



FINANCING THE TRANSITION

ANALYSIS OF HOW CAPITAL MARKETS CAN HELP
ACCELERATE THE TRANSITION FROM 'BUSINESS AS USUAL'
TO NET ZERO IN THE ENERGY SECTOR

December 2022

By Christopher Breen

> Energy companies require more than \$1 trillion per year in 'transition finance' to decarbonise their operations and hit their net zero targets by 2050. This report shows that transition finance as it stands is a long way short of raising the required amounts to clean up the energy sector; analyses why transition finance has not taken off in the same way as green finance; and outlines some ideas on how issuers, investors, investment banks, and policymakers can move the dial on transition finance.

Financing the transition

Since the Paris Agreement was adopted in 2015 to limit global warming, companies, governments, and markets have been trying to direct finance and investment to projects that will decarbonise society and create a more sustainable economy. While much of the current debate focuses on 'green finance', this report focuses on the less popular but important issue of 'transition finance' and the role of capital markets in helping the most polluting companies in the energy sector reduce their impact on the environment and support the transition to net zero by 2050.

Transition finance is an inconvenient truth in the debate on climate change: in order to ensure a stable and orderly transition, energy companies and other high-emitting companies will need to become *greener* before they can become genuinely green. This means more investment in 'light brown' projects focused on reducing their environmental impact. The current energy and cost-of-living crisis - a direct outcome of Russia's invasion of Ukraine - shows what happens when society and the economy are too dependent on carbon-intensive fuels. But most oil and gas companies are resisting the transition and are still channelling the vast majority of the funding they raise in the capital markets into 'business as usual' activities.

The value of transition and green finance - which, combined, we call 'low-carbon finance' - raised by the total energy sector has doubled in nominal terms since 2015. But for fossil fuel companies, which account for two thirds of carbon emissions in the sector, low-carbon finance only represents a fifth of their capital raising. The majority of financing is still going towards 'business as usual' projects such as oil exploration and coal extraction, and the majority of fossil fuel companies are a long way short of the sort of investments they would need to meet their net zero targets by 2050.

This report defines what we mean by 'transition finance' and 'green finance'; gives an overview of the state of low-carbon financing across the energy sector; and zeroes in on the most carbon-intensive companies. We then provide a breakdown of transition finance by instrument and offer insight into oil and gas companies' capital expenditure commitments. The final section offers some perspectives on why the labelled transition bond market has failed to take off, and what steps investors, asset managers, and policymakers can take to move the dial on transition finance.

To measure green and transition finance, we base our definitions on the EU Taxonomy's definitions of green and transitional activities. We define 'business as usual' and 'bad' company operations as those that delay, rather than accelerate, the transition to net zero.

We hope this research provides relevant insights into the debate on sustainable finance and we are always interested in feedback. I would like to thank Maximilian Bierbaum for his support on this report, William Wright for his insight and feedback, Dealogic for providing access to much of the data, and our members for supporting our work on sustainable finance. Any errors are entirely my own.

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NEW FINANCIAL

Rethinking capital markets

New Financial is a think tank that believes Europe needs bigger and better capital markets to help drive growth and prosperity.

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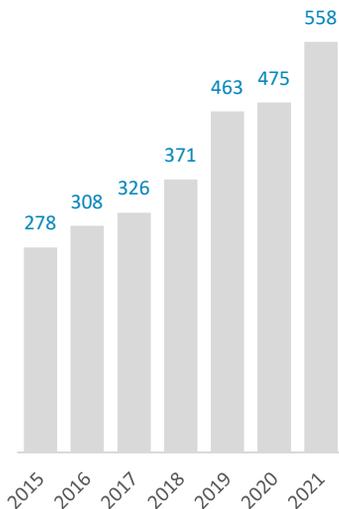
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Here is a short summary of this report:

Fig. I A steady increase

The value of low-carbon capital raising by energy companies 2015 to 2021 (\$bn)



Source: New Financial analysis of Dealogic data

1) Steady growth

Since the Paris Agreement in 2015, the value of low-carbon capital raising by the energy sector (including 'transition' and 'green' finance) has doubled in nominal terms to more than \$550bn a year. The share of low-carbon finance that was raised by 'bad' companies in the energy sector (or those that cause the most carbon emissions) has also increased to just over a third of low-carbon finance from energy companies last year. This growth in low-carbon finance is a welcome development as the world faces an energy crisis and a climate emergency. But nearly 60% of capital raising by energy firms (and 80% of capital raising by fossil fuel companies) is still being channelled into 'business as usual' activities.

2) Reaching net zero

Although low-carbon investment in the energy sector is increasing, it is nowhere near where it needs to be. Of the total \$558bn low-carbon finance raised in 2021, transition finance made up \$284bn - a figure that needs to quadruple (and quickly) to reach the levels required for a stable and orderly transition to net zero. Given that organisations like the Intergovernmental Panel on Climate Change (IPCC) argue that no further development of fossil fuel facilities can be made if the world wants to reach net zero by 2050, it is a worrying sign that there are still very high levels of 'business as usual' financing. Turning the tables and transforming 'business as usual' financing into 'transition' and 'green' financing will require issuers, investors, investment banks, and policymakers to reassess the transition in the energy sector.

3) A lack of clarity...

One of the biggest challenges for transition finance is that it is not as clearly defined as green finance. The aim and urgency of transition finance are clear - to help finance rapid change in high-emitting sectors and accelerate the path to net zero. But the lack of a detailed taxonomy for transition finance and a lack of clarity over the commitment of energy firms to the transition has held back the market. One example is the failure of labelled transition bonds to take off: while energy firms issued nearly \$250bn in labelled green bonds between 2015 and 2021, they raised less than \$10 billion from labelled transition bonds over the same period.

4) ...and a lack of ambition

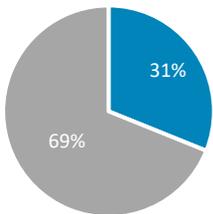
The failure of labelled 'transition bonds' is accompanied by an apparent lack of ambition and commitment to 'transition plans'. We analysed the transition plans of 20 of the largest oil and gas majors: three quarters of those plans do not address the majority of emissions from these companies, and provide little detail on *how* companies will achieve their targets. The recent work by the Transition Plan Taskforce is promising, but it is up to the companies to set more ambitious and detailed targets.

5) Uneven investment

Although the worst polluting companies make up more than two-thirds of emissions and three-quarters of capital raising by energy companies, they raised only a fifth of total low-carbon investment between 2015 and 2021. The remaining four-fifths of low-carbon financing was raised by companies that we have labelled 'transitional' and 'green'. For low-carbon investment - and in particular, transition finance - to work, the majority of it must go toward the worst polluting sectors and help replace fossil fuels.

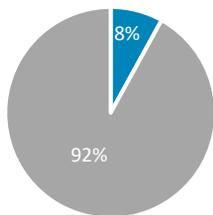
Fig.2 A larger slice of the pie

Low-carbon finance (including 'green' and 'transition' finance) as a proportion of all capital raising by energy companies between 2015 and 2021



...however

Low-carbon finance as a proportion of all capital raising by the most carbon-intensive companies between 2015 and 2021



Source: New Financial analysis of Dealogic data

6) Still 'business as usual'

Of the total capital raising by the global energy sector between 2015 and 2021, almost a third was low-carbon finance, split roughly equally between green and transition. But for 'bad' companies - or those that are the worst polluters - less than 10% of their total capital raising was green or transition finance. More than 90% of financing for 'bad' companies was 'business as usual', with much of that financing marked for 'general corporate purposes' like oil exploration and coal extraction.

7) A shift in capex?

One tiny step in the right direction when it comes to financing the transition is the increase in the share of capital expenditure (capex) that is being allocated to low carbon investments by the most carbon intensive firms. Our analysis of capex at 20 of the largest oil and gas majors shows that they allocated \$12bn in capex to low carbon projects last year, nearly double the level of previous years. Their own projections show this increasing to \$42bn by 2030. However, it is important to note that this only represents 6% of their combined capex last year and will still only represent 16% of their total projected capex by the end of the decade. This is nowhere near where it needs to be to transform the sector.

8) On the rise or plateauing?

Based on preliminary data for 2022, it looks like the record-breaking value of low-carbon capital raising in 2021 has already plateaued. Growth in 2022 has stalled and the overall shares of 'business as usual' and low-carbon financing from the energy sectors are set to remain about the same as last year. This is particularly worrying given that oil and gas companies are enjoying a record year in profits. Firms are returning money to shareholders at a rate of more than \$10 for every \$1 invested in green or transition finance. This may give the impression that fossil fuel companies are not fully committed to the transition - perhaps not entirely surprising given that the return-on-investment projections on 'business as usual' projects are higher than on low-carbon projects at current prices. To paraphrase St Augustine's famous prayer: 'Lord make me sustainable, but not yet'.

9) Small but important role for equity

The loan market is the biggest source of transition finance in the energy sector, accounting for just over 50% of all transition-related capital raising, closely followed by the corporate bond market with 45%. While equity markets make up only a small share of transition finance, more than half of all equity raised in the energy sector was by green or transition companies, and equity markets are an important source of transition finance for smaller and medium-sized renewable energy firms.

10) The challenges ahead

While there has been a steady increase in the value of transition and green finance, it is nowhere near enough to transform the worst polluting companies. In order to get back on track, these companies will need to demonstrate a stronger commitment to the transition, integrate their transition plans into their strategy, and provide investors with more detailed and coherent transition plans. Investors and intermediaries will also need to develop a more consistent and robust framework for engaging with energy companies on transition finance. Without significant progress - and fast - it is unlikely that the energy sector will be able to reduce its impact quickly enough, which is in turn likely to prompt policymakers and investors to penalise the sector.

FIVE KEY TAKEAWAYS ON TRANSITION FINANCE

Financing the transition

There is a lot of data in this report, and it would be pretty exhausting to read it all in one go. This section provides five key takeaways on the size and growth of low-carbon and transition finance:

1. THE VALUE OF LOW-CARBON FINANCE

\$2,800
bn

The value of low-carbon finance raised by all energy companies, 2015 - 2021

The value of low-carbon capital raising across bond, equity, and loan markets for all energy companies increased to more than \$500bn in 2021. Almost \$300bn was transition finance that sits between 'business as usual' and 'green' and is channelled into 'light brown' projects that significantly reduce but do not eliminate emissions.

While the rise in low-carbon finance and transition finance is significant, the worst polluters - companies that make up more than 70% of the energy sector's carbon emissions - accounted for just 20% of total low-carbon capital raising by energy companies.

The value of low-carbon finance raised in global capital markets from 2015 to 2021 (\$bn)



2. A NOTICEABLE SHARE

42%

The share of low-carbon finance of all energy sector capital raising

Low-carbon finance reached a record level in the energy sector in 2021 with over 40% of all capital raising being transitional and green. For 'bad' companies, only 20% was low-carbon, with the remaining amount being 'business as usual'.

3. PLAYING CATCH UP

\$1,200
bn

The estimated value of annual transition finance required for the energy sector to achieve net zero by 2050

Despite the growth in transition finance, the energy sector is still a long way short of where it needs to be. The sector will need to quadruple the value of transition finance in order to be on track to reach net zero by 2050.

4. A LACK OF AMBITION

16%

The projected allocation of capex to low-carbon projects by oil and gas companies in 2030

While oil and gas companies are increasing their pledges and expanding their transition plans, their allocation of capex to low carbon projects is projected to go up from just 6% today to 16% in 2030 - meaning that more than 80% of capex will still be 'business as usual' at the end of the decade.

5. RETHINKING TRANSITION

\$6
bn

The value of transition bonds issued by the energy sector, 2015 to 2021

Compared to labelled green bonds, labelled transition bonds have failed to take off. Investors, energy firms, and policy makers need to ask themselves whether they need to rethink the 'transition' label or 'transition' finance more generally.

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WHAT IS TRANSITION FINANCE?

How energy companies use capital markets to finance their transition

The energy sector is a major contributor to climate change and a sector that - whether you like it or not - will need to play a vital role in achieving the transition to net zero by 2050. Energy companies are capital intensive, and the capital markets play an important part in financing their day to day operations and their investments. This means that capital markets have an important voice in how, when, and whether the energy sector manages that transition.

In this report, we focus on how energy companies use capital markets in the form of corporate bonds, loans, and equity. We have divided the energy industry into two broad groups: the power sector (which includes utility companies such as grid operators) and the fuel supply sector (which includes companies that provide fossil or lower-carbon fuels, and for which low-carbon finance is critical to support its transition).

We use a traffic light system in the form of 'green', 'transition', and 'business as usual' or 'bad' and apply it to both the issuer and the type of financing. In the table below, we provide a breakdown of the distribution of each type of financing, and definitions and examples of what we mean by each.

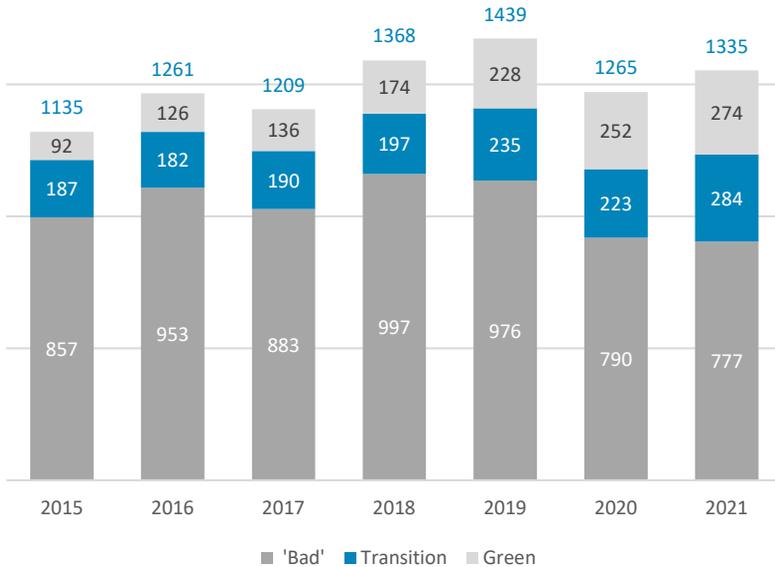
LOW-CARBON FINANCING	<p>Green finance</p> <p>\$274 bn</p> <p>Value in 2021</p> <p>21%</p> <p>% of total capital raising in 2021</p>	<p>'Green' finance is financing activities that produce zero or near-zero emissions. Examples of green finance can include:</p> <ul style="list-style-type: none"> • An energy company using a green bond to finance a hydroelectric dam • A solar energy company raising equity to finance its business operations • An oil and gas company issuing a loan to build solar and wind farms
	<p>Transition finance</p> <p>\$284 bn</p> <p>21%</p>	<p>According to various 'transition' finance frameworks (Climate Bonds Initiative, EU taxonomy, AXA), transition finance is supporting 'rapid change in high emitting sectors', and can include:</p> <ul style="list-style-type: none"> • An oil exploration company investing in natural gas exploration and reduction of methane flaring and release • A coal company issuing a transition or sustainability-linked bond to finance its decarbonisation • A natural gas company investing in carbon capture and other technologies to reduce its environmental footprint <p>These examples show transitional activities are less about a company becoming green and more about the worst polluters significantly reducing emissions using fuels and technologies that reduce their environmental impact.</p>
'BAD' FINANCING	<p>'Business as usual' finance</p> <p>\$777 bn</p> <p>58%</p>	<p>'Business as usual' financing (which we also call 'bad' financing) is financing the usual operations of a company with high emissions and can include:</p> <ul style="list-style-type: none"> • An oil exploration company issuing a bond for 'general corporate purposes' • A natural gas company issuing a loan to build out its petroleum reserves

Source: New Financial analysis of Dealogic data

THE STATE OF TRANSITION FINANCE

Fig.3 What is the total value of capital market financing for all energy companies from 2015 to 2021?

i) Global value of green, transition, and 'business as usual' capital raising by energy companies in \$bn, 2015 to 2021



ii) Estimated annual amount of transition investment required for the energy sector to achieve a stable and orderly energy transition by 2050:

World Economic Forum (WEF):



BlackRock:



iii) Estimated increase in transition finance required globally according to WEF



Source: New Financial analysis of Dealogic data; required amounts from World Economic Forum (WEF) and BlackRock

Accelerate, not delay

Both green and transition finance are 'low-carbon' finance. This report shifts the focus of much of the analysis of low-carbon finance from green to transition finance and highlights the role that transition finance plays in the energy sector. Transition finance may not always be as tangible as green finance, and does not have the same level of near universal support as green finance. However, in a sector as carbon intensive as energy, it will play a critical role alongside green finance in helping companies quickly reduce their environmental impact. It can help finance investment in large scale activities (like nuclear and natural gas) that are realistic and accessible for energy companies, and can help replace the most carbon-intensive fuels quickly, while providing a solid foundation for building out renewables and other zero-carbon fuels.

There is concern among both investors and governments, however, that transition finance is simply a greenwashed version of 'business as usual' finance and that transition finance is delaying, not accelerating, the transition to net zero. Fig.3 shows the total value of capital markets financing in the energy sector from 2015 to 2021 and the breakdown between green, finance, transition finance, and 'business as usual' finance. It shows that the combined value of green and transition finance doubled since 2015 (to over \$550bn) and that their combined share of all capital raising has increased from 25% to more than 40%. It also shows that the value of transition finance in most years has been higher than green finance, and that the share of 'business as usual' finance is falling - a welcome development.

While the growth in transition finance is notable, reaching \$284bn in 2021, it is still a long way short of where it needs to be: the World Economic Forum estimates that the required annual amount of transition finance in the energy sector is around \$1.2tn. This means that the value of transition finance will need to roughly quadruple - and fast.

AT A GLANCE: TYPE OF FINANCING

A steady increase

Since 2015, low-carbon finance in the energy sector has been on the rise: the combined value of green and transition finance doubled between 2015 and 2021. While much of that growth has been in green finance, there has been considerable growth in transition finance as well.

Fig.4 shows that the value of green and transition capital raising rose from just under \$300bn in 2015 to over \$550bn by 2021. Nearly two-thirds of this growth was driven by green finance, while the other third was a result of the slow yet steady increase in transition finance value.

In 2015, transition finance made up more than two-thirds of low-carbon finance. By 2021, it made up a little more than a half. Part of this decreasing share can be explained by the rapid rise of green finance. Transition finance growth overall plateaued during this time, particularly between 2015 and 2018, and saw a dip in 2020 most likely due to the Covid pandemic.

Fig.5 highlights how even though both green and transition finance have risen in value, their proportion relative to 'business as usual' is nowhere where it needs to be. By 2021, green and transition finance made up 42% of total financing for all energy companies, meaning that the remaining 58% (nearly two-thirds) was still going towards the most polluting activities.

The rapid growth in green finance and the relatively steady growth of transition finance is reflected in the fact that the share of transition finance of total energy company financing only increased by 5 percentage points between 2015 and 2021. The share of green finance more than doubled, reaching the same level as transition finance.

The steady increase in the value of transition finance and the rapid rise in green finance is a welcome development. While it puts the world better on track to achieve its climate goals, more than half of financing is still supporting the most polluting of activities.

Fig.4 What is the total value of low-carbon financing?

The value of total low-carbon capital raising globally by all energy companies in \$bn, 2015 to 2021

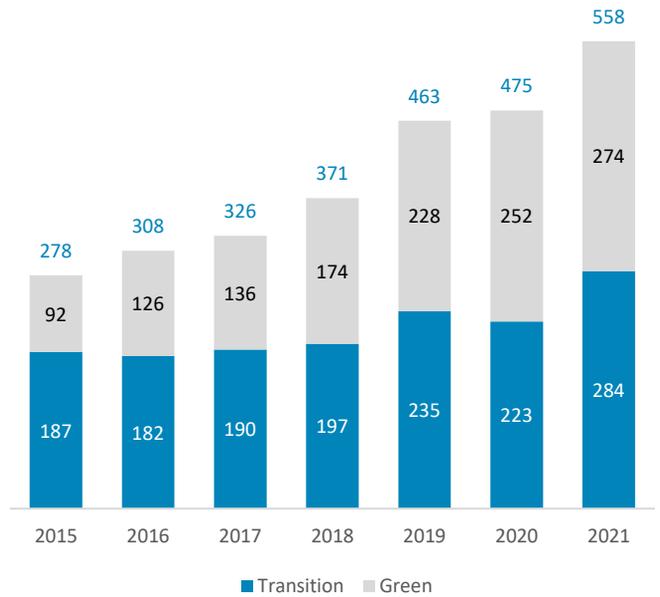
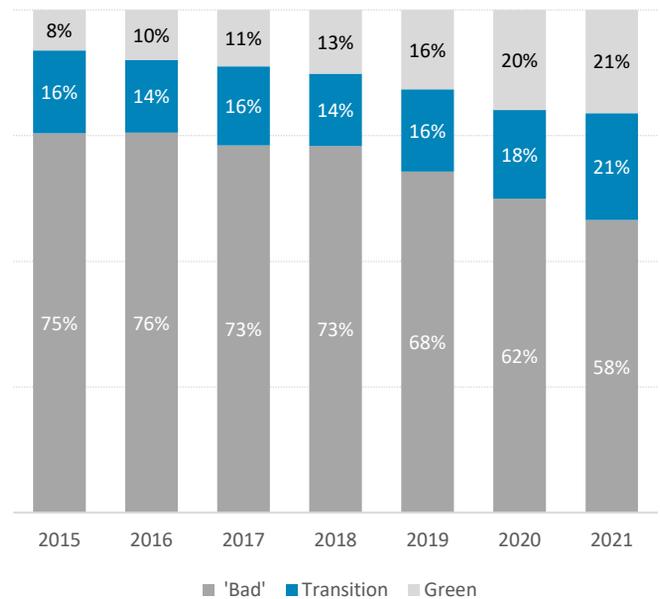


Fig.5 How does low-carbon compare to 'business as usual'?

The proportion of total finance by type of financing for all energy companies globally, 2015 to 2021



Source: New Financial analysis of Dealogic data

AT A GLANCE: TYPE OF FINANCING

Still not enough

With their carbon emissions making up more than two-thirds of total energy sector emissions, oil and coal are two of the most polluting sources of energy. While this means that they are also the ones most in need of transition and green finance, only one-fifth of 'bad' company financing in 2021 went towards 'low-carbon' projects and activities.

Fig.6 shows that 'bad' companies increased their value of green and transition finance six-fold between 2015 and 2021. The growth in the value of green finance mirrored the growth in transition finance, with both hovering around \$100bn in the value of issuance by 2021. This is a noticeable and dramatic increase from the less than \$30bn in total low-carbon financing in 2015.

The dramatic rise in green and transition finance for 'bad' energy companies disguises the fact that 'bad' companies are not raising the levels of green and transition finance that they need to. Fig.6 highlights how by 2021, 'bad' companies only raised 35% of total low-carbon financing for all energy companies. Given that 'bad' companies made up almost three-quarters of capital raising in 2021, there is still a lot of room for catching up.

The rise in low-carbon finance for 'bad' companies is further diminished by the still-large amounts of 'business as usual' financing, as shown in Fig.7. Although green and transition finance each made up 10% of total capital raising for 'bad' companies in 2021, 80% was going towards 'business as usual' activities for 'bad' companies.

Fig.7 shows, though, how transition finance has moved up the agenda for 'bad' companies since 2015. Until 2021, 'green' finance was the primary form of low-carbon capital raising for 'bad' companies. By 2021, green and transition finance were playing equal parts.

'Bad' companies are raising increasing levels of green and transition finance, but the vast majority of their financing is still 'business as usual'. If the highest emitters are serious about transitioning, their financing needs to reflect that.

Fig.6 Low-carbon capital raising by 'bad' companies

The value of total low-carbon capital raising globally by the most carbon-intensive companies in \$bn, 2015 to 2021, with 'bad' companies' share of total low-carbon financing in purple

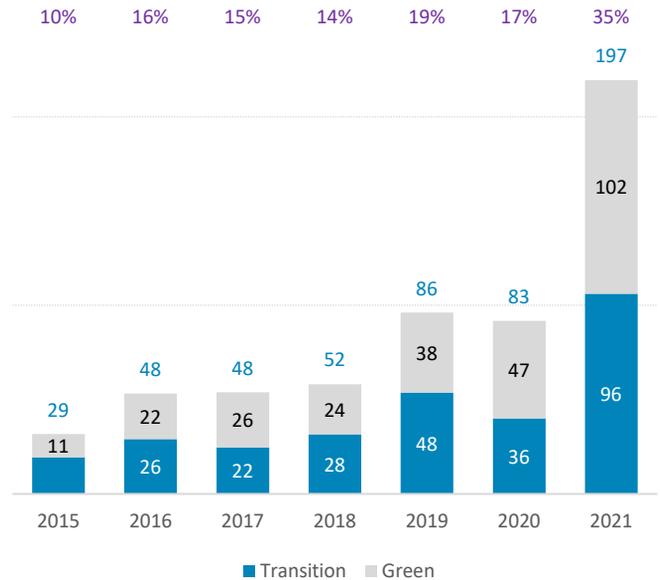
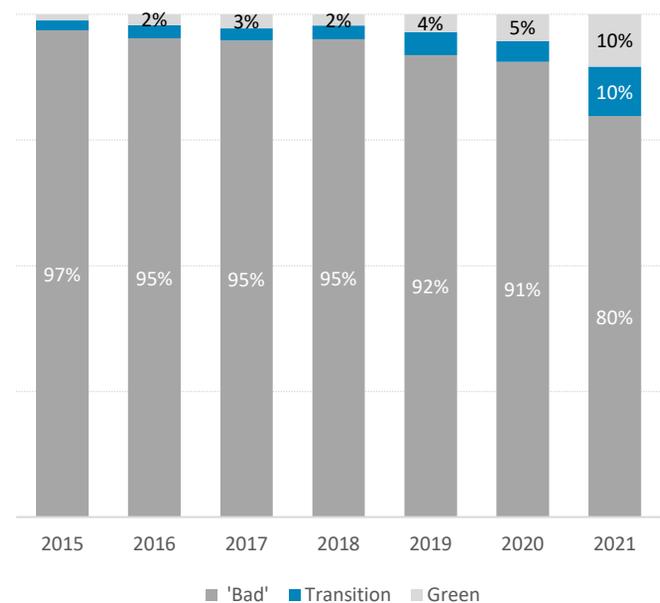


Fig.7 'Business as usual' financing by 'bad' companies

The proportion of total capital raising by type of financing for the most carbon-intensive energy companies throughout the world, 2015 to 2021



Source: New Financial analysis of Dealogic data

AT A GLANCE: TYPE OF INSTRUMENT

Loans take the lead

The loan market has been the primary source of transition capital raising by all energy companies since 2015. Between 2015 and 2021, loan issuance was the main source of funding, other than in 2020 when bond and loan markets decoupled in the face of the Covid pandemic. For all low-carbon finance - including green finance - loan issuance made up the majority of financing, followed by bond markets, and equity markets a long way behind.

Fig.8 shows that from 2015 to 2021, the annual value of transition loan capital raising increased by nearly 60%, with a slight dip in 2020. Transition bond issuance increased at a slightly faster rate of around 75%. The value of transition equity issuance more than halved, underlining that the growth in the value of transition finance has been primarily in the debt capital markets.

The noticeable growth in the value of transition finance from 2020 to 2021 was driven by growth in the loan market. Fig.8 shows that more than two-thirds of the \$60bn growth in transition capital raising came from loans, while the remaining third came from the bond market.

Fig.9 shows that low-carbon finance and its components (transition and green finance) are dominated by loan finance. Just over half of the value of transition finance was from loans, but for green finance loans made up almost two thirds of total issuance.

The overall breakdown of low-carbon finance in Fig.9 shows that the bond market makes up a little more than a third of the value of total low-carbon finance by all energy companies.

The dominance of loan issuance in low-carbon finance shows that the growth in labelled bonds has not helped the low-carbon bond market enough to overcome the value of low-carbon loan issuance.

Fig.8 What is the breakdown of transition finance?

The value of total transition capital raising globally by all energy companies in \$bn, by instrument, 2015 to 2021

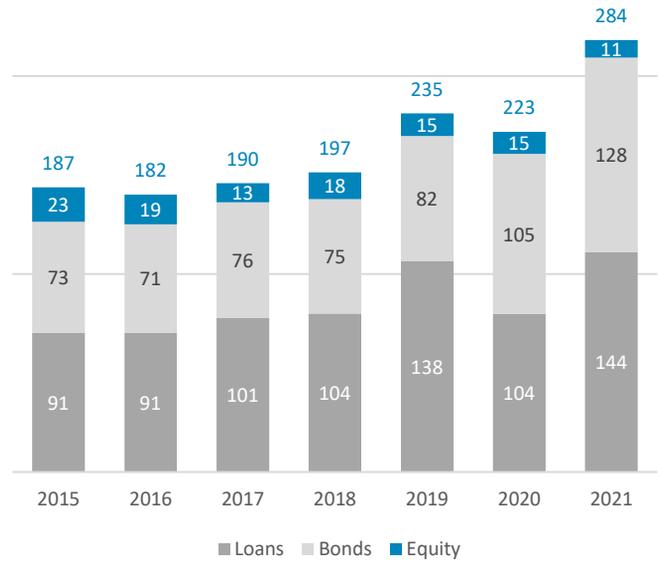
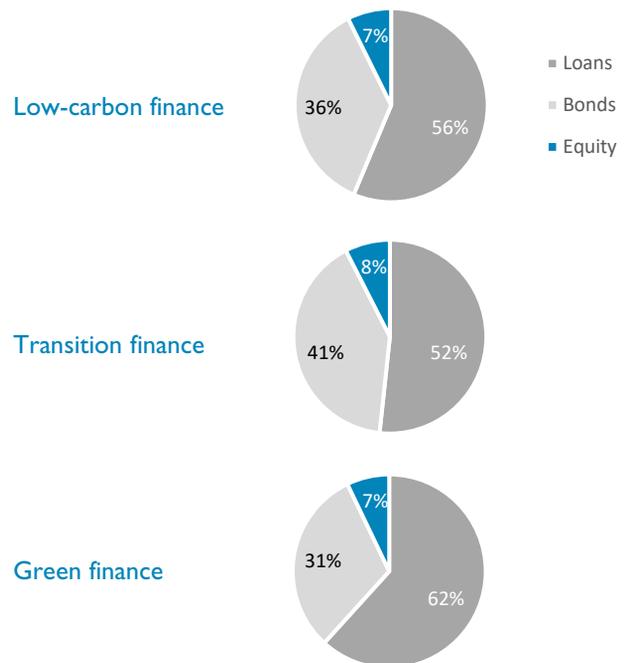


Fig.9 How is each type of finance composed?

The breakdowns of overall low-carbon capital raising, transition capital raising, and green capital raising by instrument (over 2015-2021 period)



Source: New Financial analysis of Dealogic data

A step in the right direction

One promising development is that even the most polluting companies are allocating more of their capital expenditure towards green and transition investment. Our analysis of capital raising by 'bad' companies that is explicitly allocated to project finance and capex - admittedly, only a small proportion (8%) of their total capital raising - shows that in the past few years, the share allocated to green or transition projects has increased.

While this is a tiny step in the right direction, the overall amount of capex being invested in low-carbon projects is still very low. The charts in Fig.10 show the evolution of capex spending on low-carbon projects at 20 of the world's largest oil and gas majors. Total spending nearly doubled last year to around \$12bn and is projected to more than triple in the years ahead, according to our analysis of their accounts. But to put that in perspective: last year, low-carbon projects represented just 6% of total capex at these 20 companies.

TotalEnergies, Shell, and BP are amongst the oil and gas majors that are at least making an effort. Fig.11 shows that TotalEnergies topped the table with \$4bn of capex allocated to low-carbon projects in 2021. While this a noticeable increase from Total's \$0.7bn low-carbon capex in 2018, it only accounted for 30% of Total's overall capex spending in 2021.

Shell and BP's low-carbon capital expenditure is higher than that of other oil and gas companies, but it has not significantly increased in the past five years. Equinor's low-carbon capex has declined from \$1.7bn in 2018 to \$0.9bn in 2021, and there is a long tail of oil and gas companies (including Exxon, Chevron, and Saudi Aramco) that on average did not spend much more than \$0.1bn in capex on low-carbon projects in 2021.

Even if oil and gas companies' projections are to be believed - and our figures show that this is a big 'if' - green and transition projects would still only represent 16% of their total capex by 2030. This is not a sign that oil and gas companies are committed to the transition. Capex is a way of measuring a company's future priorities, and for the foreseeable future, that main priority is 'business as usual'.

Fig.10 What does current & projected capex look like?

The growth in the value of low-carbon capital expenditure and its proportion of all capital expenditure, from 20 of the top oil and gas majors, \$bn, 2018 to 2030. Projected figures highlighted in purple

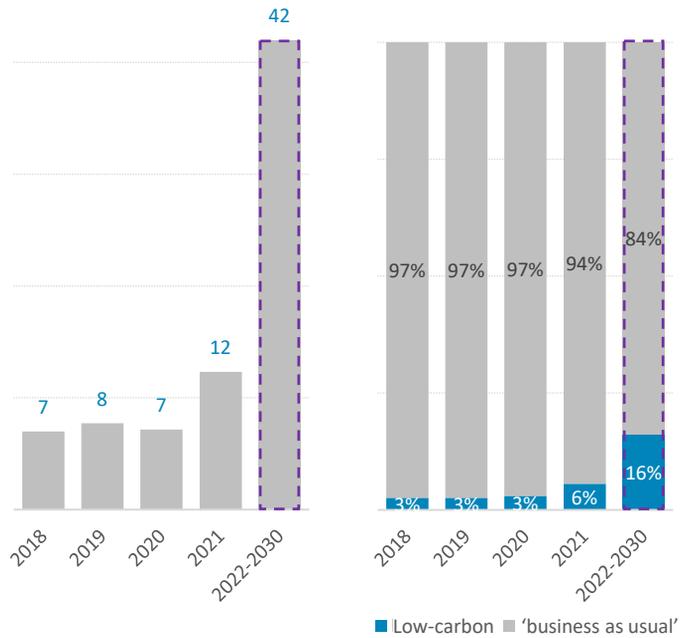
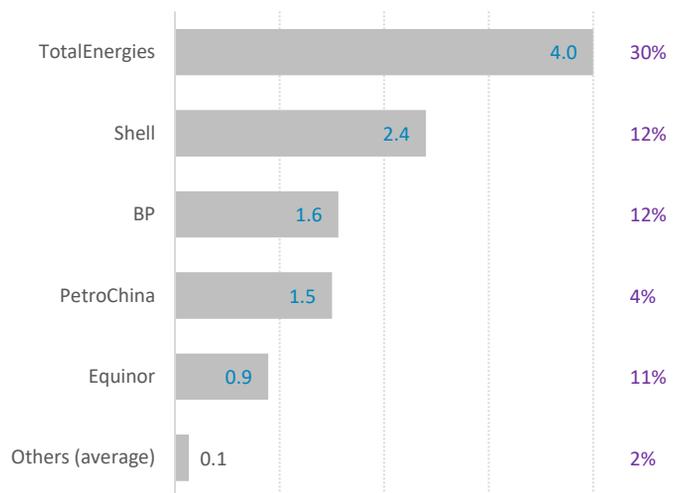


Fig.11 What is the value of low-carbon capex by firm?

The value of low-carbon capital expenditure and its proportion of all capital expenditure from 20 of the top oil and gas majors, \$bn, 2021



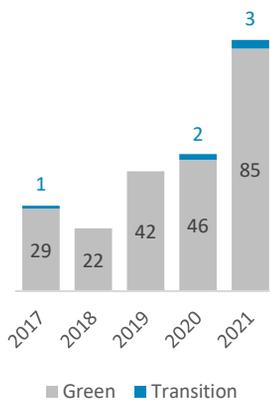
Source: New Financial analysis of Dealogic data and company reports. 'Others' including Exxon, Chevron, Suncor Energy, Saudi Aramco, Marathon Petroleum, CNOOC, Petrobras, Occidental Petroleum, Enbridge, Canadian Natural, ConocoPhillips, EOG Resources, Pioneer Natural Resources, Schlumberger, Sinopec

Labelled transition bonds are underperforming

In recent years, labelled transition bonds have been put forward as a finance vehicle to mobilise transition finance and help carbon-intensive companies lower their emissions while not becoming 'green' immediately. Our analysis shows that while transition bonds have been marketed as a way to help high-emitters decarbonise, transition bonds have failed to match the growth of green bonds due to the confusion around the meaning of 'transition'.

Fig.12 Failure to launch

Value of labelled green and transition bonds by energy companies, \$bn, 2015 to 2021



Source: New Financial analysis of Dealogic data

1) It is all about the label

For many investors, 'transition' is just another name for 'business as usual'. While that may not be fair, it highlights how labelled transition bonds - in contrast to labelled green bonds - appear to encourage delaying, not accelerating, the transition to net zero for the most carbon-intensive companies. The hesitancy to issue and invest in transition bonds is most pronounced by the fact that between 2015 and 2021, the energy sector issued only \$6bn in transition bonds, vastly short of the nearly \$250bn in green bonds issued in the same time period.

2) Lacking a clear framework

The problem with transition bonds does not just have to do with the label, but also with how the label is defined. Without a clear framework or definition - particularly around which assets are transitional - investors and carbon-intensive firms struggle to channel financing to lower-carbon projects. When AXA Investment Managers first pushed for a transition bond label a few years ago, they recognised the difficulty in moving a very carbon-intensive sector to zero-carbon. And as the disagreements around gas and nuclear during the development of the EU Taxonomy show, there are still too many questions about what activities are worthy of the 'transition' label.

3) Depends on where you look

The view that transition bonds and transition finance mean 'business as usual' is not a view that is shared across the world. One of the regions where transition bonds seem to be more popular is Asia. Of the 18 transition bonds that we identified from 2015 and into 2022, 12 were issued in Asia, with Japan driving much of that issuance. Part of the lack of investment in transition bonds may be a self-fulfilling prophecy around the transition label in Europe and the United States and should be re-evaluated if transition bonds are to be a global tool for financing decarbonisation.

4) The rise in sustainability-linked bonds

An alternative instrument to transition bonds is the sustainability-linked bond. The sustainability label offers a more catch-all and less confusing appearance than the transition label, but questions remain around what 'sustainability' and 'sustainability-linked' mean, and whether this might be yet another way of masking 'business as usual'. One concern around sustainability-linked bonds is that they have more to do with KPIs and financing terms than with use of proceeds.

5) Transition plans, not transition bonds

What some investors care more about is actual transition plans of 'bad' companies. If an oil and gas firm has a detailed and extensive transition plan, then much of the financing that the firm raises can be considered 'transitional' without the need for a labelled product. Part of the problem with transition plans, however, is the actual feasibility of the goals that companies are setting: only a quarter of the transition plans of 20 of the largest oil majors address the majority of their emissions.

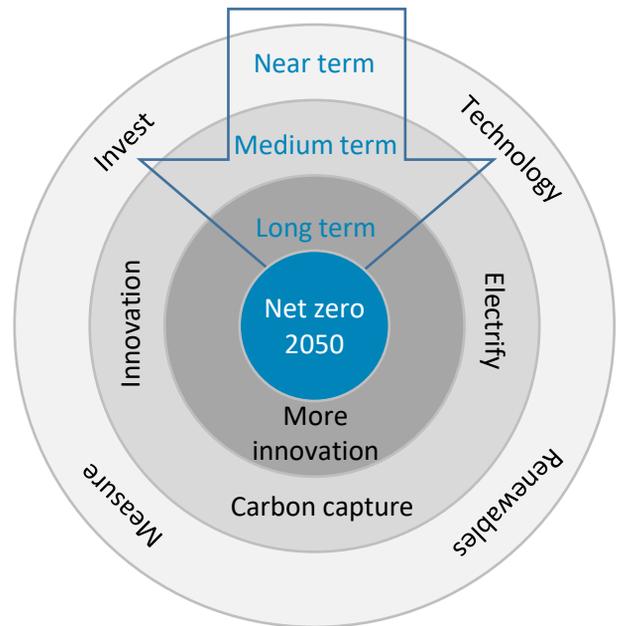
Fig.13 Transition plans

One of the main ways that oil, gas, and coal companies have outlined their commitments to net zero is through 'transition plans'. A transition plan, in its most basic form, provides a timeline of when a company will become net zero and how it will get there. In this section, we provide some insight into the different kinds of transition plans - along with typical charts that come with those plans - to show how, although many of the high-emitters have publicly committed to become net zero, their plans are usually lacking in detail and, with a few exceptions, are not very realistic.

i) The 'bare minimum' plan

The 'bare minimum' transition plan (also known as the 'wish list' plan) acknowledges that 'net zero 2050' is the goal - but that is about the level that this transition plan reaches. In a 'bare minimum' transition plan, the company will often use a slick chart to suggest how it will reach its goal, but does not outline specific strategies, show specific numbers, or describe how or when particular milestones will be reached. It is a reminder of the old adage that 'a vision without a plan is just a wish'.

Central to the 'bare minimum' plan is a vague notion of the kinds of investments and strategies a firm will take. The strategies often include 'carbon capture', which is not in widespread use yet, 'innovation', 'technology', and 'renewables'. As there is no detailed plan, however, it is not particularly clear what these technologies will be, where the renewables will be built, what kind will be built, or when they will be built. The 'bare minimum' transition plan should be the starting point for a plan, not the plan itself.

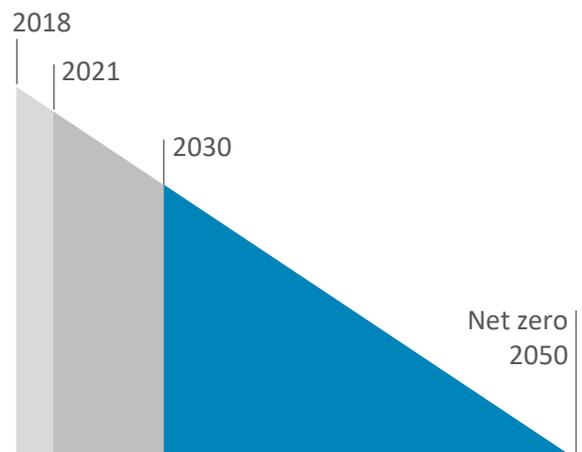


ii) The 'straight line from now to 2050' plan

The 'straight line from now to 2050' transition plan is an improvement on the 'bare minimum'. It does not provide insights into strategies or investments, but shows where a company's emissions are now and how they will decrease in a linear path to net zero by 2050.

In this type of transition plan, there is awareness that the firm is emitting a certain (and possibly too high) amount of carbon. It does not show how it will reduce that amount, nor whether it is actually feasible to phase out these emissions from its business operations without going bust. Similar to the 'bare minimum', this type of chart invariably only details scope 1 and 2 emissions.

If combined with the 'bare minimum', this transition plan can provide a little further insight into a firm's decarbonisation goals, but this is still not nearly enough.

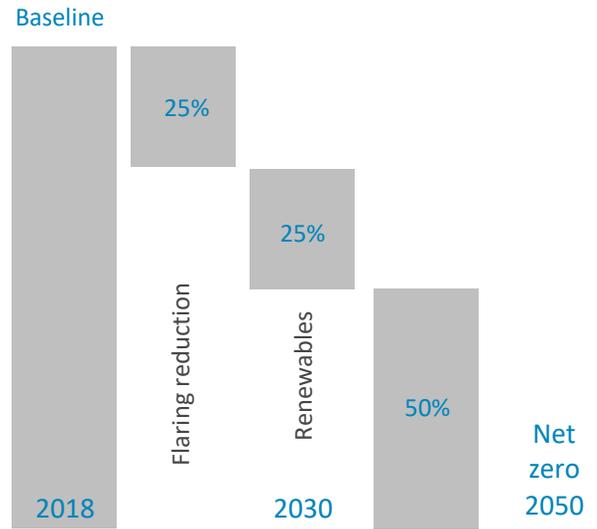


iii) The 'lacking specifics' plan

The 'lacking specifics' plan is more helpful than the first two types: it provides decarbonisation benchmarks and outlines some ways to get there. The key issue with this transition plan is that it does not provide specifics on how to reach the 'net zero by 2050' goal.

Elements often found in a 'lacking specifics' transition plan are technologies that have not yet reached wide-spread useability, such as carbon capture, and carbon offsets. While carbon offsets have a role to play in the transition, they cannot be the primary way with which firms reduce their carbon emissions.

What a 'lacking specifics' plan is missing is details on how to decarbonise a firm's assets - especially those that are emitting the most carbon - without the firm going bust, and how to integrate the plan into the firm's longer term strategy. To achieve net zero, oil and gas firms will need to close down these assets before they become stranded.

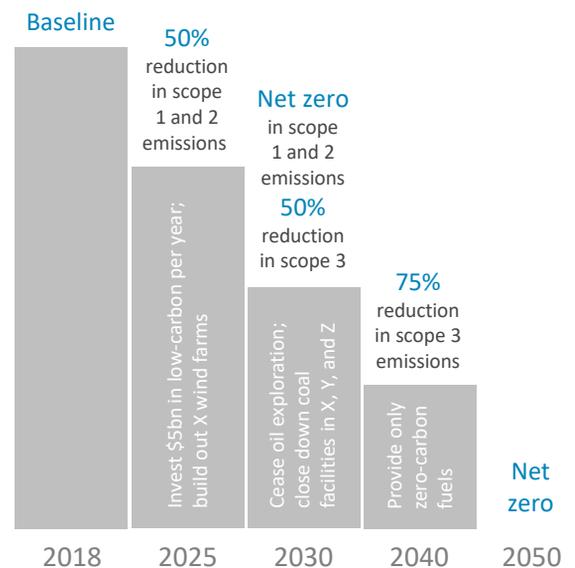


iv) The 'comprehensive strategy' plan

There are three characteristics that make a 'comprehensive strategy' transition plan the most helpful: it targets all emissions (including scope 3) and has specific percentage goals for when emissions will be reduced; it discusses specific assets that either need to be closed down (due to being high-emitting) or scaled up (as they will be central to decarbonising the business); and it is integrated into the firm's strategy and investment case.

In this transition plan it is common to have a description of how much capex will be spent on low-carbon projects. Capex is a core way for oil and gas firms to demonstrate their priorities, and if they are investing more in renewables development rather than oil exploration today, it shows a willingness to achieve net zero by 2050.

While 'comprehensive strategy' transition plans are the best plans we found, they are the least common, and they still need more detail around emissions and financial flows to 'dirty' assets.



A critical part in creating a net-zero future

The idea behind transition finance is that corporates, and in particular energy companies, need to switch to lower-emission fuels such as natural gas and invest in technological innovation first before they can focus on becoming fully net zero: they need to become *greener* before becoming *green*. We have identified some ways for investors to mobilise transition finance and point out how this type of finance can keep its promise and accelerate, rather than delay, the transition to net zero.

1) Keep the focus

What the cost-of-living crisis, the energy crisis, and the Russian invasion of Ukraine all show is that we need more attention, not less, to make society and economy less dependent on carbon-intensive fuels and more energy self-sufficient. A side effect of the energy crisis has been a dramatic increase in profits for the most carbon-intensive companies, and it will be up to those companies, their investors, and governments to channel those profits into lower-carbon projects.

2) Clearer frameworks

One of the big reasons why labelled transition bonds failed is a lack of clear frameworks and definitions. If investors want to push further on a labelled transition bond (or another transition vehicle), then it needs to be clear about *how* the proceeds will be used and *how* the issuance will help the firm's reduce its emissions. The rise of transition bond issuance in Asia shows that if certain jurisdictions experiment and find the right formula for transition bonds, then the transition finance market could take off in similar ways to the green bond market.

3) Between 'divestment' and 'business as usual'

From the perspective of investors, divestment is not the way to go. While it may seem obvious that the investor community does not prefer divestment, it speaks to a larger discussion about strategy and whether the economy can afford to cut off funding for one of the key parts of stability. One sign of the success of engagement has been increased pledges and low-carbon capex commitments from oil majors. Between 2020 and 2021, the value of low-carbon expenditure nearly doubled. Given that oil majors promised to more than triple that commitment, it is on investors to keep the pressure up and only invest in companies that are serious about their transition.

4) Regulation as means, not end

There are various approaches policy makers can take to hold investors and carbon-intensive firms to account. Policies such as a carbon tax, carbon credits, disclosure requirements, and encouragement of national oil companies (NOCs) to change their behaviour are all possible ways to accelerate the transition; but on their own, they do not hold the key to achieving net zero. In the end it will be up to the energy sector (including NOCs, oil majors, private oil and gas companies, and power companies) to change the type of fuel they are producing, and how it is being used.

5) Disclosure is key

While not on its own sufficient to achieve a green transition, good data and good information is crucial for investors and governments to hold the most carbon-intensive firms to account. Recent work by the Transition Plan Taskforce and the International Sustainability Standards Board (ISSB) shows that there are serious efforts being made to streamline reporting of how the energy sector is tackling the climate crisis and the role investors are playing. Further questions remain, particularly around the link between finance flows and high-carbon assets.

Accelerating the transition

One of the key messages of this report is that 'bad' companies need more low-carbon investment and that this can come in the form of transition finance. Here are some questions for investors, policy makers, and oil, gas, and coal firms to encourage discussion about what measures different groups can take to accelerate take-up of transition finance:

For investment banks:

1. **How do we create an effective transition bond?** One of our key findings is that transition bonds as they stand are not working. What would make a transition bond more effective? Are sustainability-linked bonds the correct instrument to channel transition finance? Has the transition label become another word for 'business as usual'?
2. **How do we engage with the worst polluters?** When working with a 'bad' firm on an investment product, what standards do we need? If a company with a bad reporting record approaches a bank to issue a transition bond, how can we ensure the use of proceeds is going to low-carbon projects? What is a good transition plan?

For asset managers:

3. **Divestment, engagement, or a bit of both?** Divestment versus engagement is one of the main disagreements between practitioners, activists, and policy makers. Is the answer more engagement, more divestment, or a combination of the two? If we do engage with oil and gas firms, what do we need from them: greater disclosure, more realistic or detailed transition plans, or simply greater efforts to finance their low-carbon operations?
4. **What do asset managers need from investment banks?** With investment banks developing vehicles like transition and sustainability-linked bonds, what can they do to tailor products more effectively?

For policymakers:

5. **Regulation or what?** Many outside of the energy and investment sectors are calling for greater regulation and policies such as a carbon tax and carbon credits. How could measures like a carbon tax encourage greater investment in low-carbon projects? Would it lead to more 'business as usual'? What can more targeted regulation achieve without making matters more confusing?
6. **How do we encourage disclosure?** A key element to investing in the transition is understanding where, how, and when financing is going into low-carbon or carbon-intensive projects. Given the work being done by bodies such as the Transition Plan Taskforce and the ISSB, how can governments streamline and localise such frameworks in order to ensure that the most carbon-intensive firms are reporting correct and relevant information? How can we create better datasets and show the links between dirty assets and 'business-as-usual' financing?

For oil and gas firms:

7. **What is needed to accelerate the transition?** The worst polluters are central to the transition and it is them who can provide insight into what is needed from policy makers and investors to accelerate the transition. What do oil, gas, and coal firms struggle to say in their transition plans? Do policy makers and investors have unfair expectations, or is there something core to the business that makes transition near impossible?
8. **Which emissions matter?** A frequent criticism of transition plans is centred around the lack of goals around end-use emissions (scope 3). If commitments are not made around these emissions, how can oil and gas companies work on lowering those emissions? Who is 'responsible' for these emissions?
9. **What is 'transition'?** Is it a helpful term? What will our energy supply look like by 2050? Will it consist of natural gas and nuclear, will there be a role for oil and coal, or will it be 100% green? What is the leadership perspective on 'transition' and 'green' at the worst polluters?

NEW FINANCIAL

Rethinking capital markets

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