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UNLOCKING SUSTAINABLE & TRANSITION INDICES

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Drivers of sustainable and low-carbon transition index sentiment in Q3 2024

Quick read

Know your beta

It is important for investors who are seeking to allocate to sustainable ant transition exposures to dig deeper into the index methodologies, to select those that are best aligned to their investment goals. Differences in methodologies can lead to significant variations in performance and in the factors driving such variations.

Active stock and sector weights drive equity returns

Stock-specific effects were the main driver of sustainable and transition equity index returns in Q3, followed by sector active weights, which generated positive results in Climate PAB indices. Active country weights generally detracted from performance, except for ESG screened indices.

Traditional macro factors remain key in fixed income

Duration was additive in EUR and USD high yield (HY) in Q3, while the opposite was true for USD investment grade (IG). The impact of the quality factor remained muted. On the other hand, sector nuances contributed significantly to positive active performance in USD HY, while the liquidity factor was a notable detractor.

Setting the scene: rate cuts, earnings breadth and heightened sensitivity

Q3 failed to offer a summer lull in global markets, with August in particular characterised by positioning-driven cross-market volatility. Equity markets sold off at the start of the month, triggered by an undershoot in US non-farm payrolls data, which has since recovered to higher-than-expected levels. The selloff was matched by a sizeable recovery, with the S&P 500 subsequently hitting new highs in September and October. The US Federal Reserve (Fed) also delivered a 50bp rate cut to kick off its easing cycle in September; we expect earnings to broaden in the US and Europe, including in well-positioned cyclicals geared to benefit from developed market (DM) central bank rate cuts, such as utilities and real estate. Sustainable UCITS ETPs saw $8.6B of inflows in Q3, up from $5.5B in Q2. Equity and fixed income contributed almost equally, with $4.5B into the former (52% of Q3 sustainable flows vs. 70% in Q2) and $4.1B into the latter (48% vs. 30% in Q2).[1]

Sustainable & transition equity indices: stock effects drive outperformance

Across the 32 sustainable equity indices evaluated, 63% outperformed their non-sustainable parent benchmark in Q3, down from 85% in Q2, with active returns averaging +0.87%, versus +0.11% in Q2.

Active sector weights generally had a neutral impact on active returns for ESG Screened and SRI Select RFF indices, while being additive for ESG Enhanced and Climate PAB indices. Overweights to the financials sector contributed positively to performance in Screened, Enhanced and SRI indices. However, for the latter, the largest contribution came from an overweight to the consumer discretionary sector.

Country weights detracted from returns in ESG Enhanced, Climate PAB and World SRI indices in Q3 and had a muted effect on ESG Screened indices. Underweights to the UK produced negative results in Europe and World Screened products, but positive results in Europe Enhanced. Overweights to the US proved a detractor in World Screened, while underweights to the US were additive for World SRI and World PAB.

Stock-specific effects were additive for performance in Enhanced, Climate PAB and SRI indices, while having a muted effect on Screened indices. An underweight to Boeing had a positive impact, while underweights to Coca-Cola and Philip Morris detracted from returns in USA and World Screened indices. An overweight to Tesla contributed positively to World and USA SRI indices' performance.

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Full performance data is available on pages 3 and 4. Source: BlackRock, as of 30 September 2024.

1 Source: BlackRock and Markit, as at 30 September 2024. All figures in USD.

Reference to individual companies mentioned in this communication is for illustrative purposes only and should not be construed as investment advice or investment recommendation.

Digging deeper: analysing index exposures

Figures 1 & 2 overleaf show how differences in methodologies across a range of sustainable and transition indices can lead to significant variations in composition and performance, helping to shed light on the drivers of active returns. **For more detailed analysis, please contact your relationship manager.**

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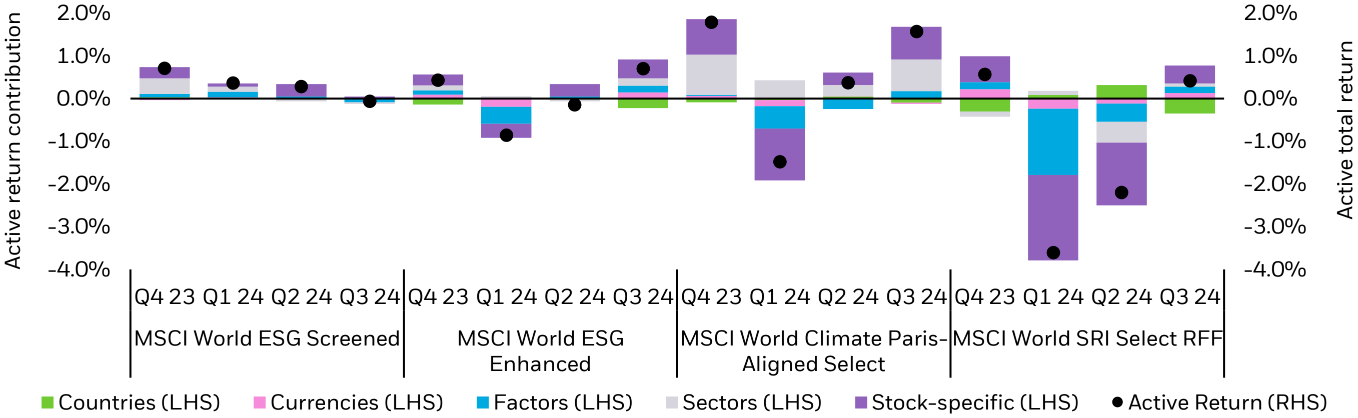
Figure 1: Drivers of active returns vs. parent benchmarks, MSCI World sustainable index range, Q4 2023 – Q3 2024



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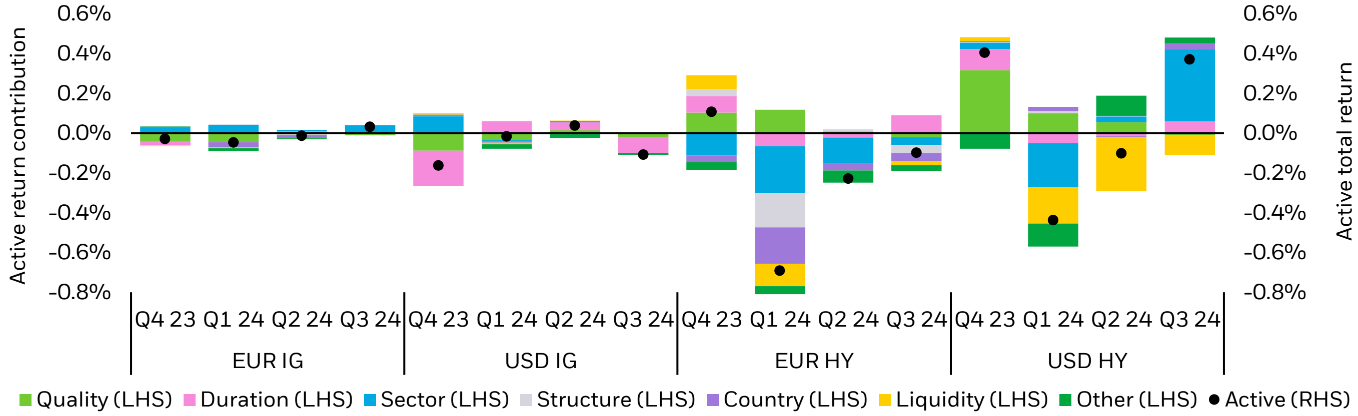
Sustainable & transition fixed income indices: duration and sectors stand out across IG and HY indices; liquidity also impacts USD HY

Across the 19 sustainable fixed income indices we analysed, 79% outperformed their non-sustainable parent benchmarks in Q3 2024, up from 47% in Q2. Average active return in Q3 was 0.16%, driven largely by the outperformance of the global climate government index, as well as sustainable and transition USD HY indices.

Traditional fixed income factors remained key in explaining active returns vs. parent indices for sustainable SRI credit indices. Duration was again an important driver: in USD IG, the shorter duration profile of the sustainable index vs. its parent was the main detractor from active returns, especially in July as the slowdown in June CPI and weaker-than-expected economic data bolstered the case for a potential US rate cut in September, triggering yield curve steepening. Conversely, the slightly longer duration profile of USD and EUR HY sustainable SRI indices vs. their parent indices added to active returns in Q3. Our research also shows that sustainable indices tend to display a higher credit quality tilt vs. their parent indices, as a by-product of the sustainable methodology. This quality tilt slightly detracted from active returns in Q3 across IG and HY sustainable indices given tightening credit spreads over the period.

Sector nuances had varying impacts, most notably adding to active returns in USD HY, where an overweight to financials – especially the banking sector – contributed positively to active returns in Q3. Similarly, in EUR IG, the outperformance of the sustainable SRI index was largely driven by an overweight to banking names. Conversely, in EUR HY, an underweight to industrials – specifically to the communication sector – detracted from active returns over the quarter. Country differences, namely underweights to Sweden and Italy, detracted from EUR HY returns in August and September, while the liquidity factor had a larger negative contribution to USD HY returns over the same period.

Figure 2: Drivers of active returns vs. parent benchmarks, key sustainable fixed income indices, Q4 2023 – Q3 2024



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 September 2024. Active return is defined as the total return difference between ESG and non-ESG index. For each Total return component theoretical DxS tilt return is calculated, except for the duration return: [Active DxS / Parent DxS * Excess Return of Parent] Components are additive and their ordering matters as previous tilt returns are subtracted from any additional tilt return. E.g. sector tilt will be calculated by combining quality and sector partitions and subtracting quality return (duration already being accounted for, as outlined above). See page 4 for full performance data. USD IG: Bloomberg MSCI US Corporate Sustainable SRI Index. EUR IG: Bloomberg MSCI Euro Corporate Sustainable SRI Index. USD HY: Bloomberg MSCI US Corporate High Yield Sustainable BB+ SRI Bond Index. EUR HY: Bloomberg MSCI Euro Corporate High Yield Sustainable BB+ SRI Bond Index.

Figure 3: Performance of equity indices used in this analysis

	Index	2019	2020	2021	2022	2023	H1 2024	Q3 2024
Global equities	**MSCI World**	27.67%	15.90%	21.82%	-18.14%	23.79%	11.74%	6.36%
	MSCI World ESG Screened	28.15%	17.56%	22.16%	-19.61%	26.23%	12.42%	6.30%
	MSCI World ESG Enhanced Focus CTB	28.36%	17.59%	22.34%	-20.19%	22.78%	10.70%	7.06%
	MSCI World SRI Select RFF	30.14%	21.20%	25.05%	-21.37%	24.96%	5.72%	6.78%
	MSCI World Climate Paris-Aligned Select	29.36%	18.35%	22.01%	-21.88%	25.48%	10.62%	7.93%
	Dow Jones Global Index	26.06%	16.21%	17.70%	-18.63%	21.32%	10.10%	6.90%
	Dow Jones Sustainability World Enlarged Index ex Alcohol, Tobacco, Gambling, Armaments & Firearms and Adult Entertainment	26.75%	13.94%	21.67%	-16.89%	26.84%	8.85%	6.14%
	MSCI World Small Cap	26.19%	15.96%	15.75%	-18.76%	15.76%	1.48%	9.39%
	MSCI World Small Cap ESG Enhanced Focus CTB	27.12%	16.08%	15.45%	-18.95%	14.07%	0.91%	9.39%
US equities	**MSCI USA**	30.88%	20.73%	26.45%	-19.85%	26.49%	14.64%	5.82%
	MSCI USA ESG Screened	31.29%	22.20%	27.14%	-21.14%	29.64%	15.37%	5.76%
	MSCI USA ESG Enhanced Focus CTB	31.82%	22.27%	26.70%	-21.58%	25.38%	13.47%	6.30%
	MSCI USA SRI Select RFF	31.80%	26.28%	30.49%	-18.80%	23.88%	5.63%	6.94%
	S&P 500	30.70%	17.75%	28.16%	-18.51%	25.67%	15.29%	5.78%
	S&P 500 ESG Net USD	32.54%	19.13%	31.22%	-18.08%	27.36%	15.53%	5.27%
	S&P 500 Paris-Aligned Climate Sustainability Screened	33.48%	23.56%	31.42%	-22.86%	30.14%	15.90%	5.76%
	MSCI USA Small Cap	26.74%	18.32%	19.11%	-17.55%	17.86%	2.03%	8.71%
	MSCI USA Small Cap ESG Enhanced Focus CTB	27.21%	19.12%	19.01%	-17.53%	15.53%	1.09%	8.77%
European equities	**MSCI Europe**	26.05%	-3.32%	25.13%	-9.49%	15.83%	9.05%	2.35%
	MSCI Europe ESG Screened	25.99%	-1.70%	24.77%	-11.60%	17.67%	9.46%	2.39%
	MSCI Europe ESG Enhanced Focus CTB	26.41%	-1.57%	25.26%	-12.62%	15.87%	9.03%	2.89%
	MSCI Europe SRI Select RFF	31.37%	3.80%	26.67%	-15.38%	16.99%	9.46%	1.48%
	MSCI Europe Climate Paris-Aligned Select	28.97%	2.20%	25.14%	-13.88%	16.44%	8.55%	3.91%
Eurozone equities	**MSCI EMU**	25.47%	-1.02%	22.16%	-12.47%	18.78%	8.33%	3.07%
	MSCI EMU ESG Screened	24.89%	-0.08%	22.46%	-13.42%	19.71%	8.86%	2.77%
	MSCI EMU ESG Enhanced Focus CTB	25.59%	0.90%	22.39%	-13.32%	18.28%	8.67%	3.65%
	MSCI EMU SRI Select RFF	32.10%	1.49%	20.93%	-15.31%	15.07%	8.37%	4.22%
	MSCI EMU Climate Paris-Aligned Select	27.72%	2.92%	21.95%	-15.38%	17.15%	7.54%	4.70%
Japanese equities	**MSCI Japan**	19.61%	14.48%	1.71%	-16.65%	20.32%	6.27%	5.72%
	MSCI Japan ESG Screened	21.02%	15.18%	1.58%	-17.04%	19.90%	5.83%	5.52%
	MSCI Japan ESG Enhanced Focus CTB	21.95%	15.26%	1.35%	-17.47%	19.82%	3.82%	6.16%
	MSCI Japan SRI Select RFF	25.63%	15.69%	1.68%	-17.93%	13.28%	1.96%	8.88%
Emerging market equities	**MSCI EM**	18.42%	18.31%	-2.54%	-20.09%	9.83%	7.39%	8.72%
	MSCI EM ESG Enhanced Focus CTB	17.86%	19.62%	-2.09%	-21.82%	8.93%	6.04%	9.95%
	MSCI EM SRI Select RFF	12.12%	19.00%	-0.44%	-18.33%	2.53%	2.44%	12.86%
	MSCI EM IMI	17.64%	18.39%	-0.28%	-19.83%	11.67%	7.41%	8.24%
	MSCI EM IMI ESG Screened	18.23%	19.25%	-0.82%	-20.72%	11.38%	7.42%	8.46%
Pacific ex. Japan	**MSCI Pacific ex Japan**	18.36%	6.55%	4.68%	-5.94%	6.44%	0.75%	14.29%
	MSCI Pacific ex Japan ESG Enhanced Focus CTB	20.81%	5.31%	4.86%	-6.49%	4.28%	-0.01%	14.24%

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Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 September 2024.

Figure 4: Performance of fixed income indices used in this analysis

	Index	2019	2020	2021	2022	2023	H1 2024	Q3 2024
Ultrashort bonds	iBoxx GBP Liquid Investment Grade Ultrashort Index	1.20%	0.92%	0.19%	1.23%	4.80%	2.80%	1.34%
	iBoxx MSCI ESG GBP Liquid Investment Grade Ultrashort Index	1.17%	0.89%	0.19%	1.21%	4.79%	2.80%	1.33%
	iBoxx EUR Liquid Investment Grade Ultrashort Index	0.24%	0.14%	-0.28%	-0.28%	3.39%	1.98%	1.12%
	iBoxx MSCI ESG EUR Liquid Investment Grade Ultrashort Index	0.15%	0.20%	-0.31%	-0.30%	3.39%	1.99%	1.11%
	iBoxx USD Liquid Investment Grade Ultrashort Index	3.16%	1.41%	0.23%	1.43%	5.67%	2.72%	1.72%
	iBoxx MSCI ESG USD Liquid Investment Grade Ultrashort Index	3.11%	1.64%	0.22%	1.40%	5.68%	2.72%	1.72%
Investment grade (IG) credit	Bloomberg EUR Corporate 0-3 Year Index	1.00%	0.62%	-0.03%	-3.53%	4.66%	1.59%	1.93%
	Bloomberg MSCI Euro Corporate 0-3 Sustainable SRI Index	0.95%	0.62%	-0.04%	-3.61%	4.61%	1.55%	1.94%
	Bloomberg Euro Corporate Index	6.24%	2.77%	-0.97%	-13.65%	8.19%	0.54%	3.27%
	Bloomberg MSCI Euro Corporate Sustainable SRI Index	5.92%	2.70%	-0.99%	-13.48%	8.00%	0.48%	3.30%
	Bloomberg MSCI EUR Corporate Climate Paris Aligned ESG Select Index	-	2.59%	-0.95%	-13.88%	8.16%	0.54%	3.35%
	Bloomberg US Corporate 0-3 Year Index	4.65%	3.18%	-0.01%	-2.07%	5.47%	2.08%	2.68%
	Bloomberg MSCI US Corporate 0-3 Sustainable SRI Index	4.56%	3.32%	-0.06%	-2.14%	5.48%	2.06%	2.68%
	Bloomberg US Corporate Index	14.54%	9.89%	-1.04%	-15.76%	8.52%	-0.49%	5.84%
	Bloomberg MSCI US Corporate Sustainable SRI Index	13.81%	9.98%	-1.28%	-15.03%	8.40%	-0.46%	5.71%
	Bloomberg MSCI US Corporate Climate Paris Aligned ESG Select Index	-	10.94%	-1.09%	-16.10%	8.51%	-0.52%	5.86%
High yield (HY) credit	Bloomberg Pan-European High Yield (Euro) Index	11.33%	2.29%	3.43%	-10.64%	12.12%	2.83%	3.35%
	Bloomberg MSCI Euro Corporate HY Sustainable BB+ SRI Bond Index	-	1.74%	2.76%	-10.76%	11.02%	1.89%	3.22%
	Bloomberg Euro High Yield 3% Issuer Capped Index	11.27%	2.25%	3.44%	-10.64%	12.12%	2.83%	3.35%
	Bloomberg MSCI EUR Corporate High Yield Climate Paris Aligned ESG Select Index	-	-	3.19%	-11.08%	11.05%	2.51%	3.58%
	Bloomberg US Corporate High Yield Index	14.32%	7.11%	5.28%	-11.19%	13.45%	2.58%	5.28%
	Bloomberg MSCI US Corporate HY Sustainable BB+ SRI Bond Index	-	7.13%	4.81%	-11.98%	12.77%	2.03%	5.68%
	Bloomberg US High Yield 3% Issuer Capped Bond Index	14.32%	7.10%	5.28%	-11.19%	13.44%	2.58%	5.28%
	Bloomberg MSCI US Corporate High Yield Climate Paris Aligned ESG Select Index	-	-	4.46%	-13.09%	12.31%	2.11%	5.93%
Emerging market debt	JP Morgan EMBI Global Diversified Index	15.04%	5.26%	-1.80%	-17.78%	11.09%	2.34%	6.15%
	JP Morgan ESG EMBI Global Diversified Index	15.94%	5.78%	-2.35%	-18.92%	10.26%	1.87%	6.37%
	JP Morgan EMBI Global Diversified IG Only Index	16.57%	8.92%	-1.93%	-19.76%	7.08%	-0.45%	5.62%
	JP Morgan ESG EMBI Global Diversified IG Index	16.36%	10.12%	-2.29%	-20.43%	7.18%	-0.61%	5.69%
Aggregate indices	Bloomberg Global Aggregate Index	6.84%	9.20%	-4.71%	-16.25%	5.72%	-3.16%	6.98%
	Bloomberg MSCI Global Aggregate Sustainable and Green Bond SRI Index	6.74%	9.24%	-4.83%	-16.41%	5.76%	-3.24%	7.00%
	Bloomberg EUR Aggregate Index	5.98%	4.05%	-2.85%	-17.18%	7.19%	-1.21%	3.74%
	Bloomberg MSCI EUR Aggregate Sustainable and Green Bond SRI Index	5.84%	4.11%	-2.87%	-17.21%	7.26%	-1.21%	3.75%
Government bonds	FTSE EMU Government Bond Index	6.72%	5.03%	-3.54%	-18.52%	7.16%	-1.94%	4.01%
	FTSE Advanced Climate Risk-Adjusted EMU Government Bond Index	6.77%	5.57%	-3.47%	-18.26%	7.29%	-1.85%	4.06%
	FTSE World Government Bond Index	5.90%	10.11%	-6.97%	-18.26%	5.19%	-3.96%	6.95%
	FTSE Advanced Climate Risk-Adjusted World Government Bond Index	6.11%	11.91%	-8.05%	-22.08%	6.60%	-5.59%	8.42%

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UNLOCKING SUSTAINABLE & TRANSITION INDICES

iShares by BlackRock

Drivers of sustainable & transition index sentiment in H1 2024

Know your beta

It is important for investors who are seeking to allocate sustainably to dig deeper into sustainable and transition index methodologies, to select those that are best aligned to their investment goals. Differences in methodologies can lead to significant variations in the drivers of performance.

Stock-specific and factor effects drove sustainable equity returns

Stock-specific and factor tilts – particularly underweights to size and momentum – drove active equity underperformance in H1, amid ongoing strong sentiment to a narrow portion of the market.

Traditional macro factors remain key in fixed income

Quality, duration and sector weights had a larger impact in high yield (HY) than investment grade (IG) credit. Quality was a detractor in IG, while duration and sector tilts were additive overall; in HY, the converse was true.

Setting the scene: sentiment remains resilient in H1, despite rate cuts being pushed out and various geopolitical events around the world

Rates markets remained data-dependent in Q1, with broadly resilient macro data and sticky inflation causing developed market rate cut expectations to be pushed further out. Equities pushed higher, driven by strong sentiment towards tech and AI and the prospect of improving economic growth. Solid Q4 earnings backed up the price action in US tech, while the energy sector became more popular towards the end of the quarter amid a rise in global commodities.[1]

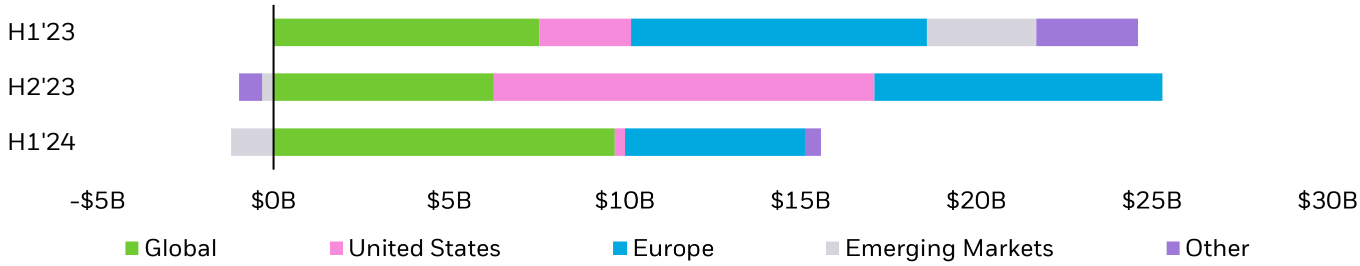
Q2 was relatively eventful, but investor sentiment remained sanguine. Sovereign bonds continued to reprice based on rate expectations adjusting to better-than-expected data, while market attention also turned to politics, with elections in India, Mexico, the UK and France. The European Central Bank led the way in cutting rates, in a widely expected move, while stronger-than-expected US CPI and continued resilience in the jobs market pushed out expectations for rate cuts by the Federal Reserve to the back-end of Q3. US stocks hit fresh all-time highs and tech leadership resumed after a strong earnings season, while the broader US earnings backdrop also improved.[2]

Sustainable flows ease off in H1, driven by a drop in equity buying

Sustainable UCITS ETPs recorded $14.4B of net inflows in H1, down from $24.3B in H2 2023 and $24.6B in H1 2023. Throughout the first half of the year, we saw a deceleration of flows into equities and fixed income, with both seeing a drop from Q1 (equities $4.9B; fixed income $4B) to Q2 (equities $3.9B; fixed income $1.6B).[3]

The overall drop in H1 flows was driven by equity ETPs, which gathered $8.8B, versus $19.3B in H2 2023, led by ongoing outflows from best-in-class (-$7.7B) and climate-focused indices (-$4.5B). Meanwhile, ESG screened exposures captured $8.5B. Similar to H2 2023, global exposures saw the strongest inflows ($8.9B), while emerging market (EM) exposures saw the largest outflows (-$942m). Fixed income flows remained relatively stable ($5.6B in H1, versus $7.8B and $5B in H1 and H2 2023, respectively). Similar to previous periods, best-in-class exposures gathered the largest inflows ($3.6B), followed by climate-focused indices ($1.2B). Eurozone exposures captured the majority of flows in sustainable fixed income ($4.6B), followed by global exposures ($758m).[4]

Figure 1: Flows into sustainable equity and fixed income UCITS ETPs by geographic exposure, H1 2023 - H1 2024[5]



1,2 Source: Bloomberg, as of 30 June 2024. **3,4,5** Source: BlackRock and Markit, as of 30 June 2024. All figures are in US dollars, unless stated otherwise. **Past flows into global ETPs are not a guide to current or future flows and should not be the sole factor of consideration when selecting a product.**

Figure 2: Performance of equity indices used in this analysis

	Index	2019	2020	2021	2022	2023	H1 2024
Global equities	MSCI World	27.67%	15.90%	21.82%	-18.14%	23.79%	11.74%
	MSCI World ESG Screened	28.15%	17.56%	22.16%	-19.61%	26.23%	12.42%
	MSCI World ESG Enhanced Focus CTB	28.36%	17.59%	22.34%	-20.19%	22.78%	10.70%
	MSCI World SRI Select RFF	30.14%	21.20%	25.05%	-21.37%	24.96%	5.72%
	MSCI World Climate Paris-Aligned Select	29.36%	18.35%	22.01%	-21.88%	25.48%	10.62%
	Dow Jones Global Index	26.06%	16.21%	17.70%	-18.63%	21.32%	10.10%
	Dow Jones Sustainability World Enlarged Index ex Alcohol, Tobacco, Gambling, Armaments & Firearms and Adult Entertainment	26.75%	13.94%	21.67%	-16.89%	26.84%	8.85%
	MSCI World Small Cap	26.19%	15.96%	15.75%	-18.76%	15.76%	1.48%
	MSCI World Small Cap ESG Enhanced Focus CTB	27.12%	16.08%	15.45%	-18.95%	14.07%	0.91%
US equities	MSCI USA	30.88%	20.73%	26.45%	-19.85%	26.49%	14.64%
	MSCI USA ESG Screened	31.29%	22.20%	27.14%	-21.14%	29.64%	15.37%
	MSCI USA ESG Enhanced Focus CTB	31.82%	22.27%	26.70%	-21.58%	25.38%	13.47%
	MSCI USA SRI Select RFF	31.80%	26.28%	30.49%	-18.80%	23.88%	5.63%
	S&P 500	30.70%	17.75%	28.16%	-18.51%	25.67%	15.29%
	S&P 500 ESG Net USD	32.54%	19.13%	31.22%	-18.08%	27.36%	15.53%
	S&P 500 Paris-Aligned Climate Sustainability Screened	33.48%	23.56%	31.42%	-22.86%	30.14%	15.90%
	MSCI USA Small Cap	26.74%	18.32%	19.11%	-17.55%	17.86%	2.03%
	MSCI USA Small Cap ESG Enhanced Focus CTB	27.21%	19.12%	19.01%	-17.53%	15.53%	1.09%
European equities	MSCI Europe	26.05%	-3.32%	25.13%	-9.49%	15.83%	9.05%
	MSCI Europe ESG Screened	25.99%	-1.70%	24.77%	-11.60%	17.67%	9.46%
	MSCI Europe ESG Enhanced Focus CTB	26.41%	-1.57%	25.26%	-12.62%	15.87%	9.03%
	MSCI Europe SRI Select RFF	31.37%	3.80%	26.67%	-15.38%	16.99%	9.46%
	MSCI Europe Climate Paris-Aligned Select	28.97%	2.20%	25.14%	-13.88%	16.44%	8.55%
Eurozone equities	MSCI EMU	25.47%	-1.02%	22.16%	-12.47%	18.78%	8.33%
	MSCI EMU ESG Screened	24.89%	-0.08%	22.46%	-13.42%	19.71%	8.86%
	MSCI EMU ESG Enhanced Focus CTB	25.59%	0.90%	22.39%	-13.32%	18.28%	8.67%
	MSCI EMU SRI Select RFF	32.10%	1.49%	20.93%	-15.31%	15.07%	8.37%
	MSCI EMU Climate Paris-Aligned Select	27.72%	2.92%	21.95%	-15.38%	17.15%	7.54%
Japanese equities	MSCI Japan	19.61%	14.48%	1.71%	-16.65%	20.32%	6.27%
	MSCI Japan ESG Screened	21.02%	15.18%	1.58%	-17.04%	19.90%	5.83%
	MSCI Japan ESG Enhanced Focus CTB	21.95%	15.26%	1.35%	-17.47%	19.82%	3.82%
	MSCI Japan SRI Select RFF	25.63%	15.69%	1.68%	-17.93%	13.28%	1.96%
Emerging market equities	MSCI EM	18.42%	18.31%	-2.54%	-20.09%	9.83%	7.39%
	MSCI EM ESG Enhanced Focus CTB	17.86%	19.62%	-2.09%	-21.82%	8.93%	6.04%
	MSCI EM SRI Select RFF	12.12%	19.00%	-0.44%	-18.33%	2.53%	2.44%
	MSCI EM IMI	17.64%	18.39%	-0.28%	-19.83%	11.67%	7.41%
	MSCI EM IMI ESG Screened	18.23%	19.25%	-0.82%	-20.72%	11.38%	7.42%
Pacific ex. Japan	MSCI Pacific ex Japan	18.36%	6.55%	4.68%	-5.94%	6.44%	0.75%
	MSCI Pacific ex Japan ESG Enhanced Focus CTB	20.81%	5.31%	4.86%	-6.49%	4.28%	-0.01%

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Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024.

Figure 2: Performance of equity indices used in this analysis

	Index	2019	2020	2021	2022	2023	H1 2024
Sectors	**MSCI World Communications ESG Reduced Carbon Select 20 35 Capped**	22.47%	21.00%	17.50%	-32.75%	34.54%	19.35%
	MSCI World Consumer Discretionary ESG Reduced Carbon Select 20 35 Capped	28.18%	38.00%	15.94%	-36.54%	24.61%	1.08%
	MSCI World Consumer Staples ESG Reduced Carbon Select 20 35 Capped	19.31%	7.69%	13.28%	-9.06%	1.81%	0.34%
	MSCI World Energy ESG Reduced Carbon Select 20 35 Capped	14.32%	-25.60%	27.56%	34.63%	8.73%	6.60%
	MSCI World Financials ESG Reduced Carbon Select 20 35 Capped	25.68%	-0.61%	26.25%	-11.25%	17.13%	8.93%
	MSCI World Health Care ESG Reduced Carbon Select 20 35 Capped	24.85%	14.16%	21.25%	-3.37%	4.02%	2.99%
	MSCI World Industrials ESG Reduced Carbon Select 20 35 Capped	28.54%	18.27%	19.94%	-16.43%	23.86%	7.16%
	MSCI World Information Technology ESG Reduced Carbon Select 20 35 Capped	48.98%	43.82%	33.25%	-33.64%	59.99%	24.45%
	MSCI World Materials ESG Reduced Carbon Select 20 35 Capped	23.84%	19.13%	13.51%	-18.73%	11.09%	0.96%
	MSCI World Utilities ESG Reduced Carbon Select 20 35 Capped	24.42%	13.90%	7.76%	-13.12%	3.57%	0.05%
Factors	**MSCI World Momentum ESG Reduced Carbon Target Select**	28.30%	32.75%	19.11%	-21.12%	17.36%	22.51%
Thematics	**S&P Global Clean Energy**	44.35%	141.31%	-23.41%	-5.00%	-20.36%	-13.61%
	STOXX Global Electric Vehicles & Driving Technology NET	15.11%	33.25%	16.95%	-27.54%	26.45%	1.83%
	STOXX Global Copper Miners	23.75%	49.08%	9.46%	-0.17%	12.34%	16.40%
	S&P Global Essential Metals Producers	-	-	9.41%	-7.25%	-7.69%	2.89%
	STOXX Global Lithium and Battery Producers	-4.60%	79.38%	48.70%	-18.35%	-7.82%	-18.88%

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.

Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024.

Figure 3: Performance of fixed income indices used in this analysis

	Index	2019	2020	2021	2022	2023	H1 2024
Ultrashort bonds	iBoxx GBP Liquid Investment Grade Ultrashort	1.20%	0.92%	0.19%	1.23%	4.80%	2.80%
	iBoxx MSCI ESG GBP Liquid Investment Grade Ultrashort	1.17%	0.89%	0.19%	1.21%	4.79%	2.80%
	iBoxx EUR Liquid Investment Grade Ultrashort	0.24%	0.14%	-0.28%	-0.28%	3.39%	1.98%
	iBoxx MSCI ESG EUR Liquid Investment Grade Ultrashort	0.15%	0.20%	-0.31%	-0.30%	3.39%	1.99%
	iBoxx USD Liquid Investment Grade Ultrashort	3.16%	1.41%	0.23%	1.43%	5.67%	2.72%
	iBoxx MSCI ESG USD Liquid Investment Grade Ultrashort	3.11%	1.64%	0.22%	1.40%	5.68%	2.72%
Investment grade (IG) credit	Bloomberg EUR Corporate 0-3 Year	1.00%	0.62%	-0.03%	-3.53%	4.66%	1.59%
	Bloomberg MSCI Euro Corporate 0-3 Sustainable SRI	0.95%	0.62%	-0.04%	-3.61%	4.61%	1.55%
	Bloomberg Euro Corporate	6.24%	2.77%	-0.97%	-13.65%	8.19%	0.54%
	Bloomberg MSCI Euro Corporate Sustainable SRI	5.92%	2.70%	-0.99%	-13.48%	8.00%	0.48%
	Bloomberg MSCI EUR Corporate Climate Paris Aligned ESG Select	-	2.59%	-0.95%	-13.88%	8.16%	0.54%
	Bloomberg US Corporate 0-3 Year	4.65%	3.18%	-0.01%	-2.07%	5.47%	2.08%
	Bloomberg MSCI US Corporate 0-3 Sustainable SRI	4.56%	3.32%	-0.06%	-2.14%	5.48%	2.06%
	Bloomberg US Corporate	14.54%	9.89%	-1.04%	-15.76%	8.52%	-0.49%
	Bloomberg MSCI US Corporate Sustainable SRI	13.81%	9.98%	-1.28%	-15.03%	8.40%	-0.46%
	Bloomberg MSCI US Corporate Climate Paris Aligned ESG Select	-	10.94%	-1.09%	-16.10%	8.51%	-0.52%
High yield (HY) credit	Bloomberg Pan-European High Yield (Euro)	11.33%	2.29%	3.43%	-10.64%	12.12%	2.83%
	Bloomberg MSCI Euro Corporate HY Sustainable BB+ SRI Bond	-	1.74%	2.76%	-10.76%	11.02%	1.89%
	Bloomberg Euro High Yield 3% Issuer Capped	11.27%	2.25%	3.44%	-10.64%	12.12%	2.83%
	Bloomberg MSCI EUR Corporate High Yield Climate Paris Aligned ESG Select	-	-	3.19%	-11.08%	11.05%	2.51%
	Bloomberg US Corporate High Yield	14.32%	7.11%	5.28%	-11.19%	13.45%	2.58%
	Bloomberg MSCI US Corporate HY Sustainable BB+ SRI Bond	-	7.13%	4.81%	-11.98%	12.77%	2.03%
	Bloomberg US High Yield 3% Issuer Capped Bond	14.32%	7.10%	5.28%	-11.19%	13.44%	2.58%
	Bloomberg MSCI US Corporate High Yield Climate Paris Aligned ESG Select	-	-	4.46%	-13.09%	12.31%	2.11%
Emerging market debt	JP Morgan EMBI Global Diversified	15.04%	5.26%	-1.80%	-17.78%	11.09%	2.34%
	JP Morgan ESG EMBI Global Diversified	15.94%	5.78%	-2.35%	-18.92%	10.26%	1.87%
	JP Morgan EMBI Global Diversified IG	16.57%	8.92%	-1.93%	-19.76%	7.08%	-0.45%
	JP Morgan ESG EMBI Global Diversified IG	16.36%	10.12%	-2.29%	-20.43%	7.18%	-0.61%
Aggregate indices	Bloomberg Global Aggregate	6.84%	9.20%	-4.71%	-16.25%	5.72%	-3.16%
	Bloomberg MSCI Global Aggregate Sustainable and Green Bond SRI	6.74%	9.24%	-4.83%	-16.41%	5.76%	-3.24%
	Bloomberg EUR Aggregate	5.98%	4.05%	-2.85%	-17.18%	7.19%	-1.21%
	Bloomberg MSCI EUR Aggregate Sustainable and Green Bond SRI	5.84%	4.11%	-2.87%	-17.21%	7.26%	-1.21%
Government bonds	FTSE EMU Government Bond	6.72%	5.03%	-3.54%	-18.52%	7.16%	-1.94%
	FTSE Advanced Climate Risk-Adjusted EMU Government Bond	6.77%	5.57%	-3.47%	-18.26%	7.29%	-1.85%
	FTSE World Government Bond	5.90%	10.11%	-6.97%	-18.26%	5.19%	-3.96%
	FTSE Advanced Climate Risk-Adjusted World Government Bond	6.11%	11.91%	-8.05%	-22.08%	6.60%	-5.59%

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.

Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024.

Sustainable & transition equity indices: sentiment turns more positive in Q2 versus the first quarter

Sustainable and transition equity indices saw a slight uplift in sentiment in H1 2024 versus their non-sustainable parent benchmarks. Our analysis of 27 global and regional sustainable equity indices covering a range of methodologies shows that 37% outperformed their parent benchmarks in H1 2024, down from 56% in 2023. Average relative performance remained negative at -1.21%, compared to -1.13% in 2023. However, beneath the surface there was a marked shift between quarters, with 85% outperforming in Q2 at an average of 0.11% versus 41% outperforming in Q1, with negative average active returns (-1.17%). Assessing sustainable equity indices by exposure, ESG Screened was the only methodology that had positive average performance across the range in H1 (0.32%), and had the most outperforming indices (five out of six). At the other end of the scale, SRI indices underperformed by an average of -3.58%, followed by the ESG Enhanced CTB range, averaging -0.88%. At a regional level, performance was mixed: while global, European and US equities with high exposure to the IT and health care sectors tended to outperform their benchmarks, other markets like EM and Japan struggled across the board.

Figure 4: Proportion of sustainable equity indices outperforming parent benchmarks and average active returns

	5Y	3Y	1Y	H1 2024
Proportion of indices outperforming	56%	33%	56%	37%
Average active performance	0.04%	-0.82%	-1.55%	-1.21%

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024. Analysis based on 27 sustainable regional equity indices, including ESG Screened, ESG Enhanced, SRI, and Paris-Aligned Benchmark (PAB) indices across World, US, Europe, EMU, Japan, and Emerging Markets (EM) exposures, excluding EM and Japan PAB, which are not yet available. Excludes sectors and factors. See page 2 for full performance per index.

Digging deeper: analysing index exposures

Breaking down the return attribution of sustainable and transition indices can help to shed some light on the drivers of active returns. Figure 5 demonstrates how differences in methodologies across a range of sustainable index exposures can lead to significant variations in performance and in the factors driving such variations. As figure 5 highlights, the choice of sustainable index type can have a significant influence on investment outcomes, with variations in drivers of return across different methodologies. Over the following pages, we dig deeper into some key drivers of active returns for sustainable indices versus their non-sustainable parent benchmarks across the different approaches.

Figure 5: Drivers of active returns vs. parent benchmarks for MSCI World sustainable indices, H1 2024

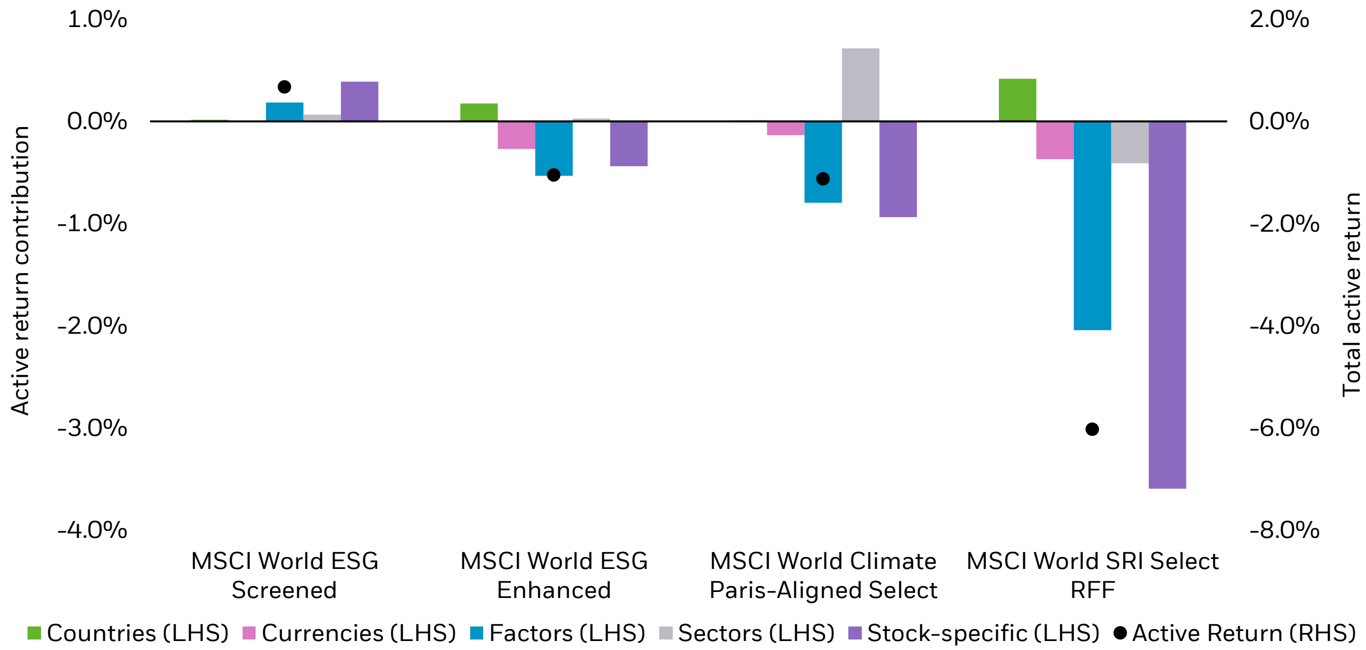

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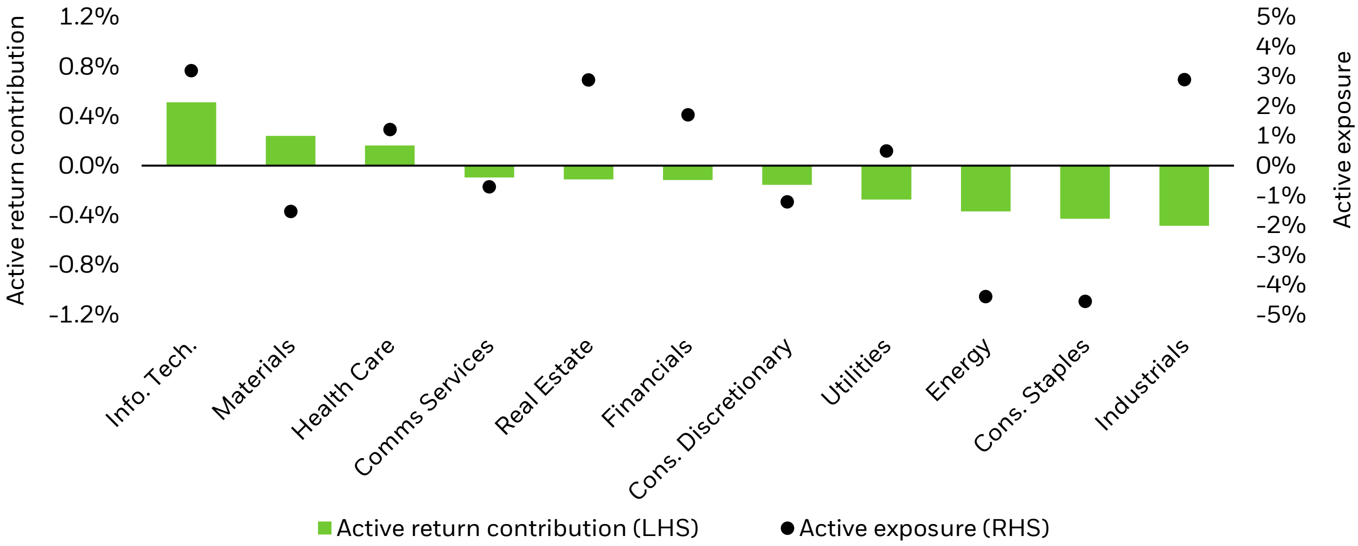
Figure 6: Sector contribution to active returns for MSCI World Climate Paris-Aligned Select Index vs. MSCI World Index, H1 2024



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Sectors

Sector composition contributed positively to active returns in 2024 for three out of the four sustainable variants of the MSCI World Index in our analysis. The sector contribution was particularly strong in the MSCI World Climate Paris Aligned exposure, while it had a muted effect on active returns for the ESG Screened and ESG Enhanced indices and detracted from relative returns for the SRI RFF index. At the headline level, overweights to information technology and health care contributed positively to returns in H1. Underweights to energy were less of a headwind than in previous quarters, but still represented a -17bps average drag across the ranges.The SRI RFF range, being the only index methodology that tended to be underweight IT (although this changed as part of the May 2024 rebalance) saw a -283bps contribution from this IT sector weight in the World SRI RFF index. Across the MSCI World sustainable indices we analysed, underweights to the communications services, consumer discretionary and consumer staples sectors were generally the most significant detractors, with the exception of the ESG Screened range.

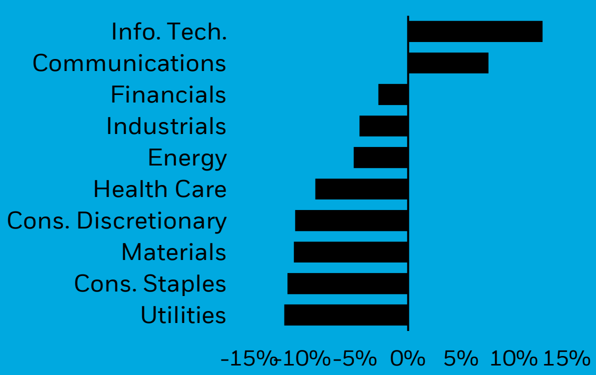
Focusing on the MSCI World Climate Paris-Aligned Select Index – which saw the largest net positive impact on active returns from sector allocations in H1 – overweights to information technology and health care and an underweight to materials proved to be the most significant drivers. An underweight to the energy sector became a headwind for active returns for the PAB indices, after having a muted effect across 2023. Interestingly, the second biggest positive sector contribution for the Climate PAB index came from an underweight to materials, which was one of the biggest negative contributors for the index in 2023. The biggest negative contribution in H1 2024 instead came from an overweight to Industrials (-0.49bps).

Sustainable sector indices

Performance across the MSCI World ESG Reduced Carbon Select 20 35 Capped sector index range diverged by more than 24% over H1, positioning these exposures as a powerful tool to seek out performance or de-risk portfolios.

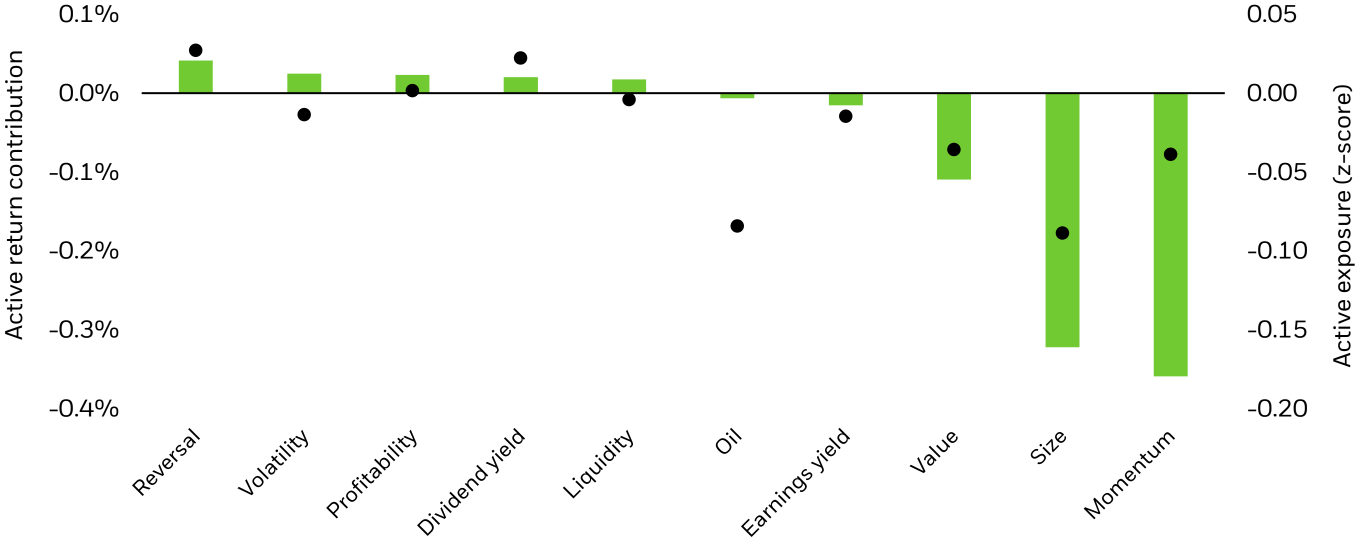
The ESG technology sector once again led active returns, outperforming the MSCI World Index by 12.7%, while the utilities sector underperformed the broad index by the most (-11.7%). The tech sector's performance was fuelled by solid earnings and continued focus on AI-related themes. Broad cyclical versus defensive groupings explained only 2.5% of the divergence, indicating that investors may need to look deeper than these high-level attributes to unlock the potential of sector investing.

Figure 7: Active returns for MSCI World ESG Reduced Carbon Select 20 35 Capped sector indices vs. MSCI World Index, H1 2024



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024.

Figure 8: Select factor contribution to active returns for MSCI World ESG Enhanced Focus CTB Index vs. MSCI World Index (top five and bottom five contributors), H1 2024



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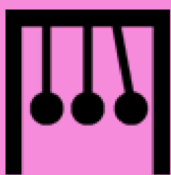
Factors

Style factor exposure contributed negatively to active returns for the MSCI World ESG Enhanced, MSCI World Climate Paris-Aligned Select and MSCI World SRI Select RFF indices in H1 2024, with only the MSCI World ESG Screened Index seeing a positive active return contribution from factor weights. Digging deeper, the MSCI World ESG Enhanced Index underperformed the MSCI World by 1.05% in H1 2024, with style factors contributing -0.53% of this. A significant negative contributor within these factors was the negative tilt to large cap stocks, otherwise known as 'size', which accounted for -0.32% of active returns.

2024 has continued to be dominated by mega-cap companies and AI, although we have seen an increase in market breadth beyond the 'Magnificent Seven' and strong momentum across the board. Negative exposure to the trend factor momentum, which is well represented in the IT, communication services, financials and industrials sectors, detracted from performance (-0.36%). Additionally, a stronger tilt to smaller companies (negative large size exposure) detracted by 0.32% as larger companies continued to outperform the broad market. The inherent negative value tilt of the MSCI World ESG Enhanced Index also detracted from relative performance (-0.11%), given that the value factor has continued to experience tailwinds from its short duration in a high inflation and rates environment. On the positive side, a tilt to short-term momentum (reversal) and low volatility factors provided some support in H1.

Sustainable factor indices



Investors use factors to cut through complexity by looking at the underlying, well-examined economic drivers of returns. Analysis of sustainable factor indices highlights the extent to which these exposures can help investors to allocate to precise drivers of return.

As outlined above, a broadening in market leadership in H1 led to the momentum factor picking up past winners and riding this trend successfully, leading to momentum outperforming the MSCI World by 10.8% in H1.

The momentum factor tilts heavily to stocks that have exhibited strong price trends on both six- and 12- month timeframes, which includes four of the 'Magnificent Seven' names. Investors can take advantage of strong and established trends through the MSCI World Momentum ESG Reduced Carbon Target Select Index. This index not only gives investors exposure to a well-understood driver of returns, it also aims to reduce the carbon equivalent exposure to $CO2$ and other greenhouse gases (GHG) as well as exposure to potential emissions risk of fossil fuel reserves by 30%, and aims to improve the weighted-average industry-adjusted ESG score of the index by 20% with respect to the underlying market capitalisation-weighted index under certain constraints.[6]

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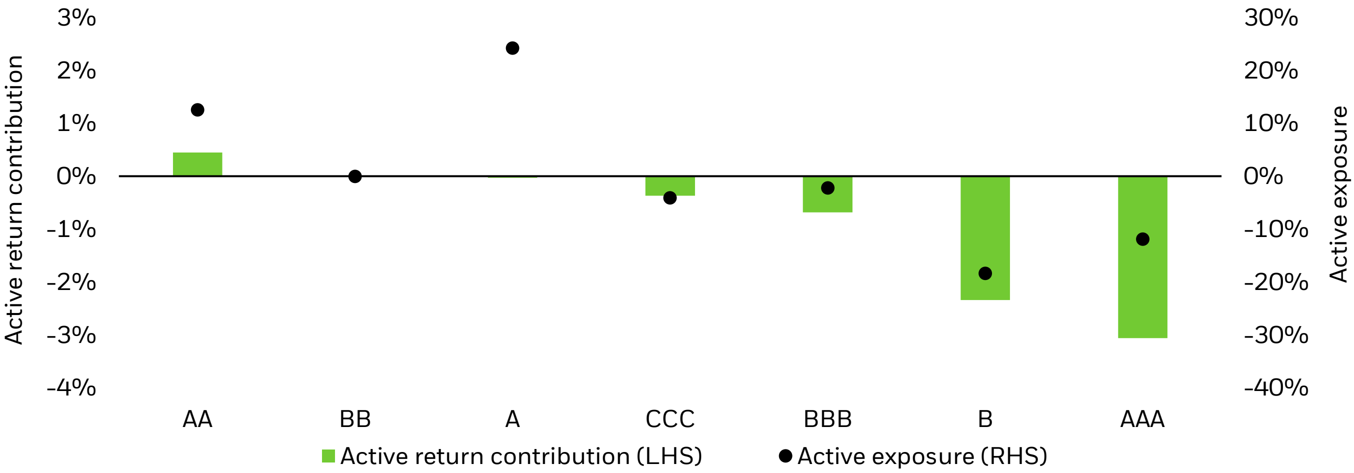
6 Source: BlackRock and MSCI, as of 30 June 2024.

Figure 9: ESG rating contribution to active returns for MSCI World SRI Select RFF Index vs. MSCI World Index, H1 2024



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Stock-specific effects & ESG ratings

Stock-specific effects contributed negatively to active returns for the MSCI World SRI RFF Index, the Climate Paris-Aligned Select and the ESG Enhanced index in H1, but had a slightly positive contribution for the ESG Screened indices. This is consistent with what we had seen in Q4 2023, when stock-specific effects turned negative for the majority of exposures compared to prior quarters, with the only exception coming in the ESG Screened range. As highlighted in previous quarters, the construction rules of the SRI index prior to the May 2024 rebalance (which were designed to remain sector-neutral and had a 5% issuer cap on stocks, after the security selection) meant that these indices have tended to have larger stock-specific effects than other methodologies. This was once again the case in H1 2024, with a significant negative impact. The MSCI World SRI RFF index specifically had negative contributions from the exclusions of Nvidia (-271bps), Amazon (-66bps) and Meta (-58bps) and an overweight to Tesla (-86 bps). Overall, the index lagged the parent benchmark by 602bps in H1, mostly due to stock-specific and sector effects. Between the index rebalance and methodology changes on 31st May and the end of the quarter, however, the index outperformed its parent by 12bps, suggesting that the removal of the issuer cap and new controls on best-in-class selection have been effective. Overall, the MSCI ESG Screened indices were the only ones to have seen a positive stock contribution in H1, driven by overweights to Nvidia (+30bps) and Microsoft (+8bps) and the exclusion of Boeing (+8bps). The contribution from ESG Ratings was interesting in H1 2024. In general across the MSCI World range, we saw a positive contribution from overweights to AAA and BBB-rated stocks. The MSCI World ESG Enhanced Index offers the most interesting case on ESG effects, as the index's underweights to A, BB, B and CCC-rated stocks proved as positive as the overweights to AAA, AA and BBB stocks, suggesting a positive trade-off in allocations between A and BBB stocks.

Reference to individual companies mentioned in this communication is for illustrative purposes only and should not be construed as investment advice or investment recommendation.

Choice of sustainable exposure matters

Differences between the methodologies of sustainable indices can have an impact on their performance and exposure versus parent benchmarks, as the previous section highlights. The margin of deviation from the parent index is an important consideration for investors looking to allocate to sustainable and transition ETFs, as the screening and reweighting of constituents mean that an index's tracking error versus the parent benchmark tends to increase in pursuit of higher ESG improvement. As our analysis below highlights, the SRI index has demonstrated the highest overall ESG Score and the largest tracking error versus the parent benchmark over three years. The SRI Index also overweights ESG Leaders the most, with 79% as a function of the methodology. Looking longer term, we tend to see that the ESG Screened and Enhanced indices – which have methodologies far closer to the parent benchmarks – demonstrate significantly lower tracking error than the PAB and SRI indices. In figure 10, we outline the main differences between a range of sustainable indices, using the MSCI World Index suite as a proxy.

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024. See page 2 for five-year performance data.

Figure 10: Comparison of the MSCI World sustainable index range

		MSCI World	MSCI World ESG Screened	MSCI World ESG Enhanced Focus CTB	MSCI World Climate Paris-Aligned Select	MSCI World SRI Select RFF
Relationship to broad index	Monthly tracking error (three-year annualised)	-	0.62%	0.85%	2.02%	3.30%
	Number of constituents	1,430	1,314	1,309	598	409
ESG Ratings	ESG Score (overall)	7.0	7.0	8.0	7.1	8.4
	Weighting to ESG leaders (AAA-AA)	47%	46%	72%	50%	79%
	Weighting to ESG laggards (B-CCC)	2%	2%	1%	2%	0%
Carbon metrics	Carbon emissions – scope 1+2 Int. (t/$m EVIC)	38.0	26.0	17.0	7.0	21.0
	Carbon emissions – scope 3 Tot Int. (t/$m EVIC)	304	227	144	80	200
Key sector weights	Information technology	20.41%	22.22%	21.60%	24.01%	16.62%
	Energy	4.98%	2.53%	3.73%	0.16%	2.47%
Volatility	3Y annualised	17.2%	17.6%	17.7%	18.2%	18.7%
	5Y annualised	18.0%	18.2%	18.1%	18.5%	18.3%
Max. drawdown	1Y	-10.5%	-10.8%	-11.2%	-11.4%	-12.2%
	3Y	-26.1%	-27.2%	-28.1%	-29.5%	-29.3%
	5Y	-34.0%	-33.7%	-33.6%	-33.1%	-32.2%
Index returns	H1 2024	11.74%	12.42%	10.70%	10.62%	5.72%
	30/06/2023-30/06/2024	20.2%	21.6%	18.6%	19.4%	12.9%
	30/06/2022-30/06/2023	18.5%	19.3%	17.4%	18.3%	20.0%
	30/06/2021-30/06/2022	-14.3%	-15.0%	-15.9%	-16.4%	-14.0%
	30/06/2020-30/06/2021	39.0%	39.7%	39.6%	38.7%	38.0%

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Sustainable fixed income indices: macro factors still key

Analysis of 19 sustainable fixed income indices covering a range of approaches and regions shows that 37% outperformed their parent benchmarks in H1 2024, an increase versus historical periods (see figure 11). Average relative performance of sustainable fixed income indices versus their parent benchmarks was -0.24% over the first half of the year, driven largely by the underperformance of global climate government, high yield (HY) and hard currency EM indices. Excluding these, average relative performance of sustainable and parent indices was -0.04%.

Figure 11: Proportion of sustainable fixed income indices outperforming parent benchmarks and average active returns

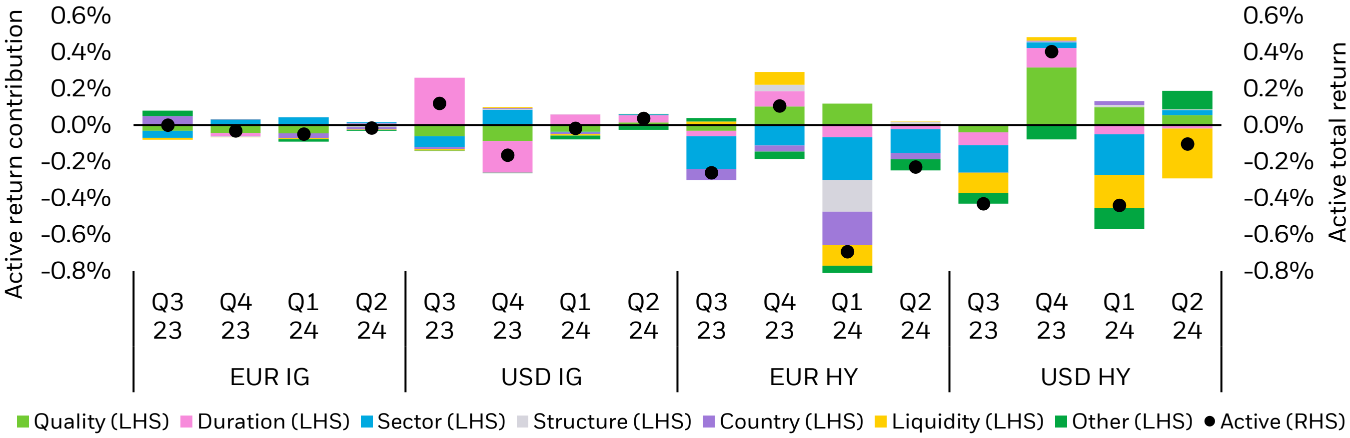
	5Y*	3Y*	1Y	H1 2024
Proportion of indices outperforming	30%	20%	21%	37%
Average active performance	-0.18% (annualised)	-0.34% (annualised)	-0.29%	-0.24%

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024. Analysis based on 19 sustainable fixed income indices, including USD and EUR Credit IG, Credit IG 0-3, USD, EUR and GBP Ultrashort, EUR and USD HY, EUR and USD Credit IG PAB, EUR and USD HY PAB, Global and EUR Aggregate, USD EMD Broad and IG-only, as well as Global and EUR Climate Govt. See page 4 for full performance per index. * Given limited history for HY, IG PAB and HY PAB, the analysis includes 13 index pairs for the period 31 Dec 2017 to 31 Dec 2018, 15 pairs from 31 Dec 2018 to 31 Dec 2019, and 17 pairs for the period 31 Dec 2019 to 31 Dec 2020 and 31 Dec 2020 to 31 Dec 2021.

Digging deeper: analysing index exposures

Analysing performance attribution for sustainable fixed income indices can help to provide more transparency and understanding around the drivers of active returns. Below, we compare a range of USD and EUR investment grade (IG) and HY credit exposures to show the varying impacts of sustainable integration across the different segments, and over time. Overall, the sustainable SRI credit indices we analysed underperformed their parent indices in H1 2024, with the exception of USD IG, which marginally outperformed its parent index. Figure 12 highlights that traditional macro factors, such as duration, credit quality and sector differences remain key. We see that the liquidity and sectors had a larger impact on active returns in HY, while IG – particularly USD – was more impacted by the duration factor; duration had a positive impact on active returns for IG exposures and was negative for HY indices. Other factors such as quality contributed positively in HY, while having a negative effect on EUR IG active performance. In the following sections, we dig deeper into the drivers of return for sustainable fixed income indices over H1 2024.

Figure 12: Drivers of active returns vs. parent benchmarks for sustainable credit indices



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024. Active return is defined as the total return difference between ESG and non-ESG index. For each Total return component theoretical DxS tilt return is calculated, except for the duration return: [Active DxS / Parent DxS * Excess Return of Parent] Components are additive and their ordering matters as previous tilt returns are subtracted from any additional tilt return. E.g. sector tilt will be calculated by combining quality and sector partitions and subtracting quality return (duration already being accounted for, as outlined above). See page 4 for full performance data. USD IG: Bloomberg MSCI US Corporate Sustainable SRI Index. EUR IG: Bloomberg MSCI Euro Corporate Sustainable SRI Index. USD HY: Bloomberg MSCI US Corporate High Yield Sustainable BB+ SRI Bond Index. EUR HY: Bloomberg MSCI Euro Corporate High Yield Sustainable BB+ SRI Bond Index.

Investment grade: varied factor impact in USD and EUR IG

The USD IG sustainable SRI index (Bloomberg MSCI US Corporate Sustainable SRI Index) outperformed its parent benchmark in H1, while the EUR IG index (Bloomberg MSCI Euro Corporate Sustainable SRI Index) underperformed. Certain factors had differing impacts for USD and EUR active performance – for instance, duration was a more significant factor in USD IG, while country exposures had a greater impact on active returns in EUR IG.

Quality: our research shows that sustainable SRI methodologies tend to create a quality tilt in the underlying index exposure. As most of H1 2024 saw significant spread compression in IG markets, quality detracted from active returns in both USD and EUR IG. June was an exception, as spread widening contributed positively to returns for the sustainable SRI indices versus their parent benchmarks – i.e. the quality factor provided resilience in a risk-off period.

Duration: the duration profile of sustainable indices may be slightly altered as a by-product of index construction rules, resulting in performance variations across different rates environments. In USD IG, the sustainable SRI index has a shorter duration versus its parent index. This was additive in months during which stronger-than-expected inflation and unemployment prints caused hawkish repricing of US rates, such as January, February and April. Conversely, this factor detracted from active returns when data showed signs of the economy cooling, as markets priced in lower interest rates in the US, notably near the end of H1. In EUR IG, the duration profile of the sustainable SRI index is closer to its parent, hence the factor had a smaller impact on active returns.

Sectors: sector nuances remain key in IG, but with a larger impact in EUR IG. The USD and EUR IG sustainable SRI indices both have an overweight to financials and underweight to utilities versus their parent indices. In EUR IG, sector tilts were most additive in March and May (particularly an overweight to financials), but detracted from returns notably in June, driven by underweights to utilities and industrials. In particular, the underweights to consumer non-cyclicals and energy were key detractors in June. In USD IG, sector differences overall had a neutral effect on active returns over H1, with negative impacts in February netted out by positive effects in May.

Other drivers: other drivers of active returns remained largely flat in H1 for both USD and EUR IG indices, having a marginally higher impact on the latter. In particular, in EUR IG, the country factor had a small negative impact in January, February and May, with the underweight to Germany in the sustainable SRI index being a key detractor.

Figure 13: Drivers of active returns for Bloomberg MSCI US Corporate Sustainable SRI Index

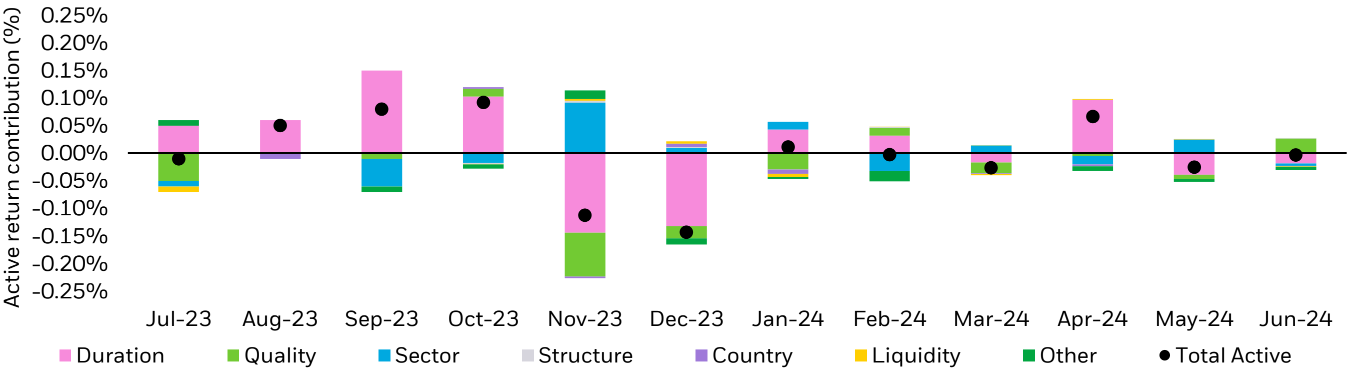


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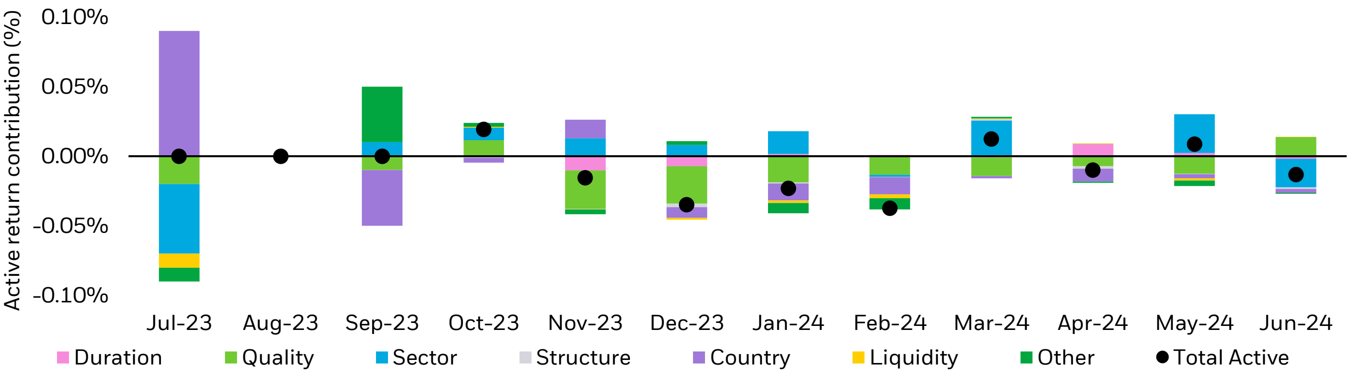
Figure 14: Drivers of active returns for Bloomberg MSCI Euro Corporate Sustainable SRI Index



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index. Source: BlackRock, as of 30 June 2024.

High yield: traditional factors remain key, while EUR HY was also impacted by issuer-specific news

Extending our analysis to USD and EUR HY, the sustainable SRI indices (the Bloomberg MSCI US Corporate High Yield Sustainable BB+ SRI Bond Index and Bloomberg MSCI Euro Corporate High Yield Sustainable BB+ SRI Bond Index) both underperformed their respective parent benchmarks over H1 2024. Factors such as duration, quality, sector, country and liquidity remained key in HY, with larger impacts than in IG. Issuer-specific news was also important in EUR HY.

Quality: overall, the quality factor had a positive impact on active returns for both USD and EUR HY. In USD HY, the positive contribution came during February, March, May and June, as credit spreads widened in certain credit rating buckets such as C and D. Similarly, in EUR HY, most of the relative outperformance in the sustainable SRI Index came during the months of February, March and April, as spreads in CC-rated issuers jumped higher.

Duration: the duration factor had a more nuanced impact on returns in the HY space. As the USD HY sustainable SRI index has a slightly longer duration than its parent, the duration factor detracted from active returns for USD HY in January, February, and April, as markets dialled back expectations of rate cuts. The factor added to active returns in March, May and June, when investors increased expectations for rate cuts this year. Conversely in EUR HY, the sustainable index has a slightly longer duration profile than its parent index, with the factor detracting from returns in February and April in particular, given the hawkish repricing of interest rates in Europe.

Sectors: sector nuances continued to be an important return driver in HY, especially in EUR, where underperformance was driven primarily by the underweight to industrials. In particular, underweights to the consumer cyclical and basic industry were top detractors in H1. In USD HY, sector exposures detracted the most in January and March, driven primarily by underweights to energy, capital goods and consumer cyclical.

Other drivers: in EUR HY, single issuer ATOFP (a company overweighted in the sustainable index) was a key detractor as credit spreads widened after multiple downgrades from BB to CCC-. Country and liquidity factors were also key in HY, with varying impact from month to month. The country factor had a larger effect in EUR HY, especially in January, February and April, while liquidity was a more significant detractor in USD HY, largely during March, April and May.

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Figure 15: Drivers of active returns for Bloomberg MSCI US Corporate High Yield Sustainable BB+ SRI Bond Index

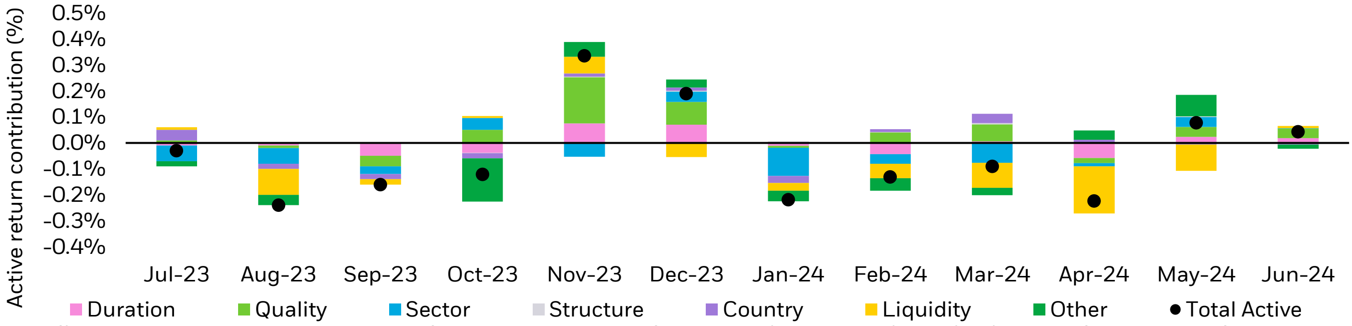

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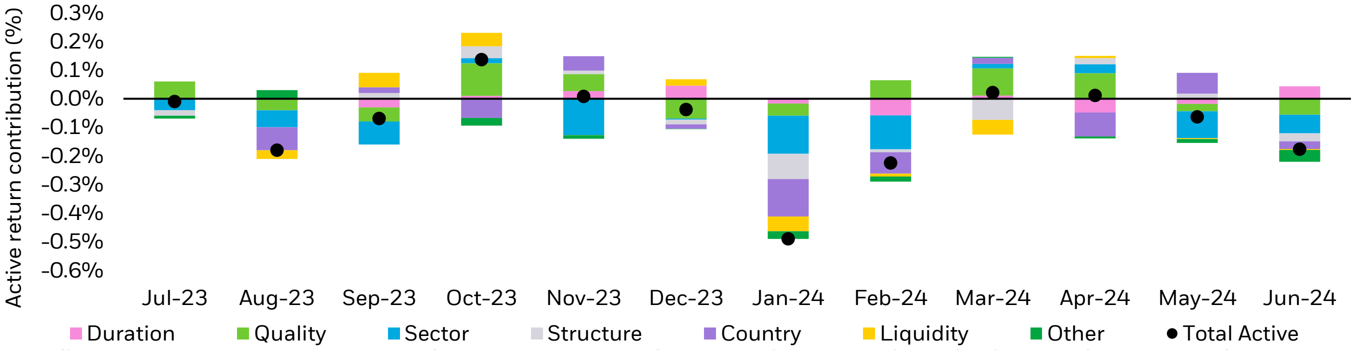
Figure 16: Drivers of active returns for Bloomberg MSCI Euro Corporate High Yield Sustainable BB+ SRI Bond Index



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Looking long term

We believe the transparency, clarity and choice of an indexing approach can help investors who choose to invest sustainably. It is important, however, to understand how risk factors such as sectors, style factors, duration, and country exposure can affect the performance of sustainable indices.

Clarity

The transparency of sustainable indexing methodologies empowers asset allocators looking to build sustainable portfolios with consistent methodologies across various exposures and asset classes. Using indexing to invest sustainably harnesses the simplicity, optionality, and transparency of a rules-based methodology that delivers measurable, deliberate and distinct investment outcomes – which can be critically important in the face of market uncertainty. Investors have direct insight into portfolio construction, can understand what drives the index methodology, and have instant access to key data to support their investment decisions. This also allows them to articulate and report on their sustainable objectives to clients, boards and other key stakeholders, especially during times of uncertainty and market volatility.

Choice

As shown in this paper, different index construction methodologies can lead to different investment outcomes in the face of market volatility. This differentiation is due to the variety of ways to incorporate sustainability considerations in index construction. The breadth of choice available, coupled with the transparency of the different methodologies, means that indexing tools can help investors to take control of their sustainability goals and investment outcomes. Index investors are active in their selection and portfolio construction processes – especially when looking to align to their sustainability goals across a spectrum of choices.

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Transition Investing: Opportunities and Challenges

26th November 2024

BlackRock

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From Sustainable to Transition Investing

BlackRock's approach

We are a fiduciary

Client choice
We start with the client.

Performance
We seek the best risk-adjusted returns within the mandates clients give us.

Research
We underpin our work with research, data, and analytics.

With clients at the center of everything we do

35+ years
In service to our clients

- **Anticipating** client needs
- **Co-creating** new offerings and capabilities
- **Connecting** our clients with corporates and industry leaders
- **Bringing together** public-private partnerships
- **Collaborating** with clients on new research and insights
- **Customizing** new strategies and mandates

Source: BlackRock, 2024.

What we're hearing from clients around the world

Industry-wide, sustainable assets reached **$5.5T in** 2023.[1] Within sustainability, **the low-carbon transition is a top priority for many of our clients**.

Executing on commitments	Clients are looking for a range of products and bespoke solutions to help them execute on near-term decarbonization targets & commitments	• **68%** of our largest clients have made net zero commitments (**100%** in Europe; **70%** in Asia; **53%** in Americas; **13%** in Middle East)[2] • Some clients are facing near-term deadlines **(e.g., 25-50% carbon reduction by 2025/2030)**
Government policies boosting opportunities	Climate-related policies, government spending, and energy pledges are sparking transition investment opportunities in the US, Europe, and Asia	• **U.S. Inflation Reduction Act**: in first full year after legislation was passed, investment in clean energy & manufacturing up 67%[3] • **EU Green Deal**: €635B in transition funding by 2027[4] • **Japan Green Transformation Policy**: $150B in energy transition bonds[5]
Focusing on transition infrastructure	The low-carbon transition is one of the mega-trends overhauling energy, transportation, and other related infrastructure globally	• **2023**: record wind and solar power installations[6] • **Over next 30 years:** Average investment in energy sector set to increase to ~**$4T/**year, up from ~$2/year[7]
Mobilizing capital via blended finance	Clients see opportunity in emerging markets, but risk factors create hurdles (shallower capital markets, fewer bankable projects); growing interest in blended finance vehicles with risk buffers	• Emerging markets account for **two-thirds** of emissions[8] • **90%** of investment needed to decarbonize emerging markets will come from private capital[8]
Unlocking the sticking points	Clients are asking how to navigate sticking points: permitting delays, multi-year queues and approval processes, supply chain bottlenecks	• In 2022, **10,000+** energy projects in the U.S. were waiting to be connected to grids[9]

Any usage of $ refers to USD. Sources: **1.** Simfund for US MFs (as of April, 2024), GBI iShares for Global ETFs (as of April, 2024), Broadridge Money in Motion for Global Institutional (as of December, 2023), and Hedge Fund Research (HFR) for Global Hedge Funds (as of March 2024). Close-end funds excluded. **2.** Includes a select group of our largest client relationships; net zero commitments are sourced from the GFANZ website and respective company websites, as of March 2024. **3.** Clean Investment Monitor, "Q4 2023 Update" 29 February 2024. Data presented includes actual clean investment spending from Energy & Industry and Manufacturing segments, comparing the full year 2022 to 2023. **4.** "Long-term EU budget 2021-2027 and recovery package"; "Fit for 55: Council and Parliament reach provisional deal" ; "Factsheet on Financing REPowerEU." **5.** Citi Research, "Japan Equity Strategy: Key Takeaways from GX Basic Policy." **6.** IEA "Renewables 2023." **7.** BlackRock Investment Institute: "Tracking the low-carbon transition," 2023. **8.** International Monetary Fund, October 2023 (statistic excludes China). **9.** United States Department of Energy 's Lawrence Berkley National Laboratory, April 2024.

The low-carbon transition is one of the mega forces we see rewiring economies

Three drivers are reinforcing one another, creating investment risks and opportunities.

Technology

- Technological innovation and advances are reducing capital and operating costs, ***making low-carbon technologies cheaper and more competitive…***

79%
reduction in battery costs over past decade[1]

Government policy

- ***Incentives are lowering costs further.*** Governments are enacting policies to attract capital and achieve multiple objectives: competitiveness, energy security & affordability, and decarbonization.

>$470B
US pledged transition funding[2]

~€635B
EU pledged climate funding[3]

Consumer & investor preferences

- ***…which is helping drive demand.*** Consumers and investors are showing a preference for lower-carbon products, particularly as they become more affordable.

50%
EV share of global passenger vehicle sales by 2035[4]

Any usage of $ refers to USD. Sources: **1.** BlackRock Investment Institute and Way et. al. (2022) "Empirically grounded technology forecasts and the energy transition." **2.** BlackRock Investment Institute, Rocky Mountain Institute, December 2022. **3.** "Long-term EU budget 2021-2027 and recovery package"; "Fit for 55: Council and Parliament reach provisional deal"; "Factsheet on Financing REPowerEU." **4.** International Energy Agency Global EV Outlook 2024. This figure refers to the Stated Policies Scenario (STEPS) outlook and excludes 2/3 Wheelers.

Our platform positions BlackRock to be a whole portfolio partner of choice to our clients

Our world-leading sustainable and transition investing platform, bringing together whole-portfolio solutions, market-leading investment capabilities and products, stewardship, and proprietary research, insights, and analytics.

BlackRock's platform

Portfolio construction

- ✓ **350+ client consultations in 2023 alone**
- ✓ **End-to-end portfolio solutions, from assessing starting points to executing to monitoring progress**

Investment capabilities[1]

- ✓ **$916B sustainable platform**
- ✓ **$164B transition platform**
- ✓ **450+ sustainable products**
- ✓ **150+ transition investments**

Stewardship

- ✓ **65-person team, 3,700+ engagements globally**[2]
- ✓ **Engagement priorities include climate and natural capital**
- ✓ **Published Climate and Decarbonization Stewardship Guidelines in 2024**

Research & analytics

- ✓ **Proprietary analytical forecast of how the low-carbon transition could unfold**
- ✓ **Centers of expertise bring together specialists on key topics (e.g., hydrogen, batteries)**
- ✓ **12,000+ 3rd party sustainability metrics integrated across the Aladdin® platform**[3]
- ✓ **Proprietary analytics from Aladdin Climate® to measure climate risks & decarbonization pathways**[3]

Any usage of $ refers to USD. As of 2Q 2024, $35B in assets, when assessed against BlackRock's transition qualification criteria, fell below our self-defined thresholds. While this was largely due to third-party data methodology changes, these assets remain on the platform for this period as the portfolio management, fund construction and investment strategies of the impacted assets remain the same. BlackRock expects fluctuations in this platform AUM due to ongoing changes in data methodologies and our own qualification criteria in response to evolving regulatory standards and product-related taxonomies in transition investing. Sources: 1. BlackRock, June 2024. 2. BlackRock Team data as of December 31, 2023. Engagement data sourced on February 21, 2024, reflecting data from January 1, 2023, through December 31, 2023. 3. Aladdin® is a technology platform used by asset managers and owners including banks, financial institutions, pensions, corporations, insurers, and wealth managers. The Aladdin platform unifies the investment management process, providing a common data language within an organization to enable scale, provide insights, and support business transformation. Through eFront® technology, alternative investment management is covered to meet the needs of alternative investment professionals worldwide and across all major alternative asset classes. From fundraising, fund administration and reporting to data services and analytics, the platform provides capabilities to support decision making and investment oversight.

A global leader in sustainable and transition investing

A world-leading platform	**Comprehensive offerings to help our clients achieve their objectives and put money to work** ✓ **$916B in sustainable investing offerings** ✓ **$164B in transition investing offerings** ✓ **150+** transition investments around the world and **across the energy system**
A global leader in infrastructure	**Giving clients access to a $100T investment trend rewiring power, transport, & manufacturing[1]** ✓ **GIP acquisition will create a $150B private markets infrastructure platform** ✓ At the forefront of climate infrastructure investing **since the 1990's** ✓ Deep corporate relationships provide unique ability to **source and mitigate investment risk**
A pioneer in climate blended finance & partnerships	**Mobilizing capital to accelerate innovation, economic growth, & industrial competitiveness** ✓ Launched **one of the largest emerging market blended finance vehicles** in climate infra equity ✓ **Partnering with countries** to help them reach their decarbonization goals ✓ Invested in the largest **wind** farm in Africa and **solar** projects across Southeast Asia and Latin America
Proprietary, investor-centric insights	**Delivering insights on the technologies (e.g., carbon capture) and themes (e.g., resilience) creating investment opportunities** ✓ **600+** sustainable & transition specialists[2] ✓ **Proprietary analytical forecast** of how the low-carbon transition could unfold

Any usage of $ refers to USD. As of 2Q 2024, $35B in assets, when assessed against BlackRock's transition qualification criteria, fell below our self-defined thresholds. While this was largely due to third-party data methodology changes, these assets remain on the platform for this period as the portfolio management, fund construction and investment strategies of the impacted assets remain the same. BlackRock expects fluctuations in this platform AUM due to ongoing changes in data methodologies and our own qualification criteria in response to evolving regulatory standards and product-related taxonomies in transition investing. Sources: BlackRock, June 2024. **1.** International Energy Agency (IEA), World Energy Outlook, 2022. **2.** BlackRock, as of May 2023.

Our $164B transition investing platform

We're helping clients capture investment opportunities generated by the low-carbon transition. Our platform is powered by proprietary research, global expertise, and cross-functional insight-sharing.

BlackRock Transition Investing Platform

Index
$93B

Select examples[1]

- **Clean energy**
- **Paris-aligned benchmarks**
- **Climate transition benchmarks**
- **Custom decarbonization mandates**
- **Green bonds**

Active
$51B

- **Transition readiness**
- **Sustainable energy**
- **Brown to green**
- **Future of transport**

Private Markets
$20B

- **Seed and growth equity**
- **Renewable power**
- **Infrastructure**
- **Private debt**
- **Emerging markets**

A leader in transition investing

- Allocated **$1B** in EV charging infrastructure worldwide as a private investor[2]
- Investments are funding **500+** wind, solar, and EV infrastructure projects worldwide[3]
- Awarded **Global Energy Transition Investor of the Year** by Infrastructure Investor in 2023[4]

Any usage of $ refers to USD. As of 2Q 2024, $35B in assets, when assessed against BlackRock's transition qualification criteria, fell below our self-defined thresholds. While this was largely due to third-party data methodology changes, these assets remain on the platform for this period as the portfolio management, fund construction and investment strategies of the impacted assets remain the same. BlackRock expects fluctuations in this platform AUM due to ongoing changes in data methodologies and our own qualification criteria in response to evolving regulatory standards and product-related taxonomies in transition investing. Our Transition Investing Platform includes private market funds, transition deals, and public market portfolios whose principal strategy either through portfolio objective or investment selection focuses on preparing for, being aligned to, benefitting from and/or contributing to the low-carbon transition. Some transition investments are portfolio investments in BlackRock private funds, which may also invest in deals that are not transition. Investments presented are made by BlackRock's funds and are not intended to represent potential direct invest opportunities. Index and active asset classes include Mutual funds, ETFs and SMA mandates. Private markets includes Private funds and SMA mandates. Sources: BlackRock, as of June 2024. 1. The select examples shown in the boxes above are part of our transition investing platform and illustrate our capabilities across various sectors and on a global basis. These examples are not exhaustive and do not constitute a solicitation in any jurisdiction in which such a solicitation is unlawful or to any person to whom it is unlawful. 2. BlackRock, March 2024. 3. BlackRock, December 2023. 4. Infrastructure Investor awards honour the sector's managers, investors, and advisers who have excelled in their respective fields globally.

Analysis and Benchmark of Transition Products

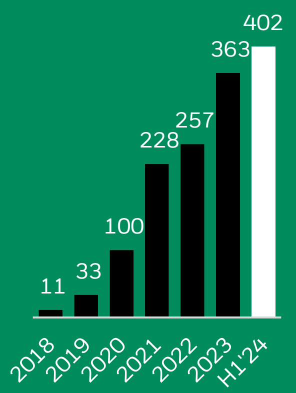
Sustainable & Transition Investing Market Overview

Growing segments

AUM in Sustainable ETFs in Europe

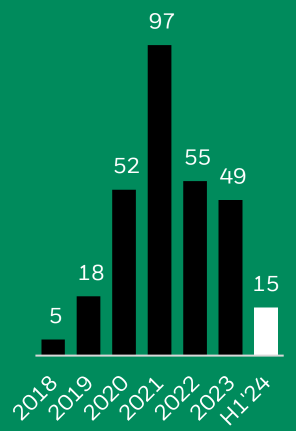
$402B

Assets under management in European domiciled Sustainable ETFs in H1'24



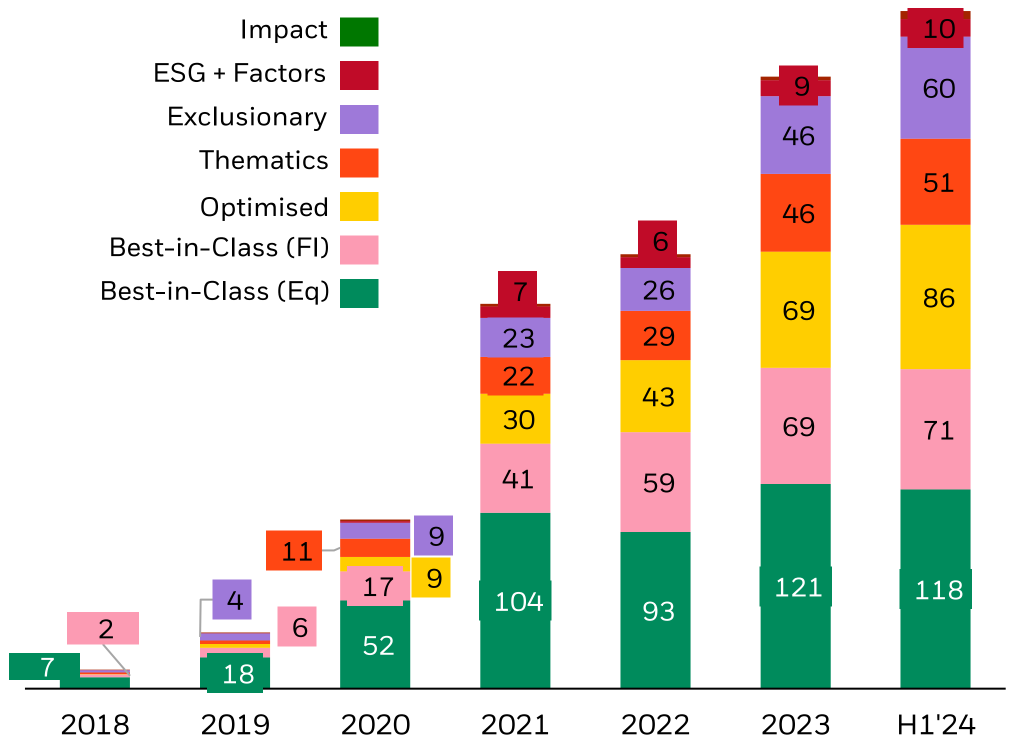
$15B

Inflows in European domiciled Sustainable ETFs in H1'24



Navigating different sustainable & transition strategies

AuM in European domiciled Sustainable ETFs



Source: BlackRock Global Business Intelligence, as of 30 August 2024. All amounts given in Billions of USD.

Transition's position on the iShares Sustainable Spectrum

	Exclusionary	Tilt/Optimisation	Best-in-Class	Themes	Impact
Sustainable	**ESG Screened** • Core replacement with screens • 8 business involvement + controversy screens • Low tracking error[1] • 30% carbon intensity reduction vs parent	**ESG Enhanced** • 8 business involvement + controversy screens • Incorporate EU Climate Transition Benchmark requirements • Target tracking error[1,2] 75bps DM; 100bps EM • 30% carbon intensity[3] reduction target	**SRI** • Traditional exposures with highest commitment to ESG • Multiple social and environmental aligned business involvement screens[4] + severe controversy screens • Selects the top ESG-scored companies	**Sustainable Themes** • Satellite exposure to global developed and emerging markets • Provides access to structural economic themes (low carbon, clean energy, inclusion & diversity) • Seeks to outperform over the long term	**Impact** • Satellite exposure to global bond or equity markets with a quantifiable ESG impact • Seeks to generate a measurable sustainable outcome alongside a financial return • Designed for long-term investors looking to drive measurable change
Transition	**Transition Aware** • Core replacement with Transition focus + screens • 5 business involvement + controversy screens • Selects leaders in low carbon transition via SBTi[5], Green Revenues and Carbon Intensity criteria		**PAB** • Incorporate EU Paris Aligned Benchmark (PAB) requirements • 8 business involvement + controversy screens • 50% carbon intensity reduction target, with 10% year-on-year decarbonisation [4] • Optimised for environmental aspects	**Transition Themes** • Satellite exposure to global developed and emerging markets • Provides access to structural economic transition industries and themes (Copper, Lithium, Clean energy) • Seeks to outperform over the long term	

Sources: BlackRock, MSCI as of 29 December 2023. [1] Tracking error compared to traditional parent indices. [2] Ex-ante tracking error target set within optimisation. [3] A combination of the carbon and other greenhouse gas emissions intensity as well as the potential carbon emissions per dollar of market capitalisation relative to the Parent Index. [4] 17 screens in equity strategy, 12 in fixed income. [5] Science Based Targets Initiative.

iShares Sustainable Index Srategies: Navigating the ranges

		Equity Fixed Income	Equity	Equity Fixed Income	Equity Fixed Income
		ESG Screened	**ESG Enhanced**	**SRI**	**Paris Aligned Benchmark**
What is it?		**Screens out companies tied to controversial business activities** Core replacement, close to parent, market cap weighted	**Reduces carbon intensity, while optimised for maximising ESG Score within target TE** Optimised, EU CTB, Target TE	**Selects the best ES- rated companies per sector** Outstanding ESG exposure, Values-based screening, best-in-Class selection	**Strong focus on climate with strict alignment to the Paris Agreement** Climate exposure, EU PAB
Reg. Labels		SFDR 8 AMF Cat 1	SFDR 8 AMF Cat 1 Sustainable in German Target Market Concept	SFDR 8 AMF Cat 1 Sustainable in German Target Market Concept ISR (tbd)	SFDR 8 AMF Cat 1 Sustainable in German Target Market Concept Febelfin (tbd)
Sustain able Prefere nce	**Business Involvement Screens**	Contr wpns, Nuclear wpns, UNGC, Civilian Firearms, Tobacco, Fossil fuel extraction, Thermal Coal Power, Palm Oil, Arctic O&G	Contr wpns, Conventional wpns, Nuclear wpns, UNGC, Thermal Coal, Civilian Firearms, Tobacco, Unconv. O&G	Adult Ent, Alcohol, Civ Firearms, Contr wpns, Conv wpns, Gambling, GMO, Nuclear P, Nuclear wpns, Tobacco, Thermal Coal, (Un)conv O&G, Reserves	Contr wpns, Tobacco, Thermal coal, Civilian Firearms, Oil sands, O&G, Power Gen, Nuclear wpns
	ESG Score Uplift	-	**Yes** Maximised	**Yes** Equities: >A Fixed income: >=BBB (for IG); >=BB (for HY)	Fixed income: >CCC; also targets an ESG score uplift in optimisation constraint
	Climate/decar bonisation objective	**Yes** 30% vs parent	**Yes** 30% vs parent, 7% yoy	Not explicitly in methodology, but emissions are reduced	**Yes** For equities and IG PAB: 50% vs parent, 10% yoy For HY PAB: 50% vs parent, 7.7% yoy
Indication of Tracking Error*		Expected to be around 0.5-0.8% depending on universe	DM: 75 bps, EM: 100 bps, PXJ: 125 bps	For equities: DM: 2 to 3% , EM: up to 6.0% For fixed income: 0.10-0.60% in IG and Agg; 0.50-1% in HY and EM	+/- 1% depending on universe

* This is not embedded in the index methodology, and it is to be used as an illustration only.

What are we solving for?

- **iShares EMEA currently offers the largest at-scale[1] transition linked ETF offering with our PAB/CTB product suites. Over the last 12 months, we developed workstreams to assess feasibility and demand for a new flagship Transition suite.**

- **A key takeaway from our transition product development conversations was that clients are still in the early stages of defining a Transition offering, but are generally seeking the following product features:**
  - ✓ Transparent & measurable
  - ✓ Low tracking error & turnover
  - ✓ Sector neutrality
  - ✓ Use of forward-looking metrics
  - ✓ Use of credible decarbonisation targets and governance measures

- **To identify companies relevant for the proposed Transition portfolio we consider the following three categories:**

IMPROVERS	SOLUTIONS	CARBON LEADERS
Companies with credible targets & governance around their transition plans	Companies with products and services supporting the transition to a low carbon economy	Companies leading their peer group in terms of current emission intensity

Source: BlackRock, 30 April 2024. For illustrative purposes only. [1] Global Business Intelligence, 30 Apr 2024

Selecting companies that are positively contributing to the transition via three transparent climate-related criteria

Starting Universe

Screens [7]

Base screens: Controversial Weapons, Tobacco, Thermal Coal Mining, UNGC violators, Very Severe Controversies;
Smart screens[1]: Unconventional Oil & Gas Extraction, Thermal Coal Power Generation
High climate sector screens[2]: 10th percentile highest carbon intensity emitters[3]; Company does not set carbon emissions reduction target[4]; Company does not disclose carbon emissions[5]

Selection Criteria

Company must meet <u>at least one</u> of the 3 inclusion criteria below:

1. **IMPROVERS** — **SBTI APPROVED**
2. **SOLUTIONS** — **Green revenues ≥ 20%**[6]
3. **CARBON LEADERS** — **Top 50% carbon intensity**[3] **of companies setting emission reduction targets**

Selection Universe

Investment Risk Controls

Market cap weighted

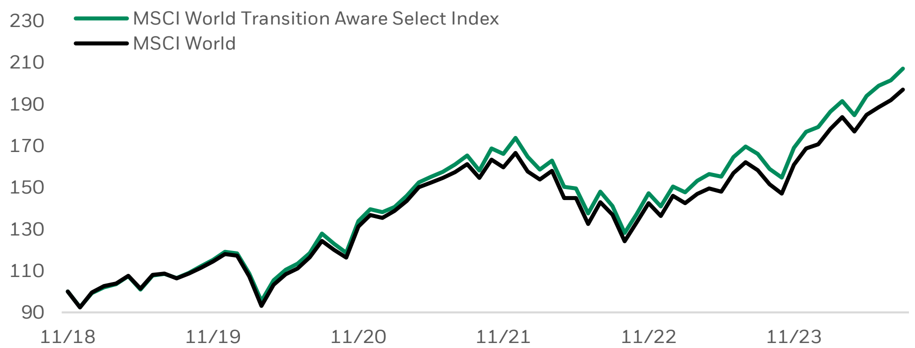
Sector caps (Parent +/-1%) | **Issuer caps** (Parent + 2%) | **Country caps** (Parent +/-1%)

MSCI Transition Aware Select (TAS) Index

[1]Companies with >5% but <25% revenues from Unconventional Oil & Gas or Thermal Coal Power Generation but have ≥20% green revenues or SBTI (Science Based Targets Initiative) approved remain in the index. [2] Energy, Industrials, Materials, Utilities sectors. [3] Carbon intensity is Scope 1+2/EVIC. [4] Index provider assessment of whether company has targets. [5] Indicates whether the company reports its carbon emissions to CDP. [6] Buffer of 15% for existing constituents. [7] Full detail on screen thresholds in appendix.

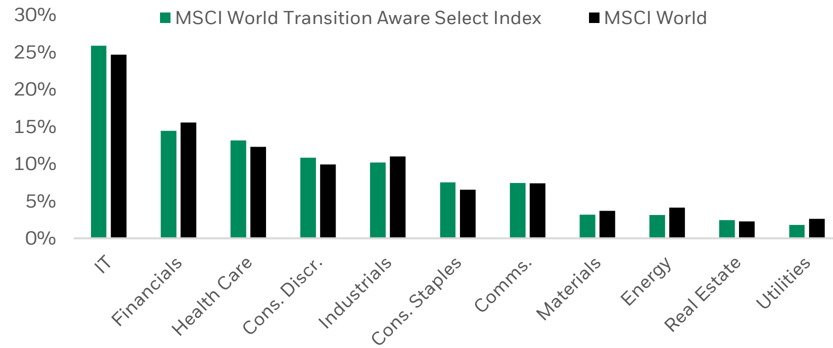
MSCI World Transition Aware Select Index

Cumulative performance (%)



Source: BlackRock, net TR USD, from 30/11/2018 to 30/08/2024.

GICS Sector weights (%)



Source: BlackRock, as of 30/08/2024.

	Returns (%)				Volatility (%)	Return risk ratio
	YTD	1 year	3 year	5 year	5 year	5 year
MSCI World Transition Aware Select Index	17.22	24.66	7.78	14.2	17.55	0.81
MSCI World	16.72	24.43	6.9	13.09	17.76	0.74

Source: BlackRock, net TR USD, from 30/11/2018 to 30/08/2024.

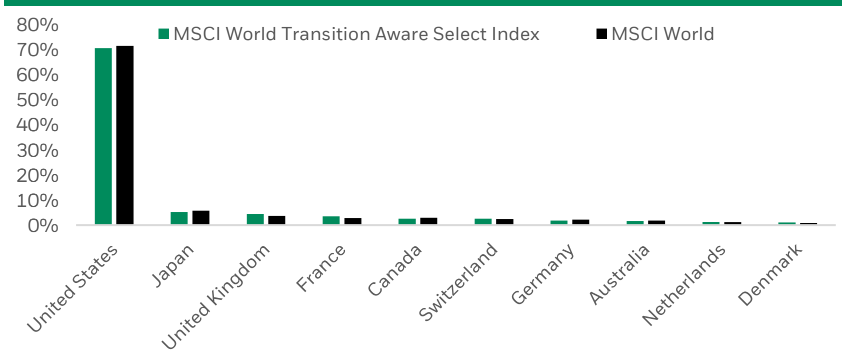
Discrete return (%)

Aug 19 - Aug 20	Aug 20 - Aug 21	Aug 21 - Aug 22	Aug 22 - Aug 23	Aug 23 - Aug 24
19.97	29.39	-14.68	17.74	24.66
16.79	29.76	-15.08	15.6	24.43

	Index comparison since 30/11/2018			ESG metrics	
	Stocks	Tracking Error (%)	Beta	ESG adjusted score	Carbon Intensity (tCO2e/$m sales)
MSCI World Transition Aware Select Index	820	1.48	0.98	7.2	54.4
MSCI World	1,410	-	-	7.0	96.8

The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.
Source: BlackRock, net TR USD, from 30/11/2018 – 30/08/2024. ESG metrics as of 30/08/2024.
Index data are for illustrative purposes only and do not represent actual iShares Fund performance.
Index performance returns do not reflect any management fees, transaction costs or expenses.
Indices are unmanaged and one cannot invest directly in an index.

Country weights (%)



Source: BlackRock, as of 30/08/2024.

iShares Sustainable Index Srategies: Building Blocks

	Global	Europe	USA	Japan	EM	EMU	Other Exposures			
ESG Screened	World	Europe	USA	Japan	EM IMI	EMU	Asia $ Corp	Global Corp		
ESG Enhanced	World CTB World SC CTB	Europe CTB	USA CTB USA SC CTB	Japan CTB	EM CTB	EMU CTB	Pacific ex Japan CTB	Dax		
Factors ESG	W Min Vol W Momen W Value W Quality	Europe Min Vol Europe Quality	US Min Vol US Momen US Value US Quality		EM Min Vol					
Sectors ESG							Financials Inform Tech Health Care	Industrials Materials	Comms Energy	Cons Disc NEW Cons Stap NEW
Best-in-Class	World ACWI Global Agg	Europe € Corp € Corp UltSh €HY	USA $ Corp $ Corp UltSh $ HY	Japan Japan €H	EM JPM $ EM* JPM $ EM IG	EMU	€ Corp 0-3 $ Corp 0-3	€ Corp € Agg € IR Hedged	£ Corp € Corp ex Fin 1-5 € Floating Rate	UK IMI (Ldrs) S&P 500 ESG EuroStox 50 ESG
Climate	World PAB	Europe PAB	S&P 500 PAB			EMU PAB	€ Corp PAB $ Corp PAB	€ HY PAB $ HY PAB	Global Govt Climate	€ Govt Climate
Thematic			$ Development Bank ART 9		China Tech		Ageing Pop Autom & Rob Digi Security	Digitalisatn E-Vehicles Digi Entertnt	HC Innov Metaverse	Clean Energy Smart City
Impact	Global Green Bond ART 9	€ Grn Bond ART 9								
CTA **Transition**	World NEW	Europe NEW	USA NEW	Japan NEW		EMU NEW	Copper Miners ART 6	Lithium & Battery ART 6	Essential Metals ART 6	

Source: BlackRock, 31 May 2024. All strategies are SFDR Art 8 unless indicated otherwise.
*also IMF available

IMF **Equity** **Fixed Income**

Transition Investing

An Active Approach

We believe three key forces are driving transition investing

Anchored in the growing data available to investors to make better informed transition investment decisions.

01 **Investors –** Investment Commitment is increasing with a significant surge in clients setting explicit portfolio transition objectives

02 **Regulators –** New rules are pushing investors to define, track and report on "transition" related characteristics, standardising transparency across the industry

03 **Corporates –** Record number of companies disclosing environmental data and adopting science-based targets

98% of institutional investors (c. ~US$8.7T) asked to complete a Transition Survey confirmed they have already set one or more portfolio transition objective[1]

66% of surveyed wealth investors confirmed portfolio decarbonization as a current or future priority area of focus[2]

ESMA Transition, **SDR** Improver, **EU** Taxonomy

23,000 companies, representing c. US$67 trillion in market capitalization, disclosed their environmental performance data through CDP in 2023[3]

55% of companies in MSCI ACWI have set an SBTi Approved or Committed target[4]

Any opinions or forecasts represent an assessment of the market environment at a specific time and is not a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation.

Sources: BlackRock, data as of December 2022. **1** BlackRock Global Transition Survey 2023. **2** BlackRock Sustainable and Transition Solutions (STS) 2023. **3** Source: CDP 2023 disclosure data factsheet as of December 31, 2023. **4** BlackRock, Explore as at 31 October 2024

Leveraging Fundamental Insights to Identify Transition Opportunities

Our Active Approach To Transition Investing Is Characterized By:

- An In-depth Fundamental Assessment Of The *Entire* Transition Value Chain
- An Informed View On Companies In High Emitting Sectors With Complex Business Models

Expert Insights

Company Engagement

Filling the Data Gap

Fundamental Equities Transition Product Highlights

BGF Brown2Green Materials Fund

- Invests globally in listed Materials companies required for the low carbon transition
- >80% alignment to Transition metrics
- Potential alpha opportunities with decarbonisation potential in a high emitting sector enabling the transition

BGF European Transition Fund

- Invests Regionally in European listed equities positioned to benefit from the transition to lower carbon economy
- >80% alignment to Transition metrics
- Potential alpha opportunities with decarbonisation potential in innovative and cutting-edge technologies

BGF Global Listed Infrastructure Fund

- Invests globally in listed Infrastructure companies essential for the transition
- >70% alignment to Transition metrics
- Potential alpha opportunities with decarbonisation potential from a sector enabling the transition

Transition Characteristics For The Companies We Invest In:

Leaders **Enablers** **Improvers**

Sources: BlackRock, October 2024. The funds were selected as these 3 are our flagship funds according to the region/sector and theme indicated.

FE Transition Product Deep Dive

BGF European Transition Fund

BGF Brown2Green Materials Fund

BGF Global Listed Infrastructure Fund

Brown to Green Materials Fund

Long-only thematic equity fund with c. 30 to 60 holdings[1]

Investment process: fundamental stock picking, bottom-up research with a top-down macro-overlay [1]

Investing in 3 categories of companies:

1. Emissions Reducers

Materials companies with what we believe to be credible plans to lower their greenhouse gas emissions intensity

2. Enablers

Materials companies producing the materials required for the world to move from 'brown to green' e.g. lithium OR

Companies providing solutions that help materials companies to reduce their emissions intensity

3. Green Leaders

Materials companies already leading in their particular sub-industry in terms of producing lower-emission materials

Potential long-term alpha drivers:

Valuation re-rating potential for Emissions Reducers

Potential for stronger-than-expected earnings growth for Enablers

Potential for Green Leaders to benefit from structural business model advantages

Key differentiators:

A forward-looking approach to ESG factors:
Where ESG credentials are going rather than where they have been in the past

Differentiated exposure:
Targeting parts of the low carbon transition value chain possibly overlooked by most energy transition funds

The criteria in considering a company is subject to change without notice. [1] Portfolio Managers' current process, which is subject to change without notice

Source: BlackRock, November 2024.

Stock example: Emissions Reducer

Company name: BHP
Headquarters: Australia
Listing: Australia / UK
About the company: The world's largest publicly-traded mining company. Diversified mining company with exposure to iron ore, copper, coal and nickel.

Does the company meet our quantitative criteria for emissions reducers?*

Yes, BHP is targeting a >30% reduction in scope 1 and 2 emissions by 2030 from 2020 levels

The company also has a net zero 2050 goal for scope 1 and 2.

Assessing the credibility of BHP's emissions reduction plan:

Regular meetings and engagement with the management team

The company has committed to winding down its coal assets

The company is growing its exposure to materials that enable and benefit from the low carbon transition

Investment rationale highlights:

Attractive valuation in our view

Low debt levels

High free cash flow at current iron ore prices

Proven management team

Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation.

Source: BHP, October 2024. This company has been chosen as it was the largest Emission Reducer position in the portfolio as at end September 2024. *Portfolio Managers' current process, which is subject to change without notice. Any opinions or forecasts represent an assessment of the market environment at a specific time and is not a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation. BlackRock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation. Images for illustrative purposes only.

European Transition Strategy

Long-only equity fund with 30 to 60 holdings [1]

Investment process: Alpha seeking, fundamental stock picking, bottom-up research [1]

Investing in 3 categories of companies:

1. Transition Leaders

Companies with positive emissions intensity performance relative to peers

2. Transition Enablers

Companies that derive a substantial portion of their revenue from critical inputs, products or services that have the potential to enable significant GHG emissions reductions in other segments of the market

3. Transition Improvers

Companies demonstrating a commitment to reduce GHG emissions through investments into emissions reductions solutions and/or showcasing credible and time-bound GHG reduction plans

Potential Long-term alpha drivers:

- **Benefit from structural business model advantages**
- **Potential for stronger earnings growth backed by structural trends**
- **Potential for earnings improvement and valuation re-rating**

Key differentiators:

Europe is well positioned to see a **significant injection of capex** from governments and corporates to meet the Green Agenda

Europe stands at the forefront of **climate standards** and **innovation**. It is home to solutions providers offering technologies to optimise energy consumption.

The criteria in considering a company is subject to change without notice. [1] Portfolio Managers' current process, which is subject to change without notice
Source: BlackRock, November 2024.

Stock example: Carbon Transition Enabler

Company name: **Alfa Laval**
Headquarters: Sweden
Listing: Sweden
About the company: Alfa Laval offers a variety of solutions for on-site water and waste treatment plus recovery of water, heat and products from industrial processes.

Does the company meet our quantitative criteria for emissions reducers?*

Yes, Alfa Laval has Approved science-based targets from SBTi

The company also has scope 1 and 2 reduction targets towards Net Zero.

Products enabling the Transition:

The company's heat transfer, separation and fluid handling products enhance competitivity of industrial production and reduces energy consumption

Direct exposure to carbon capture, energy storage and heat pumps

Investment rationale highlights:

Strong market position

Exposure to a mix of secular growth markets

Strong free cash flow conversion and balance sheet

Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation.

Source: Alfa Laval, September 2024. This company has been chosen as it was among the top 10 largest holdings in the portfolio as at end September 2024. *Portfolio Managers' current process, which is subject to change without notice. Any opinions or forecasts represent an assessment of the market environment at a specific time and is not a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation. BlackRock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation. Images for illustrative purposes only.

Global Listed Infrastructure Strategy

Long-only equity fund with 50 to 60 holdings [1]

Investment process: Alpha seeking, fundamental stock picking, bottom-up research [1]

Investing in 3 categories of companies:

1. Peer Group Leaders

Best-in-class businesses creating paths and targets for others to follow, accelerating the transition.

2. Solution Providers

Facilitate the transition to lower carbon economy or enable other companies to transition

3. Improvers

Demonstrate positive progress or a commitment to reducing carbon emissions intensity of operations.

Potential Long-term alpha drivers:

Benefit from structural business model advantages

Potential for stronger earnings growth backed by structural trends

Potential for earnings improvement and valuation re-rating

Key differentiators:

Listed infrastructure companies are liquid proxy to a sector essential to the transition

Portfolio resilience through a sector we believe to be characterised by lower drawdown risk, lower economic sensitivity and lower market beta.

The criteria in considering a company is subject to change without notice. [1] Portfolio Managers' current process, which is subject to change without notice
Source: BlackRock, November 2024.

Stock example: Solution Provider

Company name: **Terna Spa**

Headquarters: Italy

Listing: Italy

About the company: Terna S.p.A. is Italy's transmission system operator (TSO) which manages the local transmission grid. It is the sixth largest electricity transmission grid operator in the world.

Does the company meet our quantitative criteria for emissions reducers?*

Yes, Terna has Approved science-based targets from SBTi

The company also has scope 1 and 2 reduction targets towards Net Zero.

Products enabling the Transition:

Enabling to modernise and upgrade the local grid to deliver cleaner energy to consumers

Two-way power flow and storage capabilities to enable consumer participation into the grid

Investment rationale highlights:

Strong market position

Minimum cyclical risks

High capex commitment to modernise and expand capacity

Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation.

Source: Terna, September 2024. This company has been chosen as it was among the top 10 largest holdings in the portfolio as at end September 2024. *Portfolio Managers' current process, which is subject to change without notice. Any opinions or forecasts represent an assessment of the market environment at a specific time and is not a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation. BlackRock has not acquired any rights or license to reproduce the trademarks, logos and images set out in this document. The trademarks, logos and images set out in this document are used only for the purposes of this presentation. Images for illustrative purposes only.

Risk Warnings

Investors should refer to the prospectus or offering documentation for the funds full list of risks.

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors may not get back the amount originally invested.

Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Changes in the rates of exchange between currencies may cause the value of investments to diminish or increase. Fluctuation may be particularly marked in the case of a higher volatility fund and the value of an investment may fall suddenly and substantially. Levels and basis of taxation may change from time to time and depend on personal individual circumstances.

Fund-specific risks

BGF Brown to Green Materials Fund

Concentration Risk, Counterparty Risk, Currency Risk, Equity Risk, ESG Screening Risk, Liquidity Risk

Description of Fund Risks

Concentration Risk
Investment risk is concentrated in specific sectors, countries, currencies or companies. This means the Fund is more sensitive to any localised economic, market, political or regulatory events.

Counterparty Risk
The insolvency of any institutions providing services such as safekeeping of assets or acting as counterparty to derivatives or other instruments, may expose the Fund to financial loss.

Risk Warnings

BGF European Transition Fund

Counterparty Risk

The insolvency of any institutions providing services such as safekeeping of assets or acting as counterparty to derivatives or other instruments, may expose the Fund to financial loss.

Equity Risk

The value of equities and equity-related securities can be affected by daily stock market movements. Other influential factors include political, economic news, company earnings and significant corporate events.

ESG Screening Risk

The Fund seeks to exclude companies engaging in certain activities inconsistent with ESG criteria. Investors should therefore make a personal ethical assessment of the Fund's ESG screening prior to investing in the Fund. Such ESG screening may adversely affect the value of the Fund's investments compared to a fund without such screening.

Risk Warnings

BGF Global Infrastructure Fund

Infrastructure securities
Investment in securities and instruments of infrastructure companies can be affected by the general performance of the stock market and the infrastructure sector. In particular, adverse economic or regulatory occurrences including high interest costs in connection with capital construction programmes, high leverage, changes in and/or costs associated with environmental and other regulations, the effects of economic slowdown, surplus capacity, increased competition from other providers of services, uncertainties concerning the availability of fuel at reasonable prices, the effects of energy conservation policies and other factors can affect the value of infrastructure securities. Investing in infrastructure securities is not equivalent to investing directly in infrastructure and the performance of these securities may be more heavily dependent on the general performance of stock markets.

Equity risk
The values of equities fluctuate daily and a Fund investing in equities could incur significant losses. The price of equities can be influenced by many factors at the individual company level, as well as by broader economic and political developments, including daily stock market movements, political factors, economic news changes in investment sentiment, trends in economic growth, inflation and interest rates, issuer-specific factors, corporate earnings reports, demographic trends and catastrophic events.

Small Companies Risk
Smaller company investments are often associated with greater investment risk than those of larger company shares.

Concentration Risk
Investment risk is concentrated in specific sectors, countries, currencies or companies. This means the Fund is more sensitive to any localised economic, market, political or regulatory events.
Emerging Markets Risk: Emerging market investments are usually associated with higher investment risk than developed market investments. Therefore, the value of these investments may be unpredictable and subject to greater variation.

Liquidity Risk
The Fund's investments may have low liquidity which often causes the value of these investments to be less predictable. In extreme cases, the Fund may not be able to realise the investment at the latest market price or at a price considered fair.
ESG Risk: The environmental, social, and governance ("ESG") considerations discussed herein may affect an investment team's decision to invest in certain companies or industries from time to time. Results may differ from portfolios that do not apply similar ESG considerations to their investment process.

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Brown to Green Materials Fund

a sub-fund of BlackRock Global Funds (BGF)

Progress report
September 2024

The fund noted herein is classified Article 8 under the Sustainable Finance Disclosures Regulation (SFDR). This means that the Fund promotes, among other features, environmental or social characteristics and that the companies in which investments are made follow good governance practices.

Fundamental Equities

Expert insight

BlackRock.

Contents

BlackRock.

Brown to Green Materials

Invests in companies related to:

1. Materials required for the low carbon transition

And / or 2. Efforts to reduce the emissions intensity of the materials sector

The three categories of companies we look for:

Emissions Reducers:	Materials companies with credible plans to lower their emissions intensities
Enablers:	Materials companies producing materials required for low carbon technologies OR: Companies providing solutions that enable materials companies to reduce their emissions
Green Leaders:	Companies leading in their industry in terms of producing lower emission materials

Materials contribute to the global emissions problem....

On a conservative estimate, over 17% of total global emissions*

...but they are also a critical part of the solution

We can't have wind turbines, solar panels or electric vehicles without materials to build them

*Source: International Energy Agency, based on 2023 global emissions.

Introduction

Evy Hambro
Co-Portfolio Manager

Olivia Markham
Co-Portfolio Manager

Hannah Johnson
Co-Portfolio Manager

David Katz
Research Analyst

Alex Foster
Product Strategy

Our inaugural progress report seeks to explain the origins of the Brown to Green Materials theme and to provide information on the progress made in emissions reduction by underlying holdings. Included are case studies showing how the fund's holdings are contributing to both the world and the materials sector itself transitioning from 'Brown to Green'.

The Thematics and Sectors team has been managing natural resources equity portfolios since its formation in 1991; and thematic equity portfolios since 2000. Over that time, we have seen a lot of change: in particular, the scientific community reached consensus that human activity is leading to climate change, and without action the impact may be catastrophic. Over the past decade, the investment industry has reacted to this with a huge drive to integrate sustainability objectives. The conventional wisdom has appeared to dictate that portfolios should exclude high carbon emitters, and only include companies already considered 'the most sustainable'.

However, in recent years, we have become intrigued by the potential investment opportunity in companies which are high emitters today, but that have the most credible plans to decarbonise. We see a potential re-rating opportunity for companies which have de-rated in recent years on account of their perceived sustainability risk. Moreover, we recognise that what would drive share prices from here, and what would make a positive difference to the world, is what happens moving forward rather than what's already happened. We therefore sought to design a sustainability-related investment strategy which looks forwards rather than backwards.

Our starting point was to focus on sectors with the highest emissions intensity today as they, by definition, have the greatest scope for improvement: utilities, conventional energy, and materials. We considered which sectors would also see demand growth for their products from the low carbon transition and settled on materials. The materials sector finds itself in a distinctive position whereby it is a part of the problem (a significant proportion of global emissions), and it is a critical part of the solution (producing materials required for low carbon technologies).

We looked at the demand growth for a range of materials set to be driven by the low carbon transition: materials required for building wind turbines, solar panels and electric vehicles. We also recognised that without decarbonising materials production, much of the lifecycle emissions associated with these technologies would persist. There would be little point, for example, in the world replacing petrol / diesel vehicles with electric-powered ones, if emissions created in the production of the lithium required for the batteries offset much of the benefit from the lower emissions at the point of use.

Our goal became: to design, launch and manage the optimal equity strategy to provide clients with exposure to the Brown to Green Materials theme. We thought about the alpha drivers that we believe will drive outperformance of this theme versus broader equity markets and settled on three. We then defined three categories of companies aligned to these alpha drivers, which we would look to capture in this portfolio: Emissions Reducers, Enablers, Green Leaders.

Our key takeaway over a year on from the launch is: we are encouraged by the recent progress made by our holdings in terms of reducing emissions intensity. However, we recognise there is still a very long way to go in the critical mission of *decarbonising the production process of materials required for the low carbon transition*. We believe progress made so far has potentially been overlooked by the market, but we expect to see multiple expansion over the long-term as this becomes better appreciated.

There can be no guarantee that the investment strategy can be successful and the value of investments may go down as well as up.

Emissions Reducers update

Our Emissions Reducers have made progress on decarbonisation:

Eight out of ten posted a decrease in emissions intensity from 2022 to 2023, and eight out of ten showed a decrease in absolute emissions.

Mining company, Teck Resources, was the only company whose intensity and absolute emissions increased year on year. This was due to the early ramp of a new copper mine, where emissions are high at low utilisation rates. Teck's emissions intensity is expected to decrease in the coming years as the output from the mine increases.

In total, from the latest year disclosed, our Emissions Reducers holdings have made a net 9.9 million tonne reduction in Scope 1 and Scope 2 (S1 and S2) CO2 Emissions – the same lifecycle emissions of 13 airplanes.

Emissions intensity data for our Emission Reducer holdings as at 30 June 2024:

Company	Reported Emissions Intensity Unit	Latest Available Emissions Intensity			Year-on-Year (YoY) Emissions Intensity Change %	YoY Absolute S1 and S2 Emissions Change %
		2021	2022	2023		
Holcim	kg CO2e / t Cement	648	639	623	-2.5%	-3.6%
Eastman Chemical	kg CO2e / mn USD	0.7	0.6	n/a	-3.6%	-2.6%
Orica	t CO2e / t AN Sold	1.6	1.6	1.59	0.0%	-12%
Sika	kg CO2e / t product	18	16	15.7	-4.3%	-10%
CRH	kg CO2e / t Cementitious product	643	624	616	-1.3%	-7.8%
BHP	t CO2e / t Copper Equivalent	2.0	1.5	1.3	-13%	-11%
ArcelorMittal	t CO2e / t Steel	2.0	2.0	2.0	-1.5%	-2.5%
Arkema	kt CO2e / mn EUR	42	38	49	28%	-7%
Methanex	t CO2e / t methanol	0.62	0.65	0.61	-6.2%	0.9%
Teck Resources	t CO2e / t Copper Equivalent	2.6	2.8	3.2	14%	10%
				Median Change:	**-2%**	**-5.1%**

Reference to the company name mentioned in this communications is merely for explaining the investment strategy, and should not be construed as investment advice or investment recommendation of those companies. Emissions intensity data has been sourced from the individual companies' sustainability reports. Emissions intensity is calculated as absolute S1 and S2 emissions divided by latest reported revenue.

BlackRock.

Portfolio highlights

6.4%

Reduction in Emissions Intensity on average from 2022 to 2023, as measured across portfolio holdings as at 30 June 2024

90%

Of our Emissions Reducers are on track with their own decarbonisation targets

88%

Of the portfolio is invested in companies on track with some or all their decarbonisation targets

Most of the rest haven't set targets yet

76%

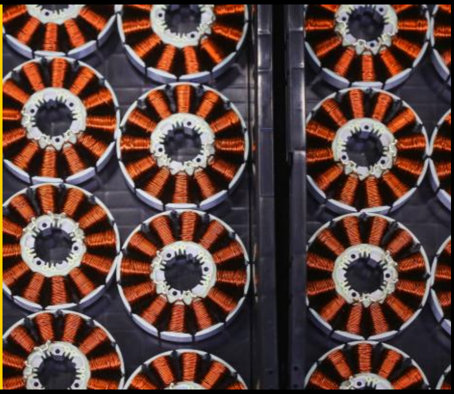
Of the portfolio is invested in companies with targets to reduce emissions intensity by over 20% in the medium-term.

52%

Of the portfolio report product-based intensity metrics e.g. emissions per tonne of copper produced

Portfolio split:

Emissions Reducers: 25%
Enablers: 48%
Green Leaders: 23%
Cash: 4%



17
materials enablers

Portfolio holdings

emissions reducers
10

9
green leaders

supply chain enablers
12

Engagement report

Engagement with portfolio holdings is a core part of the Brown to Green Materials philosophy. The team regularly engages with company management teams on the topic of decarbonisation; using company targets, approach, and progress to inform our discussions.

The team follows explicit engagement escalation criteria for all portfolio holdings; the criteria depends on the holding's category. For Emissions Reducers, emissions disclosures and the progress being made towards targets are considered. For Enablers, companies are expected to have set emissions intensity reduction targets; and Green Leaders must remain in the MSCI 1st quartile for GHG emissions, for their sector.

These metrics are reviewed periodically. If a holding triggers a review, a direct engagement is organised (an *engagement escalation*) to clarify what has caused the company to not meet expectations.

The most recent portfolio assessment was at the end of June 2024. At this time, ~7% of the portfolio triggered the engagement escalation criteria. Most of the holdings that did not meet expectations are early-stage resource companies who are categorised as Materials Enablers. In general, these companies are not yet advanced enough in their development to have meaningful carbon emissions or revenue, and don't have explicit carbon emissions reduction targets. Based on a fundamental assessment, most of the triggering companies were excluded from engagement escalation.

Following the fundamental assessment, less than 2% of the fund required engagement escalation.

For more details, see page 14.

Portfolio Managers' current process, which is subject to change without notice

What we're watching: *Regulate this*

Among the key themes we're tracking this year is regulatory developments. Up until now, regulation has mainly focused on carrots for lower carbon technologies, sticks for higher carbon ones, and has typically not supported the decarbonisation of high-emission industries.

We see the Carbon Border Adjustment Mechanism (CBAM) – the EU's tool to put a fair price on the carbon emitted during the production of carbon intensive goods – as a game changer. CBAM is currently in a transitional phase but will apply in its definitive regime from 2026. We think this will drive industry consolidation as higher-cost, small producers will struggle to compete with larger companies who have the balance sheet and subsidy support to already invest in decarbonisation projects.

In the past year, geopolitical tensions have increased. This has brought renewed focus on energy security, which we see as a long-term driver behind governments accelerating their build out of domestic renewables capacity. With this, access to the materials required has also come into the spotlight. In April 2024, for example, the US Department of Energy announced a US$75 million pledge for a new Critical Minerals Supply Chain Research Facility. However, we acknowledge that the US election in November increases the uncertainty around future US policy on green initiatives.

Elsewhere, Germany launched the Carbon Contracts for Difference program – a subsidy scheme enabling industrial producers to invest in decarbonisation. We see this as indicative of a broader rotation towards working with higher-emitters to decarbonise - in line with the philosophy of our fund.

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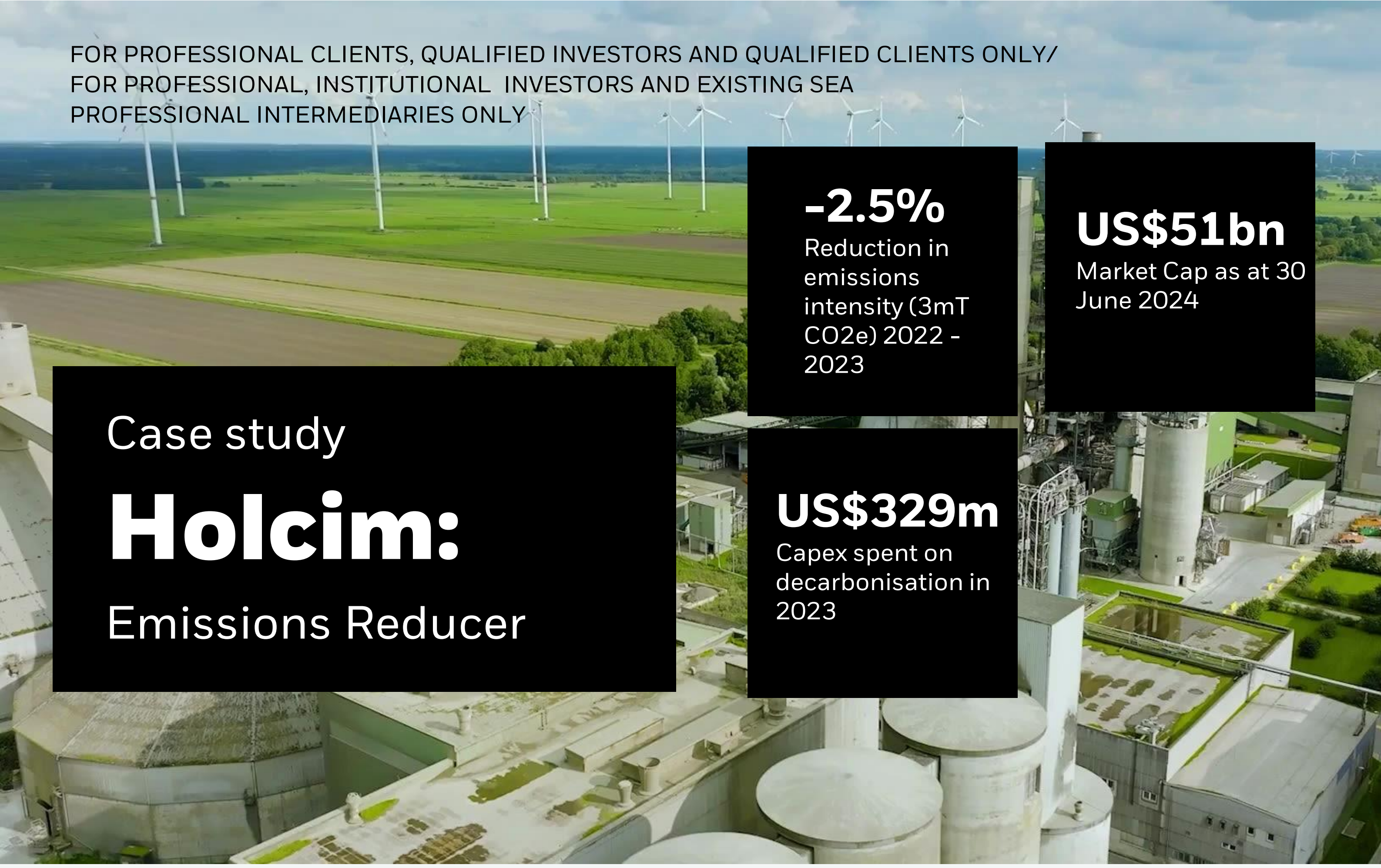

-2.5%
Reduction in emissions intensity (3mT CO2e) 2022 - 2023

US$51bn
Market Cap as at 30 June 2024

Case study

Holcim:

Emissions Reducer

US$329m
Capex spent on decarbonisation in 2023

Holcim is investing in climate-positive, premium product growth to meet US infrastructure demand

Holcim (our largest Emissions Reducer holding) is one of the world's leading global cement companies. The company has facilities across multiple geographic regions and has committed to reach net-zero by 2050. By 2030, it has committed to reducing Scope 1 and 2 emissions per tonne of cementitious material by 26.2%, from a base year of 2018.

In 2020 and 2021, the company launched low-carbon concrete ECOPact and cement ECOPlanet, with 30-100% lower carbon emissions than standard CEM I concrete and Portland cement, respectively. In 2023, it has continued its investment in low-carbon capacity with USD $100mn deployed to expand its St Genevieve plant by 600kT, while reducing net carbon emissions by 400kT / year through the addition of a new mineral component addition system. This reduces the clinker factor – one of the largest contributors to emissions in cement production. Clinker is a key raw material for cement made by heating limestone – a highly emissions intensive process. The clinker factor is the proportion of clinker added to the final cement mixture. Adding mineral components replaces some of the clinker with lower-carbon raw materials without affecting the properties of the end-product. This therefore reduces the overall emissions of the cement.

Holcim is also investing in a 25MW solar array at Alpena, which when combined with the other renewable energy projects at the plant, is expected to provide 75% of the plant's power needs and save 25kT CO2 a year.

According to the company, it can realise a mid-single-digit pricing premium on its sustainable products. When combined with an estimated mid-single-digit lower cost base (KECH estimate, June 2024), this translates into an attractive margin expansion driver as the penetration of sustainable products increases.

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Source: Holcim company data, 2023 sustainability report. Holcim website. Rationale for picking stock: Holcim is our largest Emission Reducer holding. Companies have been selected in order to demonstrate the progress the industry is making with decarbonisation. Forecasts may not come to pass. Subject to change. For illustrative purposes only. Reference to the company names mentioned in this communication is merely for explaining the investment strategy and should not be construed as investment advice or investment recommendation of that company.

Case study

Freeport McMoRan:

Materials Enabler

-15.6%
Reduction in emissions intensity from 2018 to 2023

$70bn
Market Cap as at 30 June 2024

>2x
Copper required for renewable energy technologies

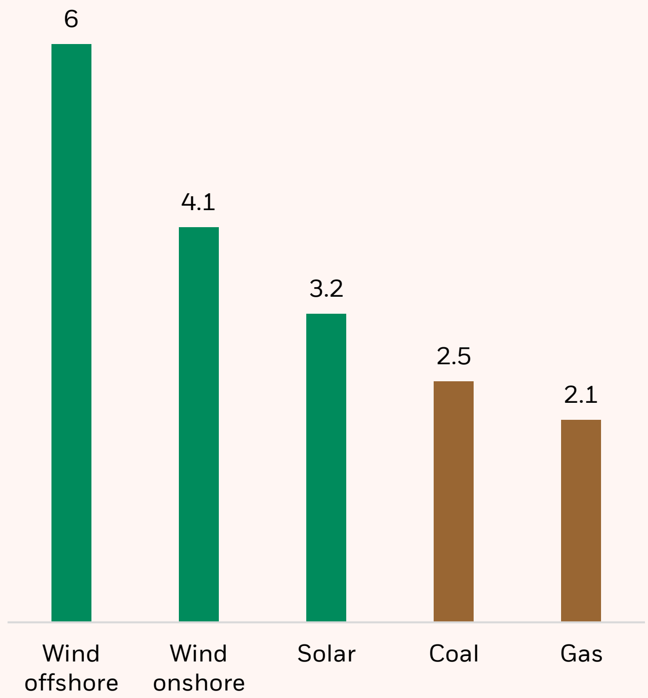
Copper demand growth continues to be fuelled by the energy transition

Freeport McMoRan (our largest Enabler holding) mines copper, 65% of which is used in applications that deliver electricity. Freeport McMoRan has an emissions intensity reduction target of 23% between its Americas and PT-FI Grasberg site, and a target of 50% absolute emissions reduction at its Atlantic Copper Smelter and Refinery (2018 to 2030). As of 2023, the company has made a 15.6% reduction from its baseline emissions intensity in 2018. This decarbonisation progress continues alongside increasing demand for copper to deliver the energy transition.

Cumulative primary copper demand over the next 30 years is expected to be double the amount consumed in the previous 30. And to be clear, this significant primary demand figure (i.e. mined resource) takes account of competing metal supply coming from recycling. It would be even bigger if the circular economy* makes slower inroads than forecasted.

As shown in the chart on the right, transition-related technologies are than 1.3 to 2.9x more copper-intensive than traditional fossil-fuel energy technologies.

Copper required per unit of power capacity
Tonnes per megawatt



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Source: Left - Freeport McMoRan 2023 Annual Report. Right - BHP analysis, Hatch, ArcelorMittal, August 2023. *By Circular Economy, we mean the transition to an economy in which goods are increasingly recycled and reused to design waste out of the system.

Case study

Danieli:

Supply Chain Enabler

+5.7%
Estimated topline CAGR driven by steel decarbonisation capex*

-6.8%
Reduction in absolute emissions, 2022-2023

+26%
Increase in steelmaking equipment backlog, 2022-2023

Alternative smelting and refining methods have the potential to reduce Scope 3 emissions for Emissions Reducers, while providing strong growth for Supply Chain Enablers.

Steelmaking accounts for 7-9% of global GHG emissions, (25% of industrial GHG emissions) as a result of its reliance on Coal as a source of carbon and energy source. Direct Reduced Iron (DRI) is an interesting alternative to the traditional coal-fuelled Blast Furnace route. DRI reduces the emissions from iron and steelmaking by removing the need to heat iron ore to the melting point of iron to remove oxygen and turn it into iron metal. DRI can then be processed into steel with more efficient technologies than a traditional Basic Oxygen Furnace, like an Electric Arc Furnace (EAF) which uses electricity to melt a mixture of scrap-iron and DRI. Not only can EAFs be powered by renewable energy where available, they also promote a more circular economy, requiring scrap metal in combination with DRI.

Electric Arc Furnaces expected to represent 50-60% of global steel production by 2050, up from ~30% today (according to research by BNPPE, June 2024). Whilst retrofitting existing Blast Furnaces with Carbon Capture technology will provide a bridge, EAFs are more energy, cost, and labour efficient (Steel Dynamics, September 2024). Danieli (our largest supply-chain enabler holding) is a global leader in EAFs (est. 50% market share), DRI technology and other efficient steelmaking equipment. The company is seeing strong demand for EAF's with a 2-3 year backlog, and increasing interest in EAF-adjacent technology that further reduces the emissions of end-products.

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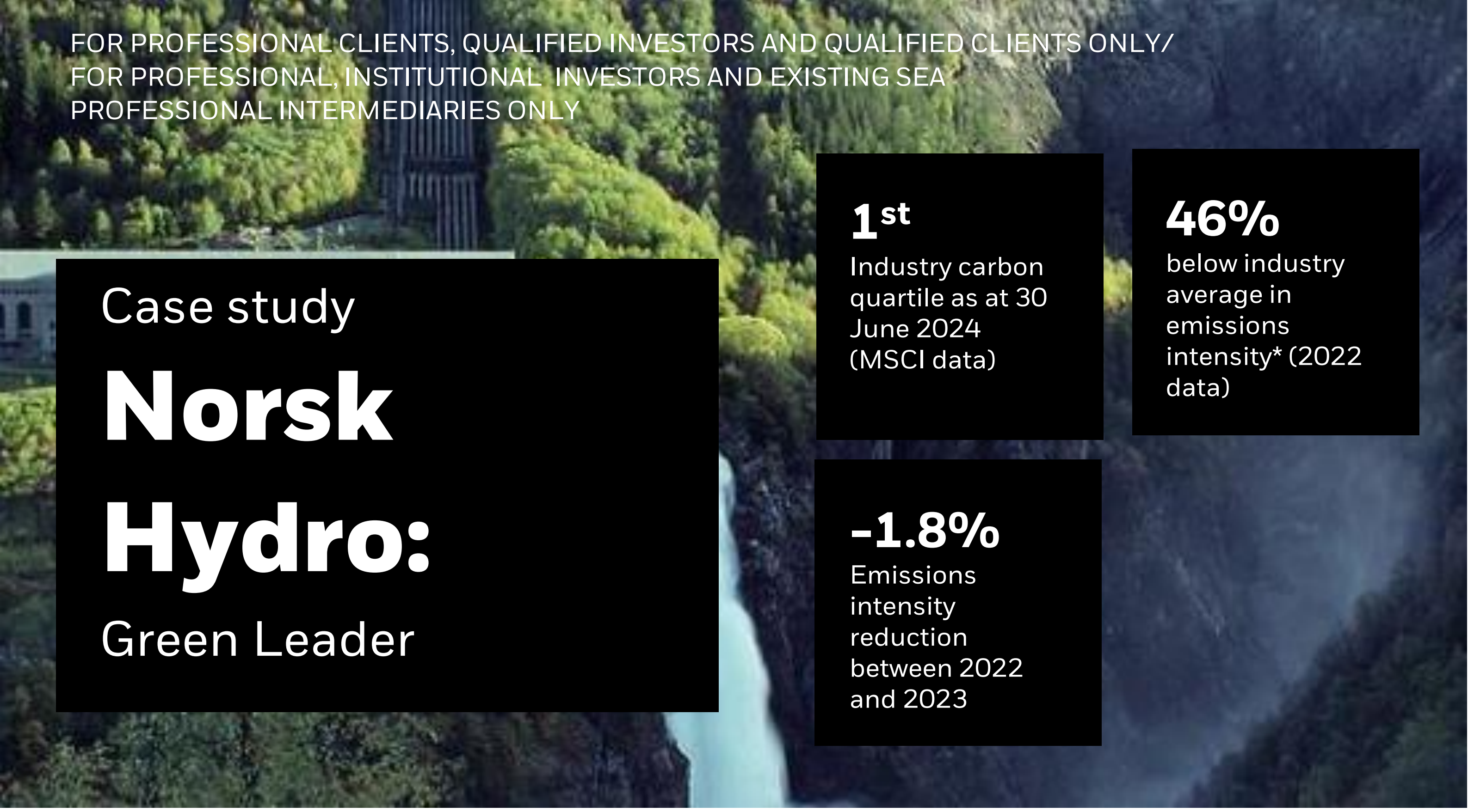
Source: BNP Paribas Exane Research, accessed June 2024. Danieli & C Officine Meccaniche S.p.A 2023 Integrated Annual Report.
*Consensus estimates as reported in BNPPE Paribas research, June 2024. 2024 – 2026 Revenue CAGR



Case study

Norsk Hydro:

Green Leader

1st
Industry carbon quartile as at 30 June 2024 (MSCI data)

46%
below industry average in emissions intensity* (2022 data)

-1.8%
Emissions intensity reduction between 2022 and 2023

Norsk Hydro is a leader in producing aluminium with a carbon intensity lower than the industry average.

The company is committed to further reducing its carbon footprint, aiming to cut its scope 1 & 2 emissions by 30% by 2030, down to 7 million tons of CO2 equivalent. In the first half of 2024, Norsk Hydro invested $180 million to transition from heavy fuel oil to gas at its Alunorte Alumina refinery in Brazil. This change is projected to reduce CO2 emissions by 700,000 tons and save between $160 to $190 million in annual fuel costs. The economic benefits are clear, and the environmental impact is equivalent to removing the emissions of 150,000 cars in the U.S. annually.

This initiative marks the beginning of Alunorte's decarbonization strategy, with additional plans to switch ten boilers from coal to electric by 2030. These boilers will be powered by renewable energy, aligning with the company's sustainability goals.

Meanwhile, circular initiatives are an additional lever to reduce emissions intensity. Combining access to clean, cheap electricity with circular product offerings further reduces the emissions intensity of the products – as shown by the difference in Hydro's circular vs virgin products.

For more information on trends driving the Circular Economy, see our Circular Economy Progress Report.

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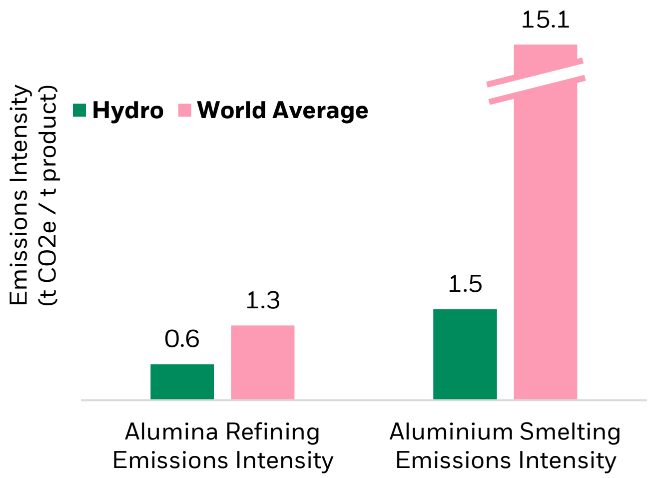
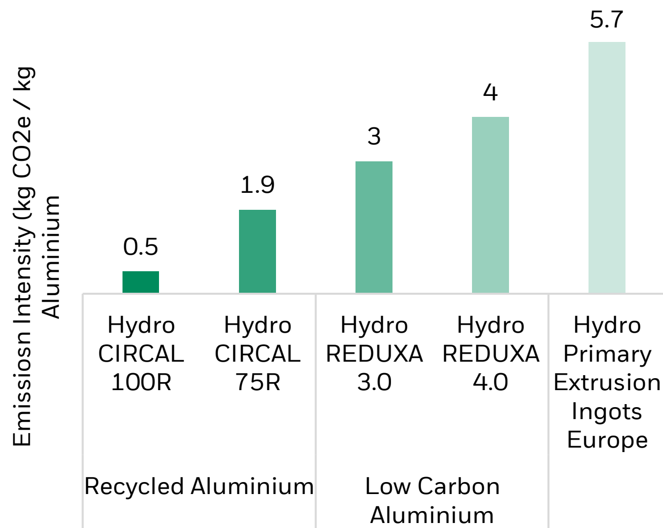
Forecasts/estimates may not come to pass. Targets may not be achieved. Norsk Hydro chosen because it was our largest Green Leader holding as at 30 June 2024.

Source for datapoints in the text above and both charts: Hydro 2023 Integrated Report
*Alunorte 2022 Alumina CO2e Intensity. 1st quartile, targeting 1st decile by 2025.
Source: 3Q23 Investor Presentation

Emissions intensity of aluminium



Emissions intensity of circular and recycled aluminium versus virgin aluminium



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BGF Brown to Green Materials Fund – Fund Risks:

Concentration Risk, Counterparty Risk, Currency Risk, Equity Risk, ESG Screening Risk, Liquidity Risk

Concentration Risk

Investment risk is concentrated in specific sectors, countries, currencies or companies. This means the Fund is more sensitive to any localised economic, market, political or regulatory events.

Counterparty Risk

The insolvency of any institutions providing services such as safekeeping of assets or acting as counterparty to derivatives or other instruments, may expose the Fund to financial loss.

Currency Risk

The Fund invests in other currencies. Changes in exchange rates will therefore affect the value of the investment.

Equity Risk

The value of equities and equity-related securities can be affected by daily stock market movements. Other influential factors include political, economic news, company earnings and significant corporate events.

ESG Screening Risk

The Fund seeks to exclude companies engaging in certain activities inconsistent with ESG criteria. Investors should therefore make a personal ethical assessment of the Fund's ESG screening prior to investing in the Fund. Such ESG screening may adversely affect the value of the Fund's investments compared to a fund without such screening.

Liquidity Risk

The Fund's investments may have low liquidity which often causes the value of these investments to be less predictable. In extreme cases, the Fund may not be able to realise the investment at the latest market price or at a price considered fair.

ESG Investment Statements

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The environmental, social, and governance ("ESG") considerations discussed herein may affect an investment team's decision to invest in certain companies or industries from time to time. Results may differ from portfolios that do not apply similar ESG considerations to their investment process.

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Appendix

Engagement Review

At the portfolio's first engagement escalation review (28 June 2024), some portfolio companies flagged as potentially meeting the criteria for an engagement escalation. For each company, a fundamental assessment was made to determine whether an engagement escalation was warranted. Qualitative and transitory situations were considered as mitigating factors. **Most of the companies were assessed to not require any further engagement escalation**, with the exception of one mining company.

This company (#4 below) withdrew from the SBTi initiative in 2023. The company has remained committed to a 2deg warming path but have not yet published targets or a timeline. An Engagement Escalation will be actioned before the end of the next fund reporting period.

The companies that flagged during the review are listed in the table below. All other companies in the fund at 28 June 2024 passed the review and are not listed below.

Company (anonymised for compliance purposes)	**Holding Size**	**B2GM Category**	**Engagement Override Assessment**	**Recommended Action**
Mining Company 1	<0.5%	Enabler	ExploreCo - Early stage company with no material emissions to reduce	No Engagement Escalation Necessary
Mining Company 2	<1.0%	Enabler	ExploreCo - Early stage company with no material emissions to reduce	No Engagement Escalation Necessary
Mining Company 3	<1.5%	Enabler	Plan to net zero to be published in 2024	No engagement Escalation necessary
Mining Company 4	**<1.5%**	**Enabler**	**Withdrew from SBTi in 2023. Committed to well below 2deg, but no stated targets or timeline.**	**Engagement Escalation**
Mining Company 5	<1.0%	Enabler	No targets set, in process of establishing 2023 baseline to inform target setting (sustainability report)	No Engagement Escalation Necessary
Mining Company 6	<1.0%	Enabler	ExploreCo - Early-stage resource exploration company with no material emissions to reduce	No Engagement Escalation Necessary
Industrial Company	<0.5%	Enabler	Early-stage startup not yet at scale: sustainability is a core focus of the business, but setting targets is not an appropriate activity for the company at this stage. They report that 85.1% of their capex is aligned with climate change mitigation under the European Green Taxonomy (2022 Sustainability report, page 61)	No Engagement Escalation Necessary
Mining Company 7	<3.5%	Emissions Reducer	Product equivalent emissions intensity increased because of the ramp up of a new asset, causing temporarily higher emissions for lower production. In addition, disposing of a high carbon emitting segment: sale agreed, expected close in 3Q 2024.	No Engagement Escalation Necessary

BGF Brown to Green Materials Fund positioning

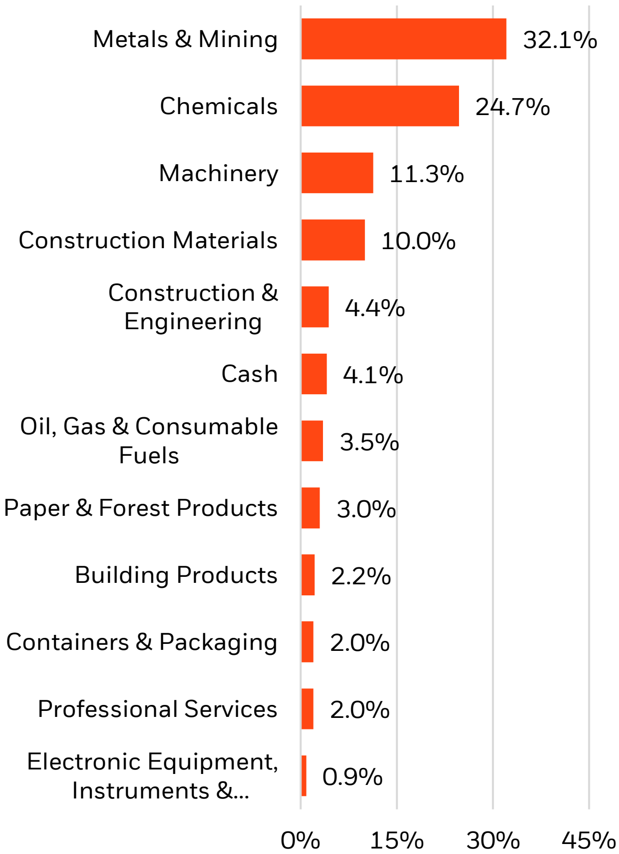
Top 10 holdings (30/06/2024, weight %)	
Linde	4.7
Holcim	4.1
Air Liquide	3.9
Anglo American	3.8
Eastman Chemical	3.7
Cameco	3.5
Teck Resources	3.3
Caterpillar	3.1
Martin Marietta	3.1
UPM	3.0

Holdings subject to change. Excludes cash.

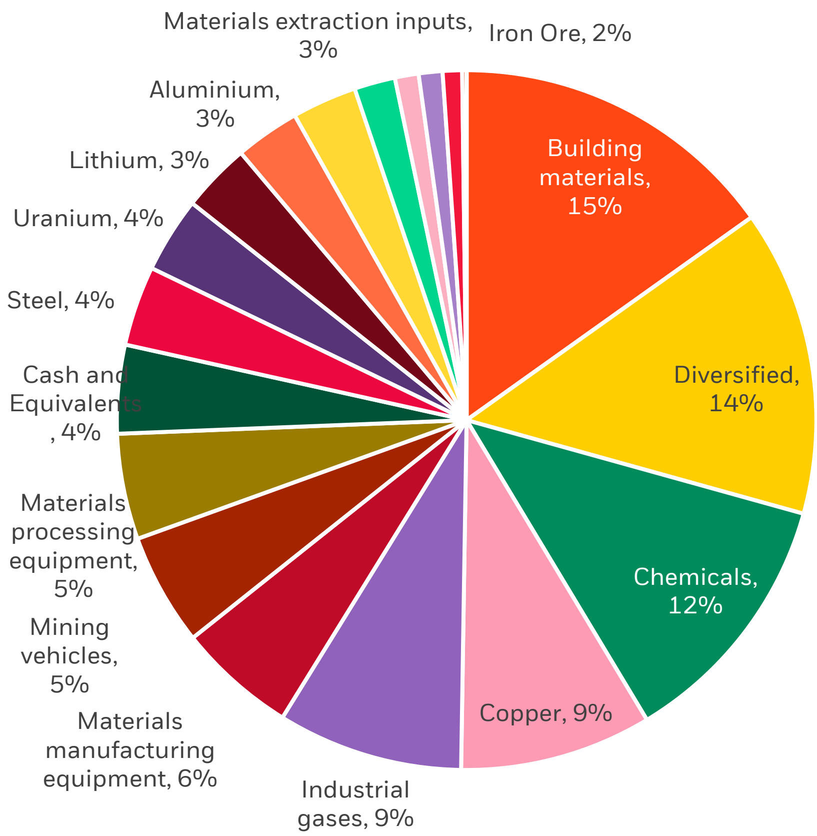
Portfolio statistics	
Number of holdings:	49
Percentage in the top 10:	36%
Turnover - past 12 months	54%
Emissions reducers:	33%
Enablers:	43%
Green leaders:	20%
Cash	4%
Dividend yield FY+1*	2.1%
EV/EBITDA (traling 12 months)*	17.4x
P/E FY+1*	17.1x
P/B FY+1*	2.0x

*Weighted-averages for the portfolio

GICS industry breakdown



Bespoke sub-sector breakdown



Source: BlackRock. Exposures for the BGF Brown to Green Materials Fund as at 30 June 2024. The specific companies identified and described above do not represent all of the companies purchased or sold, and no assumptions should be made that the companies identified and discussed were or will be profitable. Due to rounding, the total may not be equal to 100%.

BlackRock's thematic platform

Active strategies

- Brown to Green Materials
- Circular Economy
- Climate Action
- FinTech
- Future of Transport
- Next Generation Health Care
- Next Generation Technology
- Nutrition
- Sustainable Energy

Index strategies

- Ageing Population
- Agribusiness
- Automation & Robotics
- Digitalisation
- Digital Security
- Electric Vehicles & Driving Technology
- EM Consumer growth
- Global Clean Energy
- Global timber & forestry
- Global water
- Healthcare innovation
- Inclusion & diversity
- Smart City Infrastructure

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Multi-theme
Incorporating all of the Megatrends themes

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BGF Brown to Green Materials: Fund information

Dealing Information	
Base Currency/Additional Dealing Currency	USD / EUR, GBP, JPY, SGD, HKD, AUD, CNY, NZD, CAD
Trading Frequency	Daily, forward pricing basis
Dealing Cut-Off Time	Orders for subscription, redemption and conversion of shares should be received by the transfer agent or the local investor servicing team before 12 noon Luxembourg time on the relevant dealing day.
Settlement	T+3

Frequently used share classes	ISIN	SEDOL
A2 EUR Acc	LU2600820190	BGFMTA2
A2 USD Acc	LU2600819937	BNKSTR4
AI2 EUR Acc	LU2600820430	BNKSTT6
D2 EUR Acc	LU2600820356	BNKSTW9
D2 USD Acc	LU2600820273	BNKSTV8
I2 EUR Acc	LU2600820604	BNKSTY1
I2 USD Acc	LU2600820786	BNKSTZ2

Management and administration	
Launch date	6th of June 2023
Fund Manager	Evy Hambro, Olivia Markham, Hannah Johnson
Benchmark	MSCI All Countries World TR Index
Legal Form	Sub-Fund of Luxembourg SICAV
Fund Accountant	The Bank of New York Mellon SA / NV, Luxembourg Branch
Custodian	The Bank of New York Mellon SA / NV, Luxembourg Branch

The Fund is actively managed, and the IA has discretion to select the Fund's investments. In the opinion of the IA, the MSCI All Countries World Index (the “Index”) is a fair representation of the Fund’s investment universe and should be used by investors to compare the performance of the Fund. The Index measures the performance of large and mid-capitalisation stocks across developed and emerging markets countries.

Acc= accumulation units

Source: BlackRock as at 31 August 2024. * The fund does not have an official benchmark, but as a reference performance can be compared versus the MSCI All Country World Index.

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Energy Pragmatism: An Evolving Approach for the Mid-21st Century

September 30, 2024

BlackRock

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Key takeaways

- **In both the public and the private sectors, we see a growing focus on 'energy pragmatism,' driven by four deeply interconnected factors: national security, reliability, affordability and decarbonization.** How countries balance these four factors will differ, depending – like the energy landscape itself – on local politics, economic conditions, natural-resources endowments, technology and societal preferences.

- **This shifting focus reflects a fast-changing world.** Energy pragmatism is a practical response to rising demand, new technologies, the fraying of globalization, a more challenging economic environment, policy changes, evolving social preferences and a growing focus on decarbonization. Russia's invasion of Ukraine in early 2022 and the resulting energy crisis highlighted many of these concerns.

- **We expect investment in the global energy system to double, with a shift in its focus toward lower-carbon investments.** BlackRock projects annual energy investment will average $4 trillion per year over the next three decades – up from $2 trillion in recent years. Investment is going into both high-carbon and low-carbon sectors. The split was roughly 50/50 until 2020, but we anticipate that the investment mix will shift to 80/20 low-carbon/high-carbon by mid-century.

- **Capital markets will be instrumental in financing this investment**. With public debt at historic highs, capital from institutions and individuals will be key, along with public-private partnerships.

- **Policy will influence investment**. Clear regulations and consistent policies are key to attracting private capital for energy projects, especially with countries moving at different speeds towards decarbonization.

We need three things from our energy system. We need it to be available every minute of every day. We need it to be relatively cost-effective – otherwise it becomes a tax on the people who can least afford it. And we need it to be cleaner. All this means that there isn't a single solution. It takes a village of solutions.

Mark Florian
Head of BlackRock Global Infrastructure Funds

BlackRock's view on energy pragmatism

We first wrote about energy pragmatism in our 2024 Chairman's Letter. In this, we discussed the ways that the world is addressing energy security and decarbonization, and we stressed that our job is to help clients navigate the major shifts taking place in energy markets and the global economy. As a fiduciary, we help our clients meet their investment goals by providing multiple avenues to invest in energy and infrastructure. On our clients' behalf, we invest across strategies and asset classes, in public equity and debt markets, through both active and index strategies, as well as in private markets. Our clients choose their own investment objectives, including mandates to invest in oil and gas or lower-carbon sources of energy, or both, or neither. It's our clients' choice.

The era of energy pragmatism

The global energy landscape has changed dramatically in just a few years. Russia's invasion of Ukraine in 2022 and the resulting energy-market dislocation accelerated the ongoing adoption of what we call 'energy pragmatism': an approach to balancing the goals of energy security, reliability, affordability and decarbonization. While the political, economic and social backdrop is changing, global energy demand is expected to continue to grow. To meet this need, the world will need a variety of energy sources and technologies, including both lower-carbon and higher-carbon, for several decades to come. **Four interconnected factors are driving this shift toward energy pragmatism.**

National security

The fraying of globalization has refocused many countries' attention on energy security as part of their national-security calculus. In many jurisdictions, government policy has evolved rapidly to supplant dependence on imported energy with the domestic production of cleaner energy. Russia's invasion of Ukraine has accelerated this transformation in Europe, while economic competition among the US, Europe and China has highlighted some of the security concerns around the supply chains supporting the development, production and deployment of low-carbon technologies.

Reliability

Globally, primary energy demand has risen by more than 50% since 2000.[1] We expect demand for power in particular to continue to rise, driven in part by new technologies such as artificial intelligence, along with economic growth and industrialization, notably in emerging markets. As the appetite for power increases, the reliability of the power grid is under strain, and extreme weather has underscored its vulnerability. The growth in renewable sources of energy supports decarbonization goals but also raises reliability concerns, with the variability of solar and wind power making dispatchable and baseload power generation increasingly important.

Affordability

Inflation and an era of higher interest rates have deepened concerns about both energy affordability and economic competitiveness. Market dislocations in the wake of the invasion of Ukraine underscored the potential political fall-out of higher energy prices. At the same time, rising demand for energy and the challenges of bringing new sources into the system quickly are likely, in our view, to increase cost pressures on consumers. And the pace of the transition to lower-carbon fuels will be an important component of affordability in some countries.

Decarbonization

Multiple drivers are accelerating the transition to a low-carbon economy, including government policies, technological innovation and consumer and investor preferences. Nearly 200 countries around the world have signed the Paris Agreement, committed to decarbonization targets and are enacting policies to further these targets. A focus on energy as a national-security issue is supporting the installation of lower-carbon sources at a local level. Companies and investors are funding technological innovation that is bringing down costs and broadening scale. And social preferences are shifting as more people experience the physical impacts of climate change.

Note: Unless otherwise noted, all historical data in this paper is drawn from the Energy Institute's 2024 Statistical Review of World Energy.

Against this backdrop, the energy mix – the balance of energy inputs – becomes central to energy pragmatism. Renewables are the fastest-growing segment of the global energy market today, with solar and wind power accounting for around 60% of primary energy growth since 2015 and more than 70% since 2019. Yet this rapid growth is off a low base, and hydrocarbons continue to account for the vast majority of global primary energy consumption: in 2023, oil and coal made up 58% of the global total, and natural gas another 23%.

In other words, while renewables have helped to meet overall energy demand growth, they have not yet cut into the existing demand for hydrocarbons at the global level. And the variability of renewables – the fact that the sun doesn't always shine and the wind doesn't always blow – means that, in the absence of widespread energy storage and efficient grid connections, renewables have not yet, in many places, supplanted fossil fuels and nuclear power as the source of baseload power (the constant, minimum level of power required).

To keep up with growing demand, the world needs not only more supply but also significant investments in energy infrastructure, including expanded and more resilient electricity grids, battery and other forms of storage, smart metering, pipelines, storage and shipping infrastructure for natural gas and charging stations to support electric vehicles.

To meet these challenges, investment in the global energy system will likely double over the next three decades. Our BlackRock Investment Institute (BII) anticipates it could average $4 trillion annually – up from $2 trillion in recent years. Investment is going into both high-carbon and low-carbon sectors. The split was roughly 50/50 until 2020, but our BII Transition Scenario anticipates this will shift to 80/20 low-carbon/high-carbon by mid-century. Given the long lifetime of energy-system infrastructure, however, the increase in low-carbon capital expenditures will precede changes in the energy mix. As a result, we expect that hydrocarbons will still make up roughly half of the global primary energy mix by mid-century.

It is likely to be an all-of-the-above solution for quite a long time. The world will get a lot more renewables, and more energy storage, but the world will still need investment into the hydrocarbon mix, particularly natural gas, which is the least carbon-intensive form of traditional energy.

Alastair Bishop
Portfolio Manager, BlackRock Fundamental Equities

The BII Transition Scenario

For a deep dive into our investment research on the low-carbon transition, see the BlackRock Investment Institute (BII) hub.

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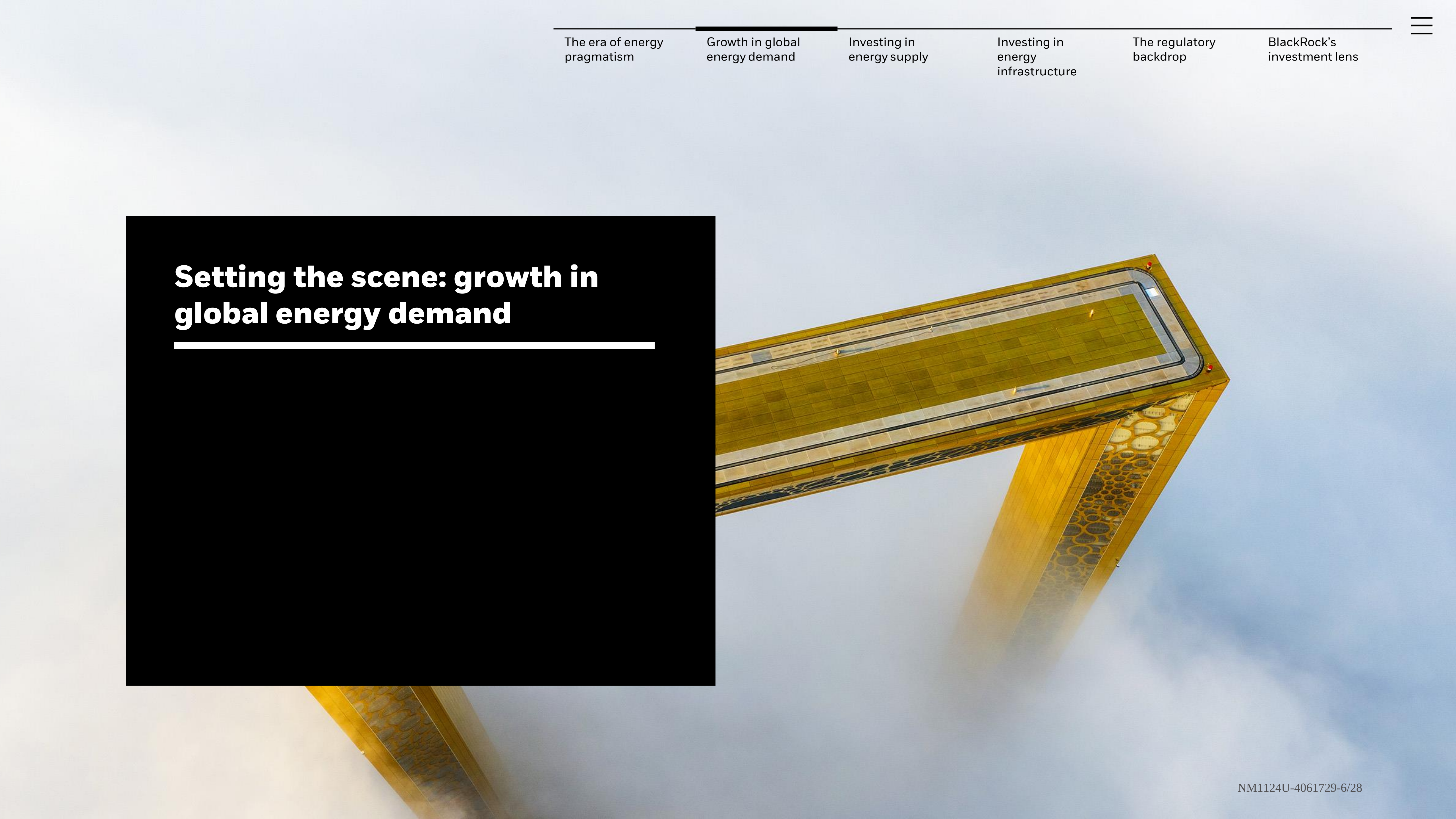
The BlackRock Investment Institute Transition Scenario (BIITS), powered by Aladdin® technology, is a research-based, analytical forecast of how the low-carbon transition could unfold. BIITS attempts to model what is most likely to occur – rather than what anybody thinks should happen or a specific outcome. It is based on rigorous research and the input of BlackRock's portfolio managers and other experts.

BIITS sees a multi-speed transition with both investment risk and opportunity, as sectors and regions move at different speeds, driven by shifting technology and societal preferences, and as policymakers balance different objectives.

Like all forecasts, BIITS comes with considerable uncertainty, which requires tracking and updating over time. We are actively updating our work and the capital-market assumptions that utilize it. As with all our research, it is each client's choice to use or not and agree or not — views on energy and markets differ.



Setting the scene: growth in global energy demand

Setting the scene: growth in global energy demand

As energy demand continues to grow, the challenge for the world will be to produce enough supply while balancing the needs of security, reliability, affordability and decarbonization.

Globally, primary energy consumption rose by roughly 56% between 2000 and 2023, though the rate of growth has slowed slightly in recent years. While consumption remained essentially flat in OECD economies overall and in the US, it declined by 13% in the EU and by more than 20% in Japan. In developed economies, the flat total growth story is actually two stories: strong growth in renewables and natural gas on the one hand, with declines in coal and oil on the other. This trend has accelerated since 2015, with a 9% annual growth rate making renewables the primary source of energy growth.

Outside the OECD, primary consumption is more than twice as high now as in 2000 – three times as high in India and four times in China – thanks to faster economic and population growth. China has rolled out renewables rapidly in recent years, accounting for 60% of the world's solar and wind installation in 2023,[2] but abundant and inexpensive coal has driven much of the recent increase in consumption in both China and India.

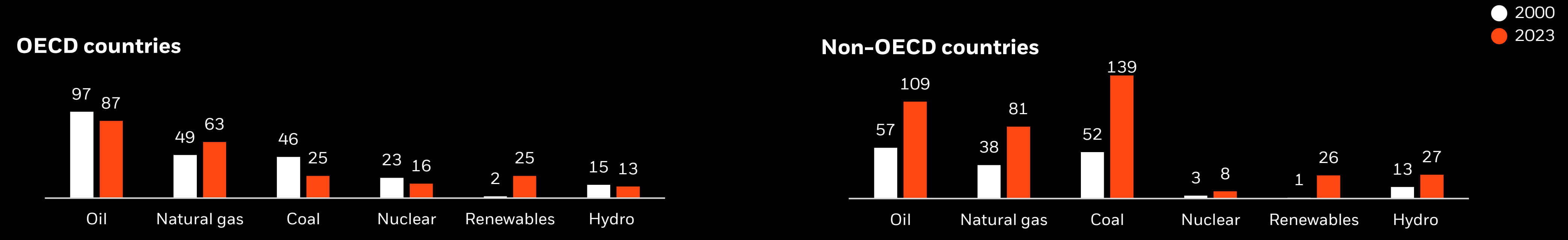
Looking ahead, we expect that global energy demand will continue to increase, most notably in emerging markets, but the composition of this demand will look different to the past. Although aging populations will weigh on economic growth and energy consumption in many developed economies and in China, the story is quite different in many emerging economies, where higher output, growing populations and ongoing industrialization are likely to push demand higher. Across developed and emerging economies alike, the world is likely to be richer, with greater wealth boosting demand for energy-intensive goods and services like consumer products, air conditioning, protein-rich food and travel.

Technology will affect energy demand – in both directions. At the macroeconomic level, technology can improve energy efficiency and reduce the energy-intensity of economic output. But new technologies can also drive higher demand – as we are already seeing with the anticipated growth in artificial intelligence (AI) and the rapid build-out of supporting data centers.

A changing global energy mix since the start of the century

Primary energy consumption by fuel type (exajoules)

Source: Energy Institute, *2024 Statistical Review of World Energy*
OECD: Organization for Economic Co-operation and Development



Artificial intelligence: a new driver of energy demand

Artificial intelligence (AI) is highly power-intensive: the average search with first-generation generative AI used nearly 10 times as much energy as a conventional web search.[3] While estimating the growth of AI and its related energy demand is difficult, today's estimates are large. The International Energy Agency (IEA) estimates that data centers could require around 670 TWh by 2026, up from about 350 TWh in 2022, with AI demand reaching roughly 100 TWh from a negligible level. A BlackRock review of estimates from energy and sell-side research firms suggests a range of 400-1200 TWh of incremental power demand by 2030, from 2023 levels, with a median of 700 TWh.

For context, this would represent about 2.5% of current global electricity consumption and 13% of total projected global power demand growth to 2030 under the IEA's stated policies scenario — which would be on par with the growing power needs of the entire transportation sector.[4]

The trend is expected to be much more significant in the US, where overall electricity demand growth has been essentially flat for 15 years and where AI data centers are expected to be concentrated.

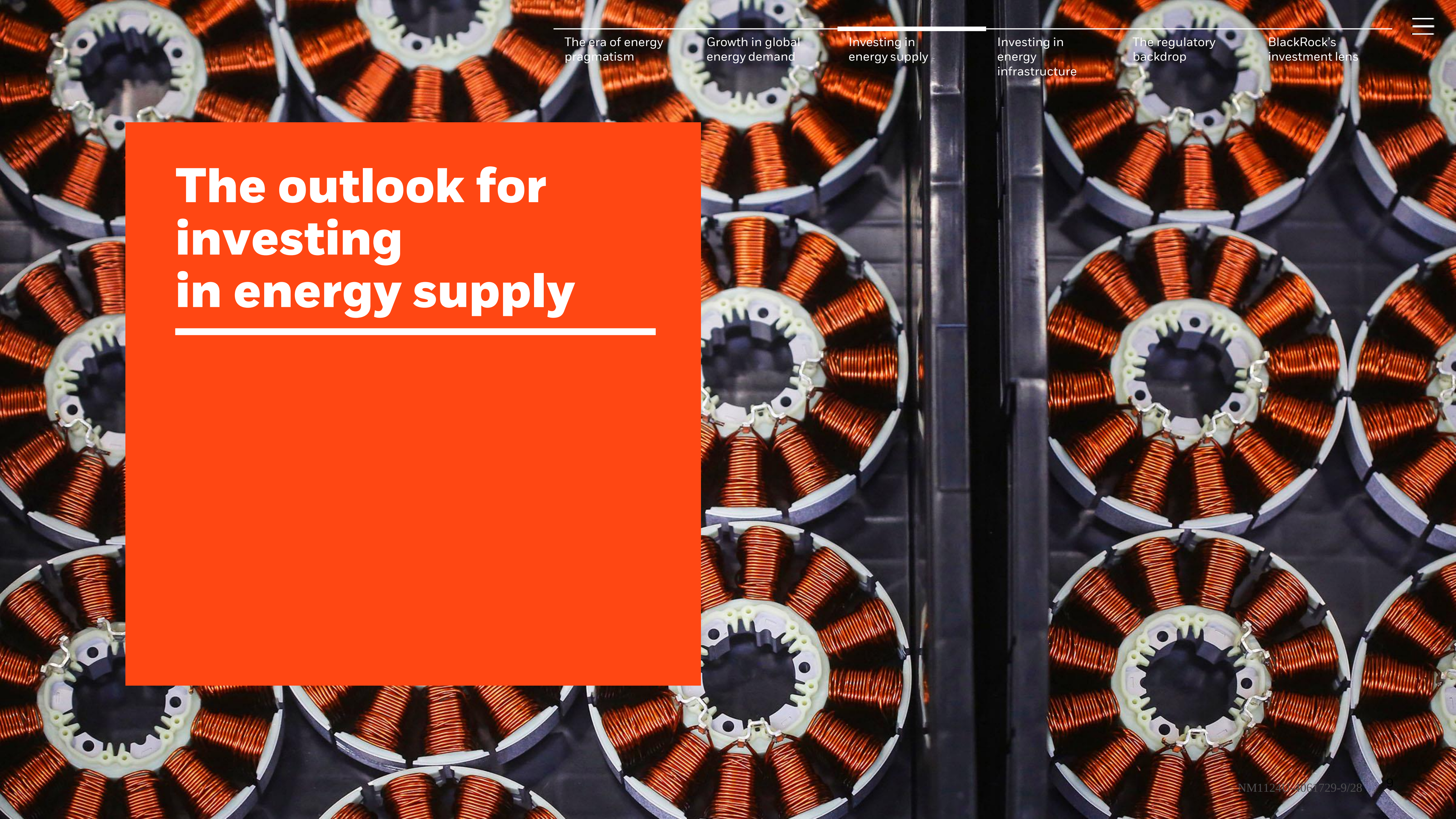
In the US, data centers could grow from about 4%-5% of power demand today to 6%-10% or even higher under some bullish AI capex projections. Even two percentage points would represent a massive increase in the capital needed to allow electricity power providers to ramp up at a pace not seen for decades. Given the geographic clustering of data centers in areas where renewable power may be constrained, and the fact that wind and solar are intermittent power sources, it may be difficult for renewables alone to meet this demand.

Accordingly, meeting this AI-driven demand may also require natural gas and nuclear power, which in turn will likely require more gas pipelines, gas-fired power plants, transmission lines and modern smart grids.

Regardless of the energy source, transmission will remain a challenge, requiring more investment and changes to regulatory approval processes.

Some supply may need to come from behind-the-meter or local power technologies sited adjacent to new data centers. Over time, power generation could come from small nuclear reactors, geothermal energy and even, perhaps, fusion technology. While these technologies might be more expensive than renewables, they might still be needed to meet fast-growing demand, and they may be affordable for the tech hyperscalers that are behind this demand.

Yet, on a longer horizon, AI may partially – or even fully – offset increased power demand by driving optimization and efficiency across energy and power systems and end-uses like buildings, industry and transport.



The outlook for investing in energy supply

The outlook for investing in energy supply

Even with the growth in renewable energy over the past decade, coal, oil and natural gas still account for roughly 80% of the world's primary energy demand. The balance comes from renewable solar and wind, hydropower, nuclear and bioenergy. While renewables have helped to meet overall energy demand growth, they have not yet cut into the existing global demand for hydrocarbons.

Projecting the future energy mix is difficult and risky, given the high degree of uncertainty in the macroeconomic outlook and in the fundamental drivers of the energy transition – technology, policy and consumer and investor preferences. All of these can change quickly, with the rapid emergence of AI just one illustration of this.

While estimates vary, the widely cited Stated Policies Scenario[5] from the International Energy Agency (IEA) points to an increase in renewables' share of world energy consumption from 12% in 2022 to 31% by 2050. Under this scenario, the share of nuclear energy is also expected to grow, while the shares of natural gas, oil and, most dramatically, coal are projected to decline.

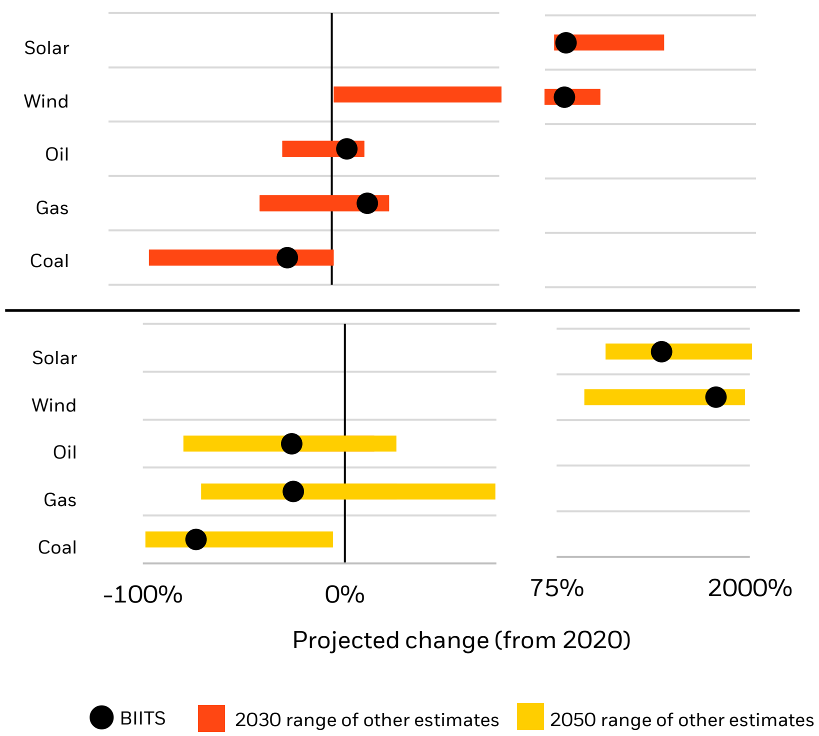
Taking a wider lens, the chart alongside draws on our BII Transition Scenario[6] (which we discuss in the box on page 5) to illustrate the wide range of estimates of changes in demand for different energy sources.

While all scenarios point to renewables growing to many multiples of their recent levels, the extent of the decline in hydrocarbons is highly scenario-driven and timeframe-dependent.

We anticipate that renewables and lower-carbon technologies will play an increasingly important role in meeting demand growth and eventually in displacing traditional energy in the mix. At the same time, we think it is likely that traditional sources (some coupled with carbon capture) will still account for roughly half the global energy mix by mid-century.

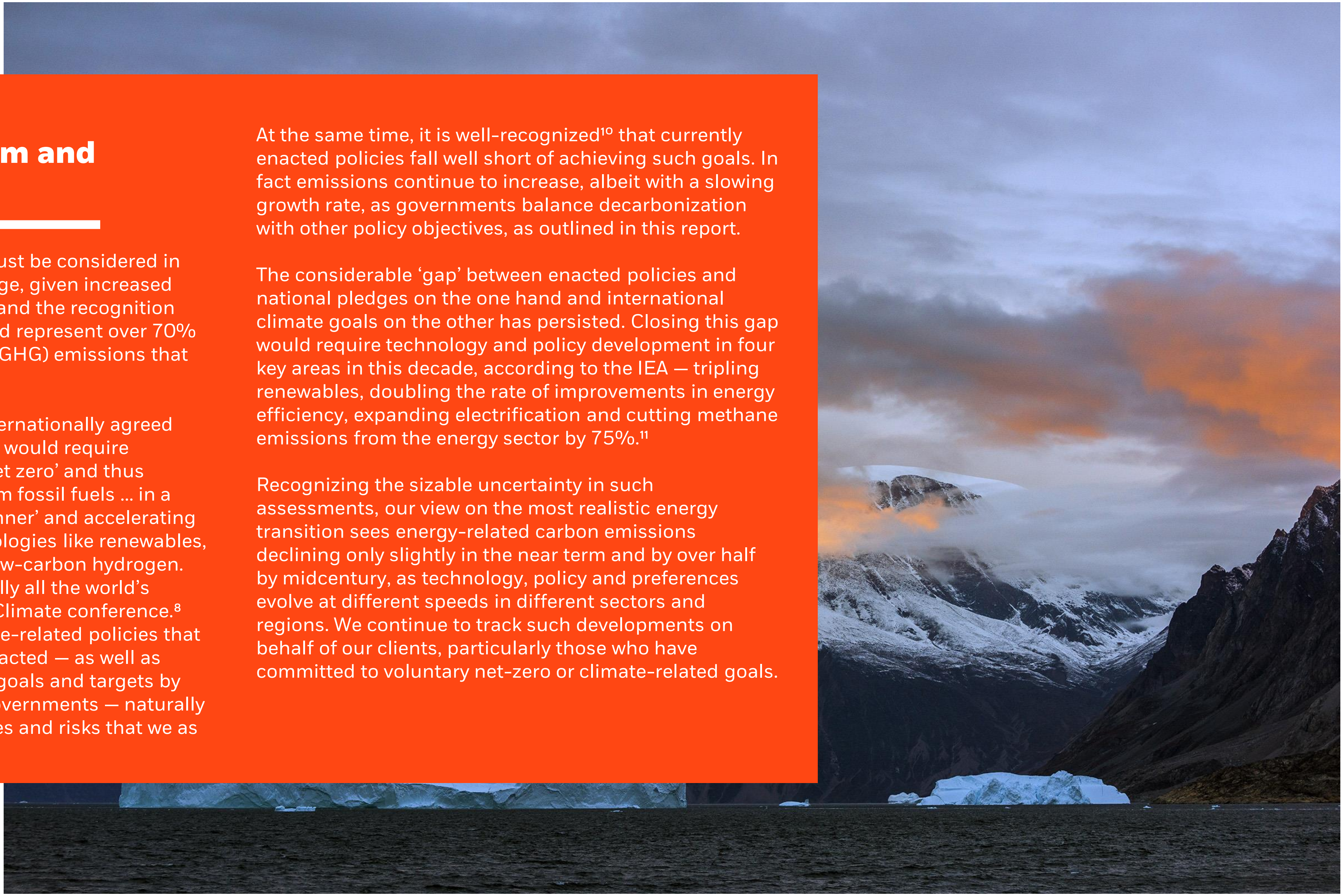
As we discuss in more detail in our BII Transition Scenario, our expectation is that the transition from high-carbon to lower-carbon energy systems will play out over decades – and at different speeds in different countries and sectors, reflecting policy choices, consumer preferences, technological innovation and natural-resource endowments.

Estimated changes in global energy sources by 2030 and 2050



Sources: BlackRock Investment Institute and Aladdin Sustainability Analytics, July 2023. Notes: To produce BlackRock Investment Institute Transition Scenario (BIITS) insights, we turn our views and research into quantitative inputs for our scenarios modeling to create the BIITS insights. BlackRock's Aladdin® platform is a financial technology platform designed for institutional use only and is not intended for end investor use. Secondary research and third-party sources used include energy data, scenario data, market intelligence and energy research providers. For illustrative purposes only. Subject to change without notice.

Note: The IEA's Stated Policies Scenario reflects current policy settings based on policies in place, as well as those under development, as of August 2023. The scenario takes into account currently planned manufacturing for clean energy technologies. In addition, the IEA has modeled two other scenarios: one that represents the achievement of climate pledges, and another that achieves net-zero emissions by 2050.
Note: The chart, drawn from our BII Transition Scenario, shows the large uncertainty in demand across different scenarios (bars) for different parts of the energy mix, with uncertainty ranges growing with time. BII's investor-informed view sees near-term growth for most forms of energy with much faster growth for low-carbon sources. We also see more uncertain but eventual and gradual decline in demand for traditional energy sources, as low-carbon sources eventually begin to substitute amidst still-resilient demand in emerging markets and harder-to-decarbonize sectors.



Energy pragmatism and climate change

Energy policy and investing must be considered in conjunction with climate change, given increased societal attention to the issue and the recognition that energy supply and demand represent over 70% of the global greenhouse gas (GHG) emissions that drive it.[7]

Limiting climate change to internationally agreed targets in the Paris Agreement would require reducing GHG emissions to 'net zero' and thus require 'transitioning away from fossil fuels … in a just, orderly and equitable manner' and accelerating zero- and low-emission technologies like renewables, nuclear, carbon capture and low-carbon hydrogen. This has been agreed by virtually all the world's governments at the 2023 UN Climate conference.[8] Thus, the thousands[9] of climate-related policies that national governments have enacted — as well as supportive voluntary net-zero goals and targets by corporates and subnational governments — naturally create investment opportunities and risks that we as fiduciaries track.

At the same time, it is well-recognized[10] that currently enacted policies fall well short of achieving such goals. In fact emissions continue to increase, albeit with a slowing growth rate, as governments balance decarbonization with other policy objectives, as outlined in this report.

The considerable 'gap' between enacted policies and national pledges on the one hand and international climate goals on the other has persisted. Closing this gap would require technology and policy development in four key areas in this decade, according to the IEA — tripling renewables, doubling the rate of improvements in energy efficiency, expanding electrification and cutting methane emissions from the energy sector by 75%.[11]

Recognizing the sizable uncertainty in such assessments, our view on the most realistic energy transition sees energy-related carbon emissions declining only slightly in the near term and by over half by midcentury, as technology, policy and preferences evolve at different speeds in different sectors and regions. We continue to track such developments on behalf of our clients, particularly those who have committed to voluntary net-zero or climate-related goals.

Solar and wind

Investments in solar and wind technologies continue to accelerate, with solar now accounting for 6% of global power generation and wind 8%.[12] Sharp price declines since 2010 have made these technologies increasingly cost-competitive, and solar and onshore wind now represent the lowest cost of bulk power generation in many places, helped by supportive regulatory regimes. Offshore wind installations have slowed in the face of supply-chain challenges and higher borrowing costs, but we still see significant opportunities in onshore wind, not least because it often complements solar by generating power during off-peak and nighttime hours. BII anticipates that solar and wind, along with batteries, will remain critical decarbonization technologies around the world.

Wind and solar power installations reached a record in 2023. In the US, solar made up more than half of the new power capacity additions, and solar and wind together are set to comprise over 70% of new additions in 2024. China installed as much solar capacity as the rest of the world in 2023, while its wind installations grew by two-thirds; we expect China to install more than half of new capacity globally over the next four years. In the EU, the geopolitically driven need to reduce reliance on imported natural gas spurred the installation of more than 55GW of wind and solar power in 2022 – a record – growing to 66GW in 2023.

Texas case study

Texas – which has a long history as a center of the global oil market – is now a leader in renewable energy in the US. Renewables accounted for nearly 40% of the state's total installed generation in 2022, up from 21% in 2017.[13] In 2023, the state led the country in new solar capacity and generated nearly three times as much wind energy as the next state.[14]

With both its economy and population growing faster than the national average, energy demand in the state has grown rapidly. Coupled with the fact that it has an independent energy grid not linked to the rest of the country's, this means that Texas has an urgent need for more dispatchable power that can be generated on demand.

Renewables are inherently intermittent, which can bring increased volatility into the power grid.

In Texas, when variability in the actual generation of renewables coincides with a demand peak, the energy shortfall causes prices to spike. The Texas grid tries to manage this problem of renewables intermittency with new gas-fired power and battery storage. In times when this is not sufficient to balance the system, the state may face curtailments of some large consumers or, in extreme cases, rolling blackouts.

The state government has worked to attract investment into dispatchable generation, passing two bills in 2023 to provide up to $10bn to support transmission, distribution and generation facilities and to introduce reliability requirements for future generation facilities and compensation mechanisms for dispatchable generation. The state is also considering significantly expanding the deployment of small modular nuclear reactors if they meet reliability and safety concerns.

Onshore wind continues to be interesting, especially in the US. Some of the best wind sites in the world still have early-2000 vintage turbines operating on them. At the same time, they've been collecting data, and manufacturers in this space have gotten smarter and developed a kit that can utilize existing tower infrastructure. I think there is an underappreciated opportunity onshore, for both new build and repowering.

David Giordano
Global Head of BlackRock Climate Infrastructure

Nuclear power

Carbon-free but politically sensitive nuclear power accounts for 4% of global primary energy consumption and a much higher share in several countries, including France and South Korea. Despite its benefits in terms of reliability and decarbonization, nuclear power has been politically controversial in many countries and grew only more so after Japan's Fukushima incident in 2011. This is beginning to change, however, in part due to geopolitics. Large nuclear projects have been marked by delays, cost over-runs and safety concerns. But it may be possible to build small modular reactors (SMRs) more cheaply and quickly than larger projects, and the storage and disposal of waste could pose a smaller risk. As the technology develops, small reactors can support a decentralized electricity grid and could be particularly important in powering industrial applications or data centers outside densely populated areas.

I believe small modular reactors (SMRs) are the future of nuclear power. Large, complicated central plants have materially higher costs, plus insurance, decommissioning and waste issues. SMRs deal with almost all of that. The scale means that safety is far less of a concern and the waste is much smaller and easier to dispose of. You can build SMRs in a factory and get more economies of scale – although production at that scale is more than five years away.

David Giordano
Head of Global BlackRock Climate Infrastructure

Japan case study

Given Japan's highly limited natural resources, energy security has been an important political goal for decades. Today, following the shutdown of the country's nuclear program after Fukushima, oil, natural gas and coal account for more than 80% of the country's primary fuel mix. The government now plans to increase nuclear power, currently about 8% of electricity generation, to 20%-22% by 2030. Alongside ambitious targets to reduce greenhouse gas emissions by 45% from 2013 levels by 2030 and to achieve net zero by 2050, the government is providing significant funding for nuclear and hydrogen.

The government's 2023 Green Transformation policy establishes a roadmap for Yen150trn in public-private financing over the next decade, with the goal of transforming 22 industrial sectors, including renewables, green building, electricity networks and electric vehicles. The roadmap also supports the restart, new build and lifetime extension of nuclear power plants. The government has begun the issuance of a planned Yen20trn in transition bonds for both traditional low-carbon initiatives and innovative technologies.

Energy efficiency is an important component of the strategy, with the government encouraging improved efficiency through subsidies, fiscal incentives and voluntary industrial commitments. The energy-intensity of GDP has already fallen by nearly one-third between 2000 and 2020.

Fusion

Fusion technology could potentially offer near-limitless power without producing greenhouse gases or radioactive waste. But commercializing this technology is in the early stages of development and will require substantial public investment in research. Most BlackRock investors consider commercial fusion to be at least a decade away – but the technology could ultimately represent a sizeable shift in the energy transition.

Hydrogen

Hydrogen is a chemical feedstock, or fuel, that can be produced in a low-carbon manner, from natural gas, renewables, nuclear or biomass, and burned without producing carbon emissions. It is energy-dense and can be used in industrial processes and potentially transportation. Further investments in hydrogen as a fuel may be driven by major oil and gas producers, who see it as a new application for their natural gas.

Hydropower

Hydroelectric power is a major source of primary energy consumption in many countries in Europe (nearly two-thirds of all energy consumption in Norway), South and Central America and in New Zealand, although in relative terms less so in China or the US. Geography obviously limits the sites where hydropower can be important, and climate change itself (in the form of melting glaciers and droughts) undercuts the viability of some projects. Hydropower also often faces criticism on environmental and social grounds. Overall, we do not see significant growth prospects at a global scale, relative to other technologies.

Bioenergy

While traditional forms of bioenergy such as wood, charcoal and animal waste are still in use, the focus of innovation is in 'modern biofuels.' These are produced from organic inputs and can be transformed into liquid fuels, which are used mainly for transportation. Progress on making this technology commercially competitive has been slower than some had expected, and it is worth noting that many inputs are land-intensive and compete with other land uses, including food and forestry.

Enhanced geothermal

Enhanced geothermal energy is 'the next frontier for renewable energy deployment,' according to the US Department of Energy.[15] This carbon-free source can provide renewable energy around the clock, without the intermittency problems of solar and wind. Enhancing naturally occurring geothermal systems makes existing sources of heat more accessible and therefore makes geothermal energy potentially more widely available. BlackRock investors think we may see limited early adoption by the early 2030s. In Iceland, traditional geothermal already accounts for nearly 70% of total energy use.

Germany case study

Geopolitics are reshaping Germany's energy mix, which was upended by Russia's invasion of Ukraine in early 2022. Before the invasion, Germany imported 65% of its natural gas from Russia, making it by far Russia's largest gas customer[16] and leaving it vulnerable to the impact of Western sanctions on Russian gas exports.

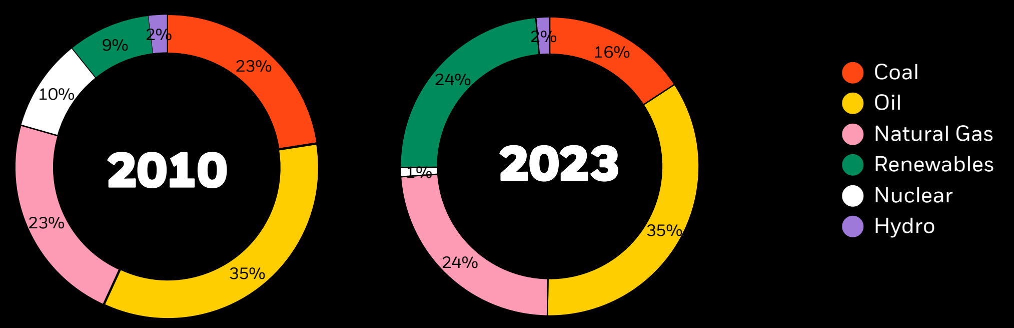
This occurred against the backdrop of Germany's push to fully decommission its nuclear plants, which had supplied about 25% of the country's electricity needs before the Fukushima incident in 2011. A long-running phase-out of all the country's nuclear reactors was completed in spring 2023, having been delayed just a few months in response to the invasion.

Germany has turned to imports, with a deal for pipeline gas from Norway and liquified national gas imports from countries including the US and Qatar. A public-private partnership has driven a major and rapid rollout of floating storage and regasification units.[17]

Through the energy crisis, Germany temporarily increased its reliance on coal, but coal consumption fell to a more than 50-year low 2023. In the same year, renewables and hydropower supplied more than 50% of the country's electricity for the first time. Germany remains committed to closing all its remaining coal-fired power stations by 2038 and to replacing coal with renewables.

Germany's energy mix 2010 vs. 2023

% of total primary energy consumption



Source: Energy Institute, *2024 Statistical Review of World Energy*

Shifting to traditional fossil fuels:

Natural gas

Natural gas is significantly less carbon-intensive than coal in providing reliable power generation. (This is the case at least as long as 'leakage' rates remain low. 'Leakage' describes the gas that accidentally enters the atmosphere during production and transport.) Natural gas is an important source of power capacity and generation in many countries, serving a variety of roles as baseload power, peaking power, load following or a way to balance intermittent renewables. Depending on the local context, this flexibility can make natural gas an important driver of several elements of energy pragmatism, including reliability, affordability and, in some cases, decarbonization.

Assessing future demand for natural gas is especially challenging given the diversity of uses for it – from power generation to heating, cooking and feedstock. Power-generation demand for natural gas is flat or falling, and its use in buildings (primarily for heating and cooking) is declining in developed markets. But industrial demand has not yet shifted.

Overall, a variety of projections point to further demand growth in the near-term. Over the longer term, as renewables continue to scale up, natural gas could evolve from a source of primary power generation and become a source of 'capacity' – back-up, stand-by power that can offset the intermittency of renewables. Moreover, natural gas may have a future as an underlying input for blue hydrogen.

Oil

Oil remains the world's largest source of energy, accounting for slightly roughly one-third of primary consumption in 2023. The IEA anticipates that global demand will increase slightly to 2030. While demand for gasoline and diesel in developed markets is likely to decline due to the adoption of electric and hybrid vehicles and improved transport efficiency, this is likely to be offset over this timeframe by continuing demand growth in aviation, petrochemicals and emerging markets as a whole.

> I think more than half of the incremental power demand to 2030 will need to be powered by natural gas. There simply won't be enough economically viable wind, solar and backup grid-scale batteries to support rapid global energy demand growth without reliable, dispatchable power. There is also a huge opportunity for liquified natural gas exports from the US to phase out the enormous amounts of coal being burnt in Asia.
>
> **Will Su**
> Head of Energy Equities

India case study

India is heavily reliant on traditional fuels, with coal accounting for more than half its primary energy mix and 75% of its power generation. In absolute terms, India consumes about 60% more coal than the US and the EU combined (although still only one-quarter of what China consumes). Renewables accounted for just 6% of primary energy and 12% of power in 2023.

The Indian government is focused on reducing reliance on imports of traditional fuels: it is streamlining regulations around exploration and production of oil, gas and coal and opening coal mining to private companies and oil and gas markets to foreign investment. The government has introduced ambitious targets for renewables, with large-scale auctions and subsidies to promote solar. Public-sector institutions are making capital investments in energy-related projects, while public finance institutions have stepped up lending to energy projects.

Coal

Coal, the most carbon-intensive fuel, drives more than one-quarter of the world's primary energy consumption today. In OECD countries, the share has fallen significantly to just 11%, but in non-OECD countries the share is 36%, and aggregate demand is still rising. The near-term outlook for coal will depend on whether the rate of decline in developed markets can outpace the rate of growth in emerging markets, particularly in Asia. Over the long term, most market observers anticipate a sharply reduced role for coal globally.

Geopolitics of renewables

Geopolitics are an important element in the supply chain for renewable energy. Today, China has market shares above 60% in the manufacturing of many low-carbon technologies, including solar PV, wind and batteries. China also dominates processing of many critical minerals needed to drive the renewable sector. BII estimates that the world will remain highly dependent on China for the next few years for both solar-panel production and lithium-ion battery capacity.

The US and Europe have introduced new policies to support the diversification of critical minerals, and countries are drawing on tools that include import duties, World Trade Organization investigations and anti-dumping actions. For example, the EU has implemented, and the US has proposed, tariffs on imports of Chinese-made electric vehicles. Along with these ‘sticks,’ which may intensify inflationary measures, many countries are also seeking to build bilateral relationships with resource-rich countries.

The outlook for investing in energy infrastructure

The outlook for investing in energy infrastructure

Energy-system infrastructure also provides meaningful investment opportunities.

Perhaps most vital is the need to reinforce and expand the existing grid. This is needed to address challenges of transmission bottlenecks, weak resilience, constraints on local distribution and the higher demand created by growing electrification, energy access and economic growth, as well as the projected rapid increase in data use and AI.

Challenges to the existing grid

01 Transmission bottlenecks

Transmission bottlenecks are a serious obstacle to the deployment of renewable power, which is often produced far from consumer and industrial activity and must be transmitted over long distances. This is true in many countries, including in Germany, where wind energy is available along the northern coast but energy-intensive industries are concentrated in the south and west, and in the US, where some of the top wind-power producing states are far from the densely populated coasts.

Adding smaller, more geographically distributed and intermittent power generation sources to the network increases supply but can also put pressure on the grid in terms of both the physical ability to connect and the ability to manage varying load.

02 Resilience

Resilience – or the ability of the power grid to withstand extreme weather, natural disasters and major power disruptions – is an ongoing concern as these events place unprecedented strains on outdated grids. The inability of power generators and the grid to cope with severe winter storms was an important factor in the 2021 blackout in Texas,[18] while bare power lines have contributed to numerous wildfires in California in recent years.[19]

03 EV adoption

As electric and plug-in hybrid vehicles expand in a market previously dominated by combustion engines, heat pumps replace oil and gas heating and more industrial processes become electrified, pressure on the existing grid will continue to rise. Greater adoption of EVs will require significant investments in charging stations – which may themselves be powered by electricity generated from fossil fuels – and transmission lines. The pace of mainstream adoption of EVs varies across countries, with some dependent on government incentives and some seeing renewed interest in hybrid and plug-in hybrid vehicles.

Behind-the-meter solutions

All this creates opportunities, not only for utilities to invest in expansion and resilience, but also for 'behind-the-meter' solutions that generate and/or store power locally. These solutions can provide an alternative to grid expansion and may be particularly valuable for stand-alone, and sometimes isolated, installations like data centers (though less so when data centers are located near urban areas). A network of behind-the-meter supply and storage that is connected to the grid can help to strengthen the grid, particularly when combined with smart-meter technology. Moreover, such projects may be able to avoid some of the regulatory and permitting constraints that can slow large-scale deployments.

Natural gas investments

Wider use of natural gas will require further investments in pipelines, storage, gas terminals and export platforms. The disruption of Russian supply of natural gas to Europe has already changed the market, boosting investments in liquified natural gas import and export facilities globally. This new wave of LNG projects is expected to start to come online in 2025, with the potential to deliver nearly twice as much natural gas as Europe had previously imported from Russia; more than half of the new capacity could come from the US and Qatar in the next few years.[20]

I'd say the biggest opportunity in the power sector is the global trend towards decentralizing the power grid. Batteries are a huge part of that, especially as a result of the increase in renewable energy sources coming online, as well as the growing number of climate-related events. Storage helps with grid resiliency by helping match energy production and consumption both temporally and locationally. There's more demand for storage all around, to help store renewable energy for use later and even to build battery storage instead of traditional electric substations to help with load growth near population centers.

Akhil Mehta
Investor, BlackRock Global Infrastructure Funds

Digitization of the energy grid

Digitization of the energy grid offers opportunities to improve efficiency by better matching supply and demand during peak periods, as well as opportunities to improve resilience and reliability. Digitization can also reduce emissions from technical losses, akin to leakages, which the IEA estimates to be roughly twice the emissions of all cars in Europe.[21] The IEA estimates that annual investment needs here will more than double to some $750bn by 2030.[22] As we noted earlier, AI is likely to be important over time in improving reliability and matching supply and demand.

Battery storage

Building out the grid creates opportunities for the greater deployment of battery storage, which is vital to transforming renewable energy into power that is available 24/7. Stationary storage is expected to grow at a 21% CAGR to 2030, more than twice the growth rates of solar and wind, though from a lower base.

Carbon management

Carbon management projects pull carbon dioxide (CO2) from power plants and industrial processes; some store the CO2 underground or in cement while others use it to produce fuels, chemical feedstocks or building materials. An additional form, direct air capture, pulls CO2 directly from the atmosphere and stores it underground. Sequestration projects do not have direct revenue streams and so depend on government incentives and voluntary markets. Carbon management is highly capital-intensive, meaning that projects tend to be centered in large companies that can provide cash flow and technical and operational expertise. Accordingly, we see opportunities for public companies to partner with private capital that is seeking long-term, infrastructure-like returns.

Large energy companies can invest in new technologies while still being very profitable for their base investors. They are driving innovation, which you can see in the patent data. They are investing in carbon sequestration and green and blue hydrogen.

Will Su
Head of Energy Equities

The regulatory backdrop

The regulatory backdrop

Governments have many tools to shape their energy policies: subsidies, tax incentives, decarbonization targets (to meet global commitments or national transition plans), permitting regulations, environmental and labor standards, domestic-content specifications, trade policy and more. As the case studies throughout this paper illustrate, national policy mixes designed to balance the goals of security, reliability, affordability and decarbonization will differ across countries. The mix of policies will depend – like the energy landscape itself – on local politics, economic conditions, natural-resources endowments, technology and societal preferences.

We recognize that different jurisdictions will implement different policy measures, at different paces. From our vantage point as investors across countries, markets and asset classes, we wish to flag the importance of policy clarity and consistency over time as among the most critical factors supporting the deployment of private capital. We believe this deployment of private capital – often in conjunction with public-sector funds – will be critical to drive funding to where it is most needed.

Regulatory certainty is an important driver of the risk premium for long-term investments. Because uncertainty increases an investment's risk profile, it raises the cost of providing private capital. This is particularly acute for projects with multi-year and even multi-decade horizons.

Planning, approval and permitting processes are common sticking points that illustrate the risks of regulatory uncertainty. Administrative complexity and legal challenges can delay both new projects and grid interconnections for existing renewables projects. In Europe and the US, the permitting process can take longer than the construction process, and deployment times are far higher than in China.[23] For example, in the US it can take as long as 13 years to deploy an extra-high-voltage line, compared to fewer than four in China.

These regulatory backlogs make permitting more of a binary risk, not simply a question of cost, which is likely to lead to higher risk premia. According to our investors, permitting challenges around carbon-management solutions designed to store CO_2 underground have chilled investments in some areas.

In contrast, the 10-year horizon of the clean-energy tax credits in the 2022 US Inflation Reduction Act (IRA) helped to spark subsequent significant innovation and investment in new transition technologies.[24] In the UK, the new government is proposing to overhaul the national planning framework to prioritize development of renewable energy generation and related infrastructure. Greater certainty and speed could help to reduce the risk premia around such projects and address some of the concerns we hear from companies wishing to develop energy-infrastructure projects.

Public-private financing structures and blended finance will be critical to meet the scale of the investment needed in coming decades. Structures that facilitate cooperation between public and private sector investment will be able to more effectively leverage public capital, whether from national governments or multilateral institutions such as the World Bank and regional development banks. Blended-finance structures can attract global capital to projects in countries where risk-adjusted returns are not attractive enough or where the scale of the opportunity exceeds local market capacity. Getting the financing right with catalytic capital to derisk investments can help to unlock global capital flows.

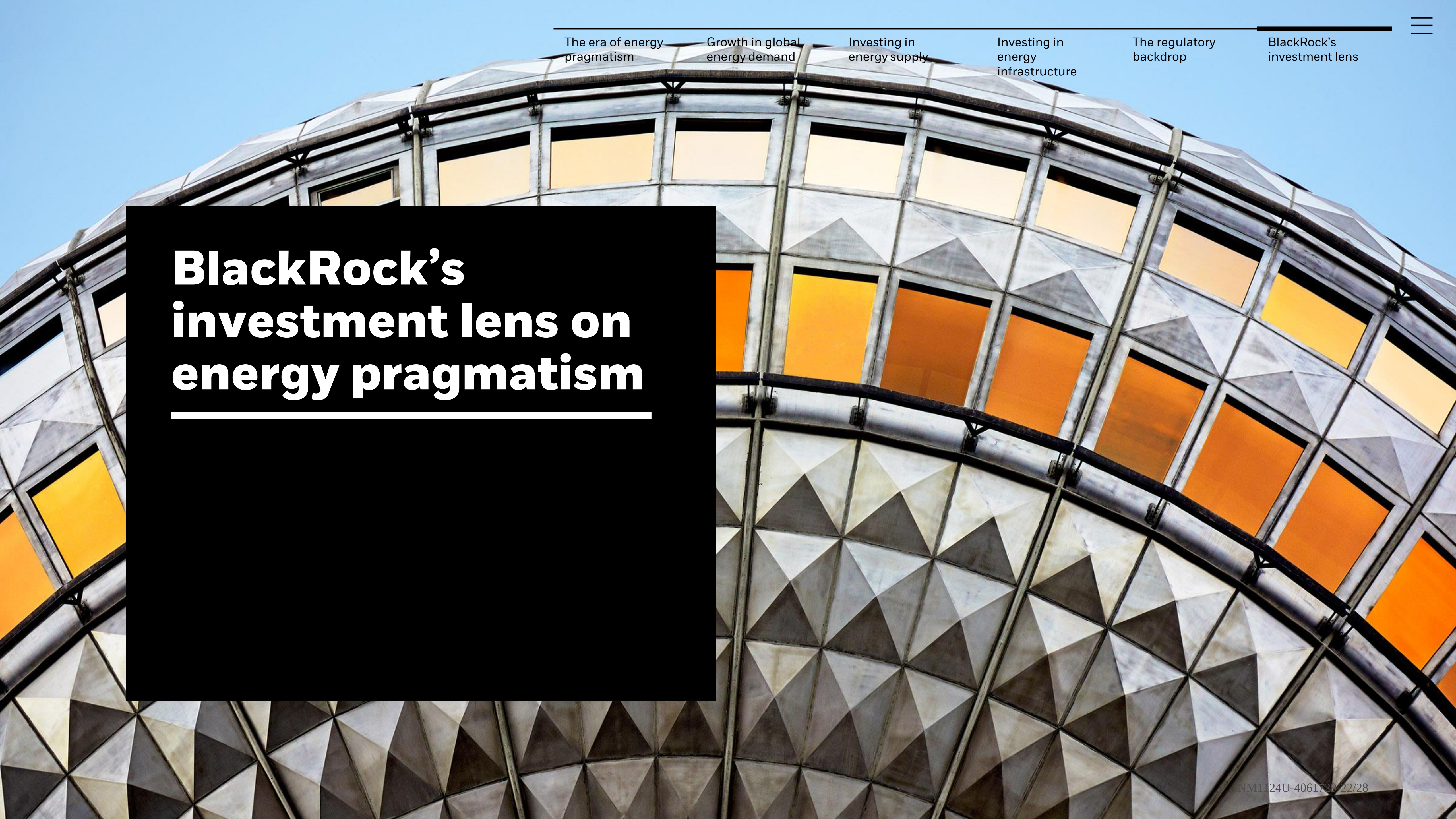
UK case study

The UK has adopted energy pragmatism by accelerating the uptake of renewables and zero-carbon energy while maintaining a role for hydrocarbons in the future.

The UK currently gets roughly one quarter of its total energy, and more than 60% of its power, from nuclear, hydroelectric and renewables. The country has been a leader in wind power, with installed wind turbine capacity increasing by an average of 10% annually between 2013 and 2023. A public-private partnership begun in 2015 has been important in derisking the development of new capacity.

Nonetheless, the country's exposure to hydrocarbons left it significantly exposed to wholesale energy prices after Russia's invasion of Ukraine in 2022, when residents faced the prospect of energy prices increasing by 80% in just a few months. Emergency steps offset some of this – but underscored the fiscal desirability of reducing hydrocarbon exposure.

As such, the government elected in July 2024 has made it a 'mission' to achieve clean energy by 2030 and plans to lean heavily on private-sector investment to achieve it. The government wants to double onshore wind, triple solar power and quadruple offshore wind by 2030 and is also focused on small nuclear reactors. However, the government's election manifesto recognizes the 'ongoing role of oil and gas in our energy mix' and wants to maintain a 'strategic reserve of gas power stations to guarantee security of supply.'



BlackRock's investment lens on energy pragmatism

BlackRock's investment lens on energy pragmatism

As a fiduciary, we help our clients meet their investment goals by providing many different avenues to invest in energy and infrastructure. We invest on their behalf in both public and private markets, and we see energy opportunities as particularly well-suited for private markets, especially around scaling new technologies.

On behalf of our clients, BlackRock has more than $340bn invested in fossil-fuel companies (with roughly 60% of those investments in the US), as well as roughly $165bn in energy-transition strategies. This mix doesn't reflect our view about where the market should go. Instead, it represents the preferences and decisions of thousands of our clients around the world. Our clients choose their own investment objectives, including mandates to invest in oil and gas or lower-carbon sources of energy, or both, or neither. It's our clients' choice.

Fossil-fuel companies

As of mid-2024, we had more than $340bn invested in fossil-fuel companies, of which about 70% was through our index fund business. Our investments include companies in energy exploration, production, refining, storage, transport, energy equipment, energy services and more.

They also include investments in utilities that rely on both hydrocarbons and renewables. Many traditional energy companies are also investing in lower-carbon energy (such as converting natural gas to blue hydrogen), as well as in carbon capture and storage, drawing on their size, cash flows and knowledge of the energy market.

Renewables

We also help our clients invest in renewables and earlier-stage technologies. We are market leaders in solar and wind, with more than 30 investments in onshore and offshore wind in the US, South Korea, France, Belgium, Spain and other countries, as well as more than 20 investments in solar plants in South America, Asia and elsewhere. We have invested in the public-private finance vehicle behind Africa's largest wind farm, which provides about 10% of Kenya's installed capacity. A BlackRock-led consortium has committed to a $550mn investment in the renewables arm of one of India's largest electricity providers, which invests in solar pumps, rooftop solar infrastructure, utility-scale renewable energy generation, EV charging infrastructure and module manufacturing businesses.

We have joined with a major global technology company to develop a 1GW pipeline of new solar capacity in Taiwan. Our partner will buy energy from the project to meet demand from its data-center and cloud operations there. We have also signed a corporate power purchase agreement with the largest buyer of renewable energy in Taiwan.

Earlier-stage technologies

Our investments in earlier-stage technologies include a giant 'hot rock' battery, which heats up blocks of carbon with wind or solar power during the day and then uses that heat to power giant industrial facilities around the clock. We made this investment through Decarbonization Partners, our joint venture with Temasek. Decarbonization Partners also supports technological innovation at a US-based global leader in 'turquoise hydrogen.'

We are a significant shareholder in a company that focuses on geothermal and recovered energy generation. And we help our clients invest in facilities that convert organic waste and manure into renewable natural gas, addressing problems of both food waste and clean energy production.

Infrastructure for AI

In September 2024 we announced a new partnership to make investments in data centers to meet the growing demand for computing power, as well as energy infrastructure to create new sources of power for these facilities. The partnership will initially seek to unlock $30bn of private equity capital from investors, asset owners and corporates, which in turn will mobilize up to $100bn in total investment potential when including debt financing.

Battery storage

BlackRock has invested more than $1bn across the battery value chain, from manufacturing to deployment, with investments designed to improve performance, efficiency and sustainability. In Australia, we have invested to support the build-out of over 1GW of battery storage assets, including the world's largest grid-scale battery, which will store power from renewable sources at peak production to ensure reliable energy supply throughout the day. This project will address intermittency problems and enhance grid reliability as Australia seeks to shift its power generation mix to more than 80% renewables by 2030. We are also invested in Europe's largest open, high-power EV charging network, operating 1,500 chargers across 24 countries. BlackRock is the lead investor in one of the top three utility-scale battery systems companies in the US, providing stability of energy supply to utilities and regions across the country.

Natural gas pipeline

A BlackRock-led consortium is financing a 4,700+ mile natural-gas pipeline system in Saudi Arabia, which will transport virtually all of the country's natural gas to domestic customers. The largest energy-infrastructure transaction in the Middle East, it will help Saudi Arabia shift its domestic energy mix away from oil toward natural gas and clean hydrogen.

Wind

Some of the investments we have made will help address the intermittency issues that come with renewable power. These include a synchronous compensator adjacent to one of the UK's largest wind farms, which will maintain the voltage levels and electromagnetic frequency that the local grid needs to function smoothly.

Carbon capture

We have invested $550mn in a joint venture to develop the world's largest direct air carbon capture facility, in Texas. Due to begin operations in mid-2025, the facility is designed to capture up to 500,000 tonnes of CO_2 per year. Separately, we have recently invested in a mineralization-based technology in Europe that uses recycled concrete to absorb CO_2 from biogas plants.

> We think private markets can play an asymmetric role in the transition. Decarbonization requires making multiple technology bets, each with technology and timing risk. These are often best done in private markets, through joint ventures with risk-sharing partners.
>
> **Dickon Pinner**
> Head of Transition Capital

Innovative financing solutions will be needed to supply the capital necessary for a doubling of annual energy investment over the next three decades. Here, BlackRock is a market leader in bringing together public and private capital through partnerships and blended-finance vehicles.

These include the Climate Finance Partnership (CFP), a finance vehicle focused on investing in climate-related infrastructure in emerging markets. CFP has invested in a renewable-energy operator and developer in Thailand and a renewable-energy developer in Malaysia.

Alterra, the largest-ever private investment vehicle addressing climate change, awarded a mandate to BlackRock to invest in climate transition projects, including through co-investments, and committed catalytic capital to forthcoming BlackRock-managed blended-finance strategies. Separately, with the support of the government, we launched a New Zealand-focused climate infrastructure strategy to invest in solar, wind, green hydrogen and battery-storage technologies.

Conclusion

Meeting the world's growing demand for energy – while balancing the needs of security, reliability, affordability and decarbonization – offers significant investment opportunities for years to come. We see an enormous role for capital markets in lowering the cost of capital, and thus the cost of innovation, and in supporting the deployment of solutions at scale.

This creates opportunities for our clients across the energy system. We look forward to working with our clients to achieve their investment goals – and to engaging with policymakers as they develop the environment that will support our clients' investments in energy pragmatism.

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Notes

1. Unless otherwise noted, all historical data in this paper is drawn from the Energy Institute's *2024 Statistical Review of World Energy*.
2. Ember Electricity, *Data Explorer*, 2024
3. Joule, *The growing energy footprint of artificial intelligence*, 2023
4. International Energy Agency, *World Energy Outlook*, 2023
5. The IEA's Stated Policies Scenario reflects current policy settings based on policies in place, as well as those under development, as of August 2023. The scenario takes into account currently planned manufacturing for clean energy technologies. In addition, the IEA has modeled two other scenarios: one that represents the achievement of climate pledges, and another that achieves net-zero emissions by 2050.
6. The chart, drawn from our BII Transition Scenario, shows the large uncertainty in demand across different scenarios (bars) for different parts of the energy mix, with uncertainty ranges growing with time. BII's investor-informed view sees near-term growth for most forms of energy with much faster growth for low-carbon sources. We also see more uncertain but eventual and gradual decline in demand for traditional energy sources, as low-carbon sources eventually begin to substitute amidst still-resilient demand in emerging markets and harder-to-decarbonize sectors.
7. Intergovernmental Panel on Climate Change Sixth Assessment Report, *Climate Change 2022: Mitigation of Climate Change*
8. COP28 *Decision Text, 2023*
9. The *Climate Policy Database* tracks more than 6,200 climate-related policies in 198 countries as of 4/4/24
10. United Nations Environment Programme, *Emissions Gap Report 2023;* IEA, *World Energy Outlook 2023;* IPCC, *Sixth Assessment Synthesis Report, 2023*
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RECOMENDACIONES

RECOMENDACIÓN (UE) 2023/1425 DE LA COMISIÓN

de 27 de junio de 2023

sobre la facilitación de financiación para la transición a una economía sostenible

LA COMISIÓN EUROPEA,

Visto el Tratado de Funcionamiento de la Unión Europea, y en particular su artículo 292,

Considerando lo siguiente:

(1) Aunque la transición a una economía sostenible de aquí a 2050 constituye todo un desafío, también ofrece oportunidades para la economía de la Unión. Invertir en la transición ecológica ayudará a convertir a Europa en el primer continente climáticamente neutro con una economía sostenible.

(2) Es necesario actuar urgentemente en la presente década para reducir las emisiones de gases de efecto invernadero en un 55 % y alcanzar de aquí a 2030 nuestros objetivos medioambientales, en particular los relacionados con las crisis del entorno natural y del agua. En comparación con lo que aportó entre 2011 y 2020, la Unión tendrá que invertir aproximadamente 700 000 millones EUR adicionales al año entre 2021 y 2030 para descarbonizar su economía y alcanzar sus objetivos medioambientales ([1]) y los de la Ley sobre la industria de cero emisiones netas propuesta ([2])..

(3) Actualmente se necesita financiación para la transición a una economía climáticamente neutra y sostenible de las empresas que desean ser sostenibles, pero que no pueden pasar de inmediato a un modelo de rendimiento plenamente respetuoso con el medio ambiente y climáticamente neutro. En los próximos años se necesitará una financiación de transición que asegure una transición oportuna y metódica de la economía real hacia la sostenibilidad, sin perjuicio de la competitividad de la economía de la UE: Todavía no están disponibles todas las tecnologías necesarias para una economía sostenible y los distintos agentes económicos podrán alcanzar estos objetivos a diferentes ritmos.

(4) Por finanzas sostenibles se entiende la financiación tanto de los procesos que son ya respetuosos con el medio ambiente como de los que están en transición para lograr ese tipo de rendimiento en un plazo determinado. Se prevé que el nivel de inversiones sostenibles aumente a medida que avance la transición.

(5) Si bien el marco jurídico de la Unión no define el concepto de financiación de transición, esta debe entenderse como la financiación de mejoras del rendimiento climático y medioambiental con miras a la transición hacia una economía sostenible, a un ritmo compatible con los objetivos climáticos y medioambientales de la UE.

([1]) Para cumplir sus objetivos de reducción de las emisiones en los sectores de la energía y el transporte, la Unión tendrá que invertir 477 000 millones EUR más al año entre 2021 y 2030 de los que invirtió entre 2011 y 2020. Tendrá que invertir 110 000 millones EUR adicionales para cumplir sus objetivos medioambientales. Para más información, véanse el documento de trabajo de los servicios de la Comisión sobre la evaluación de las necesidades de inversión y las disponibilidades de financiación para reforzar la capacidad de fabricación de tecnología de cero emisiones netas de la UE [SWD(2023) 68 final] y la Comunicación de la Comisión titulada «La economía de la UE después de la COVID-19: Implicaciones para la gobernanza económica», COM(2021) 662 final.

([2]) Propuesta de Reglamento del Parlamento Europeo y del Consejo por el que se establece un marco de medidas para reforzar el ecosistema europeo de fabricación de productos de tecnologías de cero emisiones netas (Ley sobre la industria de cero emisiones netas), COM(2023) 161 final.

(6) El marco de finanzas sostenibles de la UE, en el que se incluyen el Reglamento (UE) 2020/852 del Parlamento y del Consejo ([3]), las metodologías establecidas en el Reglamento (UE) 2019/2089 del Parlamento Europeo y del Consejo ([4]), la Directiva (UE) 2022/2464 del Parlamento Europeo y del Consejo ([5]) y la propuesta de Reglamento sobre los bonos verdes europeos ([6]), contiene una serie de salvaguardias y principios que pueden contribuir a fundamentar la noción de financiación de transición.

(7) La financiación de la transición a una economía climáticamente neutra y sostenible ocupa un lugar central en la Comunicación de la Comisión de 2021 titulada «Estrategia para financiar la transición a una economía sostenible» ([7]), en la que se destaca la necesidad de adoptar un enfoque inclusivo para las finanzas sostenibles aplicable a todos los sectores, zonas geográficas, agentes y diferentes puntos de partida hacia la transición.

(8) En la presente Recomendación se aclara el concepto de financiación de transición y se reconoce el importante papel que pueden desempeñar los participantes en el mercado al utilizar voluntariamente las herramientas del marco de finanzas sostenibles de la UE, conforme a las necesidades, para dicha financiación.

(9) Las empresas, los intermediarios financieros y los inversores, los Estados miembros y las autoridades de supervisión podrían obtener, proporcionar o enfocar la financiación de transición mediante el uso voluntario de las herramientas de financiación sostenible conforme se expone en la presente Recomendación.

(10) La presente Recomendación tiene por objeto estimular la financiación de transición en un entorno de confianza para los inversores mediante el fomento del uso voluntario de las herramientas de financiación sostenible y la divulgación de la información correspondiente de una manera que garantice la credibilidad de las oportunidades de inversión para la transición.

(11) La presente Recomendación se basa en el marco de finanzas sostenibles de la UE y en algunos elementos de las principales iniciativas internacionales en materia de financiación de transición, como la Guía de la OCDE sobre financiación de transición ([8]), el marco del G-20 para la financiación de transición ([9]), el informe sobre la financiación de transición de la Plataforma Internacional de Finanzas Sostenibles ([10]) y el informe del Grupo de Expertos de Alto Nivel de las Naciones Unidas sobre los compromisos de cero emisiones netas de las entidades no estatales ([11]). Por lo tanto, los inversores internacionales que sigan esta Recomendación deberían poder ajustar los principales aspectos de sus objetivos de transición a las prácticas del mercado internacional.

([3]) Reglamento (UE) 2020/852 del Parlamento Europeo y del Consejo, de 18 de junio de 2020, relativo al establecimiento de un marco para facilitar las inversiones sostenibles y por el que se modifica el Reglamento (UE) 2019/2088 (DO L 198 de 22.6.2020, p. 13). El término «taxonomía» que aparece en lo sucesivo hace referencia al Reglamento (UE) 2020/852 y a los actos delegados adoptados en virtud de dicho Reglamento.

([4]) Reglamento (UE) 2019/2089 del Parlamento Europeo y del Consejo, de 27 de noviembre de 2019, por el que se modifica el Reglamento (UE) 2016/1011 en lo relativo a los índices de referencia de transición climática de la UE, los índices de referencia de la UE armonizados con el Acuerdo de París y la divulgación de información relativa a la sostenibilidad de los índices de referencia (DO L 317 de 9.12.2019, p. 17).

([5]) Directiva (UE) 2022/2464 del Parlamento Europeo y del Consejo, de 14 de diciembre de 2022, por la que se modifican el Reglamento (UE) n.º 537/2014, la Directiva 2004/109/CE, la Directiva 2006/43/CE y la Directiva 2013/34/UE, por lo que respecta a la presentación de información sobre sostenibilidad por parte de las empresas (DO L 322 de 16.12.2022, p. 15).

([6]) Propuesta de Reglamento del Parlamento Europeo y del Consejo sobre los bonos verdes europeos, COM(2021) 391 final. El acuerdo político entre los colegisladores se alcanzó el 28 de febrero de 2023.

([7]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones: Estrategia para financiar la transición a una economía sostenible, COM(2021) 390 final.

([8]) «OCDE Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans», serie «Green Finance and Investment», Publicaciones de la OCDE, París (documento en inglés).

([9]) G20 (2022), Informe del G20 sobre finanzas sostenibles de 2022.

([10]) Plataforma Internacional de Finanzas Sostenibles (2022): «Report on Transition Finance». Disponible en inglés en: https://finance.ec.europa.eu/system/files/2022-11/221109-international-platform-sustainable-report-transition-finance_en.pdf

([11]) Grupo de Expertos de Alto Nivel de las Naciones Unidas sobre los Compromisos de cero emisiones netas de las entidades no estatales (2022), «Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions» (documento en inglés).

(12) La transición para alcanzar los objetivos del Pacto Verde Europeo ([12]) incluye la transición a la neutralidad climática de aquí a 2050, con el propósito de limitar el cambio climático a un calentamiento global de 1,5 °C, en consonancia con el Acuerdo de París aprobado en virtud de la Convención Marco de las Naciones Unidas sobre el Cambio Climático ([13]); la transición a una economía resiliente al clima, y la transición hacia una economía medioambientalmente sostenible, a saber, una economía circular, con contaminación cero y positiva para la naturaleza, y el uso sostenible de los recursos hídricos y marinos.

(13) Los participantes en el mercado pueden aplicar la presente Recomendación tanto a la transición climática como a la transición medioambiental.

(14) Dependiendo de diversos factores, como los sectores y zonas geográficas en los que operen, es posible que las distintas empresas (financieras y no financieras) se hallen en diferentes puntos de partida de su transición hacia la sostenibilidad, Asimismo, es posible que tengan diferentes posibilidades y capacidades para esta transición, dependiendo de su tamaño, de sus recursos financieros y físicos o de la disponibilidad de infraestructura y tecnologías. En consecuencia, las necesidades de financiación variarán de una empresa a otra.

(15) El uso de la financiación de transición es voluntario. No todas las empresas, ni todos los sectores económicos, tienen necesidades significativas de financiación para la transición climática o medioambiental. Sin embargo, en aquellos casos en que el impacto climático pueda amortiguarse y se esté amortiguando, es menester reconocer esa mejora y facilitar su financiación.

(16) Es posible que las pequeñas y medianas empresas (pymes) necesiten financiar su transición, en cuyo caso podrían obtener esa financiación proporcionando información clave en materia de sostenibilidad. Sin embargo, debido a su tamaño y al carácter más limitado de sus recursos, puede resultarles difícil y costoso. Las pymes podrían necesitar el apoyo de sus socios financieros, sus proveedores y los clientes de su cadena de valor a la hora de analizar sus necesidades de financiación de transición y de acceder, en la práctica, a tal financiación. Se anima a los intermediarios de las grandes empresas y financieros a que apliquen el principio de proporcionalidad en su comunicación con las pymes y a que actúen con moderación al solicitar información a los socios, proveedores y clientes de su cadena de valor que sean empresas de esas características.

(17) La financiación de transición también puede ayudar a financiar la transición de las empresas que operen en los sectores más afectados por el cambio a una economía sostenible. Por ejemplo, las nuevas inversiones y las correspondientes inversiones en activos fijos de esas empresas pueden hacerse compatibles con la transición para cumplir los objetivos climáticos y medioambientales de la UE.

(18) Las necesidades de financiación de transición pueden determinarse mediante una planificación anticipada y la fijación de objetivos de transición. Una forma de conseguirlo es, por ejemplo, establecer los objetivos y las acciones de la empresa a corto, medio y largo plazo en consonancia con la transición a una economía climáticamente neutra y sostenible, y fijar planes de inversión y de actuación en los que se indiquen los recursos ya asignados y los que sigan siendo necesarios, a fin de garantizar que se alcancen los objetivos y que las acciones se planifiquen y ejecuten de manera transparente, creíble y coherente. Estas medidas pueden aplicarse tanto al nivel de las empresas como de las actividades, en función de dónde surja la necesidad de financiación de transición.

(19) La planificación de la transición, que es el proceso mediante el cual las empresas traducen sus ambiciones medioambientales y climáticas en acciones, puede ayudar a las empresas a minimizar los riesgos estratégicos y financieros asociados a la transición, detectar oportunidades de negocio y aportar claridad sobre su estrategia empresarial, lo que puede atraer a nuevos inversores y socios comerciales.

(20) Ahora bien, las empresas también pueden utilizar las herramientas de financiación sostenible de la Unión, como la taxonomía, no solo con el fin de divulgar información sobre las actividades e inversiones en activos fijos que se ajusten a la taxonomía, sino también como herramienta prospectiva para su propio proceso de transición, empleando los criterios de la taxonomía como puntos de referencia para la fijación de objetivos. La taxonomía se utiliza cada vez más con fines de financiación de transición, y numerosas son las empresas que notifican inversiones en activos fijos que se ajustan a la taxonomía y que son significativamente superiores a los ingresos que se ajustan a la taxonomía, especialmente en los sectores de gran impacto.

([12]) Comunicación de la Comisión al Parlamento Europeo, al Consejo Europeo, al Consejo, al Comité Económico y Social y al Comité de las Regiones: El Pacto Verde Europeo, COM(2019) 640 final.

([13]) Aprobado por la Unión el 5 de octubre de 2016; Decisión (UE) 2016/1841 del Consejo, de 5 de octubre de 2016, relativa a la celebración, en nombre de la Unión Europea, del Acuerdo de París aprobado en virtud de la Convención Marco de las Naciones Unidas sobre el Cambio Climático (DO L 282 de 19.10.2016, p. 1).

(21) Las inversiones que se destinan a alcanzar la adaptación a la taxonomía en un plazo de cinco años (excepcionalmente, de diez años) se reconocen como inversiones en activos fijos que se ajustan plenamente a la taxonomía si van acompañadas de un plan de inversiones en activos fijos, que es un tipo de plan de transición al nivel de las actividades ([14]). Además, las inversiones en actividades de transición, tal como se definen en el Reglamento (UE) 2020/852, son inversiones en las mejores tecnologías disponibles y, por tanto, también se reconoce su adaptación a la taxonomía, siempre que no den lugar a situaciones de cautividad intensivas en carbono a largo plazo ni impidan el desarrollo de tecnologías más ecológicas. Se trata de actividades económicas para las que actualmente no existe ninguna tecnología alternativa y cuyo rendimiento avanza por la senda que conduce a la futura neutralidad climática. Para garantizar una mejora continua a lo largo del proceso de transición, el Reglamento (UE) 2020/852 contempla una revisión trienal de los criterios técnicos de selección para las actividades de transición a fin de tener en cuenta los avances tecnológicos y científicos que se vayan produciendo.

(22) La taxonomía también puede ser una guía útil, complementaria de los objetivos climáticos o medioambientales o de los planes de transición, para aquellas actividades económicas que, pese a no poder lograr una contribución sustancial a alguno de los objetivos medioambientales establecidos en el Reglamento (UE) 2020/852, permitan lograr mejoras significativas del rendimiento medioambiental. Sus criterios y principios pueden emplearse a la hora de fijar objetivos intermedios o mínimos, para los que podría obtenerse financiación de transición si las inversiones son compatibles con los objetivos climáticos y medioambientales de la UE ([15]). Este extremo debe garantizarse mediante un plan de transición para cada actividad específica (un plan de transición por actividades).

(23) Los datos de que se dispone muestran que la taxonomía está funcionando según lo previsto: las empresas incluidas en el índice STOXX Europe 600 que, hasta la fecha, han declarado una adaptación a la taxonomía no nula ([16]) han notificado una adaptación media a la taxonomía cercana al 23 % para los gastos de capital, al 24 % para los gastos operativos y al 17 % para los ingresos ([17]).

(24) Los índices de referencia para la transición climática de la UE y los índices de referencia de la UE armonizados con el Acuerdo de París son herramientas adecuadas para diseñar carteras con objetivos de descarbonización. Los fondos de inversión que se adhieren a esos índices de referencia han crecido considerablemente y están actualmente valorados en 116 000 millones EUR. También está aumentando el uso de índices de referencia ASG basados en el mercado con características de sostenibilidad medioambiental.

(25) Los planes de transición son una herramienta útil para traducir los objetivos climáticos o medioambientales, al nivel tanto de empresas como de actividades económicas, en acciones y en un plan de inversión, con vistas a su comunicación a los intermediarios financieros y los inversores. Los intermediarios financieros y los inversores podrían tener también en cuenta la información de los planes de transición, así como la integridad, transparencia y obligación de rendir cuentas en relación con los objetivos contenidos en dichos planes, a la hora de evaluar los riesgos de la transición y de sostenibilidad física asociados a determinada inversión.

(26) En la actualidad, los planes de transición no tienen carácter obligatorio, pero se están imponiendo como una de las grandes herramientas prospectivas que las empresas pueden utilizar para establecer y articular sus objetivos y obtener la financiación necesaria para alcanzarlos, e incluyen información sobre los hitos, las actividades, los procesos y los recursos. Los planes de transición pueden elaborarse sobre la base de la Directiva (UE) 2022/2464 y sus normas de presentación de información, cuando dichos planes formen parte de la estrategia empresarial global de una empresa que se proponga ajustarse al objetivo del Acuerdo de París de limitar el aumento de la temperatura mundial a 1,5 °C.

([14]) Reglamento Delegado (UE) 2021/2178 de la Comisión, de 6 de julio de 2021, por el que se completa el Reglamento (UE) 2020/852 del Parlamento Europeo y del Consejo mediante la especificación del contenido y la presentación de la información que deben divulgar las empresas sujetas a los artículos 19 *bis* o 29 *bis* de la Directiva 2013/34/UE respecto a las actividades económicas sostenibles desde el punto de vista medioambiental, y la especificación de la metodología para cumplir con la obligación de divulgación de información (DO L 443 de 10.12.2021, p. 9), anexo I.

([15]) Los gastos derivados de los planes de transición por actividades no pueden considerarse conformes con la taxonomía si no cumplen plenamente los criterios correspondientes de esta, pero pueden, no obstante, constituir un paso significativo hacia la mejora del rendimiento en materia de sostenibilidad y atraer financiación de transición.

([16]) A 17 de mayo de 2023, el 63 % de las empresas del índice STOXX Europe 600 ya habían dado a conocer su elegibilidad en relación con la taxonomía y su adaptación a la misma para el ejercicio 2022; fuente: Bloomberg.

([17]) Casi dos de cada tres empresas que notificaron inversiones en activos fijos elegibles con arreglo a la taxonomía notificaron una cifra de adaptación no nula, y una de cada dos empresas que divulgaron ingresos elegibles notificó un nivel de ingresos adaptados no nulo; fuente: Bloomberg.

(27) Las empresas sujetas a las obligaciones de información de la citada Directiva tendrán que comunicar todo objetivo con horizonte temporal sobre cuestiones de sostenibilidad que hayan fijado, así como todo plan del que se hayan dotado para garantizar que su modelo de negocio y su estrategia empresarial sean compatibles con la transición hacia una economía sostenible y con la limitación del calentamiento global a 1,5 °C.

(28) En febrero de 2022, la Comisión presentó una propuesta de Directiva sobre diligencia debida de las empresas en materia de sostenibilidad ([18]) con el fin de garantizar que las empresas activas en el mercado interior tengan éxito en la transición de nuestras economías hacia la sostenibilidad. En ella se propone que las empresas que estén incluidas en su ámbito de aplicación adopten planes para garantizar que su modelo y su estrategia de negocio sean compatibles con la transición hacia una economía sostenible y con la limitación del calentamiento global a 1,5 °C en consonancia con el Acuerdo de París.

(29) El plan de transición, que es uno de los aspectos de la estrategia global de la empresa, también puede abarcar la transición hacia el cumplimiento de los objetivos medioambientales. La credibilidad de los planes de transición podría reforzarse mediante su adopción por parte de la dirección de la empresa, mediante la introducción de un conjunto estructurado de objetivos y acciones a corto, medio y largo plazo en el que se indiquen los recursos asignados y los recursos necesarios para garantizar que los objetivos y las acciones se lleven a la práctica de manera creíble y coherente, así como del análisis y la prevención de la cautividad a largo plazo respecto de actividades o activos intensivos en gases de efecto invernadero o significativamente perjudiciales para el medio ambiente, habida cuenta de su vida útil.

(30) Los intermediarios financieros tienen un papel clave que desempeñar en cuanto al apoyo de la economía real en su transición hacia la sostenibilidad. De tal modo, el hecho de proporcionar a la economía real financiación de transición permite al sector financiero cumplir su función durante la transición, disminuir los riesgos del proceso de transición a lo largo del tiempo y llevar a cabo su propia transición de forma metódica. La financiación de transición y las inversiones conexas pueden reducir el riesgo de la transición financiera en el futuro incluso si no están automáticamente sujetas a un riesgo financiero menor que otras inversiones.

(31) Tanto los préstamos bancarios como las inversiones son importantes para la financiación de la economía real, y se espera que ambos instrumentos proporcionen a las empresas un volumen significativo de financiación de transición. Los bancos y otros inversores institucionales se encuentran en una posición especialmente favorable para proporcionar financiación de transición a sus clientes, ya que pueden aprovechar sus estrechas relaciones con estos. En ese contexto, los bancos pueden considerar la presente Recomendación en relación con las disposiciones sobre riesgos físicos y de transición de la Directiva 2013/36/UE del Parlamento Europeo y del Consejo ([19]) y el Reglamento (UE) n.º 575/2013 del Parlamento Europeo y del Consejo ([20]), actualmente en proceso de revisión.

(32) En el próximo ejercicio de asesoramiento por parte de la Autoridad Bancaria Europea acerca de los préstamos verdes ([21]), así como en las actividades de la Plataforma sobre Finanzas Sostenibles ([22]), se examinarán diferentes aspectos de la financiación de transición y se aportará información pertinente para futuras consideraciones sobre este tema.

(33) La divulgación de información en materia de sostenibilidad ayuda a generalizar el intercambio de información entre los intermediarios financieros y las empresas en transición. Por ejemplo, la información prospectiva sobre los objetivos climáticos o medioambientales o los planes de transición, cuando existan, podría ser de utilidad para los propios inversores e intermediarios financieros que hayan asumido el compromiso de llevar a cabo su propia transición. Esa información ayudará a los intermediarios financieros y a los inversores a decidir qué incluir o no en sus productos de inversión, así como a evaluar las implicaciones de los diferentes horizontes temporales de inversión y los riesgos de los activos obsoletos.

([18]) Propuesta de Directiva sobre diligencia debida de las empresas en materia de sostenibilidad y por la que se modifica la Directiva (UE) 2019/1937, COM(2022) 71.

([19]) Directiva 2013/36/UE del Parlamento Europeo y del Consejo, de 26 de junio de 2013, relativa al acceso a la actividad de las entidades de crédito y a la supervisión prudencial de las entidades de crédito, por la que se modifica la Directiva 2002/87/CE y se derogan las Directivas 2006/48/CE y 2006/49/CE (DO L 176 de 27.6.2013, p. 338).

([20]) Reglamento (UE) n.º 575/2013 del Parlamento Europeo y del Consejo, de 26 de junio de 2013, sobre los requisitos prudenciales de las entidades de crédito, y por el que se modifica el Reglamento (UE) n.º 648/2012 (DO L 176 de 27.6.2013, p. 1).

([21]) Próximo asesoramiento consiguiente a la Solicitud de asesoramiento a la Autoridad Bancaria Europea sobre préstamos e hipotecas verdes, disponible en: https://www.eba.europa.eu/sites/default/documents/files/document_library/About%20Us/Missions%20and%20tasks/Call%20for%20Advice/2022/CfA%20on%20green%20loans%20and%20mortgages/1043881/EBA%20Call%20for%20Advice%20Green%20Loans%20and%20Mortgages_Clean.pdf

([22]) La Plataforma sobre Finanzas Sostenibles creada por el artículo 20 del Reglamento (UE) 2020/852. Más información sobre esta plataforma: https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance-old/platform-sustainable-finance_en

(34) Los intermediarios financieros y los inversores también pueden contribuir a la transición ofreciendo soluciones de financiación específicas relacionadas con la transición y vinculadas a los objetivos climáticos o medioambientales fijados por las empresas.

(35) Se invita a los Estados miembros a que prosigan su actividad de sensibilización acerca de las distintas vías de obtener o de conceder financiación de transición. Asimismo, se les invita a seguir proporcionando formación y asistencia técnica que puedan contribuir a aumentar la utilización de la financiación de transición y ofreciendo soluciones específicas relacionadas con la financiación de transición a las empresas que deseen emprender esa vía.

(36) Las autoridades europeas de supervisión (AES) y las autoridades nacionales competentes de la Unión deben proseguir su actividad de información sobre los enfoques pertinentes de la financiación de transición. Con ello se ayudará a infundir en los participantes en el mercado confianza en cuanto al modo de utilizar eficazmente las herramientas de financiación sostenible de la Unión, se fomentará el uso de la financiación de transición y se reducirá el riesgo de «ecoimpostura».

(37) La presente Recomendación no formula recomendaciones sobre todos los aspectos de la financiación de transición hacia una economía climáticamente neutra y sostenible. Su objetivo es aclarar los conceptos básicos de este tipo financiación y el uso de las herramientas que pueden impulsar la mayor utilización de financiación de transición privada.

(38) La presente Recomendación tampoco es exhaustiva, ya que los participantes en el mercado pueden encontrar otras formas de promover o de obtener financiación de transición que sea compatible con la transición a una economía sostenible. Su contenido debe considerarse a la luz de cualquier evolución futura del mercado o de la legislación. La Plataforma sobre Finanzas Sostenibles ayudará a identificar las prácticas de mercado pertinentes para la financiación de transición, y los participantes en el mercado podrán aportar sus observaciones a través de la propia Plataforma o de las actividades de divulgación organizadas por la Comisión, como talleres y diálogos con las partes interesadas, con el fin de afinar los componentes del marco de finanzas sostenibles y su uso para la financiación de transición. Asimismo, la Comisión intensificará sus contactos con los socios internacionales a través, por ejemplo, de la Plataforma Internacional de Finanzas Sostenibles y del Centro de Asesoramiento sobre Finanzas Sostenibles que se inscribe en la estrategia «Global Gateway», con el fin de promover el uso y la interoperabilidad internacional de la financiación de transición a escala mundial.

HA ADOPTADO LA PRESENTE RECOMENDACIÓN:

1. **OBJETO Y ÁMBITO DE APLICACIÓN**

1.1. La presente Recomendación se presenta de forma consiguiente a la Comunicación de la Comisión titulada «Estrategia para financiar la transición a una economía sostenible» ([23]).

1.2. La presente Recomendación tiene por objeto apoyar a los participantes en el mercado que deseen obtener o proporcionar financiación de transición, ofreciéndoles sugerencias prácticas sobre el modo de enfocar dicha financiación.

1.3. La presente Recomendación se dirige a aquellas empresas que deseen contribuir a la transición hacia la neutralidad climática y la sostenibilidad medioambiental, potenciando al mismo tiempo su competitividad, y busquen financiación para inversiones que persigan ese fin. Su objetivo es explicar cómo pueden usarse las herramientas de financiación sostenible a tales efectos. La financiación de transición y la financiación ecológica ([24]) se distinguen de la financiación general, que no persigue objetivos de sostenibilidad.

1.4. En general, la presente Recomendación no se destina a las microempresas ([25]), habida cuenta de su tamaño y su capacidad administrativa.

([23]) Comunicación de la Comisión titulada «Estrategia para financiar la transición a una economía sostenible», COM(2021) 390 final.

([24]) En la sección 1 del anexo se ilustran las diferencias y las coincidencias entre la financiación de transición y la financiación ecológica, así como su evolución a lo largo del tiempo.

([25]) La Recomendación 2003/361/CE de la Comisión, de 6 de mayo de 2003, sobre la definición de microempresas, pequeñas y medianas empresas (DO L 124 de 20.5.2003, p. 1), define a una microempresa como una empresa que ocupa a menos de diez personas y cuyo volumen de negocios anual o cuyo balance general anual no supera los 2 millones EUR.

1.5. La presente Recomendación se dirige igualmente a:

a) los intermediarios financieros y los inversores que estén dispuestos a proporcionar financiación de transición a las empresas;

b) los Estados miembros y las autoridades de supervisión financiera, con el fin de sensibilizar sobre el tema y proporcionar asistencia técnica y de fomentar la utilización y la provisión de financiación de transición a la economía real.

1.6. La presente Recomendación se entiende sin perjuicio de la legislación de la Unión que establezca obligaciones legales.

1.7. Se invita a los agentes externos a la Unión a que utilicen también esta Recomendación, aunque puedan tener necesidades específicas que no se reflejan en ella,

2. DEFINICIONES

A los efectos de la presente Recomendación, se entenderá por:

2.1. **Transición**: la transición desde los niveles actuales de rendimiento climático y medioambiental hacia una economía climáticamente neutra, resiliente al clima y medioambientalmente sostenible en un plazo que permita alcanzar:

a) el objetivo de limitar el aumento de la temperatura mundial a 1,5 °C, en consonancia con el Acuerdo de París, y, para las empresas y actividades dentro de la Unión, el objetivo de lograr la neutralidad climática de aquí a 2050 y reducir las emisiones de gases de efecto invernadero en un 55 % de aquí a 2030, como se establece en el Reglamento (UE) 2021/1119 del Parlamento Europeo y del Consejo ([26]);

b) el objetivo de adaptación al cambio climático ([27]), y

c) otros objetivos medioambientales de la Unión que se especifican en el Reglamento (UE) 2020/852, a saber, la prevención y el control de la contaminación, la protección y la restauración de la biodiversidad y los ecosistemas, el uso sostenible y la protección de los recursos marinos y de agua dulce y la transición a una economía circular.

2.2. **Financiación de transición**: la financiación de inversiones que sean compatibles con la transición y contribuyan a ella, evitando efectos de cautividad, en particular:

a) inversiones en carteras que se adhieran a los índices de referencia para la transición climática de la UE y los índices de referencia de la UE armonizados con el Acuerdo de París («índices de referencia climáticos de la UE»);

b) inversiones en actividades económicas que se ajusten a la taxonomía, en particular:

— actividades económicas de transición, según se definen en el artículo 10, apartado 2, del Reglamento (UE) 2020/852, para el objetivo de mitigación del cambio climático,

— actividades económicas elegibles conforme a la taxonomía que pasen a ajustarse a la misma en consonancia con el artículo 1, apartado 2, del Reglamento Delegado (UE) 2021/2178 de la Comisión en un plazo máximo de cinco (excepcionalmente, diez) años ([28]);

c) inversiones en empresas o actividades económicas con un plan de transición creíble al nivel de la empresa o de la actividad;

d) inversiones en empresas o actividades económicas que tengan objetivos creíbles y con base científica, siempre que sean proporcionados y que estén respaldados por información que garantice la integridad, la transparencia y la rendición de cuentas.

([26]) Reglamento (UE) 2021/1119 del Parlamento Europeo y del Consejo, de 30 de junio de 2021, por el que se establece el marco para lograr la neutralidad climática y se modifican los Reglamentos (CE) n.º 401/2009 y (UE) 2018/1999 («Legislación europea sobre el clima») (DO L 243 de 9.7.2021, p. 1).

([27]) Según se define en el Reglamento (UE) 2020/852.

([28]) Reglamento Delegado (UE) 2021/2178 de la Comisión, de 6 de julio de 2021, por el que se completa el Reglamento (UE) 2020/852 del Parlamento Europeo y del Consejo mediante la especificación del contenido y la presentación de la información que deben divulgar las empresas sujetas a los artículos 19 *bis* o 29 *bis* de la Directiva 2013/34/UE respecto a las actividades económicas sostenibles desde el punto de vista medioambiental, y la especificación de la metodología para cumplir con la obligación de divulgación de información (DO L 443 de 10.12.2021, p. 9).

2.3. **Plan de transición**: un aspecto de la estrategia global de la empresa que establece los objetivos y acciones de la entidad para su transición hacia una economía climáticamente neutra o sostenible, con medidas como la reducción de sus emisiones de gases de efecto invernadero en consonancia con el objetivo de limitar el cambio climático a 1,5 °C.

3. RECOMENDACIÓN A LAS EMPRESAS QUE BUSQUEN FINANCIACIÓN DE TRANSICIÓN

Herramientas de financiación sostenible para determinar y articular las necesidades de financiación de transición

3.1. Las empresas pueden estudiar sus necesidades de financiación de transición en función de su impacto, sus riesgos y sus oportunidades en cuanto a la sostenibilidad. Todos estos aspectos pueden determinarse mediante una evaluación de la materialidad.

3.2. Para determinar sus necesidades de financiación de transición, las empresas podrían empezar por fijar objetivos de transición y definir itinerarios individuales de transición a partir de escenarios e itinerarios con base científica ([29]).

3.3. Las herramientas de financiación sostenible, en particular, la taxonomía o los índices de referencia climáticos de la UE, pueden utilizarse junto con unos planes de transición creíbles para respaldar la definición de objetivos de transición y articular las necesidades específicas de financiación de transición al nivel de las empresas y de las actividades económicas ([30]).

3.4. Al integrar claramente los objetivos de transición y las correspondientes necesidades de financiación en un plan de transición creíble, los intermediarios financieros y los inversores pueden comprender, comparar y referenciar con mayor facilidad las oportunidades de financiación de transición.

3.5. Las necesidades de financiación de transición pueden especificarse como inversiones en activos fijos previstas y, según proceda, gastos operativos relacionados con la consecución de los objetivos climáticos y medioambientales, así como ingresos corrientes o esperados relacionados con la transición.

3.6. Cuando proceda, las empresas podrían examinar con los intermediarios financieros y los inversores sus necesidades específicas de financiación de transición y las soluciones de financiación más adecuadas.

4. USO DE ITINERARIOS DE TRANSICIÓN CREÍBLES PARA ESTABLECER OBJETIVOS CON BASE CIENTÍFICA

4.1. Para establecer objetivos con base científica y determinar sus necesidades de financiación de transición, las empresas pueden tomar como referencia los escenarios e itinerarios de descarbonización intersectoriales o sectoriales que hayan sido publicados, así como los escenarios de mejora medioambiental que existan.

4.2. Al recurrir a escenarios o itinerarios, se recomienda utilizar aquellos que tengan una base científica, y, en el caso de los itinerarios de descarbonización, aquellos que estén en consonancia con el Acuerdo de París, como los escenarios de 1,5 °C de la Agencia Internacional de la Energía o del Grupo Intergubernamental de Expertos sobre el Cambio Climático con un rebasamiento nulo o limitado ([31]).

4.3. Se recomienda ajustar los itinerarios correspondientes a la empresa de que se trate a los objetivos climáticos y medioambientales de la Unión, en función de los lugares en los que la empresa desarrolle su actividad y de su punto de partida. Para ello, se recomienda también consultar los Itinerarios cualitativos de Transición de la UE elaborados por la Comisión Europea ([32]) para cada ecosistema industrial a la hora de evaluar los retos ligados a la transición climática y las mejores tecnologías disponibles, así como los desafíos ecológicos, digitales y de resiliencia más generales para un sector determinado.

([29]) La sección 2 del anexo ilustra cómo las diferentes características de los objetivos de transición de una empresa pueden reflejarse en las necesidades de financiación de transición con distintos horizontes temporales. El gráfico 2 del anexo presenta diversas opciones para articular las necesidades de financiación de transición.

([30]) La sección 3 del anexo ofrece una visión general de las herramientas que podrían utilizarse para determinar las necesidades de financiación de transición y las opciones para obtener esa financiación.

([31]) Estos escenarios podrían inspirarse en los publicados por la Red para la Ecologización del Sistema Financiero.

([32]) Los Itinerarios cualitativos de Transición de la UE de la Comisión Europea pueden consultarse aquí: https://single-market-economy.ec.europa.eu/industry/transition-pathways_en.

4.4. Los objetivos de transición con base científica podrían utilizarse para obtener financiación de transición sin que exista un plan de transición cuando tal solución sea proporcional a la complejidad, el tamaño y las repercusiones de la empresa, y cuando dichos objetivos estén respaldados por información que garantice su integridad, su transparencia y la obligación de rendir cuentas en relación con las medidas aplicadas para alcanzarlos.

5. USO DE LOS ÍNDICES DE REFERENCIA CLIMÁTICOS DE LA UE

5.1. Como complemento de los escenarios o itinerarios con base científica, las empresas pueden utilizar, cuando corresponda, las metodologías empleadas para los índices de referencia climáticos de la UE. Estas metodologías pueden contribuir a establecer los itinerarios individuales al nivel de la empresa o del proyecto, a fijar sus objetivos de transición y a determinar sus necesidades de financiación de transición.

5.2. Esas mismas metodologías pueden utilizarse también para evitar que las nuevas inversiones se conviertan en activos potencialmente obsoletos y podrían facilitar la inclusión de las emisiones de la empresa, o del capital obtenido para un proyecto de transición pertinente, en una cartera de inversiones o préstamos que se adhiera a un índice de referencia climático de la UE ([33]).

6. USO DE LA TAXONOMÍA DE LA UE

6.1. Las empresas pueden determinar sus necesidades de financiación de transición utilizando voluntariamente la taxonomía, junto con otros puntos de referencia con base científica, para establecer objetivos de transición correspondientes a actividades económicas específicas en sectores económicos cubiertos por los actos delegados adoptados en virtud del Reglamento (UE) 2020/852 ([34]).

6.2. Se anima a las empresas a utilizar la taxonomía para planificar las inversiones que permitirán que una actividad económica determinada cumpla los criterios de la taxonomía en un plazo de cinco (excepcionalmente, diez) años, pues dichas inversiones se reconocen ya como plenamente ajustadas a la taxonomía.

6.3. Las empresas pueden utilizar la taxonomía a fin de establecer hitos y objetivos intermedios para la transición de las actividades económicas con el objetivo de seguir mejorando el rendimiento medioambiental o, en definitiva, de lograr la adaptación a la taxonomía en un plazo más largo, pero lo suficientemente breve para ser compatible con la transición. Por ejemplo, cuando sea necesario, las empresas pueden utilizar los criterios de la taxonomía para planificar una adaptación gradual a esta: como primer objetivo acotado en el tiempo, lograr que la transición permita mejorar los niveles de rendimiento definidos por los criterios de «no causar un perjuicio significativo» y, como segundo objetivo acotado en el tiempo, ajustarse a los criterios de contribución sustancial, de acuerdo con un plan de transición específico por actividades. ([35])

6.4. A fin de poner en práctica el uso de la taxonomía para obtener financiación de transición, las empresas podrían especificar sus necesidades en términos de inversiones en activos fijos de la empresa. Cuando proceda, también podrían especificar esas necesidades en términos de sus ingresos o gastos operativos corrientes o esperados, que:

a) se ajustan a la taxonomía;

b) se ajustarán a la taxonomía en el futuro, o

c) corresponden a mejoras continuas del rendimiento como parte de un plan de transición creíble y acorde con la transición.

7. USO DE UN PLAN DE TRANSICIÓN CREÍBLE

7.1. Sin perjuicio de sus obligaciones legales, las empresas —especialmente aquellas que desarrollen actividades que impliquen repercusiones significativas o itinerarios de transición complejos— pueden elaborar planes de transición al nivel de la empresa o de la actividad o a ambos niveles, para articular los objetivos, los hitos, las acciones y las necesidades de recursos relacionados con la transición de una manera estructurada y coherente.

([33]) En la sección 4 del anexo se explican con más detalle las metodologías de los índices de referencia climáticos de la UE y la forma en que pueden utilizarse para articular las necesidades de financiación de transición.

([34]) Como el acto delegado de taxonomía climática de la UE y cualquier futuro acto delegado en el que se especifiquen criterios técnicos de selección.

([35]) En la sección 5 del anexo se ilustra con más detalle cómo puede utilizarse la taxonomía con ese fin.

7.2. Las normas de presentación de información de la Directiva (UE) 2022/2464 proporcionan un modelo para la elaboración de planes de transición y de acción creíbles que las empresas podrían utilizar con el fin de garantizar la integridad y la transparencia de dichos planes, así como la obligación de rendir cuentas al respecto.

7.3. La taxonomía y los índices de referencia climáticos de la UE pueden usarse junto con escenarios e itinerarios con base científica para determinar los objetivos o las necesidades de financiación que se incluyan en dichos planes a nivel tanto de empresa como de actividad económica.

7.4. Los planes enfocados a la sostenibilidad medioambiental pueden también inspirarse en los planes de acción medioambientales estratégicos de la UE relativos a la economía circular ([36]), la biodiversidad ([37]) y la contaminación cero ([38]).

8. INSTRUMENTOS PARA OBTENER FINANCIACIÓN DE TRANSICIÓN

8.1. Se anima a las empresas a que, para obtener financiación de transición, utilicen alguno de los instrumentos de financiación relacionados con la transición (o una combinación de varios de ellos), como tipos específicos de préstamos o emisiones de mercado de capitales con características específicas ([39]).

Préstamos ecológicos u otros préstamos de sostenibilidad

8.2. Si una empresa tiene necesidades de financiación de transición, puede solicitar tipos específicos de préstamos, como los vinculados a la sostenibilidad, los préstamos ecológicos u otros préstamos con fines concretos.

8.3. Los intermediarios financieros están empezando a ofrecer este tipo de préstamos y podrían proponer tipos de interés competitivos cuando el rendimiento medioambiental previsto subyacente a los préstamos contribuya a reducir los riesgos de la transición o dé lugar a tipos de refinanciación más bajos para el intermediario financiero.

8.4. Las inversiones destinadas a lograr un objetivo de transición específico, como la mejora de activos o la realización de nuevas inversiones que posibiliten una producción con un bajo impacto climático y medioambiental, podrían financiarse a través de préstamos con fines concretos cuyos ingresos se utilicen exclusivamente para ese propósito (también conocidos conoce como financiación con uso determinado de los ingresos). La articulación de ese propósito a través de objetivos de transición relacionados con los criterios de la taxonomía podría fomentar la utilización de préstamos específicamente destinados a la transición.

8.5. Las inversiones en mejoras del rendimiento al nivel de las empresas podrían financiarse mediante préstamos vinculados a la sostenibilidad que tengan objetivos de rendimiento climático o medioambiental con base científica y acotados en el tiempo, que sirvan de salvaguardias y cuyos tipos de interés estén ligados a la consecución de los objetivos de rendimiento en materia de sostenibilidad previstos, evitando los efectos de cautividad.

Bonos verdes u otros bonos de sostenibilidad

8.6. Para financiar su transición, las empresas también pueden emitir instrumentos del mercado de capitales o tipos específicos de bonos, como los bonos verdes u otros bonos de sostenibilidad. Los bonos pueden utilizarse para obtener capital, tanto al nivel de la empresa como de la actividad económica.

8.7. Para obtener financiación de transición con un fin concreto, los emisores podrían contemplar la emisión de bonos que demuestren el uso de los ingresos con fines de transición. Si bien existe un estándar internacional de bonos verdes que podría utilizarse para obtener financiación de transición, las empresas también podrían contemplar el uso del estándar europeo de bonos verdes para emitir bonos de ese tipo con el propósito de financiar actividades económicas que se ajustarán a la taxonomía en un plazo de cinco años (excepcionalmente, de diez).

([36]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones: «Nuevo Plan de acción para la economía circular por una Europa más limpia y más competitiva.» COM(2020) 98 final.

([37]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones, «Estrategia de la UE sobre la biodiversidad de aquí a 2030: Reintegrar la naturaleza en nuestras vidas». COM(2020) 380 final.

([38]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones, «La senda hacia un planeta sano para todos. Plan de Acción de la UE: Contaminación cero para el aire, el agua y el suelo». COM(2021) 400 final.

([39]) En la sección 6 del anexo figuran ejemplos de los instrumentos de financiación que se describen a continuación.

8.8. Los bonos vinculados a la sostenibilidad pueden utilizarse con el fin de obtener capital destinado a mejorar el comportamiento en materia de sostenibilidad tanto de la empresa como de sus actividades. Dichos bonos deben ir ligados a sólidos objetivos de rendimiento en materia de sostenibilidad (por ejemplo, indicadores clave de resultados conforme a la taxonomía) y a un calendario compatible con la transición, dado que los cupones suelen emitirse a reserva de la consecución de los resultados previstos y de su incentivación.

8.9. Las herramientas de financiación sostenible que se mencionan en los puntos 3 a 7 pueden utilizarse como objetivos de rendimiento y como refuerzos de la credibilidad de los bonos vinculados a la sostenibilidad.

Financiación mediante emisión de acciones y financiación especializada

8.10. Las empresas también pueden emitir acciones o contemplar soluciones de financiación especializada que estén vinculadas a objetivos de rendimiento en materia de sostenibilidad al nivel de la empresa, el proyecto o la actividad económica. Pueden utilizarse enfoques similares a los descritos anteriormente para establecer dichos objetivos de rendimiento.

9. RECOMENDACIÓN A LOS INTERMEDIARIOS FINANCIEROS E INVERSORES DISPUESTOS A PROPORCIONAR FINANCIACIÓN DE TRANSICIÓN

Herramientas para establecer los objetivos de la financiación de transición y para localizar proyectos o empresas

9.1. Los intermediarios financieros pueden contribuir a financiar la transición reflejando en sus estrategias de préstamo o de inversión los objetivos de la financiación de transición.

9.2. Al establecer objetivos de transición y diseñar los enfoques de la financiación de transición para las carteras y estrategias de inversión o préstamo, los intermediarios financieros pueden:

a) tomar en consideración las recomendaciones a las empresas acerca de la determinación de las necesidades de financiación de transición y la fijación de los correspondientes objetivos ([40]);

b) asegurarse de que el enfoque de la financiación de transición contribuya a la transición y la descarbonización de la economía real, tenga en cuenta los diferentes puntos de partida de las empresas, aplique el principio de proporcionalidad (en particular con respecto a las pymes) e incluya las salvaguardias climáticas y medioambientales pertinentes, en consonancia con la definición de financiación de transición que se ofrece en la presente Recomendación;

c) traducir el concepto de financiación de transición en objetivos específicos relacionados con los objetivos climáticos o medioambientales, para todas las clases de activos, que abarquen todos los tipos de financiación y todos los sectores económicos que sean pertinentes para la transición;

d) considerar el asesoramiento y la comunicación como partes importantes de la estrategia de financiación de transición.

9.3. Los inversores y los propietarios de activos pueden desarrollar enfoques similares para sus propios activos.

9.4. Para poner en práctica estrategias de inversión que incluyan enfoques de financiación de transición y localizar a las empresas y proyectos que cumplan los objetivos de transición, los intermediarios financieros y los inversores pueden ([41]):

a) utilizar la información facilitada por las empresas para determinar los objetivos de transición y las necesidades de financiación de transición, incluidos los planes de transición y los informes de empresa;

b) utilizar las metodologías de descarbonización exigidas con arreglo a los índices de referencia climáticos de la UE, como unos objetivos claros de descarbonización por parte de las empresas y la restricción de nuevas inversiones en activos potencialmente obsoletos;

c) utilizar el marco y los criterios de la taxonomía para identificar las inversiones que sean elegibles y podrían adaptarse a la taxonomía, en caso necesario a través de etapas intermedias dentro de un calendario que sea compatible con la transición. Por ejemplo, en caso necesario, considerar como primer paso financiar las etapas de la transición que mejoren los niveles de rendimiento definidos por los criterios de «no causar un perjuicio significativo» y, como segundo paso, ajustarse a los criterios de contribución sustancial que se aclaren en un plan de transición por actividades.

d) utilizar los ejercicios de divulgación de información y los prospectos que acompañan a la emisión de bonos o capital social vinculados a la ecologización, la transición y la sostenibilidad;

([40]) Considerando también la sección 2 del anexo.
([41]) La sección 7 del anexo ofrece otras sugerencias relativas a dichas herramientas.

10. COMUNICACIÓN CON LAS EMPRESAS QUE NECESITEN FINANCIACIÓN DE TRANSICIÓN

10.1. Se anima a los intermediarios financieros a que entren en contacto con los clientes y las empresas en cuya transición se esté invirtiendo, especialmente cuando estas tengan una considerable necesidad de financiación de transición.

10.2. Esta política de comunicación podría incluir una presentación de las estrategias de préstamo o inversión que podrían ajustarse a las necesidades de financiación de transición pertinentes, así como las condiciones de admisibilidad de la financiación en el marco de estas estrategias.

10.3. En el diálogo con los clientes y las empresas beneficiarias de inversión, podrían debatirse los siguientes aspectos:

a) las repercusiones, riesgos y oportunidades de sostenibilidad material y la manera de hacer frente a los impactos y riesgos climáticos y medioambientales;

b) la forma de determinar la contribución a un objetivo climático o medioambiental y los horizontes temporales de los préstamos o inversiones;

c) los itinerarios de transición subyacentes con el fin de garantizar que la estrategia de préstamo o de inversión sea compatible con la transición;

d) la aplicación o no aplicación del principio de «no causar un perjuicio significativo» según se define en el artículo 17 del Reglamento (UE) 2020/852, y la manera de afrontar los efectos adversos;

e) la medida en que se tendrán en cuenta el rendimiento en materia de sostenibilidad y los objetivos y planes de transición de las empresas, a la hora en particular hora de evaluar el riesgo de activos obsoletos, y los riesgos de la transición y los riesgos físicos en general.

11. SOLUCIONES DE FINANCIACIÓN ESPECÍFICAS PARA LA TRANSICIÓN

11.1. Junto a las soluciones generales de préstamo y financiación, los intermediarios financieros pueden ofrecer soluciones de financiación específicas para la transición a empresas o proyectos con importantes necesidades de financiación de transición.

11.2. Estas soluciones incluyen, por ejemplo, préstamos o productos de financiación que puedan ayudar a financiar inversiones de transición sobre el terreno, como los basados en:

a) inversiones con arreglo al Reglamento (UE) 2020/852 que contribuyan a aumentar de manera significativa la proporción de las actividades de cualquier empresa que se ajustan a la taxonomía;

b) los índices de referencia climáticos de la UE cuando complementen escenarios o itinerarios con base científica;

c) planes de transición creíbles al nivel de la entidad o de la actividad que apliquen objetivos con base científica;

d) objetivos creíbles y con base científica, siempre que sean proporcionados y estén respaldados por información que garantice la integridad, la transparencia y la rendición de cuentas;

e) la reducción de las huellas ambientales sobre la base de los planes de acción medioambientales estratégicos de la UE relativos a la economía circular ([42]), la biodiversidad ([43]) y la contaminación cero ([44]) y conforme a lo dispuesto en ellos.

f) una combinación de las medidas anteriores, por ejemplo, cuando los planes de transición se integren en las necesidades de financiación de transición determinadas a través de la taxonomía o los índices de referencia climáticos de la UE.

11.3. Los intermediarios financieros pueden contemplar la posibilidad de crear incentivos para fomentar la obtención de un buen rendimiento en relación con los objetivos de transición de la empresa, recompensando, por ejemplo, los avances hacia el cumplimiento de los objetivos de transición o los criterios de la taxonomía con tipos de interés atractivos, basándose en factores como el menor riesgo de la transición o la mejora de los costes de financiación.

([42]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones: «Nuevo Plan de acción para la economía circular por una Europa más limpia y más competitiva.» COM(2020) 98 final.

([43]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones, «Estrategia de la UE sobre la biodiversidad de aquí a 2030: Reintegrar la naturaleza en nuestras vidas». COM(2020) 380 final.

([44]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones, «La senda hacia un planeta sano para todos. Plan de Acción de la UE: Contaminación cero para el aire, el agua y el suelo». COM(2021) 400 final.

12. **RIESGOS DE LA TRANSICIÓN Y RIESGOS FÍSICOS**

12.1. Se anima a los intermediarios financieros y a los inversores a que determinen la medida en que sus objetivos de transición y de financiación de transición se ajustan a sus estrategias de gestión de riesgos y contribuyen a la ejecución de estas, con el fin de hacer frente a los riesgos financieros derivados de los desajustes con la transición.

12.2. En particular, se anima a los intermediarios financieros y a los inversores a:

a) tener en cuenta en sus marcos de gestión de riesgos y de comunicación la información prospectiva de las contrapartes —como los objetivos y planes de transición—, incluida la información sobre su credibilidad y la presentación de informes anuales sobre los avances logrados;

b) considerar la financiación de proyectos de transición capaces de reducir los efectos negativos sobre los factores de sostenibilidad y los riesgos de la transición y físicos futuros, por ejemplo siguiendo las orientaciones de la taxonomía de adaptación al cambio climático.

13. **RECOMENDACIÓN RELATIVA A LAS PEQUEÑAS Y MEDIANAS EMPRESAS**

Pequeñas y medianas empresas que buscan financiación de transición

13.1. Las pymes que estén interesadas en obtener financiación de transición tendrán unas necesidades proporcionales a su tamaño, capacidad administrativa y recursos, por lo que se las anima a entrar en contacto con los intermediarios financieros y los inversores para explorar las opciones de financiación y los servicios de apoyo que están disponibles.

13.2. Las pymes interesadas en contribuir a la transición podrían considerar la posibilidad de obtener financiación de transición para sus inversiones relacionadas con la transición (tanto las inversiones inmediatas como las futuras), por ejemplo, para los aspectos siguientes:

a) nuevas tecnologías ecológicas;

b) mejora de las actividades o activos económicos existentes;

c) inversión en tecnologías facilitadoras;

d) políticas de abastecimiento ecológico (por ejemplo, energías renovables);

e) actividades para la ecologización de sus funciones de apoyo, como el aumento de la eficiencia energética de sus edificios, el arrendamiento financiero o la adquisición de vehículos eléctricos, la descarbonización del uso del transporte, la ecologización de su suministro de alimentos, etc.

13.3. Las pymes que cotizan en bolsa entran en el ámbito de aplicación de la Directiva (UE) 2022/2464 y en el futuro divulgarán la información en materia de sostenibilidad con arreglo a unas normas de presentación de informes simplificadas. Las pymes que no entren en el ámbito de aplicación de dicha Directiva, pero que estén interesadas en comunicar información esencial en materia de sostenibilidad, podrían considerar la posibilidad de utilizar estas normas de presentación de información simplificadas u otras normas voluntarias de presentación de información adaptadas con estos fines a las pymes ([45]).

13.4. Se anima encarecidamente a las grandes empresas a que apoyen de forma proporcionada a las pymes de su cadena de valor que estén interesadas en la financiación de transición a la hora de determinar sus necesidades de financiación de transición y, en su caso, de obtener información clave en materia de sostenibilidad, independientemente de si están sujetas o no a la obligación de presentar información a este respecto.

13.5. Cuando proceda, las empresas de mayor tamaño también podrían cooperar con las entidades financieras para ofrecer condiciones de financiación y/o de compra favorables a sus socios de la cadena de valor que necesiten financiación de transición, en particular a las pymes de los sectores pertinentes para la transición ([46]).

([45]) Con arreglo a la Directiva (UE) 2022/2464, la presentación de informes por parte de las pymes (con excepción de las microempresas) que coticen en bolsa comenzará en 2027, con referencia al ejercicio de 2026. Las pymes que coticen en bolsa podrán presentar sus informes con arreglo a normas independientes y proporcionadas elaboradas por el EFRAG.

([46]) Por ejemplo, las empresas pueden ayudar a las pymes —estén o no obligadas a presentar información en materia de sostenibilidad— a utilizar voluntariamente las herramientas de financiación sostenible de la Unión u otras herramientas con base científica para comunicar sus proyectos, objetivos o planes de transición con el fin de hacer frente a los riesgos de la transición para los bancos de manera transparente y sustancial.

14. SOLUCIONES DE FINANCIACIÓN PARA LAS PEQUEÑAS Y MEDIANAS EMPRESAS

14.1. La capacidad de las pymes para facilitar información detallada es limitada, por lo que se anima a los intermediarios financieros y a los inversores a aplicar el principio de proporcionalidad en sus relaciones con sus clientes que sean pymes. No deben pedirles más información de la necesaria y han de actuar con moderación al solicitar información a las pymes que sean sus socios en la cadena de valor.

14.2. Se anima a los intermediarios financieros a que ofrezcan programas de educación y sensibilización, servicios de asesoramiento o herramientas basadas en la web para ayudar a las pymes interesadas en la financiación de transición a aumentar su toma de conciencia de los riesgos y las oportunidades de transición.

14.3. Como parte de estas medidas, podría ayudarse a las pymes interesadas a que evalúen sus necesidades de financiación de transición de una forma sencilla.

14.4. Podrían ofrecerse a las pymes soluciones de financiación específicas para la ecologización y la transición que sean proporcionadas y adecuadas para su uso por parte de ese tipo de empresas y que incentiven su adopción, teniendo en cuenta que las pymes que no coticen en bolsa no están sujetas a las obligaciones de información que imponen la Directiva (UE) 2022/2464 y el Reglamento (UE) 2020/852.

15. RECOMENDACIONES A LOS ESTADOS MIEMBROS

Se invita a los Estados miembros a que tengan en cuenta las siguientes recomendaciones con el fin de fomentar la financiación de transición:

15.1. Se anima a los Estados miembros a sensibilizar a los participantes en el mercado acerca de la necesidad de financiar inversiones en la transición ecológica y acerca de las normas, principios y salvaguardias vigentes que pueden garantizar la credibilidad y la integridad medioambiental de dichas inversiones. Podrían explicar las ventajas de utilizar los instrumentos de financiación sostenible de la UE con estos fines.

15.2. Los Estados miembros podrían animar a los participantes en el mercado a utilizar escenarios de referencia con base científica y que reflejen los itinerarios de descarbonización acordes con el Acuerdo de París, como los escenarios de 1,5 °C de la Agencia Internacional de la Energía (AIE) o del Grupo Intergubernamental de Expertos sobre el Cambio Climático (IPCC) con un rebasamiento nulo o limitado, o los itinerarios de la UE, nacionales o sectoriales que hagan referencia a estos escenarios de la AIE o del IPCC.

15.3. En el marco de las normas de competencia nacionales y de la UE, los Estados miembros podrían fomentar la cooperación entre los participantes en el mercado para poner en común las enseñanzas extraídas y las mejores prácticas a la hora de proporcionar o buscar financiación de transición y de abordar retos comunes. Los Estados miembros podrían capitalizar el papel a este respecto de las asociaciones del sector y otros organismos de reputación.

15.4. Los Estados miembros podrían fomentar el desarrollo de capacidades para los instrumentos y las políticas de financiación de transición, recurriendo para ello, entre otros medios, a la formación de funcionarios, reguladores y profesionales del sector financiero para apoyar el desarrollo de soluciones y políticas de financiación relacionadas con la transición que reflejen las dependencias geográficas.

15.5. Los Estados miembros podrían fomentar y promover productos y servicios financieros innovadores y sostenibles especialmente adaptados a las pymes, teniendo en cuenta el principio de proporcionalidad.

15.6. Los Estados miembros podrían ayudar a las pymes a presentar, de forma voluntaria, información esencial sobre la sostenibilidad y la financiación de transición a las partes interesadas y a los intermediarios e inversores financieros, lo que podría ampliar la gama de opciones de financiación a disposición de estas empresas.

15.7. Los Estados miembros podrían animar a los bancos multilaterales de desarrollo y a los bancos nacionales de fomento a respaldar estos esfuerzos con su asistencia técnica.

15.8. Los Estados miembros podrían fomentar las iniciativas entre bancos locales y pymes destinadas a desarrollar y aplicar estrategias de financiación sostenibles y objetivos de transición creíbles o, en su caso, planes de transición para las pymes.

16. RECOMENDACIÓN A LAS AUTORIDADES EUROPEAS DE SUPERVISIÓN Y A LAS AUTORIDADES NACIONALES COMPETENTES

Se anima a las autoridades europeas de supervisión y a las autoridades nacionales competentes a que:

16.1. Tengan en cuenta la presente Recomendación al vigilar y supervisar los riesgos de «ecoimpostura» relacionados con la transición.

16.2. Tengan en cuenta la información prospectiva pertinente incluida en los objetivos de transición, los planes de transición creíbles o la divulgación de información relacionada con la taxonomía al evaluar los riesgos financieros asociados a la transición de las entidades supervisadas.

16.3. Sensibilicen a las entidades supervisadas sobre la forma en que el marco regulador permite utilizar la información prospectiva de las contrapartes o de las empresas objeto de inversión para evaluar, gestionar y vigilar los riesgos de la transición y los riesgos físicos.

16.4. Generen capacidad junto con las autoridades nacionales competentes en materia de financiación de transición y fomenten un entorno de confianza para la financiación de transición en toda la UE.

Hecho en Bruselas, el 27 de junio de 2023.

Por la Comisión
Mairead MCGUINNESS
Miembro de la Comisión

ANEXO

El presente anexo acompaña a la Recomendación de la Comisión sobre la facilitación de la financiación para la transición hacia una economía sostenible ([1]). Complementa las recomendaciones con consideraciones e ilustraciones más detalladas para apoyar el uso voluntario de las herramientas del marco de financiación sostenible de la UE para la financiación de la transición. Presenta diversas opciones y sugerencias para que las empresas y las entidades financieras establezcan objetivos, articulen e identifiquen las necesidades y proyectos de financiación de transición así como para obtener o proporcionar financiación de transición.

Índice

([1]) Recomendación de la Comisión relativa a la facilitación de la financiación para la transición hacia una economía sostenible [C(2023) 3844].

1. **Relación entre la financiación ecológica y la financiación de transición**

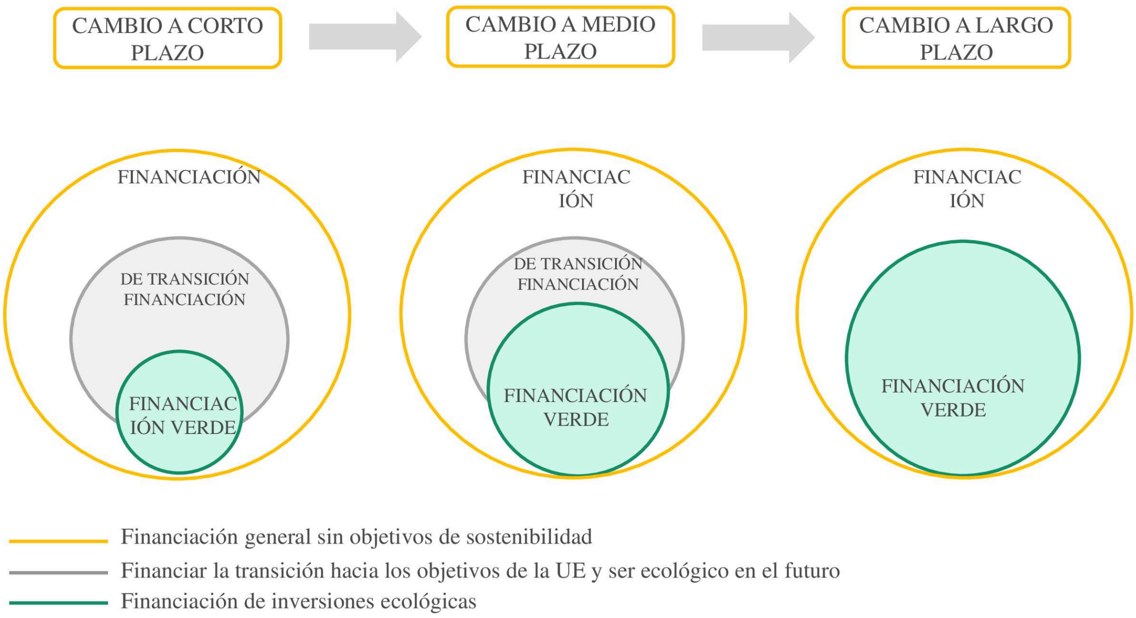
Las finanzas sostenibles consisten en financiar tanto lo que ya es respetuoso con el medio ambiente como lo que está en transición hacia esos niveles de rendimiento con el tiempo.

El gráfico 1 muestra cómo la financiación de transición se relaciona con la financiación general y la financiación ecológica, y cómo estas diferentes formas de financiación podrían evolucionar a corto, medio y largo plazo.

Las finanzas generales, que no tienen objetivos de sostenibilidad, pueden distinguirse de las finanzas sostenibles y la financiación de transición. En la actualidad, estas finanzas generales pueden incluir tanto actividades de gran impacto como actividades de bajo impacto. Con el tiempo, a medida que la economía se transforma, las actividades de gran impacto tendrán que pasar a ser de bajo impacto.

La financiación de transición tiene por objeto financiar dicha transición. Puede incluir tanto la financiación con ingresos como la financiación con fines generales (empresariales). A corto plazo, la financiación de transición no dará lugar a menudo a mejoras que cumplan los objetivos de rendimiento ecológico. A largo plazo, sin embargo, la financiación de transición debe ajustarse a los objetivos climáticos y medioambientales de la UE y, por lo tanto, se considerará ecológica o de bajo impacto.

Gráfico 1: Relación entre financiación verde y la financiación de la transición en la actualidad y a lo largo del tiempo



2. **Consideraciones sobre cómo los diferentes tipos de incidencia, riesgos y oportunidades de una empresa podrían de una empresa podrían reflejarse en objetivos de transición individuales**

Esta sección se refiere a los puntos 3 y 4 de la Recomendación de la Comisión.

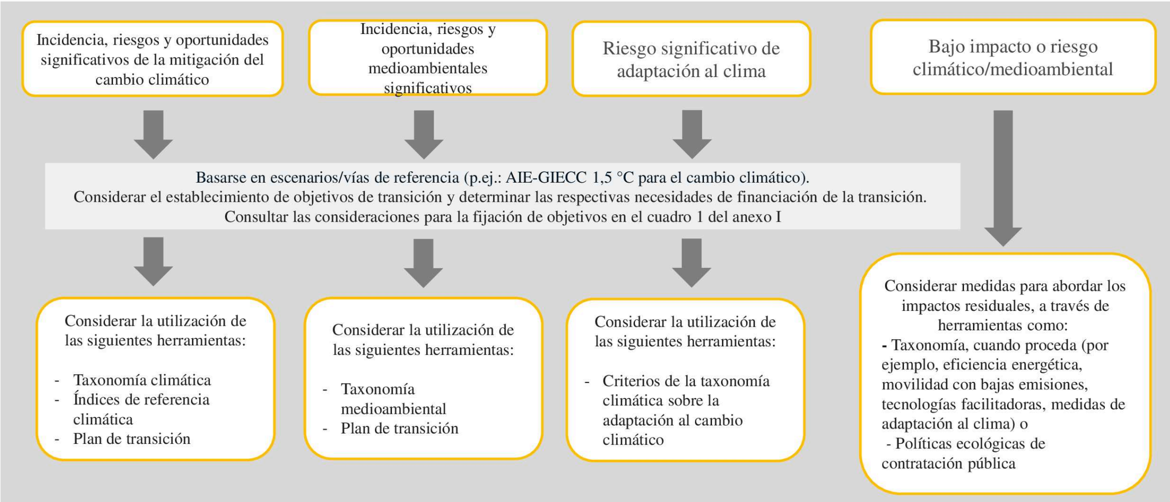
Las empresas pueden tener en cuenta sus necesidades de financiación de transición basadas en su incidencia, riesgos y oportunidades en materia de sostenibilidad. Pueden determinarse mediante una evaluación de significalidad seguida de un enfoque de la doble significalidad.

Como parte de esta evaluación, las empresas podrían utilizar el análisis de escenarios climáticos y medioambientales para identificar y evaluar los riesgos físicos y de transición y las oportunidades en los horizontes temporales a corto, medio y largo plazo. Basándose en el resultado de una evaluación de significalidad ([2]), las empresas podrían fijar objetivos de transición y determinar las necesidades y compromisos de financiación de transición, cuando proceda.

([2]) Una cuestión de sostenibilidad es de importancia relativa desde el punto de vista de la incidencia cuando se refiere a la incidencia de importancia relativa reales o potenciales, positivas o negativas, de la empresa sobre las personas o el medio ambiente en los horizontes temporales a corto, medio y largo plazo. Una cuestión de sostenibilidad de importancia relativa desde el punto de vista de la incidencia incluye las incidencias causadas por la empresa o a las que esta contribuye y aquellas que están directamente relacionadas con las operaciones, productos y servicios de la empresa a través de sus relaciones comerciales. Una cuestión de sostenibilidad de importancia relativa también podría ser importante desde una perspectiva financiera, por ejemplo si el riesgo de sostenibilidad se materializa a través de activos obsoletos.

El gráfico 2 proporciona una visión general de las herramientas que pueden utilizarse para considerar la manera de definir las necesidades de financiación de transición en caso de incidencias materiales, y cómo definir las necesidades de financiación para abordar las incidencias bajas o residuales.

Gráfico 2: Cómo los diferentes tipos de impactos, riesgos y oportunidades de una empresa podrían reflejarse en los objetivos individuales de transición y, en consecuencia, en las necesidades de financiación de la transición.



A la hora de planificar su transición y definir sus necesidades de financiación de transición, se anima a las empresas a que consideren la posibilidad de establecer **objetivos de transición** basados en **vías de transición** pertinentes que sean compatibles con la transición, teniendo en cuenta el tipo de incidencia y otros factores como la gravedad, la escala, el objetivo y el carácter irremediable de dichas incidencias. Las empresas pueden basarse en las normas y orientaciones disponibles en virtud de la Directiva (UE) 2022/2464 y su aplicación a tal efecto (Directiva sobre divulgación de información corporativa en materia de sostenibilidad)

Se anima a las empresas a que hagan las siguientes consideraciones sobre la forma en que las diferentes incidencias, riesgos y oportunidades podrían reflejarse en los objetivos de transición y en las necesidades de financiación de transición relacionadas.

Cuadro 1.

Las consideraciones generales para la fijación de objetivos climáticos y medioambientales en caso de incidencia significativa

1) Considerar marcos de referencia creíbles para comunicar la metodología utilizada para este proceso, que incluye:

— Análisis de escenarios con una base científica y vías sectoriales del 1,5 °C a escala mundial, de la UE o nacional con un rebasamiento nulo o limitado que hagan referencia al GIECC, la AIE u otras iniciativas privadas creíbles y con base científica. Considerar escenarios que reflejen el contexto específico de la empresa en términos de localización geográfica y actividades económicas.

— El marco normativo de las finanzas sostenibles de la Unión, incluidos el Reglamento sobre la taxonomía y la metodología para los índices de referencia climáticos de la UE (véanse las secciones 3 a 5 del presente anexo).

— Los planes de acción estratégicos de la Unión en materia de medio ambiente para la economía circular ([3]), la biodiversidad ([4]) y la contaminación cero ([5]).

([3]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones sobre un nuevo Plan de acción para la economía circular: por una Europa más limpia y más competitiva. COM(2020) 98 final.
([4]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones Estrategia de la UE sobre la biodiversidad de aquí a 2030: COM(2020) 380 final.
([5]) Comunicación de la Comisión al Parlamento Europeo, al Consejo, al Comité Económico y Social Europeo y al Comité de las Regiones La senda hacia un planeta sano para todos Plan de Acción de la UE: «Contaminación cero para el aire, el agua y el suelo». COM(2021) 400 final.

— Consultar las Vías de transición de la UE de la Comisión ([6]) para los aspectos relacionados con el clima cuando se evalúen los retos de la transición y las mejores tecnologías disponibles en un sector pertinente.

2) Considerar la posibilidad de establecer objetivos de transición acotados en el tiempo, con una base científica y viables para garantizar su credibilidad.

3) Considerar un desglose de estos objetivos a nivel de actividad y producto e identificar las palancas clave a nivel de actividad, incluidos los recursos financieros, para garantizar la aplicación/operatividad de estos objetivos.

4) Cuando proceda, en referencia al punto 3), considerar la posibilidad de especificar las palancas de descarbonización previstas y sus contribuciones cuantitativas globales para alcanzar los objetivos de reducción de las emisiones de gases de efecto invernadero así como las acciones clave previstas, incluidos los cambios en la cartera de productos y de servicios de la empresa y su adopción de nuevas tecnologías.

5) Considerar la posibilidad de utilizar índices para medir y supervisar la aplicación de los objetivos de transición, como la eficacia de las acciones, progresos realizados a lo largo del tiempo y la participación de las partes interesadas.

6) Considerar la posibilidad de especificar cómo la planificación empresarial, la planificación financiera y el marco de gestión de riesgos tienen en cuenta los objetivos de transición.

7) Considerar la integridad medioambiental general de los objetivos de transición, sin intercambiar un objetivo por otro, y considerar el uso del principio de «no causar un perjuicio significativo», de acuerdo con el Reglamento sobre la taxonomía para este fin. También considerar asimismo el respeto de las garantías mínimas en materia de derechos humanos y laborales.

8) Considerar la toma de medidas para garantizar la transparencia de los objetivos y la base sobre la que se han fijado para animar a los inversores y los intermediarios financieros a tenerlos en cuenta a la hora de proporcionar financiación de transición. Por ejemplo considerar la posibilidad de articular los objetivos como parte de un plan de transición para aumentar la credibilidad en torno a su consecución que refleje las dependencias externas ([7]) en los centros en los que la empresa opera.

9) Considerar la posibilidad de garantizar un proceso de gobernanza sólido para apoyar la aplicación y la supervisión de los objetivos de transición, que incluya:

   a) La aprobación de los objetivos de transición por los órganos de administración, dirección y supervisión de la empresa.

   b) El establecimiento de buenos controles internos que incluyan la asignación clara de funciones y responsabilidades para la supervisión y ejecución de las acciones relacionadas con el apoyo a la aplicación de estos objetivos de transición;

   c) La presentación periódica de informes a los órganos de administración sobre la aplicación de los objetivos de transición.

10) Considerar, cuando proceda, el uso de verificación y garantía externas para aportar credibilidad adicional a los objetivos de transición y al proceso de determinación de objetivos y seguimiento correspondiente.

Cuadro 2.

Consideraciones para objetivos sencillos de mejora en caso de incidencias de poca importancia

1) En el caso de las empresas en las que la actividad económica principal tiene un impacto bajo pero pueden existir impactos residuales en las funciones de apoyo de esa empresa (por ejemplo, la eficiencia energética de los edificios de oficinas, las emisiones del transporte o la movilidad, la compra de energía renovable, la ecologización del suministro de alimentos, etc.).

2) Cuando proceda, considerar:

   a) establecer objetivos de mejora sencillos para invertir en la eficiencia energética de los edificios, reducir significativamente las emisiones derivadas del uso de la electricidad o la calefacción, e inversiones similares, en particular a través de actividades facilitadoras regulados por actos delegados adoptados en virtud del Reglamento (UE) 2020/852 (el Reglamento sobre la taxonomía);

   b) una política de contratación centrada en consideraciones de sostenibilidad.

([6]) Las Vías de transición de la UE están disponibles en: https://single-market-economy.ec.europa.eu/industry/transition-pathways_es.

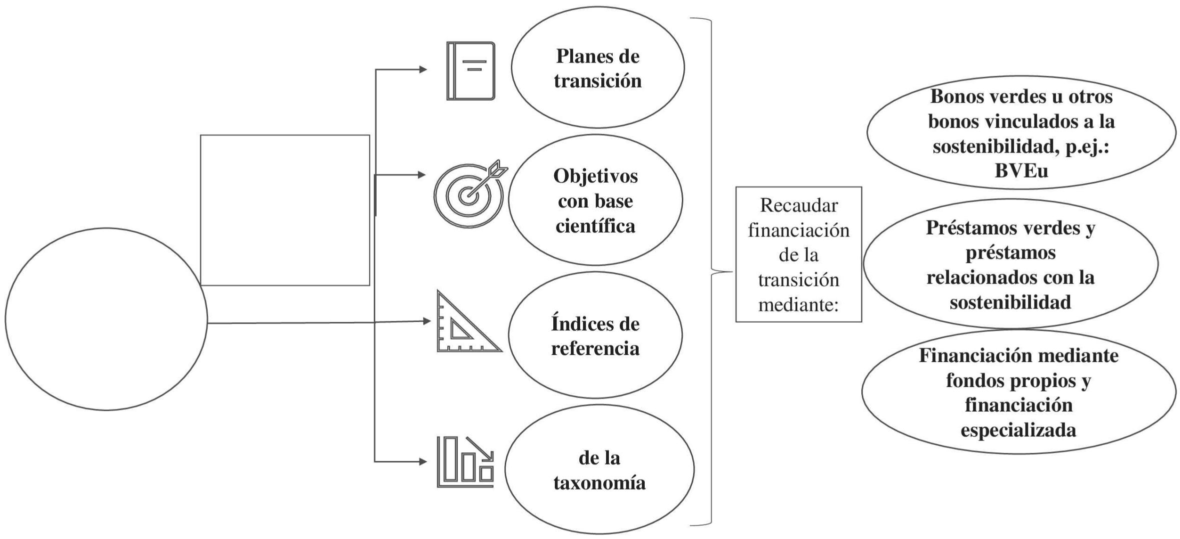
([7]) La dependencia de la empresa de factores externos geográficos para llevar a cabo su plan de transición a nivel de entidad, como por ejemplo posibles políticas futuras, preparación tecnológica, aceptabilidad social, disponibilidad de recursos e impactos climáticos físicos en los lugares en los que realiza sus actividades.

3. **Visión general de las herramientas sostenibles de financiación para articular y determinar las necesidades de financiación de transición**

Las herramientas sostenibles de financiación, en particular la taxonomía, o los índices de referencia climáticos de la UE así como los planes de transición creíbles, pueden utilizarse para apoyar la definición de objetivos de transición y articular necesidades específicas de financiación de transición a nivel de la empresa y de las actividades económicas. La financiación de transición puede obtenerse a través de bonos verdes o vinculados a la sostenibilidad, préstamos, financiación mediante fondos propios o financiación especializada..

El gráfico 3 ofrece una visión general de las herramientas que pueden utilizarse para articular y recaudar financiación de transición.

Figure 3: Opciones para articular las necesidades de financiación de la transición



4. **Metodologías de referencia climática de la UE**

Esta sección se refiere al punto 5 de la Recomendación.

Cuando no existan vías u hojas de ruta sectoriales basadas en la ciencia, las empresas podrían considerar las metodologías de referencia climática de la UE y utilizarlas de forma que se garantice la armonización con el escenario de incremento de la temperatura de 1,5 °C de la AIE o el GIECC.

Cuando existan escenarios y vías sectoriales con base científica, las empresas podrían considerar si su utilización les permite cumplir también las normas mínimas de las metodologías de referencia climática de la UE.

Las emisiones en el mercado de capitales de empresas que cumplan las normas mínimas de las metodologías de referencia climática, y lo demuestren [por ejemplo, en un plan de transición creíble que tenga en cuenta las normas y orientaciones disponibles en virtud de la Directiva (UE) 2022/2464 y su aplicación], tienen más probabilidades de ser incluidas en carteras que sigan las referencias climáticas de la UE.

Normas mínimas de la metodología de referencia climática

Los índices de referencia climáticos de la UE proporcionan un conjunto fiable de criterios destinados a garantizar una vía de transición para las carteras que sea compatible con la transición hacia una economía sostenible ([8]). Las normas mínimas del objetivo y la trayectoria de descarbonización de los índices de referencia climáticos exigen una reducción anual mínima del 7 % de la intensidad de GEI o un objetivo absoluto de emisiones de GEI ([9]).

([8]) Reglamento Delegado (UE) 2020/1818 de la Comisión de 17 de julio de 2020 por el que se complementa el Reglamento (UE) 2016/1011 del Parlamento Europeo y del Consejo en lo relativo a los estándares mínimos aplicables a los índices de referencia de transición climática de la UE y los índices de referencia de la UE armonizados con el Acuerdo de París, artículos 6 a 12.

([9]) Los requisitos mínimos se establecen en los artículo 7 a 9 del Reglamento Delegado (UE) 2020/1818 de la Comisión de 17 de julio de 2020.

Por cada año en que no se alcancen los objetivos, los objetivos no alcanzados deben compensarse ajustando al alza los objetivos de la trayectoria de descarbonización para el año siguiente.

En la medida de lo posible, considerar la posibilidad de demostrar unas emisiones medias inferiores en comparación con sus homólogos y evitar los factores de exclusión específicos enumerados en los artículos 9 a 12 del Reglamento Delegado (UE) 2020/1818 de la Comisión de 17 de julio de 2020.

Sobreponderación de las empresas que fijan y publican objetivos de reducción de las emisiones de GEI

Las emisiones de las empresas en el mercado de capitales pueden recibir una mayor ponderación en un índice de referencia que siga los índices de referencia climáticos de la UE, si la empresa emisora puede demostrar que ha fijado y publicado objetivos de reducción de las emisiones de GEI, cuando se cumplan las siguientes condiciones:

a) que los emisores de los valores integrantes publiquen sus emisiones de GEI de los ámbitos 1, 2 y 3 de manera coherente y precisa;

b) que los emisores de los valores integrantes hayan reducido su intensidad de GEI o, cuando proceda, sus emisiones absolutas de GEI, incluidas las emisiones de GEI de los ámbitos 1, 2 y 3, al menos un 7 % de media al año durante, como mínimo, tres años consecutivos.

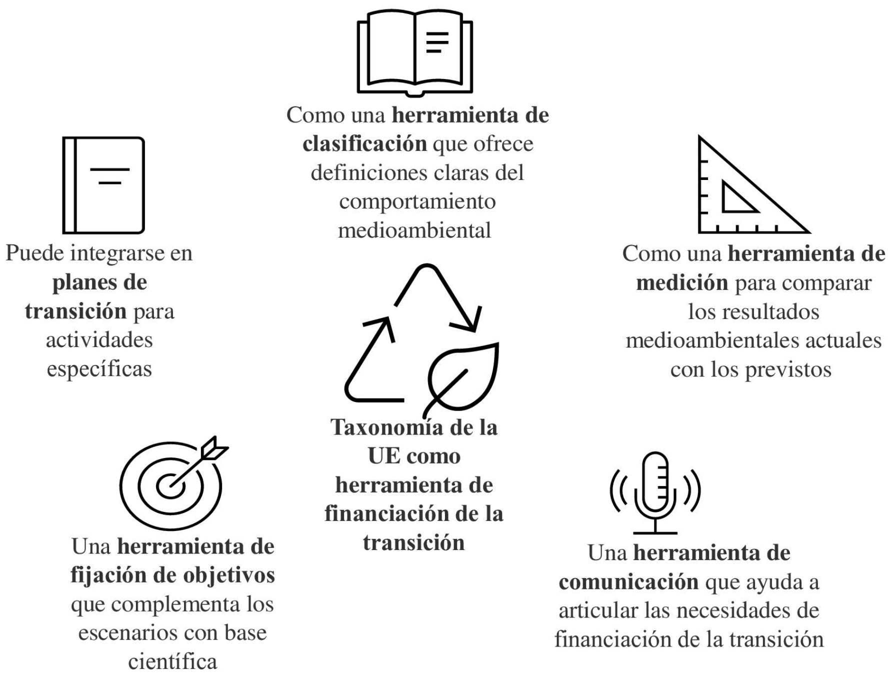
5. **Taxonomía de la UE**

Esta sección se refiere al punto 6 de la Recomendación.

5.1. ¿Para qué puede utilizarse la taxonomía de la UE?

Las empresas pueden utilizar la taxonomía como una herramienta de financiación de transición, para planificar la transición de sus actividades económicas y destinar las inversiones de transición necesarias. Como tal, puede utilizarse para la clasificación de las inversiones sostenibles, la medición del comportamiento climático o medioambiental actual y planificado, la fijación de objetivos y la comunicación, incluida la articulación de objetivos vinculados a la taxonomía en los planes de transición.

Gráfico 4: Cómo puede utilizarse la taxonomía

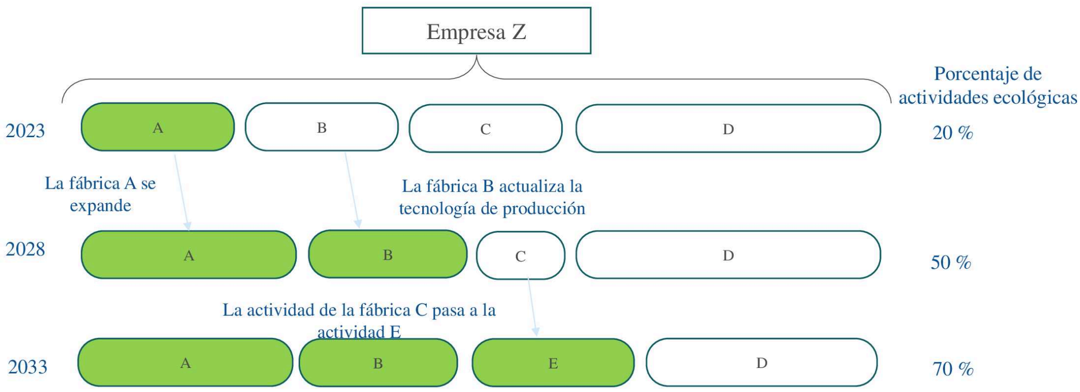


5.2. La taxonomía como instrumento de transición

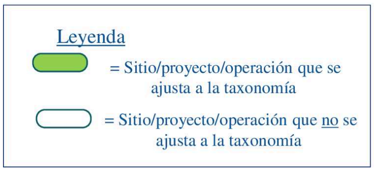
Al definir las actividades económicas sostenibles, no las empresas, la taxonomía permite a las empresas hacer la transición mediante el aumento gradual de su proporción de actividades sostenibles.

El gráfico 5 ilustra cómo una empresa puede realizar una transición gradual de sus actividades, en este caso las actividades realizadas en las fábricas, e invertir en sus mejoras para aumentar la cuota de actividades ecológicas en el futuro. Los planes de transición basados en actividades pueden ser la parte fundamental de una estrategia de transición a nivel de entidad.

Gráfico 5: Taxonomía como una herramienta de transición



Fuente: Plataforma sobre Finanzas Sostenibles



* La empresa podría obtener financiación de transición a nivel de actividad (es decir, inversiones que se ajustan a la taxonomía para mejorar sus actividades).

** La empresa también podría obtener financiación para la transición a nivel de entidad (financiación general para fines empresariales) al mostrar cómo estas mejoras, y su calendario previsto, están en consonancia con la transición, tal como se define en el punto 2.1 de la Recomendación (por ejemplo, mediante la utilización de escenarios / vías con base científica y la explicación de las inversiones previstas en un plan de transición).

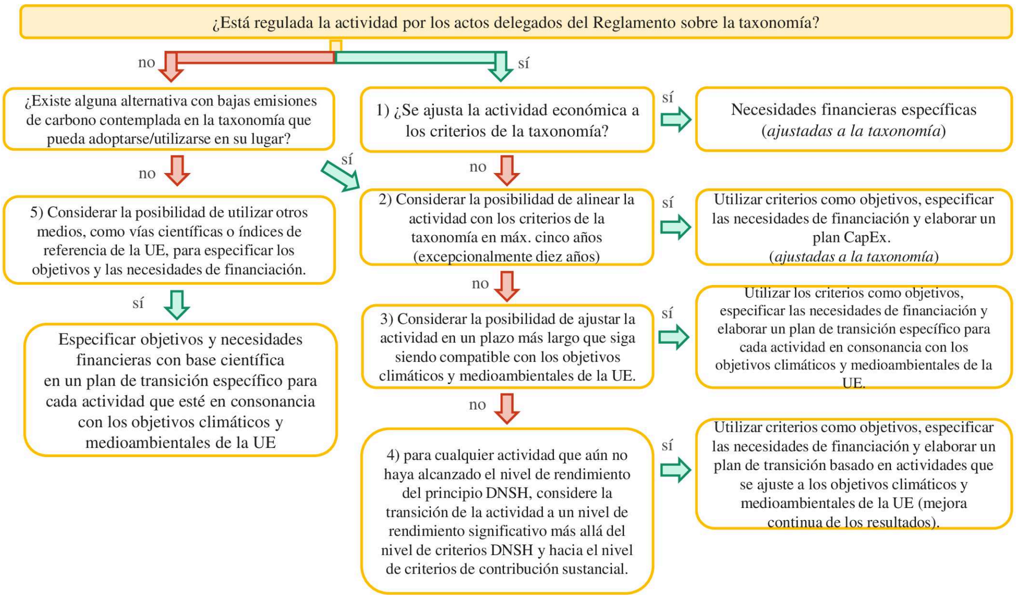
5.3. Opciones para utilizar la taxonomía con el fin de especificar las necesidades de financiación de transición

Las empresas pueden utilizar la taxonomía para definir a nivel de actividad sus necesidades de financiación de transición.

La taxonomía no establece el plazo en el que una empresa debe adaptar sus actividades a ninguno de sus criterios. En su lugar, deja flexibilidad a los agentes del mercado para que utilicen los plazos de sus propias vías de transición basadas en la ciencia. Las empresas pueden hacer referencia a los criterios de la taxonomía en la fijación de sus objetivos climáticos y medioambientales y, si esos objetivos están en consonancia con la transición y su consecución es creíble, pueden obtener financiación de transición para su aplicación.

El gráfico 6 explica cómo la taxonomía puede utilizarse para este fin, se proporcionan opciones que pueden considerarse en la secuencia dada, que consideran primero la viabilidad de las opciones más ambiciosas.

Gráfico 6: Utilización de la taxonomía de la UE para especificar las necesidades de financiación de la transición



1) Financiación de actividades económicas que ya se ajustan a la taxonomía

Cuando una actividad económica ya se ajusta a la taxonomía, las empresas podrían considerar cualquier necesidad de financiación actual y futura para que siga ajustándose a la taxonomía también en el futuro.

2) Inversiones que se ajustan a la taxonomía

Si una actividad económica es elegible pero aún no se ajusta a la taxonomía, las empresas podrían considerar la posibilidad de ajustarla a los criterios técnicos de selección de la taxonomía en un plazo de cinco años (o excepcionalmente diez años) ([10]). Especifique la inversión de transición necesaria para alcanzar estos objetivos en un plan de CapEx. Estos gastos de capital se consideran inversiones que se ajustan a la taxonomía.

3) Inversiones que se ajustan a la taxonomía a lo largo de un plazo más largo

Cuando la adaptación a la taxonomía en cinco años (o excepcionalmente diez años) no sea factible, es posible considerar la posibilidad de alinear un activo o actividad económica con los criterios de rendimiento de la taxonomía asociados en un horizonte temporal más largo que siga siendo compatible con la transición. Las inversiones de transición que solo se ajustarán a la taxonomía en un plazo más largo que el plazo de cinco años (excepcionalmente diez años) reconocido en el acto delegado (UE) 2021/2178, deben ir acompañadas de un plan de transición específico de la actividad que sea compatible con la transición, que justifique el horizonte temporal prolongado para alcanzar los objetivos ([11]) y cómo se alcanzará la adaptación taxonómica en el paso siguiente.

En cuanto a los aspectos medioambientales, los objetivos podrían alinearse con los objetivos y metas de la política medioambiental internacional y de la UE, incluidos los relacionados con la protección y restauración sostenibles de los recursos hídricos y marinos, la economía circular, la prevención y el control de la contaminación y la protección y restauración de la biodiversidad y los ecosistemas.

([10]) Según el acto delegado sobre divulgación de información de la taxonomía, el período para ajustarse a la taxonomía solo puede exceder de cinco años cuando un período más largo se justifica objetivamente por las características específicas de la actividad económica y la reclasificación en cuestión, con un máximo de diez años.

([11]) Las inversiones de capital correspondiente no se consideran adaptadas a la taxonomía, pero puede ser un paso significativo en la vía de transición hacia niveles más altos de rendimiento de sostenibilidad.

4) Inversiones de transición más allá de la mitigación climática que no causan un perjuicio significativo en un primer paso

Las empresas con actividades que actualmente no cumplen los criterios de «no causar un perjuicio significativo» de la taxonomía, cuando las inversiones para alcanzar los criterios de contribución en un plazo de cinco años (excepcionalmente diez años) es viable actualmente, podrían considerar la posibilidad de mejorar el rendimiento medioambiental de esas actividades por encima de los niveles de rendimiento definidos por los criterios de «no causar un perjuicio significativo» dentro de un plazo lo suficientemente corto para ser compatible con la transición ([12]). Para tales inversiones de transición que mejoren el rendimiento más allá de los criterios de «no causar un perjuicio significativo» de la taxonomía como primer paso en la transición, deben ir acompañadas igualmente de un plan de transición específico de la actividad que sea compatible con la transición, que justifique por qué es necesario este paso provisional y cómo se ajustará a la taxonomía en el paso siguiente.

Este plan podría demostrar i) cómo la actividad pasará con una mejora significativa del rendimiento más allá de los niveles de los criterios DNSH y hacia el nivel de los criterios de contribución sustancial, y ii) cómo la mejora continua del comportamiento climático o medioambiental garantizará que se evite causar un perjuicio significativo en el futuro, a medida que la economía se aproxime a la neutralidad climática, y los niveles de tolerancia para los perjuicios que se consideren significativos cambiarán también con el tiempo.

5) Inversiones especificadas por otros medios en el plan de transición por actividades

En el caso de las actividades económicas de gran impacto climático que aún no estén reguladas por actos delegados del Reglamento sobre la taxonomía y para las que no exista una alternativa de baja emisión de carbono regulada por el Reglamento sobre la taxonomía, las empresas podrían considerar la posibilidad de utilizar otros medios, como vías con base científica, para especificar los objetivos y las necesidades de financiación.

6) Inversiones para actividades de transición con bajo impacto medioambiental

En el caso de las actividades económicas de bajo impacto, que por lo tanto no están reguladas por los actos delegados adoptados en virtud del Reglamento sobre la taxonomía, las empresas podrían considerar la posibilidad de utilizar los criterios de taxonomía pertinentes para abordar los impactos residuales a través de inversiones en eficiencia energética de los edificios, movilidad de bajas emisiones, tecnologías facilitadoras, etc.

6. **Herramientas de financiación para obtener financiación de transición**

Esta sección se refiere al punto 8 de la Recomendación.

Las empresas pueden considerar la posibilidad de utilizar uno o una combinación de varias herramientas de financiación vinculadas a la transición para obtener financiación de transición, como tipos de préstamos específicos o emisiones de mercados de capitales con características específicas. El cuadro 3 que figura a continuación ofrece ilustraciones a tal efecto.

Cuadro 3

Ejemplos de herramientas de financiación de préstamos o del mercado de capitales para obtener financiación de transición

Préstamos verdes y préstamos relacionados con la sostenibilidad	1) Financiar proyectos o inversiones a través de un préstamo con un propósito de transición específico (destino de los ingresos), como préstamos para mejorar los activos o realizar nuevas inversiones que permitan una producción con bajas emisiones de carbono o una mejora significativa del rendimiento medioambiental. Por ejemplo: — préstamos para financiar proyectos de transición que cuenten con un plan de transición creíble basado en actividades o que formen parte de un plan de transición creíble a nivel de entidad ([13]); — préstamos para financiar actividades económicas seleccionables con arreglo a la taxonomía y que puedan ajustarse a la taxonomía en un horizonte temporal de cinco años (diez años, con carácter excepcional);

([12]) Las inversiones de capital correspondiente no se consideran adaptadas a la taxonomía, pero puede ser un paso significativo en la vía de transición hacia niveles más altos de rendimiento de sostenibilidad.

([13]) De conformidad con la Directiva (UE) 2022/2464 y su aplicación (Directiva sobre información corporativa en materia de sostenibilidad).

	— objetivos creíbles basados en la ciencia, cuando sean proporcionados, que estén respaldados por información que garantice la integridad, la transparencia y la rendición de cuentas; — préstamos para financiar otras inversiones de transición en las actividades mencionadas en el punto 2.2. de la presente Recomendación. — definir indicadores de comportamiento medioambiental sólidos para financiar las inversiones de las empresas que se incluyan en un plan de transición. 2) Buscar un préstamo con fines generales (empresariales) vinculado a la mejora de los resultados globales en materia de sostenibilidad, en consonancia con la transición definida en el punto 2.1. Por ejemplo: — préstamos con objetivos clave de rendimiento para financiar inversiones en transición que estén en consonancia con las vías de transición basadas en la ciencia; — préstamos con objetivos de rendimiento clave para financiar las inversiones de transición que se basan en la cuota global de adaptación a la taxonomía que debe alcanzarse; — préstamos para financiar inversiones de transición basadas en un plan de transición creíble con objetivos clave de rendimiento.
Bonos verdes y otros bonos vinculados a la sostenibilidad.	1) Considerar la **emisión de bonos para un propósito específico de transición** demostrando el uso de los ingresos. Por ejemplo, emitir un bono de acuerdo con el Reglamento europeo sobre los bonos verdes para financiar inversiones de transición en actividades económicas seleccionables con arreglo a la taxonomía y que puedan ajustarse a la taxonomía en un horizonte temporal de cinco años (diez años, de manera excepcional). 2) Considerar la emisión de un bono **vinculado a un objetivo de rendimiento de transición** de la empresa (por ejemplo, un bono vinculado a la sostenibilidad) mediante la utilización de la taxonomía o planes de transición creíbles a nivel de entidad ([14]) y a nivel de actividad, cuando sea proporcionado, y: — definir objetivos clave de rendimiento para financiar inversiones empresariales importantes que se incluyan en un plan de transición; — se invita a las empresas a vincular sus requisitos de sostenibilidad en el marco de un bono vinculado a la sostenibilidad a una taxonomía o a un objetivo de la UE relacionado con el índice de referencia climático; — esto puede incluir la financiación de inversiones de transición definidas a través de objetivos basados en la taxonomía. 3) Considerar la utilización de la **plantilla de divulgación voluntaria en virtud del Reglamento europeo sobre bonos verdes** para proporcionar información normalizada a los inversores e intermediarios financieros para las emisiones de bonos que no sigan la normativa europea sobre bonos verdes;
financiación mediante fondos propios	Cuando la **financiación mediante fondos propios** sea una herramienta de financiación adecuada, considerar la posibilidad de utilizar criterios de transición similares a los mencionados anteriormente para especificar los objetivos clave de rendimiento en materia de sostenibilidad.
financiación especializada	Considerar la **financiación especializada**, como el arrendamiento financiero, las soluciones de financiación estructurada, la financiación de proyectos, las herramientas de financiación combinada, mediante la utilización de criterios de transición similares a los mencionados anteriormente para especificar los objetivos clave de rendimiento en materia de sostenibilidad.

7. Utilización de las herramientas de financiación sostenible de la Unión Europea por intermediarios financieros e inversores

Esta sección se refiere al punto 9 de la Recomendación.

Los intermediarios financieros y los inversores dispuestos a proporcionar financiación de transición para apoyar la transición de la economía real podrían utilizar herramientas de financiación sostenible para establecer objetivos de cartera e identificar proyectos o empresas para financiar la transición. Cuadro 4 que figura a continuación ofrece más ejemplos a este respecto.

([14]) De conformidad con la Directiva (UE) 2022/2464 y su aplicación (Directiva sobre información corporativa en materia de sostenibilidad).

Cuadro 4

cómo utilizar herramientas de financiación sostenible para establecer objetivos de cartera e identificar proyectos o empresas para financiar la transición

Considerar el uso de metodologías de descarbonización de referencia climática de la UE para establecer objetivos de transición de cartera e identificar las empresas pertinentes:	Utilizar las metodologías de descarbonización de las referencias climáticas de la UE para fijar los objetivos de descarbonización: Considerar la posibilidad de utilizar los índices de referencia climáticos de la UE para perseguir estrategias de descarbonización e invertir en una cartera de empresas con diferentes objetivos climáticos y necesidades de financiación de transición. Crear productos financieros que reproduzcan las metodologías de los índices de referencia mencionados ([15]); Se aconseja a los administradores de índices de referencia que consideran la posibilidad de sobreponderar las empresas en función de los objetivos de descarbonización fijados por las empresas; Considerar la posibilidad de utilizar metodologías de los índices de referencia para evaluar sistemáticamente las herramientas de financiación y las carteras, y diseñar vías de cartera hacia la neutralidad climática con normas mínimas de descarbonización interanual. Utilizar las metodologías de referencia climática de la UE para identificar empresas para préstamos o inversiones: Considerar la posibilidad de utilizar los índices de referencia climáticos de la UE u otros índices de referencia ASG basados en la ciencia para identificar empresas que realicen una transición compatible con la transición a una economía sostenible; Considerar la posibilidad de utilizar índices de referencia que permitan a los administradores sobreponderar las empresas con una vía y una estrategia de transición basadas en la ciencia; Los intermediarios financieros y los inversores podrán utilizar criterios de exclusión de las metodologías de los índices de referencia climáticos de la UE, cuando proceda, para excluir las actividades económicas o los métodos de producción, y aquellos que causen de otro modo un perjuicio significativo a cualquier objetivo climático o medioambiental.
Considerar la posibilidad de utilizar la taxonomía para fijar objetivos a nivel de cartera e identificar las empresas pertinentes:	**Utilizar los criterios de la taxonomía para fijar objetivos de cartera climáticos y medioambientales:** Considerar la posibilidad de utilizar los criterios y la información de la taxonomía para fijar objetivos y seguir los progresos a lo largo del tiempo a nivel de cartera y, en el caso de los propietarios de activos, para la asignación global de activos. Considerar la posibilidad de utilizar las divulgaciones de la taxonomía para hacer un seguimiento de la proporción de inversiones admisibles en el marco de la taxonomía, la proporción de inversiones adaptadas a la taxonomía y el progreso hacia la adaptación con los criterios de la taxonomía. En función de la disponibilidad de datos, utilizar el coeficiente de activos verdes y el coeficiente de inversión verde basados en la taxonomía para fijar objetivos sectoriales específicos a nivel de cartera hacia los que pueda converger la media de la cartera durante la transición. Por ejemplo, los bancos pueden utilizar el coeficiente de activos verdes y las emisiones absolutas de carbono en carteras relevantes o la eficiencia energética media de una cartera hipotecaria para desarrollar objetivos de reducción de emisiones o un objetivo de eficiencia energética y objetivos intermedios.

([15]) Los índices de referencia exigen un requisito de descarbonización de referencia del 30 % para los índices de referencia de la UE para la transición climática y del 50 % para los índices de referencia de la UE armonizados con el acuerdo de París, un requisito de descarbonización interanual del 7 %, la inclusión de las emisiones de alcance 3 y restricciones a la asignación de fondos propios para garantizar que la representación de los sectores corresponda a la del índice de referencia principal (evitar el sesgo sectorial);

	Considerar la posibilidad de utilizar la proporción de ingresos, gastos de capital o gastos de explotación previstos relacionados con la transición de las empresas que se adaptarán a la taxonomía en un plazo de cinco años (diez años de manera excepcional) [pero que no cumplen las condiciones del Reglamento Delegado (UE) 2021/2178 para ser reconocidos inmediatamente como gastos de capital CapEx que se ajustan a la taxonomía] como ratio de activos verdes futuros o previstos, cuando estén respaldados por un plan de transición creíble. También podrían diseñarse índices similares para las actividades no subvencionables por la taxonomía que estén cubiertas por un plan creíble de transición climática. **Utilizar la taxonomía para identificar los compromisos de préstamo o inversión:** Considerar la posibilidad de utilizar divulgaciones de la taxonomía facilitados por las empresas sobre los ingresos, las inversiones y, cuando proceda, los gastos operativos subvencionables y adaptados a la taxonomía, capex y OpEx, cuando proceda para complementar otros datos corporativos con el fin de identificar los proyectos de transición. En el caso de proyectos que pueden ajustarse a la taxonomía, considerar la posibilidad de utilizar divulgaciones obligatorias y, cuando existan, voluntarias relacionadas con la taxonomía, en divulgaciones empresariales o planes de transición a nivel de entidad o de actividad específica, para identificar proyectos con objetivos de financiación de transición que establezcan metas vinculadas a: — la adaptación a la taxonomía, con el objetivo de cumplir los criterios de la taxonomía por etapas o a lo largo de un horizonte temporal definido; — criterios de la taxonomía, como el principio de «no causar un perjuicio significativo» lo que garantiza mejoras significativas del rendimiento; — Comprobar si existen planes de transición específicos para cada actividad, a fin de garantizar que los objetivos de dichos proyectos se ajustan a la transición hacia una economía sostenible; — en el caso de actividades económicas no contempladas en los actos delegados adoptados en virtud del Reglamento sobre la taxonomía, utilizar los principios establecidos en el artículo 10, apartado 2, del Reglamento sobre la taxonomía como guía de condiciones mínimas para que una actividad pueda considerarse para la financiación de transición.
Considerar la posibilidad de utilizar las divulgaciones empresariales en virtud de la Directiva sobre información corporativa en materia de sostenibilidad para seleccionar empresas con objetivos y necesidades de transición específicos:	Considerar la posibilidad de **utilizar índices comunes en los planes de transición**, tanto a nivel de entidad como de actividad, para identificar sistemáticamente las necesidades de financiación de transición en determinados sectores, basándose en los índices financieros y los planes de inversión que presentan las empresas, por ejemplo: — metas de reducción de las emisiones de GEI, para las emisiones de alcance 1, alcance 2 y, en la medida de lo posible, también para las emisiones materiales de alcance 3; — adaptación a la taxonomía y planes de adaptación para actividades económicas en sectores de alto impacto; — CapEx para financiar los pasos de transición con referencias a los índices clave de sostenibilidad utilizados (por ejemplo, gastos de capital basados en la taxonomía); — acciones y palancas que las empresas prevén utilizar para alcanzar los objetivos, y su dependencia de factores externos ([16]), costes previstos de la transición; — Riesgos de la transición y cómo los posibles objetivos de la transición pueden reducir dichos riesgos a lo largo del tiempo; — Exposición a oportunidades financieras relacionadas con el clima (por ejemplo, como el % de la cartera global/actividad de suscripción) — Emisiones financiadas actuales y previstas en todos los sectores, zonas geográficas y plazos; — índices de adaptación de la cartera (por ejemplo, intensidad media ponderada de carbono, aumento implícito de la temperatura, emisiones financiadas en relación con un punto de referencia de base científica comúnmente utilizado).

([16]) por ejemplo, posibles políticas futuras, preparación tecnológica, aceptabilidad social, disponibilidad de recursos e impactos climáticos físicos en los lugares en los que realiza sus actividades.

	Considerar el uso de **divulgaciones sobre los planes de transición para identificar** empresas o proyectos específicos con objetivos claros de descarbonización que actualmente realizan sus actividades con emisiones elevadas, pero que cuentan con planes de transición creíbles para reducirlas con el tiempo, lo que permitirá a la cartera descarbonizarse al mismo ritmo que las empresas participadas. Considerar la posibilidad de utilizar las **normas y orientaciones** en virtud de la Directiva (UE) 2022/2464 y su aplicación, cuando estén disponibles, para considerar el rendimiento climático y medioambiental de una empresa, su punto de partida y su trayectoria de transición, para complementar la divulgación de información sobre los objetivos de transición, los planes de transición y los datos de información financiera.
Considerar el uso de divulgaciones y prospectos que acompañen a la emisión de bonos o acciones verdes, de transición y vinculados a la sostenibilidad:	**Utilizar la información proporcionada por los emisores de bonos verdes, bonos vinculados a la sostenibilidad u otros bonos** con características de financiación de transición para seleccionar inversiones con integridad medioambiental y el nivel de ambición que busca un inversor. Considerar la posibilidad de utilizar el alto grado de transparencia que ofrece el **Reglamento europeo sobre bonos verdes** para seleccionar proyectos de financiación de transición cuya integridad medioambiental esté garantizada por la taxonomía. La mayor transparencia sobre el uso de los ingresos aumenta la credibilidad y fiabilidad de tales inversiones, en particular si están relacionadas con umbrales u objetivos de sostenibilidad establecidos por la empresa y divulgados en su divulgación empresarial. Considerar la posibilidad de **utilizar el alto grado de transparencia** proporcionado por los emisores que **utilizan las plantillas de divulgación voluntaria** para los emisores que utilizan normas distintas a la prevista por el Reglamento europeo de bonos verdes para la selección de proyectos para la financiación de transición que están ajustados a la transición a una economía sostenible. Considerar la posibilidad de utilizar **la información sobre los objetivos de transición** o las necesidades de financiación de transición incluida en los folletos de emisión de las empresas en transición para evaluar los riesgos y las características de sostenibilidad de una emisión junto con otros riesgos y beneficios financieros del proyecto ([17]).

([17]) La propuesta de Reglamento del Parlamento Europeo y del Consejo que modifican los Reglamentos (UE) 2017/1129, (UE) n.º 596/2014 y (UE) n.º 600/2014 para hacer que los mercados de capitales públicos de la Unión resulten más atractivos para las empresas y para facilitar el acceso al capital a las pequeñas y medianas empresas, (COM/2022/762 final), contribuye a la transparencia al exigir la inclusión de información en materia de sostenibilidad en los folletos para emisiones con declaraciones de sostenibilidad.

EFRAG IG [4]

Implementation Guidance [draft]

Transition Plan for Climate Change Mitigation

STATUS OF THIS DRAFT
Early draft.
Internal quality review in progress on the contents already available.
Once approved in draft by SR TEG and SRB, it will be exposed for public feedback and finalised reflecting the outcome of this feedback.
This document will be publicly available in EFRAG website.

Please note that:

[notes in yellow are contextualising, raising questions on text proposed or text that is still to be reviewed with stakeholders]

Disclaimer

This implementation guidance is non-authoritative and accompanies the European Sustainability Reporting Standards (ESRS), as stipulated in Articles 19a and 29a of Directive 2013/34/EU (the Accounting Directive), but does not form part of them. This means that if anything in this guidance appears to contradict any requirement or explanation in ESRS, ESRS take precedence. This implementation guidance is issued following EFRAG's due process for such non-authoritative documents and under the sole responsibility of EFRAG.

EFRAG assumes no responsibility or liability whatsoever for the content or any consequences or damages directly, indirectly or incidentally arising from following the advice or guidance contained in this document. Users of this document are advised to exercise their own judgment in applying ESRS. Information contained in this document should not be substituted for the services of an appropriately qualified professional.

This implementation guidance has been developed for use by large listed and unlisted companies that are subject to ESRS. It is therefore not intended for use by non-listed small- and medium-sized enterprises (SMEs), which may use the upcoming Voluntary SME standard.

This implementation guidance relates to the sector-agnostic ESRS as adopted by the European Commission on 31 July 2023. Sector-specific standards may add sector specifications to be followed by specific sectors.

About EFRAG

EFRAG's mission is to serve the European public interest in both financial and sustainability reporting by developing and promoting European views in the field of corporate reporting. EFRAG builds on and contributes to progress in corporate reporting. In its sustainability reporting activities, EFRAG provides technical advice to the European Commission in the form of draft European Sustainability Reporting Standards (ESRS) elaborated under a robust due process and supports the effective implementation of ESRS. EFRAG seeks input from all stakeholders and obtains evidence about specific European circumstances throughout the standard-setting process. Its legitimacy is built on excellence, transparency, governance, due process, public accountability and thought leadership. This enables EFRAG to speak convincingly, clearly, and consistently, and be recognised as the European voice in corporate reporting and a contributor to global progress in corporate reporting.

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Table of contents

Summary in 10 key points

1. Purpose and Scope: This guidance provides non-authoritative support for undertakings in implementing transition plans for climate change mitigation, as required under the European Sustainability Reporting Standards (ESRS).
2. Regulatory Compliance: The document details ESRS disclosure requirements, linking them to EU laws like the Corporate Sustainability Due Diligence Directive (CSDDD) and EU Taxonomy, among others.
3. ERS Structure: The guidance is structured into multiple chapters, covering the European framework, specifics of disclosure requirements for climate transition plans, connections to other European regulatory frameworks and international standards and Frequently Asked Questions (FAQs).
4. Target compatibility: Undertakings must disclose their targets and explain how they are compatible with the 1.5°C target set by the Paris Agreement.
5. Actions and Decarbonization levers: Undertakings must describe the decarbonization levers, such as operational and product adjustments, that support emissions reduction.
6. Investment and funding: They are also required to disclose investments and funding supporting these plans, including EU Taxonomy-aligned CapEx.
7. Supporting disclosures: Undertakings conducting activities covered by the EU Taxonomy for sustainable finance must disclose their alignment with taxonomy criteria. This includes climate-related objectives and compliance with technical screening criteria.
8. Governance and strategy: The document emphasises that climate transition plans must be embedded in a undertaking's overall strategy, with explicit support from governance bodies. This ensures alignment between sustainability goals and corporate planning.
9. Progress Reporting: Undertakings are required to provide updates on the progress of implementing their transition plans. This includes tracking the effectiveness of planned actions and their contribution toward emission reduction targets.
10. IROs arising from the transition plan for climate change mitigation: The guidance highlights the importance of considering social and biodiversity impacts, risks and opportunities connected to the climate transition plan. Undertakings must disclose how transition plans may affect workers, communities, and ecosystems and may be dependent from its adaptation actions.

1. Introduction

11. This Guidance aims to support preparers (undertakings) and users of ESRS sustainability statements on the implementation of the disclosure requirements related to transition plans for climate change mitigation (DR E1-1 and ESRS 2 relevant DRs). Through it, users and preparers should be able to better understand the nature of the information and data to be disclosed in sustainability statements and possible methodologies to be used to produce that information. The content of this guidance has been developed on the basis of the July 2023 Delegated Act on the ESRS[1] (Delegated Act).

12. This Guidance is non-authoritative. In cases where this Guidance presents approaches or methodologies that are not explicitly detailed in the Delegated Regulation (EU) 2023/2772 these should be understood as possible implementation options, not excluding alternative approaches. In any case, the requirements in the ESRS prevail.

13. This Guidance also uses certain terminology, most of which is defined in the ESRS Glossary or in other parts of the Delegated Act. When a certain term is used and is defined in the ESRS, it appears in ***bold italic***, as it does in the ESRS, and its definition is presented in a footnote when first used.

14. This Guidance is referring to sector-agnostic ESRS which apply to all undertakings, regardless of which sector or sectors they operate in. As such, its content may not fully address the sector-specific challenges related with reporting on the climate mitigation transition plans. Namely, further clarifications on transition plans for financial institutions will be provided via sector standards.

15. This guidance is focused on transition plans for climate change mitigation. However, due to their strategic nature, transition plans often interact also to other environmental and social topics (also referred to as just transition). Therefore, relevant interfaces are identified and briefly described in this guidance, for example regarding biodiversity or ensuring a just transition. However, this guidance exclusively focuses on clarification on disclosure requirements on transition plans for climate change mitigation as outlined in ESRS E1-1. Given the structure of the ESRS disclosures, disclosure requirements covering such information beyond climate are covered by the other topical ESRS; for example, ESRS S1 for employees or ESRS S3 for affected communities.

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[1] COMMISSION DELEGATED REGULATION (EU) 2023/2772 of 31 July 2023, supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standard, in accordance with the requirements of Articles 19a and 29a of the Directive 2013/34/EU (referred to as the 'Accounting Directive') as amended following the Corporate Sustainability Reporting Directive (referred to as 'the CSRD').

1.1. Structure

16. This Guidance organises its content in the following chapters:

- Chapter 2 explains the European framework for transition plan disclosures, introduces disclosure E1-1 on Transition Plan for Climate Change Mitigation and the wider context of European Union requirements.
- Chapter 3 details what and how to disclose with regards to each data point required in DR E1-1–Transition plan for climate change mitigation.
- Chapter 4 details how other sources may be considered when preparing ESRS disclosures and links to other reporting frameworks on transition plan for climate change mitigation.
- Chapter 5 complements chapters 2 to 4 with responses to FAQs.

1.2. Cross-references to the EFRAG document « Reference Practices on Climate Transition Planning »

17. The European Commission has promoted the constitution of a group of experts[2] who advised EFRAG in preparing educational material illustrating the process of developing a transition plan for climate change mitigation—the transition planning process – aligned with the applicable European regulation and international practice. This educational material is compiled in the Reference Practices (or RP) document on Climate Transition Planning. The RP document does not bind the European Commission and does not constitute authoritative interpretation under EU law.
18. This Guidance references the RP on Climate Transition Planning, which is not an integral part of it but constitutes an important contextual element for understanding good practices for transition planning and achieving meaningful disclosure on a transition plan for climate change mitigation under ESRS.
19. The RP on Climate Transition Planning, which focuses on process elements, provides further useful information and practical examples on aspects of GHG inventory and GHG emission reduction targets.

1.3. Acronyms used

20. Acronyms in this Guidance are used as follows:

CSDDD – Corporate Sustainability Due Diligence Directive (2024/1760)

[2] For details on composition of this group please check the document ###.

CSRD – Corporate Sustainability Reporting Directive (2022/2464)

CTP – Climate Transition plan (the same as Transition Plan for climate change mitigation)

Delegated Act – Commission Delegated Regulation supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards

DR – disclosure requirement

ESRS – European Sustainability Reporting Standards derived from (EU) 2023/2772 from 31 July 2023

EU Taxonomy - Regulation (EU) 2020/852[3]

ESRS Glossary – Annex 2 of the Delegated Act with Acronyms and Terms defined in the ESRS

GHG – greenhouse gases (GHG)

MDR – Minimum Disclosure Requirements

IROs – impacts, risks and opportunities

[3] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13)

2. European framework for transition plans

21. Meeting the 2050 climate neutrality goals is a key policy priority for the EU, and the concept of "Transition Plan" is reflected in a series of EU policy instruments.

22. As such, transparency on Transition Plan is based upon both ESRS 2 DRs, as well as, in the case of the ***Transition Plan for Climate Change mitigation,*** E1 topical DRs.

23. The next section presents the EU regulatory framework and transparency requirements related to ***Transition Plans.*** It presents the ESRS general approach and cross dependencies between ESRS standards to disclose on transition plans for climate change mitigation in accordance with ESRS. The requirements specifically related to ***Transition Plan for Climate Change mitigation*** in ESRS E1 will be described in detail in Chapter 3.

24. European undertakings, as well as other undertakings operating within the EU, may face a number of different requirements related to transition plans and transition plan for climate change mitigation. These requirements may originate from EU regulation and policy initiatives, or from voluntary international frameworks and initiatives. In the following paragraphs relevant legal requirements from Union law are briefly described (section 2.1). Afterwards the transition plan disclosures in the ESRS are explained (section 2.2).

2.1 Transition plan requirements in the European Union

25. The requirements on transition plans included under the different EU regulations have different but complementary purposes and should be addressed in a coherent manner. The different EU regulations focusing on transition plans, compose a set of requirements for sustainability transition, which can be supported by the transparency requirements set by the ESRS.

26. The key EU regulations which interact with the CSRD and ESRS disclosure requirements on CTP are briefly summarised in the following paragraphs. Further information can also be found in Chapter 4 explaining in more detail the requirements of other EU regulation beyond CSRD and how they interact with ESRS.

27. EU Taxonomy - is a cornerstone of the EU's sustainable finance framework and an important market transparency tool. It helps direct investments to the economic activities most needed for the transition, in line with the European Green Deal objectives. EU Taxonomy disclosure can provide key metrics for monitoring progress in transition plans.

28. Corporate Sustainability Due Diligence Directive (CSDDD) - aims to foster sustainable and responsible corporate behaviour in undertakings' operations and across their global value chain. Among its provisions, it sets out an obligation for the undertakings in scope to adopt and put into effect, through best efforts, a transition plan for climate change mitigation aligned with the 2050 climate neutrality objective of the Paris Agreement, as well as intermediate targets under the European Climate Law.

29. Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRD/CRR) – transpose the global standards on bank capital (the Basel III agreement) into EU law, providing a framework strengthening the requirements with regard to corporate governance arrangements and processes. It also introduces rules aimed at improving the status of the risk management function and ensuring its effective monitoring by risk supervisors. In this context, CRD/CRR risk-based transition plans have been proposed by the EBA as part of the consultation paper on Draft Guidelines on ESG Risk Management. Plans under CRD focus on (prudential) risks and constitute a new risk management tool through which institutions should understand, assess and manage the risks stemming from their activities and exposures in view of the process of adjustment towards the regulatory sustainability objectives of the jurisdictions they operate in, or broader transition trends towards a sustainable economy. Contrary to CSRD, prudential plans are not subject to disclosure but will be assessed by banking prudential supervisors as part of the supervisory review and evaluation process.

30. Solvency II - Solvency II is the prudential regime for insurance and reinsurance undertakings in the EU setting out requirements with the aim to ensure adequate protection of policyholders and beneficiaries. Solvency II has a risk-based approach that enables to assess the "overall solvency" of insurance and reinsurance undertakings through quantitative and qualitative measures.

31. EU Green Bonds - Green bonds play an important role in financing assets needed for the low-carbon transition. With the European Green Bond Standard, the EU aims to set a clear gold standard for green bonds. The Standard relies on the detailed criteria of the EU taxonomy to define green economic activities, ensures levels of transparency in line with market best practice and establishes supervision of undertakings carrying out pre- and post-issuance reviews at European level.

32. EU Emissions Trading Scheme (EU ETS) - it is a cornerstone of the EU's climate mitigation policy and its key tool to reduce greenhouse gas emissions cost-effectively. The EU ETS Directive (as amended in May 2023) requires certain operators to establish climate-neutrality plans. Climate-neutrality plans are to be drafted in order to receive the conditional free allocation by operators of installations whose greenhouse gas emission levels are higher than the 80th percentile of emission levels for the relevant product benchmarks.

33. Industrial and Livestock Rearing Emissions Directive (IED2.0) - is the main EU instrument to reduce these emissions into air, water and land, and to prevent waste generation from large industrial installations and intensive livestock farms (pig and poultry). Industries will have to develop transformation plans, describing how their installations will progress towards decarbonisation, zero pollution, and a circular economy.

34. Energy Efficiency Directive (EED) – introduces a series of measures to help accelerate energy efficiency, including embracing the "energy efficiency first" principle in the energy and non-energy policies. It requires firms to create an action plan based on an energy audit every four years beginning in 2026, as detailed in Article 11(2) of the EED.

35. The Eco-management and Audit Scheme (EMAS) set up by Regulation 1221/2009 is the premium voluntary environmental management system which registered undertakings can use as a basis to draft their Transition Plan. They can use from EMAS verified information about its policies, objectives/targets and actions and Strategy according to Annex IV B (b, d, e) as key elements to start drafting their Transition Plan as well as to disclose on ESRS E1-1, whenever those cover climate change.

2.2. Transition plan disclosures in ESRS

36. The ESRS provide in Annex II of the Delegated Act (Acronyms and Glossary of terms) three relevant definitions which are framing the key conceptual references for disclosing on transition plans: (i) actions and action plans, (ii) transition plan and (iii) transition plan for climate change mitigation.

37. Definition of Actions:

« Actions refer to:

i. *actions and action plans (including transition plans) that are undertaken to ensure that the undertaking delivers against targets set and through which the undertaking seeks to address material impacts, risks and opportunities; and*

ii. *decisions to support these with financial, human or technological resources. »*

38. Definition of climate change mitigation: The process of reducing GHG emissions and holding the increase in the global average temperature to 1,5 °C above pre-industrial levels, in line with the Paris Agreement.

39. Definition of Transition plan:

« A specific type of action plan that is adopted by the undertaking in relation to a strategic decision and that addresses:

i.e. public policy objective; and/or

ii. an entity-specific action plan organised as a structured set of targets and actions, associated with a key strategic decision, a major change in business model, and/or particularly important actions and allocated resources[4]. »

a) Definition of Transition plan for climate change mitigation:

« *An aspect of an undertaking' targets, actions and resources for its transition towards a lower-carbon economy, including actions such as reducing its GHG emissions with regard to the objective of limiting global warming to 1.5°C and climate neutrality* [5].»

[4] From ESRS Annex II Acronyms and glossary of terms.
[5] From ESRS Annex II Acronyms and glossary of terms.

40. Some key features to highlight in relation to the CSRD requirements on Transition Plans are: first, the mandatory nature of the CSRD and ESRS disclosures; second, the comprehensiveness of the ESRS framework (ESRS1, ESRS 2, the 10 topical standards, as well as and forthcoming sector standards) with respects to sustainability disclosures; third, the fact that ESRS disclosures are to be incorporated as part of the sustainability statement in the undertaking management report, which is subject to external audit.

41. As mentioned above in paragraph 30 the founding elements of the definition of a transition plan are:

    a. the plan is adopted in relation to a public policy objective and/ or an entity-specific plan associated with a key strategic decision or a major change in the business model;

    b. the plan is associated with the undertaking's strategy, i.e.:

        i. it involves the highest levels of governance bodies; and

        ii. it has a transformative potential of the undertakings' business model/products/services/markets/operations/value chain;

    c. the plan is substantiated by a set of targets; and

    d. the plan is accompanied by key actions

    e. key actions are accompanied with allocated resources necessary to implement them.

42. Undertaking actions in the context of a transition plan may materially impact other topics (this is also acknowledged in the Art 8 Taxonomy with the DNSH (Do No Significant Harm) principle3). Consequentially, in accordance with ESRS 1, chapter 3.6 "Material impacts or risks arising from actions to address sustainability matters", the undertaking's may identify situations in which its actions to address certain impacts or risks, or to benefit from certain opportunities in relation to a sustainability matter – such as the ones addressed through a Transition Plan - might have material IROs associated with other sustainability matters. ESRS 1§53 clarifies that in such situations the undertaking shall:

    a. disclose the existence of material negative impacts or material risks together with the actions that generate them, with a cross-reference to the topic to which the impacts or risks relate; and

    b. provide a description of how the material negative impacts or material risks are addressed under the topic to which they relate.

43. In the context of a Transition Plan for Climate Change Mitigation, this may include disclosures on several non-climate related sustainability matters that interact with climate change mitigation such as: Just transition, related to impacts on own workforce [S1-SBM3], workers in the value chain [S2-SBM3] and impacts on communities [S3], as well as consumers and end-users [S4]; Business conduct policies and corporate culture [G1-1]; policy engagement [G1-5]; and it may also form part of the disclosures of stakeholder engagement [ESRS2-SBM2]; or other environmental impacts, e.g., biodiversity [E4]. These may be referenced in the context of E1§16(b) or

E1§16(c) which reference the climate change mitigation actions planned as well as the investments and funding to support them.

44. ESRS 1 requires undertakings to apply the qualitative characteristics of information when preparing the sustainability statement. While such characteristics apply to each and every disclosure included in the sustainability statement, they are particularly relevant when groups of disclosures - as it is the case for transition plans - are intended to provide information on different sustainability aspects of a complex economic or business phenomenon. An undertaking is therefore expected to apply these qualitative characteristics - relevance, faithful representation, comparability, verifiability and understandability - not only to the individual pieces of information conveyed by the transition plan, but to ensure that the transition plan as a whole meets these characteristics. Only in this way the plan can be regarded as effectively meeting the disclosure objectives, such as the ESRS E1-1, §15 for climate transition plans.

45. Even if not explicitly related to transition plans, general disclosure requirements from ESRS 2 also support its overall consistency as a whole and compatibility with the European framework:

    a. Disclosure Requirements regarding the role of the administrative, management and supervisory bodies [GOV-1], information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies [GOV-2], the integration of sustainability-related performance in incentive schemes [GOV-3], and the statement on sustainability due diligence [GOV-4], are necessary to fully comply with CSDDD's comprehensive requirements regarding transition plan's governance.

    b. Disclosure Requirements regarding the description of the process to identify and assess material impacts, risks and opportunities [IRO-1], and the disclosure requirements in ESRS covered by the undertaking's sustainability statement [IRO-2], provide a comprehensive and mandatory disclosure framework that captures all the different aspects related to sustainability IROs and the undertaking approach to manage them.

    c. Disclosure requirements regarding the strategy, business model and value chain [SBM-1], the interests and views of stakeholders [SBM-2], the material impacts, risks and opportunities and their interaction with strategy and business model [SBM-3], contain requirements related to strategy and business model, actions to address IROs and its resilience in the process of addressing them and adapting the strategy and business model. It ensures consistency between the identified material sustainability IROs and the undertaking's capacity to address them.

46. More specifically, the **Climate Transition Plan for Climate Change Mitigation**'s disclosure requirements are addressed in the **Disclosure Requirement** E1-1.

47. When reporting the **Climate Transition Plan for Climate Change Mitigation** as required by ESRS E1-1, the undertaking shall also disclose information responding to **disclosure requirements** on action and resources in relation to climate change policies [E1-3], and targets related to climate change mitigation and adaptation [E1-4] which are directly referenced in [E1-1 §16] and are applicable. They provide more details about actions and targets supporting the CTP.
48. Minimum disclosure requirements on Actions [ESRS 2 MDR-A§60-62 and §66-69], and Targets [ESRS 2 MDR-T §70-72 and §78-81] referenced in ESRS E2 are also applicable and their datapoints fully integrated as they are required to disclose on [E1-3] and [E1-4].
49. Even though not explicitly referenced in E1-1, the definition of **Policy**[6] [ESRS 2 MDR-P §60-62 and §63-65], is equally relevant in this context: considering the strategic importance of the transition plan, it is anticipated that the organization's strategic goals should be reflected in the policies the organization adopts on various sustainability matters, such as climate mitigation, adaptation, energy, supplier and policy engagement, land use, human rights, and workforce management. Therefore, disclosing on the existence and content of related policies[7] will help to increase the whole CTP consistency and readability.

2.3. Disclosing on material negative impacts arising from a transition plan

50. This Guidance does not cover topics beyond climate change. However, this section illustrates briefly the interaction with other topics.

2.3.1 Just transition in the context of transition plans for climate change mitigation

51. Just transition[8] is relevant for undertakings to consider in relation to disclosures on transition plans for climate change mitigation. The concept of

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[6] A set or framework of general objectives and management principles that the undertaking uses for decision-making. A policy implements the undertaking's strategy or management decisions related to a material sustainability matter. Each policy is under the responsibility of defined person(s), specifies its perimeter of application, and includes one or more objectives (linked when applicable to measurable targets). A policy is validated and reviewed following the undertakings' applicable governance rules. A policy is implemented through actions or action plans.

[7] A reminder that the ESRS does not oblige undertakings to adopt a policy but, at the minimum, to disclose whether it has one or not.

[8] The UNOHCR and ILO define a just transition as: "the transition to a human rights economy that is fair, equitable, inclusive and sustainable, creates decent work opportunities, reduces inequalities and poverty as well as upholds the human rights of workers and affected communities, in particular Indigenous Peoples and communities affected by environmental degradation and by the measures that are needed to address it. Stakeholder engagement or social dialogue is also important and the shift towards a sustainable economy

just transition involves the consideration of the social implications of a transition to a climate-neutral, more sustainable economy. It is widely recognised that this transition has significant implications for workers, communities and also consumers across the various sectors in the economy, from energy and transport to agriculture or financial services.

52. The ESRS architecture is such that when material IROs are identified, the minimum disclosure requirements apply and this is the case for just transition related matters across the ESRS S1 to S4 for social. Specifically, ESRS 2 GOV-4, SBM-3, IRO-1 and IRO-2 and the minimum disclosure requirements as relevant applied together with topical requirements across ESRS S1 to S4 provide for reporting on material social impacts related to climate change and transition planning. Undertakings can leverage these requirements to integrate social considerations into their transition plan reporting.

2.3.2 Biodiversity IROs in the context of transition plans for climate change mitigation

53. Just as with social impacts, the actions need to implement in a CTP may have both positive and negative impacts on biodiversity. This often arises because climate mitigation actions – like expanding renewable energy, altering land use, and deploying large-scale energy storage – introduce new environmental dynamics that can affect ecosystems and species in significant ways.

54. When defining their decarbonization levers and actions to achieve their GHG emission reduction targets, the undertaking shall consider the risks and impacts to biodiversity and ecosystems that result from such actions to address climate change mitigation, as per ESRS 1, paragraphs 52 & 53, disclosing such material impacts and risks in accordance with ESRS E4 and cross referencing where needed in E1-1.

2.3.3 Adaptation and resilience in the context of transition plans for climate change mitigation

55. Climate change mitigation and adaptation strategies are frequently interconnected, as effective mitigation efforts often depend on, and are influenced by, adaptation measures. Some of the ways mitigation and adaptation can be connected comprise:

    a. Reliance on carbon sinks: Adaptation efforts aimed at protecting and restoring ecosystems—such as forests, wetlands, and oceans—are crucial for maintaining their role as carbon sinks. However, these ecosystems are increasingly vulnerable to climate change effects, such as wildfires, droughts, and rising temperatures. Adaptation measures like fire management, reforestation with climate-resilient species, and wetland restoration help ensure the continued

must include the entire economic spectrum, from energy and transport to agriculture to financial services." UNOHCR and ILO (2023): https://www.ohchr.org/sites/default/files/documents/issues/climatechange/information-materials/v4-key-messages-just-transition-human.pdf functionality of these carbon sinks, enabling them to contribute effectively to mitigation goals.

b. Agriculture: agricultural activity is both a source of emissions and an area where mitigation can occur through practices that increase carbon sequestration in soils. However, climate change impacts like droughts, floods, and shifting growing seasons can undermine these efforts. Adaptation measures, such as changing crop varieties to more resilient species, improving irrigation efficiency, and practicing climate-smart agriculture, help farmers maintain or even enhance their ability to sequester carbon in soils, contributing to overall mitigation strategies.

c. Energy Supply Chains: Adaptation measures that strengthen the resilience of energy systems also support mitigation efforts by preventing disruptions in the supply chain of renewable energy. For instance, hydropower plants may suffer from reduced water availability due to changing precipitation patterns, or solar panels could be damaged by storms. Adaptation strategies like water management, diversifying renewable energy sources, and climate-proofing infrastructure ensure that renewable energy production remains consistent and reliable, sustaining the transition away from fossil fuels.

d. Urban Planning adaptation: Urban adaptation measures – such as designing cities with green spaces, improving water management systems, and enhancing the resilience of buildings to extreme heat – can also support mitigation by reducing energy demand. For instance, adapting buildings to be more energy-efficient and resistant to heat reduces the need for air conditioning, thus lowering overall energy consumption. Similarly, enhancing public transportation systems to make them more resilient to climate impacts encourages the use of low-carbon transportation options, contributing to reduced emissions.

e. Nature-Based Solutions: many nature-based adaptation solutions, such as restoring mangroves, wetlands, and coastal ecosystems, provide dual benefits. Not only do they help communities adapt to rising sea levels, storm surges, and flooding, but they also sequester carbon, contributing to mitigation. These integrated solutions demonstrate how adaptation can enhance mitigation efforts by leveraging natural processes to address both current vulnerabilities and long-term emission reductions.

56. [Further text to be provided]

3. Transition Plan for climate change mitigation (E1-1)

57. This section explains how to implement the requirements of ESRS E1, following the structure of ESRS E1-1 paragraph 16.

3.1 Overall disclosure objective of ESRS E1-1

1. The ***transition plan for climate change mitigation***[9] covered by ESRS E1-1 disclosure requirement contains different elements related to strategy, policies, targets, action plans and resources. This differs from a simple, generic climate plan, as its specific intention is to provide users of information with an understanding of the undertaking's past, current and future efforts to ensure that its strategy and business model are compatible with the objective of limiting global warming to 1.5˚C. Hence, it is to be understood as a transparency over the plan, that provides a level of information enabling users to assess the ambition and credibility[10] of the transition plan itself in connection with limiting global warming to 1.5˚C. This compatibility is crucial for limiting global warming to 1.5°C, as per the Paris Agreement, and achieving climate neutrality by 2050. By disclosing the elements detailed in paragraph 16, explained below, the undertaking can effectively illustrate its strategy and ambition to mitigate climate change.
2. The disclosures on the plan provided under E1§16, are designed to provide an understanding of the plan as a whole. Consideration should be given to the consistency between the targets and the proposed actions, investments and changes in strategy and business model. Required information encompasses the steps, timelines, responsibilities [ESRS 2§; E1§], means and resources allocated or planned to make its strategy and business model compatible with 1.5°C.
3. ESRS E1 (paragraph 16 a) requires transparency on the level of compatibility of the targets. Undertakings that report on climate targets under E1-1 and assess their targets as not compatible with 1.5°C (and disclose them as such under paragraph 34 e) should ensure that this is clearly understandable across all the disclosures prepared under ESRS.
4. For each of the subchapters below, the list of all relevant datapoints to be disclosed according to ESRS is presented in the CTP Workbook. The CTP Workbook is a tool provided by EFRAG that aims to aggregate all ESRS E1 DRs and ARs, grouping them together accordingly with the appropriate data point under ESRS E1 paragraph 16. [separate document – link].

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[9] An aspect of an undertaking's overall strategy that lays out the undertaking's targets , actions and resources for its transition towards a lower--carbon economy, including actions such as reducing its GHG emissions with regard to the objective of limiting global warming to 1.5°C and climate neutrality.

[10] The credibility of a transition plan for climate change mitigation is not a concept that is currently defined under ESRS. For possible reference see XXX.

3.2 References to other ESRS requirements beyond E1-1

5. In certain disclosure requirements present in ESRS E1-1, references to other ESRS exist. Multiple elements of ESRS 2 provide the basis for the transparency required to understand ***transition plans***. These are described in the previous chapter. In Chapter 3, references to other ESRS E1 disclosure requirements are also made when they are necessary to inform reporting requirements directly related to ESRS E1-1.
6. ESRS 1 *Section 8.2 Content and structure of the sustainability statement*, which includes rules on presentation, does not impose a fixed presentation structure for disclosures on the transition plan for climate change mitigation. As a consequence, the undertaking will be able to present the information as most appropriate to its individual case, provided ESRS 1 *Section 8.2 Content and structure of the sustainability statement* requirements are met.
7. Sometimes, undertakings must relate specific components of the transition plan back to information provided in other DRs. When a reference to another DR is required (indicated by the mention 'by reference to'), the undertaking is not limited to this reference, and may either be obligated to, or may choose to, add additional information. Moreover, the undertaking can opt to include a simple reference to information contained in other DRs, or choose to include the information in ESRS E1-1 and refer to it in other ESRS disclosures (ESRS1§115). It is not mandatory to duplicate information required under different DRs, although it is possible to duplicate it if the undertaking deems this relevant.

3.3. Explaining targets compatibility [16 (a)]

Disclosure (ESRS E1-1 16 (a)) [The information required by paragraph 16 shall include]

by reference to GHG emission reduction targets (as required by Disclosure Requirement E1-4), an explanation of how the undertaking's targets are compatible with the limiting of global warming to 1.5°C in line with the Paris Agreement;

8. This explanation is intended to provide transparency on how the undertaking targets are compatible with the limiting of global warming to 1.5°C in line with the Paris Agreement and with the transition to a climate neutral economy. The level of compatibility is to be presented by disclosing GHG emissions reduction targets benchmarked to a reference pathway to 1.5ºC and by providing an explanation of how and to what extent the undertaking's strategy, business model(s) and climate transition plans are contributing to, and compatible with, the transition to a climate-neutral economy and with the limiting of global warming to 1.5°C in line with the Paris Agreement. Relevant contextual information on how the GHG emissions reduction targets and reference pathways and target values have been established shall be provided.

What is the reference target value?

Reference target value is a term used in the context of GHG targets disclosure pursuant to ESRS E1-4 disclosures. Its use relates to the statement required by E1§34(e) on whether the GHG emission reduction targets are science-based and compatible with limiting global warming to 1.5°C.

The reference target value (RTV) is the level of GHG emissions reduction for Scope 1 and 2 (and, if applicable, Scope 3) that would be necessary to align with the goal of limiting global temperature rise to 1.5°C above pre-industrial levels, as established by the Paris Agreement.

The RTV can be used to benchmark the ambition of the undertaking's own GHG emissions reduction target. To determine RTVs undertakings can use climate scenarios containing GHG emissions mitigation trajectories, as well as variables that characterise activity levels (when building GHG intensity trajectories).

The absence of sectoral pathways defined by the public policies to inform this calculations, as referred to in ESRS E1-1 AR2, is [expected to be] addressed within the EU by European Climate Law-aligned sectoral pathways [forthcoming link]. Beyond the EU, SBTi provides tools to set reference target values based on sectoral pathways.

If the undertaking has diversified activities, it may choose to base itself on different pathways relevant to each of its activities, and therefore calculate reference targets specific to each activity. It should then aggregate the results back to the consolidated level, in line with its overall sustainability statement as required by CSRD.

It is to be noted that the associated application requirement (AR 27) underlines that '*the reference target value may be calculated by multiplying the GHG emissions in the base year with either a sector-specific (sectoral decarbonisation methodology) or cross-sector (contraction methodology) emission reduction factor. These emission reduction factors can be derived from different sources. The undertaking should ensure that the source used is based on an emission reduction pathway compatible with limiting global warming to 1.5°C*'.

9. This disclosure shall take account of the general disclosure objective of ESRS E1-1 (see above) stated in ESRS E1-1§15.
10. This disclosure is based on the GHG emissions reduction targets disclosure required by ESRS E1-4, including reference to the statement whether its GHG emissions reduction targets are science-based and compatible with limiting global warming to 1.5˚C (ESRS E1-4§34(e)).
11. Adopted GHG emissions reduction targets are not necessarily compatible with limiting global warming to 1. 5˚C. In all cases, the undertaking shall disclose all elements required under ESRS E1-1 and provide relevant explanations on the level of compatibility of its targets under ESRS E1-1§16(a) without prejudice of the additional statement required under ESRS E1-4§34(e).

How do ESRS E1-1§16(a) and ESRS E1-4§34(e) interact?

The purpose of E1-1 is to provide transparency on how a transition plan for climate change mitigation is compatible with limiting global warming to 1.5˚C (BC15).

E1-1§16 (a) supports this objective by requiring an explanation of how targets are compatible with 1.5˚C by reference to DR E1-4. The level of compatibility shall be factual and objective by reference to an appropriate reference target value clearly described.

E1-4§34(e)) requires a statement on "whether the GHG emission reduction targets are science-based and compatible with limiting global warming to 1.5°C."

Under this requirement the undertaking shall clearly disclose its assessment with respect to the compatibility of the targets it has set and in doing so provide every relevant contextual information as further indicated under §34(e).

The undertaking shall state whether the GHG emission reduction targets are science- based and compatible with limiting global warming to 1.5°C. The undertaking shall state which framework and methodology has been used to determine these targets including whether they are derived using a sectoral decarbonisation pathway and what the underlying climate and policy scenarios are and whether the targets have been externally assured. As part of the critical assumptions for setting GHG emission reduction targets, the undertaking shall briefly explain how it has considered future developments (e.g., changes in sales volumes, shifts in customer preferences and demand, regulatory factors, and new technologies) and how these will potentially impact both its GHG emissions and emissions reductions.

Context

12. Accounting and reporting GHG emissions pursuant to disclosure E1-6 is a fundamental step that will serve to establish a baseline for setting GHG targets, and monitor the progress toward a previous baseline. This encompasses the organisation of an inventory of GHG sources and the calculation of GHG emissions under Scope 1 (direct emissions from own operations), Scope 2 (indirect emissions from the generation of purchased electricity, steam, heating and cooling), and Scope 3 (all other indirect emissions that occur in the undertaking's value chain). Because this step is essential to the development of a transition plan for climate change mitigation, undertakings that have not calculated or disclosed a GHG emissions inventory under E1-6 should report that they do not have a transition plan under E1-1§17.
13. After calculating its GHG emissions, according to paragraph 33 of E1-4, the undertaking shall report whether and how it has set ***GHG emissions reduction***[11] targets or other climate-related targets, which are forward-looking information reflecting the undertaking's level of ambition with regards to reducing its emissions and establishing its climate action pathway.
14. Following the provisions of ESRS MDR-T and the related paragraphs of E1-4, the undertaking reports its targets:
    a. in absolute values, and, if relevant, intensity values. If only intensity targets are set, the undertaking shall also disclose the associated absolute GHG emission values for the target and interim years. This

[11] GHG emission reduction (ESRS Glossary): Decrease in the undertaking's Scope 1, 2, 3 or total GHG emissions at the end of the reporting period, relative to emissions in the base year. Emission reductions may result from, among others, energy efficiency, electrification, suppliers' decarbonisation, electricity mix decarbonisation, sustainable products development or changes in reporting boundaries or activities (e.g., outsourcing, reduced capacities), provided they are achieved within the undertaking's own operations and upstream and downstream value chain. Removals and avoided emissions are not counted as emission reductions for this disclosure.

could mean disclosing an increase in absolute GHG emissions if the business expects significant organic growth;

b. for Scope 1, 2, and 3 emissions, either separately or combined, specifying which scopes and GHGs are included. Targets shall be gross, excluding GHG removals, carbon credits, or avoided emissions, as a means of achieving the GHG emission reduction targets;

c. including the current base year and baseline value, with updates every five years from 2030 onwards. Past progress can be disclosed if it meets the standard requirements. Target periods of 5-years are required as they create accountability and facilitate the construction of auditable CapEx and OpEx plans for that period, including a reality check of the past 5-years delivery performance on climate actions;

d. including at least target values for 2030 and, if available, 2050.

15. Further information on base year setting can be found in the compilation of explanation released in July 2024 (ID 552). [Note: Other explanations related to the base year will be published in the coming months].

16. Beyond the statement on target compatibility, E1-4§34(e) also requires to state whether GHG emission reduction targets are science-based as well as the framework and methodology used to determine the targets. The reference value shall, if available, be calculated based on a sectoral decarbonisation pathway rather than a cross-sectoral pathway. '

17. E1-4 (paragraph 34 (e)) also requires an explanation of how future developments (e.g., changes in sales volumes, shifts in customer preferences and demand, regulatory factors, and new technologies) have been considered and how these impact its GHG emissions and emissions reductions.

3.4. Explaining decarbonisation levers [E1-1 16 (b)]

Disclosure (ESRS E1-1 16 (b)) [The information required by paragraph 16 shall include]

by reference to GHG emission reduction targets (as required by Disclosure Requirement E1-4) and the climate change mitigation actions (as required by Disclosure Requirement E1-3), an explanation of the decarbonisation levers identified, and key actions planned, including changes in the undertaking's product and service portfolio and the adoption of new technologies in its own operations, or the upstream and/or downstream value chain;

18. Paragraph 16 (b) of E1-1 disclosure requires the undertaking to explain its ***decarbonisation levers***[12] and key planned actions and their contribution to filling the gap between the baseline and the target, particularly on the current 5-year target period. This shall be done by reference to GHG emissions reduction targets (E1-4) and climate change mitigation actions E1-3).
19. The undertaking may, in addition to the explanation, present its GHG emission reduction targets together with its decarbonisation levers as a table or graphical pathway showing developments over time (see Figure ##)

What are the climate change mitigation actions and decarbonisation levers?

The ESRS glossary specifies that actions refer to: *i. actions and action plans (including transition plans) that are undertaken to ensure that the undertaking delivers against targets set and through which the undertaking seeks to address material impacts, risks and opportunities; and ii. decisions to support these with financial, human or technological resources*.

Decarbonisation levers are ways of aggregating climate change mitigation actions into streams of actions that help the undertaking communicate the key strategic options through which it will seek to decarbonise its business. Undertakings can organise decarbonisation levers as they see best to communicate their actions. The fundamental concept behind decarbonisation levers is that, over the target period, the cumulative effect of these levers should match the reduction target. These levers should be differentiated between the current target period and long-term periods to ensure that the planned actions are designed to achieve the desired reduction in GHG emissions.

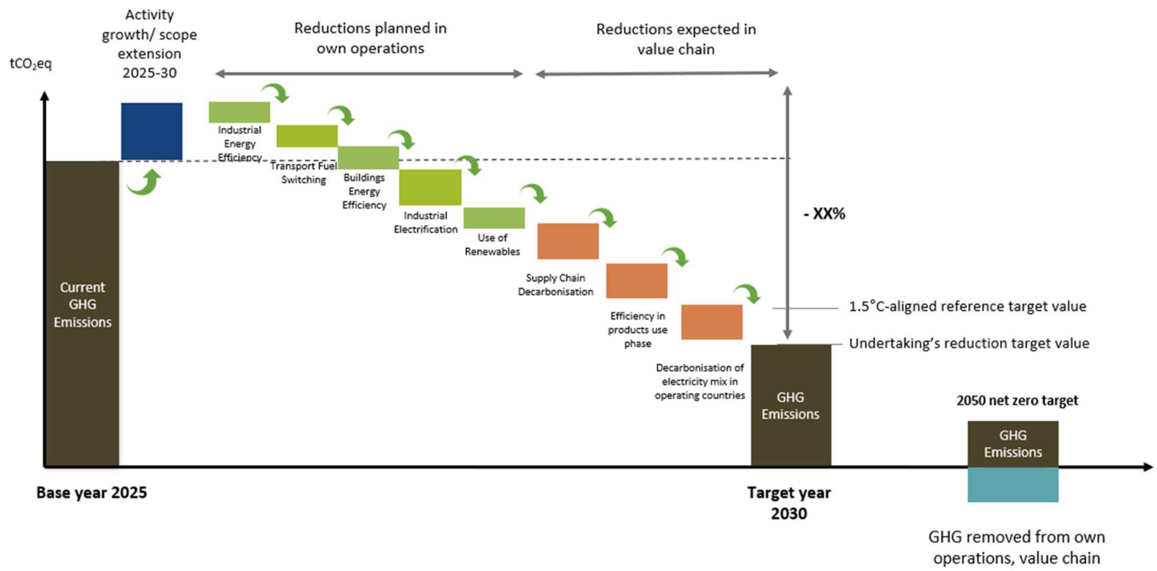
Decarbonisation levers are intended to achieve GHG emission reductions. As such, they are not limited to the undertaking's own operations and can extend to its value chain in order to reduce the undertaking's Scope 3 emissions.

For example, a decarbonisation lever identified as 'electrification' may include a number of actions taken by the undertaking: replacing natural gas-powered boilers with electric heating, changing the fleet to electric, implementing heat pumps, and exchanging gas to electric furnaces.

It is important to keep in mind that the contribution of decarbonization levers to target achievement is forward-looking information that requires estimation leveraging plausible assumptions, that may be derived from such tools as policy scenarios and technology pathways.

Figure ##. Graphical pathway showing targets and decarbonisation levers to achieve them, derived from ESRS E1 AR 31.

[12] Decarbonisation levers (ESRS Glossary): aggregated types of mitigation actions such as energy efficiency, electrification, fuel switching, use of renewable energy, products change, and supply-chain decarbonisation that fit with undertakings' specific actions.



	Base year (e.g., 2025)	2030 target	2035 target	…	Up to 2050 target
GHG emissions (ktCO2eq)	100	60	40		
Energy efficiency and consumption reduction	-	-10	-4		
Material efficiency and consumption reduction	-	-5	-		
Fuel switching	-	-2	-		
Electrification	-	-	-10		
Use of renewable energy	-	-10	-3		
Phase out, substitution or modification of product	-	-8	-		
Phase out, substitution or modification of process	-	-5	-3		
Other	-	-			

20. Explaining the actions supporting the implementation of the undertaking's CTP (aggregated into decarbonisation levers), is intended to demonstrate the modelling effort performed by the undertaking and the seriousness of its roadmap. Such modelling efforts should include, but not be limited to, the use of policy or market development scenarios, or technology pathways. This ensures that the undertaking has considered the evolutions of its operating environment, and their possible interactions with the implementation of its transition plan. For more details related to the modelling efforts, please refer to the RP on Climate Transition Planning.

Context

21. Disclosure requirement E1-3 covers the credibility of the undertaking's policies, strategy, and business model regarding climate change by demonstrating that they are embedded in the business planning (BC40). It was designed to ensure that the contributions of the decarbonisation levers fully cover the GHG emission reduction target on a mid-term (5-year, unless the possibility offered by ESRS1§80 is chosen) time horizon.

22. Disclosure E1-3 requires to describe key actions taken (in the reporting year, short-term horizon) and planned (mid and long-term horizon). Following the applicable ESRS 2 MDR-A, the undertaking discloses its time horizons (short, mid, and long-term), the key actions' dependencies on specific conditions (e.g., granting of financial support or public policy and market developments), and their expected outcomes for addressing material impacts, risks and opportunities. This allows the user to understand the undertaking's forward-looking plans for reducing emissions, namely the expected mid-term GHG emissions reductions. Long-term planned actions should also be described, notably because the decarbonisation of certain types of assets and activities requires planning over several 5-year cycles.

23. Furthermore, the decarbonisation levers disclosed under ESRS E1-1§19(b) will need to be associated to the undertaking's GHG emissions reduction targets (as required by ESRS E1-4). In particular, the undertaking is required to describe and quantify each lever's expected quantitative contribution to the achievement of GHG emissions reduction targets. For more information regarding this disclosure, undertakings should refer to ESRS E1-3, which concern climate change mitigation actions and decarbonisation levers.

3.5. Explaining investment and funding [E1-1 16(c)]

Disclosure (ESRS E1-1 16 (c)) [The information required by paragraph 16 shall include]

by reference to the climate change mitigation actions (as required by Disclosure Requirement E1-3), an explanation and quantification of the undertaking's investments and funding supporting the implementation of its transition plan, with a reference to the key performance indicators of taxonomy-aligned CapEx, and where relevant the CapEx plans, that the undertaking discloses in accordance with Commission Delegated Regulation (EU) 2021/2178;

24. This disclosure requires transparency on the financial planning related to the decarbonisation levers the undertaking has put forward in its transition plan. As referred to in the previous section, in disclosing in accordance with ESRS 2 MDR-A, the undertaking should be clear as to the time horizon of their deployment. It should also be clear on the planned financial resources allocated to actions over the same time horizon. This should take into consideration that an action can also be "decisions to support … with financial, human or technological resources" (see Time horizons box, below). This is expected to ensure that actions planned are properly resourced, the plans are auditable, and reductions have a reasonable likelihood of being achieved over the mid-term horizon period.

25. The disclosure is designed to ensure credibility and consistency between the CapEx and OpEx disclosed in ESRS reporting and the corresponding metrics presented under the EU Taxonomy, Article 8 disclosures. At the same time, it can be noted that the CapEx and OpEx should not be limited or restricted only to the EU Taxonomy disclosures, as the relevant expenditures may be associated with activities not yet eligible to the EU Taxonomy.

26. The undertaking should use the information that it has disclosed under *ESRS E1-3 Actions and resources in relation to climate change policies* and aggregate this information to the decarbonization lever level under this specific disclosure requirement. One way to do this is to first identify all decarbonization actions that are being considered by the undertaking and estimate Opex and Capex amounts that will be required to implement them. After this, the undertaking should map out similar actions to higher level decarbonization levers. The global Opex and Capex amounts associated to the actions should be aggregated at decarbonization lever level and disclosed in association to these.

EU Taxonomy and its related disclosures

The EU Taxonomy for sustainable activities is a classification system that defines criteria for economic activities that are aligned with net zero trajectory by 2050 and the broader environmental goals. The regulation 2020/852/EU is currently implemented through a number of delegated acts. In particular, the 2021/2139 (Climate Delegated Act) establishes the technical screening criteria related to climate change mitigation activities, while the 2021/2178 (Disclosure Delegated Act) specifies the methodology to comply with Taxonomy disclosure obligations.

Non-financial undertakings disclose the proportion of environmentally sustainable economic activities that align with the EU Taxonomy criteria. Environmental performance is translated into financial variables, which are referred to as KPIs and include turnover, CapEx and OpEx.

Time horizons

To align with Taxonomy requirement, the transition plan may be expressed in the form of a forward-looking disclosure on the mid-term time horizon (5 years) on CapEx (or OpEx) plans. However, it is important to note that the expected time of deployment of an asset – for example, energy-intensive, industrial and infrastructure physical assets - is often longer than 5 years. For example, a decision to deploy a complex zero-carbon industrial plant will take several intermediary steps - including preliminary viability studies, detailed engineering design, tendering and construction – all of which may take several years and require substantial financial resources. In these cases, the actions may be broken into different steps as well as the financial resources allocated. It should be clear, however, that financial resources allocated to such large projects can be considered as "actions" in the mid-time horizon, even if the carbon reductions may only come to fruition in the long-term horizon.

Large CapEx and OpEx projects shall [ESRS 2-MDR-A§69]:

(a) describe the type of current and future financial and other resources allocated to the action plan, including if applicable, the relevant terms of sustainable finance instruments, such as green bonds, social bonds and green loans, the environmental or social objectives, and whether the ability to implement the actions or action plan depends on specific preconditions, e.g., granting of financial support or public policy and market developments;

(b)provide the amount of current financial resources and explain how they relate to the most relevant amounts presented in the financial statements; and

(c) provide the amount of future financial resources.

Context

27. Disclosure requirement E1-3 (and ESRS 2 MDR-A), together with the description of actions, intends to establish transparency on how the undertaking intends to achieve its GHG emission reduction targets and, therefore, demonstrates the seriousness of its decarbonisation roadmap.
28. In particular, paragraph 29 (c) of the E1-3 disclosure seeks transparency on the significant monetary amounts (CapEx and OpEx) required to implement the actions. This information shall relate to the relevant items in the financial statements, as well as key performance indicators and CapEx plan (if applicable) required by the regulation EU 2021/2178.

3.6. Explaining supporting disclosures

3.6.1 Explaining locked-in emissions [E1-1 16 (d)]

Disclosure (ESRS E1-1 16 (d)) [The information required by paragraph 14 shall include]

a qualitative assessment of the potential locked-in GHG emissions from the undertaking's key assets and products. This shall include an explanation of if and how these emissions may jeopardise the achievement of the undertaking's GHG emission reduction targets and drive transition risk, and if applicable, an explanation of the undertaking's plans to manage its GHG-intensive and energy-intensive assets and products;

29. Importantly the disclosure requires a qualitative, rather than a quantitative, assessment of the potential locked-in emissions from key assets and products. The undertaking may, however, disclose quantitative elements to substantiate its qualitative disclosure if this is relevant. The qualitative assessment may comprise, for example, a description of an undertaking's car fleet, or investments made in fossil powered plants that need to be operated throughout their expected operating lifetime. Although qualitative, the assessment should be based on assumptions consistent with the scenarios/pathways considered for setting the targets.
30. The undertaking may consider disclosing the cumulative locked-in GHG emissions associated with key assets and with the direct use-phase GHG emissions of sold products in tCO_2eq.
31. Under certain circumstances, the undertaking may consider that its asset base that generates locked-in emissions may jeopardise its ability to reach its target. For example, this may be because the undertaking realises that the locked-in emissions that are implied by its current or planned asset base already account for a significant share of the yearly emissions that it can still produce by implication of its targets. In this case, the undertaking should identify the risk that these locked-in emissions pose, even if this is not done by referencing a specific quantitative figure. This analysis should also be

conducted to assess the transition risk associated with assets that have high locked-in emissions. Indeed, these may become unusable for legal or cost-efficiency reasons as policy and technological updates occur, leading to a stranding risk.

32. For assets that generate locked-in emissions that pose a risk for the attainment of targets, or for those that carry significant transition risk, the undertaking should establish and disclose a management plan. This may entail any efforts to decommission these assets and replace them by more performant equivalents, or the steps that are planned to bring these assets in line with GHG emissions reduction targets and plans. This allows information users to understand the underlying risks with regard to the undertaking's current and planned asset base and assess whether the plans proposed by the undertaking satisfactorily answer these risks.

What are the locked-in GHG emissions?

According to ESRS glossary, the locked-in GHG emissions are estimates of future GHG emissions that are likely to be caused by an undertaking's key assets or products sold within their operating lifetime.

They represent the future GHG to which the undertakings are committed due to existing infrastructure, investments, or business model choices. The GHG locked-in emissions are linked to three main variables: 1) the GHG or energy intensity character of the asset/product; 2) their expected lifetime; 3) the expected utilisation rate during the lifetime.

Examples of locked-in emissions can include, but are not limited to, fossil-fuel powered fleet, infrastructure, facilities or other products with a long cycle of life.

Reporting on locked-in emissions of key assets and products indicates the viability helps to inform the credibility of an undertaking's transition plan. In particular, locked emissions need to be considered in the GHG emission reduction target setting and may pose important financial constraints to the viability of climate mitigation actions. In this context, the quantification of locked-in emissions may become relevant to better understand all constraints and trade-offs between different possible actions. Locked-in GHG emissions are also an indicator of the risk of stranded assets.

33. For further guidance on assessing the locked-In emissions, please refer to EFRAG's RP on Climate Transition Planning.

3.6.2 Explaining EU Taxonomy alignment [E1-1 16 (e)]

Disclosure (ESRS E1-1 16 (e)) [The information required by paragraph 14 shall include]

for undertakings with economic activities that are covered by delegated regulations on climate adaptation or mitigation under the Taxonomy Regulation, an explanation of any objective or plans (CapEx, CapEx plans, OpEx) that the undertaking has for aligning its economic activities *(revenues, CapEx, OpEx) with the criteria established in Commission Delegated Regulation 2021/2139*[13]*;*

34. The scope of this disclosure is limited to the undertakings that carry out activities that are eligible for EU Taxonomy delegated regulations on climate adaptation or mitigation, or undertakings that plan to expand their activities to those covered by the EU Taxonomy. The objective of this requirement is consistency between legislations and associated disclosures.
35. Pursuant to this disclosure and AR 4, the undertaking is required to explain how the alignment of its economic activities with the provisions of the EU Taxonomy delegated regulations is expected to evolve over time. This shall be done by taking account of the key performance indicators (turnover, CapEx and OpEx) required to be disclosed under Article 8 of 2020/852 regulation.
36. This may be expressed in the form of a forward-looking disclosure on the mid-term time horizon (5 years) on CapEx (or OpEx) plans to align current existing eligible activities with the criteria of the EU Taxonomy or to invest in new aligned activities. Likewise, the undertaking can disclose if it has any objectives related to revenue from EU Taxonomy aligned activities which would be consistent with a transition plan.
37. Aligning the undertaking's existing eligible activities will mean that the undertaking is addressing any outstanding technical screening criteria that the activities do not comply with respect the Do No Significant Harm principle and other environmental objectives or the minimum EU social safeguards.

Climate Delegated Act of EU Taxonomy

2021/2139 (Climate Delegated Act) establishes the technical screening criteria for determining under which conditions an economic activity qualifies as contributing substantially to climate change mitigation.

EU Taxonomy distinguishes between eligible and aligned activities. The taxonomy-eligible activity is an economic activity described in the delegated act adopted pursuant to (EU) 2020/852, irrespective of whether it meets any or all of the technical screening criteria included within this act. A taxonomy-aligned activity means an activity that complies with the requirements of 'Criteria for environmentally sustainable economic activities' of Article 3 (EU) 2020/852.

3.6.3 Explaining coal, oil and gas-related CapEx [E1-1 16 (f)]

Disclosure (ESRS E1-1 16 (f)) [The information required by paragraph 14 shall include]

[13] ### Climate delegated act of EU Taxonomy

if applicable, a disclosure of significant CapEx amounts invested during the reporting period related to coal, oil and gas-related economic activities;

38. The CapEx amounts concerned by this disclosure are related to the following NACE codes: B.05, B.06, B.09.1, C.19, D.35.1, D.35.3, D.46.71. Investments in gas-fired power generation have to be included in the figure if the emission intensity is above 270 g CO2eq/kWh for the output energy in line with criteria laid out for this activity in the EU Taxonomy. [Please note that this deviates from footnote (37) in E1, but we believe this is what is meant in that footnote, namely that "For gas-related activities" means for gas-fired electric power generation where the limit of 270 g CO2/kWh applies].

39. Beyond CapEx invested in fossil fuel activities, the undertaking may want to consider the present and past fossil fuel exposure and provide as undertaking-specific disclosure a qualitative overview of its current ownership and dependency on fossil fuel assets, to which the new CapEx accrues. For example, an indication of the undertaking's exposure to coal, oil and gas-related activities through the disclosure of the revenue from these activities is already requested in ESRS E1 §67(e), and it may be useful to establish a link or make a reference to this section for context. [Note: this paragraph goes a beyond what is strictly in the text, but in cases where there is exposure to fossil fuels, it would make sense to reflect or link it to a CTP disclosure].

What activities fall under the listed NACE codes?

The activities that fall under this disclosure are the ones related to the extraction, transformation and wholesale of fossil fuels or heat and power generation, transmission or distribution that may be dependent of fossil fuel use. This gives a clear indication of risks for stranded assets/locked-in emissions and when put into context with the CapEx associated with the transition plan, a measure of the commitment to the transition.

NACE is the statistical classification of economic activities across the European Union for systematic data collection and analysis. The listed NACE codes refer to the following activities:

B.05: Mining of coal and lignite: This division includes the extraction of solid mineral fuels through underground or open-cast mining and includes operations (e.g. grading, cleaning, compressing and other steps necessary for transportation etc.) leading to a marketable product.

B.06: Extraction of crude petroleum and natural gas *(limited to crude petroleum)*: This division includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands and the production of natural gas and recovery of hydrocarbon liquids.

B.09.1: Support activities for petroleum and natural gas extraction *(limited to crude petroleum):* This class includes oil and gas extraction service activities provided on a fee or contract basis.

C.19: Manufacture of coke and refined petroleum products: This division includes the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining, which involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

D.35.1: Electric power generation, transmission, and distribution: This group includes the generation of bulk electric power, transmission from generating facilities to distribution centres and distribution to end users.

D.35.3: Steam and air conditioning supply (limited to coal-fired and oil-fired power and/or heat generation): This class includes production, collection and distribution of steam and hot water for heating, power and other purposes; production and distribution of cooled air; production and distribution of chilled water for cooling purposes; and production of ice, for food and non-food (e.g. cooling) purposes

D.46.71: Wholesale of solid, liquid, and gaseous fuels and related *products (limited to solid and liquid fuels):* Wholesale of fuels, greases, lubricants, and oils (e.g. charcoal, coal, coke, fuel wood, and naphtha; crude petroleum, crude oil, diesel fuel, gasoline, fuel oil, heating oil, and kerosene; liquefied petroleum gases, butane, and propane gas; as well as lubricating oils, greases, and refined petroleum products)

The descriptions of NACE codes mentioned above are derived from the NACE Rev. 2.0 structure and explanatory notes. For complete understanding, they should be read in conjunction with the full definitions provided by Eurostat.

For gas-fired electric power generation, the NACE code definition addresses activities with direct GHG emissions that are higher than 270 gCO2/kWh.

3.6.4 Explaining EU Paris-aligned Benchmarks [E1-1 16 (g)]

Disclosure (ESRS E1-1 16 (g)) [The information required by paragraph 14 shall include]

a disclosure on whether or not the undertaking is excluded from the EU Paris-aligned Benchmarks;

40. This disclosure requires a yes or no statement regarding whether the undertaking is excluded from the EU Paris-aligned Benchmarks. This disclosure helps information users to directly identify undertakings that carry out activities that are deemed incompatible with the Paris Agreement, per the definitions laid out in Commission Delegated Regulation 2020/1818 (Climate Benchmark Standards Regulation).

41. Pursuant to AR 5, this statement is made in accordance with the exclusion criteria stated in articles 12.1 (d) to (g) and 12.2 of Commission Delegated Regulation 2020/1818 (Climate Benchmark Standards Regulation). These exclusion criteria include : undertakings that derive 1 % or more of their revenues from exploration, mining, extraction, distribution or refining of hard coal and lignite ; undertakings that derive 10 % or more of their revenues from the exploration, extraction, distribution or refining of oil fuels ; undertakings that derive 50 % or more of their revenues from the exploration, extraction, manufacturing or distribution of gaseous fuels ; and undertakings that derive 50 % or more of their revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh.

3.7. Explaining governance, strategy and progress

3.7.1 Explaining transition plan inclusion in strategy and business model [E1-1 16 (h)]

Disclosure (ESRS E1-1 16 (h)) [The information required by paragraph 14 shall include]

an explanation of how the transition plan is embedded in and aligned with the undertaking's overall business strategy and financial planning;

42. The undertaking may want to provide a narrative on such aspects as: how it can continue to create value (financial and other types of value) in the process of transitioning to a sustainable economy, briefly explaining how this interacts with financial planning and the investment and operational aspects of the transition plan; how its transition plan for climate change mitigation contributes to managing the changes required to its business model; and/or how, in continuing its business, it contributes to the low carbon transition. It can comment on its strategic position and the strategy adopted to explore the opportunities and manage the risks created by the transition to a sustainable economy.

Context

43. The undertaking should build on information disclosed pursuant to ESRS 2 SBM-3. It may also choose to disclose the information contained in other DRs that are most relevant to the proper integration of the transition plan in its strategy and business model in this section, although simple references to these sections are also allowed.

3.7.2 Explaining the approval of the transition plan [E1-1 16 (i)]

Disclosure (ESRS E1-1 16 (i)) [The information required by paragraph 14 shall include]

whether the transition plan is approved by the administrative, management and supervisory bodies; and;

44. The disclosure E1-1 16 (i) requires an affirmative or negative statement on the fact of approval. For reasons of transparency, the undertaking may with reference to its disclosure under ESRS GOV-1 specify the body that approved the transition plan.

What governance bodies to consider for approving the transition plan?

The administrative, management and supervisory bodies, according to ESRS glossary, are the 'governance bodies with the highest decision-making authority in the undertaking including its committees. If in the governance structure, there are no members of the administrative, management or supervisory bodies of the undertaking, the CEO, and if such function exists, the deputy CEO, should be included. In some jurisdictions, governance systems consist of two tiers, where supervision and management are separated. In such cases, both tiers are included under the definition of administrative, management and supervisory bodies.'

Context

45. This disclosure partially addresses the requirements of Article 22 of the CSDDD which requires 'the transition plan for climate change mitigation (…) shall contain (d) a description of the role of the administrative, management and supervisory bodies (…)'.

46. Disclosures of GOV-1 can also be used to disclose information on the role of the administrative, management and supervisory bodies with regard to the transition plan for climate change mitigation. Undertakings are required to report such information under CSDDD. In other words, once an undertaking is subject to CSDDD, it will disclose paragraph (d) of Article 22 of the CSDDD, in ESRS 2 GOV-1, GOV-2 and GOV-3 and, which in turn will inform the disclosure under E1-1 16 (i) (please see section 4.1.2). [To be developed and adjusted based on information provided by DG Just].

3.7.3. Explaining progress in implementing the climate transition plan [E1-1 16 (j)]

Disclosure (ESRS E1-1 16 (j)) [The information required by paragraph 14 shall include]

an explanation of the undertaking's progress in implementing the transition plan.

47. This is a narrative disclosure intended to summarise the factual progress on implementing the transition plan. This disclosure must provide an explanation regarding whether the undertaking is on track to achieve its reduction target and compatibility with 1.5°C. This explanation should be based on an assessment of the correspondence between delivered and planned GHG emissions reductions implied by the undertaking's targets, which may imply the disclosure of relevant quantitative elements. Moreover, the undertaking should consider the following elements when disclosing on its progress: implementation of key actions, accomplished shifts in strategy, shift in the product mix, acquired new markets for low carbon products etc.

48. The narrative assessment of the undertaking's progress regarding the implementation of the transition plan should be provided in E1-1 16 (j). This may imply references to, or duplication of, relevant information contained in other disclosures (for example, rate of fleet electrification). This content may cover information on the processes used to monitor target(s) performance, as well as for reviewing the target(s). Crucially, the progress in implementing the different actions of the CTP can also be used to explain how the different target(s) translate in terms of GHG emission for the reporting year, and likely performance in the mid-term horizon (on target/target delayed/ahead of target).

49. The principle of monitoring the progress is embedded in ESRS 2 standard. For example, according to MDR-A, actions supporting policy implementation are accompanied by quantitative and qualitative information regarding the progress. The MDR-T also highlights the role of target-setting in measuring

progress in achieving the policy objectives. Likewise, metrics disclosed under E1, namely E1-5 (on Energy consumption) or E1-6 (on Gross Scopes 1, 2, 3 and Total GHG emissions), are metrics that should be used as a reference for the results achieved from the implementation of the transition plan.

50. In the first year of implementing the transition plan, this disclosure requirement is not a strict requirement to fulfil the objective of E1-1 disclosure. However, undertakings that are already monitoring relevant indicators are encouraged to communicate on these, to demonstrate past progress on transition efforts.

3.8. Whether and when a CTP will be adopted [E1-1 17]

Disclosure (ESRS E1-1 17) [In case the undertaking does not have a transition plan in place,]

it shall indicate whether and, if so, when it will adopt a transition plan.

51. [To cover all of E1-1 datapoints, §17 has been added. To be developed if agreed this is right place in structure.]

4. Considering other sources

52. As part of this Guidance, EFRAG has worked to explain how undertakings can consider references other than ESRS to report efficiently according to the E1-1 requirement. Throughout the drafting process, EFRAG had an ongoing dialogue with other actors, partners, and experts to integrate other regulatory and market practices in its implementation guidance. Section 1.2 of this Guidance details the cross-references to the RP on Climate Transition Planning that presents reference practices on the process of transition planning.

53. This Chapter dedicates several sections to establishing links and explaining how ESRS disclosures on CTP relate to other initiatives on the topic. Most sections deal with EU regulatory initiatives, but other jurisdictions as well as voluntary initiatives, are also covered. The objective is to explain how these initiatives can be considered to support the undertaking when disclosing on the climate transition plan according to ESRS E1-1.

What is the difference between this EFRAG Guidance and other available references?

EFRAG guidance relates to the implementation of mandatory reporting requirements originating from the CSRD. These requirements include specific rules, scope, and characteristics of presenting sustainability information. The disclosures under ESRS, such as disclosure requirement E1-1, are integral to the undertakings' annual reports and subject to audit obligations. This guidance addresses the implementation of the ESRS as a non-behavioural set of reporting rules stemming from Union law.

It should be noted that other existing frameworks, guidance and tools may be complementary to E1-1 requirements. These external frameworks may offer a useful set of tools, resources, and guidance that can assist undertakings in collecting, preparing, and disclosing ESRS sustainability information. They help undertakings understand best practices, provide examples of methodologies, and, importantly, contribute to the overall ambition of transition plans.

[Note: the sections below present preliminary text, that still needs further validation and coordination work with the different bodies responsible for each area].

4.1 EU

4.1.1 EU Taxonomy

54. The EU Taxonomy (FISMA) disclosure can provide key metrics for monitoring progress in transition plans, especially for objectives (1) climate change mitigation, and (2) climate change adaptation. By coordinating climate mitigation transition plans with Taxonomy requirements, undertakings can track and report advancements towards climate neutrality.

55. EU Taxonomy metrics on turnover, CapEx, OpEx offer insights into how climate mitigation plans are incorporated into the undertaking's financial planning. The undertaking can use these metrics to illustrate how its investments and operational expenses are contributing to its alignment with climate change mitigation objectives. These metrics are leveraged in

reporting on ESRS E1-1 disclosure requirements. While these metrics are sector-agnostic, financial undertakings need to disclose their green asset ratio for EU Taxonomy purposes.

56. The definition of sustainable activities under the EU Taxonomy can support undertakings in identifying potential decarbonisation levers and climate mitigation actions to be included in their climate mitigation transition plan, and support undertakings in setting realistic and ambitious targets at the activity level. For example, actions such as improving energy efficiency in industrial processes can be benchmarked against technical screening criteria. By clearly defining and prioritising these actions, undertakings can effectively allocate resources and measure progress towards their climate mitigation transition plan. Additionally, the EU Taxonomy offers robust support as it provides the most rigorous definition of green activities currently available, ensuring a high standard of environmental integrity and comparability.

57. Since the EU Taxonomy can be used as a reference and is constantly evolving to account for technological progress, undertakings are led to adopt an incremental strategy to move towards Taxonomy-aligned activities. Disclosing both Taxonomy-aligned and non-Taxonomy-aligned investments that support the transition is essential for achieving forward looking alignment.

4.1.2 CSDDD

58. The CSDDD (Directive 2024/1760, JUST) establishes a corporate due diligence duty. Among its provisions, it sets out an obligation for the undertakings in scope to adopt and put into effect, through best efforts, a transition plan for climate change mitigation aligned with the 2050 climate neutrality objective of the Paris Agreement as well as intermediate targets under the European Climate Law.

59. Both CSDDD and CSRD use the same definition for what a transition plan for climate change mitigation is. Further to that, "Companies that report a transition plan for climate change mitigation … shall be deemed to have complied with the obligation to adopt a transition plan for climate change mitigation" in accordance with CSDDD (Article 22(2)). At the same time, for the undertaking in scope of CSDDD, additional requirements to implement the plan through its best efforts should be considered. As the CSDDD imposes a behavioural duty to put into effect the transition plan which aims to ensure that the business model and strategy of the undertaking is compatible with the 1.5 degrees global warming objective, it is required to adopt a transition plan and targets that are compatible with the 1.5 degrees objective and aligned with the reference target value.

60. For undertakings falling under the CSDDD, there are obligations to conduct risk-based human rights due diligence concerning actual and potential adverse impacts with respect to own operations, their subsidiaries and business partners – as well as to prevent, mitigate, and remediate those potential adverse impacts (art.5 and art.7 to art.16). These obligations equally apply to the implementation of its transition plan - with respect to potential adverse impacts to affected stakeholders (individuals, communities or business partners in the value chain). Reporting on these aspects can take

place in the sustainability statement prepared according to ESRS[14] (please check FAQ 11-13).

4.1.3 CRD/CRR – Pillar 3 ITS

According to Article 76(2) of the CRD, institutions shall set out specific plans to monitor and address the financial risks arising from the transition and process of adjustment to the relevant Member States and Union regulatory objectives in relation to ESG factors, as well as, where relevant for international active institutions, third country objectives. EBA has published a consultation paper on guidelines on management of ESR risks in January 2024 where it details the prudential plan. The prudential plan under CRD is focused on prudential risk and constitutes a new risk management tool. Contrary to CSRD, plans required under CRD Art. 76(2) are not subject to disclosure but will be assessed by banking prudential supervisors as part of the supervisory review and evaluation process. As detailed in the draft guidelines, they have been prepared by taking into consideration other initiatives and legislative frameworks related to (transition) plans, that should be disclosed and/or developed by sets of non-financial and financial corporates to ensure that their business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1.5°C (in line with the Paris agreement). Nevertheless, CRD-based plans are not required to set out an objective of fully aligning with Member States or Union sustainability objectives or one specific transition trajectory. They should though include actions and targets with regard to the business model and strategy that are consistent with CSRD plans. Importantly, institutions need In conclusion, the requirements on plans included under the different EU regulations have indeed different but complementary purposes and should be addressed in a coherent and consistent manner.

61. As the CRD, the CRR recognises that the financial sector plays an important role regarding the transition towards a climate neutral and sustainable economy. Definitions of ESG risks, physical risk, transition risk, social risk and governance risk have been detailed in Article 1of the CRR3 to guarantee a common understanding of ESG risks. [On-going: to be provided]

4.1.4 Solvency II

62. EIOPA has issued advice and guidance to support the sustainability risk management as well as the prudential treatment of sustainability risks related to insurers' assets and liabilities. [On-going: to be provided]

4.1.5 EU Green Bonds

63. The EU green bonds play an important role in financing assets needed for the low-carbon transition. As detailed in the Annex of the EU Green bonds, the

[14] Refer to section 6.4 of the Directive on Corporate Sustainability Due Diligence – Frequently asked questions 240719.

issuer shall detail the link to the transition plan in the European Green bond fact sheet. It shall detail the manner in which the bond proceeds are intended to contribute to funding and implementing those plans. [On-going: to be provided]

4.1.6 Climate Neutrality Plans (EU ETS)

64. The EU Emissions Trading System (EU ETS,) is an important legislative mechanism for decreasing greenhouse gas (GHG) emissions. The directive required the top 20% of EU ETS installations, depending on GHG emission intensities, to present a climate neutrality strategy by May 2024, if their operators want to receive free allocations. This submission is one-time only, but a progress report is due every five years. The Climate Neutrality Plan is the appropriate provision for meeting this criterion.
65. The scope regards to 370 EU ETS (plus eligible district heating) installations, all of which must design and submit a climate-neutrality plan for receiving a free allocation of emission allowances. The content and structure of these plans as well as guidance can be found here. Key elements of the climate neutrality plans include:
    a. General information about the installation.
    b. Historical emissions data.
    c. Conditions enabling the historical emissions.
    d. Detailed milestones and targets, including intermediate goals.
    e. Conditions enabling the achievement of these milestones and targets.
    f. Measures and investments planned to meet the targets.
    g. Estimated impacts of these measures and investments.
    h. Milestones and objectives in these plans must be consistent with the European Climate Law's climate-neutrality goal. This alignment guarantees that the submitted plans successfully contribute to the overarching objective of becoming climate-neutral by 2050.
66. Undertakings that own or operate these assets (installations under the EU ETS), the climate-neutrality plans should be reflected as an integral part of the CTP. Sometimes the climate-neutrality plans of specific assets may be deemed material for the undertaking. In this case specific information about the climate-neutrality plan of the asset(s) shall also be disclosed in the annual report in accordance with ESRS 1 paragraph 54 (see FAQ13).

4.1.7 Transformation Plans (IED)

67. The Industrial Emissions Directive (IED, ENV) specifies the standards for developing transformation plans intended at managing pollution, decarbonisation, and the circular economy at the installation level. This regulation is planned to take effect for energy-intensive businesses on June 30, 2030, and for all other sectors beginning in 2030.

68. The transformation plans are the relevant provision for these needs, which span a number of crucial areas. The transformation plans aim to address pollution, decarbonisation, and the circular economy. These plans are unique to each installation, and while decarbonisation elements may link to neutrality plans under the EU ETS Directive, they cannot be utilised to fulfil the EU ETS climate neutrality plan criteria. The complete obligation to establish these transformation plans will not take effect until the updated IED is accepted by co-legislators, which is expected to occur in 2030.

69. The transformation plans are not directly aligned with the Paris Agreement's 1.5°C target. Instead, they give guiding principles for operators to follow. Operators must establish a transformation strategy, which is non-prescriptive. These plans are strategy papers that outline how installations will become sustainable, clean, circular, resource efficient, and climate neutral by 2050.

70. The transformation plans should include detailed information about the installation, historical emissions, conditions enabling historical emissions, milestones and targets, including intermediate goals, conditions enabling the achievement of these milestones and targets, measures and investments planned to meet the targets, and estimated impacts of these measures and investments.

71. The transformation plans are part of the installation's overall Environmental Management System (EMS). An external audit of the EMS, including a conformance review of the transformation plan, is needed one year after the plan is created. The content of the transformation plans will be established in a delegated act that must be enacted by June 30, 2026 and evaluated by December 31, 2034. The transformation plans are part of the installation's EMS, thus they are subject to external audits every three years.

72. This rule assures that EU installations take substantial efforts toward sustainability, with an emphasis on extensive planning and frequent evaluations to achieve long-term environmental goals.

73. [On-going, to understand reporting obligations, how it links with CTP and CSRD.]

4.1.8 Energy action plan (EED)

74. The Energy Efficiency Directive (EED) requires firms to create an action plan based on an energy audit every four years beginning in 2026, as detailed in Article 11(2) (ENER). This clause underlines the necessity for businesses to prioritise energy efficiency at the corporate level.

75. Article 11(2) distinguishes two types of organizations based on their energy use. Undertakings with an average annual energy use of more than 85 TJ during the last three years must establish an energy management system. Undertakings with an average annual usage greater than 10 TJ but less than 85 TJ must undertake an energy audit if they do not have an energy management system in place. Based on the findings of this audit, which will be undertaken at least once every four years beginning in 2026, these firms must provide a specific and achievable action plan. This action plan must be based on the suggestions from the energy audits, ensuring that businesses take practical actions to improve their energy efficiency.

76. The regulation requires energy-intensive firms to use systematic techniques to control and minimise their energy use, therefore contributing to overall energy efficiency and sustainability goals.

77. [On-going: to provide link to CTP as component of actions linked to EE as a decarbonisation lever.]

4.2 International

4.2.1 SEC rules

78. The final rules adopted by the Securities and Exchange Commission (SEC) to enhance and standardise climate-related disclosures by public undertakings and in public offerings require the inclusion of climate risk disclosures in an entity's SEC filings (e.g., annual reports, registration statements). The transition plan is one of the fundamental components of the entity's climate-related risk management strategy, alongside scenario analyses or internal carbon pricing, allowing undertakings to demonstrate the deployment of climate change mitigation or adaptation activities.

79. The final rules define a transition plan (item 1500) as 'a registrant's strategy and implementation plan to reduce climate-related risks, which may include a plan to reduce its GHG emissions in line with its own commitments or commitments of jurisdictions within which it has significant operations.'

80. As part of the transition plan (TP) disclosure, the registrant will provide, only in the case in which it has adopted a TP:

81. a description of its TP for managing a material transition risk (item 1502(e)(1));

82. updated annual report disclosures about the TP each fiscal year with a description of any actions that were taken during the year under plan, including how such actions have impacted the registrant's business, results of operations, or financial condition;

83. a description of how any of the transition plans relate to the registrant's business model or strategy (e.g., material expenditures made for climate-related research and development);

84. a description of whether and how the board of directors oversees progress against the transition plan, if there is a transition plan disclosed pursuant to item 1502(e)(1);

85. a quantitative and qualitative disclosure of material expenditures incurred and material impacts on financial estimates and assumptions as a direct result of the disclosed actions in the TP;

86. Considering a), the SEC rules do not mandate the adoption of a transition plan (TP). Therefore, no disclosure is required when a registrant does not have a plan, nor are any specific climate-related risk practices, strategies or tools prescribed by the SEC. The adoption of a TP is voluntary. However, if the undertaking had adopted a TP, the disclosure of the afore-mentioned information on it becomes compulsory. This is to improve the decision-usefulness of the provided information for investors, allowing them to

evaluate more consistently and predictably the impact of TPs on operational results and the financial condition of the registrant.

87. As for the yearly update in b), this was devised to allow investors to track progress, over time, under the TP of the registrant. The annual frequency will foster consistency in the investors' voting decisions and consideration of current climate-related information in their decision-making.

88. The requirement in c) is intended to capture the (significant) material effect that TPs can have on a undertaking's business, results of operations, or financial condition.

89. Provision d) excludes a mandatory formal approval of the TP by the registrant's board of directors, as approval is not a determining factor for disclosing on a TP. Nonetheless, information on the oversight progress of a TP is to be reported.

90. Regarding e), it is intended to support investors in their assessment of the financial effects related to a TP, as well as of a registrant's climate risk management and strategic decision-making about taking actions under TP. Material expenditures are here intended to cover both capitalised and expensed elements , and made during the fiscal year, under a transition plan. The registering entity is also here required to provide a description of how the estimates and assumptions used by the registrant to produce the financial statements were materially affected (if they were) by risks and uncertainties associated with any disclosed transition plans.

91. The rules feature additional provisions on opportunities, targets and goals, carbon offsets and credits, and safe harbor extension. On opportunities included in a TP, an entity is not required to report them, however, it may still choose to provide further information on an opportunity that is intended to be considered. As for targets and goals, these can be discussed as part of the TP disclosure. Concerning carbon offsets and credits, registrants will determine their importance to the overall TP they have adopted. Finally, the final rules extend the safe harbor provision to climate-related disclosures pertaining to TPs, stating that the TP disclosures constitute "forward-looking statements" for purposes of the Private Securities Litigation Reform Act ("PSLRA") safe harbors.1

4.2.2 TPT

92. The TPT is a voluntary framework, and as such, undertakings are not required to be familiar with it when reporting under the ESRS, which remains the regulatory standard of the European Union. However, undertakings that are subject to ESRS and wish to compare their disclosure requirements across different frameworks and build knowledge on a variety of market practices may be interested to consult TPT, which offers a valuable reference point for approach to disclosing on transition plans.

93. The TPT Disclosure Framework and supporting TPT Implementation Guidance provides a comprehensive set of resources that can help undertakings to develop and disclose forward-looking transition plans. The TPT has designed a single framework that applies across the financial and non-financial sectors. By enabling undertakings to think through the elements

of a transition plan for climate change mitigation, the work of the TPT can help them prepare for disclosures under the ESRS.

94. The TPT Disclosure Framework – ESRS Comparison document[15], provides a useful comparison of the TPT Disclosure Framework with relevant provisions of ESRS 2 General Disclosures and ESRS E1 Climate. A table comparing ESRS with relevant provisions of the TPT (other direction) can be found in Annex #.

95. In addition, the Sector Guidance released by the TPT provides a helpful tool for undertakings that fall under ESRS and are looking to prepare a transition plan for climate change mitigation, particularly those from sectors that are not yet concerned by the development of ESRS sector-specific standards. The TPT has produced high-level sector guidance for 30+ sectors in its Sector Summary, along with more detailed Sector Guidance for Asset Managers; Asset Owners; Banks; Electric Utilities & Power Generators; Food & Beverage; Metals & Mining; and Oil & Gas.

4.2.3 GFANZ

96. GFANZ is a voluntary framework, and as such, undertakings are not required to be familiar with it when reporting under the ESRS, which remains the regulatory standard of the European Union. However, undertakings that are subject to ESRS and wish to compare its disclosure requirements across different frameworks and build knowledge on a variety of market practices may be interested to consult GFANZ, which offers a valuable reference point on an approach to transition planning and transition plan disclosure.

97. The GFANZ framework can support the undertaking's discussions about components of transition plans and related practices. It is a sector-agnostic and principles-based framework that can be adopted by a wide range of financial and real economy undertakings. The framework drew on and consolidated existing work on climate transition planning.

98. The framework acts as a guide for developing and implementing transition plans, and it intends to help firms get started and in doing so, upskill on the key elements of transition planning. It offers examples of the types of metrics that could be useful, and the considerations when using them. There is a range of external inputs to a transition plan which are also rapidly evolving, including national-level transition plans, sectoral pathways, methodologies and data, technological and scientific advances, and the wider regulatory environment.

99. For financial sector firms who anticipate that the provision of transition finance will be a core part of their transition plan, GFANZ has also published a guide to scaling transition finance. This sets out the different financing strategies that could be considered transition finance, their key attributes and KPIs, and how firms can calculate forward looking metrics to capture the expected impact of their financing.

[15] TPT Disclosure Framework – European Sustainability Reporting Standards comparison, October 2023

5. Frequently asked questions (FAQs)

100. Some questions related to E1 have been already answered by the EFRAG Secretariat and can be found here (July 2024 version). These questions are related to GHG emissions, climate-related targets, gross risks and GHG removals. It is expected that other explanations will be published in the coming months addressing transition plan related topics. [To discuss their potential inclusion here or not.]

5.1. Targets-related FAQ

FAQ 1: Can a climate target other than a GHG emission reduction target be used as reference under ESRS E1-1?

101. The main focus of the ESRS E1-1 is the transition plan for climate change mitigation, which is driven by the GHG emissions reduction targets, mentioned in the first paragraph of the specific ESRS requirement (ESRS E1-1§16a). This paragraph requires, 'by reference to GHG emission reduction targets (as required by Disclosure Requirement E1-4), an explanation of how the undertaking's targets are compatible with the limiting of global warming to 1.5°C in line with the Paris Agreement'.

102. It is therefore expected that GHG emissions reduction targets are used as reference under ESRS E1-1. Any other climate-related target (such as, for example target related to climate change adaptation awareness and training), can be disclosed under E1-3§33 as complementary to the reduction target but does not fulfil the requirement of ESRS E1-1§16a.

FAQ 2: Can an undertaking consider the purchased and planned carbon credits to achieve its GHG emission reduction target?

103. No, an undertaking cannot consider the purchased and planned carbon credits in measuring its GHG emission reduction target.

104. ESRS E1-1§16a relates to information complementing GHG emission reduction target, as set in ESRS E1-4. Hence the targets contributing to the transition plan should follow the same requirements as ESRS E1-4.

105. ESRS E1-4§34b clarifies two things regarding GHG emission reduction targets. First, they shall be consistent with the undertaking's GHG emission inventory as described in ESRS E1-6. Second, that GHG reduction targets shall not include any GHG removals, or carbon credits as a means of achieving the GHG emission reduction targets. In addition, ESRS E1-6 AR43, AR45, AR46 highlight that neither of Scope 1, Scope 2 or Scope 3 GHG emissions shall include any removals, or any purchased, sold or transferred carbon credits or GHG allowances in its calculation.

106. While it cannot be considered in its gross GHG emission reduction target, ESRS E1-7§56 requires the undertaking to be transparent on the amount of GHG emission reductions or removals from climate change mitigation projects outside its value chain it has financed or intends to finance through any purchase of carbon credits.

107. More specifically, if the undertaking discloses a net zero target, in addition to the gross GHG emission reduction target, ESRS 1-7§60 clarifies that it shall explain how the residual GHG emissions are intended to be neutralised by GHG removals and carbon credits. ESRS E1-7§61 also specifies that in the case where the undertaking may have made public claims of GHG neutrality that involve the use of carbon credits, it shall explain how they are accompanied by GHG emission reduction targets, whether and how they neither impede or reduce the achievement of its GHG emission reduction targets, and the credibility and integrity of the carbon credits used.

108. GHG removals and carbon avoidance/reduction fall within the umbrella term that is carbon credits, but while credits for GHG removals can be used to achieve a net zero GHG emissions target, carbon credits of avoidance or reduction can only be used for compensation, not to achieve net zero (netting).

109. The ESRS Annex II defines carbon credits as 'a transferable or tradable instrument that represents one metric tonne of CO2eq emission reduction or removal and is issued and verified according to recognised quality standards.'

110. GHG removals are defined in ESRS Annex II as 'the withdrawal of GHGs from the atmosphere as a result of deliberate human activities. These include enhancing biological anthropogenic sinks of CO2 and using chemical engineering to achieve long-term removal and storage. Carbon capture and storage (CCS) from industrial and energy-related sources, which alone does not remove CO_2 from the atmosphere, can remove atmospheric CO_2 if it is combined with bioenergy production (Bioenergy with Carbon Capture & Storage - BECCS). Removals can be subject to reversals, which are any movement of stored GHG out of the intended storage that re-enters the atmosphere. For example, if a forest that was grown to remove a specific amount of CO_2 is subject to a wildfire, the emissions captured in the trees are reversed.'

FAQ 3: Can an undertaking disclose a transition plan with a GHG emission reduction target not compatible with 1.5°C degrees under ESRS E1?

111. Yes. ESRS E1-1§16a) requires the undertaking to explain how its GHG emissions reduction targets are compatible with 1.5°C, with reference to its disclosure under ESRS E1-4. The disclosure on climate targets under E1-4 requires the company to state whether targets are science-based and compatible with 1.5°C. Therefore, the undertaking may publish non-compatible targets, as long as this is made transparent under both E1-4§34e and E1-1§16a and as long as the other elements of the E1-1 disclosures on transition plan for climate change mitigation provide an appropriate understanding of the key features of the adopted transition plan.

FAQ 4: If an undertaking has an already public GHG emission reduction target, does the associated base year need to be restated to follow ESRS recommendations?

112. No, if an undertaking already has GHG emission reduction targets in place which have been publicly disclosed prior to the first CSRD reporting, these should not be updated for the purposes of CSRD requirements provided the

baseline value calculation meet the ESRS E1-6 requirements and the target year and value meet the ESRS E1§34 and ESRS 2 MDR-T requirements. The target base year can remain unchanged, until the target is required to be updated, e.g. due to significant changes in scope, once they have been achieved, or after 2030. Information on these targets should be reported in line with CSRD requirements.

113. If an undertaking has no previously publicly communicated target, ESRS E1 AR 25 (b) does not set a recommendation but a methodological (application) requirement to set a new target base year, '… that does not precede the first reporting year of the new target period by longer than 3 years. …'. In other words, the base year must be one of the last three years in which the undertaking has reliably measured its GHG emissions.

FAQ 5: How to calculate and report on the GHG emission reduction target benchmark comparison with the reference target value?

114. To answer this question, we will work through an example. Imagine a company TARGEX that is a food and beverage company producing long duration packaged milk with operations in 5 EU countries and milk production units in 3 EU countries. It has set separate targets for each of its Scope 1, Scope 2 and four categories of Scope 3 emission categories (purchased goods and services; upstream transport and distribution; waste generated in operations, and downstream transport and distribution). [To be further developed]

5.2. Decarbonisation levers-related FAQ

FAQ 6: How does the scenario analysis in ESRS E1 interact with the transition plan disclosure and which scenario to use for which purpose?

115. Scenario analysis, according to the ESRS Glossary, is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. With regards to E1, the undertaking shall explain how it uses climate-related scenario analysis to

a. determine its impacts on climate change, i.e. its future GHG emissions (paragraph 20 (a)):

b. inform the establishment and ambition of its GHG emission reduction targets (paragraph 34 (e)); and

c. inform the identification and assessment of climate-related physical and transition risks and opportunities (paragraph 21) and the resilience of its strategy and business model (paragraph 19 (b)).

116. During this process, high emissions climate scenarios are used for the identification of climate-related hazards and the assessment of the undertaking's exposure and sensitivity to them (i.e. climate-related physical risks). Scenarios consistent with the Paris Agreement and limiting climate change to 1.5°C are used to identify transition events and the assessment of exposure to them. Different scenarios can be used to explore different policy and technology trajectories to reach a given temperature target compatible

with the Paris Agreement and identify dependencies which driver transition risk.

117. Paris aligned GHG mitigation scenarios can also be used to produce decarbonization pathways for the undertaking, used to derive in a top-down approach science-based GHG mitigation targets and to derive reference target values used to compare and benchmark GHG emission reduction targets or interim targets in the respective Scopes. This is done with reference to a sector- specific, if available, or a cross-sector emission pathway compatible with limiting global warming to 1.5°C.

118. The use of scenario analysis is also relevant in the process of understanding, modelling and deciding on the undertaking's targets and pathway and is therefore a cornerstone of the transition plan. The different scenarios shape and define the assumptions and sensitivity analyses upon which the target and ambition is based on.

119. The results of the scenario analysis are disclosed according to E1 ESRS 2 IRO-1 Disclosure Requirement that is intended to provide transparency on the approach taken by the undertaking to identify and assess its climate-related impacts, risks and opportunities.

120. Having identified its impacts, risks and opportunities, the undertaking can adopt appropriate policies, actions to implement them, as well as targets to support them. These climate mitigation actions and targets will in turn inform the disclosures of E1-1, such as, in particular, paragraph 16 (a) referring to GHG emission reduction targets, 16 (b) referring to GHG emission reduction targets and climate change mitigation actions, or 16 (c) referring to climate change mitigation actions.

121. The scenarios analysis also supports the disclosures on paragraphs 16 (d) and 16 (e). When disclosing on paragraph 16 (d), the assessment of locked in emissions should be consistent with the assumptions of the Paris aligned scenario selected to set the reference target. When disclosing on paragraph 16(e) the undertaking shall, for Taxonomy aligned activities, report objectives and plans to align economic activities with the Taxonomy Regulation criteria. For climate change mitigation, the technical screening criteria include that 'the projected life-cycle GHG emissions from the researched technology, product or other solution do not undermine GHG mitigation objectives under the Paris Agreement or hinder the deployment of climate mitigation solutions'.

122. Implementation of actions and resources to mitigate material risks will also result in the undertaking's ability to absorb material risks or adapt the business model, which is referred to as resilience and a subject of disclosure under E1 ESRS 2 SBM-3. The outcome of this will inform the E1-1 disclosures, such as paragraph 16 (h), requiring an explanation of how the CTP is embedded in and aligned with the overall business strategy and financial planning of the undertaking.

5.3. Financial planning-related FAQ

FAQ 7: What is the difference between stranded assets and locked-in emissions?

123. The two concepts are linked since stranded assets are the key assets currently used or planned (most likely to be deployed over the medium-term) with significant locked-in GHG emissions over their operational life which create a significant risk for the undertaking not to be in a position to recover the full monetary amount recognised at year-end as an asset. Stranded assets are a source of financial risk for undertakings as they are investments or assets whose value is devalued because of changes in legislation, environmental constraints, or technologies. When assessing stranded assets, locked-in emissions relating to the assets of the undertaking are to be used as a factor informing the assessment. However, there are additional criteria to that of locked-in emissions that also are to be considered. While assets with high locked-in emissions can become stranded, stranded-assets do not necessarily have to have high locked-in emissions.

124. To be noted that a distinction can be made between stranded assets from which 100% of the relative emissions are locked-in for their entire lifetime versus stranded assets for which undertakings can reduce the share of locked-in emissions over time. Some assets can be retrofitted (i.e. ICE cars can potentially be retrofitted to electric or biofuels, emissions related to buildings in which one consumes gas and shift to electricity over time, retrofitting for boats, etc.) and the possibility of doing these retrofits is important for the transition.

125. If applicable, the undertaking shall disclose on ESRS E1 paragraph 16 (f) significant CapEx amounts invested during the reporting period related to coal, oil and gas-related economic activities. This disclosure will show investments that are at risk of becoming stranded assets due to the transition and that may have significant locked-in emissions.

5.4. Supporting disclosures related FAQ

FAQ 8: What are the EU Paris-aligned Benchmarks (EU PABs)?

126. According to Regulation (EU) 2016/1011, benchmarks refer to indices used to measure the performance of investment funds, financial instruments or financial contracts. As an increasing number of investors pursue low-carbon investment strategies and use low-carbon benchmarks to measure the performance of investment portfolios this regulation was further amended by (EU) 2018/2089, which established the definition of EU Paris-aligned Benchmarks, underpinned by a set of criteria linked to the commitments of Paris Agreement.

127. Commission Delegated Regulation (EU) 2020/1818 supplements further the above-mentioned regulations by specifying exclusions from EU Paris-aligned Benchmarks. Notably, in its articles 12.1 (d) to (g) and 12.2 it refers to the exclusion of:

- undertakings that derive 1 % or more of their revenues from exploration, mining, extraction, distribution or refining of hard coal and lignite (Article 12.1 (d);

- undertakings that derive 10 % or more of their revenues from the exploration, extraction, distribution or refining of oil fuels;

- undertakings that derive 50 % or more of their revenues from the exploration, extraction, manufacturing or distribution of gaseous fuels;

- undertakings that derive 50 % or more of their revenues from electricity generation with a GHG intensity of more than 100 g CO2 e/kWh;

- any undertakings that are found or estimated by them or by external data providers to significantly harm one or more of the environmental objectives referred to in Article 9 of Regulation (EU) 2020/852 of the European Parliament and of the Council, in accordance with the rules on estimations laid down in Article 13(2) of this Regulation.

5.5. Strategy and progress-related FAQ

FAQ 9: How to determine if the undertaking Transition Plan for Climate Change mitigation disclosure is complete?

128. Having complete information supports the quality of faithful representation. Paragraph QC5 of Appendix B of ESRS 1 indicate that faithful representation requires information to be (i) complete, (ii) neutral and (iii) accurate. In particular, a complete depiction of an impact, a risk or an opportunity includes all material information necessary for the users to understand that impact, risk or opportunity. This includes how the undertaking has adapted its strategy, risk management and governance in response to that impact, risk or opportunity, as well as the metrics identified to set targets and measure performance.

129. In general, by meeting the disclosure requirements set out in E1-1 in line with the disclosure objective in paragraph 15 of E1, an undertaking is expected to be able to provide a complete depiction of its CTP. However, there may be cases in which the disclosure required by E1-1 are not sufficient to meet the disclosure objective in E1§15 and therefore to provide a complete depiction. In those cases, an undertaking may need either to make use of additional disclosures required under the relevant sector ESRS (if they exist) or to develop entity-specific disclosures when the disclosures required by E1 or elsewhere in ESRS are not sufficient to address a sustainability impact, risk or opportunity related to its CTP (in accordance with paragraph 11 of ESRS 1).

130. In certain cases, information necessary to provide a complete depiction of the CTP maybe included under other ESRS disclosures. In such cases the CTP disclosures should provide appropriate links to the relevant information that is available elsewhere in the sustainability statement.

131. Conversely, there may be situations in which not all the datapoints set out in E1-1 are material and therefore not necessary to provide a complete depiction of the undertaking's CTP. In those cases, ESRS 1 sets out specific

provisions to determine that certain information is not material and how to proceed in these cases. One such circumstance is if it is determined that a specific data point is not needed under the materiality of information [ESRS1§31]. For example, E1§16(e) is only applicable for undertakings with significant CAPEX in economic activities related to coal, oil, and gas.

132. Given that a transition plan follows the materiality regime of Actions, in accordance with Annex E of ESRS 1 the undertaking shall disclose the data points from the topical standard (E1-1§16 or E1-1§17)) in conjunction with the relevant DRs of ESRS 2, Annex C. In cases such as ESRS E1§16(c) and CapEx plans ("… where relevant…") or ESRS E1§16(f) ("…significant CapEx amounts…"), it is up to the undertaking to determine what is "relevant" and "significant" considering the qualitative characteristics (Annex B, ESRS 1) of the information that it is providing. In all other cases, the undertaking is expected to address the requirement as required in the paragraph, unless it does not clearly apply, e.g. E1§16(e) is for "undertakings with economic activities that are covered by delegated regulations on climate adaptation or mitigation under the Taxonomy Regulation". If this is not the case, then E1§16(e) does not need to be disclosed. Likewise, the disclosure of significant CapEx invested in coal, oil and gas-related economic activities only applies if CapEx is invested, otherwise is not applicable.

FAQ 10: Does an undertaking from a sector not related directly to coal, oil and gas economic activities (e.g. manufacturing) which builds a gas-fired power plant at its site need to disclose this investment under paragraph 16 (f) or not?

133. As stated in ESRS E1-1 paragraph 16 (f), the CapEx amounts considered are related to the following NACE codes:

134. B.05 Mining of coal and lignite, e.06 Extraction of crude petroleum and natural gas (limited to crude petroleum), e.09.1 Support activities for petroleum and natural gas extraction (limited to crude petroleum),

135. C.19 Manufacture of coke and refined petroleum products,

136. D.35.1 - Electric power generation, transmission and distribution,

137. D.35.3 - Steam and air conditioning supply (limited to coal-fired and oil-fired power and/or heat generation),

138. G.46.71 - Wholesale of solid, liquid and gaseous fuels and related products (limited to solid and liquid fuels).

139. If an undertaking invests in one of those activities during the reporting period, it shall disclose the significant CapEx amount, if applicable. The undertaking shall look at the nature of the investment (NACE code) and not to the ESRS sector it is active in when determining whether it shall disclose any amount under ESRS E1 paragraph 16 (f).

5.6. IROs arising from the CTP related FAQ

FAQ 11: How can undertakings disclose on social impacts in the context of just transition?

140. The transition plan disclosure requirements, in particular, ESRS E1§16(b) requires undertakings to set out their decarbonization levers in line with ESRS E1-3 (mitigation actions) and ESRS E1-4 (reduction targets). In doing so, it is relevant to consider ESRS 1 paragraphs 52 and 53 in relation to the materiality assessment; these paragraphs acknolwedge the interdependencies between riska and opportunities and negative impacts and cite just transition as an example of material negative social impacts or risks that result from actions to address climate change . In addition, ESRS 2 paragraph 61, allows that undertakings may disclose information in one place where it relates to one sustainability matter, and cross reference it from another place in the report for those matters that are interconnected.

141. As set previously in the TPIG, undertakings shall consider and disclose relevant information on their own climate adaptation and resilience to physical risk in their transition planning process. This includes related social impacts, i.e., ESRS S1 to S4. I ESRS 1, paragraph 50, disclosures could also reflect an undertakings' potential dependencies on the capabilities and wellbeing of people in the context of adaptation, and on relationships with people in the context of adaptation, that would materially affect their ability to deliver their transition plans.

142. Engaging with affected stakeholders is central to the undertaking's on-going due diligence process and it informs the sustainability materiality assessment (ESRS 1, paragraph 24). Therefore, in the context of its transition plan, the undertaking may consider engaging with stakeholders affected by the proposed actions in the plan, and by the external risks. An undertaking's own workforce (ESRS S1, paragraph 14), workers in the value chain (ESRS S2, paragraph 9) and affected communities (ESRS 3, paragraph 7) are identified as key groups of affected stakeholders and could be consulted in this context.

FAQ 12: What sort of social impacts can undertakings disclose in relation to transition plans?

143. Undertakings may use the topics to be covered in materiality assessment processes that are set out in ESRS 1-AR16 to identify and disclose potential negative impacts on its own workforce (ESRS S1), workers in the value chain (ESRS S2), affected communities (ESRS S3) and consumers and end-users (ESRS S4) related to its transition planning.

144. Examples of how affected stakeholders set out in ESRS S1 to S4 could be affected by the actions set out in transition plans include:

    a. For ESRS S1 (own workforce), climate transition plans often involve restructuring (e.g., discontinuation of specific products, plant closures, etc.) which can have negative impacts on workers, such as job and income loss. Just transition measures to mitigate these (potential) negative impacts may thus include employment guarantees, retraining to enable deployment elsewhere in the undertaking, job creation through new products and services, early retirement. These could equally apply to workers in the value chain.

b. Additionally, workers in the value chain (ESRS S2) might also be negatively impacted by decarbonization levers that focus on renewable energy solutions, which while climate friendly, have value chains that have been known to result in forced labour or other severe human rights impacts (such as those documented in relation to solar panels, battery production or critical minerals).

c. Regarding affected communities (ESRS S3), climate transition plans can have negative impacts through reducing or terminating production or the provision of services, e.g., through plant or mine closures as well as related to initiation of new climate friendly products and services that may include impacts, risks and opportunities related to communities. Affected communities may be impacted in terms of their land-related rights, ability to secure adequate food and housing, might adversely affect vulnerable people such as children, as well as economic, social and cultural rights at large. Disclosure on any impacts on the rights of Indigenous Peoples should be taken into account, including the right to free, prior and informed consent. Other potential impacts on affected communities include impacts associated with innovation and restructuring, closure of mines, as well as increased mining of critical transition minerals, affecting their livelihoods, lands and territories.

d. For consumers and end-users (ESRS S4), access to clean energy at affordable prices may be affected by the success or otherwise of an undertaking's transition plan, impacting their ability to meet their energy needs.

FAQ 13: How can social dependencies and capabilities affect the credibility of transition plan disclosure?

145. ESRS 1, paragraph 38 notes that financial and impact assessments are inter-related and the interdependencies between these two dimensions shall be considered. Undertakings could explain whether there are potential dependencies on the capabilities and wellbeing of people, or on relationships with people as defined in ESRS 1 AR14 that could materially affect their ability to deliver their transition plan, and whether issues set out in ESRS 1 AR16 such as training of own workforce, health and safety of workers in the value chain, and access to land for affected communities could therefore affect the viability – and therefore the credibility – of transition plans on climate change mitigation.

146. Specifically, undertakings should consider whether there are material dependencies in the context of their transition plan, informed by (a) the particular time horizon of the transition plan, (b) the specific universe of people affected by the transition plan and the severity and likelihood of negative impacts, (c) the specific universe of people on whose capabilities, wellbeing and relationships the credibility of transition plan may depend.

147. Where material issues in relation to the transition plan for topics, sub-topics and sub-sub-topics for ESRS S1 to S4 as set out in ESRS 1-AR16, are not currently considered material for the organisation as a whole, the undertaking may disclose this and how it will impact its annual double materiality assessment as set out in ESRS 1, section 3.3.

148. For example:

a) Workers negatively impacted by a transition away from existing production methods may be a small proportion of a global workforce, but a significant proportion of those whose jobs are created, changed or lost due to the transition itself; and those impacts may generate a backlash against the transition plans, for example in the form of higher exit rates from the undertaking by affected workers, or strikes at the undertaking's production facilities.

b) A change in agricultural methods applied by smallholders whose commodities the undertaking buys, which is needed as part of a transition plan, may not appear material in terms of impacts on those smallholders or risks and opportunities for the undertaking. Yet if the smallholders' primary concern is that the new methods will cost too much and make their incomes unsustainable, then their reaction to that expected change can make a material difference to the viability of the transition plan.

c) A change of employment status to temporary contracts or to jobs via an agency where wages or benefits are much lower may not be assessed as material if it affects just 3-5% of the workforce. But if it is 30-50% of the workforce at those operating sites that are central to the transition plan, it is material in that context, affecting the justness of the transition as a critical mass of affected workers face more precarious work situations.

FAQ14: What sort of biodiversity impacts may emerge in the context of climate transition plans

149. Some of the known potential biodiversity risks associated with decarbonization efforts comprise:

a. Land Use and Habitat Loss or fragmentation: Many renewable energy sources, such as solar farms, wind turbines, and bioenergy crops, require large land areas. The construction of extensive solar or wind farms can disrupt native habitats, leading to the displacement of local species. Forests, grasslands, and other biodiverse ecosystems may be cleared or fragmented to accommodate these projects, causing loss of biodiversity and changes to habitats. Furthermore, bioenergy crops often compete with natural landscapes or agricultural land, leading to further habitat encroachment. Habitat fragmentation by creating physical barriers that alter wildlife movement patterns can also occur.

b. Pollution and Ecosystem Imbalance: While many GHG reduction actions will reduce air pollution, some renewable technologies generate (directly or indirectly) localised pollutants. For example, mining for materials used in solar panels and batteries, like lithium, cobalt, and rare earth metals, often takes place in sensitive ecosystems. Mining activities release toxic waste into surrounding areas, which can harm local flora and fauna. Hydropower can disrupt freshwater ecosystems by altering river flow and sediment patterns, impacting water quality and fish populations and the health of downstream habitats.

c. Invasive Species and Novel Ecosystems: Some decarbonization activities inadvertently create favourable conditions for invasive species. For example, large-scale biomass plantations may introduce non-native species into new areas, potentially outcompeting local plants and destabilising ecosystems. When invasive species establish themselves, they often lack natural predators, which can lead to dominance over native species and a loss of biodiversity. Furthermore, the intentional or unintentional creation of "novel ecosystems" can alter the natural balance of native ecosystems, impacting local biodiversity.

FAQ15: What sort of adaptation and resilience dependencies and impacts may emerge in the context of climate transition plans

150. Climate change mitigation and adaptation strategies are frequently interconnected, as effective mitigation efforts often depend on, and are influenced by, adaptation measures. Some of the ways mitigation and adaptation can be connected comprise:

a. Reliance on carbon sinks: Adaptation efforts aimed at protecting and restoring ecosystems—such as forests, wetlands, and oceans—are crucial for maintaining their role as carbon sinks. However, these ecosystems are increasingly vulnerable to climate change effects, such as wildfires, droughts, and rising temperatures. Adaptation measures like fire management, reforestation with climate-resilient species, and wetland restoration help ensure the continued functionality of these carbon sinks, enabling them to contribute effectively to mitigation goals.

b. Agriculture: agricultural activity is both a source of emissions and an area where mitigation can occur through practices that increase carbon sequestration in soils. However, climate change impacts like droughts, floods, and shifting growing seasons can undermine these efforts. Adaptation measures, such as changing crop varieties to more resilient species, improving irrigation efficiency, and practicing climate-smart agriculture, help farmers maintain or even enhance their ability to sequester carbon in soils, contributing to overall mitigation strategies.

c. Energy Supply Chains: Adaptation measures that strengthen the resilience of energy systems also support mitigation efforts by preventing disruptions in the supply chain of renewable energy. For instance, hydropower plants may suffer from reduced water availability due to changing precipitation patterns, or solar panels could be damaged by storms. Adaptation strategies like water management, diversifying renewable energy sources, and climate-proofing infrastructure ensure that renewable energy production remains consistent and reliable, sustaining the transition away from fossil fuels.

d. Urban Planning adaptation: Urban adaptation measures – such as designing cities with green spaces, improving water management systems, and enhancing the resilience of buildings to extreme heat – can also support mitigation by reducing energy demand. For instance, adapting buildings to be more energy-efficient and resistant to heat reduces the need for air conditioning, thus lowering overall energy consumption. Similarly, enhancing public transportation systems to make them more resilient to climate impacts encourages the use of low-carbon transportation options, contributing to reduced emissions.

e. Nature-Based Solutions: many nature-based adaptation solutions, such as restoring mangroves, wetlands, and coastal ecosystems, provide dual benefits. Not only do they help communities adapt to rising sea levels, storm surges, and flooding, but they also sequester carbon, contributing to mitigation. These integrated solutions demonstrate how adaptation can enhance mitigation efforts by leveraging natural processes to address both current vulnerabilities and long-term emission reductions.

FAQ 16: How does the business model's resilience to physical risks relate to the transition plan?

151. The undertaking business model's resilience to physical risk is part of the transition planning activities, to the extent that its climate mitigation strategy may have dependencies on its ability to adapt to climate change. The organization must adjust to both current and anticipated climate changes, recognising that mitigation strategies need to account for the committed warming in the climate system, even if the most ambitious target of 1.5°C is achieved. This implies significant physical risks from climate change, which may impact climate mitigation strategies both due to competition between different investment priorities (adaptation vs. mitigation) as well as physical climate changes leading to lower mitigation impacts than originally forecasted.

152. Undertakings need to assess and manage physical climate risk, which means understanding their exposure and vulnerability, as well as their adaptive capacity. This is needed because physical risk - even if sometimes perceived as longer-term – can materialise at any moment and potentially undermine transition plans; but also, because future mitigation actions can be critically dependent on changes in climate variables (e.g. rainfall). Once climate risks have been identified and assessed, they should be managed through actions and plans to increase the undertaking's resilience as well as

its value chain. Climate adaptation and resilience to physical risk should be part of the transition planning process and can be a material sustainability matter requiring it to be addressed at a strategic level within the CTP.

153. Undertakings may also find opportunities within their climate adaptation response, on which they can capitalise for their transition.

154. However, from a CTP disclosure point of view, there isn't a place where to discuss these aspects within the structure of E1-1 disclosures. In this sense, the provisions in ESRS 1§53a apply – if there are material negative impacts or material risks originating from within the CTP in relation to the adaptation sub-topic - or the other way around - the undertaking shall provide a description of how the material negative impacts or material risks are addressed under the CTP disclosure – or, in the other direction, under adaptation and resilience disclosures.

155. For undertakings with economic activities that are covered by delegated regulations on climate adaptation or mitigation under the Taxonomy Regulation (ESRS E1 paragraph 16 e), the transition plan shall include an explanation of any objective or plans (CapEX, CapEx plans, OpEX) that the undertaking has for aligning its economic activities (revenues, CapEx, OpEx) with the criteria established in Commission Delegated Regulation 2021/2139. [To understand better if link to Taxonomy has any specific aspects linked to adaptation].

5.7. Other FAQ

FAQ 17: What are the key characteristics of transition plans?

156. Transition plans typically feature the following characteristics *inter alia*:

   a. They are detailed multi-year accounts of targets and actions, that set out how a given undertaking will ensure that its business model and strategy are compatible with a specific objective, in this case the goal to limit global warming to 1.5 degrees above pre-industrial levels in line with the Paris Agreement and Art. 2 EU Climate Law.

   b. They are forward-looking: as opposed to the point-in-time updates or retrospective achievements frequently shared in sustainability reports;

   c. They span different time horizons: they delineate undertakings' intended near-term actions (for instance, in the forthcoming one to three years), and how these actions roll up into medium-term strategies and long-term objectives;

   d. They include quantitative information: they estimate the reductions undertakings anticipated from the actions deployed and assess whether these add up to achieving stated emissions targets;

   e. They also include qualitative information: they include narratives on how the different elements - action plans, financial plans, governance, strategy and business model - are consistent and coherent with each other;

f. They are enabling: they integrate activities that facilitate the undertaking's and overall economy decarbonisation such as sector-wide cooperation, business integration, public policy advocacy and just transition.

FAQ 18: What should the undertaking disclose, if it does not have a transition plan for climate change mitigation?

157. In case the undertaking has identified climate change mitigation as material and represents a strategic issue but does not have a transition plan in place, it shall indicate whether and, if so, when it will adopt a transition plan. [E1-1§17]

158. However, it may happen that undertakings only have some elements of a CTP, as laid out by E1-1. Given the objective of providing an understanding of the key components of a transition plan, undertakings are encouraged to assess whether all the necessary information of a CTP as required by CSRD / ESRS is disclosed. If yes, the CTP can be disclosed as such. If not, undertakings may disclose the available elements as part of their sustainability reporting but are encouraged to consider with care the use of a CTP qualification for the disclosed information. This is to facilitate the flow of information across market actors (as well as public actors) about undertakings' preparedness, their achievements, and their challenges in the transition. They should also indicate the elements of information which are missing and what they intend to do about it in the future years.

159. If E1-1 paragraph 16 disclosure is not complete, the undertaking should still report under [E1-1§17] if it intends to have a fully-fledged CTP and by when. Undertakings with non-compatible targets should also report under this disclosure.

FAQ 19: Can the undertaking conclude that transition planning is not material?

160. The undertaking can conclude that the transition plan for climate change mitigation is not material, if the undertaking concludes that the topic climate change or the sub-topic climate change mitigation is not material. According to ESRS 1§32, if the undertaking concludes that climate change is not material and therefore omits all disclosure requirements in ESRS E1 Climate change, it shall provide a detailed explanation of the conclusions of its materiality assessment with regard to climate change (see ESRS 2 IRO-2 Disclosure Requirements in ESRS covered by the undertaking's sustainability statement), including a forward-looking analysis of the conditions that could lead the undertaking to conclude that climate change is material in the future.

161. If the undertaking has determined in dialogue with its auditor that climate change is not material, then it does not need to disclose any of the E1 standard disclosures, but it has to disclose the information in accordance with ESRS 1 §32. The conditions to make this determination are undertaking and entity specific.

162. If the undertaking concludes that the topic of climate change or sub-topic of climate change mitigation is not material, it can conclude that the transition plan for climate change mitigation is not material and still disclose under ESRS

E1 on the sub-topic climate change adaptation. This would include disclosing on policies and targets related to climate change adaptation according to ESRS E1-2 and E1-4.

163. Even if the undertaking has determined that climate change is material, this does not necessarily mean that the transition plan is material, e.g., due to small emissions from travel. If this is the case, the undertaking would disclose a mitigation action plan rather than a strategic transition plan.

FAQ 20: Should subsidiaries be integrated in the transition plan for climate change mitigation or have their own?

164. According to ESRS 1 Chapter 7.6 paragraph 102, when the undertaking is reporting on a consolidated level, it shall perform its assessment of material impacts, risks and opportunities for the entire consolidated group, regardless of its group legal structure. It shall ensure that all subsidiaries are covered in a way that allows for the unbiased identification of material impacts, risks and opportunities.

165. When it comes to GHG accounting, ESRS E1-6 requires the inclusion of GHG emissions connected to the parent undertaking and the subsidiaries in the financial consolidation scope as well as for entities, sites and assets that are under operational control of the parent undertaking and its consolidated subsidiaries.

166. When determining the GHG emission reduction targets for its transition plan, the undertaking shall also take account of the targets related to its subsidiaries. As stated in ESRS E1 paragraph AR 25, the undertaking shall analogously apply the requirements related to the GHG emission reduction targets at the level of the subsidiary.

167. Consequently, an undertaking shall integrate its subsidiaries in its disclosure on transition plan for climate change mitigation.

168. However, it should be noted that, when the activities of the undertaking and its subsidiary are distinctly different, it should consider having separate transition plans since the associated decarbonisation levers and even units for targets can be different.

FAQ 21: Does the undertaking need to disclose asset-level data as part of its CTP disclosures?

169. In preparing a CTP, an undertaking takes into account the conditions allowing for the omission of selected information in accordance with ESRS 1 paragraph 106. When information of sensitive or confidential nature is omitted in accordance with ESRS 1 paragraphs 105 and 106, the undertaking ensures that the disclosures in the CTP meet the requirements in ESRS 1 paragraphs 107 and 108. An undertaking shall disclose asset-level data when:

    a. material impacts, risks and opportunities are highly dependent on a specific asset (ESRS 1§54); and

    b. if this information is not considered as sensitive or classified (ESRS 1§105).

170. Undertakings that own or operate installations under the EU ETS, may incorporate or benefit of the climate-neutrality plans and integrate them into the corporate CTP. Some assets may be deemed material for the undertaking and the climate-neutrality plan of the asset(s) shall also be disclosed in the annual report in accordance with ESRS 1§54.

171. Some strategic assets (e.g., linked to national electricity infrastructure, energy production or supply) play a critical role in the transition but may require measures and policies – e.g. planning alternative assets, specific financial compensations, etc – from governments at the national level. This may be considered as sensitive information and consequently not disclosed.