to disclose all relevant information in public documentation available on a dedicated section of Carrefour's Universal Registration Document or published on its website as a separate report or document (including information on the performance of KPIs, information enabling investors to monitor the level of ambition of the SPTs and baselines).

The reporting on the KPIs will be published annually until maturity of the bonds.

## REPORTING SCOPE AND GRANULARITY

The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements.

The Issuer's reporting will contain:

- The level of the relevant KPI(s) as at 31 December in each year;
- An assurance report issued by an external verifier on an annual basis confirming the level of the applicable KPI(s);
- A verification assurance certificate provided by the external verifier confirming the level of the KPI(s) against the applicable SPT(s) following each date of assessment of the SPT(s);
- Information in relation to any change to the levels of the KPI(s) used as a baseline, of the Baseline Date and/or of the SPT(s) in the event of any recalculation made in accordance with the terms and conditions of the SLBs; and
- Information on the related impact on the bond financial characteristics<sup>62</sup>.

When feasible and possible the Issuer's reporting will also contain:

- Qualitatively or quantitatively explanation of the contribution of the main factors, including M&A activities, behind the evolution of the performance/(KPIs) on an annual basis; and
- Illustration of the positive sustainability impacts of the performance improvement.

## Reporting Process, Monitoring And Control

The selected KPIs related data are covered by an internal and external verification.

As per the reporting process, Carrefour's CSR Performance and Food Transition report<sup>63</sup> (which includes the group's targets) is based on the coordination of the CSR Department, Human Resources Department, Legal Department, Marketing Department, Assets Department, Merchandise Department, Logistics Department and representatives of the CSR Quality line from the main European countries.

As per the control of the data, the Issuer has provided its internal extra-financial reporting manual, which covers all KPIs and includes the company's data collection, consolidation and control procedures.

<sup>62</sup> The Issuer has confirmed to Moody's ESG solutions in internal documentation that it will report on the (non)achievement of targets and the related coupon step impact for bondholders.

<sup>63</sup> <https://www.carrefour.com/en/csr/performance>

#### BEST PRACTICES

- ⇒ All relevant information is publicly disclosed by the company in public documentation.
- ⇒ The reporting on the KPIs will be published annually until maturity of the bonds.
- ⇒ The intended scope and granularity of the reporting is clear and exhaustive, covering all the required and recommended elements.
- ⇒ KPI data undergoes both internal and external verification.

Verification

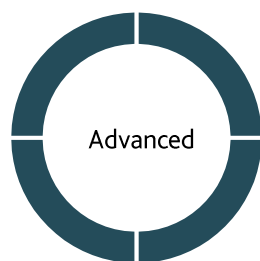


The performance of each KPI against each SPT will be covered by an external verification on an annual basis and in case of material changes impacting the SLB's financial characteristics (such as a trigger event), and until maturity of the Bond.

The verification assurance report will be publicly available on the Issuer's website.

BEST PRACTICES
⇒ Verification will be conducted until maturity of the bonds.

# ISSUER



Carrefour SA engages in the provision of supermarkets and retail stores. The Company was founded on July 11, 1959, and is headquartered in Massy, France. In March 2021, Carrefour SA announced its plans to acquire Grupo Big from Advent and Walmart. In 2020, the Company acquired Dejbox to boost its e-commerce operations and Potager City, a distributor of boxes of fruit and vegetables in the same year.

## Level ESG Performance

The Issuer's ESG performance was assessed through a complete process of rating and benchmarking.

As of December, 2021, Carrefour displays an advanced ESG performance (64/100), ranking 2<sup>nd</sup> in our Supermarkets sector, which covers 19 companies. The company is advanced in the Environmental and Social pillar and robust in the Governance pillar.

Of note, since the last assessment (December 2021) on the Issuer's ESG performance conducted by Moody's ESG Solutions, Carrefour has published additional up-to-date information on its Corporate Sustainability strategy which has not been taken into account in the assessment below.

DOMAIN	COMMENTS	OPINION
Environmental	Carrefour's performance in the Environmental pillar is considered <u>advanced</u> . Carrefour reports having allocated significant measures toward environmental management, biodiversity, energy use, atmospheric emissions, transportation, and disposal of products. The Company has made multiple commitments in terms of environmental protection and eco-design, and has set specific targets on the reduction of environmental impacts from energy use, CO <sub>2</sub> and HFC emissions.	Advanced
	In terms of results so far, normalised energy consumption and CO <sub>2</sub> emissions have decreased between 2016 and 2020, while indicators related to disposal of products and packaging show mixed trends.	Robust
	The Company has set quantified targets with regard to its energy-related emissions, and with regard to the environmental impacts of transporting its products, and these cover the entire group. The Company aims to achieve a 50% reduction in its GHG (scope 1 and scope 2) by 2030 and a 70% reduction by 2040, compared to 2019. It also targets reduction of CO <sub>2</sub> emissions linked to transport by 20% by 2030 compared to 2019 levels backed by relevant measures, which are innovative compared to its peers. Carrefour also aims to reduce its Scope 3 emissions by 29% by 2030, compared to 2019 levels. The Company has a goal of reaching 100% of reusable, compostable or recyclable packaging by 2025 for Carrefour-branded products. These targets are backed by different measures including resources allocated to eco-design linked with own-branded products as well as a stores and warehouses.	Limited
	In addition, Carrefour is engaged on issues of biodiversity and sustainable forestry. The Company states that 100% of palm oil and palm kernel oil used as an ingredient in Carrefour-brand products must be RSPO-certified "Segregated" by 2022, and it reports on selling products that are FSC (Forest Stewardship Council) or PEFC (Programme for the Endorsement of Forest Certifications) certified.	Weak

Social	<p>Carrefour's performance in the Social pillar is considered <u>advanced</u>.</p> <p>The Company has signed a global agreement to promote social dialogue and diversity and to ensure the protection of fundamental rights in the workplace. Significant measures are disclosed to limit the impacts of reorganisations. The Company has issued formalised commitments concerning career management, remuneration, and health and safety and refers to promote the respect and management of working hours. In terms of results, the number of training hours per employee has decreased between 2016 and 2020 while the workplace accident frequency rate has increased over the same period.</p> <p>Carrefour formally commits to respect and promote human rights in society and has set up some measures in this regard. Moreover, the Company has signed a groupwide agreement with a Global Union Federation and reports on actions to monitor the respect of freedom of association within its operations and to promote collective bargaining. Carrefour also reports on extensive measures in place to address non-discrimination such as flex-time initiatives and child care facilities. In terms of results, the share of women in management positions and the share of employees with disabilities in the total workforce have increased between 2016 and 2020.</p> <p>The Company continues to report extensively on measures to address the mitigation of its operations and general interest causes. Carrefour formally commits to promote local social and economic development and reports to have allocated extensive measures on this matter. Furthermore, the Company has defined a clear strategy to manage its contribution to general interest causes through the Carrefour Foundation. In terms of results, the share of countries with programmes focused on local products and purchases has increased between 2018 and 2020.</p> <p>Carrefour reports on significant resources towards food and product safety, supplier relations, and environmental and social impact in the supply chain. While a comprehensive system seems to be in place to ensure customers are informed properly on nutrition, only a basic system appears to be set up to inform customers on engineered products and over indebtedness.</p>	Advanced
		Robust
		Limited
		Weak
Governance	<p>Carrefour's performance in the Governance pillar is considered <u>robust</u>.</p> <p>Carrefour's Board of Directors is 35% independent, yet its diversity seems to be advanced. In addition to a CSR Committee in place, the internal control system covers CSR risks inherent to the Company's business operations. When it comes to shareholders' rights, minor voting rights restrictions have been identified. As for executive remuneration, although bonuses and long-term incentives are linked to performance conditions, the quantified targets are not disclosed.</p> <p>The Company reports on internal controls to prevent corruption and reporting systems to address anti-competitive practices. In terms of results, the number of inspections performed related to product quality of Carrefour's own-brand products has decreased between 2016 and 2020. The Company also reports on significant resources to ensure transparency and integrity of lobbying practices.</p>	Advanced
		Robust
		Limited
		Weak



## Management of ESG Controversies

As of May 2022, Carrefour faces 11 stakeholder-related ESG controversies, linked to three of the six domains we analyse:

- Business Behaviour, in the criteria "Product Safety", "Responsible Customer Relations", "Supplier relations", "Environmental standards in the supply chain", "Social standards in the supply chain", "Prevention of corruption" and "Anti-competitive practices".
- Human Resources, in the criteria "Reorganisation," "Remuneration" and "Health and safety".
- Corporate Governance, in the criterion of "Audit & Internal Controls".

**Frequency:** The controversy faced is considered "isolated"<sup>64</sup>, in line with the sector.

**Severity:** The severity of the cases, based on the analysis of the impact on both the Issuer and its stakeholders, is considered "high"<sup>65</sup>, in line with the sector.

**Responsiveness:** Carrefour is considered overall "reactive"<sup>66</sup>, above the sector average.

## Involvement in Controversial Activities

Carrefour is involved in 3 of the 17 controversial activities screened under our methodology, namely:

- **Minor involvement in Alcohol:** Carrefour SA has an estimated turnover from alcoholic beverages which is 5% of total turnover. This turnover is derived from the sale of alcoholic beverages in the Company's stores and websites. The Company operates hypermarkets, supermarkets, convenience stores and e-commerce in more than 30 countries. The Company sells a wide variety of goods including alcoholic beverages in its stores and websites. These include wine, beer and spirits among others.
- **Minor involvement in Genetic engineering:** Carrefour SA supplies own-branded food products containing GMOs. Through its stores and websites, the Company sells a wide variety of own-branded food products and beverages. As of 2018, the Company stated that "no own-brand food product in any of our own-brand ranges contains GMOs and derivatives with the exception of Argentina"<sup>67</sup>. In addition, the Company has launched several GMO-free products and has adopted a GMO labelling policy.
- **Minor involvement in Tobacco:** Carrefour SA has an estimated turnover from tobacco which is below 5% of total turnover. The Company communicated to Moody's ESG Solutions that less than 1% of its sales derive from tobacco products which are sold in a limited number of countries. Carrefour operates hypermarkets, supermarkets, convenience stores and e-commerce in more than 30 countries.

The Issuer appear to be not involved in any of the other 14 controversial activities screened under our methodology, namely: Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Coal, Fossil Fuels industry, Unconventional oil and gas, Gambling, Human embryonic stem cells, High interest rate lending, Military, Nuclear Power, Pornography and Reproductive Medicine.

The controversial activities research provides screening of companies to identify involvement in business activities that are subject to philosophical or moral beliefs. The information does not suggest any approval or disapproval on their content from Moody's ESG Solutions.

<sup>64</sup> Moody's ESG Solutions scale of assessment: Isolated / Occasional / Frequent / Persistent.

<sup>65</sup> Moody's ESG Solutions scale of assessment: Minor / Significant / High / Critical.

<sup>66</sup> Moody's ESG Solutions scale of assessment: Non-communicative / Reactive / Remediative / Proactive.

<sup>67</sup> The Issuer has communicated to us that the group's own brand products are GMO-free anywhere the legal context allows it, and that in Argentina, Carrefour's purchasing rule is to prioritize the use of non-GMO ingredients for own-brand products. The Issuer reports that ensuring full segregation of non-GM ingredients remains a challenge, and the current regulation in Argentina does not allow any labeling

# METHODOLOGY

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In Moody's ESG Solutions' view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organization, activity or transaction. In this sense, Moody's ESG Solutions provides an opinion on the Issuer's ESG performance as an organization, and on the processes and commitments applicable to the intended issuance.

Our Second Party Opinions (SPOs) are subject to internal quality control at three levels (Analyst, Project Manager and Quality Reviewer). If necessary, this process is complemented by a final review and validation by the Expertise Committee and Supervisor. A right of complaint and recourse is guaranteed to all companies under our review, following three levels: first, the team in contact with the Issuer; then the Executive Director in charge of Methods, Innovation & Quality; and finally, Moody's ESG Solutions' Scientific Council.

## Framework

### Alignment with the Sustainability-Linked Bond Principles

Scale of assessment: Not aligned, Partially aligned, Aligned, Best Practices

*The Framework/Bond has been evaluated by Moody's ESG Solutions according to the ICMA's Sustainability-Linked Bond Principles - June 2020 ("SLBP") and on our methodology based on international standards and sector guidelines applicable in terms of ESG management and assessment.*

### Selection of Key Performance Indicators (KPIs)

KPI's materiality and coherence with the Issuer's overall sustainability strategy and with the Issuer sector's main sustainability challenges. KPI's measurability and clarity, internal and external control over the KPI's data, exhaustiveness of the KPI's coverage.

### Calibration of Sustainability Performance Targets (SPTs)

Coherence of the SPTs with the overall sustainability strategy, ambition of the SPTs (compared the Issuer's own performance, sector peers and relevant international standards), trigger events' disclosure, disclosure and credibility of the means for achievement (including scope and geographical coverage of the means).

### Bond Characteristics

Disclosure of the bond characteristics' variation, the meaningfulness of these variations (for alignment with SLBP only).

### Reporting

Reporting process formalization and verification, data's accessibility.

### Verification

Verification of the performance against the SPTs and disclosure of the assurance reports.

## Issuer

### Issuer's ESG performance

Scale of assessment of ESG performance: Weak, Limited, Robust, Advanced

*NB: The Issuer's level of ESG performance (i.e. commitments, processes, results of the Issuer related to ESG issues), has been assessed through a complete process of rating and benchmarking developed by Moody's ESG Solutions.*

The Issuer's ESG performance has been assessed by Moody's ESG Solutions on the basis of its:

- Leadership: relevance of the commitments (content, visibility and ownership).
- Implementation: coherence of the implementation (process, means, control/reporting).
- Results: indicators, stakeholders' feedback and controversies.

### Management of Stakeholder-Related ESG Controversies

Moody's ESG Solutions defines a controversy as public information or contradictory opinions from reliable<sup>68</sup> sources that incriminate or make allegations against an Issuer regarding how it handles ESG issues as defined in our ESG framework. Each controversy may relate to several facts or events, to their conflicting interpretations, legal procedures or non-proven claims.

Moody's ESG Solutions reviewed the information provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or Non-Government Organizations). Information gathered from these sources is considered as long as it is public, documented and traceable.

Moody's ESG Solutions provides an opinion on companies' controversies risks mitigation based on the analysis of 3 factors:

- Frequency: reflects for each ESG challenge the number of controversies that the Issuer has faced. At corporate level, this factor reflects on the overall number of controversies that the Issuer has faced and the scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).
- Severity: the more a controversy is related to stakeholders' fundamental interests, proves actual corporate responsibility in its occurrence, and have caused adverse impacts for stakeholders and the Issuer, the higher its severity is. Severity assigned at the corporate level will reflect the highest severity of all cases faced by the Issuer (scale: Minor, Significant, High, Critical).
- Responsiveness: ability demonstrated by an Issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the Issuer for all cases faced (scale: Proactive, Remediate, Reactive, Non- Communicative).

The impact of a controversy on an Issuer's reputation reduces with time, depending on the severity of the event and the Issuer's responsiveness to this event. Conventionally, our controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

### Involvement in Controversial Activities

17 controversial activities have been analyzed following 30 parameters to screen the Issuer's involvement in any of them. The Issuer's level of involvement (Major, Minor, No) in a controversial activity is based on:

- An estimation of the revenues derived from controversial products or services.
- The specific nature of the controversial products or services provided by the Issuer.

<sup>68</sup> 'Reliable' means that there are sufficient details to substantiate claims made, with due attention paid to the political dimension of news and the danger of misinformation. Moody's ESG Solutions draws on investigative journalism, the business press, NGO and trade union reports which focus on corporate behavior relating to ESG issues. It is neither possible nor advisable to create a prescriptive fixed list of sources as new, valid sources arise all the time and it is necessary to investigate these as and when they are retrieved in order to comprehensively cover evolving issues and media.

## Moody's ESG Solutions' Assessment Scales

Scale of assessment of the Issuer's ESG performance, the KPI(s) materiality and the associated SPT(s) ambition.		Scale of assessment of financial instrument's alignment with Sustainability-Linked Bond and Loan Principles	
Advanced	Advanced commitment; strong evidence of command over the issues dedicated to achieving the sustainability objective.	Best Practices	The Instrument's practices go beyond the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the LMA/APLMA/LSTA's Sustainability-Linked Loan Principles by adopting recommended and best practices.
	The selected KPI(s) reflects the most material issues for the Issuer's core sustainability and business strategy and address the most relevant environmental, social and/or governance challenges of the industry sector.		
	An advanced ambition is achieved when the SPT(s) can demonstrate the following: (i) alignment with the 2D scenario/recognized sector standards (when available) (ii) a top performance in comparison to sector peers, and (iii) an improvement of the company's performance.		
Robust	Convincing commitment; significant and consistent evidence of command over the issues.	Aligned	The Instrument has adopted all the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the LMA/APLMA/LSTA's Sustainability-Linked Loan Principles.
	The selected KPI(s) reflects material issues for the Issuer's core sustainability and business strategy and address relevant environmental, social and/or governance challenges of the industry sector.		
	A robust ambition is achieved when the SPT(s) can demonstrate at least two out of three of the following items: (i) alignment with the 2D scenario/recognized sector standards (ii) a performance in line with the average performance of sector peers, and (iii) an improvement of the company's performance.		
Limited	Commitment to the objective of sustainability has been initiated or partially achieved; fragmentary evidence of command over the issues.	Partially Aligned	The Instrument has adopted a majority of the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the LMA/APLMA/LSTA's Sustainability-Linked Loan Principles, but not all of them.
	The selected KPI(s) does not appropriately reflect material issues for the Issuer's core sustainability and business strategy and partially address relevant environmental, social and/or governance challenges of the industry sector.		
	A limited ambition is achieved when the SPT(s) can demonstrate only one out of three of the following: (i) alignment with the 2D scenario/recognized sector standards (ii) a performance in line with the average performance of sector peers, and (iii) an improvement of the company's performance.		
Weak	Commitment to social/environmental responsibility is non-tangible; no evidence of command over the issues.	Not Aligned	The Instrument has adopted only a minority of the core practices of the ICMA's Sustainability-Linked Bond Principles and/or of the LMA/APLMA/LSTA's Sustainability-Linked Loan Principles.
	The selected KPI(s) does not reflect material issues for the Issuer's core sustainability and business strategy and do not address relevant environmental, social and/or governance challenges of the industry sector.		
	A weak ambition is achieved when the SPT(s) (i) is not aligned the 2D scenario/recognized sector standards (ii) is below the average performance of its sector peers, and (iii) shows a negative trend in the company's performance.		

## STATEMENT ON MOODY'S ESG SOLUTIONS' INDEPENDENCE AND CONFLICT-OF-INTEREST POLICY

Transparency on the relation between MOODY'S ESG and the Issuer: MOODY'S ESG has carried out 1 audit mission for Carrefour. No established relation (financial or commercial) exists between MOODY'S ESG and Carrefour. Independence, transparency, quality and integrity requirements are all formalised within our Moody's Code of Conduct.

This opinion aims at providing an independent opinion on the sustainability credentials and management of the Bond(s), based on the information which has been made available to MOODY'S ESG. MOODY'S ESG has neither interviewed stakeholders out of the Issuer's employees, nor performed an on-site audit nor other tests to check the accuracy of the information provided by the Issuer. The accuracy, comprehensiveness and trustworthiness of the information collected are a responsibility of the Issuer. The Issuer is fully responsible for attesting the compliance with its commitments defined in its policies, for their implementation and their monitoring. The opinion delivered by MOODY'S ESG neither focuses on the financial performance of the Bond(s), nor on the effective allocation of its proceeds. MOODY'S ESG is not liable for the induced consequences when third parties use this opinion either to make investments decisions or to make any kind of business transaction. Restriction on distribution and use of this opinion: The deliverables remain the property of MOODY'S ESG. MOODY'S ESG grants the Issuer all rights to use the final version of the Second Party Opinion delivered for external use via any media that the Issuer shall determine in a worldwide perimeter. The Issuer has the right to communicate to the outside only the Second Party Opinion complete and without any modification, that is to say without making selection, withdrawal or addition, without altering it in any way, either in substance or in the form and shall only be used in the frame of the contemplated concerned issuance. The Issuer acknowledges and agrees that MOODY'S ESG reserves the right to publish the final version of the Second Party Opinion on MOODY'S ESG's website and on MOODY'S ESG's internal and external communication supporting documents.

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