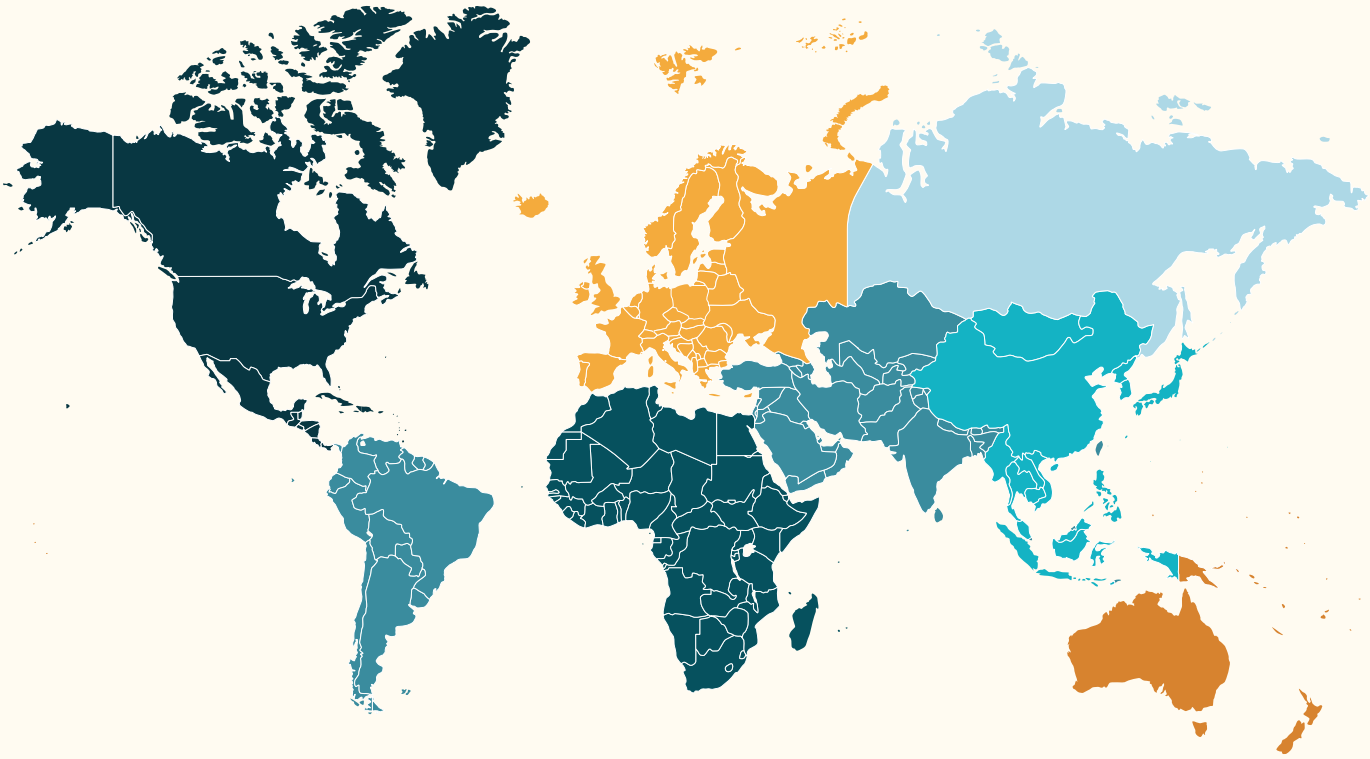
Petrochemical industry exposure to financial risks.[1]



NORTH AMERICA

Plastic restrictions, bans and phase outs in Panama, Mexico City, Canada, California and 9 more US states

US Environmental Protection Agency announces strict new standards on toxic petrochemical plant emissions

SOUTH AMERICA

27 of 33 countries in Latin America and the Caribbean have passed laws to restrict and reduce single use plastic, including a ban in Colombia

EUROPE

Ban on single use plastic and expanded polystyrene containers in all EU member states and the UK, Russia to ban single use plastic

AFRICA

Single use plastic bans and restrictions in 34 countries, including Kenya, Rwanda, Senegal and Nigeria

SOUTH ASIA

Single use plastic bags banned in Bangladesh
19 single use products banned in India

SOUTHEAST ASIA + EAST ASIA

Phase out and restrictions on single use plastic products in China and Indonesia, waste import ban in Thailand

OCEANIA

Single use plastic bans and restrictions in Fiji, Papua New Guinea, Vanuatu, Samoa, New Zealand

Risk type	Potential risk	Possible financial implications
Physical	Petrochemical expansion is proposed in areas that are highly vulnerable to climate change. For example, production facilities in Louisiana are exposed to increasingly frequent and intense floods and hurricanes.[2]	• Reduced revenue from decreased production capacity (e.g. plant shutdowns, transport difficulties, supply chain interruptions). • Increased capital costs (e.g. damage to facilities, higher construction costs). • Increased insurance premiums and reduced availability of insurance in 'high-risk' locations. • Write-offs and early retirement of assets (e.g. damaged production facilities and those in 'high-risk' locations).
Policy	More than 700 new plastic pollution policies were introduced globally in the past decade and ever more plastics legislation is forthcoming, as is a new global plastics treaty.[3] For example, the EPA has a roadmap for regulating PFAS 'forever' chemicals.[4] There is also growing pressure to strengthen emissions standards on air and water pollution, as well as to further limit carbon emissions from large plants.[5]	• Increased operating costs to meet new standards. • Capital depreciation or write-off of existing assets as policies require equipment to be retired or replaced. • Significant possibility that new and expanded plants become 'stranded assets.' • New circular economy rules such as Extended Producer Responsibility (EPR), which assign producers financial and/or operational responsibility for the end-of-life of products, or container take-back systems, place additional costs on plastics companies.[6]
Legal	Petrochemical companies face increasing risks of litigation for their failures to address the impacts of climate change and plastic pollution. For example, the state of New York and city of Baltimore have filed cases against corporations implicated in plastic pollution, while the state of California has an active investigation into plastic producers.[7] New plant construction could be subject to permitting challenges, such as the ongoing legal battles concerning the air and wetlands permits for the Formosa Plastics Sunshine Project.[8]	• Increased costs of litigation and fines.[9] • Reputational damage from litigation and fines. • Construction delays due to permitting challenges.

Risk type	Potential risk	Possible financial implications
Technology	Technological improvements may lead to old systems becoming redundant. However, there are also costs associated with transitioning to new technologies, and not all these technologies will be successful or publicly accepted. For example, Carbon Capture and Storage and 'chemical recycling' are controversial, failing methods that have not shown themselves	• Write-offs and early retirement of existing assets. • Research and development (R&D) expenditure on new and alternative technologies. • Capital investments in technology development. • Reduced revenue where controversies surrounding new technologies lead to loss of anticipated subsidies or permitting delays.
Market	Where ambitious petrochemical expansion plans meet regulatory pressure and changing public perceptions (on single-use plastics in particular) this is resulting in significant over-supply.[11]	• Reduced demand for single use plastics and other petrochemical products due to shift in consumer preferences. • Credit ratings downgrades as a result of failure to prepare for a transition to clean energy and new consumption patterns. This is already a risk for several fossil fuel and petrochemical producers.[12] • Change in revenue mix and sources, resulting in decreased revenues.
Reputation	Changing consumer and community perceptions as petrochemicals are recognized to be unsustainable, causing untold damage to the climate, environment, and human health. This can manifest in the form of shifting consumer preferences, community opposition, divestment campaigns and other forms of activism. A survey of 195 oil and gas industry representatives found that 83 percent of those participants saw environmental and local opposition as 'Very Important' or 'Important' challenges to the expansion of pipeline capacity.[13]	• Reduced revenue from decreased demand for plastics and other products derived from petrochemicals. • Reduced revenue from decreased production capacity (e.g., delayed planning approvals). • Reduction in capital availability and reduced availability of other financial services (e.g. insurance).

This factsheet is intended for educational purposes only and should not be considered financial advice. This factsheet is also not legal advice. In addition, Break Free From Plastic, Center for International Environmental Law, Friends of the Earth, and Texas Campaign for the Environment do not seek collective decision-making or action by financial institutions or other entities, and nothing in this factsheet should be construed as encouraging or requiring such collective decision-making or action.

Endnotes

1. The categorization used in this table is derived from Task Force on Climate Related Disclosures (TCFD) (2017), *Recommendations of the Task Force on Climate-related Financial Disclosures*, https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf, pp.10-11; this table was originally published in Break Free From Plastic (2024*), Exiting Petrochemicals: A policy guide for financial institutions*, https://www.breakfreefromplastic.org/exiting-petrochemicals/, pp.16-18.
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12. IEEFA (2024), p.4
13. Black & Veatch (2019) *Natural Gas Report*, https://webassets.bv.com/2019-12/SDR_NaturalGas_2019.pdf , Fig. 8, p.23