Briefing

Rabobank's financial services to the global meat and dairy companies fuelling climate change

Industrial meat and dairy companies are the food system's biggest drivers of emissions, deforestation, human rights abuses, pandemic risks and animal welfare impacts. Yet despite these damaging and unsustainable impacts ,financing of these industries continues on a large-scale .

Between 2015 and 2020, global meat and dairy companies received over $478 billion in backing from over 2,500 investment firms, banks, and pension funds headquartered around the globe[1].

In direct contradiction with its commitment to the goals of the Paris Agreement, the Dutch Climate Agreement and Commitment to Sustainable Agriculture and Forests, Rabobank is currently one of the biggest financial backers of industrial livestock companies in the world[2].

Between 2015-21, Rabobank provided billions of dollars in finance to 18 of the world's most environmentally destructive industrial livestock companies, including providing $3.6 billion in corporate loans and underwriting nearly $2 billion in bond issuances, and providing revolving credit facilities.

Five of the world's biggest emitting industrial livestock companies – JBS, Marfrig, Tyson Foods, Dairy Farmers of America and Fonterra – combined generated an estimated 550.8 million tonnes of greenhouse gases (GWP100) in 2021[3], together emitting nearly as much as the total emissions of the Netherlands and the UK combined[4]. As methane has a particularly high impact on short-term heating, expressed in GWP20 (global warming potential over 20 rather than 100 years), their emissions are equivalent to nearly double this, about 1.06 billion tonnes of greenhouse gases (GWP20)[5]. The research finds that between 2015-21 Rabobank provided extensive financial services to the "Big 5", including a total of $1.941 billion in corporate loans, underwriting $1.221 billion in bond issuances and providing revolving credit facilities.

Rabobank also provided financial services to Royal Friesland Campina and Vion Food Group. In 2016, these two companies together emitted an estimated 58 million tonnes CO_2eq.[6]

In its `Our road to Paris´ report, Rabobank stresses the importance of addressing climate change and setting greenhouse gas (GHG) emission reduction targets for high emitting sectors, but the reduction of its financing for industrial livestock is not included as one of the most effective options[7]. Meat production quadrupled between 1961 and 2015, driven by increasing supply and demand, as well as global population growth[8]. Livestock is already responsible for at least 16.5% of the total anthropogenic emissions globally[9], and if current trends continue, the global livestock industry will be using up almost half the world's 1.5°C emissions budget by

2030[10] - meaning that urgently restricting and reversing the growth of the livestock sector will be essential to mitigate the worst effects of the climate crisis.

Prof Hans Pörtner, scientist and co-chair of the UN Intergovernmental Panel on Climate Change, speaking in 2022 to the European Parliament, said: “Without reducing and cutting down on meat consumption and the associated high-intensity agriculture systems, we will not be able to keep global warming to 1.5 degrees[11]. That is very clear.” This will require banks and investors to take decisive action to cut off financial support to the sector over the coming years. Livestock also uses 83% of the world’s farmland, making it one of the biggest drivers of deforestation, despite providing only 37% of our protein and 18% of our calories[12]. An estimated 41% of global tropical deforestation is caused by expanding pastures for cattle production, whilst a further 7% is caused by soya production primarily for animal feed[13]

Methane emissions cuts in particular have been identified as key levers to avert both temperature overshoot and dangerous tipping points. Methane is a short-lived but extremely potent gas: it has around 80 times more warming potential than CO_2 over a 20-year timespan, but only lives in the atmosphere for around a decade[14]. According to the United Nations Environment Programme’s Global Methane Assessment, methane emissions should be reduced by at least 40-45% in this critical decade of climate action[15]. Livestock agriculture is the single largest source of methane, responsible for around 32% of anthropogenic methane emissions[16].

In their 2022 *Emissions Impossible, methane edition* report ´ The Institute for Agriculture and Trade Policies and the Changing Markets Foundation estimate that the combined methane emissions of the 15 biggest meat and dairy companies are 52% higher than the livestock-related methane emissions of the EU. In spite of their massive climate impact, the majority of companies fail to report either total GHGs or methane-specific emissions. 60% of the companies investigated either do not report their emissions or do not report their total supply chain (scope 3) emissions. None of the companies reported their supply chain methane emissions[17]. Though the first company Danone recently pledged to report its methane emissions[18]

The new 2023 *Hot Money* report from financial think tank Planet Tracker and the Changing Markets Foundation has uncovered the 40 financial institutions responsible for funding a methane footprint that could exceed 500 Mt CO_2e – nearly as big as the CO_2 emissions of Saudi Arabia. The good news is that methane breaks down in the atmosphere, reducing to half its level in around 11 years. Cutting methane emissions gives financial institutions an opportunity to rapidly reduce the GHG footprints they fund[19].

Furthermore, scientists recently warned that intensive livestock farming creates the “perfect breeding ground” for the development of viruses which could make the Covid-19 pandemic look like a “dress rehearsal”[20]. Industrial livestock companies – i.e. the world’s largest companies engaged in the intensive mass-production and processing of meat, dairy and aquaculture - are the biggest drivers of international livestock emissions. Indeed, the world’s five biggest industrial livestock companies combined emit more greenhouse gases than ExxonMobil[21]. In short, Rabobank’s clients in the industrial livestock sector are key drivers of climate change and deforestation, and exacerbate risks of food insecurity and future pandemics – as well as workers’ rights and animal welfare.

Moreover, almost none of Rabobank’s clients in the industrial livestock sector have plans to reduce their absolute Scope 3 emissions, and none have plans to reduce their livestock

numbers, without which there are serious limits to the emissions and land use savings possible within these companies[22]. Association with large scale industrial livestock will damage Rabobank's reputation and business, including risks of lost revenue and stranded assets, despite providing a relatively small proportion of Rabobank's revenue.

Engagement with industrial livestock companies is likely to yield limited results because their core business model relies on the growth of industrial meat production[23]. Such companies face stranded assets when governments take action to scale back industrial livestock production and when climate change impacts the sector's productivity. For instance, the Netherlands recently introduced a €25bn plan to reduce livestock numbers[24][25], FAIRR calculated that a carbon tax would cost beef companies up to 55% of current earnings[26], and heat stress is already costing the US cattle industry up to $1.5 billion a year in revenue[27]. Engagement is best saved for retailers and catering companies who are in a better position to switch procurement practices to less and better meat, or production and processing companies who are less reliant on industrial livestock for their core revenue.

The Dutch government needs to halve its nitrogen emissions by 2030 in accordance with European Union conservation rules. The Netherlands Environmental Assessment Agency PBL calculated that this intervention should lead to thirty percent reduction of farmed animals in the Netherlands[28]. In October 2022, the Dutch Parliament passed a motion which will require financial institutions to manage credit risks as a result of stranded assets, meaning that they have an obligation to bear losses arising from these types of credit risks themselves[29]. If the Dutch government goes on to adopt the motion and develops specific policies, Rabobank will need to write off a substantial part of its loan portfolio, unless it takes action to reduce its exposure to industrial livestock companies. This highlights the significant regulatory risks Rabobank is exposed to by continuing to provide finance industrial livestock companies.

Rabobank must therefore release a time-bound plan in line with climate science and other sustainability goals to bring all of its financing for industrial livestock to an end – including an immediate end to the financing of industrial livestock expansion. This should include issuing no new corporate loans to these companies, ending other financial services such as underwriting bond issuances and providing revolving credit facilities, and committing not to invest in any industrial livestock company all shares and bonds.

We would welcome a written response to set out what action Rabobank will take to end financial support for the industrial livestock companies listed in the annex, and over what timescales. If Rabobank intends to continue financing these companies, we would welcome an explanation of how Rabobank's decision can be compatible with staying within safe levels of climate change and achieving zero deforestation, whilst safeguarding animal welfare.

Feedback has consistently raised the issue of industrial livestock investments in the media – including in the Financial Times, Bloomberg, the Guardian and the Independent – and we plan to intensify pressure through the media, bank customers, investors, policymakers and financial regulators on institutions which continue to invest in industrial livestock.

Please find below a table outlining our concerns regarding major industrial livestock companies which Rabobank provides financial support to. For further info on the case for defunding industrial livestock companies, see Feedback's reports *Butchering the Planet*, *Big Livestock Vs the*

Planet, *Why Divest from Industrial Livestock* (co-authored with World Animal Protection), and *Blindspot: How lack of action on livestock methane undermines climate targets* (co-authored with Changing Markets), and other reports such as *Big Meat, Big Bucks, Bigger Harm*

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Factsheet: Client Companies Rabobank

Client company	Financial services provided	Climate impacts	Deforestation impacts	Other impacts
JBS	Rabobank lent a total of $1.08 billion in corporate loans to JBS between 2015-21. Between 2015-21, Rabobank also underwrote $491 million in bond issuances for the company and provided revolving credit facilities for JBS.	In 2021, JBS emitted an estimated 287.9 million tonnes of GHGs (GWP100 basis) or 540.6 million tonnes of GHGs (GWP20 basis)[30] – making it the world's highest emitting livestock company, and causing emissions nearly as high as Spain (293 million tonnes GHG on GWP100 basis in 2019)[31]. JBS has no plans to slow its expansion – it recently told its shareholders that a pillar of its strategy is a projected 30% increase in per capita meat consumption by 2030 compared to 1999[32].	Mighty Earth's Soy and Cattle Deforestation Tracker gave JBS its lowest score of 1/100, estimating it was linked to 100,711 acres of deforestation between 2019 and 2021, of which 74,701 acres was potential illegal clearance[33]. HSBC analysts recently warned that JBS "has no vision, action plan, timeline, technology or solution" for monitoring whether the cattle it buys originate from farms involved in rainforest destruction[34].	JBS has also repeatedly been found guilty of corruption[35]. Furthermore see https://www.banktrack.org/company/jbs https://www.desmog.com/jbs/
Marfrig Global Foods	Between 2015-21, Rabobank underwrote $186 million in bond issuances for Marfrig.	Marfrig are the second largest beef producer in the world, after JBS, and Brazil's second largest food processor. In 2021, Marfrig emitted an estimated 102.6 million tonnes of GHGs (GWP100 basis) or 201.8 million tonnes of GHGs (GWP20 basis), making it one of the largest emitters of all global livestock companies[36], causing emissions nearly as high as Belgium (108 million tonnes GHG on GWP100 basis in 2019)[37]. Marfrig's methane emissions rival those of Australia's entire livestock sector[38].	Mighty Earth's Soy and Cattle Deforestation Tracker gave Marfrig its second worst score after JBS of 8/100, estimating it was linked to 50,138 hectares of deforestation in the two years since March 2019, of which 42,637 hectares was possible illegal clearance[39].	Furthermore see https://www.banktrack.org/company/mafrig
Cargill	Between 2015-21, Rabobank underwrote $76 million in bond issuances for Cargill and provided revolving credit facilities.	Cargill was responsible for 86.3 Mt in GHG emissions in 2016, making it the third-largest greenhouse gas emitter of all global livestock companies at the time[40], and causing	Cargill is also linked to deforestation and land grabbing from indigenous territories in the Amazon region, through financing land-clearing operations for soy to	Cargill's palm oil operations in Indonesia, and Papua New Guinea have been charged for violating human rights, using bonded labour and child workers[44]. In a recent

		emissions greater than Greece (80 million tonnes GHG on GWP100 basis in 2019)[41].	feed hogs, chickens, and cows[42]. Mighty Earth's Soy and Cattle Deforestation Tracker gave Cargill a score of only 21/100, estimating it was linked to 66,189 acres of deforestation between 2019 and 2021, of which 13,850 acres was potential illegal clearance[43].	investigation, Cargill was found to have one of the highest levels of Covid-19 infections and deaths of all US food companies[45]. Furthermore see https://www.banktrack.org/company/cargill
Tyson Foods	Between 2015-21, Rabobank lent a total of $838 million in corporate loans to Tyson, as well as underwriting $543 million in bond issuances for the company and providing revolving credit facilities.	In 2021, Tyson emitted an estimated 83.8 million tonnes of GHGs (GWP100 basis) or 166.7 million tonnes of GHGs (GWP20 basis)[46] – one of the world's highest emitting livestock companies, and causing emissions greater than Romania (78 million tonnes GHG on GWP100 basis in 2019)[47]. Tyson Foods has tried to market itself as a climate leader – but only targets a 30% reduction in emissions intensity (i.e. emissions per kilo of meat) by 2030 for its supply chain, where the majority of emissions occur[48]. Since Tyson plans to expand its meat production[49], its total supply chain emissions will rise even if these targets are met.	Tyson Foods was given a score of only 37% by Forest 500, including 31/88 for beef and 30/88 for soya[50].	A 2016 Oxfam investigation found that many Tyson workers endure harsh conditions, limiting breaks so that some employees wear diapers to allow them to keep working without taking toilet breaks[51]. Tyson Foods was found to have the highest levels of Covid-19 infections and deaths of all US food companies by a recent investigation[52]. Furthermore see https://www.desmog.com/tyson-foods/
Dairy Farmers of America	In 2016, Rabobank provided revolving credit facilities to Dairy Farmers of America. Between 2015-19, Rabobank also lent a total of $27 million in corporate loans to Dean Foods, underwrote $105 million in bond issuances and provided revolving credit facilities. Dean Foods was the largest dairy company in the US, before it filed for	In 2021, Dairy Farmers of America emitted an estimated 45.6 mega tonnes of GHGs (GWP100 basis) or 97.8 mega tonnes of GHGs (GWP20 basis)[53]. Dairy Farmers of America's methane emissions are comparable the livestock methane emissions of the UK[54].		The World Benchmarking Alliance gives Dairy Farmers of America a score of only 11/100 for a range of environmental and social indicators[55].

	bankruptcy in 2019. The majority of its assets were acquired by Dairy Farmers of America.			
Minerva Foods	In 2021, Rabobank underwrote $133 million in bond issuances for Minerva.	One of the biggest producers and marketers of beef and its by-products, live cattle exporters and beef processors, based in South America[56]. Minerva emitted an estimated 34.7 million tonnes CO_2eq of greenhouse gas emissions in 2016, making it the eighth largest greenhouse gas emitter of all global livestock companies at the time[57]. In November 2020, the Coller FAIRR Protein Producer Index ranked Minerva as "High risk" for greenhouse gas emissions[58].	Mighty Earth's Soy and Cattle Deforestation Tracker gave Minerva only 20/100, estimating it was linked to 50,310 hectares of deforestation in the two years since March 2019, of which 39,119 hectares was potential illegal clearance[59]. In November 2020, the Coller FAIRR Protein Producer Index ranked Minerva as "High risk" for deforestation and biodiversity loss[60]. In 2019, two UN experts urged the World Bank to divest from Minerva over the Brazilian beef producer's links to deforestation and the climate crisis[61].	In 2022, the Coller FAIRR Protein Producer Index ranked Minerva as "High risk" in the categories of deforestation and biodiversity, water use and scarcity, waste and pollution, and antibiotics[62]. Furthermore see https://www.banktrack.org/company/minerva_foods
Fonterra Cooperative Group Ltd	Between 2015-21, Rabobank lent a total of $27 million in corporate loans to Fonterra, and provided revolving credit facilities.	New Zealand's largest dairy company which operates in New Zealand, Australia, Brazil and Chile[63]. In 2021, Fonterra Cooperative Group Ltd emitted an estimated 30.9 mega tonnes of GHGs (GWP100 basis) or 56.9 mega tonnes of GHGs (GWP20 basis) making it one of the largest emitting global livestock companies[64]. It is the world's largest dairy exporter, responsible for around 30% of the world's dairy exports[65].	Wilmar, Fonterra's key supplier of palm kernel used in supplementary livestock feed, was linked by Greenpeace to deforestation an area twice the size of Paris in Indonesia[66].	Its 43% stake in its Chinese partner, Sanlu Group, embroiled the company in the 2008 contaminated milk scandal that affected around 300,000 Chinese infants and killed six[67] and in 2013, an international recall of contaminated baby formula resulted in the resignation of the head of its milk division[68].
Groupe Lactalis	Between 2019-20, Rabobank lent a total of $602 million in corporate loans to Groupe Lactalis, and provided revolving credit facilities.	In 2021, Groupe Lactalis emitted an estimated 30 mega tonnes of GHGs (GWP100 basis) or 57.2 mega tonnes of GHGs (GWP20 basis)[69]	Groupe Lactalis was given a score of only 2% by Forest 500, including 0/88 for soya[70].	

WH Group / Smithfield Foods	Between 2015-21, Rabobank lent a total of $212 million in corporate loans to WH Group/Smithfield Foods, as well as underwriting $145 million in bond issuances for the company and providing revolving credit facilities.	WH Group is the world's largest producer of pork. In 2021, WH Group emitted an estimated 23.9 million tonnes of GHGs (GWP100 basis) or 37.7 million tonnes of GHGs (GWP20 basis)[71].	WH Group received a score of 1% from Forest 500, with commodity scores of 0/88 for beef and 0/88 for soya[72]. WH Group signed an MoU with JBS in Spring 2020 to secure a little regulated route for Brazilian meat into China, increasing deforestation risks[73].	
Inner Mongolia Yili	In 2021, Rabobank provided revolving credit facilities to Inner Mongolia Yili.	One of China's two leading dairy companies, along with China Mengniu Dairy, which together control 40% of China's booming dairy market[74]. In 2021, Yili emitted an estimated 22.2 mega tonnes of GHGs (GWP100 basis) or 44.2 mega tonnes of GHGs (GWP20 basis)[75]. At the time of writing, Yili do not have any plans to reduce emissions from their supply chains (so-called Scope 3 emissions), and lack commitments to eliminate child and forced labour for supply chain partners[76]. It does not even publish Scope 1 and 2 emissions for its own operations and energy-use, let alone Scope 3 emissions for its supply chain[77].	In 2022, the Coller FAIRR Protein Producer Index ranked Inner Mongolia Yili as "High risk" in the category of deforestation and biodiversity loss[78].	In November 2020, the Coller FAIRR Protein Producer Index ranked Inner Mongolia Yili as "High risk" overall – including in the categories of water use and water scarcity, waste and pollution, antibiotics, working conditions and animal welfare [79].
Saputo	Between 2015-21, Rabobank lent a total of $258 million in corporate loans to Saputo, as well as underwriting $48 million in bond issuances for the company and providing revolving credit facilities.	Canada-based company Saputo is one of the ten largest dairy processors in the world. In 2021, Saputo emitted an estimated 18.1 mega tonnes of GHGs (GWP100 basis) or 38.8 mega tonnes of GHGs (GWP20 basis)[80].	A 2021 investigation by Greenpeace found that dairy farms in the UK owned by Saputo were being fed on Brazilian soya linked to deforestation in the Amazon and Cerrado regions of Brazil[81].	
Royal Friesland Campina	In 2020, Rabobank underwrite $71 million in bond issuances for Royal Friesland Campina and provided revolving credit facilities.	Royal Friesland Campina is a European livestock company headquartered in the Netherlands. In 2021, Royal Friesland Campina emitted an estimated 16.3 mega tonnes of GHGs (GWP100 basis) or 31.1 mega tonnes of GHGs (GWP20 basis)[82].		The World Benchmarking Alliance gives Royal Friesland Campina a score of only 8.8/30 for its environmental performance[83].

Vion Food Group	In 2020, Rabobank provided revolving credit facilities to Vion Food Group.	Vion Food Group is one of the largest meat producers in Europe, headquartered in the Netherlands -and in 2019 it slaughtered 15,200,000 pigs and 844,000 cows. In 2016, Vion Food Group emitted an estimated 15.2 megatonnes CO_2eq of greenhouse gas emissions[84]. It is estimated that Vion's emissions are currently equivalent to 7.5% of the Netherland's total emissions[85], and on a business-as-usual pathway will by 2030 be equivalent to 14% of the Netherland's NDC emissions target under the Paris Agreement. Its 2018 annual report identified falling meat consumption in North-Western European markets as a risk.		The World Benchmarking Alliance gives Vion a score of only 21.2/100 for a range of environmental and social indicators[86]. Furthermore see https://www.desmog.com/vion/
China Mengniu Dairy	Between 2016-21, Rabobank lent a total of $201 million in corporate loans to China Mengniu Dairy, as well as underwriting $84 million in bond issuances for the company and providing revolving credit facilities.	One of China's two leading dairy companies, along with Inner Mongolia Yili, which together control 40% of China's dairy market[87]. In 2020, the company's annual dairy production capacity was 9.9 million tonnes[88]. Legal & General Investment Management, Britain's biggest asset manager, divested from industrial dairy company China Mengniu Dairy in 2021 over their "insufficient" response to climate change[89].	In 2022, the Coller FAIRR Protein Producer Index rated China Mengniu Dairy as "High risk" in the category of deforestation and biodiversity loss[90].	In November 2020, the Coller FAIRR Protein Producer Index rated China Mengniu Dairy as "High risk" overall – including in the categories of GHG emissions, deforestation and biodiversity loss, water use and water scarcity, waste and water pollution, antibiotics and animal welfare[91].
DMK Deutsches Milchkontor	Between 2015-21, Rabobank underwrote $101 million in bond issuances for Koch Foods, and provided revolving credit facilities.	In 2021, DMK Deutsches Milchkontor emitted an estimated 9.1 mega tonnes of GHGs (GWP100 basis) or 17.4 mega tonnes of GHGs (GWP20 basis)[92]		The World Benchmarking Alliance gives DMK Deutsches Milchkontor a score of only 16.1/100 for a range of environmental and social indicators[93].
Charoen Pokphand Group	Between 2015-21, Rabobank lent a total of $312 million in corporate loans to Charoen Pokphand Group.	Headquartered in Thailand, CPF exports its products to more than 30 countries. In 2016 CP Group emitted over 6 megatonnes of GHG's[94]. In November 2020, the Coller FAIRR Protein Producer Index ranked Charoen Pokphand Group as "High risk" in the	Charoen Pokphand Group was given a score of only 41% by Forest 500, including 15/88 for beef and 41/88 for soya[97].	In 2022, the Coller FAIRR Protein Producer Index ranked Charoen Pokphand Group as "High risk" in the categories of deforestation and biodiversity, water use and water scarcity, and waste and pollution[98].

		category of greenhouse gas emissions[95]. CP Group does not report or target the reduction of emissions in its supply chains (so-called Scope 3 emissions) where the majority of emissions occur[96].		
Perdue Farms	In 2016, Rabobank provided revolving credit facilities to Perdue Farms.	Perdue Farms is one of the largest poultry producers in the US, with an estimated 7% market share, and also produces beef and pork[99]. In 2016, Perdue Farms emitted an estimated 3.7 megatonnes CO_2eq of greenhouse gas emissions[100], making it one of the world's largest emitting livestock companies.		The World Benchmarking Alliance gives Perdue Farms a score of only 21.1/100 for a range of environmental and social indicators[101]. The largest chicken producers in the US, including Perdue, are currently under a federal investigation over allegations of collusion to fix prices[102].
Koch Foods	Between 2015-21, Rabobank lent a total of $6 million in corporate loans to Koch Foods, and provided revolving credit facilities.	Koch Foods is one of the largest poultry processors in the US, a vertically integrated company covering poultry growing, manufacturing and distribution[103]. In 2016 Fonterra emitted 3.4 mega tonnes of GHGs, making it the 34th largest emitter of all global livestock companies[104]. The World Benchmarking Alliance gives Koch Foods a score of only 5.5/100 for a range of environmental and social indicators, noting it does not disclose quantitative evidence to demonstrate that it is reducing its scope 1, 2 and 3 GHG emissions, and does not disclose that it is diversifying its protein portfolio, for instance, by increasing the proportion of plant-based proteins and other alternatives[105].		In 2016, an investigator for the USDA found "evidence of unjust discrimination" by Koch Foods against its black farmer suppliers[106]. In 2018, Koch Foods paid out $3.75 million to Latinx workers after the U.S. Equal Employment Opportunity Commission charged Koch Foods with alleged sexual harassment, national origin and race discrimination as well as retaliation against a class of Hispanic workers at Koch's Morton, Miss., chicken processing plant[107]. It has paid out over $1 million for workplace safety or health violations[108].

Data source

The data provided above on Rabobank's financial services to the above companies is based on two datasets commissioned by Feedback from not-for-profit research firm Profundo, utilising Refinitiv, Bloomberg, IJGlobal, Trade Finance Analytics, company publications, company registers and media archives to identify financial relationships:

1. A dataset covering 2015-19 financial relationships between international financial institutions and the world's largest meat and dairy companies (list based on IATP & Grain 2016 report Emissions Impossible). These findings were originally published in Feedback's Butchering the Planet report (see Annex 2 for more info on methodology).
2. An as yet unpublished 2016-21 dataset covering financial relationships between international financial institutions and a broader list of some of the world's largest meat and dairy companies

Background info

Types of financing

- Corporate loans: Companies borrow money from a financial institution, with a maturity date by which they have to pay this back with interest. Long-term corporate loans are particularly useful to finance expansion plans.
- Bond issuances: Issuing bonds involves cutting a large loan into small pieces and selling each piece separately, which are traded on the stock exchange. To issue bonds, a company needs the assistance of one or more (investment) banks which underwrite a certain amount of the bonds. Underwriting is in effect buying with the intention of selling to investors. Still, in case the investment bank fails to sell all bonds it has underwritten, it will end up owning the bonds.
- Revolving credit facilities: Provides a company with an option to take up a loan from a bank (or more often: a banking syndicate) when it has an urgent financing need. It is similar to a credit card. Companies can use the revolving facility up to a certain limit, but they don't have to. Revolving credits are often concluded for a five-year period and then renewed, but many companies renegotiate their revolving credit facility every year with the same banking syndicate. Amounts, interest rates, fees and participating banks can change slightly every year.

GWP use

Global warming potential (GWP) is a measure of how much heat a given greenhouse gas traps in the atmosphere over a period of time compared to CO_2. CO_2 is defined as having a GWP of 1. Other greenhouse gases have different warming effects over different timescales – for instance, methane is far more powerful than CO_2 in the short-term, but spends a shorter time in the atmosphere so it's impact accumulates less over time. International climate policy usually uses GWP100 – the global warming potential of different greenhouse gasses over a 100 year period. However, given the importance of lowering global temperatures in the next 20 years, particularly as exceeding certain temperatures could trigger tipping points (large and possibly irreversible changes in response to environmental or anthropogenic disturbances once a certain critical threshold is reached), GWP20 is also an important measure – the global warming potential of different greenhouse gasses over a 20 year period.

Footnotes

[1] Feedback, 'Butchering the Planet: The Big-Name Financiers Bankrolling Livestock Corporations and Climate Change' (London: Feedback, 2020), https://feedbackglobal.org/wp-content/uploads/2020/07/FeedbackReport-ButcheringPlanet-Jul20-HighRes.pdf.
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