Title: Mandating climate-related financial disclosures by publicly quoted companies, large private companies and Limited Liability Partnerships (LLPs) **IA No: BEIS-5061(2)** **RPC Reference No:** **Lead department or agency:** Department for Business, Energy and Industrial Strategy **Other departments or agencies: N/A**	**Impact Assessment (IA)** **Date:** 01/10/2021 **Stage:** Final Stage **Source of intervention:** Domestic **Type of measure:** Secondary Legislation **Contact for enquiries:** Silvia.LozanoGuerrero@beis.gov.uk (Analysis) Jamie.Armour@beis.gov.uk (Policy)

Summary: Intervention and Options

RPC Opinion: Fit for purpose

Cost of Preferred Option (in 2019 prices)			
Total Net Present Social Value	**Business Net Present Value**	**Net cost to business per year**	**Business Impact Target Status**
£-1250.9m	£-1250.8m	£145.3m	Qualifying provision

What is the problem under consideration? Why is government action or intervention necessary?

Poor understanding of climate-related risks and opportunities among some companies and financial institutions means that these risks cannot be managed and will likely lead to an inefficient allocation of capital. Climate-related financial risks may also have a material impact on the viability of some companies and their investors, for example through stranded assets or increased losses from exposure to physical climate risks. The current voluntary approach to climate risk reporting is unlikely to be effective; companies do not want to be subject to first mover disadvantage, and amongst those that do report, reporting quality varies significantly. Even if some businesses could signal their relative attractiveness through voluntary climate disclosures, uncertainty would remain over those who did not report, making financial risks harder to judge. Government is best placed to resolve this issue to achieve a level playing field across all areas of the economy and to move industry towards best practice, decision-useful disclosures.

What are the policy objectives of the action or intervention and the intended effects?

The aim of the intervention is to improve the quality and quantity of climate-related financial disclosures by UK Registered Companies and Limited Liability Partnerships (LLPs) across the UK economy. This would better inform investors, policymakers, civil society and businesses themselves, of the likely impacts of climate change. This should allow investment decisions to better reflect climate risks, leading to a more climate-resilient economy.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The Green Finance Strategy[1] set out that all listed companies and large asset owners should disclose in line with the Taskforce for Climate-Related Financial Disclosures (TCFD) recommendations by 2022. Following a consultation in March 2021, we have considered the following options within this Impact Assessment, all of which (except Option 0) entail mandatory climate related financial disclosures, but with variations on scenario analysis requirements: Option 0) Do Nothing, Option 1a) Voluntary Scenario Analysis 1b) Mandatory qualitative scenario analysis from 2022 and 1c) Mandatory quantitative scenario analysis from 2022. Our preferred option is Option 1b.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** Q4 2027				
Is this measure likely to impact on international trade and investment?	Yes			
Are any of these organisations in scope?	**Micro** No	**Small** No	**Medium** No	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)	**Traded:** N/A	**Non-traded:** N/A		

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: Date: 27/10/2021

[1] UK Green Finance Strategy, 2019, [https://www.gov.uk/government/publications/green-finance-strategy]

Summary: Analysis & Evidence — Policy Option 1a

Description: *Mandatory disclosure for: Relevant Public Interest Entities (PIEs), including UK Premium and Standard listed companies with over 500 employees, UK registered companies with securities admitted to AIM with more than 500 employees, LLPs covered by the "500 test" and UK registered companies which are not included in the categories above and are covered by the "500 test".* **Scenario Analysis remains voluntary.**

FULL ECONOMIC ASSESSMENT: Costs and Benefits expressed relative to Option 0 (Do Nothing)

Price Base Year 2020	PV Base Year 2022	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -1522.5	**High:** -573.4	**Best Estimate:** -1128.7

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	33.9		62.7	**573.4**
High	33.9		172.6	**1522.5**
Best Estimate	33.9		126.9	**1128.7**

Description and scale of key monetised costs by 'main affected groups'

Monetised costs include the additional reporting costs to 1350 groups of companies that fall within scope of the incoming requirements (using the preferred scope from the consultation stage Impact Assessment). This includes the cost of disclosing their governance, strategy, risk management plus calculating and disclosing the metrics and targets used to assess and manage climate related risks. One-off monetised costs include the cost to government of producing guidance and the cost to companies of familiarisation and legal review, which we expect to occur in the first year of implementation and apply to all in scope.

Other key non-monetised costs by 'main affected groups'

Costs not quantified within this Impact Assessment include the cost to the regulator for the monitoring and enforcement of incoming requirements.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low				
High				
Best Estimate	-		-	**-**

Description and scale of key monetised benefits by 'main affected groups'

Benefits have not been monetised given the difficulty of estimating the change in the allocation of capital.

Other key non-monetised benefits by 'main affected groups'

We expect this option to lead companies to develop some understanding of the climate-related risks they face and therefore be better equipped to develop a strategy to effectively monitor and manage those risks and take advantage of opportunities. Proper disclosure of climate-related risks, in line with TCFD recommendations, will better inform investors how companies are likely to be impacted by climate change; supporting a more efficient allocation of capital and more orderly transition, through improved information and shifting investment flows in line with climate risks. The benefits of managing climate-related risks are likely to be substantial e.g., the Bank of England estimates that loan exposures to fossil fuel producers, energy utilities and emission intensive sectors are equivalent to around 70% of the largest UK banks' regulatory capital.

Key assumptions/sensitivities/risks — **Discount rate:** 3.5

- The number of entities in scope is expected to remain stable over the appraisal period of 10 years.
- The average cost to each company that falls into scope and is not currently reporting against TCFD, is assumed to be equal, albeit we recognise that the cost to each company will vary depending on their business model, the complexity of their corporate structure, supply chain and the baseline level of internal expertise.
- The current level of alignment has been adjusted with respect to the consultation stage IA to reflect findings from research commissioned by BEIS. We have tested this baseline level of alignment to produce low and high estimates of costs.
- Only requiring voluntary scenario analysis could undermine the extent to which benefits discussed within this IA are realised.

BUSINESS ASSESSMENT (Option 1a)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 131.1	**Benefits:** -	**Net:** 131.1	**578.4**

Summary: Analysis & Evidence Policy Option 1b (Preferred option)

Description: *Mandatory disclosure for: Relevant Public Interest Entities (PIEs), including UK Premium and Standard listed companies with over 500 employees, UK registered companies with securities admitted to AIM with more than 500 employees, LLPs covered by the "500 test" and UK registered companies which are not included in the categories above and are covered by the "500 test".* **Qualitative scenario analysis required from 2022.**

FULL ECONOMIC ASSESSMENT: Costs and Benefits expressed relative to Option 0 (Do Nothing)

Price Base	PV Base	Time Period	Net Benefit (Present Value (PV)) (£m)		
Year 2020	**Year** 2022	**Years** 10	**Low:** -1855.4	**High:** -1166.4	**Best Estimate:** -1417.8

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	53.6		128.9	**1166.4**
High	53.6		208.8	**1855.4**
Best Estimate	53.6		158.1	**1417.8**

Description and scale of key monetised costs by 'main affected groups'

Monetised costs include the additional reporting costs to 1350 groups of companies that fall within scope of the incoming requirements (using the preferred scope from the consultation stage Impact Assessment) This includes the cost of disclosing their governance, strategy, risk management plus calculating and disclosing the metrics and targets used to assess and manage climate related risks. It also includes the costs of developing a qualitative scenario analysis from 2022. One-off monetised costs include the cost to government of producing guidance and the cost to companies of familiarisation and legal review, which we expect to occur in the first year of implementation and apply to all in scope.

Other key non-monetised costs by 'main affected groups'

Costs not quantified within this Impact Assessment include the cost to the regulator for the monitoring and enforcement of incoming requirements.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low				
High				
Best Estimate	-		-	**-**

Description and scale of key monetised benefits by 'main affected groups'

Benefits have not been monetised given the difficulty of estimating the change in the allocation of capital.

Other key non-monetised benefits by 'main affected groups'

We expect this option to lead companies to develop a stronger understanding of the climate-related risks they face and therefore be better equipped to develop a strategy to effectively monitor and manage those risks and take advantage of opportunities, especially given the inclusion of scenario analysis into our requirements. Proper disclosure of climate-related risks, in line with TCFD recommendations, will better inform investors how companies are likely to be impacted by climate change; supporting a more efficient allocation of capital and more orderly transition, through improved information and shifting investment flows in line with climate risks. Additionally, scenario analysis should allow a better understanding of potential outcomes to which the company will be exposed to, shaping the company's strategy, contingency plans and monitoring approaches. The benefits of managing climate-related risks are likely to be substantial. e.g., the Bank of England estimates that loan exposures to fossil fuel producers, energy utilities and emission intensive sectors are equivalent to around 70% of the largest UK banks' regulatory capital. In addition, this option would be the starting point for a phased approach in order to allow businesses to build up capabilities ahead of future International Sustainability Standards, should they be implemented.

Key assumptions/sensitivities/risks	**Discount rate**	3.5

- The number of entities in scope is expected to remain broadly stable over the appraisal period of 10 years.
- The average cost to each company that falls in scope and is not already reporting against TCFD is assumed to be equal, albeit we recognise that the cost to each company will vary depending on their business model, the complexity of their corporate structure, starting level of expertise internally, etc.
- The current level of alignment has been adjusted with respect to the consultation stage Impact Assessment to reflect findings from research commissioned by BEIS. We have tested this baseline level of alignment to produce low and high estimates of costs.

BUSINESS ASSESSMENT (Option 1b)

Direct impact on business (Equivalent Annual) £m:			**Score for Business Impact Target (qualifying provisions only) £m:**
Costs: 164.7	**Benefits:** -	**Net:** 164.7	726.6

Summary: Analysis & Evidence

Policy Option 1c

Description: *Mandatory disclosure for: Relevant Public Interest Entities (PIEs), including UK Premium and Standard listed companies with over 500 employees, UK registered companies with securities admitted to AIM with more than 500 employees, LLPs covered by the "500 test" and UK registered companies which are not included in the categories above and are covered by the "500 test".* **Mandatory quantitative Scenario Analysis from 2022.**

FULL ECONOMIC ASSESSMENT: Costs and Benefits expressed relative to Option 0 (Do Nothing)

Price Base Year 2020	PV Base Year 2022	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -2500.5	**High:** -1698.2	**Best Estimate:** -1958.6

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	188.3		174.9	**1698.2**
High	205.0		265.9	**2500.5**
Best Estimate	183.8		205.6	**1958.6**

Description and scale of key monetised costs by 'main affected groups'

Monetised costs include the additional reporting costs to 1350 groups of companies that fall within scope of the incoming requirements (using the preferred scope from the consultation stage Impact Assessment). This includes the cost of disclosing their governance, strategy, risk management and calculating and disclosing the metrics and targets used to assess and manage climate related risks. It also includes the costs of developing a quantitative scenario analysis from 2022. One-off monetised costs include the cost to government of producing guidance and the cost to companies of familiarisation and legal review, applicable in the first year of implementation for all in scope.

Other key non-monetised costs by 'main affected groups'

Costs not quantified within this Impact Assessment include the cost to the regulator for the monitoring and enforcement of incoming requirements.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low				
High				
Best Estimate	-		-	**-**

Description and scale of key monetised benefits by 'main affected groups'

Benefits have not been monetised given the difficulty of estimating the change in the allocation of capital.

Other key non-monetised benefits by 'main affected groups'

We expect this option to lead companies to develop a stronger understanding of the climate-related risks they face and therefore be better equipped to develop a strategy to effectively monitor and manage those risks and take advantage of opportunities, especially given the inclusion of scenario analysis into our requirements. Proper disclosure of climate-related risks, in line with TCFD recommendations, will better inform investors how companies are likely to be impacted by climate change; supporting a more efficient allocation of capital and more orderly transition, through improved information and shifting investment flows in line with climate risks. Additionally, scenario analysis should allow a better understanding of potential outcomes to which the company will be exposed to, shaping the company's strategy, contingency plans and monitoring approaches. The benefits of managing climate-related risks are likely to be substantial. e.g. the Bank of England estimates that loan exposures to fossil fuel producers, energy utilities and emission intensive sectors are equivalent to around 70% of the largest UK banks' regulatory capital.

Key assumptions/sensitivities/risks	**Discount rate**	3.5

- The number of entities in scope is expected to remain broadly stable over the appraisal period of 10 years.
- The average cost to each company that falls in scope and is not already reporting against TCFD is assumed to be equal, albeit we recognise that the cost to each company will vary depending on their business model, the complexity of their corporate structure, starting level of expertise internally, etc.
- The current level of alignment is based on research commissioned by BEIS. We have tested this baseline level of alignment to produce low and high estimates of costs.
- Companies might lack the resources and expertise to perform quantitative scenario analysis by 2022, which could undermine the expected benefits of the intervention.

BUSINESS ASSESSMENT (Option 1c)

Direct impact on business (Equivalent Annual) £m:			**Score for Business Impact Target (qualifying provisions only) £m:**
Costs: 227.5	**Benefits:** -	**Net:** 227.5	**1003.7**

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Section 1: Problem under consideration

1. The UK Government has set a world-leading target to reach net zero greenhouse gas emissions by 2050. Green finance is a critical enabler for these ambitions by ensuring private finance is allocated in a way which properly considers the risks and opportunities from climate change, and also allocated in a way that is consistent with net zero.

2. Climate change poses significant risks to businesses, financial institutions, communities, and individuals. These may manifest as physical risks or transition risks. Physical risks are those arising from the climatic impact of a rise in global average temperature (e.g., increased frequency and severity of extreme weather events), whilst transition risks are those arising from the changes in technology, policy, markets, and consumer sentiment which will result from the transition to a low-carbon economy.

3. Both physical and transition risks have the potential to have material financial impacts on businesses and individuals in the short, medium, and long-term. The Climate Change Committee (CCC), in their third independent assessment of the UK's climate risks, states that in the absence of further adaptation policies, the number of risks with annual impacts of over £billions is likely to triple by 2080.[1] If exposure to these risks is not properly analysed, understood and disclosed, capital may be misallocated, with implications for financial stability, whilst the likelihood of unexpected and unmanageable losses from extreme weather events, and the likelihood of assets becoming 'stranded' because of our transition to a low-carbon economy, will increase.

4. Additionally, the opportunities arising from the low-carbon transition will be significant, as new technologies, products and services are required to meet regulatory and consumer expectations. Those companies best placed to profit from the transition should, over time, attract more capital from investors, as greater risk-adjusted returns are realised.

5. The Task Force on Climate-related Financial Disclosures (TCFD), composed of industry participants, was created to improve and increase reporting of climate-related financial information. This taskforce developed recommendations[2] (the "TCFD recommendations") to ensure that business risks and opportunities from climate change are clearly communicated in organisational reporting. The recommendations were designed to be voluntarily and have already attracted considerable support internationally. More than 2,300 organisations worldwide[3] – spanning non-financial and financial organisations – have now formally indicated their support for the recommendations.

6. In July 2019, the UK Government published its Green Finance Strategy[4]. This set out the Government's vision for transforming the global financial system for a greener future and further enhancing the competitiveness of the UK's real economy and financial services sector. Leadership on green finance will enable the UK to maximise the economic opportunities of the global and domestic shifts to clean and resilient growth. The strategy set out the Government's expectation that all listed companies and large asset owners should disclose in line with the TCFD recommendations by 2022.

[1] Climate Change Committee (CCC), Independent Assessment of UK Climate Risk, June 2021, [https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/]

[2] Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017, [https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf]

[3] FSB, accessed in July 2021, [https://www.fsb-tcfd.org/support-tcfd/]

[4] UK Green Finance Strategy, 2019, [https://www.gov.uk/government/publications/green-finance-strategy]

7. In addition to this expectation, the Government established a joint taskforce with UK regulators to examine the most effective way to approach disclosure, including exploring the appropriateness of mandatory reporting. The joint taskforce proposed, in its interim report published on 9th November 2020[5], to require mandatory TCFD reporting across various sectors of the economy through both regulatory and legislative means by 2025. As a result, BEIS published on 24th March a consultation seeking views on proposals to require mandatory TCFD aligned climate-related financial disclosures from publicly quoted companies, large private companies, and Limited Liability Partnerships (LLPs).

8. This proposal complements other regulatory activity; the FCA require premium listed companies to disclose in line with TCFD on a comply or explain basis from 1 January 2021, and they are currently consulting on plans to expand this requirement to standard listed companies as well as FCA regulated pension schemes, life insurers and asset managers. Whilst there is a degree of overlap with BEIS proposed regulations and the FCA rules, we do not account for FCA disclosure in the counterfactual do nothing scenario included within this IA. This is due to the FCA rules exclusion from the business impact target, in line with better regulation guidance. More detail on this can be found in paragraph 128. Additionally, DWP will require the largest occupational pension schemes to disclose in line with TCFD by 2023.

9. This Impact Assessment evaluates the options for mandating climate related financial disclosures and the associated cost to businesses for those in scope. All the feedback received during the consultation period (which closed on 5th May 2020) has been reviewed and carefully considered. This Impact Assessment is part of the Government's response to the consultation. In Section 4: Consultation Feedback, we summarise the feedback received and outline key decisions taken following the responses and views received from stakeholders. The options outlined within this Impact Assessment are based on the recommendations outlined in the 2017 TCFD recommendations report[6], in order to ensure that companies adequately set out material climate related risks and opportunities to business models as well as organisational strategies for dealing with these risks.

Section 2: Rationale for intervention

10. The rationale for intervention is built around the following market failures:

Externalities:

11. Greenhouse gas (GHG) emissions impose externalities: as GHG emissions rise, GHG concentrations increase, and global temperatures rise. Numerous studies have set out the adverse consequences on climate from higher temperatures[7]. In response, Governments across the world have implemented emission reduction strategies involving regulation, carbon pricing and other market-based mechanisms. These will have a significant impact on energy generation and distribution systems, and the way energy is used in industry, homes, transport, and agriculture.

12. Businesses will therefore need to adapt to both the adverse consequences of climate change, and to the changes in their energy use and the type of products they sell. For example, the continued use of some existing products will be inconsistent with future emissions reductions, or too expensive when the GHG externality is priced in. In this changing environment, businesses and investors will need to make different investment

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[5] Interim Report of the UK's Joint Government Regulator TCFD Taskforce, Nov 2020, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933782/FINAL_TCFD_REPORT.pdf]

[6] Recommendations of the Task Force on Climate-Related Financial Disclosures, 2017, [https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf]

[7] IPCC, Global warming of 1.5°C, 2019, [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf]

decisions. If they do not consider climate change risks, there is a significant risk of **stranded assets** – i.e., assets that will be unviable in the future – that will ultimately be scrapped prematurely. In addition, businesses may miss out on opportunities that are enabled by governments' responses to climate change.

13. For instance, according to McGlade, Ekins (2015)[8]; it has been estimated that a third of oil reserves, half of gas reserves and 80% of coal reserves should remain unused in order to meet the target of 2 degrees rise above the average global temperature of pre-industrial times. This has implications for not only fuels companies but also all institutions or people investing on companies relying on these assets.

14. These risks are likely to be substantial. The Intergovernmental Panel on Climate Change (IPCC) estimates $69 trillion in global financial losses by 2100 from a 2-degree warming scenario[9]. In the UK, the Bank of England estimates that loan exposures to fossil fuel producers, energy utilities and emission intensive sectors are equivalent to around 70% of the largest UK banks' regulatory capital (defined as common equity Tier 1 CET1 capital).For UK insurers, around 12% of equity and 8% of corporate bond portfolio exposures are in 'high carbon' technologies[10].

Information asymmetry:

15. Faced with these risks, investors need to differentiate between investments with different levels of climate exposure so that they can make appropriate investment decisions. However, at present there is no direct formal requirement for businesses to disclose information on their exposure to climate risks[11]. With a lack of information, investors are likely to misprice climate risks and the cost of capital is likely to be too high for some businesses and too low for others. In extremis, some viable firms may not be able to get access to capital at all as risk–reward trade-offs are not fully understood by markets.

16. The evidence suggests that some firms do recognise that there are significant benefits to disclosure, as this can potentially translate into lower cost of capital:

    a. The disclosure of climate-related financial information aligned with the TCFD recommendations has steadily increased since the recommendations were published in 2017[12]. For example, the TCFD found that amongst 1,701 public companies across 69 countries, voluntary disclosures increased, on average, by 6 percentage points between 2017 and 2019[13].

    b. Recent research commissioned by BEIS[14], discussed in further detail in Annex 1, illustrates that 27% of the 150 companies assessed are reporting reasonably in line with TCFD. However, reporting was shown not to be consistent across all 11 of the TCFD recommendations, with some disclosures being better reported than others. For example, within the analysed sample, low numbers of companies were fulfilling the TCFD recommendation to conduct scenario analysis. The percentage of alignment with TCFD

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[8] McGlade, C., Ekins, P., 2015: "The geographical distribution of fossil fuels unused when limiting global warming to 2 °C", [https://www.nature.com/articles/nature14016]

[9] IPCC Global Warming of 1.5 ºC, Chapter 3, 2019, [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Chapter3_Low_Res.pdf]

[10] Bank of England, Dec 2019, [https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf]

[11] It should be noted that SECR makes mention through guidance to reporting risks and opportunities from any impact on the environment or from climate change, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850130/Env-reporting-guidance_inc_SECR_31March.pdf]

[12] Task Force on Climate-related Financial Disclosures (TCFD), 2020 Status Report, October 2020, [www.fsb.org/wp-content/uploads/P291020-1.pdf]

[13] *Ibid.*

[14] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

recommendations is low, especially for those companies that do not have a publicly listed parent company.

17. However, voluntary action is unlikely to be enough:

    a. Even amongst those that do report, evidence from TCFD status reports indicates that reporting standards vary, and alignment with the framework is inconsistent. The 2020 TCFD status report[15] also identified that, on average, information that aligned with TCFD recommendations was four times more likely to be located within sustainability reporting than within annual financial reports[16]. This suggests that climate reporting still may not be fully integrated into companies' financial decision making. The previously cited research commissioned by BEIS also reinforced conclusions from the TCFD status report;[17] the sample of 150 companies illustrated that company disclosures vary with a company's size, corporate structure, sector, and legal form, as well as across the 11 TCFD recommendations.

    b. Evidence from interviews, carried out during the research commissioned by BEIS, suggests that anticipation of regulatory requirements is a key driver for companies to start engaging in TCFD reporting, supporting the rationale that the introduction of a mandatory requirement is needed in order to increase the quantity and quality of TCFD disclosures among UK companies.

    c. Finally, it is not enough that only "good risks" are identified. Full transparency over all risks would help markets identify those companies at risk of stranded assets. This would allow investors to evaluate the risks they are running.

18. In addition, disclosures are needed to help enable financial institutions to meet new regulatory requirements. For instance, banks are being asked to conduct climate stress testing, and occupational pension schemes are being asked to disclose their own climate risk in line with TCFD. For these regulatory requirements, it is important that financial institutions can access information about the climate risk they are exposed to through their loan books and investment portfolios. To access this information, financial institutions need disclosures from the underlying businesses that they are exposed to.

19. Furthermore, this information is also required and used by investors[18]. Evidence from survey responses has shown that 50% of retail investors have read ESG reports (or Non-Financial Reporting) for companies in which they invest and among these, more than half considered ESG performance an important factor (38%, a very important factor) in their decision to invest[19]. Investors want companies to show that they will remain productive and competitive through managing well their transition towards a net zero economy. In addition, evidence suggest that disclosures are needed. Some investors are still under-pricing the impact of climate-related risks in their portfolios[20]. The risks posed by more frequent severe climate events are not effectively reflected in assets prices. Improved disclosures could help correcting any mismatches in the prices

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[15] *Ibid.*

[16] *Ibid.*

[17] *Ibid*

[18] For instance, the Investment Association (representing a third of FTSE companies) announced in 2019 their expectations of seeing companies addressing their risks and exposures related to climate change), [https://www.theia.org/media/press-releases/investors-demand-companies-manage-climate-change-risk-ahead-2020-agm-season]. Climate Action 100+ (representing the largest group of investors by assets under management) also requested that companies provided TCFD information; 2020 Progress Report, [https://www.climateaction100.org/wp-content/uploads/2020/12/CA100-Progress-Report.pdf]

[19] BEIS, 2020: "Frameworks for standards for non-financial reporting". [https://www.gov.uk/government/publications/frameworks-for-standards-for-non-financial-reporting]

[20] Blackrock, 2019. [https://www.blackrock.com/corporate/newsroom/press-releases/article/corporate-one/press-releases/investors-underappreciate-climate-related-risks-in-their-portfolios]

of assets. TCFD information[21] could help investors redirect their investments, change behaviour and transform companies' strategies and their portfolios.

Other key barriers to reporting include:

20. The costs associated with making and complying with extensive disclosure requirements, as well as a reluctance to disclose commercially sensitive information and the potential legal liability that may arise with forward looking projections associated with climate risk.

21. Fears of impact on investor confidence and share prices: Those companies in scope who do not have a well-developed strategy to address climate risk would likely choose not to voluntarily disclose in line with TCFD recommendations to avoid a negative impact on investor confidence and share prices.

22. First Mover disadvantage: The current lack of mandatory and standardised disclosure requirements means that companies are unwilling to disclose unless their comparators are also disclosing. This is because of the fear of adverse market response to their disclosures if their competitors are not producing equivalent disclosures. Whilst it could be argued that companies will benefit from a first mover advantage due to improved transparency and signalling, research commissioned by BEIS[22] found that voluntary disclosure remains low. This suggests that companies are failing to recognise the benefits from enhanced disclosure.

23. The Tragedy of the horizon[23]: climate change will have long-term consequences that need to be addressed today. The most catastrophic effects may be felt beyond the traditional horizons of most actors, imposing a cost in the future that has little direct incentive on financial markets today. Risk management measures should be in place so that future generations and companies themselves are not imposed the costs of the lack of action now. Mandatory climate related financial disclosure requirements will aim to make companies reflect on the risks they will be exposed to in the future - even if these are perceived to be long-term – and actions they could take to mitigate these.

24. Investors may not be able to effectively co-ordinate to encourage and influence a market led improvement in climate-related disclosures across companies. Disclosures are therefore then determined through the private incentives companies themselves face. This is likely to be of more relevance to businesses with traded shares where the shareholder base is fragmented.

25. Further, even if some businesses could signal their relative attractiveness through climate disclosures, uncertainty would remain over those who did not report, making financial risks harder to judge. The group of non-reporters would also be more likely to include more of those who are most exposed to climate risks.

26. In addition to the market failures discussed above, the incoming regulations would also build-on existing disclosure requirements and improve existing capabilities related to climate disclosure. These benefits are discussed further in Section 8.

27. Responses to the consultation reflected on the importance of ensuring that the format for disclosure is such that information is presented in a decision useful, standardised and comparable format, whilst following a well-known set of standards. Concretely, these regulations should be targeted to i) ensure that information is comparable across companies, ii) the quantity and quality of climate-related disclosures improve and

[21] Blackrock's CEO advocates for a single global standard for climate disclosure. Larry Fink's 2021 letter to CEOs, [https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter]

[22] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

[23] Mark Carney (2015). "Breaking the tragedy of the horizon – climate change and financial stability", [https://www.bis.org/review/r151009a.pdf]

ultimately iii) climate risk becomes increasingly considered within the boardroom and across the organisation.

Section 3: Policy objective

28. The Government wants to improve the quantity and quality of climate-related financial disclosures across a significant portion of the UK economy in order to help investors make informed decisions and account for climate when allocating capital among portfolios. In addition, mandating climate related financial disclosures should help companies to understand their own climate risk better, build up capabilities and raise awareness about the importance of addressing exposures to climate risks. As set out above, despite some voluntary take up, the levels of disclosure are not sufficient for all the potential benefits of climate related financial disclosures to be realised. Ultimately, the Government expects the measure will support a better allocation of capital in line with our net zero target and reduce material financial risks from climate change.
29. The theory of change for mandating climate related financial disclosure requirements is illustrated in Annex 2: Theory of Change.

Section 4: Consultation Feedback

30. The original consultation IA considered the following options: the option of "do nothing" (which is not pursued by the Government), the option of voluntary disclosure, and the option of mandatory disclosure. Mandatory disclosure was considered under different threshold combinations in order to define the scope of these regulations. Our consultation stage IA's preferred option was mandating climate-related financial disclosure for Relevant Public Interest Entities (PIEs), including Premium and Standard listed companies with over 500 employees, UK registered companies with securities admitted to AIM with more than 500 employees, LLPs covered by the "500 test" and UK registered companies which are not included in the categories above and are covered by the "500 test".
31. We received 137 responses to our consultation[24], with widespread support for our policy intent and ambition in this area. We received strong support in some key areas, for example scope, location of disclosures and enforcement mechanisms. 58% of respondents agreed with our proposals around the scope of climate related financial disclosures for companies and LLPs. 70% of respondents agreed that the Strategic Report was the best place for disclosures to be made and 71% of respondents agreed that current enforcement mechanisms were suitable for both companies and LLPs.
32. Feedback was more mixed in other areas, especially on the depth of requirements. For example, 41% of respondents agreed with our original proposal to not include scenario analysis as a requirement, against 43% who disagreed or asked for at least qualitative requirements; and a further 10% who argued that even if government did not require scenario analysis from the outset, it should set a clear roadmap for introducing requirements in the future[25]. On the areas where we have received mixed feedback, further policy work has been undertaken, alongside more detailed quantitative analysis

[24] BEIS, 2021, [https://www.gov.uk/government/consultations/mandatory-climate-related-financial-disclosures-by-publicly-quoted-companies-large-private-companies-and-llps]

[25] In our consultation, we included question 8: "*Do you agree with our proposal that scenario analysis will not be required within a company or LLP's annual report and accounts?*". Most respondents advocated for some form of scenario analysis (ideally quantitative scenario analysis), although they recognised current businesses' limitations around capabilities and expertise. The remaining 16% of respondents proposed government should set a roadmap towards mandatory scenario analysis (10%) or had other views.

of costs and qualitative analysis of benefits to businesses, investors and wider society (outlined in Section 10: Direct Costs and Benefits to Businesses Calculations).

33. After consideration of consultation responses and continued stakeholder engagement, a number of changes to the final regulations proposed in this Impact Assessment have been proposed. Changes are related to the depth of requirements, with the most significant change being the introduction of qualitative scenario analysis requirements.

34. Based on the feedback received, we propose mandatory qualitative scenario analysis for in scope companies and LLPs from the implementation date of 6th April 2022. We believe that this approach is reasonable and proportionate, as companies and LLPs will be able to use qualitative scenario analysis to understand their exposure to climate risks in the future. We understand that while some companies might decide to go beyond these requirements (i.e., quantifying scenarios), there will be some companies that lack the expertise, resources and capabilities to undertake quantitative scenario analysis by the time these regulations come into force. According to guidance issued by the TCFD secretariat, the first step of scenario analysis should be understanding the impacts of climate-related risks and opportunities from a qualitative perspective, and quantification should proceed in phases. However, TCFD clarifies that quantification must be the goal in a mature process of scenario analysis[26]. Imposing quantitative scenario analysis from 2022 would not be appropriate given the current capabilities of companies in scope of the regulations and the costs associated with this requirement[27].

35. Scenario analysis, under the TCFD framework, is a tool to drive critical strategic thinking, and allows companies to test the resilience of their strategy against different potential pathways. Institutions disclosing in line with TCFD typically start by undertaking qualitative scenario analysis which uses narratives or storylines in relation to a changing climate or Government policy to help company management understand how climate-related impacts could come to bear over time. As organisations gain experience with this approach, they can move to quantitative scenario analysis by incorporating external scenarios, datasets or quantitative models.

36. Undertaking scenario analysis deepens companies' engagement with the climate-related impacts their business could face; and disclosing this will provide more granular information to financial decision makers about their preparedness. Both DWP and the Financial Conduct Authority (FCA) have required scenario analysis under their rules for the largest occupational pension schemes and premium listed companies respectively. The inclusion of scenario analysis within BEIS regulations also strengthens the alignment with other requirements in this area.

37. The wording of the regulations will also more closely mirror the wording of the TCFD recommendations than was proposed at consultation stage, to address concerns raised that otherwise companies subject to both BEIS and FCA requirements might have to disclose slightly different things under each set of requirements. The inclusion of scenario analysis will contribute to further alignment.

[26] TCFD, 2020: "Guidance on Scenario Analysis for Non-Financial Companies", [https://assets.bbhub.io/company/sites/60/2020/09/2020-TCFD_Guidance-Scenario-Analysis-Guidance.pdf]. Pages 30-31: "The first step is to understand the impacts of climate-related risks and opportunities from a qualitative perspective […]. Quantification should proceed in steps […]".

[27] For instance, our commissioned research has evidenced that the level of alignment with scenario analysis among large private limited companies is very low (14%). This finding is supported by the literature capturing other types of companies. Further details in

Annex 1: Status of TCFD reporting.

Section 5: Description of options

38. Following the strong support for mandatory disclosure and the proposed scope of climate related financial disclosures in our consultation[28], the following options have been considered within the final stage Impact Assessment.

    - **Option 0 - Do nothing:** The government will not pursue the "do nothing" for the reasons set out in Section 2. In summary, there are several reasons why this option is not preferred. Primarily, current levels of TCFD disclosure are lower than optimal[29]. Without better coverage of the economy, it will be difficult to compare companies on their climate credentials and as a result it will be difficult for investment and other decisions to be made based on that information. Additionally, with current low levels of coverage, there is less pressure on companies to develop best practice. This is particularly the case for those sectors/companies that are currently under less scrutiny and may have reached a view that they are not materially exposed to climate-related risks and opportunities without having carried out the analysis to support such a position. In addition, some companies have flagged in research commissioned by BEIS, that they would not disclosure until a formal requirement is put into place given the current barriers to reporting that have been set out in Section 2.
    - **Option 1 - Mandatory disclosure:** This option considers all UK companies that are currently required to produce a non-financial information statement, being UK companies that have more than 500 employees and either have securities admitted to trading on a UK regulated market or undertake banking or insurance activities are from here on in **referred to as "Relevant Public Interest Entities (PIEs)".** In addition, private limited companies, and other entities (e.g., LLPs) with more than 500 employees and turnover over £500m are also in scope.

      Given the strong support received in response to the consultation on the proposed scope, the options below only vary by the introduction and the timing for the requirement to produce scenario analysis in order to comply with regulations.

      - **Option 1a - Voluntary scenario analysis.** This option aligns with our initial consultation proposal of leaving the scenario analysis recommendation outside the regulations. Companies could go beyond that (i.e., disclosing a scenario analysis), but this would be on a voluntary basis.
      - **Option 1b - Preferred Option: Qualitative scenario analysis required by companies in scope from 6th April 2022.** Companies would be required to deliver at least qualitative scenario analysis from 6th April 2022.
      - **Option 1c - Quantitative scenario analysis required by companies in scope from 6th April 2022.** This option differs from Option 1a and 1b by requiring quantitative scenario analysis from 2022. Therefore, whilst this is the most ambitious option and aligns with the long-term expectation of the TCFD's guidance, this option would impose increased costs on businesses due to lack of preparedness and a short time frame for businesses in scope to comply.

39. Our preferred option is Option 1b. Feedback from consultation has shown that a significant proportion of stakeholders would support introducing a requirement for scenario analysis. Whilst Option 1a would protect businesses from incurring additional costs associated with this recommendation, this option does not align with any long-term expectations from the TCFD's existing guidance, nor the government commitments set

[28] BEIS, 2021, [https://www.gov.uk/government/consultations/mandatory-climate-related-financial-disclosures-by-publicly-quoted-companies-large-private-companies-and-llps]
[29] TCFD, 2020 Status Report, October 2020, [https://www.fsb.org/wp-content/uploads/P291020-1.pdf]

in our Green Finance Strategy. Option 1c is the most ambitious option and despite delivering a clear requirement, where costs could be mitigated through the use of publicly available scenarios[30], it is a challenging requirement that could leave businesses in scope exposed to burdensome costs with insufficient time to prepare to comply with these regulations. Option 1b would be a starting point for implementing a phased approach in order to allow businesses to build up capabilities ahead of future International Sustainability Standards, should they be implemented in the UK. This option seems to be proportionate and aligned with some useful suggestions received from stakeholders throughout the consultation stage.

40. The government has chosen not to pursue a non-regulatory option, which could take two potential forms, outlined in more detail below:

    - **A non-regulatory option would be to continue with "voluntary disclosure,"** and could entail the government issuing further guidance on how to account for climate change risks. Whilst the option of voluntary disclosure may further encourage consistent TCFD disclosures, it is expected that the lack of statutory weight behind published guidance would result in a level of compliance and implementation that is insufficient relative to the policy objectives (as highlighted in paragraph 17). Furthermore, there is already a significant amount of guidance available and work ongoing on TCFD and climate-risk analysis. It is therefore unlikely that additional government guidance on its own would have a significant impact and risks adding further complexity.
    - Another non-regulatory option would be requiring **disclosures on a "comply or explain" basis**. However, this option has not been identified as suitable for the reasons outlined in Section 2. Given the scale of the risks companies, financial institutions and wider society face as a result of climate change, and the evidence suggesting that current voluntary TCFD disclosure is relatively low, the option of "comply or explain" might not provide a clear signal to market participants, especially those with less pressure from their stakeholders (i.e., non-listed companies). Whilst some companies might understand the need to "comply", others may face uncertainties and difficulty in recognising material climate risks and therefore opt to "explain" unless formally required to engage in analysis and reporting. Given that more than half of the companies in scope of BEIS regulations are private companies, the "comply or explain" option could imply that businesses incur much of the cost of compliance (for instance, even if they explain, they might have to go through a process for legal review and assessment of capabilities prior to explaining), alongside uncertainty and confusion about their exposure to climate-related financial risks. In addition, this option may also risk not achieving the expected benefits from this intervention as a result.

Section 6: Implementation plan

41. Our preferred option would be implemented through secondary legislation. Specifically, this would be done via an affirmative Statutory Instrument (SI), making changes to the Companies Act 2006 and, via a negative resolution procedure for LLP regulations to apply a modified form of the provisions for companies to LLPs. There would be a sufficient time lag between when the SI is made in Parliament and when the rules would

[30] NGFS, Climate Scenarios for central banks and supervisors, June 2020, [https://www.ngfs.net/sites/default/files/medias/documents/820184_ngfs_scenarios_final_version_v6.pdf]

come into force on the Common Commencement Date of 6th April 2022[31] for companies to prepare for the requirements. For those companies in scope, company accounting periods starting on or after 6 April 2022 will need to be compliant with these regulations. In the absence of shortened accounting periods the first accounts that must be compliant with these regulations will be in respect of the period 6th April 2022 to 5th April 2023. For this reason, there will be no further transitional arrangements.

42. We have proposed that we would use powers under the Companies Act 2006 and the Limited Liability Partnership Act 2000 to mandate climate related financial disclosures in annual reports. The Companies Act and the relevant LLP Regulations already contain general enforcement provisions which deal with a failure to prepare or file the relevant report. The Financial Reporting Council's (FRC) Conduct Committee (an authorised body under section 457 Companies Act 2006 for the purposes of section 456 of the 2006 Act[32]), and the FRC Review Panel, have a role to ensure that the provision of financial information (including directors' reports) by public and large private companies complies with Companies Act requirements. In other matters, the FRC challenges companies where they have concerns with accounts and report on their findings. The FRC would therefore regulate climate related financial disclosures in the annual reports and accounts of companies.

43. The intervention will increase the quantity of disclosures, as significantly more companies and LLPs will be required to disclose climate related information than are currently disclosing voluntarily. Additionally, reaching this critical mass of disclosures will move industry towards best practice in terms of quality of disclosures on faster timelines. This option will mitigate the current first mover issue companies are concerned about, lead to greater standardisation of reporting and, as a result, improve comparability and the decision-usefulness of disclosures.

44. These regulations have been developed in consultation with other departments and regulators. These measures complement other actions taken by the Department of Work and Pensions (Acting on climate risk: improving governance and reporting by occupational pension schemes[33]) and the Financial Conduct Authority (implementing a rule for commercial companies with a UK premium listing and consulting at the time of drafting this Impact Assessment on extending these requirements to other listed companies[34]). Given our respective remits, rule-making powers and enforcement mechanisms, there are some differences in approach between each party. However, all actions are consistent with commitments stipulated in the Roadmap[35] towards mandatory climate-related disclosures, published in November 2020.

45. The regulations would cover listed companies with more than 500 employees. As outlined in paragraph 8, the FCA has introduced requirements for all premium listed commercial companies for accounting periods beginning on or after 1 January 2021 and is currently consulting on extending the application of its requirements to a wider scope of listed issuers of standard listed equity shares (excluding standard listed investment entities and shell companies)[36]. It is proposed that the FCA rules (requiring disclosure of

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[31] For more information on Common Commencement Dates, see the Better Regulation Framework: https://www.gov.uk/government/publications/better-regulation-framework

[32] The Financial Reporting Council (FRC), Operating Procedures, May 2021, [https://www.frc.org.uk/accountants/corporate-reporting-review/operating-procedures]

[33] DWP, Governance and reporting of climate change risk: guidance for trustees of occupational schemes, June 2021, [https://www.gov.uk/government/publications/governance-and-reporting-of-climate-change-risk-guidance-for-trustees-of-occupational-schemes]

[34] FCA, CP21/18: Enhancing climate-related disclosures by standard listed companies, 2021, [https://www.fca.org.uk/publications/consultation-papers/cp21-18-enhancing-climate-related-disclosures-standard-listed-companies]

[35] HMT, UK joint regulator and government TCFD Taskforce: Interim Report and Roadmap, November 2020, [https://www.gov.uk/government/news/business-secretary-launches-major-overhaul-of-uks-audit-regime-in-wake-of-big-name-company-collapses]

[36] FCA, 2021. [https://www.fca.org.uk/news/press-releases/fca-consults-further-climate-related-disclosure-rules]

the 11 TCFD recommendations[37]) would apply for the extended scope of listed issues for accounting periods beginning on or after 1 January 2022. The FCA's requirements are currently on a "comply or explain" compliance basis. The FCA has reiterated its intention to consult on introducing climate-related disclosure rules on a mandatory basis, signalling that the appropriate time to consult on moving to a mandatory compliance basis would likely be once a new international IFRS reporting standard for sustainability (beginning with climate change, and building on the TCFD's recommendations) has been introduced in the UK. Should this be materially delayed, the FCA would expect to consult on moving its existing TCFD-aligned rule to a mandatory compliance, in line with the timeline set out in the Government's Roadmap[38].

46. BEIS has recently issued a consultation document in respect of Restoring Trust in Audit and Corporate Governance[39]. The proposals in that consultation document include extending the definition of Public Interest Entities, a proposal to introduce a mandatory resilience statement and it asks whether the resilience statement could be used as a vehicle for climate-related financial disclosures in the future. While timing of those reforms and implementation of the proposals set out in this document may differ, we think that the approach to climate-related financial disclosures should be consistent with that envisaged by the wider reform work.

47. Our proposals will also support financial institutions subject to increasing legislative and regulatory expectations, by facilitating the supply of information throughout the investment chain. Parliament has recently passed the Department for Work and Pensions (DWP) Pension Schemes Act (2021) that gives it the power to require Occupational Pension Schemes to make climate-related disclosures. DWP issued a consultation in August 2020, proposing a phased implementation of mandatory obligations, beginning with the largest schemes, from 2022. DWP have subsequently issued a further consultation in January 2021 consulting on the draft legislation and draft statutory guidance that would enact the government's policy proposals. On 8 June 2021, the draft regulations (Climate Change Governance and Reporting) were laid before Parliament. In addition, The Department for Work and Pensions (DWP) published their final guidance for trustees of occupational pension schemes. Both regulations and guidance will come into force on 1 October 2021[40].

48. Additionally, banks, building societies and insurance companies are subject to a Supervisory Statement on climate-related financial risks, published in 2019, by the Bank of England's Prudential Regulation Authority (PRA). The PRA provided further guidance in a "Dear CEO" Letter, issued in July 2020. The PRA will assess the need for further measures in 2022. In both instances, our proposals will support the financial institutions in question.

49. We are also conscious of the interactions with the Streamlined Energy and Carbon Reporting (SECR) framework, which requires large UK companies and large LLPs[41] to make disclosures on energy use and emissions in their Annual Reports. The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 came into force on 1 April 2019 and apply to financial years which started on or after 1 April 2019. The 2018 Regulations introduced new obligations for

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[37] TCFD Recommendations Report, June 2017 [https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf]

[38] See footnote 35.

[39] BEIS, Restoring trust in audit and corporate governance: proposals on reforms, March 2021, [https://www.gov.uk/government/consultations/restoring-trust-in-audit-and-corporate-governance-proposals-on-reforms]

[40] Consultation outcome: The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, [https://www.gov.uk/government/consultations/taking-action-on-climate-risk-improving-governance-and-reporting-by-occupational-pension-schemes-response-and-consultation-on-regulations/the-occupational-pension-schemes-climate-change-governance-and-reporting-regulations-2021]

[41] The definition of "large" used by SECR is the Companies Act 2006's definition (when a company meets two or more of the following criteria: more than 250 employees, annual turnover greater than £36m and annual balance sheet total greater than £18m). The rules do also apply differently for quoted and unquoted companies. All UK quoted companies are in scope of SECR.

what must be included in the Directors' Report for quoted and large unquoted companies as well as placing an obligation on large LLPs to prepare a new reporting format ('the Energy and Carbon Report'). The 2018 Regulations built on the requirements for all quoted UK companies to report on scope 1 and 2 emissions which have been in place since 2013. We therefore sought views through the consultation on how best to simplify the interaction of the proposed climate related financial disclosure requirements with the SECR obligations, including ways in which the SECR obligations may be changed to make them more effective.

Section 7: Methodology for Estimating the Number of Entities in scope[42]

50. A UK company or a UK group of companies will be in scope of mandatory reporting obligations when any of the following conditions apply:
    - A UK company meets the scope thresholds[43]
    - A UK parent company owns a company that meets the respective thresholds.
    - A UK parent company reaches the relevant turnover/employees on their group consolidated accounts[44]. This condition applies even if the subsidiaries do not meet the thresholds on an individual basis but do when their accounts are aggregated.

51. In our consultation stage Impact Assessment, we included estimations covering 1) the number of companies that meet the scope thresholds on their own and 2) where UK parent companies owning a company that met the respective thresholds. However, we did not include groups of companies that reach the relevant turnover/employees on their consolidated accounts. We have therefore updated and refined the analysis within this Impact Assessment to account for this.
52. We have used the FAME database[45] to derive the number of companies in scope of the incoming regulations. One of the key limitations of the FAME database is that it does not consistently provide consolidated figures on UK turnover and employees for groups of companies. When undertaking the analysis, a significant majority of relevant PIEs and AIM quoted entities provided consolidated information (approximately 90%), whereas only about 50% of private limited companies provided consolidated accounts on FAME. As a result of this limitation, there are a number of groups that could fall within scope where we are not able to identify if their accounts sum to meet the thresholds.
53. To account for this limitation, the list of PIEs in scope was evaluated to assess how many "additional" groups of companies would be in scope as a result of reaching the minimum number of employees (i.e., 500 employees) when aggregating the number of employees for each of their subsidiaries, despite no subsidiary meeting that threshold on an individual basis. This exercise resulted in an increase of 26% on the initial identified groups of companies in scope, due to the UK parent owning a PIE which meets the relevant, 500-employee, threshold. The resulting 26% increase in the number of groups captures the additional number of groups in scope when the subsidiaries aggregate to

[42] Based on FAME data from April 2021.

[43] All "Relevant Public Interest Entities (PIEs)" (PIEs with more than 500 employees). In addition, private limited companies, and other entities (e.g., LLPs) with more than 500 employees and turnover over £500m.

[44] Representing UK employees and/or turnover only.

[45] FAME is a database including information on more than 11 million companies from the UK and Ireland. It includes financial information, information on financial strength, M&A data, news, customised data, information on individuals, original documents, information on corporate structures and industry research, [https://www.bvdinfo.com/es-es/-/media/brochure-library/fame.pdf]

the 500-employee threshold when no individual subsidiary has more than 500 employees[46].

54. Given that we are not able to run the equivalent analysis for the register of all active UK private limited companies using FAME[47] (as this comprises over 4.5m companies), we have applied the equivalent percentage increase (26%) over the number of groups captured for a private limited company meeting the relevant thresholds (i.e., 500 employees and £500m turnover).

55. We consider this approach to be a proportionate measure to tackle some data limitations and the resulting possibility that a number of groups of companies could be omitted from this Impact Assessment when no subsidiary alone was meeting the thresholds, but the group did fall into scope when subsidiaries accounts were aggregated.

56. In the consultation stage IA, the central scenario for the number of companies in scope reported only the number of subsidiaries and parents in scope (i.e., taking the highest UK owner that met the respective threshold as well as any subsidiary beneath that also met the threshold). Groups were omitted that met the relevant thresholds when: they did not provide consolidated accounts in FAME and when none of their subsidiaries met the thresholds on an individual basis and; when subsidiaries met the respective thresholds on an aggregated basis.

57. Table 1 below outlines the final estimated number of group of entities falling within scope of our preferred option.

Table 1: Number of Groups in Scope (to the nearest 10) [48]

In scope (group level)	Consultation Stage IA	Final Stage IA
Public Interest Entities	430	510
Companies registered in AIM	130	130
Large private companies and LLPs	690	710
TOTAL	**1270**	**1350**

58. Companies are expected to report at the group level (or at the company level if not included within the reporting of a consolidated group). When a UK group is in scope, all the subsidiaries (UK and overseas) belonging to the same UK group, would be expected to hold some degree of reporting burden. The top UK parent is expected to report on their global operations (on activities conducted through a UK subsidiary or an overseas subsidiary), as long as these companies are included in the consolidated reporting. However, for the purposes of this Impact Assessment, we include costs for those subsidiaries registered in the UK only[49]. The estimated number of active UK subsidiaries affected is shown in Table 2 below.

[46] This analysis is based on the list of Domestic Ultimate Owners for PIEs in scope. Information on the number of employees was available for 91% of the remaining sample of companies that had not already been identified to be in scope (within the thresholds). Data extracted: April 2021.

[47] Other databases such as the Inter-Departmental Business Register (IDBR) use different statistical definitions of entities related to business activities and not to legal ownership. Therefore, it has been considered as non-suitable for our analysis.

[48] The variations with respect to the consultation IA are due to the use of a different snapshot from FAME (data from April 2021) and an updated list of Public Interest Entities provided by the FRC. Corrections for possible underestimations have also been introduced, as explained in paragraphs 52-53.

[49] Green book (2020), [https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent]

Table 2: Number of Global and UK-only Active Subsidiaries of Groups in Scope to the nearest 100[50]

Subsidiaries of groups in scope	Estimated active subsidiaries[51]	Estimated UK[52] only active subsidiaries
TOTAL	26,700	10,700

Section 8: Description of the Counterfactual "Do Nothing" option

59. In the Consultation stage IA, we assumed that no companies comply with TCFD to any degree. This was explicitly flagged as a lower bound and an area that would be revised in the final stage IA. It was also tested further in the sensitivity analysis by assuming a variety of different levels of additionality to test the impact on the Net Present Value.

60. As discussed in section 2, TCFD status reports and research conducted by AECOM on behalf of BEIS illustrates that some companies are already reporting climate-related information aligned with the TCFD recommendations. A review of the literature and a description of each of the scenarios considered in this Impact Assessment is available in

[50] These estimates are based on the sample of Domestic Ultimate Owners for any company identified to be in scope. Information on number of subsidiaries was available for 95% of the sample in FAME. Data extracted: April 2021. The Consultation Stage IA only included companies that met the scope thresholds (almost 1,600 companies), whereas costs are now included for all active UK subsidiaries and not for only those that would meet the thresholds.

[51] According to FAME, 59.03% of the companies in the register are either inactive, active-dormant or with an unknown situation. These estimates are based on the subsidiaries beneath the groups identified to be in scope plus an additional number of subsidiaries that could be in scope from additional groups added into table 2's estimates. We increase the number of subsidiaries based on a median number of 4 subsidiaries per groups owning a private limited company or LLP in scope.

[52] UK subsidiaries are identified by their country code on their BvD number ("GB*").

61. Annex 1: Status of TCFD reporting.

62. Table 3 below summarises the expected level of alignment for each of the four TCFD pillars (and for scenario analysis specifically). Our central counterfactual scenario has been modelled according to AECOM's research findings[53]. Given that private companies comprise 53% of all the companies in scope of climate related financial disclosures regulations, we consider that the scores obtained through AECOM's research are appropriate for modelling our counterfactual scenario. AECOM's research might also represent the alignment of other companies (e.g., when the UK parent was a public company). When no disclosure was made at the large private company level, researchers analysed the disclosures made by either the UK or the global parent company. Therefore, it is considered that this study provides evidence of the current status of climate related financial disclosure for most of the large companies in scope of our regulations. Further detail about this report is included in

[53] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

63. Annex 1: Status of TCFD reporting.

64. The percentages reported for EU companies on the TCFD 2020 Status Report are considered for modelling a lower cost scenario. The coverage is not UK-specific, which means the sample does not focus on a specific group of companies (i.e., PIEs, premium listed companies), eliminating any bias related to the company's legal form. A 0% alignment for all companies in scope of these regulations is considered for modelling a higher cost scenario, which is the counterfactual that had previously been considered in the consultation stage Impact Assessment[54] and which should aim to correct any potential optimism bias from the existing studies (e.g., some companies might have some TCFD-related disclosures available, but might still incur costs of reporting to better align with BEIS and TCFD guidance and make sure they comply with these requirements).

65. These percentages have been applied to the expected number of companies in scope reported in Section 6, to assess the expected level of additionality from the incoming regulations. This therefore provides the number of groups of companies to be included within the cost-benefit analysis (Section 9).

Table 3: Number of additional groups in scope that will need to comply (to the nearest 10) [55]

Reporting sections	Additional groups having to comply (Central Scenario)	Additional groups having to comply (Lower cost Scenario)[56]	Additional groups having to comply (Higher cost Scenario)
Governance	890 - (34% of 1350 already aligned)	790 - (42% of 1350 already aligned)	1350 (0% already aligned)
Strategy (excluding Scenario Analysis)	1040 - (23% of 1350 already aligned)	630 - (54% of 1350 already aligned)	1350 (0% already aligned)
Scenario Analysis	1160 – (14% of 1350 already aligned)	1200 – (11% of 1350 already aligned)	1350 – (0% of 1350 already aligned)
Risk Management	1020 - (24% of 1350 already aligned)	830 - (39% of 1350 already aligned)	1350 (0% already aligned)
Metrics and Targets	920 - (34% of 1350 already aligned)	630 - (53% of 1350 already aligned)	1350 (0% already aligned)

66. The counterfactual has been modelled at the group level. As a result, we have assumed that the number of subsidiaries included within the cost benefit analysis will not vary. This is because we expect all subsidiaries to incur a cost for collecting and reporting

[54] Consultation outcome: The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, [https://www.gov.uk/government/consultations/taking-action-on-climate-risk-improving-governance-and-reporting-by-occupational-pension-schemes-response-and-consultation-on-regulations/the-occupational-pension-schemes-climate-change-governance-and-reporting-regulations-2021]

[55] See

Annex 1: Status of TCFD reporting

[56] According to the TCFD 2020 Status report, on the EU sample: TCFD, 2020 Status Report, October 2020, [https://www.fsb.org/wp-content/uploads/P291020-1.pdf]

information to their parent company. Group level reporting may, however, not include information on some subsidiaries that are not material to the group. From these requirements, it is expected that UK groups will report information in respect of all the material segments of their business. This “materiality filter” would ultimately apply at the group level and only after a UK parent company has assessed if the information received from their subsidiaries is relevant for analysis and climate related financial disclosures.

67. We assume that the number of entities that face familiarisation costs and legal review costs in year 1 is independent of the counterfactual scenarios outlined above. This is because we assume that all companies (and their subsidiaries) in scope will be required to familiarise themselves with BEIS guidance to understand and decide if their existing reporting is compliant with the incoming regulations.

68. It should be noted that whilst most of the costs have been modelled on the 4 TCFD pillars (shown in Figure 1 below), with the exception of scenario analysis. Entities in scope are expected to include information on each of the 11 TCFD recommendations, including scenario analysis.

Section 9: An Overview of Costs and Benefits

69. The TCFD framework[57] includes 11 recommendations which are split into four pillars of Governance, Strategy, Risk Management and Metrics & Targets. These are illustrated below:

Figure 1: The TCFD Recommendations and the Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

70. After consideration of consultation responses and stakeholder engagement, a number of changes to the final regulations and associated IA have been adopted. These include the introduction of scenario analysis requirements. Scenario analysis is a useful tool for companies to effectively communicate the potential impact of a range of future climate scenarios on the company's strategy. However, it has been evidenced that it is the most challenging area of the TCFD recommendations[58] (see

[57] TCFD Recommendations Report, June 2017 [https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf]

[58] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

71. Annex 1: Status of TCFD reporting). As a result, this was an area we sought direct feedback within the consultation published in March 2021.

72. Whilst the inclusion of scenario analysis within our regulations reflects a move towards alignment with the 11 TCFD recommendations, as opposed to the four TCFD pillars, we would expect that the costs associated with the incoming disclosure requirements will broadly fall into divisions that align with each of the TCFD four pillars, as outlined in the consultation stage IA. As a result, the on-going costs of reporting for companies in scope with respect to the consultation IA remain largely the same, except for the inclusion of the costs to businesses to conduct scenario analysis, in line with the 11 TCFD recommendations.

73. We have further refined costs from the consultation stage IA through the inclusion of additional costs attributed to the requirement for scenario analysis and the costs for internal auditing and quality assurance, as well as legal review. We have also included additional costs for each subsidiary considered to be in scope (outlined in Table 2) to reflect the cost of collecting information and passing this to their UK parent company who is expected to report on their behalf.

Costs to Businesses:

One-off costs:

74. Familiarisation Costs: These are the one-off costs for all entities that fall in scope to familiarise themselves with the incoming disclosure requirements (independently of whether these companies are already reporting in alignment with the TCFD recommendations). These costs will be experienced within the first-year companies fall into scope of the requirements. Regulations are expected to be in place from 2022. Companies will need to get familiar with BEIS Guidance, TCFD Guidance and other companies' disclosures before producing their own report. This cost is borne at both the group and subsidiary level for all the subsidiaries and groups that could be in scope. However, since the disclosure will be reported by the UK parent company, the costs associated with familiarisation with BEIS guidance are greater for groups than for subsidiaries.

75. Legal review: The consultation IA assumed that companies would not seek external advice with respect to legal costs. Feedback from roundtables and responses from stakeholders noted that companies would likely seek additional review and verification of their scope and disclosures in the first year of implementation. In addition, our proposals are to require climate-related financial disclosures to be situated in the annual report. As such, companies will need to obtain an understanding of the legal and regulatory requirements applicable to the entity and how the entity is complying with those legal and regulatory requirements. As a result, an additional cost to reflect this has been included at the group level.

Ongoing Costs to Business:

76. Cost to Subsidiaries of Collecting and Submitting Information: This is the cost expected to be borne by the subsidiaries of groups in scope of the regulations. Whilst reporting will be at the group level, subsidiaries are expected to provide information to their UK parent on an annual basis for analysis and reporting purposes. All active subsidiaries would incur these costs and not only those that meet the relevant thresholds, as outlined in paragraph 58. This cost was not included in the consultation stage IA, as we included equivalent costs to groups and their subsidiaries that met the scope thresholds. This is

therefore a more refined approach to model the costs we expect subsidiaries to face and has been included at the active UK-registered subsidiary level.

77. Cost to Parent Companies of Processing Information: Once a UK parent company receives information from their subsidiaries, companies are expected to evaluate this information in order to determine which matters are material to the group and to identify and calculate and other disclosures related to the other recommendations.

78. Governance: These are the ongoing annual costs that fall on all entities in scope to adapt governance structures and document and disclose their governance of climate related risks and opportunities. Concretely, companies will have to disclose information on their board's oversight of risks and opportunities and on the management's role in assessing and managing these risks. This cost has been included at the group level.

79. Strategy: These are the ongoing annual costs that fall on all entities in scope to identify, document and disclose climate-related risks and opportunities, as well as reporting on the impact of these risks on the company's business, strategy and financial planning. This includes the costs of performing research, quantification (when applicable) and writing of scenarios on an annual basis to deliver scenario analysis, which we have quantified separately in section 9. Companies will be required to describe the company's strategy resilience using different climate-related scenarios.

80. Risk Management: These are the ongoing annual costs that fall on all entities in scope to disclose the company's management of climate-related risks. This includes the identification and assessment of risks and their integration into the company's overarching risk-management strategy. This cost has been included at the group level.

81. Metrics & Targets: These are the ongoing annual costs to those in scope of developing, calculating and disclosing the metrics and targets used to assess and manage climate related risks. This includes the costs of collecting data on an annual basis to report against these metrics and targets, which we have quantified separately in section 9.

82. Publication and sign-posting: These are the annual costs of dispersing information publicly. This cost has been included at the group level.

83. Quality assurance and Internal verification: We expect that companies incur in costs related to verifying and quality assuring their disclosures internally.

84. External Audit costs: Companies are not formally required to audit climate related financial information. These costs might appear in the future but are not included in this Impact Assessment since they are expected to be voluntary. However, auditors may perform consistency checks if the outcomes from scenario analysis reference any of the other information subject to audit from the Annual Report. Additionally, if risks are identified to be material, auditors might need to assess whether these have been included or reflected in the company's Annual Report. The additional work to be performed by auditors is expected to be primarily related to verification and checks for consistency and completeness. Any subsequent change in audit fees is expected to be within the scope of normal audit fees' annual variation, especially given that the nature of the required scenario analysis is qualitative. Therefore, these costs are treated as a potential additional indirect cost and not included in our assessment.

Other ongoing Costs:

85. The above costs are classified as costs to businesses. There will be also an additional one-off cost for producing the required disclosure guidance. We currently expect this guidance to be produced by BEIS employees given the necessary timings for

implementation. **We estimate the costs to government of producing the required guidance to be £116,500, to the nearest £100**.[59]

86. We also expect there to be an additional ongoing cost of monitoring, supervision and enforcement to the Financial Reporting Council (FRC) as the appropriate regulating body for disclosures under this proposed Companies Act requirement. However, it is expected that the increase in the FRC levy for any additional costs for monitoring would not be significant for individual contributors. We note that since any additional ongoing costs to the regulator would be covered through an increase in the FRC levy. These costs are out of scope of the Better Regulation Framework. As a result, these costs are excluded from the Business Impact Target Calculations within this Impact Assessment.

87. The number of contributors affected by a potential increase in the Preparers Levy is around 4,000[60], which includes Departments, local authorities and public sector organisations. It is estimated that over 60% of the companies expected to fund FRC through this levy would not be in scope of these regulations. Any estimates on additional costs for businesses are still subject to further consultation between FRC and FCA on the coordination of their monitoring activities, or developments in other regulations (e.g., the Audit Quality Review) which may increase the scope of work for auditors.

Potential (indirect) Costs to Investors**:**

88. One of the key assumptions for the benefits outlined in the theory of change (Annex 2: Theory of Change) to materialise is that investors and stakeholders are able to understand and readily access disclosures and climate related financial information from companies. There is a risk that information may not be presented in market friendly format or that market data suppliers are the only source of this converted and accessible data. As a result, investors might incur additional fees to access this data through intermediaries. However, these costs are not included within our cost benefit analysis as it is expected that investors already have access to intermediary market data platforms to improve their access to other (financial) data.

Benefits:

89. We do not consider it feasible to reasonably estimate and monetise the benefits of these proposals, given their nature. As a result, we have qualitatively outlined key benefits below, which can be split into three overarching categories: 1) the benefits to the companies in scope and their counterparties in terms of preparedness for business risks from climate change, plus an increased ability to exploit opportunities from climate change; 2) the wider benefits for investors; and 3) benefits to wider society that derive from a more efficient allocation of capital and asset pricing.

Benefits to Companies:

90. There are several potential benefits to companies that fall into scope of the incoming regulations. The proper implementation of the TCFD recommendations should lead companies to develop a much better understanding in the short-term of the climate-related risks they may face; and therefore, they will be better equipped to develop a strategy to effectively monitor and manage those risks. We have spoken extensively with some stakeholders, including those who have chosen to voluntarily disclose in line with

[59] Calculation based on internal BEIS wage estimates: [(1 * Grade 5) * (3 hours sign-off) * (£55.65 Wage)] + [(2 * Grade 6) * (5 hours to sign-off) * (£49.04 Wage)] + [(3 Grade 7) * (1/3 year) * (£77,000 Gross yearly wage)] + [(2 SEO) * (1/3 Year) * (£58,276 Gross yearly wage) = £116,500 to nearest £100.

[60] Based on consultations with FRC

TCFD. A key immediate benefit that has arisen throughout these discussions and through feedback is the potentially transformational impact that climate related financial disclosures' implementation can have on an organisation; the framework is such that to be implemented properly, it requires significant change across several departments and levels of senior engagement leading to an increased understanding of climate-related risks and opportunities. This benefit has also been documented by external research commissioned by BEIS[61]. Almost 40% of the companies that were interviewed reported benefits of climate reporting related to improved governance and integration of climate into strategy and decision making. The nature of climate change means that many costs and risks can be identified in advance through climate related financial disclosures, giving businesses the power to implement mitigation strategies and avoid costs that would otherwise have eventually impacted them in the long term, due to the effects of rising temperatures and of changes in policies, regulation, and markets on companies' revenues, costs and assets.

91. Moreover, a third of the companies interviewed in AECOM's research reported increased reputational benefits from climate related financial disclosures; this was documented as one of the key drivers for voluntary disclosure. Further, additional benefits include an improvement of a company's prospects through the recognition of the impact of sustainability issues on the organisation's financial position. For instance, companies might be encouraged to think about their transition plans from disclosing climate related financial disclosures. Evidence has also shown that TCFD could also help to demystify the science behind climate change and enable sustainability managers to get buy in from other functions such as finance to incorporate climate risks into their day-to-day working[62]. Companies and LLPs having to engage in mandatory disclosure could help involve other parts of the business that were not part of the journey towards making the company more sustainable.

92. Interviews conducted by AECOM also suggested that board members would not pay sufficient attention to climate related risks unless a legal requirement was introduced. In addition, smaller companies within scope of the incoming regulations noted that short term thinking was a primary barrier to considering financial related risks within a company's boardroom ("Tragedy of the Horizon"). 78% of the interviewees felt the greatest challenge in introducing climate into the mainstream business lay in their organisation's internal processes rather than the explicit disclosure requirements. From these interviews, "requests from stakeholders" and "regulatory requirements" were identified as two of the most common drivers for companies to engage in TCFD reporting. This evidence supports the decision to introduce regulatory requirements, as it has been highlighted as a key driver. Additionally, our approach will increase the quantity of companies disclosing, giving stakeholders a better benchmark of what best practice looks like. As such, our approach should facilitate the other key driver highlighted in the research – requests from stakeholders. Evidence shows that TCFD disclosure can be helpful as a "gap-analysis" exercise, against which they could compare their current climate actions[63]. In addition, climate related financial disclosures should contribute to companies more effectively meeting their existing disclosure requirements to report any material information in their financial statements.

93. We expect a peer learning process amongst organisations to be realised, whereby companies that are not within scope of the incoming regulations would be encouraged to voluntarily engage in reporting in line with the TCFD recommendations. The motivations for further voluntary disclosure could be prompted through greater scrutiny from finance providers, which may lead to fears of a withdrawal of finance by banks, pressure from

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[61] Eunomia Research & Consulting, 2021. "Net Zero Transition Plans for Non-Financial Corporates", [https://www.eunomia.co.uk/reports-tools/net-zero-transition-for-non-financial-corporates-assessing-motivations-challenges-and-the-role-of-tcfd-disclosure/]

[62] *Ibid.*

[63] *Ibid.*

investors for public companies, barriers to raising capital for private companies or more generally, through recognising the importance of addressing increasing climate risks.

94. Finally, climate related financial information reporting may also lead to a more diverse investor base and lower cost of capital if the mechanisms captured in Annex 2: Theory of Change

95. are realised. We expect that companies that effectively disclose their exposure to and mitigation of climate risks will be able to access capital at a lower cost over time than would otherwise have been the case. For many companies, disclosed "known unknowns" tend to lead to a lower pricing of risk than "unknown unknowns". In the absence of good corporate disclosure, many investors are using their own-, or third-party service provider, data and models to estimate climate risk, which will have a higher degree of uncertainty and less ability to hold the corporate to account than if full disclosure is made by the corporate. Full disclosure should help shed a light on the true risks and opportunities, reduce the uncertainty of cashflow forecasts, and thus lower the cost of capital. Also, the large inflows into ESG and sustainable investment funds has increased the amount and diversity of capital available for businesses with stronger disclosure and ESG credentials. Climate related financial information reporting can be an effective mechanism for that signalling process in order to attract investors (and customers to a lesser extent).

Benefits to Investors:

96. In addition to the direct benefits to companies, there will be a range of benefits to investors and banks from widespread implementation of climate related financial disclosure. Regulatory, market and consumer pressures on financial institutions are growing, with increased demand on 'greening' investment decisions as climate is increasingly recognised as a financial risk. This was illustrated in 2019, when 631 institutional investors managing more than USD 37trn in assets requested that governments introduce mandatory disclosures, signalling an important market demand for disclosure. In addition, 590 investors with over USD11trn in assets and more than 150 large purchases over USD4trn in procurement spend are already requesting that companies disclose their environmental data through CDP[64].

97. Mandatory climate related financial disclosures should lead to increased transparency and scrutiny from investors and banks so that they can make better informed decisions about where to allocate capital. For investors analysing their portfolios and comparing the climate-credentials of companies as part of their investment decisions, having standardised, comparable information from those companies will allow better modelling/pricing of risk, and therefore more informed decisions to be made. Over time, this should also provide investors with the information they need to make consistent, climate positive and transparent decisions, at a lower cost and in a more time efficient manner. The pricing-in of climate risk should contribute towards long term systemic financial stability.

98. In addition and given the evidence of appetite from investors for climate issues to be considered within financials, effective climate related financial disclosures by investees will aid financial institutions in accounting for climate through their investment choices, carrying out their own companies' climate related financial disclosure, and complying with regulatory requirements such as stress tests. A significant quantity of high-quality climate related financial disclosures being available to investors should also reduce the

[64] CDP, May 2020, [https://www.cdp.net/en/articles/media/24-percent-jump-in-companies-asking-their-suppliers-for-environmental-transparency]

risks of "greenwashing" and increase investor confidence in financial products and companies' strategies.

99. As both near-term and long-term climate risks amplify, banks and investors will need to become better equipped to make more decisions in their loan books and portfolios that take account of climate risks and opportunities, including across different asset classes. This is why our policy covers private as well as listed companies. As such, costs of capital across the system should more appropriately reflect climate risk. Ultimately, it is expected that the implementation of the TCFD recommendations will enable capital to flow towards financing companies transitioning or investing in greener activities, and, conversely, that there is a diversion of investment from those companies that are exposed to high levels of unmanaged climate risk. Climate related financial disclosure requirements contribute to this diversion of capital by enabling companies to consider and communicate their current exposure to climate risk and opportunities, and mitigation strategies over the medium-long term, but also motivating action in the short term, (e.g. building up capital buffers to cover potential future losses from climate risks).

Benefits to Society:

100. Additionally, disclosure can have cascade effects through the supply chain. The demand from large corporate buyers for their suppliers to become increasingly transparent on environmental impacts and to take associated action to address them is growing. In 2020, the number of buyers requesting disclosure through CDP's system grew by 24% and they collectively requested data from 15,600+ suppliers, a 19% increase on 2019. In part, this increase in market demand has been driven by the large companies increasingly setting science-based targets, which usually require a reduction in their supply chain (Scope 3) emissions. Achieving their emissions targets depends in part on successfully engaging with their suppliers[65].

101. Finally, on a wider scale and from the perspective of governments and regulators, widespread implementation of climate related financial disclosure should help to reach net zero and therefore contribute towards the prevention of some of the devastating long-term effects of a warming climate to people, communities, assets and natural capital. It should also improve system financial stability by preventing the build-up of systemic climate-related financial risk, as more companies and financial institutions analyse and act upon their individual climate-risk exposure. In addition, climate related financial information disclosure is a mechanism and valuable tool to monitor how companies are preparing and transitioning towards a Net Zero economy. This information can benefit the customers and employees of those companies, the public sector, academics, the research community, as well as the wider public.

102. Scenario analysis has a key role in helping to realise these benefits. This recommendation is an effective tool for engaging companies in the process of thinking how their risks could be mitigated when facing different scenarios or paths in the future. Given the uncertainties associated with climate change, this exercise is essential for allowing a better understanding of potential outcomes to which the company will be exposed. Scenario analysis formalises the process of identifying, recognising and addressing risks and opportunities, and it has the potential for shaping the company's strategy, contingency plans and monitoring approaches. We have included this recommendation in our preferred option (1b), in response to the feedback received but also in order to ensure the success of this intervention.

[65] CDP, February 2021, [https://www.cdp.net/en/articles/supply-chain/environmental-supply-chain-risks-to-cost-companies-120-billion-by-2026]

Section 10: Direct Costs and Benefits to Businesses Calculations

103. For each option, we assume that proposed measures will apply from 2022 and costs are assessed over a 10-year appraisal period.

104. For the analysis below, we have assumed that the average cost of producing climate-related financial disclosures will not vary by the company they apply to. Costs are broken down into the subsidiary level and the UK parent company.

105. This Impact Assessment uses the 2020 ONS Annual Survey of Hours and Earnings (ASHE) data[66] for hourly and yearly gross wage costs and applies a 21.8% UK non-wage labour costs uplift[67] to reflect the total costs to businesses in scope.

One-off costs:

106. As outlined in Section 8, in the first year of implementation, we expect companies in scope of mandatory climate related financial disclosure requirements will incur the cost of familiarisation with BEIS guidance, cost for legal review, and the cost of developing and testing a model for running scenario analysis on an annual basis.

107. Familiarisation costs: All companies in scope are expected to face familiarisation costs in understanding and interpreting the guidance provided by BEIS and assessing what compliance would mean in practice. We expect familiarisation costs to apply as one-off cost in the first year of implementation. The estimates below are based on the time spent by company staff to read the necessary guidance and prepare for the required financial disclosures. Estimates therefore use the hourly wage rate for Administrative Professionals, Corporate Managers and Directors or Senior Officials and Executives.

108. In our consultation stage IA, we had assumed that guidance would be 75 pages long, with each page taking 6 minutes to read and understand. This was based on existing, similar guidance that has been produced elsewhere such as The Climate Financial Risk Forum guidance on Climate-Related Financial Risk Management[68] and HMG's Streamlined Energy and Carbon and Greenhouse Gas Reporting[69]. Given that the inclusion of scenario analysis would increase the length of guidance that companies would need to familiarise with, we have increased the number of pages companies need to familiarise with to 125 pages[70]. We assume that, per parent company, this guidance will need to be read by 25 administrative level employees, 15 managerial level employees and 3 director level employees. In total, **we expect the cost of familiarisation with the incoming requirements to total £21,800 per UK parent in scope**[71].

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[66] ONS ASHE Data, Table 14.5a & Table 14.7a, 2020, 75th Percentile

[67] Eurostat, 2019 [https://ec.europa.eu/eurostat/databrowser/view/tps00173/default/table?lang=en]. Calculation and use of data based on RPC's guidance, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/827926/RPC_short_guidance_note_-_Implementation_costs__August_2019.pdf]

[68] Climate Financial Risk Forum Guidance on Non-Financial Risk Reporting, 2020, [www.fca.org.uk/transparency/climate-financial-risk-forum]

[69] Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements, 2019, [https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance]

[70] This estimate is based on the previous assumption on the number of pages companies would need to familiarise with (75) plus additional materials related to scenario analysis. The Miscellaneous Reporting Regulations Q&A has a length of 30 pages for example. We expect that BEIS provides more extensive guidance to help businesses comply with the requirement of producing scenario analysis. The guidance itself is yet to be finalised.

[71] Calculation: [(3 Senior level staff) * (12.5 hours to familiarise) * (£70.50 Senior Wage)] + [(15 Managerial Level Staff) * (12.5 hours to familiarise) * (£43.28 Manager Wage)] + [(25 Admin level staff) * (12.5 hours to familiarise) * (£35.20 Admin Wage)] = £13,100 to nearest £100. The familiarisation time required by person in hours is 12.5 (125 pages * 6 min per page).

109. We have refined our analysis from the consultation stage IA and included an additional cost of familiarisation per subsidiary beneath each of the groups identified in scope of the incoming regulations. We assume that, per subsidiary, this guidance will be read by 1 administrative level employee, 1 managerial level employee and 1 director level employee. In total, **we expect the cost of familiarisation with the incoming requirements to total £1,900 per subsidiary of a UK parent in scope**[72], as outlined in Table 4.

Table 4: Expected Familiarisation Cost per parent company and Subsidiary

Type of Staff	# of Employees Required to Read the Guidance	Familiarisation Time (Hrs/pp)	Wage (£/hr)	Total Cost Per Employee (£)
Parent company				
Chief Executives and Senior Officials	3	12.5	£70	£2,640
Corporate Managers	15	12.5	£43	£8,110
Administrative Professionals	25	12.5	£35	£11,000
Subsidiary				
Chief Executives and Senior Officials	1	12.5	£70	£880
Corporate Managers	1	12.5	£43	£540
Administrative Professionals	1	12.5	£35	£440
			Total cost per parent:	**£21,800**
			Total cost per subsidiary:	**£1,900**

110. Legal review: All companies in scope are expected to face one-off costs of reviewing the legal text and the relevant guidance in-house. We have assumed that 2 solicitors conduct a legal review for one working week. A senior legal professional is expected to read and sign-off this review. In total, **we expect these costs to amount to £3,200 per UK parent in scope**[73], as outlined in Table 5.

Table 5: Expected legal review per parent company

Type of Staff	# of Employees Required to Read the Guidance	Dedicated Time (Hrs/pp)	Wage (£/hr)	Total Cost Per Employee (£)
Legal professional n.e.c	1	7	£64	£450
Solicitor	2	35	£39	£2,710
			Total cost per parent:	**£3,200**

On-going costs:

111. The ongoing costs listed in Section 8 are monetised in detail below and rounded to the nearest £100. For all reporting costs, we have broken down the expected costs into three categories:

i) The time taken to collate and analyse necessary information and implement any changes required to current processes.

ii) The time taken to draft and re-draft the required reporting of processes and proofread documents.

iii) The time taken for director-level discussion of reporting, reading of documentation and sign-off process.

112. Costs of Collecting information from subsidiaries and processing this information at the UK parent level: We have assumed that each subsidiary has one administrative

[72] Calculation: [(1 Senior level staff) * (12.5 hours to familiarise) * (£70.50 Senior Wage)] + [(1 Managerial Level Staff) * (12.5 hours to familiarise) * (£43.28 Manager Wage)] + [(1 Admin level staff) * (12.5 hours to familiarise) * (£35.20 Admin Wage)] = £1,100 to nearest £100. The familiarisation time required by person in hours is 12.5 (125 pages * 6 min per page).

[73] Calculation: [(1 Legal professional n.e.c.) * (7 hours to sign-off) * (£63.82 Wage)] + [(2 Solicitors) * (35 hours to review) * (£38.82 Wage)] = £3,200 to nearest £100

professional responsible for compiling the relevant information in one working week and send the returns to their parent company. We have estimated that **the cost for each UK subsidiary to comply with the climate related financial disclosure requirements is £1,200 per year**[74]. At the UK parent level, we expect the **cost for companies in scope to be £3,100 per year**[75], as outlined in Table 6.

Table 6: Expected Cost for subsidiaries and parent companies from collecting and processing information

Type of Staff	Time required (hr/pp)	# Number of employees	Wage (£/hr)	Total Cost Per Employee (£)
Subsidiary - collecting and passing information				
Administrative Professionals	35	1	£35	£1,230
UK parent company - processing and assessing information received				£0
Chief Executives and Senior Officials	1	1	£70	£70
Corporate Managers	7	2	£43	610
Administrative Professionals	7	10	£35	£2,460
			Total cost per parent:	£3,100
			Total cost per subsidiary:	£1,200

113. Costs of Disclosing Recommendations related to Governance: Governance costs include the ongoing cost to those in scope to implement, document and disclose governance of their climate related risks and opportunities and to co-ordinate across internal business functions. We have not amended our costs assumptions[76] with respect to the consultation IA. In total, we expect the cost of reporting these recommendations to total **£9,100 per group**[77], as outlined in Table 7.

Table 7: Expected Cost for disclosing recommendations related to Governance

Type of Staff	# of Employees	# of Pages	Time per Page (Hrs)	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	3	5	£3	£70	£3,170
Corporate Managers	3	5	£5	£43	£3,250
Administrative Professionals	3	5	£5	£35	£2,640
				Total cost per Company:	£9,100

114. Costs of Disclosing Recommendations related to Strategy: Strategy costs include the ongoing reporting costs to those in scope of internally co-ordinating, documenting and disclosing climate-related risks and opportunities the company has identified, as well as reporting the impact of these risks on the company's business, strategy, and financial planning. We have monetised the costs in two components:

i) Cost of research and writing or quantifying scenarios: We expect each company in scope to allocate one analyst to conduct the necessary research for developing narratives under each of the climate scenarios. This is expected to take one analyst 6 months. We estimate that the wage costs for each group in scope for **qualitative scenario analysis will be**

[74] Calculation: [(1 Admin level staff) * (35 hours to collect information) * (£35.20 Admin Wage)] = £1,200 to nearest £100

[75] Calculations: [(1 Senior level staff) * (1 hours to sign-off) * (£70.50 Senior Wage)] + [(2 Managerial Level Staff) * (7 hours to review) * (£43.28 Manager Wage)] + [(10 Admin level staff) * (7 hours to process information) * (£35.20 Admin Wage)] = £3,100 to nearest £100.

[76] We assume that 3 administrative level employees and 3 managerial level employees will be involved with the collation of information and drafting, taking 5 hours per page each. We assume that 3 senior officials will be involved, taking 3 hours per page each. Based on TCFD supplemental guidance: "Implementing the Recommendations of the Task Force on Climate related Financial Disclosures", June 2017, Page 14, we assume these disclosures would occupy 5 pages in total.

[77] Calculations: If the company disclose qualitative scenario analysis: [(3 Senior level staff) * (15 hours to sign-off) * (£70.50 Senior Wage)] + [(3 Managerial Level Staff) * (25 hours to review and draft) * (£43.28 Manager Wage)] + [(3 Admin level staff) * (25 hours to draft) * (£35.20 Admin Wage)] = £9,100 to nearest £100

£34,700 per year[78] to the nearest 100. We expect this cost to decrease by 25% in the second year onwards given that the necessary reporting framework will have been established in year 1 of implementation. In section 9, we further test the impact of cost reductions in the second year on the overarching impact on costs to business and the NPV.

ii) Cost of reporting: We have not altered our costs assumptions[79] associated with the cost of strategy reporting with respect to the consultation IA. In total, we expect the cost of reporting these recommendations to total **£13,000 per group[80]** (See Table 8). It should be clarified that the estimated number of pages are for disclosing against the recommendations from this pillar including some outcomes from their scenario analysis. The costs of scenario analysis alone are captured in the previous paragraph.

Table 8: Expected Cost for reporting against the Strategy Recommendations

Type of Staff	# of Employees	# of Pages	Time per Page (Hrs)	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	3	5	£3	£70	£3,170
Corporate Managers	5	5	£5	£43	£5,410
Administrative Professionals	5	5	£5	£35	£4,400
				Total cost per Company:	**£13,000**

115. Risk management: These are the ongoing annual costs that fall on all entities in scope to disclose the company's management of climate-related risks, including the co-ordination across functions internally, identification and assessment of risks and their integration into the company's overarching risk-management strategy. This has been broken down into the same three components as those listed in paragraph 111111 to monetise the risk management component of disclosure. This also includes the time taken to identify and analyse major risk exposures in the context of their company strategy. We have not altered our costs assumptions[81] with respect to the consultation IA. In total, we expect the cost of reporting these recommendations to total **£10,800 per group**[82], as outlined in Table 9.

Table 9: Expected Cost for reporting against the Risk Management Recommendations

Type of Staff	# of Employees	# of Pages	Time per Page (Hrs)	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	3	5	£3	£70	£3,200
Corporate Managers	3	5	£5	£43	£3,200
Administrative Professionals	5	5	£5	£35	£4,400
				Total cost per Company:	**£10,800**

[78] These costs are based on the Gross pay (2020 £) for a Business, research, and administrative professional (SOC Code 242), uplifted for non-wages costs. Calculation: (£69,400 FTE Wage) * (50% year) = £34,700 to nearest £100

[79] We assume that 5 administrative level employees and 5 managerial level employees will be involved with the collation of information and drafting, taking 5 hours per page each. We assume that 3 senior officials will be involved, taking 3 hours per page each. Based on TCFD supplemental guidance: "*Implementing the Recommendations of the Task Force on Climate related Financial Disclosures",* June 2017, Page 14, we assume these disclosures would occupy 5 pages in total.

[80] Calculations: [(3 Senior level staff) * (15 hours to sign-off) * (£70.50 Senior Wage)] + [(5 Managerial Level Staff) * (25 hours to review and draft) * (£43.28 Manager Wage)] + [(5 Admin level staff) * (25 hours to draft) * (£35.20 Admin Wage)] = £13,000 to nearest £100

[81] We assume that 5 administrative level employees and 3 managerial level employees will be involved with the collation of information and drafting, taking 5 hours per page each. We assume that 3 senior officials will be involved, taking 3 hours per page each. Based on TCFD supplemental guidance: "*Implementing the Recommendations of the Task Force on Climate related Financial Disclosures",* June 2017, Page 14, we assume these disclosures would occupy 5 pages in total.

[82] Calculations: [(3 Senior level staff) * (15 hours to sign-off) * (£70.50 Senior Wage)] + [(3 Managerial Level Staff) * (15 hours to review and draft) * (£43.28 Manager Wage)] + [(5 Admin level staff) * (25 hours to draft) * (£35.20 Admin Wage)] = £10,800 to nearest £100

116. Cost of developing and disclosing Metrics and Targets: These are the ongoing annual costs to those in scope of developing and disclosing the metrics and targets used to assess and manage climate related risks. We have monetised the expected costs in two components:

i) Annual Data Gathering: This is the cost of collecting data on an annual basis to report against the relevant metrics and targets. We assume that this requires one professional level FTE in the first year to develop the appropriate framework and relevant metrics and targets. We expect this cost to decrease by 25% in the second year onwards given that the necessary reporting framework will have been established in year 1 of implementation. **Total costs in the first year are therefore expected to be £69,400[83] decreasing to £52,000[84] from year 2 of implementation onwards, to the nearest 100**.

ii) Cost of reporting: We have broken down the reporting costs in the same way as those listed above in paragraph 111 111. We assume, based on existing TCFD disclosures, that the required documentation will be 3 pages long. We assume that 5 administrative level employees and 3 managerial level employees will be involved with the collation of information, proofing and drafting, taking 5 hours per page each. We assume that 3 senior officials will be involved for sign-off, taking 3 hours per page each. In total, **we expect the cost of reporting against the relevant metrics and targets, in line with the incoming requirements, to total £6,500 per entity in scope[85],** as outlined in Table 10.

Table 10: Expected Cost for reporting against the Metrics & Targets Recommendations

Type of Staff	# of Employees	# of Pages	Time per Page (Hrs)	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	3	3	£3	£70	£1,900
Corporate Managers	3	3	£5	£43	£1,950
Administrative Professionals	5	3	£5	£35	£2,640
				Total cost per Company:	£6,500

117. Quality Assurance and Internal Verification: These are the costs for ensuring that the information disclosed is robust and verified internally across the organisation. Following the existing guidance from the Task Force, it is expected that the internal governance processes for these disclosures will be similar to those for other public financial disclosures. This would involve a review by the chief audit officer and would also include the Audit Committee. We assume that the disclosures are verified by a lead assurer and an administrative-level verifier per TCFD pillar. We assume that the board is composed of at least three members[86] plus a chief audit officer. Based on the cost's estimations included in this Impact Assessment, the climate related financial disclosures'

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[83] ONS ASHE Data, Table 14.7a - Annual pay - Gross (£), 2020, 75th Percentile with a non-wage uplift of 21.8%. [www.ons.gov.uk/file?uri=%2femploymentandlabourmarket%2fpeopleinwork%2fearningsandworkinghours%2fdatasets%2foccupation4digitsoc2010ashetable14%2f2020provisional/table142020provisional.zip]

[84] Calculation: (£69,400 FTE Wage) * (75% to reflect 25% decrease in costs in year 2 of implementation) = £52,000 to nearest £100

[85] Calculation: [(3 Senior level staff) * (3 hours to read, review & sign-off per page) * (£70.50 Senior Wage) * (3 pages)] + [(3 Managerial Level Staff) * (5 hours to collate, draft and proof per page) * (£43.28 Manager Wage) * (3 pages)] + [(5 Admin level staff) * (5 hours to collate and draft per page) * (£35.20 Admin Wage) * (3 pages)] = £6,500 to nearest £100

[86] FRC Guidance on Audit Committees, April 2016, [https://www.frc.org.uk/getattachment/6b0ace1d-1d70-4678-9c41-0b44a62f0a0d/Guidance-on-Audit-Committees-April-2016.pdf]

report is expected to have at least 18[87] pages. **We estimate audit costs to amount to £22,000[88] a year** (see Table 11).

Table 11: Expected Cost for internal auditing climate related financial disclosures

Type of Staff	# of Employees	Number of pages	Time (hrs) per page	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	4	18	£1	£70	£5,080
Corporate Managers	4	18	£3	£43	£9,350
Administrative Professionals	4	18	£3	£35	£7,600
				Total cost per Company:	**£22,000**

118. Cost of uploading and signposting to the report on climate related financial disclosures: There is an additional annual cost to those in scope to upload the required reporting documentation and signposting to this documentation within their annual report. We assume that this takes 2 hours per year by one administrative level professional, **totalling £100 a year per entity in scope**[89].

Section 11: Assumptions, risks, uncertainties, and unintended impacts

Key Assumptions

We have outlined the key assumptions used within our appraisal below:

119. The number of entities in scope of the new requirements is expected to remain broadly stable over the appraisal period of 10 years. We expect there to be a light touch review of the policy in 2023, as set out in the TCFD roadmap[90]. Following this, we will conduct a post-implementation review in 2027 where we will re-evaluate the expected number of companies within scope of the regulations.

120. We assume that a number of companies within scope already disclose in line with the TCFD recommendations to some degree. These assumptions are based on research commissioned by BEIS and undertaken by AECOM and are outlined in further detail in Section 7. Acknowledging the uncertainty in these estimates, we have also tested the impact of using higher and lower percentages of alignment (See

[87] 5 pages for the recommendations included in the Governance, Strategy and Risk pillars + 3 pages for Metrics & Targets.

[88] Calculation: [(4 Senior level staff) * (1 hours to read) * (£70.50 Senior Wage) * (18 pages)] + [(4 Managerial Level Staff) * (3 hours to read & audit) * (£42.28 Manager Wage) * (18 pages)] + [(4 Admin level staff) * (3 hours to read & audit) * (£35.23 Admin Wage) * (18 pages)] = £22,000 to nearest £100

[89] Calculation: (1 admin level staff) * (2 hours) * (£35.23 admin level wage) = £100 to nearest £100

[90] HMT, UK joint regulator and government TCFD Taskforce: Interim Report and Roadmap, November 2020, [https://www.gov.uk/government/news/business-secretary-launches-major-overhaul-of-uks-audit-regime-in-wake-of-big-name-company-collapses]

121. Annex 1: Status of TCFD reporting).

122. As outlined in Section 6, we have assumed that the number of private limited companies within scope (that do not have consolidated accounts on the FAME database) have subsidiaries that aggregate to meet the relevant threshold ("the 500-Test") but do not meet the threshold on an individual basis, can be estimated based on the analysis undertaken on Public Interest Entities (PIE's), in order to account for data limitations. This increases the number of private limited companies expected to be in scope by 26%.

123. The average cost to each company in scope is expected to be equal. In practice this is unlikely to be the case, depending on - for instance - the complexity of the business structure and supply chain, prior general reporting requirements and prior level of internal climate risk understanding and compliance with TCFD recommendations and disclosures. The costs provided in this Impact Assessment are expected to be an average, with some companies facing higher costs and some incurring lower.

124. We assume that there will be a 25% reduction in the cost of developing and reporting against metrics and targets, and scenario analysis, from the first year of implementation. This cost reduction assumption is based on an expected learning process for companies on conducting a complex and technical analysis for the first time. However, we have not assumed a reduction in the cost of drafting and reporting against other TCFD recommendations, grouped by pillars (i.e., Governance, Strategy, Risk management and Metrics & Targets), as it is unlikely that companies are able to save time on these types of costs and information will be required to be collected, consolidated, and drafted annually.

125. Whilst the regulations will be applied at group level, subsidiaries underneath groups in scope are also expected to incur costs from the regulations. Groups in scope are expected to include information in their disclosures that are material to the group. As a result, costs on subsidiaries will vary based on the materiality of the subsidiary to the group. For the purposes of estimating the costs of our regulations, we have assumed that information on all active companies will be considered material in principle. It has been assumed that all subsidiaries would have, at least, to incur a cost of collecting and passing climate-related information to their UK parent.

126. We have used ONS Annual Survey of Hours and Earnings[91] data for hourly wage estimates for each of the relevant staff levels in the appropriate sector. We have applied a wage uplift of 21.8%[92] to these figures to reflect any additional costs to the employer from the staff. These wage bands are outlined in the table below:

Table 12: Hourly Wage Data

Standard Occupational Classification	Hourly Wage (2020 £)	Uplift for non-wage costs	Total wage cost per hour (2020 £)
Chief Executives and Senior officials	£58	1.218	£71
Corporate Managers and Directors	£36	1.218	£43
Business, research, and administrative professionals	£29	1.218	£35
Solicitor	£32	1.218	£39
Legal professional n.e.c.	£52	1.218	£64

[91] ONS ASHE Data, Table 14, 2020, 75th Percentile

[92] Eurostat, 2019 [https://ec.europa.eu/eurostat/databrowser/view/tps00173/default/table?lang=en]. Calculation and use of data based on RPC's guidance [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/827926/RPC_short_guidance_note_-_Implementation_costs__August_2019.pdf]

127. In relation to familiarisation costs, we have assumed a reading time of 6 minutes per each of the 125 pages comprising BEIS guidance. We have assumed that familiarisation costs will only apply to companies that are in scope of the regulations. We do not expect companies that are not in scope of these requirements will need to familiarise with the TCFD and BEIS guidance to understand if they will be captured by the incoming regulations. The reason for this is that the thresholds determining the scope of the regulations are expected to be easily understood and interpreted by companies who are close to the threshold level. As a result, we expect these costs do be negligible.

128. We have assumed that the current level of alignment with TCFD is at least the same as the estimated alignment of large private limited companies. The reasons and justification for this is outlined in further detail in Section 7 and in

129. Annex 1: Status of TCFD reporting.

Risks and Uncertainties:

We have outlined the key risks and uncertainties to the analysis contained within this IA below:

130. A key uncertainty within our analysis is the extent to which the costs estimated are likely to be additional. We have revised the assumption from the consultation stage Impact Assessment in light of recent evidence commissioned by BEIS in early 2021. As a result of this research, the counterfactual scenario has been amended from the consultation stage IA, which assumed that none of the companies in scope of the regulations complied to any degree and therefore provided an overestimation of costs. The commissioned research assessed the existing state of disclosures of large private companies, which fall within scope of the incoming regulation on climate related financial disclosure. However, other relevant groups of companies within scope were not included within this research (i.e., other PIEs, companies registered in AIM and LLPs). There is therefore a risk that these groups may have a different baseline to private limited groups.

131. There may be significant variations in the time that the companies in scope take to produce the required disclosures and consolidate the information for all their subsidiaries. This could depend on the number of subsidiaries that UK parent will be reporting on behalf of. Our analysis[93] indicates that UK groups in scope have a median number of 13 subsidiaries[94] beneath them. In addition, 57% of the groups have no more than 20 subsidiaries. In the IA, we assume that the reporting costs will be the same for all groups given the challenges of estimating the extent reporting costs would vary according to the company's size.

132. This IA considers that all components of disclosure are completed in-house. In practice, we expect that this may not be the case for some companies in scope who may need to outsource expertise or resource from external sources, especially in the first year of the disclosure requirements coming into force. Companies in scope might incur higher costs if contracting external support, especially from year 1 onwards. In some instances, we have modelled costs to represent to some extent the costs of equivalent external work (e.g., costs for modelling scenario analysis).

133. This Impact Assessment assumes that the companies that fall within scope will fully comply with incoming requirements. Clear guidance on the scope of disclosures will help to achieve this.

134. Companies above our proposed thresholds would be required to provide mandatory disclosures (including qualitative scenario analysis) from 2022. We will continue to work closely with the Financial Conduct Authority (FCA) and the Financial Reporting Council (FRC) to ensure that our respective requirements as well as the monitoring and enforcement frameworks operate in a coherent and complementary way. Some companies in scope of our Company Act obligations (UK listed companies which are UK headquartered with over 500 employees) will also be subject to the FCA's Listing Rules. Since both the FCA's Listing Rules and our Companies Act provisions are based on the TCFD's recommendations, we consider that any incremental cost of meeting our obligations for a company that is also within the scope of the FCA's Listing Rules would be negligible in the context of this Impact Assessment, unless a company is currently

[93] Based on FAME data, data extracted in April 2021.

[94] We use the median and not the average to eliminate the influence of outliers. In addition, it is estimated that 59.03% of the companies in the register are either inactive, active-dormant or with an unknown situation, according to FAME.

"explaining" why it is not complying with FCA's requirements[95]. We have tested the potential impact of this on our expected costs in our sensitivity analysis in Section 12. Further guidance[96] will be provided to companies in the form of a non-binding BEIS Q&A to ensure that these requirements operate in a coherent and complementary way.

Unintended impacts and consequences

135. An unintended impact of the regulations may be an increased likelihood of de-listing from the UK. To mitigate for this, regulations will apply to both listed and private UK companies. There is also a possibility that the companies which fall within scope may look to restructure, to avoid the costs of disclosure associated with the new regulations. We view this to be unlikely given that the costs of restructuring to avoid compliance are very likely to be higher than the costs of disclosing climate related financial information.

136. Conversely, it is possible that the likelihood of de-listing from the UK may decrease if companies that are required to provide mandatory disclosures attract increasing attention and capital from investors. However, it is hard to estimate the likelihood of this impact, especially given that mandatory climate related financial disclosures could lead to an increase the costs of compliance and create a new legal and regulatory risk for companies in scope.

137. To illustrate the impact of the costs related climate related financial information reporting on companies' financials, Table 13 provides a sense of the impact that estimated costs[97] could have over companies' market capitalisation. Other types of companies[98] are excluded from this table. These costs do not even reach 1% of the median annual market capitalisation.

Table 13: The impact of reporting costs over market capitalisation for some of the companies in scope

Type of company (group level)	Median[99] market cap (m£) as last av. Year	% Of total costs of the first year of implementation	% Of on-going costs over total 10-years costs
Public Interest Entities	£709	0.0330%	0.2344%
Companies registered in AIM	£142	0.1650%	1.1724%
All the sample in scope[100]	**£425**	**0.0550%**	**0.3908%**

138. A further unintended impact may be that companies choose to redomicile outside of the UK in order to avoid compliance with regulations. As above, we view this to be unlikely given the costs associated with redomiciling.

139. Through roundtables and consultation feedback, some stakeholders expressed concern about the risks of de-listing from AIM due to different thresholds being applied to private limited companies and LLPs. Whilst a potential risk, we have considered that the thresholds applied to AIM companies should remain as in our consultation-stage proposal, given the support received from other stakeholders and consultation responses. In addition, using different rules for listed companies and companies

[95] Based on FCA's guidance [https://www.fca.org.uk/publications/policy-statements/ps20-17-proposals-enhance-climate-related-disclosures-listed-issuers-and-clarification-existing], a company under "explain" must set out in a statement any steps it is taking or plans to take in order to be able to make such disclosures in the future, and the timeframe within which it expects to be able to make those disclosures

[96] Guidance is expected to be published in due course.

[97] These are the expected costs for a company that has a median number of 13 subsidiaries (based on the sample of companies in scope).

[98] i.e., groups with no market capitalisation information

[99] We compare against the median market capitalisation to eliminate the effect of outliers on the average (upwards).

[100] When information on market capitalisation is available only.

registered in AIM could also create incentives for companies to delist from the Official List and move to AIM.

140. There is also a risk of divestment or barriers to raising capital from more exposed companies or a lack of investment for companies who are not disclosing any TCFD information (outside the scope of these regulations). However, and with the recent plans by the FCA to expand the TCFD listing rule to all standard listed companies, the number of companies that would not be explicitly required to report these recommendations is small (i.e., small companies traded on AIM or smaller private limited companies or LLPs). In addition, and as outlined in Section 8 on benefits, we would expect a peer-learning process and for these companies to be encouraged to engage in reporting once climate related financial disclosures become more of a norm among larger companies in the UK.

Section 12: Sensitivity Analysis

141. Given the extent of uncertainty around our assumptions, sensitivity analysis has been carried out on our preferred option (Option 1b), to understand the extent of the impact on the costs to business and the Present Value Cost (PVC) if specific assumptions were to change.

Different counterfactual scenario:

142. As mentioned in Section 8: Description of the Counterfactual, we have considered a lower cost and a higher cost scenario to provide lower/higher estimates for the PVC and EANDCB. While our central scenario assumes that overall, 27% of the companies in scope are already producing some climate related financial disclosures (although this percentage is much lower for some disclosures such as scenario analysis, see

143. Annex 1: Status of TCFD reporting for detailed percentages of alignment per recommendation), this level of compliance is flexed to be 43% overall for the lower cost scenario, and 0% for the higher cost scenario. The impact of using these different counterfactuals is shown in Table 14 and captured in each option's cover page.

144. The use of these scenarios should aim to account for the existing variability across findings in the literature (please, see

145. Annex 1: Status of TCFD reporting) but also for the fact that many of the already existing disclosures are brief[101] or with some relevant information missing in their reports, in which case companies are expected to incur further costs in order to improve their current level of climate related financial information reporting, following BEIS guidance.

Table 14: Sensitivity analysis on the impact of different counterfactual scenarios

Use of different counterfactual scenario	Overall percentage of alignment[102]	PVC (£m)	Direct Impact on Businesses (Equivalent Annual) £m
Lower-cost scenario	43%	-£1,029	£119
Central scenario	27%	-£1,340	£156
Higher-cost scenario	0%	-£1,637	£190

Reduction of Annual Costs from Year 2:

146. In our model, we had assumed that the annual costs for writing or developing qualitative (or quantitative) scenarios and the annual costs for collection of data to develop Metrics & Targets decreases by 25% after the first year of implementation, as a consequence of a learning process in the analysis and data collection practice. We have tested the impact of a steeper reduction in costs (50% in the second year), in addition to a shallower cost reduction (10% in the second year).

Table 15: Sensitivity analysis on the cost decrease of Developing Scenarios and Metrics & Targets from year 1

Costs of: Metrics & Targets and Scenario analysis	PVC (£m)	Direct Impact on Businesses (Equivalent Annual) £m
10% Reduction	-£1,310	£152
25% Reduction (Central Scenario)	-£1,251	£145
50% Reduction	-£1,032	£120

147. The above table illustrates that if the cost of producing scenarios and disclosing Metrics and Targets were to reduce more steeply in the second year of implementation, by 50%, we would see a decrease in the PVC and EANDCB of 21%, compared to the baseline modelling (assuming a 25% decrease after year 1).

Potential Reduction in Costs from existing FCA rules:

148. We have estimated here which proportion of the costs captured within this Impact Assessment will be covered by FCA's rules on premium listed companies with over 500 employees. We have estimated that 23% of the companies[103] in scope of BEIS regulations (i.e., reporting against the 11 TCFD recommendations and performing scenario analysis) by 2022 would be covered by the FCA rules.

149. We maintain our modelling assumptions around the type of costs we expect companies to incur and the counterfactual scenario (which considers that some of these companies were already reporting on a voluntary basis, based on findings from our

[101] PwC, "Climate Change in FTSE 350 annual reports", 2020 [https://www.pwc.co.uk/services/audit/insights/climate-change-ftse-350-reporting-trends.html]

[102] The percentages of alignment vary across recommendations and types of costs.

[103] Based on our estimations, about 300 companies should be already covered by FCA's Listing Rules. These companies would be responsible for 67% of the UK active subsidiaries for which we have estimated some costs from.

commissioned research). We also remove the companies in scope which are covered by the FCA rules from our cost estimations to understand the potential reduction in overall costs. By accounting for these companies, we expect a reduction on the PVC and EABDCB of 27%, if all the companies that are already covered by FCA's rules were already complying rather than explaining, and if these companies were reporting at least a qualitative scenario analysis.

Table 16: Sensitivity analysis on Reduction in Costs from existing FCA rules

"Cost's savings" from overlap with FCA's rules	PVC (£m)	Direct Impact on Businesses (Equivalent Annual) £m
Central Scenario	-1,251	145
Impact from premium > 500 employees	-337	39
Estimated impact of these regulations	**-914**	**106**

Section 13: Wider impacts and Impact on Small and Micro Businesses

150. Small and Micro Business Assessment (SaMBA): No small or micro companies are in scope of the policy under our preferred option, by virtue of the thresholds selected which are based on company turnover and the number of employees. Small and Micro Businesses (SMBs) are therefore not targeted by the incoming regulations.

151. Subsidiaries that are beneath the groups in scope of these thresholds are expected to be impacted to some extent. We have included estimates on the number of subsidiaries of the companies that will be affected by these regulations in Table 2Table 17. We have considered in this Impact Assessment that these subsidiaries would incur smaller costs than their UK (reporting) parent. Costs will primarily include the collation and transfer of information to their parent companies. In practice, these costs will vary in proportion to their size, but for the purposes of this Impact Assessment, they have been assumed to be the same for all subsidiaries. These costs were outlined in Section 8.

152. We also expect that subsidiaries (including some SMBs) would experience some familiarisation costs. However, these costs were assumed to be minimal (see paragraph 109109) in comparison with the familiarisation costs assumed by their reporting parent.

153. Table 17 includes detailed estimates of the number of UK subsidiaries and their size. UK small/micro subsidiaries[104] (3,700 to the nearest 100) account for only 14% of the total number of UK subsidiaries that would be impacted by these regulations. As outlined in section 9, the estimated costs[105] that a subsidiary would be expected to incur in year 1 are £2,300 (reducing to £1,200 from year 2) for preparing and collecting information to send to their UK parent and through familiarisation costs. The total costs for the subsidiaries over the total cost of climate related financial information reporting over the 10-year appraisal period is just 9%.

154. Therefore, this climate related financial information reporting requirement for large UK companies would impose direct costs to some SMBs. However, all these subsidiaries would be part of a larger business (which would be the actual target of these regulations). For the purposes of the SAMBA analysis, no SMBs needs further consideration. In addition, we would not expect any other cost (direct or indirect) impacting on SMBs apart from those outlined in this section.

Table 17: Analysis of micro or small UK subsidiaries affected, to the nearest 100

[104] UK companies are recognised by the country code "GB" on their BvD ID number.

[105] To the nearest 100. These are costs of familiarisation and costs of collecting and transferring information to the UK parent (reporting) company.

	Small/micro-UK subsidiaries	Subsidiaries that are not UK small/micro	UK Subsidiaries with no information	All UK subsidiaries
Number subsidiaries	3,700	20,900	1,000	25,500
% Total UK subsidiaries	14%	82%	4%	100%

155. Market Structure Impact Test: The use of different thresholds for listed/AIM companies and PIEs with respect to other companies (i.e., private limited companies and LLPs) might affect to the competitiveness of the former groups. There might be an unintended consequence for companies trying to avoid reporting costs, causing them to de-list from the Official list or AIM (as discussed in Section 11), but these companies benefit from accessing to a more liquid pool of capital from having securities traded in markets rather than securing venture capital or offering private equity. We expect these benefits to outweigh potential losses of competitiveness for companies in scope. Companies not in scope aiming to increase in transparency and attract investors (i.e., access to these benefits), are also able to voluntarily disclose.

156. Innovation Impact Test: There may be potential impacts on innovation as a result of mandating climate-related disclosures. We expect that enhanced transparency stemming from increased disclosures, may allow businesses to have increased access to funding in order to develop and/or expand the provision of low emission goods and services. This, in turn, could motivate companies to further develop climate adaptation and insurance risk solutions.

157. Competition Impact Test: We do not expect a significant impact on competition from the measures outlined within this Impact Assessment. Companies that are in scope of the proposed regulations will incur costs and may be at an advantage given the increase in transparency and management of climate risk. Enhanced disclosure could foster competition on aspects of the company of interest for investors as well as enhanced transparency and accountability towards customers and the wider society on how companies manage their risks. We do not expect these regulations to have a negative impact on the number or range of trading companies, on their incentives to compete, or on the choices and information offered to consumers/clients. If anything, and as research and evidence shows[106], TCFD and climate-related reporting may be a signal towards customers and investors, in order to 'keep the license to operate', especially for large and increasingly at-risk businesses. Those businesses that are not subject to mandatory disclosure under these regulations would also have the option of complying on a voluntary basis to remain competitive with those disclosing. Whilst some businesses may stand to benefit from currently being more aligned with the reporting standard prior to these regulations coming into force, this advantage would only apply in the very short-term. Benefits that companies would obtain from enhanced disclosure would not materialise unless the (limited) information available from voluntary disclosure actions was more standardised and hence, allow for the comparison across companies. Further, as mentioned in paragraph 100, benefits across the supply chain may also materialise. It could be argued that there may be indirect costs on the supply chain as a result of these requirements, if the companies in scope choose to only partner with other companies that are complying with climate reporting at the same level and standards in order to facilitate their own reporting needs. Estimating the magnitude and relevance of these indirect costs is challenging as it is not feasible to quantify the extent to which businesses may amend their behaviour.

[106] Eunomia Research & Consulting, 2021. "Net Zero Transition Plans for Non-Financial Corporates", [https://www.eunomia.co.uk/reports-tools/net-zero-transition-for-non-financial-corporates-assessing-motivations-challenges-and-the-role-of-tcfd-disclosure/]

158. Trade Impacts: There could be impacts on trade as investors respond to the incoming disclosures and increased transparency of firm's vulnerability to climate risks. At this stage we are unable to robustly estimate the impact on UK trade and investment. However, if UK companies are able to better signal their strategy to manage climate related risks to the international investment community through increased standardised information, there may be some short-term gains from increased capital inflows. Any short-term impact is expected to be mitigated in the medium/long-term as TCFD becomes the standard framework for disclosing climate-related information in an international setting[107].

159. Equalities Impact Test: These Regulations do not involve amending or bringing forward any legislation which makes direct provision in respect of disability, race, age, sex, sexual orientation, gender reassignment, pregnancy and maternity, marriage or civil partnership, religion or belief. These regulations do not target persons, but large companies or groups of companies. In addition, these Regulations will be of general benefit to everyone in the UK, regardless of whether they have one or more protected characteristics. Equally, these Regulations should not hinder such actions or give rise to, or create an increased risk of, discrimination, harassment, victimisation or any other conduct prohibited by or under the Equality Act 2010. Therefore, we expect these Regulations to have a neutral impact in this area. We conclude that these Regulations should have no adverse or disproportionate negative impact on persons or groups with a protected characteristic and no steps need to be taken to advance equality of opportunity and foster good relations because of or in relation to them.

160. Justice Impact test: The justice system would be impacted in the case of non-compliance with incoming regulations. We do not expect a significant impact given that this would only occur in very few circumstances.

161. Human Rights Impact Test: We do not consider the proposals within this IA to be applicable as they do no concern human rights.

162. Rural Proofing Impact Test: We do not consider the proposals within this IA to be applicable.

163. Environmental Impacts: We do not consider the proposals within this IA to have any negative environmental impacts. Positive environmental outcomes have been discussed qualitatively in Section 6.

Section 13: Monitoring and Evaluation Plan

What is the policy context?

164. As set out in the November 2020 Roadmap and Interim Report[108], the UK has committed to making climate related financial disclosures mandatory across the economy by 2025, with most of the requirements in place by 2023.

165. Climate related financial disclosure will be implemented via secondary legislation, specifically via an affirmative statutory instrument (SI) in respect to companies, and a negative SI in respect to LLPs, making changes to the Companies Act 2006. The regulations would come into force for entities in scope on the common commencement date of 6th April 2021 mandating climate related financial disclosures in annual reports. The regulations require those in scope (Public Interest Entities with over 500 employees,

[107] According to the latest TCFD Status Report, there has been an increased by 85% on the number of supporters from 2019 to 2020. [https://www.fsb.org/2020/10/2020-status-report-task-force-on-climate-related-financial-disclosures/]

[108] HMT, UK joint regulator and government TCFD Taskforce: Interim Report and Roadmap, November 2020, [https://www.gov.uk/government/news/business-secretary-launches-major-overhaul-of-uks-audit-regime-in-wake-of-big-name-company-collapses]

UK Premium & Standard Listed Companies with over 500 employees, UK registered companies with securities admitted to AIM with over 500 employees, LLPs covered by the “500 test[109]” and Private Companies covered by the “500 test”) to disclose clear, comparable and consistent information about the risks and opportunities presented by climate change. The number of companies expected to be covered by the incoming regulations is over 1300 plus all their subsidiaries.

166. The aim of the intervention is to improve the quality and quantity of climate-related financial disclosures by UK businesses across the UK economy. This would better inform investors, policymakers, and civil society of how businesses are likely to be impacted by climate change. This should allow investment decisions to better reflect climate risks, leading to more climate-resilient investment and economic activity. For a detailed Theory of Change, outlining the expected outcomes of the intervention, please refer to Annex 2.

167. The objectives and intended effects of climate related financial disclosure as set out in the Impact Assessment (IA) are to:

- Enable companies and Investors to have access to information in order to be better positioned to manage their transition to a low carbon, resilient future;
- Direct capital flows towards companies investing in greener portfolios and divert capital from companies that are exposed to high levels of unmanaged climate risk;
- Lower the cost of capital for companies managing climate risk;
- Reduce carbon emissions as companies transition away from carbon intensive activity and thereby mitigate the impacts of climate change.

Why is an evaluation needed?

168. An evaluation of the regulations is required in order to:

- Assess if the policy objectives have been met in a cost-effective manner
- Understand the levels of compliance among relevant organisations
- Assess the level of standardisation and comparability across relevant organisations
- Gather wider stakeholder insights and feedback regarding aspects of the regulations that have worked well and areas that require improvement to optimise the policy’s impacts
- Further current understanding of how climate related financial disclosure incentivises organisations, companies and investors to alter behaviour and decisions, and how the framework interacts with other policy interventions, including SECR.

169. The evaluation findings from this scheme will inform and support the development of future iterations of the policy. This will be through a formal review point of the policy in late 2023, as we begin to see the first disclosures emerge. This review has been committed to in the UK joint regulator and government TCFD Taskforce Roadmap[110]

170. Furthermore, there is a drive to simplify the policy landscape by aligning the scope of the regulations and their requirements in this area. This will be considered through a further review point when International Sustainability Standards are finalised under the IFRS. This will identify and evaluate potential options for alignment.

171. More generally, the findings of evaluation will help to further departmental understanding of the efficacy of the incoming regulations and will provide an

[109] The 500 test includes companies with over 500 employees and a turnover of over £500m.

[110] HMT, UK joint regulator and government TCFD Taskforce: Interim Report and Roadmap, November 2020, [https://www.gov.uk/government/news/business-secretary-launches-major-overhaul-of-uks-audit-regime-in-wake-of-big-name-company-collapses]

underpinning to the future development and expansion of the policy. BEIS, in collaboration key stakeholders will review and implement the proposed amendments.

172. The Department intends to commission external research in FY21/22 to scope the evaluation for the implementation of these regulations. This scoping evaluation will aim to develop the evaluation plan further by advising on the methodology that should be used and scoping potential data sources that may aid in evaluating the effectiveness of the policy against intended impacts. Following this scoping project, it is expected that further research and evaluation will be commissioned to support both the policy review in 2023 and a future post implementation review, expected in 2027.

173. Initial internal scoping work has suggested the following impacts and benefits are expected of the scheme:

174. Primary / target impacts:

- Mitigation of Climate Change through lower greenhouse gas emissions
- Companies are better positioned to manage their transition to a low carbon and resilient future
- Capital diversion to greener portfolios and companies that correctly manage their climate exposures, lowering their costs of capital and conversely, capital diverted from companies exposed to high levels of unmanaged climate risk.
- Feeding climate risks though into companies' balance sheets
- Effective asset pricing.

175. Secondary / additional impacts and benefits

- Reputational benefits
- Improved disclosures: increased standardisation, quality and quantity
- Improved capabilities to identify, assess and manage risks
- Engaged stewardship of companies
- UK leadership in greening the financial system.

176. The evaluation work will assess how the implementation of regulations has contributed towards the above impacts, with a particular emphasis on the primary impacts & targets. The evaluation will also explore any unintended impacts (both positive and negative) and seek to identify improvements for future iterations of policy delivery.

What are the key evaluation questions?

177. There are several key high-level questions on which the Department requires evidence to assess the impact of the intervention. We anticipate that the exact detail of the evaluation focus, priorities and research questions will evolve over time in response to the development of thinking around the evaluation and the changing information needs of the evaluation and policy officials and ministers at BEIS. Further, we expect the scoping phase to directly feed into and refine the post implementation review.

178. A summary of the key questions as well as sub-questions are set out below in

179. Table 18:

Table 18: Key evaluation questions

What is the scope of the policy and how can the baseline and impacts be measured? (Specifically addressed in the scoping phase)	
1	What data sources are available, and do we need in the future to be able to assess the impact of the policy (e.g., administrative data, secondary survey data)? How can the impacts of the policy be measured?
2	What are the key challenges for any future potential contractor(s) in undertaking the proposed evaluation and how would these be overcome? What are the risks involved in the proposed approaches and how should these be managed?
3	What evaluation method(s) are most appropriate and deliverable in practice for the proposed evaluation questions?
4	Depending on the final evaluation method, how would a comparison group be effectively constructed for the Impact Assessment of the policy? What will be the required sample size to demonstrate the impact of the regulations?
5	What does a detailed theory of change for climate related financial disclosure look like? Are the evaluation questions appropriate based on the respective theories of change?
6	What are the baseline levels for all organisations? (e.g., extent of current disclosures of those in & out of scope and current consideration of climate related risks)
7	How can the benefits of the regulations be empirically monetised?
How does the policy contribute towards simplification of the policy landscape and reduction of administrative burdens for organisations?	
8	Is the scheme delivered efficiently and consistently (e.g., by promoting simple procedures)? Has communication with participants been clear, convenient and timely (e.g., guidance, help desk, other communications with stakeholders)?
9	How have reporting requirements been aligned and how effective has alignment been in simplifying and reducing the reporting burden on companies in scope?
10	What are the administrative burdens of the climate related financial disclosure, for different organisations and compared to other policies within the area?
What have been the outcomes and impacts of climate related financial disclosure and to what extent have these been additional?	
11	Have the policy's aims been achieved? (i.e., how has this policy translated into changes in investors behaviour and in companies' practices in management their climate change risks?
12	Have there been any unintended outcomes as a result of the policy? For example, have any of the unintended consequences outlined in Section 11 of this Impact Assessment, such as an increased likelihood of delisting, materialised.
13	What are the benefits of the regulation to different stakeholders (e.g., investors, companies)?
14	To what extent have the impacts observed been additional to that which would have occurred in the absence of the policy? (e.g., has this policy contributed to standardising the format of already available information and increase the quality/quantity of climate-related disclosures?)
15	To what extent are there organisations that have not realised benefits from the policy? What are the reasons for this?
16	What explains the impacts seen / how have they come about (or not)?

17	How do external / contextual factors influence outcomes? For example, the external factors listed in the Theory of Change, such as organisational capabilities and the interaction with other regulations.
18	What are the time lags between disclosure and impacts?
How have organisations experienced and responded to the policy?	
19	How have organisations reacted to the policy? How easy or difficult do organisations find it to respond to the regulation and why?
20	How and to what extent has the policy incentivised companies (including those out of scope of these regulations) to consider climate related risks? Has the policy incentivised companies to consider transition plans more widely?
21	How well have organisations across various categories complied with the policy regulations? What are the reasons for non-compliance?
22	To what extent have organisations attempted to alter behaviour as a result of the policy? Have organisations experienced internal or public pressure to alter behaviour?
23	Has organisational capability in reporting and understanding climate risk improved?
24	How do decision makers engage with disclosures? What are the actions and decisions that have been taken by different stakeholders as a result of the policy?
25	How is information within disclosures being used? How does this vary across stakeholder groups and across the companies disclosing?
26	Is the information disclosed presented in a market friendly format? Is information comparable across disclosures?
27	To what degree do disclosures reflect the material financial risks faced by companies? Has investor engagement with the financial implications from climate risks increased as a result of the intervention?
28	Is the investment community better able to evaluate climate risk and incorporate these risks into investment decisions?
What is the wider learning from the evaluation on business reporting?	
27	Does climate related financial information reporting drive behaviour changes in companies' financial strategy and investor decisions?
28	What sort of engagement takes place within organisations around the disclosures and underlying data?
30	What lessons can be learnt from the policy to understand how it can be optimised?
31	What changes to the policy, or supporting policies, could be implemented to increase compliance?
32	Is there any learning that can be applied to other schemes within organisations outside the scope of this policy?
What is the overall cost-effectiveness of the policy?	
33	What is the overall change in costs to businesses reporting across companies in scope?
34	What is the cost of complying with the policy for organisations (i.e., hassle cost associated with the regulation, capital cost, admin cost, opportunity cost, etc.) compared with overall impacts / benefits?
35	Is the compliance cost for organisations in line with those anticipated in the initial Impact Assessment?
36	What is the estimated cost-effectiveness of the scheme when using updated evidence?

Overview of expected methodology

180. The exact methodology for the main evaluation will be determined during the scoping project. The main evaluation is expected to bring together several strands of research methodologies including econometric analysis, survey and qualitative data collection, desk research and analysis of administrative and scheme data. There is potential for theory-based methods to be combined with econometric analysis to understand the impacts of the TCFD regulations.

181. The primary challenge for the evaluation is to attribute the policy to the expected benefits. This was unable to be robustly monetised and attributed within the Impact Assessment. This will be addressed by the scoping project to understand whether scheme impacts can be attributed through the identification of a robust counterfactual or through an alternative evaluation design.

Potential data sources

Primary sources:

182. For the main evaluation to inform the post implementation review, quantitative telephone surveys, in-depth qualitative case-studies with companies in scope as well as in-depth qualitative interviews with a wide range of internal and external stakeholders are expected to be conducted. We will seek to gather views from market data providers who are already tracking the status of TCFD among large listing companies. Tracking data will be collected annually given that disclosures will be included within the company's annual report. Sources that will feed into the post implementation review are expected to include:

- In depth Case studies of companies compliant with climate related financial disclosure – these should represent different groups of companies that have been included in scope of these regulations (i.e., PIEs, AIM companies, private limited companies, and LLPs). Preferably, the methodology should be closely aligned with previous studies on TCFD alignment by large private limited companies used though this Impact Assessment.
- In depth interviews of companies compliant with climate related financial disclosure – these should represent different groups of companies that have been included in scope of these regulations (i.e., PIEs, AIM companies, private limited companies, and LLPs). Preferably, the methodology should be closely aligned with previous studies on TCFD alignment by large private limited companies used though this Impact Assessment.
- In depth interviews with investor groups likely to use the information provided with climate related financial disclosure.
- Roundtables with stakeholders: companies, investors, data providers.

The scoping project will assess how to best contact and engage with organisations in order to minimise the subsequent burden on organisations through the evaluation.

How and when will the evaluation take place?

183. So far, only some very high-level scoping work has taken place in-house within the Department. There is a need for a commissioned detailed scoping project which will then lead to the Post Implementation Review in 2027. **Dates below are subject to sufficient internal resource and a successful competitive tender exercise for the research.**

184. The evaluation activities envisaged will include:

Table 19: Envisaged phases for Evaluation

Evaluation Phase	Timeline	Potential workstreams	Potential Outputs
Scoping Project To develop methodology and final evaluation plan.	Completed by Jan 2022	- Desk research - Stakeholder discussions - Theory/ logic workshop - Explore and decide on the use of available data and how to fill in the identified gaps via the required methodology	Scoping report with evaluation plan, including revised evaluation questions, evaluation methodology and proposed data collection
Phase 1: Early Evidence Gathering and policy Review	Completed by Q4 2023	- Conducted internally within BEIS and complemented with commissioned qualitative research. - Desk based research to conduct a light touch review of emerging disclosures - Provide evidence to inform in-flight adjustments to policy design	Interim Report In flight policy amendments
Phase 2: Main evaluation to support PIR (Process and impact evaluation, data collection, economic evaluation)	By 6th April 2027	Exact methodology will need to be confirmed following scoping phase but likely to be made up of: - Additional desk research - Stakeholder and participant interviews - Survey to further understanding of impacts on providers and users of disclosures. - Analysis of existing data - Value for Money(VfM) analysis - Synthesis of evidence	Survey and qualitative work outputs (transcripts, reports) Final report Synthesis report

How much will it cost?

185. This evaluation work is proportionate to the scale and profile of the regulation given that it has an NPV of £1,250.9 m and will meet the evidence need of the PIR IN Q4 2027.The costing below was informed by the BEIS research estimation costing tools and have been benchmarked against previously received evaluation tenders to ensure that they are appropriate given the scope of work required.

186. The scoping project and main evaluation will be coordinated and procured centrally through BEIS. We expect that the project will require 0.4 FTE at SEO level for 6 months, whilst the post implementation review will require 0.5 FTE at SEO level and 0.2 FTE at Grade 7 across 2025/26 – 2026/27.

187. The project also delivers value for money as the scoping study will be included within the SECR Evaluation and therefore be produced as an output by the same contractor. This will reduce the cost of evaluation and reduce the administrative and resource burden of multiple tendering processes. This will also draw on existing evaluation expertise on disclosure regulations and assessing their impact. Further all tender bids will be assessed based on the value for money they offer in meeting the defined evaluation specification, to ensure VfM of the final contract awarded. The exact scale and cost of subsequent evaluation activities will be agreed after the scoping stage is completed, and this will be a key output of the scoping project.

Annex 1: Status of TCFD reporting

188. In March 2021, BEIS commissioned some research on the extent to which UK private limited companies make climate-related risk disclosures[111].

189. The report aimed to explore two main issues:

a. **Current extent of TCFD alignment amongst large UK private limited companies (through reviewing existing reports and documentation)**
One of the key findings was that "*Only 27% of the companies* [among 150 assessed] *are reporting reasonably aligned with TCFD (either at their company level or at their parent level)"*. In our previous consultation Impact Assessment, we had assumed that 0% of companies disclosed in line with TCFD; but had been clear in the narrative that this was not likely to be the case. The evidence provided below aims to support the assumption that at least **a fourth of the companies in scope of TCFD regulations are already aligned with TCFD recommendations**. Figure 2 shows detailed research outcomes per pillar.

b. **How Scenario analysis is performed in practice.** The research indicated that this component of the TCFD recommendations would likely be the most expensive to implement and is also the one with least level of current alignment. The evidence in the report shows: *"Climate scenario analysis is the TCFD recommended disclosure where disclosures by companies were least well aligned across the sample. It was also raised as an area of concern during many interviews and was an area where guidance was explicitly requested. It is viewed as an area which is particularly costly to address as there is a perception that it needs specialist knowledge and therefore requires the use of third parties".*

190. This research was conducted by AECOM on behalf of The Department for Business, Energy, and Industrial Strategy (BEIS) during February and March 2021. The project comprised two parts. In Part 1, the extent to which UK private companies make climate-related risk disclosures were assessed through a review of existing public disclosures of 150 companies against the 11 TCFD recommended disclosures. Part 2 comprised interviews with 38 selected companies to explore the opportunities and barriers to reporting. The main findings are:

191. Only 27% of the companies were assessed as having a 'Reasonable' or 'Strong' alignment with the TCFD recommendations in their disclosures. In contrast, 56% of the companies assessed had little or no disclosure on climate-related matters.

192. 'TCFD' as a keyword search, was only found in the disclosures of 8 companies out of 150 totals, of which 6 were at the parent level, indicating that disclosure explicitly linked to TCFD is uncommon amongst UK Limited companies (or parent companies reporting on their behalf).

193. Larger companies (as defined by their reported turnover) are disclosing information that is more aligned with TCFD recommendations than smaller companies. Where a company was not disclosing, but its parent company – based overseas or in the UK – was making a disclosure, then the disclosure is also better aligned to the TCFD recommendations than those disclosing at UK Limited company level or subsidiary level. This finding is particularly interesting as it shows that the level of alignment with TCFD might be poor or bad when a parent company does not lead on reporting. Therefore, this reinforces the idea that reporting should be at the group level.

[111] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

194. The areas of the TCFD recommendations for which the greatest level of alignment was identified were Governance, and Metrics, and Targets. The recommendation showing a worse level of alignment was Climate scenario assessment among other risk-related recommendations.

195. These findings are broadly consistent with other reports assessing the status of TCFD among specific group of companies.

Figure 2: Chart indicating the extent to which companies demonstrated >50% alignment to TCFD recommendations

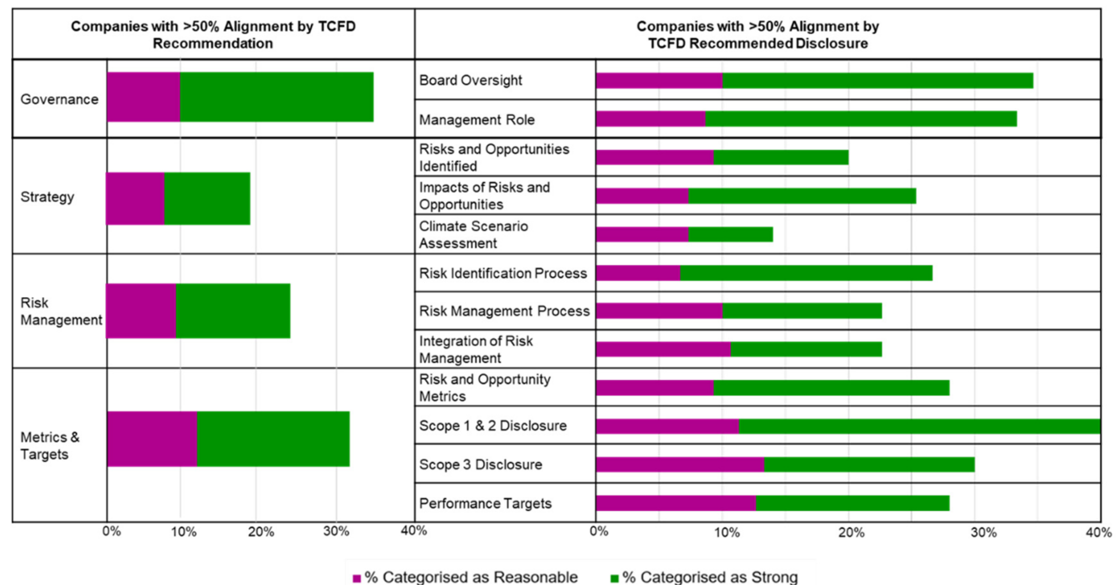


Table 20 20: Summary of evidence per group of focus

Pillar	Recommendation	UK Private companies (or their listed parent)[112]	UK Premium[113]	FTSE100[114]	EU companies[115]
Governance	Board Oversight	**34%**	35%	76%	36%
	Management Role	**33%**	32%	52%	47%
Strategy	Risks and Opportunities identified	**20%**	45%	79%	47%
	Impacts of risks and Opportunities	**25%**	28%	79%	60%
	Climate Scenario Assessment	**13%**	27%	57%	11%
Risk Management	Risk Identification Process	**27%**	39%	40%	43%
	Risk Management Process	**23%**	37%	40%	43%
	Integration of Risk Management	**23%**	38%	36%	30%

[112] AECOM, 2021. "An assessment of climate-related reporting by large UK companies", [https://publications.aecom.com/media/files/An_assessment_of_climate-related_reporting_by_large_UK_private_companies_AECOM.pdf]

[113] LSE's study on premium listing companies and considered by the FCA on their cost-benefit analysis. A sample of 100 over 480 premium-listed companies, [https://www.fca.org.uk/publication/consultation/cp20-3.pdf]

[114] PwC, "Excellence in climate change reporting", 2020, [https://www.pwc.co.uk/services/sustainability-climate-change/insights/sustainability-and-climate-change-reporting-tips.html]

[115] Task Force on Climate-related Financial Disclosures (TCFD), 2020 Status Report, October 2020, [www.fsb.org/wp-content/uploads/P291020-1.pdf]. The reported percentages correspond to those for the sample of EU companies.

Metrics and Targets	Risk and Opportunity Metrics	**28%**	25%	33%	58%
	Scope 1 & 2 Disclosure	**40%**	42%	74%	49%
	Scope 3 Disclosure	**30%**	37%	74%	52%
	Performance Targets	**27%**		50%	

196. It's worth noting that AECOM's study only covers **large private companies**[116], and, whilst other studies have gathered analysis on disclosure amongst premium listed or FTSE100 companies, there is no comprehensive study analysing all the groups of companies that would be in scope of these regulations (i.e., rest of Public Interest Entities, companies registered in AIM and LLPs). Based on the differences found with respect to his other pieces of evidence (collected in Table 20 20) it has been evidenced that there is considerable **variability** in existing evidence on TCFD disclosures. Other studies report higher levels of alignment with TCFD, Other studies report higher levels of alignment with TCFD, but these findings are sometimes based on references to each disclosure which can be relatively brief and including very little or no scenario analysis.[117]. Private limited companies seem to show a poorer reporting performance against TCFD. BEIS was particularly interested on this group of companies, as they could represent a **benchmark level of alignment** with TCFD.

197. Given that private companies comprise 53% of all the companies in scope of regulations on climate related financial disclosure, we consider that the scores obtained through AECOM's research are appropriate for modelling our counterfactual scenario. AECOM's research might also represent the alignment of other companies (e.g., when the UK parent was a public company), given that disclosures were found at the parent level for 57% of the sample. When no disclosure was made at the large private company level, researchers analysed the disclosures made by either the UK or the global parent company. Therefore, it is considered that this study provides credible evidence of the current status of TCFD alignment for most of the sample of large companies in scope of our regulations.

198. In addition, we have cross-checked the findings from AECOM's research with percentages of alignment provided by market data providers[118] on AIM companies, FTSE-all share weighted by the importance of PIEs and AIM companies over the total sample of companies in scope of our regulation. The weighted average percentages of alignment per pillar are very similar to those provided by AECOM, and the average variation is just 2.5 percentage point across all the pillars, indicating once again that the research conducted by AECOM can be representative for all of our sample.

199. The percentages reported for EU companies on the TCFD 2020 Status Report are considered for modelling a lower cost scenario. Despite the coverage is not UK-specific, the sample does not focus on a specific group of companies (i.e., PIEs, premium listing). A 0% alignment for all companies in scope of these regulations is considered for modelling a higher cost scenario, which is the counterfactual that had been considered in the consultation stage Impact Assessment and which should correct any potential optimism bias from the existing studies (e.g., some companies might have some TCFD-related disclosures but might need to still incur costs of reporting to better align with BEIS and TCFD guidance and make sure they comply with these requirements).

[116] More than 500 employees and over £500m turnover.

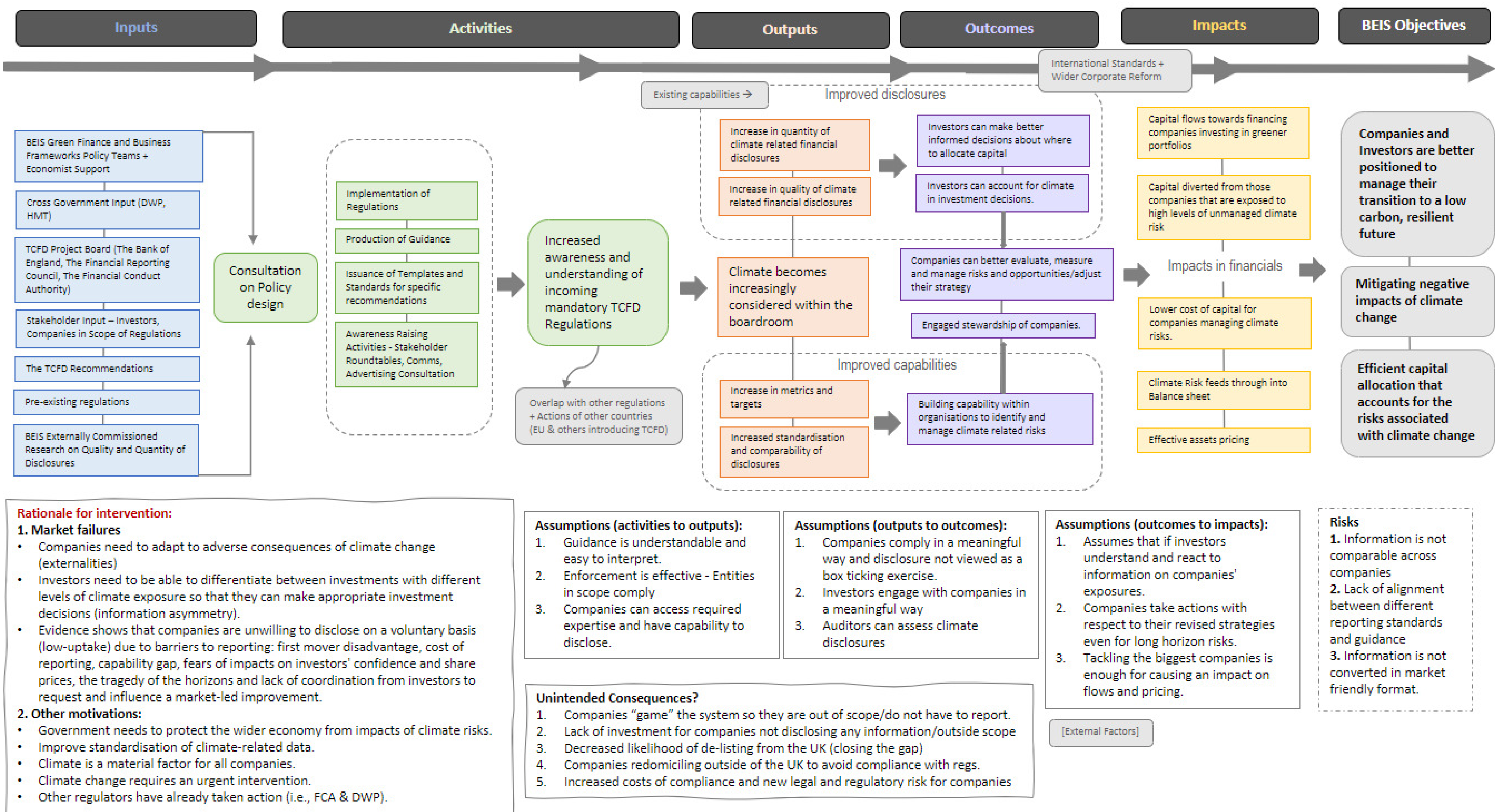
[117] PwC, "Climate Change in FTSE 350 annual reports: a snapshot of trends 2020/21", 2021, [https://www.pwc.co.uk/services/audit/insights/climate-change-ftse-350-reporting-trends.html]

[118] Source: Bloomberg Finance L.P. It should be noted that the percentages provided by Bloomberg do not capture companies with more than 500 employees, so there could be some bias downwards, with results driven by smaller (poorer performers) companies.

Table 21 21: Summary of scenarios for calculating a low/high estimate of costs

Pillar or recommendation	Lower cost scenario	Counterfactual scenario	Higher cost scenario
Governance	42%	34%	0%
Strategy	54%	23%	0%
Scenario Analysis	11%	14%	0%
Risk Management	39%	24%	0%
Metrics and Targets	53%	32%	0%

Annex 2: Theory of Change



Annex 3: Additional costs for quantification in scenario analysis

200. We would expect that companies choosing to do a quantitative scenario analysis as in option 1c), rather than qualitative scenario analysis (as in our preferred option) incur in extra costs. Concretely:

201. Development of a model for conducting scenario analysis: Given that companies are expected to conduct scenario analysis as referenced by TCFD recommendation 2c, we expect that every group in scope will incur initial, one-off costs associated with designing a model that will be used annually to assess the impact of climate risks on their financials. This cost will affect companies in the first year that quantitative scenario analysis is required. This cost has been included at the group level and is not expected to impact on subsidiaries. We have estimated the annual reporting costs associated with scenario analysis separately to this.

202. All companies in scope are expected to dedicate some resources to create and test a fitted model for their company to be used for running scenario analysis on an annual basis. We have assumed that 1 corporate manager (lead analyst) and 2 research professionals spend 50% of their working year on this exercise. It is likely that companies will need external support and resource for this task. As a result, the costs included for the development of such a model are considered to be proportionate and comparable to the costs of outsourcing this analysis. In total, **we expect these costs to be £112,400 per UK parent in scope**[120] as outlined in Table 22 22.

Table 22 22: Expected Cost for the Development of a Model for Scenario Analysis per parent company

Type of Staff	# of Employees Required to Read the Guidance	Dedicated Time (% year/pp)	Wage (£/year)	Total Cost Per Employee (£)
Corporate Managers	1	0.5	£86,076	£43,040
Administrative Professionals	2	0.5	£69,389	£69,390
			Total cost per parent:	£112,400

203. Costs of processing information from subsidiaries at the UK parent level: We expect the cost to vary based on the level of scenario analysis required, which will impact in the time requirements for processing the returns. **UK parent companies in scope are assumed to spend an amount between £3,100 - £6,300 per year**[121]. Table 23 shows the expected costs from moving to a more quantitative analysisTable 6.

Table 23: Cost of processing information from subsidiaries when companies do quantitative scenario analysis.

Type of Staff	Time required (hr/pp)	# Number of employees	Wage (£/hr)	Total Cost Per Employee (£)
Chief Executives and Senior Officials	1	2	£70	£140
Corporate Managers	7	4	£43	£1,210
Administrative Professionals	7	20	£35	£4,930
			Total cost per parent:	£6,300

[120] Calculation: [(1 Managerial Level Staff) * (50%) * (£86,076 Annual Manager Wage)] + [(2 Admin level staff) * (50%) * (£69,389 Annual Admin Wage)] = £112,400 to nearest £100

[121] Calculations: If the company disclose qualitative scenario analysis: [(1 Senior level staff) * (1 hours to sign-off) * (£70.50 Senior Wage)] + [(2 Managerial Level Staff) * (7 hours to review) * (£43.28 Manager Wage)] + [(10 Admin level staff) * (7 hours to process information) * (£35.20 Admin Wage)] = £3,100 to nearest £100. From 2025, the company's disclosure would include a higher level of qualitative reporting: [(2 Senior level staff) * (1 hours to sign-off) * (£70.50 Senior Wage)] + [(4 Managerial Level Staff) * (7 hours to review) * (£43.28 Manager Wage)] + [(20 Admin level staff) * (7 hours to process information) * (£35.20 Admin Wage)] = £6,300 to nearest £100

204. Cost of research and writing or quantifying scenarios: If the company conducts a quantitative scenario analysis, each company is assumed to allocate two analysts to run the model and quantify the outcomes, translating them into changes on their company's strategy. This is expected to take each analyst 6 months. We estimate that the wage costs for each group in scope **for quantitative scenario analysis will be £69,400[122] to the nearest 100**. We expect this cost to decrease by 25% in the second year onwards given that the necessary reporting framework will have been established in year 1 of implementation.

Table 24: Expected Cost for writing or quantifying scenarios

			Year 1	Year 2 onwards
Type of analysis	**% time/ year**	**# of Employees**	**Total Cost Per Company (£)**	**Total Cost Per Company (£)**
Qualitative Scenario Analysis	0.5	1	£34,690	£26,020
Quantitative Scenario Analysis	0.5	2	£69,390	£52,040

205. Quality Assurance and Internal Verification: We also expect there to be an **additional** cost to companies for the quality assurance of quantitative scenario analysis. **The costs to QA the modelling underlying the quantitative scenario analysis disclosures are expected to be £12,400[123] a year in addition to the costs already contemplated in**Section 9: An Overview of Costs and Benefits Section 10: Direct Costs and Benefits to Businesses Calculations**.**

[122] These costs are based on the Gross pay (2020 £) for a Business, research and administrative professional (SOC Code 242), uplifted for non-wages costs.

[123] Calculation: [(1 Senior level staff) * (2 hours to sign-off) * (£70.50 Senior Wage)] + [(1 Managerial Level Staff) * (7 hours to QA & sign-off) * (£42.28 Manager Wage)] + [(1 Admin level staff) * (7 hours to QA) * (£35.23 Admin Wage)] = £12,400 to nearest £100