

Plastic Banks

Assessing European retail banks' attitude to Plastic Risk





Executive Summary

In this report, we use natural language processing (NLP)^a to examine how major European retail banks talk about plastics and whether they consider plastic pollution risk as part of their lending criteria.

Companies in the plastic industry should have one of the longest risk registers of any sector. These corporates face physical, transitional, legal and reputational risks (see our report *Plastic-Risk*). European retail banks and their investors are exposed to this risk via their funding of companies active in the plastic value chain.

In order to assess how executive management teams at 30 major European retail banks view plastics, Planet Tracker used a set of context words related to plastic i.e. biodiversity or finance. 4,149 documents and transcripts were scanned using Planet Tracker's NLP algorithm to determine when plastic and one of the context words were mentioned.

The results of the analysis suggest that in general European retail banks don't rate plastic as particularly important when making financing decisions. Across our sampled documents, we found only 765 examples of plastic and one of our context words.

We found very little evidence of shareholder engagement on plastic and plastic-related policies, with very limited plastic related commentary from transcripts of corporate events.

Our research suggests that most of the 30 largest European retail banks have minimal or non-existent policies specifically addressing (mitigating) plastic use, management, and reduction in their investment decisions. This gap highlights the urgent need for banks to develop and implement comprehensive plastic policies, particularly to avoid support for single-use items/short-lived products.

Where European retail banks do reference "plastic" in their documentation they tend to focus on a few investments into end-of-life technologies that do not address the plastic crisis at the source. Some of these investments, such as chemical recycling, should be seen as false or highly questionable solutions for plastic pollution. By highlighting their limited investments in addressing plastic pollution, banks risk engaging in greenwashing – promoting a sustainable image without meaningful action.

a Natural language processing (NLP) is a branch of artificial intelligence (AI) which allows computers to understand text and spoken words in a similar way to human beings. NLP rule-based modelling of linguistics statistical, machine learning, and deep learning models. This enables computers to process human language, in text or voice, and to 'understand' its meaning, along with the writer's or speaker's sentiment.

Investor call to action

- Companies in the plastic industry should have one of the longest risk registers of any sector. These corporates face physical, transitional, regulatory, legal and reputational risks.
- European retail banks financing plastics, along with their investors are financially exposed to these plastic-related risks.
- Financial institutions should be contemplating the probability of substantial liabilities and pushing investee banks to develop robust plastic-related policies for lending decisions.
- These policies should avoid support for single-use items/short-lived products as well as any build out of plastic production. Investment should instead be focused on circularity and reuse of plastic already in circulation.



Introduction

In this report we examine whether major European retail banks have policies regarding plastics and whether they consider plastic pollution risk as part of their lending criteria.

The project was developed following the use of Planet Tracker's proprietary Natural Language Processing (NLP) algorithm in reports looking at how corporates in the plastics value chain discuss plastic-related risks (see our report - *Exposing Plastic Risk*) and how major apparel brands talk about water-related risks (see our report - *Exposing Water Risk*).

In order to assess how executive management teams at 30 major European retail banks view plastics, Planet Tracker used a set of keywords related to plastic i.e. biodiversity or finance. These keywords reveal how companies communicate various aspects of their business operations around plastic, to investors and other stakeholders. The keywords can be grouped into six broad buckets (note that the number of context words in each bucket varies substantially):

- 1 The **Danger/Impact** of plastic usage and disposal
- **2 Finance** activities and metrics related to plastic
- 3 Plastic Products
- 4 **Regulation** to control the production, use and disposal of plastic
- **5 Treatment** of plastics at end-of-life
- **6** Broad **Types** of plastic in circulation

4,149 documents and transcripts were scanned using Planet Tracker's NLP algorithm to determine when plastic and one of the context words were mentioned.

Planet Tracker then categorised the disclosures into low, medium and high quality, dependent on the number of context words appearing in each text extract. This measures the density of context words in each extract and acts as a proxy for disclosure quality – see the Appendix for more details of the methodology.

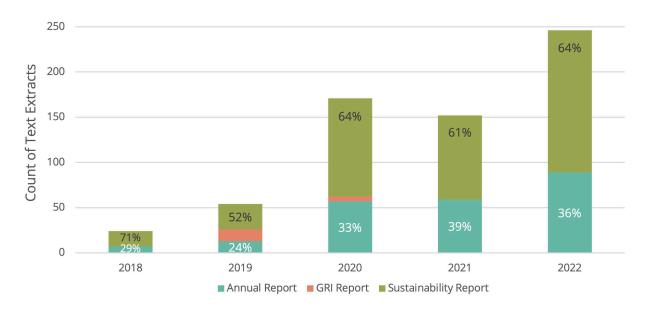
Results

How often do banks talk about plastic?

Across our sampled 4,149 documents and transcripts, 311 mentioned plastics, or 7% of the sample. Across these 311 documents, the model found 853 text extracts which mentioned plastic. Of these, 88 featured only "plastic", whilst 765 featured "plastic" and one of our context words.

Of the extracts featuring "plastic" and one of our context words, 642, or 75% of the total, were found in reports while the remaining 123, or 25%, were found in company transcripts.

Since 2018, we have seen a rising level of discussion about plastics in both corporate reports and transcripts from events (Figure 1). We see this as a positive trend but would emphasise that it is important to also consider exactly what banks are referencing about plastic.



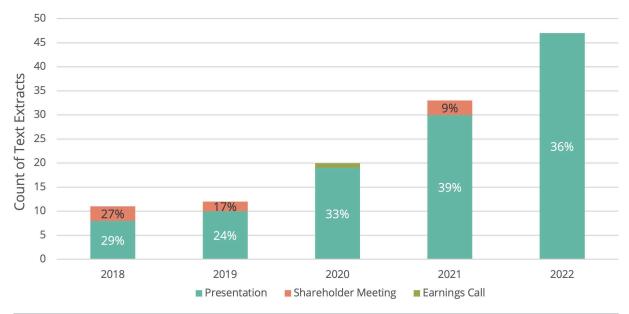


Figure 1: Text extracts over time by location. Source: Planet Tracker.

Looking at the split of keywords in the text extracts shows that keywords associated with 'Type' and 'Treatment' – together 75% of all disclosures – were the most common (Figure 2). These context words are generally associated with management of plastic after initial use, such as recycling or circularity. As such they indicate what we see as a lack of focus on plastic production as a driver of the plastic pollution challenge. This is in-line with the messaging from plastic resin producers which view plastic pollution as a consumer behaviour and waste management problem (see - *Plastic recycling deception*).

Finance associated keywords were only found in 6% of text extracts. We find this disappointing as it suggests that banks are generally not considering risks associated with plastic production, use and pollution when making financing decisions.

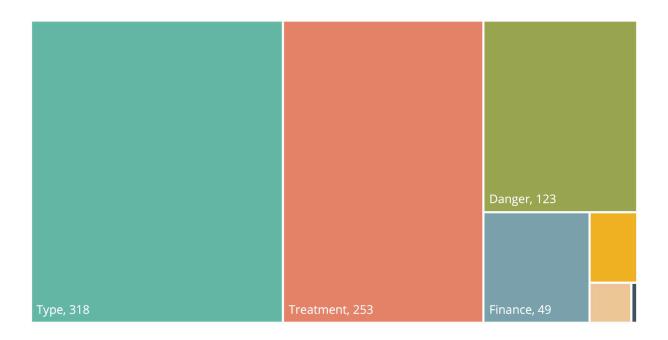


Figure 2: Text extracts by associated keyword type. Source: Planet Tracker.

The five most and least common context words are shown in Table 1 (this is how often the word appears, not how often in combination with the word 'plastic'). The five most commonly used context words were found between 100,000 and 600,000 times across our document sample.

Finding that "Risk", "Policy" or "Finance" are often used in bank documents is not surprising given the importance of these topics or concepts to their operations. This also underlines that if banks are considering plastic risk in their financing decisions, we would expect to find this discussion in the documents sampled.

The least commonly used context words (bottom row of Table 1) were found between 0 and 24 times across our 4,149 analysed documents.

Table 1: Top and bottom five mentioned context words. Source: Planet Tracker.								
Ranking	1	2	3	4	5			
Тор	Risk	Use	Impact	Finance	Policy			
Bottom	Nano-plastic	Bioplastic	Leach	Refill	Compostable			

Do banks talk about plastic as a factor in lending decisions?

A key question is whether banks are discussing plastic and plastic risk when discussing their lending and financing decisions. To assess this question, Planet Tracker examined all 853 text extracts found by the model and assessed whether the extract was focused on financing decisions. We then rated each extract as either relevant, partially relevant or irrelevant.

We assessed only 206 extracts as either partially relevant or relevant (24% of all extracts identified).

Of the 30 banks included in this analysis, only 21 returned a hit in at least one document. Most relevant or partially relevant text extracts found, were in documents from Société Generale (Figure 3).

We note that there could be instances where very similar text extracts have been identified in the documentation due to multiple mentions of the target word (plastic) in a short space. Each instance would show up in our dataset as a unique disclosure, seemingly increasing the number of unique text extracts identified.

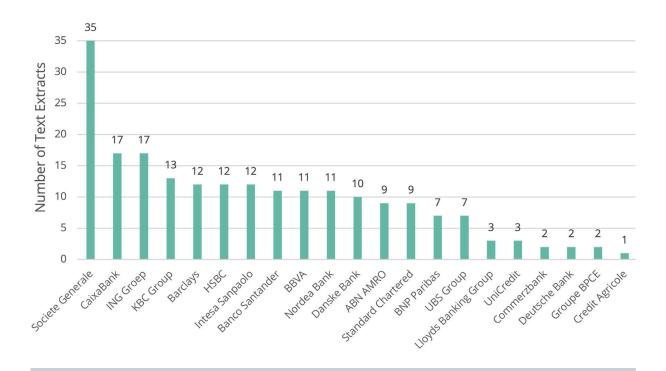


Figure 3: Total text extracts referencing plastic found from each bank. Source: Planet Tracker.

What do banks actually say about plastic?

Our analysis highlighted comments by some banks to include considerations of plastic pollution in their financing decisions or to support what they propose are "green" businesses or business practices.

BBVA, a Spanish bank, published its Sustainable Debt Financing Framework in November 2022 which outlined how it would finance or refinance bonds, certificate of deposits, commercial paper, or other eligible instruments to green projects in certain categories, which includes Pollution Prevention and Control. This outlines that funding to manufacturers of plastic in their primary form must manufacture products, exclusively financed by this capital, by:¹

"...chemical recycling of plastic waste or derived wholly or partially from renewable raw materials (biomass, industrial or municipal bio-waste) that meet at least 27% lower emissions than the life-cycle emission of equivalent plastics in primary [form] manufactured from fossil fuels raw materials."

Other banks have similar approaches. ING also provide sustainable finance and sees the circular economy as an important means to reaching climate goals. As part of this, it structured a financing for Henkel, a German chemicals producer, which included a KPI on increasing their use of recycled plastic in all their plastic packaging.²

Intesa SanPaolo's Sustainability Bond Framework excludes financing for solutions that extend the production and use of virgin plastic.³

Other examples of plastic-related finance provision are:

- 1 HSBC was the lead manager on a USD 100 mn plastics reduction bond to Henkel for its circular economy activities, which includes the development of reusable and recyclable packaging.⁴
- 2 Danske Bank acted as sole lender and sustainability adviser on Svensk Plaståtervinning's SEK 655 million green term loan and revolving credit facilities to build an advanced plastic recycling plant in Sweden.⁵
- 3 Standard Chartered Bank's Sustainability Bond Framework prohibits the financing of projects that chemically recycle plastic waste.⁶

We note that the solutions financed by some of these investments can be critiqued for whether they truly address plastic pollution or instead shift the focus to potentially false solutions to the challenge. We note the interesting contrast in policy between Danske Bank and Standard Chartered Bank mentioned above, with one funding chemical recycling, whilst the other has a policy against such projects. This difference in approach highlights the need for banks to be educated on what are real solutions and for harmonised policies to plastic pollution to avoid funding of false solutions. Interested readers can consider the appropriateness of financed solutions using resources such as *Plastic Solutions Review*.

In a number of cases, banks appear keen to highlight early stage investment or support programs which include plastic facing businesses, but the scale of these relative to their commercial lending is small and the appropriateness and importance of the solutions supported is often questionable.

For instance, Barclays highlights Indian sustainable food packaging company Ecoware, supported as part of their initiative with Unreasonable Group which supports growth-stage entrepreneurs solving "some of the world's most pressing social and environmental challenges." (more details at *Unreasonable Impact created with Barclays*).

Banco Santander highlights winners of its Santander-x-environmental-challenge including some which address plastic pollution such as Plastecowood Ltd which turns mixed plastics into plastic lumber.

CaixaBank SA mentions the fact that it offers recycled plastic credit cards as part of its work to promote sustainable practices.

ABN Amro at their 2018 Investor Day noted working with Vibers, a company developing an alternative to plastic made from Elephant Grass. They discuss this work as akin to traditional banking, but with a different risk model:

"this is traditional banking. But this is traditional banking with a different type of player and a different type of risk model." – ABN Amro Investor Day 2018.

Conclusions

The results of the analysis suggest that in general European retail banks don't rate plastic as particularly important when making financing decisions. Across our sampled documents, we found only 765 examples of plastic and one of our context words.

We found very little evidence of shareholder engagement on plastic and plastic-related policies, with very limited plastic related commentary from transcripts of corporate events.

Our research suggests that most of the 30 largest European retail banks have minimal or non-existent policies specifically addressing (mitigating) plastic use, management, and reduction in their investment decisions. This gap highlights the urgent need for banks to develop and implement comprehensive plastic policies, to avoid support for single-use items/short-lived products as well as plastic production.

Where European retail banks do reference "plastic" in their documentation they tend to focus on a few investments into end-of-life technologies, sometimes of questionable worth and which are typically not a long-term solution to plastic pollution. By highlighting their (limited) "green" investments around plastic, banks risk greenwashing by promoting a sustainable image without taking significant action.

Given the seeming lack of focus on plastic risk from European retail banks, we believe there is significant value in potential further work in this area. This would look to analyse future risks for those banks heavily invested in plastic production and waste management, considering upcoming regulations, ongoing market shifts, and the risk of stranded assets and financial losses.

We also note that the data analysed in this report ends in 2022. We believe it would be of value to include 2023 to see how discussion of plastic has evolved with new legislation (for instance the *Packaging and Packaging Waste Regulation* in the EU) and ongoing negotiations for a global plastics treaty. We also believe it would be interesting to compare our data from analysis of corporate reports to any discussion of plastics risk and investment on bank websites, to see if their statements align with the public image they seek to project.



Appendix: Methodology

Scope

Planet Tracker extracted text excerpts from company reports and transcripts of company meetings/conference calls to assess how they talk about plastics. The analysis focused on a group of 30 European retail banks which are shown in Table 2

Table 2: The banks included in the analysis. Source: Planet Tracker.								
Company	Country	Bloomberg Ticker	Company	Country	Bloomberg Ticker			
ABN AMRO Bank	Netherlands	ABN NA Equity Equity	ING	Netherlands	INGA NA Equity			
Banco Bilbao Vizcaya Argentaria (BBVA)	Spain	BBVA SM	Intesa Sanpaolo	Italy	ISP IM Equity			
Banco Santander	Spain	SAN SM Equity	KBC Group	Belgium	KBC BB Equity			
Barclays	UK	BARC LN Equity	La Banque Postale	France	226562Z FP Equity			
BNP Paribas	France	BNP FP Equity	Landesbank Baden- Württemberg	Germany	2525Z GR Equity			
CaixaBank	Spain	CABK SM Equity	Lloyds Banking Group	UK	LLOY LN Equity			
Commerzbank	Germany	CBK GR Equity	Nationwide Building Society	UK	NBS LN Equity			
Crédit Agricole	France	ACA FP Equity	NatWest	UK	NWG LN Equity			
Crédit Mutuel Group	France	224131Z FP Equity	Nordea Bank	Finland	NDA FH Equity			
Danske Bank	Denmark	DANSKE DC Equity	Rabobank	Netherlands	RABO NA Equity			
Deutsche Bank	Germany	DBK GR Equity	Sberbank of Russia	Russia	SBER RU Equity			
DZ Bank	Germany	DZBK GR Equity	Société Générale	France	GLE FP Equity			
Erste Group Bank	Austria	EBS AV Equity	Standard Chartered	UK	STAN LN Equity			
Groupe BPCE	France	3692594Z FP Equity	UBS Group	Switzerland	UBSG SW Equity			
HSBC Holdings	UK	HSBA LN Equity	UniCredit	Italy	UCG IM Equity			

4,149 documents were analysed, spanning from January 1st 2018 to December 31st 2022. The documents included in the analysis were:

1 Reports

- 8-K, 10-K, 10-Q, 20-F
- Annual reports
- Corporate Governance, Corporate Responsibility, and ESG Reports

2 Transcripts

- Company Presentations
- Earnings Calls
- Shareholder Meetings

NLP Model

Planet Tracker's Natural Language Processing (NLP) model searches for collections of target and context words. In this case, the target word is 'Plastic', and the context words, such as 'biodiversity' and 'finance', were chosen by the authors to identify various aspects of risk or business operations associated with the target word. 50 context words were chosen.

The model's algorithm then identified text extracts that span up to 100 words around the target word. Various versions of the model were run to find the optimal size of the text extract. It was found that extracts larger than 100, tended to dilute its meaning, and shorter extracts tended to lack detail. In total, the model found 765 extracts across all documents which featured plastic and a context word – see Figure 4.

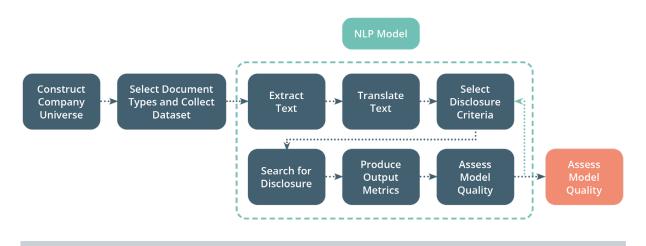


Figure 4: Planet Tracker analysis steps. Source: Planet Tracker.

Because of the approach taken, the algorithm is extremely accurate in identifying all of the extracts with the specified context words, but will not pick up mentions where they use words that were not specified by this analysis.

We note that there could be instances where very similar text extracts have been identified in the documentation due to multiple mentions of the target word (plastic) in a short space. Each instance would show up in our dataset as a unique disclosure, seemingly increasing the number of unique text extracts identified.

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- BBVA (2022) Sustainable Debt Financing Framework. Banco Bilbao Vizcaya Argentaria. Available here
- 2 ING (2022) Climate Report. Available *here*.
- 3 Intesa SanPaolo (2022) Green, Social and Sustainability Bond Framework. Available <u>here</u>
- 4 HSBC (2020) Annual Report and Accounts
- 5 Danske Bank (2021) Sustainability Report. Available <u>here</u>
- 6 Standard Chartered Bank (2022) Sustainability Bond Framework. Evaluation Summary. Available <u>here</u>



ABOUT PLANET TRACKER

Planet Tracker is an award-winning non-profit financial think tank aligning capital markets with planetary boundaries. Created with the vision of a financial system that is fully aligned with a net-zero, resilient, nature positive and just economy well before 2050, Planet Tracker generates break-through analytics that reveal both the role of capital markets in the degradation of our ecosystem and show the opportunities of transitioning to a zero-carbon, nature positive economy

PLASTICS TRACKER

The goal of Plastic Tracker is to stem the flow of environmentally damaging plastics and related-products that are creating global waste and health issues by transparently mapping capital flows and influence in the sector starting from resins production through to product-use. By illuminating risks related to natural capital degradation and depletion, investors, lenders and corporate interests across the economy will be enabled to create more sustainable plastics products.

#BreakFreeFromPlastic

#BreakFreeFromPlastic is the global movement working to achieve a future free from plastic pollution. More than 13,000 organizations and individuals around the world have come together to demand reductions in single-use plastics and to advocate for lasting solutions to the plastic pollution crisis. BFFP members work together to bring about systemic change by tackling plastic pollution across the whole value chain - from extraction to disposal - focusing on prevention rather than cure.

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