Priced Advisory

CARBON SHADOW LIABILITY · C25 ANALYSIS

Today's carbon cost is in the accounts. Tomorrow's is not.

Carbon is being repriced. A new method, Carbon Shadow Liability, shows what the public reports of 19 large Danish companies can tell us about the cost – and what they leave out.

Emissions carry a cost. For most tonnes society still picks up the bill; for a growing share the emitter does, through carbon markets and taxes. Around the world, governments are counting on that price to move capital and deliver the climate transition. That only works if those who decide can see three things: what carbon costs a company today, what it may cost tomorrow, and what the company is doing about it.

All three should be visible in a company's report. We looked at the reports of 19 of Denmark's largest listed companies. What the companies pay for carbon today is in their accounts, but it is mixed into energy and material costs, and only one of the 19 shows it as a separate figure. What they would pay tomorrow, if a price reached more of their tonnes or the price itself rose, is not shown anywhere.

The reports do give the tonnes, so we priced them. If every tonne in the companies' value chains were priced at the estimated damage it does to society, the bill would be DKK 254 bn a year, on top of what they pay today. That is a stress test, not a forecast. Most of the bill sits with suppliers and customers, not in the companies' own operations.

What the companies are doing about it is harder to see. The reports do not let an outsider tell what their plans to cut emissions cost or what they save, and only a small part of the planned cuts are physical reductions that have been checked so far. The tonnes are there. The money is not.

A market cannot price a risk it cannot see. That is the same problem for the company, its investors, its bank and its insurer – and it is where we come in. Carbon Shadow Liability is our method for turning tonnes into money and setting the bill against a company's equity. This report shows how it works and what it finds.

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Summary

In short. A price on carbon already reaches part of the tonnes companies emit, and more every year. Across the 19 companies we studied, most of the cost sits with suppliers and customers, outside the companies' own operations, and it is spread unevenly between them. The published reports do not let an outsider price the transition plans, and only a small part of the planned cuts are physical reductions that have been checked so far, so the plans do not yet protect the companies against a carbon price that rises faster than the emissions fall.

The question. The head of sustainability has done what was asked. The company reports its emissions across all three scopes, including the total emissions collected from its suppliers. Its targets are validated by the Science Based Targets initiative (SBTi), and it holds certificates for the energy it buys and the standards it follows.

But one question is still open, and a finance chief, a board member or an investor could fairly ask it: what is our exposure to carbon, in money? Without that number, neither the company nor its lenders, its investors or lawmakers can weigh a reduction against what it costs.

Today's reports do not answer it, and in the companies we have worked with, the answer could not be read from internal data either. Companies report tonnes. Their accounts hold the carbon costs they already pay, but mixed into energy and material costs. Nothing connects the tonnes to money.

The method. We developed a method, Carbon Shadow Liability, to make that connection. The method takes one year of a company's reported emissions, multiplies each tonne by a scenario price, deducts the carbon cost the company already pays, and sets the result against its equity, the capital that absorbs a cost the company cannot pass on. This is the same kind of what-if that banks run for interest rates: it shows what would be at stake if the price applied. We count the tonnes in three layers: the company's own operations; its suppliers, which together with own operations form the cost side; and its customers' use of the products, which together with the other two form the full value chain. We applied the method to 19 large Danish listed companies using only their public reports, with a base price of $185 per tonne, a peer-reviewed estimate of the damage a tonne does to society. Economists call such damage an external cost: it falls on others, and the emitter does not pay for it. The polluter pays principle, a basic principle of EU environmental policy, says that such costs should move back to the emitter, and carbon prices, taxes and border charges already do this for part of the tonnes. The base price shows the size of that cost in full, and the stress test asks what it would mean for a company's equity if the price came to apply.

What we found. At $185 the 19 companies' emissions would carry a bill of DKK 254 bn a year, equal to 23 % of their combined equity of DKK 1,126 bn. Four findings stand out.

01 **The bill sits in the value chain, not the chimney.** Own operations are DKK 44 bn, about a sixth of the bill. The cost side is DKK 146 bn, 13 % of equity. This means that a company that has cut its own emissions has in most cases dealt with the smallest part of its exposure.

02 **The risk is uneven.** On the cost side, eight of the 19 companies have more than 15 % of their equity at stake and the other eleven 8.2 % or less. This means that neither the average nor the median describes a company.

03 **The reports do not let an outsider price the transition plans.** Eighteen of the 19 companies have climate targets validated by the Science Based Targets initiative (SBTi), the target part of a transition plan, yet none of the plans can be fully priced from what the company publishes. Three of the plans can be priced in part, and the other sixteen cannot be priced at all.

Eighteen have recalculated earlier figures or moved their base year, so progress is measured from a starting point that moves, which makes it hard for an outsider to follow how much a company has actually cut. Until companies publish what each measure costs and how many tonnes it cuts, an outsider cannot tell a plan that protects the balance sheet from one that does not. This is a finding about what the companies publish, and it says nothing about how good their plans are. A company can have a sound plan that an outsider still has no way of checking.

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04 **A transition plan is not yet a hedge.** We took each company's reduction pace from its own targets, read its transition plan measure by measure, and sorted the measures into those that physically lower the tonnes and those that rest on accounting conventions. Across the 19 companies, the plans cut emissions by 5.6 % a year as reported, but only 1.2 % a year counts as verified physical cuts: fewer tonnes actually going into the air, where each cut counts in full only once it has been checked, and a cut that is only announced does not count at all.

To test this we start from a lower price than the $185 used above: $123 per tonne, about what analysts expect the EU carbon price to be around 2029–30 (€105). If it then rises 12 % a year, the full-chain bill grows from DKK 169 bn to 298 bn in five years with no plans, to 281 bn with the verified physical cuts, and to 225 bn if every plan delivers as reported. This means that a validated target does not by itself protect the balance sheet: as reported, the plans keep the bill flat only up to a price rise of about 6 % a year, and the verified physical cuts only up to about 1 %. Above that, the bill grows even when the company does what it has promised. It does not mean that the exposure will grow, because 12 % a year is a stress path and not a forecast.

What it means. A board needs its own company's numbers: how much of its equity is at stake, where in the value chain the bill sits, and whether its plan cuts emissions faster than a price could rise. A lender or insurer needs a counterparty's exposure in order to price the risk in a loan or a policy, and needs to know whether that number can be calculated from what the counterparty publishes or has to be asked for. An owner or investor with a portfolio of companies needs to know whether the risk is spread evenly across the portfolio or sits in a few holdings. Each finding closes with the questions each reader can ask.

Limits and next step. The analysis prices one risk, a carbon price, and leaves physical climate risk and nature aside. The analysis is a stress test, and the 19 companies are a test group that does not represent Danish business as a whole. We chose the C25 (financial service companies excluded) because large listed companies publish the most; everything in this analysis rests on their own reports, and on the judgement calls we had to make where the reports leave room for interpretation, which are listed in Appendix B. The next natural step is to run the same test on a single company with its own data: which price each tonne actually faces, and how much of the bill the company can pass on. In our experience that is hard to answer even with internal data, so we see this report as a first step: the aim is to help business leaders, lenders, investors and lawmakers make better decisions under high uncertainty. That is why we set the method out openly in this report, for others to use and to challenge.

How this report is built

The report has five parts and appendices. Each part has one job, as described below. The column "Builds on" shows which other parts a part relies on; where it is blank, the part relies on none. The summary and the conclusion can be read on their own. Each finding can also be read on its own by a reader who knows the terms explained in Part 2. To make that easy, each finding opens with a line that lists the terms it uses.

Part	Its job	Builds on	Can be read alone?
Summary	Gives the whole result on one page	All parts	Yes
Part 1: Why	Explains why we made the analysis and where the method comes from		Yes
Part 2: How we calculate the bill	Explains the calculation, the three layers, the three prices and how to judge the size of the bill, so that the numbers can be read	Part 1, briefly	Yes; it uses a few results from Part 3 as examples
Part 3: Findings 1–4	Shows what the method found when applied to 19 companies	Part 2	Yes, with the terms from Part 2
Part 4: Discussion	Interprets the findings, weighs what they mean and for whom, and says what is still open	Part 3	No
Part 5: Conclusion	Concludes on what we set out to do	All parts	Yes
Appendix	Fact sheet and FAQ, method, disclosures, glossary and sources		Yes

A reader with five minutes should read the summary. A reader who wants to understand the numbers should read Part 2 and the method in Appendix B. A reader who wants to put the questions to a company, a borrower or a holding will find them at the end of each finding, collected by reader in section 6 of Part 4.

Part 1: Why we made this analysis

Carbon prices, taxes and rules pass the cost of carbon through the value chain into each company's costs, margins and, in the end, its equity. This part explains the question we wanted to answer, why we think it matters now, where the method we used comes from, and what we want from the analysis.

The question

A finance chief could ask the head of sustainability a simple question: what is our exposure, in money? In our experience more and more people ask it, and the place where they would naturally look for the answer, the sustainability report, does not give it. This analysis shows what an answer looks like, for 19 of Denmark's largest listed companies. We set the method out in full, as inspiration for others who want to use it or build on it, and to give the debate about what climate means for companies in money a firmer footing.

Carbon as a cost

Emissions cause damage, and that damage is a cost. However uncertain it is to measure and to account for, someone pays the bill today: for most tonnes society at large, and for a growing share of them the emitter, through carbon markets and taxes.

We look at how that cost lands in a company: what a price on emissions, set by carbon markets, taxes and other rules, would mean for a company's costs and, in the end, its equity. This is what is called transition risk: the financial risk a company faces as rules, prices and markets shift towards lower emissions. Our calculation prices the emissions in the whole value chain: the company's own operations, its suppliers and its customers' use of its products. What the calculation does not include is the effect a carbon price can have on a company's sales. Customers may buy less, switch to lower-carbon alternatives or buy more from the companies that offer them, so some companies would lose sales and others would gain. That effect is not in our numbers, because it cannot be read from what the companies publish. We point to it where it matters for how a result should be read. There are many ways to look at a company's carbon exposure, for example the effect on earnings if only half the cost could be passed on to customers. We have chosen to start with the cost.

A price on carbon already reaches many tonnes, and more every year

Today the price reaches companies through six channels.

- **EU emissions trading.** Large emitters in the EU pay for each tonne under the EU Emissions Trading System. In 2026 an allowance has traded between roughly $73 and $107 (€62–91), with the low in March and the high in January.
- **Shipping.** Large ships are being phased into the same system. Shipping companies must cover 40 % of their reported 2024 emissions, 70 % of 2025 and all of their emissions from 2026. The system covers cargo and passenger ships of 5,000 gross tonnes and above (offshore ships from 2027): all emissions on voyages between EU ports and in EU ports, but only half of those on voyages to or from ports outside the EU. Some island, outermost-region and public-service routes are exempt until 2030. A Commission proposal of 17 July 2026, still under negotiation, would extend the system to some smaller ships, from 400 gross tonnes.

- **Industry and imports.** Free allowances for heavy industry are being phased out from 2026, while the EU's carbon border adjustment mechanism (CBAM) puts the same price on imports of steel, aluminium, cement, fertilisers, electricity and hydrogen. Importers pay for their 2026 imports from 2027. The Commission's proposal of 17 July 2026 to revise the emissions trading system, the one that covers smaller ships above, would slow the phase-out for the sectors CBAM covers and extend it to 2038. The Council aims to agree its position in December 2026, and EU leaders have committed to completing the revision by the first quarter of 2027.
- **Fuels.** From 2028 a second system (ETS2) is due to put a price on the fuel used in buildings, road transport and small industry outside the existing system. Its start has already been moved back once, from 2027, and its final shape may still change, so we treat it as expected, not settled.
- **Denmark.** Denmark adds its own tax on industry's emissions, rising by 2030 to about $118 per tonne for companies outside the EU system and about $59 for companies that also pay for allowances. Denmark has also agreed a tax on emissions from livestock from 2030.
- **Through suppliers.** Electricity and many raw materials already carry part of the price in what suppliers charge.

The price does not only rise. In 2026 the allowance price fell by a third between January and March before recovering, analysts lowered their forecasts in July after the Commission proposed changes to the system, among them a slower fall in the cap after 2030, and the start of the second system was moved back a year. That is what repricing means here: carbon is a cost that moves, in both directions, and a company's exposure is to the movement as much as to the level.

At least five of the 19 companies have emissions under the EU system today, yet only one shows what it pays. Part of the price is therefore already being paid, but it is hard to see in the reports. A tonne does not cost the same everywhere: depending on where it is emitted and by whom, it may cost an EU allowance, a Danish tax, a border charge, part of a supplier's price, or nothing yet. We therefore start with a stress test, one price on every tonne, to see whether the exposure is large enough to matter. Where it is, the next step is to work out which price each part of a company's emissions actually faces today, and how fast that is changing. That takes the company's own data and goes beyond what this report can do from public reports.

Stress tests are how finance handles a volatile world

Energy prices, interest rates, tariffs and supply chains have all moved sharply in recent years, and boards, lenders and insurers now test how their balance sheets would hold up if one of these conditions changed sharply again. Supervisors already stress-test banks for climate risk: the European Central Bank published the results of a climate risk stress test of the banks it supervises in July 2022, the EU's financial supervisors and the ECB followed in November 2024 with a climate scenario analysis covering banks, insurers, pension funds and investment funds, and from 2027 the European Banking Authority plans to include climate risk as a separate module in its regular EU-wide stress test of banks. The EU's revised reporting standard asks companies to assess how resilient their strategy is to climate risks and, from financial year 2027, to report the book value of assets at material physical and transition risk. A stress test is not a forecast and makes no claim about what will happen. What it does is ask how large the damage would be if one condition changed sharply, so that a board can decide how much of it to prepare for.

Where the method comes from: the logic of finance

The method in this report is built from four ideas that finance has used for a long time. Readers from sustainability may find them new; readers from finance will recognise them and can see how they are applied to carbon.

A scenario is not a forecast. Finance cannot know the future, so it asks what would happen if a condition changed by a set amount. Banks test their balance sheets against a rise in interest rates without claiming that rates will rise. We do the same with a carbon price: three scenario prices, none of them a prediction.

Exposure is measured against the buffer that takes the loss. A risk is judged by how large the possible loss is compared with the capital that absorbs it. For a company that capital is its equity, the owners' capital on the balance sheet. If a cost cannot be passed on, it lowers profit and over time equity; lenders rely on that buffer as well, because equity takes a loss before their loan does, and so do insurers that cover a company's credit or guarantee its obligations. We therefore set the bill against equity. This does not mean that equity is lost. The comparison shows how large the bill is next to the capital that would carry it.

A cost is judged against earning power. The same cost weighs differently on a company that earns 25 % a year on its equity than on one that earns 5 %. This is why Part 2 discusses how the share of equity at stake relates to the return on equity, the profit a company makes in a year as a share of its equity.

Book equity, not market value. We use equity as the balance sheet shows it, because it is on the same basis for every company and is not moved by share prices. The analysis says nothing about share prices.

The sustainability side has its own vocabulary, and finance readers may not know it: scopes, base years, science-based targets, offsets and mass-balance schemes. We explain each where it first matters, and Appendix D collects both vocabularies in one place.

The gap we close, and what is new

A company's accounts include the carbon costs it already pays, but mostly mixed into energy, materials and other costs. Of the 19 companies, only one shows the amount as a separate figure. The sustainability report shows the company's tonnes. Neither shows what all the tonnes would cost, set against the balance sheet.

We developed the Carbon Shadow Liability method at Priced Advisory to make that connection, and we use the same method in our advisory work with companies. What is new in this report is the way the pieces are put together. The method follows the tonnes through three layers of the value chain, from a company's own operations to its suppliers and its customers, so that the bill can be read as a cost that reaches the company or as a risk to its demand. The method sets the result against equity. And it separates reductions that physically lower the bill from reductions that only change how emissions are counted. This report shows the method at work on public data. Others have set carbon costs against company earnings before; what we add is the combination described above.

Four questions, and why each matters

We used the 19 companies' annual reports to answer the same four questions. Each answer supports a different decision.

01 **Where in the value chain does the bill sit?** This tells a company where to act: in its own operations, with its suppliers, or in what it sells. Finding 1 answers it.

02 **Is the bill spread evenly or concentrated?** This tells owners, lenders and insurers whether an average says anything about the company in front of them. Finding 2 answers it.

03 **Can an outsider price the transition plans from what companies publish?** This tells investors, lenders and journalists whether they can check a plan or must ask for more. Finding 3 answers it.

04 **Do the transition plans cut emissions faster than a price could rise?** This tells a board whether its plan protects the balance sheet, and it helps the board decide where to invest to bring the bill down. Finding 4 answers it.

Why we chose these 19 companies

They are all the non-financial companies in the C25, the index of Denmark's largest listed companies. We have therefore not selected the companies ourselves: the composition of the index decides which companies are in the analysis. The index has 25 shares but 24 companies, because one company is listed in two share classes. We left out the five financial companies (four banks and an insurer), because their carbon exposure sits mainly in what they lend, invest and insure, which needs a different calculation. Every input comes from a company's own public report. Turning those inputs into a bill takes two kinds of decision that no report makes for us. The first are choices of method: which price a tonne should carry, how fast that price rises, and which capital the bill is measured against. They are set once and apply to every company in the same way. The second are judgements, made company by company: which of a company's reductions count as physical cuts, and how much each one counts depending on how far it has been verified. Both kinds move the result, the price most of all. The reason for each is set out under "Our main choices" and "Judgement calls" in Appendix B.

Large listed companies face among the most demanding reporting requirements in the EU, including the new sustainability reporting rules (CSRD), so they publish the most about their emissions and transition plans. That made them the natural place to start: if the numbers are hard to find here, they will be harder still elsewhere. In that respect the 19 companies are a test group. They do not represent Danish business as a whole, and it is not our intention to draw general conclusions about how these companies work with climate. Our aim is to explore how companies, lenders, investors and lawmakers can make better decisions.

What we want with it

We want to show that the finance chief's question can be answered, and what an answer looks like, so that boards, owners, lenders, insurers and reporters can ask it about their own position. The aim is not to point at any company. That is why we have chosen not to name the companies, and why we give no verdict on any of them. What matters is the pattern across the companies. The 19 companies are public and the method is set out here, so a reader can work out who some of them are. We are an advisory firm and help companies with exactly these questions, so we have a commercial interest in the topic, which we explain in Appendix C. This is a first analysis, and it is deliberately narrow. It covers the cost of a carbon price only. We started with carbon because it already has a price and because companies report their emissions in a comparable unit, tonnes, so the method can be tested on public figures. Physical climate risk and the loss of nature are left aside for now. We expect them to reach company accounts by the same road, and applying the same test to them is the natural next step. Nor should the analysis be read as investment advice: it does not value any company, and it makes no recommendation to buy, sell or hold a share, as the disclosure in Appendix C sets out.

Part 2: How we calculate the bill

This part explains how the bill is calculated, which prices and emissions go into it, how to judge whether a given share of equity is large or small, and which terms the findings use. Each term is explained here once, in full; later parts give a one-sentence reminder. Readers who want the results can go straight to Finding 1 and return here when a term needs explaining.

What we calculate

The Carbon Shadow Liability (CSL) is a company's reported tonnes for one year, multiplied by a carbon price, less any carbon cost the company already pays. In this report we call it "the bill", because someone pays for the tonnes sooner or later: the company through its own costs, its customers through higher prices or by buying less, or society through the damage the emissions cause, when nobody else has paid for them. The comparison we find most useful is technical debt in a software company. Technical debt is not in the accounts and nobody sends an invoice for it, yet everyone in the company knows it is there and that it will cost money when it has to be dealt with. The bill works in the same way: it is a calculated amount that no one is owed today, but it shows a cost the company may have to carry later. The three layers described below show the routes by which that cost can reach the company. The CSL works like a stress test: it shows what a given price would mean for the balance sheet, without predicting if and when the companies will incur it. The bill is divided by book equity, the owners' capital as the balance sheet shows it, to give the share of equity at stake. A share of 4 % means that one year of emissions at the scenario price would cost an amount equal to 4 % of the company's equity. A share of 4 % does not mean that equity is lost.

Why we call it a shadow liability

Every tonne emitted causes damage that someone will pay for, through heat, floods, lost harvests and poorer health. Our base price, the Science Base Case price of $185 explained under "Three prices" below, is a peer-reviewed estimate of that damage: the estimated present value of the future damage caused by one extra tonne emitted. One year's tonnes multiplied by that price is therefore an estimate, in today's money, of the damage a year of emissions causes. As long as no one charges the company for it, that cost stays outside the accounts, like an obligation that has not been recorded. That is why we call it a shadow liability. When a price is put on the emissions, through allowances, taxes or suppliers' prices, part of it becomes a cost in the company's accounts. Who ends up paying is decided by politics and by the market: it may be the company, its customers, its suppliers or society at large. A shadow liability is not a provision under accounting rules, and we do not suggest that companies should book one. The shadow liability is a way of seeing the size of an exposure that the accounts do not show.

The idea behind it

Carbon prices, taxes, border charges, rules and customer demands are moving the cost of emissions, step by step, onto the companies that cause it. When the cost reaches a company and the company cannot pass it on, it lowers profit and, in the end, equity. We cannot know if or when the cost will be incurred, or how high the price will go, so we use three scenario prices and ask how large the bill would be next to equity if the company incurred the price in full.

The same arithmetic can also be turned round to show where a company would protect its equity best: which investments in real emission cuts reduce the bill most for each krone spent. This report does not rank such investments. The report sizes the bill that such investments would work on.

From scopes to layers

Companies report emissions in three groups, called scopes, defined by the Greenhouse Gas Protocol. Scope 1 is the direct emissions from sources the company owns or controls, for example the fuel it burns in its own boilers and vehicles. Scope 2 is the emissions from the power and heating plants that produce the electricity, heat, steam and cooling the company buys and uses. Scope 3 is all other emissions in its value chain, in 15 categories. Upstream (categories 1–8) they are above all the emissions of its suppliers in making and moving what it buys, and downstream (categories 9–15) above all the emissions when customers use its products.

For a reader of accounts, what matters is less the scope than how a carbon price would reach the company. We therefore regroup the scopes into three layers, each adding to the one before.

- **Own operations** (Scope 1 and 2; "Direct" in the tables). A price on these emissions arrives as a direct cost on the company's own invoices: allowances, taxes and energy bills. Scope 2 is counted location-based, by the average emissions of the power grids the company buys from, not by the contracts and certificates it holds. Appendix B explains the choice and what the market-based figure would change.
- **The cost side** (own operations plus upstream Scope 3; "Direct + upstream"). A price on suppliers' emissions arrives in the prices they charge, if they can pass it on. We call this the cost side, because a carbon price on the upstream part can reach the company through what it buys.
- **The full value chain** (adds downstream Scope 3; "Total"). Customers pay for their own emissions, so a price on them reaches the company through demand, if customers buy less or switch. This layer is part of the bill, but it reaches the company as a risk to sales rather than as a cost.

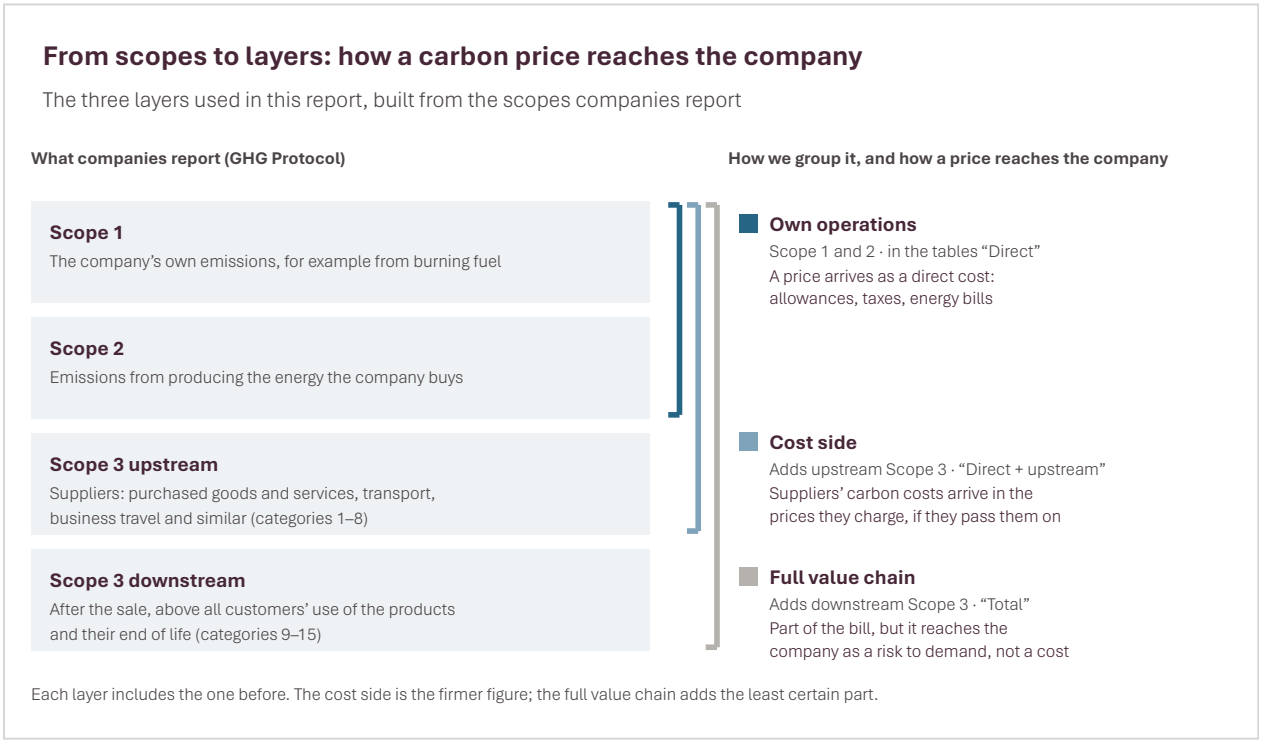


Figure. Scopes as companies report them under the Greenhouse Gas Protocol, grouped into the three layers used in this report. The figure shows no data; the shares of each layer are in Finding 1.

Layer	Covers	What a price does
Own operations (Direct)	Scope 1 and 2: the company's own emissions and those of the plants that produce the energy it buys	Arrives as a direct cost on the company's own invoices: allowances, taxes, energy
Cost side (Direct + upstream)	Adds upstream Scope 3 (categories 1–8): purchased goods and services, capital goods, fuel and energy, transport, waste, business travel, commuting, and upstream leased assets (assets the company leases from others, category 8)	Raises suppliers' costs, which may reach the company through the prices they charge
Full value chain (Total)	Adds downstream Scope 3 (categories 9–15): transport after the sale, processing and use of sold products, end of life, downstream leased assets (assets the company leases out, category 13), franchises and investments	Raises customers' costs, which may lower demand for the company's products

The split of Scope 3 between the cost side (upstream) and the demand side (downstream) is our choice. The Greenhouse Gas Protocol divides Scope 3 into upstream and downstream categories but says nothing about how a carbon price reaches the company. Own operations are the firmest figure: the company controls the activity, the methods for measuring it are the most established, and the numbers come from its own energy, fuel and production data, where the other layers rely more on estimates. The cost side is the layer we stand behind most firmly as a measure of cost, because it covers both ways a price reaches the cost line. The full value chain adds the part we are least sure of: customers' emissions are mostly estimates over a product's whole life, and they could affect the company through demand.

Three prices

We use one base price and two other scenarios. The base is the Science Base Case price of $185 per tonne, because it is a central estimate of what a tonne of CO_2 costs society: someone pays that cost, whether or not a company does today. The price comes from a study by Rennert and co-authors in Nature (2022), which put the cost at $185 per tonne in 2020 dollars, with a 5–95 % range of $44 to $413, using a 2 % discount rate. We use it because it rests on peer-reviewed research and not on any one country's policy. The two other prices show how much the answer depends on the price.

Scenario	Price per tonne	Anchored to
RTS – Regulatory Trajectory	$123	About analysts' average expectation for the EU carbon price in 2029–2030 (detail in Appendix B)
SBC – Science Base Case (base price)	$185	A peer-reviewed estimate of the social cost of carbon (Rennert et al. 2022)
STS – Severe Transition	$300	A severe test: about the level that central banks' net-zero scenario reaches by 2035

The Regulatory Trajectory price of $123 shows what the market price could mean if it reached every tonne. It is the price closest to what a tonne already costs where someone puts a price on it, in the EU emissions trading system (EU ETS) and the border charge (CBAM) that follows it, as analysts expect that price to be in a few years. A reader who doubts the $185 estimate of the damage can read every finding at this price: it gives the lowest figure in each bracket.

This price is the only one of the three that rests on a market expectation, so Appendix B explains how we set it. The Severe Transition price of $300 is about the level that the scenarios of the Network for Greening the Financial System (NGFS), a network of central banks and supervisors, say would be needed by 2035 to reach net zero by 2050: around $300 per tonne, in 2010 dollars. Their price paths rise further after that, so $300 is not an upper bound.

None of the three is a forecast, and none is a rate anyone charges today on all emissions. All carbon prices in this report are in US dollars; euro prices are converted at the European Central Bank rate of 31 December 2025 (USD 1.175 per euro). The bill itself is in Danish kroner. Neither $185 nor $300 is adjusted for inflation since the year its dollars refer to. Figures are given at $185, with the range across the three scenarios in brackets, for example "13 % (9–21 %)".

How to judge the size of the bill

A number is only large or small against something. We read the size of a bill in three steps.

One year, not one blow. The bill is what one year of emissions would cost if every tonne carried the price. In practice prices arrive step by step and reach different tonnes at different times, so the whole amount would not land at once. The bill is a measure of size, and it is deliberately the size of the whole thing.

Against equity. We set the bill against book equity, the capital that takes the hit when a cost cannot be passed on. To give a sense of scale, using the results in Part 3: own operations come to 4 % of the 19 companies' combined equity at $185, the cost side to 13 % and the full value chain to 23 %.

Against earning power: the 15 % line and return on equity. We set a line at 15 % of equity before we ran the analysis: in our method, a bill above 15 % of equity calls for the board's attention. The reasoning is simple. The bill is a yearly amount. For a company that earns 15 % a year on its equity, a bill of that size would take a full year's profit; for a company that earns less, it would take more. A useful rule of thumb for any company is therefore to compare the share of its equity at stake with its return on equity, the profit it makes in a year as a share of its equity. When the first is larger, the bill could not be paid out of one year's earnings. A company with high margins can carry more before the line matters; a company with thin margins, less. One caution: the bill is before tax and before any pass-through to customers, while return on equity is after tax, so the comparison overstates the burden and should be read as an upper bound.

As a rough check, the 19 companies' return on equity in 2025 lies, taken together, not far from 15 %, so the line is not an arbitrary number. The spread is wide, though: in a given year some companies earn close to nothing on their equity and some earn several times 15 %. One year can also mislead, because one-off items can move a company's result. The line therefore says something about a typical company, but to judge a given company one has to look at its own return on equity.

The 15 % line is our own choice; it is not set by any regulation or accounting standard. Our method draws the line on the full value chain, but in this report we apply it to the cost side at the Science Base Case price, because the cost side is the firmer figure. That choice of layer is also ours, and Finding 2 shows how much it changes the result.

Read this way, the own-operations bill of 4 % of equity is well below the line, the cost side at 13 % is just below it, and the full value chain at 23 % is above it. These are figures for all 19 companies together. Finding 2 shows that they hide large differences between companies.

Reported and verified physical cuts

Finding 4 reads each company's reduction pace, the yearly rate at which its plan cuts emissions towards its next target, in two ways.

- **As reported** counts every reduction the company reports. That includes physical cuts, but also reductions that come from how emissions are counted, such as renewable-energy certificates bought separately from the power, offsets, mass-balance schemes and recalculations, and planned cuts that have not yet been checked.
- **Verified physical cuts** counts only physical cuts: fewer tonnes actually going into the air, for example when a diesel truck is replaced by an electric one. A carbon price falls on the tonnes that physically go into the air, so only physical cuts lower the bill for certain. Each cut is weighted by how far it has been checked: announced 0 %; target validated but progress not yet reported 70 %; progress verified once 90 %; progress verified over several years, with third-party assurance, 100 %.

The pace itself comes from the company's targets: the yearly cut needed from today's level to the next target it has not yet reached. The split between the two readings comes from the measures the company names. Eight of the 19 publish tonnes per measure or per part of the chain, and we use their figures; for the other eleven we give the named measures equal weight. This is a looser test than the one in Finding 3, which asks for the tonnes saved by each measure at the company's largest emission source; three companies publish those in full. "Validated" means that the target a measure serves has been validated, for example by the Science Based Targets initiative, but progress has not yet been reported; "verified" means that progress has been reported and checked. A validated measure has therefore not itself been checked: the validation covers the target, not the measures behind it. We count it at 70 % because the target has passed an outside test. This is our choice, and it makes the measure less strict than its name.

What this analysis is not

The analysis is not a forecast of the carbon price, and it is not a claim that any company owes this money. The analysis is not a valuation of any company and is not investment advice. The analysis shows how large the exposure would be if the companies incurred the price in full. The disclosure at the end says more.

Data

The companies' own reported emissions and equity for financial year 2025 (financial year 2024/25 for two of them), as published by 23 October 2026, with combined equity of DKK 1,126 bn. The emissions are the companies' own figures, not audited by us, and most Scope 3 figures are estimates built from what the company spends, not from measured emissions. The index is as revised by Nasdaq on 22 June 2026; the next review, in December 2026, may change it. All currencies are converted at one fixed set of European Central Bank exchange rates (31 December 2025), so exchange-rate moves do not change the results. Appendix B gives the full list of data choices and limitations.

Part 3: What the method found

Four findings, each built the same way: the question, the answer, the exhibit, what it means, what it does not say, and the questions it raises. Each opens with a line that says which terms from Part 2 it needs.

FINDING 1

The bill sits in the value chain, not the chimney

What you need from before: the three layers (own operations, the cost side, the full value chain) and the share of equity at stake, both explained in Part 2.

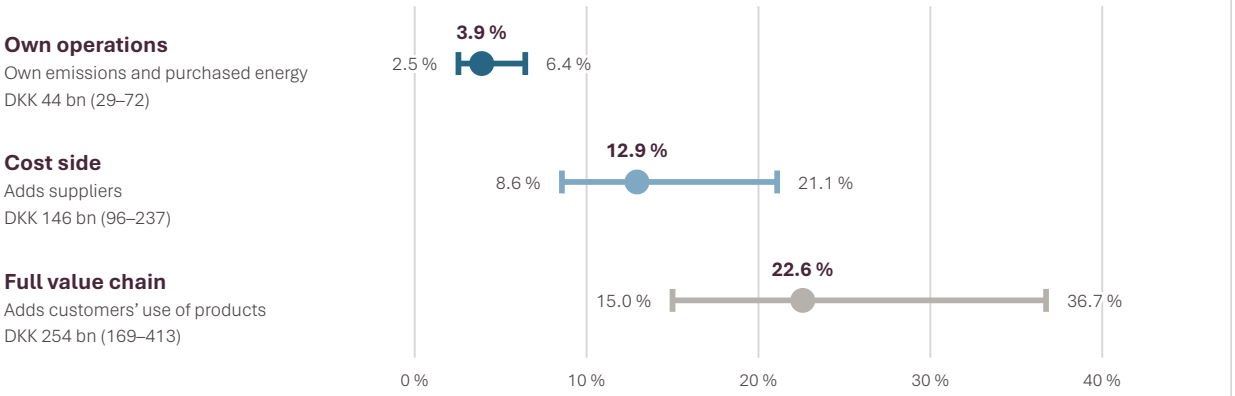
The question: where in the value chain does the bill sit?

Own operations are a small part of the bill. At the Science Base Case price of $185, the 19 companies' own operations come to DKK 44 bn a year (DKK 29–72 bn across the three scenarios). Adding their suppliers gives the cost side, and the bill is DKK 146 bn (96–237 bn), about 3.3 times as much. Adding their customers' use of the products as well gives the full value chain, and the bill is DKK 254 bn (169–413 bn), nearly six times the own-operations bill. Own operations are thus about 30 % of the cost-side bill and about a sixth of the full-chain bill; the rest sits with suppliers and customers.

What this means. For most of the 19 companies, cutting their own emissions addresses the smallest part of the bill. The exposure appears in what the company buys and in what its customers do with what it sells.

Own operations are a sixth of the bill: 4 % of equity against 23 % for the full value chain at $185

Carbon bill as % of the 19 companies' combined equity, at the Science Base Case price of $185 and across $123 to $300 per tonne



Dot = Science Base Case, $185; line = $123 to $300. The layers are cumulative.

Own operations are about 17 % of the full-chain bill at every price.

Exhibit 1. Carbon bill as % of the 19 companies' combined equity, at the Science Base Case price of $185 and across $123 to $300 per tonne: own operations 3.9 % (2.5–6.4), cost side 12.9 % (8.6–21.1), full value chain 22.6 % (15.0–36.7). The layers are cumulative. Source: Priced Advisory CSL analysis of 19 non-financial C25 companies, company reports to 23 October 2026, ECB rates 31 December 2025.

Why own operations are so small a part

The bill follows the tonnes, because every tonne carries the same price in the test. Of the 217.9 Mt CO_2e in the 19 companies' full value chain, 18 % come from their own operations and the energy they buy (Scope 1 and 2). Forty per cent arise at their suppliers, in the goods, services and transport the companies buy (upstream Scope 3). The remaining 42 % arise after the sale, mostly when customers use the products, with a small part not allocated to a category (downstream Scope 3). On the cost side, suppliers therefore account for about 70 % of the emissions and own operations for about 30 %. The group figures are a sum of each company's own exposure as the company reports it. Because one company's emissions can sit in another company's value chain, for example a supplier's fuel in its customer's transport, the 217.9 Mt are not 217.9 Mt of distinct tonnes, and the reports do not allow the overlap to be measured. This does not change the findings: each company's bill is its own, and the group figures are used only to show size and distribution, not as a total for the Danish economy.

The same tonne, different effects

A tonne affects the business in different ways, through the income statement, the balance sheet or cash flow, depending on where in the value chain it sits.

Layer	Share of the 217.9 Mt	How a carbon price reaches the company	What it can hit	How firm the figure is
Own operations (Direct)	18 %	Directly, as a price or tax on the company's own emissions and in the energy it buys	The company's own costs and margin, and in the end its equity	Firmest: measured by the company
Suppliers (upstream Scope 3)	40 %	Through the prices suppliers charge, if they can pass their carbon costs on	Cost of goods and margin, if the company cannot pass the cost on in turn	Mostly estimated from what the company spends
Customers' use and other downstream	42 %	Through demand: customers pay their own carbon costs, and may buy less or switch	Sales, prices and the value of assets, not the cost line	Least firm: mostly lifetime estimates for products sold in the year

The first two layers make up the cost side. A carbon price on the company's own emissions arrives as a cost on its own invoices: allowances, taxes and energy bills. A price on its suppliers' emissions arrives in the prices they charge, if they can pass it on. Both land on the company's cost line, and the company keeps its margin only if it can pass them on in turn. The third layer works differently. Customers pay for their own emissions, so a price on them reaches the company through demand, if customers buy less or switch to alternatives. That is a risk to sales rather than a cost, it is harder to put a number on, and it is why we treat the cost side as the firmer figure. All three layers matter for equity, but in different ways and with different certainty.

What the layers mean for equity

As a share of equity, the bill rises from 13 % on the cost side (9–21 % across the three scenarios) to 23 % for the full value chain (15–37 %), and the step comes from customers' use of the products. That part is the least certain, because customers' emissions are mostly lifetime estimates, so the cost side is the firmer number.

A typical company looks different

Own operations are about a sixth of the full-chain bill, but that is one figure for all 19 companies taken together, so the biggest companies weigh most, and one company lifts it. A typical company looks very different: for the median company, own operations are 6.7 % of its full-chain bill, and for the 18 companies other than the largest, taken together, 3.5 %.

Who is most exposed depends on where you look

Rank the 19 companies by the size of their bill compared with their equity. Counting only own operations gives one top three. Counting the whole value chain gives a different top three, and no company is on both lists. The two rankings are related but far from identical: their rank correlation is 0.61, where 1.0 would mean exactly the same order. Counting own operations plus suppliers lies in between: two of the three from the own-operations list are still in the top three. The question of who is most exposed therefore has no single answer. The answer depends on whether you look at the chimney, a company's own emissions, or at the whole value chain.

What this finding does not say

The finding does not say that own operations are unimportant. They are the layer where the company has the most control, where the figure is firmest, and where a price already applies in part today, through the EU emissions trading system. A company that wants to act has more direct levers there than anywhere else in the chain. The finding says only that, measured in tonnes and therefore in bill, own operations are the smallest layer.

Nor does the finding say that own operations are a sixth of the bill for every company. That is the figure for the 19 companies together. One company with very large own emissions lifts the total, and the typical company has a much smaller share in its own operations, as shown above.

Finally, the finding does not say that the full-chain bill is a cost that will reach the companies. The step from the cost side to the full value chain rests on customers' emissions, which are mostly estimates over a product's whole life, and which could reach the company through demand, not through its cost line. For statements about cost, use the cost side. The full value chain shows how large the exposure to the customers' side would be, and no more.

Questions this finding raises

- **Q1.** To a board or a finance chief: how much of our emissions bill sits with suppliers and customers, and how much in our own operations?
- **Q2.** To a board or a finance chief: does our reduction plan aim at the layer where most of our bill sits?
- **Q3.** To a board or a finance chief: are we more or less exposed than our competitors?

FINDING 2

The risk is uneven

What you need from before: the cost side, the share of equity at stake and the 15 % line, all explained in Part 2.

The question: is the bill spread evenly across the 19 companies, or do a few carry most of it?

A handful of companies carry most of the bill, and most of the 19 companies have far less at stake than the figures for all 19 together suggest.

What this means. Neither the figure for all 19 together nor the median describes any single company. The group figure overstates the position for most of the 19 companies and understates it for a few, and the median says nothing about the few. Whether a company is exposed can only be read from its own numbers.

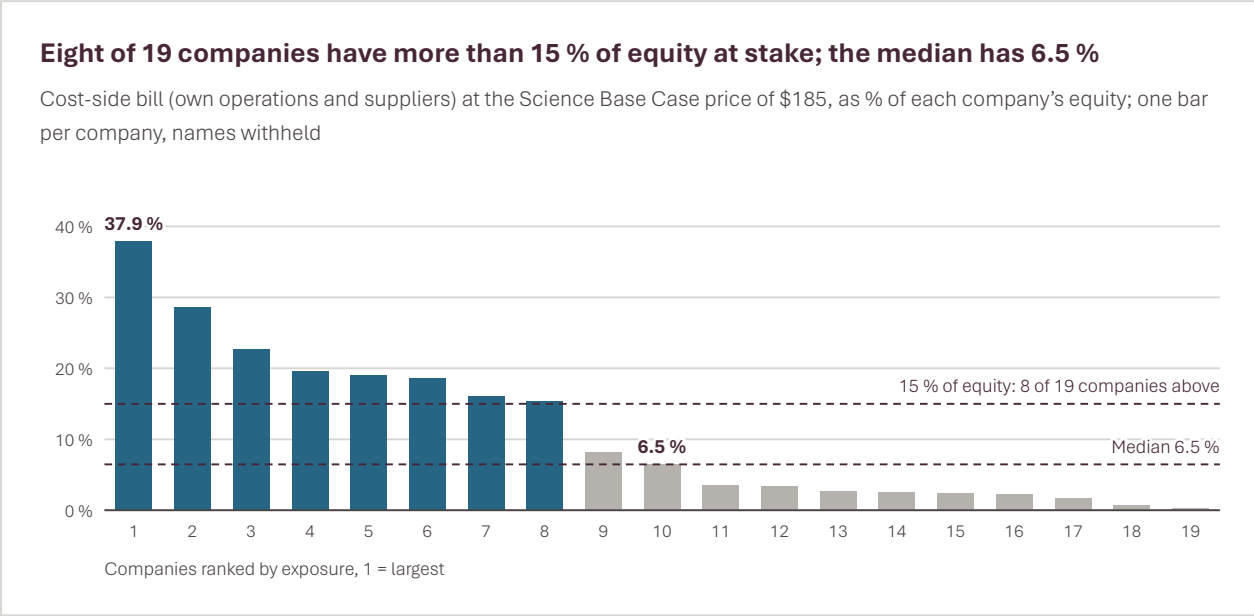


Exhibit 2. Cost-side bill (own operations and suppliers) at the Science Base Case price of $185, as % of each company's equity; one bar per company, names withheld; highest bar 37.9 %, median 6.5 %.
Source: Priced Advisory CSL analysis of 19 non-financial C25 companies, company reports to 23 October 2026.

Eight above the line, eleven well below

At the Science Base Case price of $185, eight of the 19 companies would have more than 15 % of their own equity at stake on the cost side (own operations and suppliers). Nothing sits in between: the eighth company is at 15.4 % and the ninth at 8.2 %. The other eleven are at 8.2 % or less. That makes both summary figures misleading. The ratio for all 19 together, 12.9 % of equity, is pulled up by the eight and describes neither group. The median, 6.5 %, sits inside the low group and says nothing about the eight.

We expect the same in a larger group of companies, because exposure follows the business model and the value chain more than company size, so a few companies will carry most of it. That is our view, and 19 companies cannot prove it.

Why the line is at 15 %

The line is ours, and we set the 15 % before we ran the analysis. As Part 2 explains, a bill of 15 % of equity would take a full year's profit from a company that earns 15 % on its equity, and more from a company that earns less. Because the bill is before tax and before any pass-through to customers, the comparison is an upper bound. In this report the line happens to fall in a clear gap in the data, between 15.4 % and 8.2 %, so the count of eight does not depend on exactly where the line is drawn. For an individual company close to the line it would matter: a company just above it is not in trouble, and one just below it is not safe.

Does the line depend on our choices?

The count above uses one layer, the cost side, and one price, the Science Base Case price. Exhibit 3 tests both choices. The exhibit shows each of the 19 companies in the three layers at the Science Base Case price. Each row is one company, in the same order as in Exhibit 2, and each column is one layer. The darker the cell, the larger the bill compared with the company's equity: the two darkest shades are above the 15 % line, and the darkest is above 100 %. The bottom row counts the companies above 15 % in each layer, and the line under it gives the same counts at $123 and $300; the table below the exhibit sets out all nine.

Counting suppliers moves eight companies above 15 % of equity; adding customers' use moves no more at $185

Carbon bill at the Science Base Case price of $185 as % of each company's equity, by layer; 19 companies, names withheld

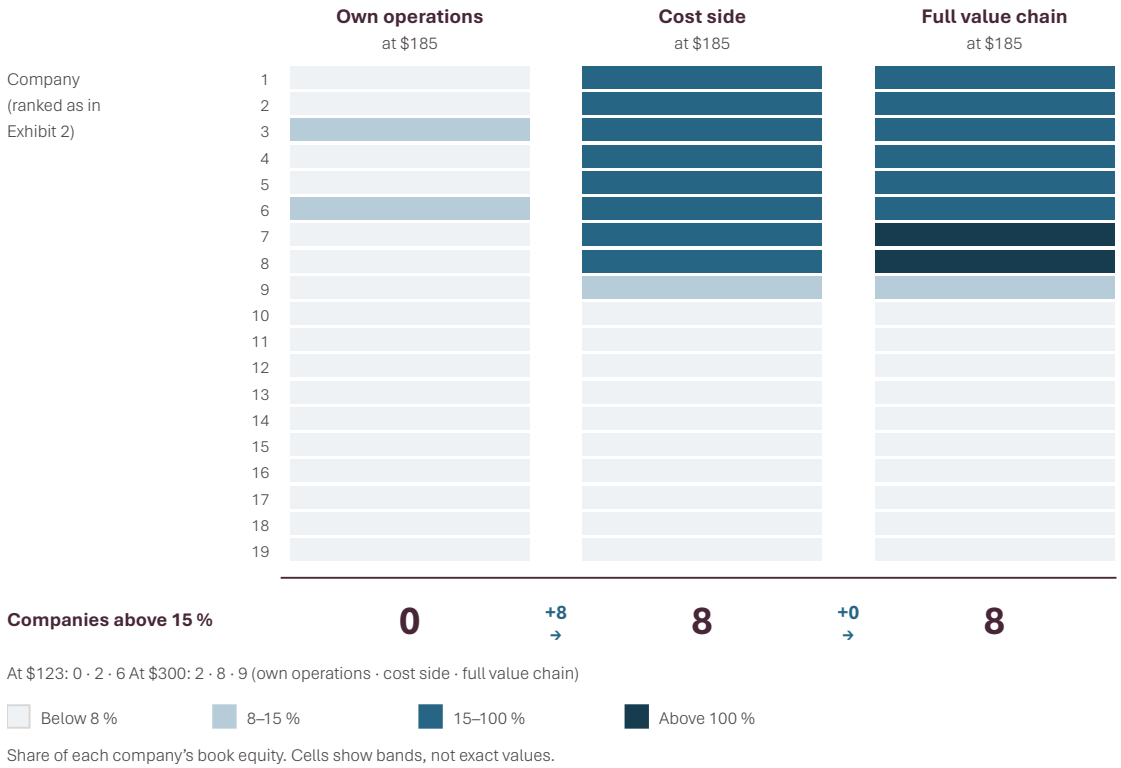


Exhibit 3. Heatmap of 19 companies in bands (below 8 %, 8–15 %, 15–100 %, above 100 %), by layer at the Science Base Case price of $185, with the counts at $123 and $300; names withheld.

Companies above 15 % of equity	$123 (RTS)	$185 (SBC)	$300 (STS)
Own operations	0	0	2
Cost side	2	8	8
Full value chain	6	8	9

Read across the columns, the result holds. At the Science Base Case price, the same eight companies are above 15 %, whether the bill is counted on the cost side or across the full value chain. The big difference lies between own operations and the cost side: own operations alone put no company above 15 % at $123 or $185, and two at $300, while counting suppliers puts eight companies there at $185. The count changes between the cost side and the full chain only at the lowest and the highest price: at $123 two companies are above the line on the cost side and six in the full value chain, and at $300 eight and nine. The full value chain adds the extreme cases: two companies pass 100 % of their equity only when customers' use of their products is counted. At $300 the ninth company in the full value chain is only just above the line, at 15.2 %.

A few companies carry most of the bill

Take, in each layer, the three companies with the largest bills; they are not always the same three. In own operations, those three carry 94 % of the bill of all 19 while holding 37 % of the equity. If the bill were spread across the companies in the same way as the equity, they would carry 37 % of it. The gap between the two shares, 57 percentage points, shows how much more of the bill they carry than their share of the capital that would have to absorb it. On the cost side, the three largest carry 79 % of the bill and hold 45 % of the equity, a gap of 34 percentage points. In the full value chain, they carry 72 % of the bill and hold 34 % of the equity, a gap of 38 percentage points. In every layer, their share of the bill is at least 1.7 times their share of the equity.

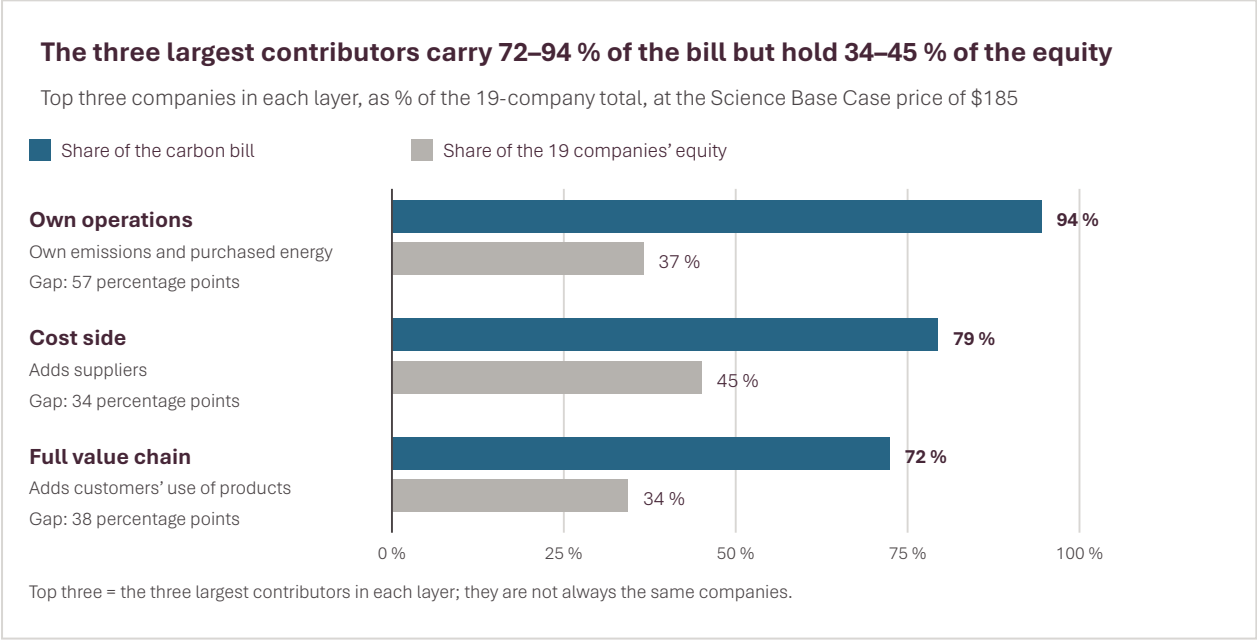


Exhibit 4. Shares move by 0.3 percentage points or less across the three prices, because the price scales every company's bill almost alike (carbon costs already paid are deducted).
Source: Priced Advisory CSL analysis, company reports to 23 October 2026.

The single largest company alone accounts for about 88 % of the own-operations bill, 56 % of the cost-side bill and 39 % of the full-chain bill, while holding 32 % of the equity. That company sits in a sector where the carbon cost is already passed to customers in part, as a surcharge, so its own bill overstates what would stay with it; how much is a question the analysis does not answer. Take the three largest contributors in each layer out, and the other 16 companies together would have 0.3 % of their combined equity at stake on own operations, 4.9 % on the cost side and 9.5 % on the full value chain at the Science Base Case price (0.2–0.6 %, 3.2–7.9 % and 6.3–15.4 % across the three scenarios).

In the full-chain view, two companies exceed 100 % of their own equity at every price. The full chain includes customers' use of the products, which is a risk to demand. These figures show how large the value-chain bill is next to the balance sheet. It is not a loss the company would book; it is what customers' emissions would cost if they carried the price, and the company feels it through demand.

What this finding does not say

The finding does not say that size is irrelevant. The largest company holds 32 % of the equity but 56 % of the cost-side bill, so size explains part of the concentration. But it cannot explain all of it: the same company holds a much larger share of the bill than of the equity, and the eight companies above the line differ in business model, not only in size.

The finding does not say how the pattern looks in the wider Danish economy. Nineteen companies cannot show whether the same skew exists among unlisted companies, smaller listed companies or the financial sector, which we have left out.

And it does not say that the step from the cost side to the full value chain is as firm as the cost side itself. That step rests on customers' emissions, which are mostly lifetime estimates. For claims about cost, use the cost side; for claims about how large the exposure to customers' demand could be, use the full value chain and say so.

Questions this finding raises

- **Q4.** To a board or a finance chief: where do we stand against the 15 % line, and how does our share of equity at stake compare with our return on equity?
- **Q5.** To a lender or an insurer, about its own book: is the exposure spread across many counterparties or concentrated in a few?
- **Q6.** To an owner or an investor, about a portfolio: is the carbon exposure spread evenly across our holdings, or does it sit in a few of them, and do we know which ones?

FINDING 3

The reports do not let an outsider price the transition plans

What you need from before: the bill and the three layers (Part 2). The sustainability terms this finding uses, such as transition plan, validated target and base year, are explained below, and in Appendix D.

The question: can an outsider price the companies' plans for cutting emissions from what the companies publish?

All 19 companies report their emissions, so the bill itself can be calculated. What a reader cannot do is price the plans, that is, work out what they would save and cost. None can be fully priced from what the company publishes, three can be priced in part and sixteen not at all.

What this means. Until disclosure changes, an outsider cannot tell a plan that protects the balance sheet from one that does not. Eighteen of the 19 companies have validated targets, yet none of the plans can be priced in full from what the company publishes, because tonnes and money are reported separately, if at all. Progress is also hard to

follow. Eighteen of the companies have recalculated figures from earlier years or moved the base year their targets are measured from, so the starting point changes from one report to the next. The gap lies in what is published and says nothing about how good the plans are: a sound plan can still be impossible for an outsider to check.

What the plans are

Most large companies publish a plan for cutting their emissions: a target, such as cutting emissions by a set share by 2030, and the measures that should get them there, such as changing energy supply, materials or transport. The EU reporting standard (ESRS) asks companies to describe such a transition plan. The target is the part that the Science Based Targets initiative (SBTi) validates; the measures behind it are not part of the validation.

SBTi is an independent body that tests whether a target is in line with climate science; a validated target is one it has checked and approved. A near-term target looks five to ten years ahead. A net-zero target is the long-term goal of cutting emissions to near zero, at the latest by 2050. The 1.5 °C level means a pace that matches keeping global warming to 1.5 °C. The label describes the pace of the target. The label does not promise that total emissions fall every year, because some targets are set per unit, such as per product or per kilowatt hour, so total emissions can rise if volumes grow.

To price a plan means to work out how much of the carbon bill it would remove, and what it would cost to do so.

The companies have made plans, and most have validated targets

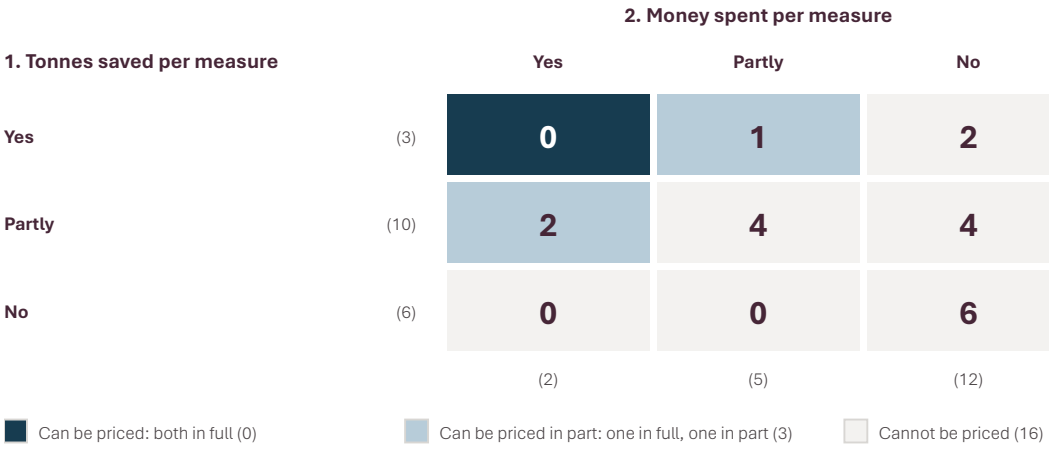
According to the Science Based Targets initiative's own register (23 October 2026), 18 of the 19 have near-term targets validated by SBTi, 17 of them at the 1.5 °C level, and 11 have a validated net-zero target. The targets are therefore visible. At least four of the 19 have validated targets, or parts of them, set per unit of product, energy or investment, so total emissions can rise if volumes grow. What most reports leave out is the price tag: what each measure costs and how much of the cut the company controls itself. Several validations are older than the companies' latest recalculations, so a validated target does not show that today's figures are the validated ones.

What a reader needs to price a plan

The test is the one an investor, lender or insurer would run: can the plan be put against a carbon price using only what the company has published? That takes two things to price the plan, the tonnes each measure saves and the money each measure costs, and two more to trust the result: how much of the cut the company controls itself, and a base year and earlier figures that do not change from one report to the next, so that progress can be followed.

What a reader needs to price a plan, and how many of the 19 publish it

Number of the 19 companies by what they publish for their largest emission source: tonnes saved per measure (rows) and money spent per measure (columns)



Numbers in brackets are the row and column totals in the table. Also needed once a plan can be priced: the share of the cut the company controls itself (5 of 19 publish it) and a base year left unchanged (1 of 19).

Exhibit 5. Source: Priced Advisory review of company reports to 23 October 2026.

Exhibit 5 sets two things against each other for the 19 companies: whether a company publishes the tonnes saved per measure for its largest emission source (rows) and the money spent per measure (columns). A plan can be priced when the company publishes both in full, and no company does: the three that publish the tonnes in full are not the two that publish the money in full. A plan can be priced in part when the company publishes one in full and the other in part, and three do. The share of the cut the company controls and a base year left unchanged are the next two things a reader needs once a plan can be priced; 5 and 1 of the 19 publish them, and they do not decide the result. The rubric is Priced Advisory's own, and no regulation or standard requires it. Three companies' figures are read by us from charts without numbers, and two companies published new reports in early November 2026, after the data cut-off; their new figures are not included, and a check of the two reports on 10 November 2026 showed that including them would change the totals by less than 0.1 %.

Tonnes and money are published separately, if at all

Three companies give the tonnes per measure for their largest emission source in full and ten in part; two give the money in full and five in part. No company gives both in full.

The EU reporting standard for climate (ESRS E1) already asks for the pieces. In the version now in use, it asks for the reductions achieved and expected by decarbonisation lever and the significant capital and operating spending behind them (E1-3, paragraph 29), and for the critical assumptions behind the targets (E1-4, paragraph 34). The revised

version that applies from financial year 2027 asks for the same in E1-5 (paragraph 22, with paragraph 46 of the general standard ESRS 2 for the spending), E1-1 (paragraph 12(c)) and E1-6 (paragraph 24(c)). On our reading, neither version asks for a price per tonne cut, the controlled share in numbers, or a test of the plan against a carbon price. The revised version does ask for the internal carbon price, where a company uses one (E1-10), and for the value of assets at risk from the transition (E1-11), but not for a priced plan.

The ground moves

In their latest reports, 18 of the 19 recalculated earlier years or moved or recalculated the base year, at least eight of them by more than 10 %. The base year is the year a target is measured from. The reasons for moving it vary: acquisitions and disposals, new methods and data corrections. At least six companies have already met a target set for 2030 or 2031, so for them the next target is the one that shows the pace from here.

Recalculating is often the right thing to do: the Greenhouse Gas Protocol and SBTi expect it after large acquisitions, disposals or changes of method, and a recalculation does not count against a company in the result shown in Exhibit 5. For an outside reader, though, a starting point that moves makes progress harder to follow. For a reader used to accounts, a recalculated base year is like restated comparative figures: often correct, but it changes what progress means. A target of minus 50 % from a base year that has since moved by 20 % is a different target in tonnes. The useful question is the one an auditor would ask: what is the bridge from the old figure to the new one, and how much of the change is real cuts? Moving starting points are set to become more common: the SBTi's revised net-zero standard, published in June 2026, open for validation from February 2027 and required for new targets from February 2028, replaces the fixed base year with one updated at each target cycle.

Carbon already paid is rarely visible

One company discloses an amount paid for carbon, under the EU emissions trading system. That amount is less than 1 % of the full-chain bill of all 19 at $185 per tonne. Four others have between 7 % and 71 % of their direct emissions under the same system and disclose no separate cost. This may reflect free allowances. We deduct nothing for them, so their bills may be slightly overstated.

What this finding does not say

The finding does not say that any company breaks the reporting rules (ESRS) or that its plan is weak. Companies may hold the numbers internally, and whether the gaps are breaches or lawful readings of terms such as "material" and "incremental" is for auditors and supervisors to decide.

Nor does the finding say that a validated target is worth little. Validation is a check that the ambition matches the science. Validation is not a price, and it does not show what the plan costs or how much of it the company controls. Those are different questions, and they are the ones this finding asks.

The finding is narrower than a judgement of any company: from what is published, an outside reader cannot price the plans.

Questions this finding raises

- **Q7.** To a board or a finance chief: have we moved or recalculated the base year, by how much, and can we show the bridge from the old figure to the new one?

- **Q8.** To a lender or an insurer, about its own book: can we calculate the exposure from what the counterparty publishes, or do we have to ask?
- **Q9.** To an owner or an investor, about a holding: can the plan be priced from what the company publishes? If not, what should we ask the company to disclose?
- **Q10.** To a company, from a reporter: can you publish, for your largest emission source, the tonnes saved and the money spent per measure?

FINDING 4

A transition plan is not yet a hedge

What you need from before: the full value chain, the reduction pace, and the difference between reductions as reported and verified physical cuts, all explained in Part 2.

The question: do the companies' plans cut emissions faster than a carbon price could rise?

Transition plans lower the bill, but on the numbers published they would keep it flat only if the price rose by about 6 % a year or less as reported, and by about 1 % counting verified physical cuts alone. Against the steep path we test, 12 % a year, the bill for the 19 companies together grows whichever way the plans are read.

What this means. A plan fully protects the balance sheet only if it cuts emissions faster than the price rises; a slower plan gives partial cover. Most of the companies have a plan, so the useful question for a board is at what pace the plan cuts and how much of that pace is verified physical cuts.

Why the full value chain here

Findings 1 and 2 lean on the cost side, because it is the firmer figure. Finding 4 looks at the full value chain, because that is where the companies set their targets and transition plans, and because companies have levers downstream too: in how much energy their products use, in take-back and repair schemes, and in what happens at the end of a product's life.

Two ways to read a plan

We read each company's reduction pace, the yearly rate at which its plan cuts emissions towards its next target, in two ways, and the difference between them is one of the most important results of this analysis.

Part 2 defines the two readings. **As reported** counts every reduction the company reports, including those that come from how emissions are counted. **Verified physical cuts** counts only fewer tonnes actually going into the air, weighted by how far they have been checked (announced 0 %; target validated but progress not yet reported 70 %; progress verified once 90 %; progress verified over several years, with third-party assurance, 100 %).

A carbon price falls on the tonnes that physically go into the air, so only physical cuts lower the bill for certain. The gap between the two readings is therefore not our judgement of whether the plans are realistic. The gap shows how much of the reported progress rests on accounting conventions or on cuts that an outsider cannot yet see. The measure is cautious by design: a physical cut that is announced but not yet validated counts for nothing, so part of the gap is physical cuts waiting to be checked, not accounting. Across the full value chain, the emission-weighted reduction pace is 5.6 % a year as reported and 1.2 % a year as verified physical cuts. Before any assumption about the price, that is a result in itself: so far about one fifth of the reported pace is backed by verified physical cuts. A reader can set the pace against any price path they find plausible, because the bill falls only if the price rises more slowly than the tonnes fall. That is about 6 % a year if every announced cut is counted and about 1 % a year on the verified cuts alone. The stress test below uses one such path, and a reader who prefers another can use the same pace.

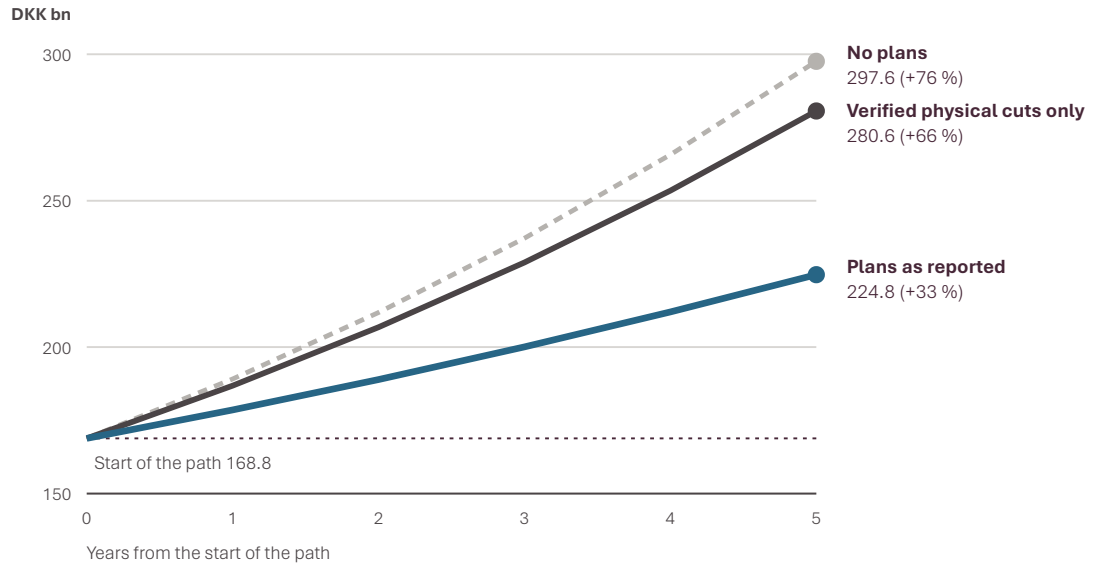
What happens to the bill if the price rises

We then let the price rise 12 % a year, a steep path we chose on purpose (Appendix B explains why and shows the result at a slower pace), and let each company cut at its own reduction pace. All paths start from today's emissions and hold each company's output at today's level: we model no growth in volumes. "No plans" therefore means emissions that stay as they are, and a plan lowers them from that level. A company whose emissions fall more slowly than the price rises sees its bill grow. The path is not dated: it starts from today's emissions at the $123 price and asks what five years of a steep rise would do.

At the Regulatory Trajectory price of $123, where the path starts, the full-chain bill is DKK 169 bn at the start of the path. In five years, with the price at about $217, it reaches DKK 298 bn with no plans, DKK 281 bn counting verified physical cuts only, and DKK 225 bn if every plan delivers as reported. The last is still a third above the starting point.

Even if plans deliver as reported, the bill is a third higher in five years

Full-chain bill in DKK bn, price starting at $123 per tonne and rising 12 % a year, each company cutting at its own reduction pace



Stress path, not a forecast. Output held at today's level, no growth modelled; the path is not dated. Axis starts at DKK 150 bn.

Exhibit 6. Full-chain bill in DKK bn, price starting at $123 per tonne and rising 12 % a year, each company cutting at its own reduction pace. No plans 297.6 (+76 %); verified physical cuts only 280.6 (+66 %); plans as reported 224.8 (+33 %); start of the path 168.8. Stress path, not a forecast; output held at today's level; axis starts at DKK 150 bn.

Few companies keep pace with the price across the value chain. In own operations, 3 of the 19 have a pace as reported above 12 % a year when it is measured against their location-based emissions, and none has verified physical cuts at that pace. On the market-based figures that the companies set their targets on, where renewable-energy certificates count, 9 are above 12 %. In the full chain, 2 report a pace above 12 % and none has verified physical cuts at that pace.

What this finding does not say

The 12 % a year price increase is our stress assumption, and no company faces this price path today. For most Scope 3 emissions there is no binding carbon price today, so the path shows what it would take for a plan to keep up. With output held at today's level, the plans as reported would keep the bill flat if the price rose by about 6 % a year or less; the verified physical cuts alone, by about 1 %. At 8 % a year, the rate that analysts' expectations for 2026–2030 imply and that we carry forward from the $123 start, the year-5 bill would be DKK 248 bn with no plans, 234 bn with the verified physical cuts and 187 bn with the plans as reported, still about a tenth above today for the plans as reported.

The finding does not say that verified physical cuts are the whole truth about a plan. The measure is cautious by design: a measure that is only announced counts for nothing, and one whose target is validated but whose progress is not yet reported counts for 70 %. The 1.2 % is what an outsider can see from the reports. The rest may well be happening; an outsider just cannot see it yet.

Finally, the reduction pace is taken from each company's next absolute target that has not yet been reached. Six or more companies have already met a 2030 or 2031 target, so for them the next target is further out, and the pace we read is the pace towards that later goal.

Questions this finding raises

- **Q11.** To a board or a finance chief: at what pace do our measures cut emissions, how much of that is verified physical cuts, and how does it compare with a rising carbon price?
- **Q12.** To a board or a finance chief: how much of our reported progress comes from certificates, offsets or recalculations rather than from fewer tonnes?
- **Q13.** To a company, from a reporter: what share of the reduction do you deliver yourselves, and what depends on suppliers, customers or regulation?

Part 4: Discussion

The four findings point the same way: the exposure is large, uneven and not yet visible in the reports. This part asks what that means. This part takes six questions in turn: what the numbers say and do not say, who would carry the bill, what concentration means for each reader, why the state of the plans matters, what the analysis leaves open, and how the questions at the end of each finding can be used.

1. What the numbers say and do not say

A share of equity says how large a cost would be next to the capital that carries it, and nothing more. The own-operations bill of 4 % of equity, the cost side at 13 % and the full value chain at 23 % are three different statements. The first is the smallest layer and the firmest figure. The second adds suppliers, whose carbon costs reach the company if they can pass them on. The third adds customers' use of the products, which reaches the company through demand and is the least certain part. A reader who quotes one of the three should say which.

A second reading is against earning power. A bill of 15 % of equity takes a full year's profit from a company that earns 15 % on its equity, which is why we put a line there. A company with high margins can carry more before the line matters; a company with thin margins, less. Because the bill is before tax and before any pass-through, the comparison overstates the burden. The comparison is a reason to look closer, and we draw no conclusion about any company from it.

A third reading is the most important: the figures for all 19 companies together describe none of them. At $185, eight companies sit above the line and eleven well below, and the average and the median fall between the groups or inside the low one. The numbers are a stress test of a price that nobody charges on every tonne today. They show how large the exposure is, and they do not predict that the price will come.

2. Who ends up paying

The bill shows exposure. The analysis measures what a carbon price would cost each company if every tonne carried it. Who ends up paying depends on things the data cannot show: whether a company can pass the cost on to its customers, whether its suppliers pass theirs on to it, and whether customers switch to lower-carbon alternatives.

The three layers reach the company through different channels, as the table in Finding 1 shows: own operations through its own costs, suppliers through the prices they charge, and customers through demand. Who carries the result in the end is a mix of the company and its margins, its customers, its suppliers, its owners, and the lenders and insurers who rely on its balance sheet. The analysis does not split it. For that reason a story should say "at stake", not "will pay", and should not treat the figure as a bill that lands on the company in one piece. Questions Q1 and Q2 ask a company where its own bill sits; Q5 asks a lender or insurer whether the exposure in its book is spread or concentrated.

3. Concentration, and what it means for each reader

In our view, the exposure follows the structure of the business and its value chain more than the size of the company; 19 companies cannot prove it, but they are consistent with it. For a lender or an insurer, that means that concentration can matter more than the average: a book with a few counterparties like the eight above the line carries a different risk from one spread evenly, even if the averages match (Q5). For an owner or investor, the few positions that carry most of

the exposure matter more than the rest, and an average shown without them hides the point (Q6). For a company, the lesson is that it cannot read its own position from a group figure. A company has to run the numbers on its own tonnes (Q4). For society, the price lands unevenly, and so does the effort needed to prepare for it.

4. A transition plan is not yet a hedge

All 19 report their emissions, and 18 have validated targets, yet none can be fully priced from what is published. That matters because a plan is only a hedge, a protection against a rising price, if it cuts the tonnes that the price falls on faster than the price rises. On the numbers published, the verified physical cuts come to 1.2 % a year, the plans as reported to 5.6 %, and in our stress path neither keeps up. The difference between the two is where the discussion should go: how much of the progress a company reports is fewer tonnes in the air, and how much is a change in how tonnes are counted.

The gap in disclosure is already on the calendar to narrow, but only in part, and not before 2028.

When	What happens	What it changes
27 Oct 2026	The European Commission proposes a Climate Resilience Law (COM(2026) 730) with a communication (COM(2026) 720)	Sets one reference warming path (1.5 °C by 2030, 2 °C by 2050, 3 °C by 2100) for Member States' risk assessments. A proposal, not adopted; private companies are not directly bound; the 2050 neutrality target stays
10 Nov 2026	Revised ESRS, Delegated Regulation (EU) 2026/1563, enters into force	Applies to financial years from 1 January 2027. For 2026, companies may choose the earlier set, the revised one, or the earlier set with the revised reliefs, and must say which
Financial year 2027 (reports in 2028)	Large first-wave companies must disclose the book value of assets at material physical and transition risk, a range of estimated potential stranded assets, and the share addressed by action (E1-11 points 39(a)–(b) and 40(a)–(b)), where these risks are material to them	The first required numbers on assets at risk
2028 and 2030	Other expected financial effects of climate: qualitative from financial year 2028 and quantitative from financial year 2030 (reports in 2031) for companies using the relief. They include potential liabilities from the transition that are not yet in the accounts, and revenue at risk	The expected financial effects of climate risk stay optional for longer. They are the effects on costs and revenue that this report looks at

Three points matter for a reader.

First, even the revised standard does not, on our reading, ask for a price per tonne cut, the controlled share of a reduction in numbers, or a test of the plan against a carbon price. Those are the three gaps in Finding 3. For lawmakers and standard setters this is the practical point: the rules ask for targets and measures, but not for the figures that would show what a plan is worth.

Second, the Commission's package says climate risks, with a focus on physical ones, should be reflected in asset valuations and financial accounts. The package points to where attention is heading; it does not set a requirement for companies.

Third, the first required numbers are about a company's own physical assets. What a carbon price would cost a company falls under the expected financial effects, which first-wave companies may leave out in numbers until financial year 2030. For most of the 19 companies the bill sits with suppliers and customers (Finding 1), so the asset figures are likely to cover only part of what this report estimates.

5. What this analysis does not answer, and why it is a first step

The analysis covers a carbon price only. Physical climate risk and nature are left aside. We expect them to follow the same road into the accounts, and the same stress test could be applied to them: the first two or three years of the new disclosures will show how far companies can price either.

The analysis does not say whether, when or at what level a carbon price will apply to every tonne. The three scenario prices are stress levels. The aim is to size the exposure well enough that a board can decide how much of it to prepare for without first knowing the answer.

The analysis does not say how any single company would fare. Companies are not named, and a company's own bill depends on which price each of its tonnes faces and how much of it the company can pass on, which public reports do not show. The next step for a company is to run the same calculation on its own data.

The analysis does not say what the exposure means for share prices, credit quality, insurance cover or the portfolios of investors such as pension funds. The analysis is not a valuation and not advice, and a lender, insurer or investor who wants to know what it means for its book or portfolio has to apply the logic to it. And it covers 19 companies only: financial companies, unlisted companies and smaller listed companies are not included, and 19 companies cannot show how the pattern looks in the wider economy.

This is therefore a first step. We do not claim to predict the future or to produce perfect numbers. We believe it is important to build a better basis for decisions under high uncertainty, and this report is one proposal for how to strengthen the discussion about what climate can mean for companies in financial terms.

6. From questions to use

The questions at the end of each finding are written for four kinds of readers. The table collects them by reader.

Reader	Questions	What the reader gets
Board, finance chief, head of sustainability	**Q1.** How much of our emissions bill sits with suppliers and customers, and how much in our own operations? **Q2.** Does our reduction plan aim at the layer where most of our bill sits? **Q3.** Are we more or less exposed than our competitors? **Q4.** Where do we stand against the 15 % line, and how does our share of equity at stake compare with our return on equity? **Q7.** Have we moved or recalculated the base year, by how much, and can we show the bridge from the old figure to the new one? **Q11.** At what pace do our measures cut emissions, how much of that is verified physical cuts, and how does it compare with a rising carbon price? **Q12.** How much of our reported progress comes from certificates, offsets or recalculations rather than from fewer tonnes?	A view of the company's own exposure in money: where in the chain it sits, where it stands against the 15 % line, and whether its plan cuts emissions faster than a price could rise
Lender or insurer	**Q5.** Is the exposure spread across many counterparties or concentrated in a few? **Q8.** Can we calculate the exposure from what the counterparty publishes, or do we have to ask?	Whether the exposure of a counterparty can be calculated from what it publishes, and whether the book is concentrated
Owner or investor	**Q6.** Is the carbon exposure spread evenly across our holdings, or does it sit in a few of them, and do we know which ones? **Q9.** Can the plan be priced from what the company publishes? If not, what should we ask the company to disclose?	Whether the carbon exposure is spread evenly across the portfolio or sits in a few holdings, and what to ask the company to disclose
Reporter	**Q10.** Can you publish, for your largest emission source, the tonnes saved and the money spent per measure? **Q13.** What share of the reduction do you deliver yourselves, and what depends on suppliers, customers or regulation?	Questions to put to a company, and the wording that keeps a story accurate (Appendix A)

Part 5: Conclusion

Can those who decide see what carbon costs a company today, what it may cost tomorrow, and what the company is doing about it? In part. Today's cost is in the accounts, but rarely as a figure of its own. Tomorrow's can be calculated from public reports for a given price, which is what this report does. What a company's plan to cut emissions is worth cannot. Carbon already has a price for part of these companies' emissions. The price reaches them directly or through energy and input prices, and the rules widen its reach step by step. What is missing is the view in money: how large the bill would be next to each company's equity, where in the value chain it sits, and whether the plans keep pace. Until that view exists, the price cannot do what governments are counting on it to do, which is to move capital.

The answer rests on a method we developed, Carbon Shadow Liability. The method takes the logic of finance, a scenario instead of a forecast, exposure measured against the capital that takes the loss, and a cost judged against earning power, and applies it to carbon. The method follows the tonnes through three layers of the value chain, and it separates reductions that physically lower the bill from reductions that only change how tonnes are counted.

Applied to 19 large Danish listed companies, using public reports only, the method shows four things. The bill is large where companies have least control: with their suppliers and in what their customers do with their products, while own operations are about a sixth of it. The bill is uneven, so a group figure tells no company where it stands: eight of the 19 companies are above the 15 % line on the cost side at $185 and eleven are well below it. The plans that should bring it down cannot yet be priced from outside, because the reports do not give the tonnes and the money for each measure. And the cuts that are verified as physical keep the bill flat only if the price rises by about 1 % a year or less: a transition plan is not yet a hedge.

The analysis can be used by anyone trying to understand a company's transition risk. Three questions carry over to any company, inside this analysis or outside it: how much of our equity is at stake, where in the value chain does it sit, and does our plan cut emissions faster than a price could rise? A board can put them to itself, a lender or insurer to its counterparties, an owner to a holding and a reporter to a company.

What needs more work is a good deal. The analysis prices a carbon price only, leaves physical climate risk and nature aside, and treats 19 companies as a test group. A company's own bill needs its own data on which price each tonne faces and how much of it can be passed on. And the disclosure that would let an outsider price a plan does not yet exist. We do not claim to predict the future, and we do not claim perfect numbers. We have taken a first step towards a better basis for decisions under high uncertainty, and the same test can be applied to physical climate risk and nature, which we expect to reach the accounts by the same road.

Appendix A: Fact sheet and FAQ

This section gathers what anyone who wants to write or speak about the analysis needs: the figures that can be quoted and what each one is, how to phrase them, and answers to the questions we expect.

Figures that can be quoted

Figure	Exactly what it is	Say it with
23 % of combined equity (15–37 %)	Full value chain (Total): 22.6 % at the Science Base Case price of $185; 15.0 % at $123 and 36.7 % at $300 per tonne	"if every tonne in the value chain carried the price"; counting the customer-use part is our choice
13 % of combined equity (9–21 %)	Cost side (Direct + upstream, own operations plus suppliers): 12.9 % at $185; 8.6 % at $123 and 21.1 % at $300	"on the cost side"; the firmest measure of cost
4 % of combined equity (3–6 %)	Own operations (Direct): 3.9 % at $185; 2.5 % at $123 and 6.4 % at $300	"own operations alone"
DKK 254 bn a year (169–413 bn)	Full-chain bill at $185 (cost side DKK 146 bn, range 96–237 bn; own operations DKK 44 bn, range 29–72 bn); the sum of each company's bill, so a tonne that appears in more than one company's value chain is counted once per company	"a stress figure, not a forecast"
About a sixth	Own operations are about 17 % of the full-chain bill of all 19 (17–18 % across the three prices); 6.7 % for the median company, because one company lifts the figure for all 19	"most of the bill sits with suppliers and customers"
217.9 Mt CO_2e	Full-chain emissions of the 19; 18 % own operations, 40 % upstream, 42 % downstream or unallocated	"emissions as reported by the companies for the latest financial year"
Three companies, nearly three quarters	The three largest contributors carry 72 % of the full-chain bill at $185 (79 % of the cost side, 94 % of own operations) and hold 34 % (45 %, 37 %) of the equity	"the three largest contributors"; they are not always the same three
Eight of 19	Companies above 15 % of equity on the cost side at $185 (two at $123, eight at $300); the same eight in the full value chain at $185 (six at $123, nine at $300)	"would have more than 15 % of equity at stake"
6.5 %	Median company, cost side, at $185 (4.3 % at $123, 10.5 % at $300); full value chain 7.1 % at $185	"the typical company among the 19"
None of 19	Publishes both tonnes and money per measure in full for its largest emission source; 3 give the tonnes in full and 10 in part, 2 give the money in full and 5 in part	"none gives both tonnes and money per measure in full"
18 of 19	Recalculated earlier years or moved or recalculated the base year in the latest report; at least 8 by more than 10 %	"recalculated"
5.6 % and 1.2 % a year	Emission-weighted reduction pace in the full chain, as reported and as verified physical cuts	"on our reading of the published plans"
+33 % and +66 % in five years	Full-chain bill with the price starting at $123 and rising 12 % a year, with plans as reported and with verified physical cuts only	"a stress path, not a forecast"

All figures: 19 of the 24 C25 companies (financial companies excluded), company reports to 23 October 2026. Equity is reported book equity. Carbon prices are in US dollars and amounts in DKK, both at ECB rates of 31 December 2025.

How to quote this report

The figures are stress-test results, not forecasts or claims about what any company owes. The table shows wording that stays within what the analysis supports, and wording that goes further than it does.

Use	Avoid
"have X % of their equity at stake under a carbon price of ..."	"will lose", "owe", "carbon debt", "fine"
"a stress test: what it would cost if every tonne carried a price"	"the bill the companies will have to pay"
"cannot be fully priced from what the company publishes"	"not credible", "breaks the rules", "hides"
"19 of the 24 C25 companies" or "the 19 non-financial C25 companies"	"the C25 companies", "Danish industry"
The Science Base Case price of $185 as the headline, with the range across the three scenarios ($123 to $300)	A range without saying which price is the base
"as at 23 October 2026"	Figures without a date

Questions we expect

Is this just the largest company? No, but it matters a great deal. The largest company is 56 % of the cost-side bill with 32 % of the equity, and about 88 % of the own-operations bill. Without it, the other 18 companies together would have 8.4 % of their combined equity at stake on the cost side at $185 (5.6–13.6 % across the scenarios), against 12.9 % for all 19. The median company, which does not depend on any single company, is at 6.5 % at $185.

Are the companies' accounts wrong? The analysis does not say so. The analysis is a stress test outside the accounts. A carbon shadow liability is not a liability under IFRS, and the finding on disclosure is about what is missing, not what is mistaken.

What if no such price is ever charged? Then the bill is never paid in that form. The figures are exposure under a price, not a prediction that it will be charged. For own operations in Europe a price already applies in part, through the EU emissions trading system, and its cost is deducted where companies disclose it.

Why is the price not weighted by how likely it is to be charged? Because the figure is meant as an exposure, not an expected cost, in the same way that a bank states its gross exposure to a borrower before it estimates the chance of default. Adding a probability would build our own view of future policy into the number and make it harder to compare companies. How likely and how soon a price reaches a given tonne depends on where it is emitted and which rules apply there, and that is the next step: the prices already adopted, laid on the company's own tonnes year by year. Until then, the Regulatory Trajectory price of $123, built on where analysts expect the EU allowance price to be in a few years, is the closest this report comes to a market view.

Why a base price and two scenarios, and where do they come from? The Science Base Case price of $185 per tonne is a social cost of carbon from peer-reviewed research (Rennert et al. 2022): a central estimate of what a tonne costs society, and therefore our base. The Regulatory Trajectory price of $123 is about what analysts expect the EU

carbon price to be in 2029–2030. The Severe Transition price of $300 is a severe test, about the level central banks' net-zero scenario reaches by 2035. The range shows how much the answer depends on the price.

Why is own operations so small? Because, taken together, most emissions of these companies arise before and after the factory gate: in what they buy and in how customers use what they sell. Own operations are also where the published reduction pace is highest (7.8 % a year as reported, 3.1 % as verified physical cuts, against 5.6 % and 1.2 % across the full chain).

Which companies are in it, and can I see company-level numbers? The 19 non-financial companies among the 24 in the C25 index. Companies are not named; Exhibit 2 shows each company's figure without its name. A reporter who wants to test a specific company can put the questions at the end of each finding to the company. Contact details are on the last page.

Who paid for this, and what is Priced Advisory's interest? No client commissioned or paid for the analysis. Neither Priced Advisory nor its partners hold shares directly in any of the 19 companies; the partners may have indirect holdings through index funds (ETFs) and pension savings that they do not manage themselves. Priced Advisory is an advisory firm that helps companies work out what changing conditions, such as carbon prices, mean for their business. Analyses like this one are part of that work, so it has a commercial interest in the topic.

Is this investment advice? No. The analysis is not a recommendation to buy, sell or hold any security, not a price target, not a valuation and not a forecast.

How firm are the numbers? Emissions and equity come from the companies' own reports, which we have not audited. Three companies' plan figures are read by us from charts without numbers. The split between cuts as reported and verified physical cuts is our reading of each plan, and for eleven of the 19 companies we give the named measures equal weight. The split of Scope 3 between the cost side (upstream) and the demand side (downstream) is our choice. The figures behind Findings 1, 2 and 4 were calculated twice by independent routes and checked on a sample basis by the partners.

Appendix B: Method, data and limitations

What is calculated

- **Carbon Shadow Liability (CSL):** reported tonnes multiplied by the scenario price, less any carbon cost the company already pays. The CSL is a stress measure, not a liability under IFRS and not a forecast. The text calls it "the bill".
- **Equity at carbon risk (ECR):** the CSL divided by reported book equity. The text calls it "% of equity at stake".
- **Aggregates:** the combined CSL of the 19 divided by their combined equity. The median is the median of the 19 company ratios. Concentration is the share of the bill carried by the three largest contributors in each layer.
- The three layers and the three prices are described in Part 2.

Data

- **Emissions and equity.** Emissions (Scope 1, Scope 2 and Scope 3 by category) and equity come from each company's latest published annual and sustainability report: financial year 2025, and 2024/25 for two companies. The cut-off is 23 October 2026; two companies published new reports in early November 2026, and their new figures are not included.
- **Equity** is reported book equity at the balance sheet date, not market value.
- **Currency.** Amounts are converted to DKK with one frozen ECB table of 31 December 2025 (DKK 7.4689 and USD 1.175 per euro). Carbon prices are shown in US dollars at the same rates (about DKK 6.357 per dollar); the lowest price, set in euros at €105, is $123. Converting at each company's own year-end rate changes the aggregate by less than 0.1 %.
- **Carbon cost already paid** is deducted where disclosed. One company discloses an amount. Four others have emissions under the EU emissions trading system and disclose no separate cost, which may reflect free allowances. We deduct nothing for them, so the paid share may be understated and their bills slightly overstated.

The lowest price in detail

The Regulatory Trajectory price is the only one of the three that rests on a market expectation, so we explain in some detail how we set it. The EU Emissions Trading System is where large European emitters pay for each tonne they emit, and the price of its allowances is the most closely watched expectation of what carbon will cost in Europe. The system is priced in euros; we convert at the rate above and give the euro figures in brackets, so they can be checked against the source.

In a Reuters poll published on 30 January 2026, ten analysts expected an allowance to cost about $126 (€107) in 2027 and $130 (€111) in 2028. We set the lowest price at $123 (€105) then, as a planning figure for 2029–2030, the middle of a horizon of three to five years; it was slightly below the poll's figures for 2027 and 2028. Analysts have since cut their near-term expectations. In a Reuters poll published on 31 July 2026, after the European Commission proposed changes to the system on 17 July, nine analysts expected about $105 (€89) for 2027 and $112 (€95) for 2028, while allowances traded at about $96 (€82). The same poll put 2029 at about $118 (€100) and 2030 at about $128 (€109). For the horizon we use, 2029–2030, $123 is therefore close to what analysts expect today.

The expectations are the analysts'. We use $123 as a planning figure for what a European company could face, and make no prediction of our own. The EU's carbon border adjustment (CBAM) extends the same price to some imports, while free allowances for the industries it covers are phased out, so that more emissions pay it. We add neither to the

price, because our test already lets every tonne pay. ETS2, a separate system for fuels used in buildings, road transport and small industry, is due to become fully operational in 2028 and is not in the price. The price, the reform and ETS2 can all still change the picture.

We have kept the lowest price at $123. The July 2026 poll puts the average for 2029–30 at about the same level (€100 and €109), and the reform of the trading system is not expected to be completed before the first quarter of 2027; the price should be revisited when it is.

How fast the bill grows

In Finding 4 we let the price rise 12 % a year for five years, from $123 to about $217. This is our own stress assumption, and we chose a steep path on purpose: it tests whether the companies' plans can keep up with a price that tightens fast. The path is well above analysts' current expectations. The Reuters poll of July 2026 implies a rise of about 8 % a year from 2026 to 2030. Because the result depends on this choice, we show where the line lies. With the reduction pace in the plans as reported, the bill stays flat if the price rises by about 6 % a year or less; with the verified physical cuts alone, by about 1 %. At 8 % a year, the bill after five years would be DKK 248 bn with no plans, DKK 234 bn with the verified physical cuts and DKK 187 bn if every plan delivers as reported, still about a tenth above today.

Our methodology derives a rate of the same size from three parts of EU policy: a shrinking cap on allowances, the phase-out of free allowances and a rising price. Here we use 12 % simply as a steep stress path, because the first two parts overlap with the price and with our assumption that every tonne pays. We apply the rise to the price per tonne and hold each company's emissions, apart from its own cuts, at today's level.

Our main choices

Several results depend on choices we have made ourselves. Each is listed here with the reason for it.

Every tonne pays the same price. We assume that every tonne pays the same price, with no free allowances or exemptions, because that shows the full size of the exposure. Today most tonnes pay nothing.

One year against book equity. We set one year's bill against reported book equity, not market value. Book equity is the owners' capital as the accounts show it, on the same basis for every company and not moved by share prices.

Suppliers count as cost, customers as demand. Suppliers' emissions (Scope 3 categories 1–8) count as a cost that can reach the company, and customers' emissions (categories 9–15) as a risk to demand. A supplier can pass a carbon cost on in its prices, while a customer pays its own. The split is our choice. A different split moves the cost side; the full value chain includes all of Scope 3 either way.

Three prices. The Science Base Case price of $185, a peer-reviewed estimate of the damage a tonne does to society, is our base. The Regulatory Trajectory price of $123 is about analysts' average expectation for the EU carbon price in 2029–2030, and the Severe Transition price of $300 is a severe test. We chose a base price with a range around it because no one knows the future price, and a range shows how much the answer depends on it.

A steep price path. In Finding 4 the price rises 12 % a year and output stays at today's level. We chose a steep path on purpose, to test whether plans can keep up with a price that tightens fast; analysts' current expectations imply about 8 % a year. The result depends on this choice: if the price rose by about 6 % a year or less, the plans as reported would keep the bill flat, and at 8 % the bill would still be about a tenth higher after five years.

A line at 15 % of equity. We set the line before we ran the analysis: in our method, a bill above 15 % of equity calls for the board's attention. The reasoning is in Part 2. The method sets the line on the full value chain at $185; this report applies it to the cost side, the firmer figure, where it falls in a clear gap: the eighth company is at 15.4 %, the ninth at

8.2 %. In the full value chain at the same price, the same eight companies are above the line. At $185 the choice of layer does not change which companies are above the line; at $123 it is two on the cost side against six in the full value chain, and at $300 eight against nine.

Company figures as reported. We use the companies' own figures and do not adjust or fill them in, so that every number can be traced back to a company report. Companies report Scope 2 in two ways: market-based, which reflects the electricity contracts and certificates a company holds, and location-based, which reflects the emissions of the grid it draws power from. We use the location-based figure, because a carbon price falls on the tonnes that physically go into the air, and a renewable-energy certificate bought separately from the power does not change those tonnes. This is the same reasoning as in Finding 4, which does not count such certificates as physical cuts. The GHG Protocol is also revising the market-based method; the direction under discussion would, over time, count certificates only when they are matched hourly to consumption and delivered on the same grid. A consolidated public consultation is planned for 2027. On the market-based figures the 19 also publish, Scope 2 would be 0.8 Mt instead of 2.2 Mt, and the bill at $185 about DKK 1.6 bn lower, around 4 % of the own-operations bill and under 1 % of the full-chain bill. One company changes side of the 15 % line because of the choice: in the full value chain at $300 it is just above the line on the location-based figure and just below it on the market-based. The reduction pace in Finding 4 comes from the companies' own targets. The companies set their targets for own operations on market-based Scope 2; all 18 with an absolute target do. We therefore keep the tonnes each company says it will remove and set them against its location-based emissions, so that pace and bill are measured on the same figure. In own operations this lowers the pace as reported from 8.3 % to 7.8 % a year, and the number of companies above 12 % a year from 9 to 3. One of the 3 is close to the line: 12.6 % over our five years, and 10.7 % over its own, longer target period. Across the full chain the pace is 5.6 % and 1.2 % a year on either figure. The pace of verified physical cuts counts only measures that lower the tonnes, such as efficiency, on-site generation and electrification. Two effects are left out and pull in opposite directions: a measure that saves electricity cuts more location-based tonnes than the market-based figure shows, and a measure that replaces fuel with electricity adds location-based tonnes. For the two companies closest to the 12 % line we estimated both effects from their published energy figures, and neither brings the verified pace above the line. In short, we price only what is reported. Companies report the Scope 3 categories they judge significant and leave out others as not applicable or not material. None of the 19 reports all 15 categories, and at least six leave out one or more as not material. Those tonnes are not in the bill, so in this respect the bill is a floor.

Judgement calls

Verified physical cuts are physical and checked. Finding 4 rests on this judgement. A company can lower its reported emissions in two ways. The company can cut what physically goes into the air, for example by switching fuel, electrifying a process or changing a material. Or it can change how emissions are counted, for example by buying renewable-energy certificates, buying offsets, or using book-and-claim or mass-balance schemes. Some of these are accepted in reporting, but they do not change the tonnes that physically go into the air, and those are the tonnes a carbon price falls on. The reduction pace for each company and layer is taken from its targets: the yearly cut needed from the 2025 level to the next absolute target it has not yet reached, validated by SBTi or stated by the company with a figure; a target of zero is read as a straight line, and an intensity target without a volume path gives a pace of zero. We then read each measure named in the company's plan and sort it into one of the two groups. Physical cuts count in the pace of verified physical cuts, weighted by the stage the measure has reached: announced (a commitment without validation) 0 %, validated (the target it serves is validated, for example by SBTi, but progress is not yet reported) 70 %, verified once (progress reported and checked for one year) 90 %, verified over several years with third-party assurance 100 %. Where a company publishes tonnes per measure or per part of the chain (eight of the 19), we use its figures to weight the measures; for the other eleven we give the named measures equal weight, which is our heuristic, not the company's data. Changes in how emissions are counted count only in the pace as reported. We

chose this so that the pace of verified physical cuts shows the real cuts an outsider can see. In our model files this pace is called "documented" (CSL category A after the haircut for verification status), and the pace as reported adds CSL category B, reductions that rest on accounting conventions or are not yet verified.

- **Held out and unallocated Scope 3.** One company's Scope 3 is held out of the base and treated as a sensitivity. Another company's Scope 3 is not allocated to categories and counts in the full value chain only. Each is below 0.2 % of full-chain emissions.
- **Reduction pace.** Taken from each company's next absolute target that has not yet been reached. All three price paths are computed company by company.

Quality control

The method, the calculations and this report were developed with AI assistance, as Appendix C sets out. The controls described here are there so that the figures do not rest on that assistance alone. The figures behind Findings 1, 2 and 4 were calculated twice, by two independent routes, and the results agree. Every figure in the text and exhibits of those findings was then checked against the model. The partners then followed company figures from the annual reports into the model and checked formulas and labels on a sample basis, and looked further where they found an error. The main external sources we cite were checked against the original documents. Scope 2 and the reduction pace are measured on the same location-based figure. The disclosure counts in Finding 3 come from the company-by-company review.

Limitations

- Emissions are the companies' own figures, not audited by us. Methods differ, and restatements are frequent (Finding 3).
- Only reported emissions are priced. None of the 19 reports all 15 Scope 3 categories: at least six leave out one or more as not material, and others leave out categories as not applicable. Those tonnes are not in the bill, so in this respect the bill is a floor. Other parts of the method pull the other way, such as spend-based estimates and lifetime estimates for customers' use of products.
- Book equity is not market value. Against market value the ratios would be different, up or down by company.
- Carbon price only. No physical climate risk, no nature.
- The bill is today's emissions at a scenario price: it does not model who passes costs on to whom, and it holds volumes constant. Finding 4 adds a path with company-specific reduction pace.
- Nineteen companies cannot show the pattern across the wider economy. The group figures sum each company's exposure as reported: tonnes that appear in more than one company's value chain are counted once per company, and the overlap cannot be measured from the reports, so the 19 are not a closed system.
- Figures are rounded; shares may not add exactly.

Appendix C: Disclosures

About this analysis. This analysis is a stress test built on publicly available information from the reports of 19 large Danish listed companies (data as at 23 October 2026). The analysis shows what today's emissions would cost under three scenarios for a carbon price. The analysis is not investment advice, not a recommendation to buy, sell or hold any security, not a price target, not a valuation and not a forecast. Equity means reported book equity, not market

value. The analysis does not say that the companies' accounts are wrong: a carbon shadow liability is not a liability under IFRS. The figures depend on scenarios, on model assumptions and on the companies' own disclosures, which we have not audited. This is a first analysis and does not cover physical climate risk or nature. Priced Advisory is an advisory firm and has a commercial interest in the topic: it helps companies work out what changing conditions, such as carbon prices, mean for their business, and analyses like this one are part of that work.

Funding and holdings. No client commissioned or paid for this analysis. Neither Priced Advisory nor its partners hold shares directly in any of the 19 companies. The partners may have indirect holdings in some of them through index funds (ETFs) and pension savings that they do not manage themselves.

Use of AI. The Carbon Shadow Liability method, its calculations and this report were developed with AI assistance (Claude, Anthropic). The partners of Priced Advisory have reviewed the inputs, formulas, assumptions and conclusions and are responsible for them.

The method is set out in Part 2 and Appendix B; questions about it can be sent to the partners.

Appendix D: Two-way glossary

The report is written for readers from sustainability and from finance. Each group uses words the other may not. This glossary explains both sets in plain words, as the report uses them.

Finance words, for sustainability readers

Term	What it means here
Equity (book equity)	The owners' capital on the balance sheet: assets minus debts, as the accounts show it. Equity is the buffer that takes the hit when a cost cannot be passed on. Not the same as market value, which is the share price times the number of shares
Stress test	A what-if: how large would the damage be if one condition changed sharply? A stress test is not a forecast and makes no claim that the condition will change
Scenario	A set of assumptions about the future that a stress test is run on. In climate reporting under the EU standard (ESRS), a scenario usually starts from a level of global warming, for example 1.5 °C, and the rules and prices that would follow from it. This report uses a narrower scenario: a carbon price per tonne and, in Finding 4, how fast that price rises. The two fit together, because a carbon price is one of the things a warming scenario implies
Exposure	How large the possible loss is, before anyone knows whether it will happen
Return on equity (ROE)	A company's profit in a year, as a share of its equity
Pass-through	A company raising its prices to recover a cost. A cost that can be passed on lowers profit less
Margin	What is left of a sale after costs, as a share of the sale
Provision (IFRS liability)	An obligation recorded in the accounts under accounting rules. A shadow liability is not one
Restated comparative figures	Earlier years' figures recalculated in a later report. The sustainability counterpart is a recalculated base year
Stranded asset	An asset that loses value earlier than expected because of the transition

Sustainability words, for finance readers

Term	What it means here
Scope 1, 2 and 3	The Greenhouse Gas Protocol's three groups of emissions. Scope 1: direct emissions from sources the company owns or controls. Scope 2: emissions from the power and heating plants that produce the electricity, heat, steam and cooling the company buys and uses. Scope 3: all other emissions in its value chain
Scope 3 categories	Fifteen categories. 1–8 are upstream: above all what the company buys and how it is moved, and also business travel, commuting, waste and leased assets (category 8). 9–15 are downstream: above all the use of sold products (category 11), and also their transport and disposal, leased-out assets (category 13), franchises and investments. In this report, categories 1–8 form the cost side together with own operations, and categories 9–15 are the demand side. That split is our choice

Term	What it means here
Location-based and market-based Scope 2	Two ways of reporting Scope 2. The location-based figure reflects the emissions of the grid the company draws its power from. The market-based figure reflects the electricity contracts and certificates the company holds. This report uses the location-based figure, because a carbon price falls on the tonnes that physically go into the air
Base year	The year a target is measured from. If the base year is moved, or its figures are recalculated, progress is measured from a new starting point and becomes harder to follow from one report to the next
Reduction pace	The yearly rate at which a company's plan cuts emissions towards its next target
Science Based Targets initiative (SBTi)	An independent body that tests whether a company's emissions target matches climate science. A validated target is one it has approved
Near-term and net-zero target	A near-term target looks five to ten years ahead. A net-zero target is the long-term goal of cutting emissions to near zero, at the latest by 2050
1.5 °C level	A pace of cuts that matches keeping global warming to 1.5 °C
ESRS and CSRD	The EU's reporting standards (ESRS) and the directive that requires large companies to use them (CSRD)
Transition plan	A company's plan for how it will cut emissions: targets and the measures behind them
Transition risk	The financial risk a company faces as rules, prices and markets shift towards lower emissions. This report prices one part of it: what a carbon price would cost
Offsets, renewable-energy certificates, mass balance	Ways of changing how emissions are counted without changing the tonnes that physically go into the air
Verified physical cuts	Fewer tonnes actually going into the air, weighted by how far the cut has been checked. Which cuts count, and how much each counts, is our judgement company by company, set out in Appendix B
Internal carbon price	A price a company uses in its own planning
Social cost of carbon	The estimated present value of the damage one extra tonne of CO_2 causes to society. The report's base price of $185 per tonne is such an estimate
Emissions trading system (ETS) and CBAM	The EU system where large emitters pay for each tonne, and the border charge that puts the same price on some imports

Appendix E: Sources

- Company annual and sustainability reports for the latest financial year of each of the 19 companies, to 23 October 2026. Held in Priced Advisory's working file; not listed here because company names are withheld.
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Priced Advisory

About Priced Advisory

Priced Advisory is a Danish advisory firm. Changing conditions, such as new rules, customer requirements and carbon prices, reach a company's growth, cash flow and risk long before they show up in its reports. We help companies work out what these changes mean for their business, in money wherever the evidence allows, and what to do about them, so that CFOs, boards and credit committees can price them into decisions. The test in this report can be run on a single company with its own data, which is where the question can be answered for a real balance sheet. The firm has two partners, Christian Honoré and Christian Boserup.

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