



**INTERNATIONAL SUSTAINABILITY INSTITUTE  
CHANNEL ISLANDS**

**A PRIMER**

# **TCFD, Climate Risk and Private Capital**

What relevance  
public disclosure rules  
to private markets?

# Our synopsis: the significance of TCFD to private wealth

*'One of the most significant, and perhaps most misunderstood, risks that organizations face today relates to climate change.... The large-scale and long-term nature of the problem makes it uniquely challenging, especially in the context of economic decision making.....Creditors and investors are increasingly demanding access to risk information that is consistent, comparable, reliable, and clear.'*

An elegant, compelling rationale presented by the Task Force on Climate Related Financial Disclosures ('TCFD') unveiling its guidance back in 2017. Now mandatory for listed companies and many financial institutions in Europe, Japan, Canada, New Zealand, Australia, Singapore and Hong Kong, and with its introduction in the United States this year, TCFD has become, in just five years, the bedrock of international sustainability standards and climate disclosures.

But what relevance can and does a public disclosure-based regime have for private capital and private markets?

Our simple view is 'a lot'.

In our opinion, leveraging the TCFD process is sensible business strategy and utilization of TCFD metrics a 'no brainer' in terms of providing a degree of clarity around climate risk and the scale of its potential impact. This is as relevant to the future price of private assets as those that are publicly listed. In our view, if owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship.

In the context of a broader discussion of the issues surrounding sustainability and net zero targets and climate risk, we present in this paper the case for the transposition of the calculation of TCFD metrics to cover private capital and private markets.

***"A recent but remarkable development since assessment round five is that climate change has been explicitly recognised by financial supervisors as a source of financial risk that matters both for financial institutions and citizens' savings."***

International Panel on Climate Change (IPCC)  
Working Group III  
Assessment Round 6 Report



# Introduction

When Mark Carney outlined his 'Tragedy of the Horizons' view of climate change as a financial stability risk at Lloyd's of London in 2015, many eyebrows were raised. TCFD was still 18 months away and COP 21 had yet to take place that same year. Seven years later, climate risk is now considered to the legitimate core mandate of financial regulators.

With significant geopolitical backing TCFD has risen from an interesting exercise in developing guidance in climate risk management by central bankers to a central plank of sustainable finance regulations across global finance centres such as London, New York and Tokyo.

Banks across the European Union and UK have just recently completed their second climate stress test exercises set by their central banks. TCFD derived requirements are now imposed by securities regulators across Europe, Asia and North America. The recently established International Sustainability Standards Board is in the process of closing its consultation process on a new International Reporting Standard based on TCFD. An Anglo-Saxon regulatory axis of sorts, the US/UK/Australia and SE Asia (USUKAASEA), have taken TCFD close to their heart and have based their sustainable finance regulations around climate risk disclosures. It is the age of TCFD.

Yet for several reasons we believe there remains confusion in this area. For as much as we have previously argued that the simplicity of climate risk metrics and reporting is a sufficient cost effective proxy for generic sustainability measures (our previous research demonstrated the prohibitive costs of the prescriptive and granular regulatory approach of the EU's Sustainable Finance Disclosure

Regulation (SFDR) there are many (in our view self-interested) market participants and many industry actors arguing for more voluminous and burdensome reporting requirements.

Traditional and social media are awash with marketing driven commentary on ESG 'issues' and concerns of little basis or merit. In the age of social media there is no established 'commentariat' pushing back with critical analysis.

This is a shame, because while we have doubts around the merit of the case of climate risk as a financial stability risk, we are strongly of the view that climate risk is real and has the potential to significantly impact asset prices. To this event in particular we believe that the metrics of TCFD provide a very useful indicator of these impacts around which we believe simple streamlined reporting can be of real value. It is this value that we see as applying to the valuation of private assets as to those listed. Our conclusion being presented in the preceding synopsis:

***'if owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship.'***

It is to this rationale that this paper is applied. In getting there, we first discuss TCFD coverage and its workings, exploring in some detail the nature of climate risk and explaining the associated metrics. We then present a simplified explanation of the impact and timing of impact of climate risk on financial assets before discussing the relevance and value of this information to the owners of private assets. We then speculate on the potential direction of travel of regulators in jurisdictions specialising in servicing private wealth.

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# Coverage of TCFD

'When the recommendations were released in 2017, few organizations accepted climate change as a major financial risk. Since then, the Task Force has raised the profile of climate disclosures as a pressing issue, both for businesses and for the planet. And the TCFD recommendations have become the global standard that guides private sector disclosures, informing new laws and regulations and garnering notable endorsements from the G7 and G20. Today, organizations are integrating climate risk into their financial risk frameworks, and governing bodies are incorporating our recommendations into official disclosure requirements — including the European Union, the United Kingdom, Switzerland, New Zealand, and Hong Kong. To date, 12 governments and dozens of central banks, supervisors, and regulators have formally expressed support for the TCFD recommendations, and more than 2,600 organizations have now endorsed them'.

securities sector, immediately served notice of its intent to align its own future standards with the proposed accounting standards.

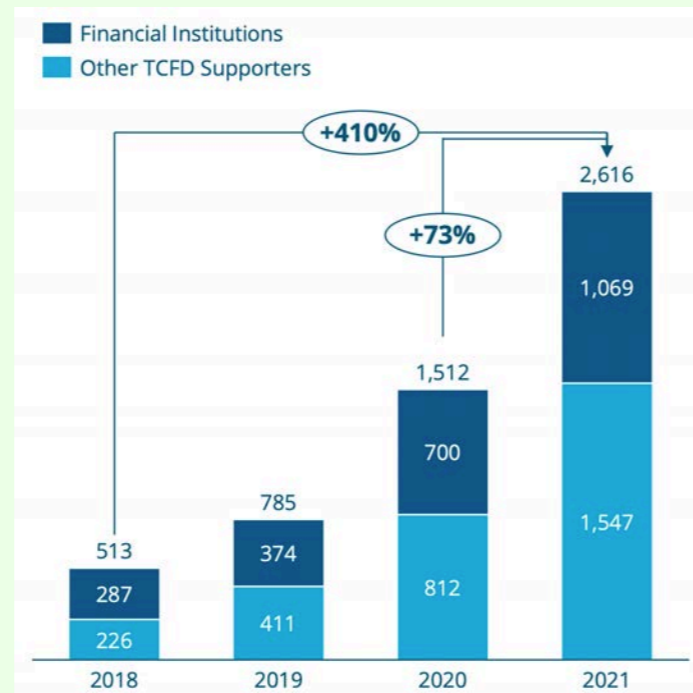


Figure: Growing TCFD Support (source TCFD)

*IOSCO welcomes the publication of the ISSB's Disclosure Standard. We will review the proposals, with the objective to endorse them for use by our member jurisdictions. Endorsement by IOSCO can pave the way for adoption of the Standards around the world.'*

Ashley Alder, Chair IOSCO Board

In the US, the SEC's proposed disclosure requirements for publicly listed securities, are pretty much a carbon copy of the TCFD template. Thus TCFD is now endorsed by all the major Western economies. With Europeans in the vanguard, central banks and financial supervisors across ten jurisdictions had committed by the end of 2021 to introduce TCFD type disclosure requirements.

Michael Bloomberg, TCFD 2021 Progress Report

We believe TCFD has critical momentum. The number of supporters of TCFD have increased fourfold in four years, with the market coverage of TCFD supporters measuring \$25trn market capitalization in 2021 and \$194trn of financial assets. As reported by the TCFD, in consultations over 90% of respondents indicated that they found disclosure of financial impacts useful.

In March of this year, the newly formed International Sustainability Standards Board ('ISSB') published the exposure draft of a new IFRS (International Financial Reporting Standard) S2 Climate Related Disclosures based on the framework and metrics of TCFD. Technically a financial reporting standard, IOSCO (the International Organization of Securities Commissions), the global regulatory standard setter for the

# TCFD

## TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

In the EU both the ECB and European Commission have adopted TCFD requirements and, whilst new rules on climate disclosures from the European Banking Authority do not come into effect until next year, earlier this year the ECB called on banks to take 'decisive action' after finding that none met its supervisory expectations for disclosures with only 15 per cent publishing data on financed emissions. It also reported that three-quarters of banks did not disclose whether climate and environmental factors had a 'material impact on their risk profile' despite half reporting they were exposed to such risks.

The UK has arguably gone the furthest to date introducing TCFD disclosures not merely for listed securities and banks and insurers but extending requirements to asset managers, pension funds and life assurers. In a series of consultations in 2021, the UK's FCA set out proposals for disclosures at the entity level and product/fund level.

At the entity level, firms will need to report how they take climate-related risks and opportunities into account on behalf of their client assets, including governance, strategy, risk management, metrics and targets. Product-level disclosure consists of a baseline set of mandatory carbon emission and carbon intensity metrics, and any governance, strategy or risk measures that differ from the entity-level disclosure.

Product-level metrics also include the core metrics of greenhouse gas emissions, total carbon emissions, the carbon footprint and weighted average carbon intensity. In addition to these reporting requirements, firms must carry out regular scenario analysis at both

entity and product level to test their portfolios against prescribed climate change scenarios (see Appendix for discussion of scenario analysis).

There is still work to be done to complete the global rollout of TCFD. Reporting templates and metrics will need to become standardised and the investing public at large needs to become more familiar and understanding of the metrics. And of course there remain numerous data issues to resolve.

Close to home, in the Channel Islands in 2021, the GFSC, a member of the Network for Greening the Financial System, introduced a requirement for the consideration of climate risk into Guernsey's Finance Sector's Code of Corporate Governance.

*'The Board should consider the impact of climate change on the firm's business strategy and risk profile and, where appropriate in the judgement of the board, make timely climate change related disclosures.'*

The wording as explained by the regulator at the time was deliberately gentle, arguing that clear global guidelines have yet to emerge. Our view is that those guidelines have emerged. TCFD is providing the blueprint for regulatory standards on climate change across Europe, Asia and the US.



# Understanding TCFD

Relevant to all companies but written particularly with listed companies and financial institutions mainly in mind, TCFD provides a set of recommendations regarding climate-related financial disclosures; in the framework of four key pillars covering governance; metrics and targets; strategy; and risk management. Each pillar outlines specific disclosure recommendations.

## Governance

This pillar requires disclosure of an organisation's governance around climate related risks and opportunities, and then

- a) Description of a board's oversight of climate-related risks and opportunities.
- b) Description of management's role in assessing and managing climate-related risks and opportunities.

## Strategy

This pillar requires disclosure of the actual and potential impacts of climate-related risks and opportunities on an organisation's businesses, strategy, and financial planning where such information is material, and then:

- a) Description of the climate-related risks and opportunities an organisation has identified over the short, medium, and long term.
- b) Description of the impact of climate-related risks and opportunities on an organisation's businesses, strategy, and financial planning.
- c) Description of the resilience of an organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

## Risk management

This pillar requires disclosure of how the organisation identifies, assesses, and manages climate-related risks, and then:

- a) Description of an organisation's processes for identifying and assessing climate-related risks.
- b) Description of an organisation's processes for managing climate-related risks.
- c) Description of how processes for identifying, assessing, and managing climate-related risks are integrated into an organisation's overall risk management strategy.

## Metrics and Targets

This pillar requires disclosure of the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material, and then:

- a) Describe the metrics used by an organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.
- b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
- c) Describe the targets used by an organisation to manage climate-related risks and opportunities and performance against targets.

In the TCFD's own words...

*"The financial crisis of 2007-2008 was an important reminder of the repercussions that weak corporate governance and risk management practices can have on asset values. This has resulted in increased demand for transparency from organizations on their governance structures, strategies, and risk management practices. Without the right information, investors, for example, may incorrectly price or value assets, leading to a misallocation of capital."*

**The \$64m question is how much of this is necessary and how much is useful for private capital?**

Our view would be that consideration, documentation, if not publication, of the processes involved for governance, strategy, and risk management likely serve a useful purpose. But it is the metrics at the core of TCFD, and in particular financed emissions, that provide the foundation for understanding the impact of climate risk. As such estimation of these metrics is central to prudent risk management for financial institutions and their portfolios and those of their clients.

### Core elements of the TCFD recommendations



Figure: Illustrating the structure of the TCFD (source TCFD)



# Climate Risk

*‘Climate change poses material risks to the financial sector and it is, therefore, within the mandate of supervisors to ensure that the financial system is resilient to climate risks.’*

## The Network for Greening the Financial System

And thus the case for regulatory action is completed. On this basis financial regulators take a legitimate claim on prudential grounds to require financial firms take account of such risks within their business strategy.

We have doubts about the merit of the present case of climate risk as a financial stability risk but we are strongly of the view that climate risk is real and has the potential to significantly impact asset prices. It is not merely an existential future risk, it has a present impact on asset values and hence individual business strategies. A priori acknowledgement of risk ought to lead to the discounting of current asset value to preclude the holding of overvalued assets and potential hits to future revenues and balance sheets. This condition is as relevant to the private holders of private assets as it is to the institutional holders of publicly listed assets.

It is the implications of this that we explore further in this paper. But first a climate risk primer, its components of physical risks and transition risks and their impact on financial asset prices. For an exposition we turn to the IPCC’s Working Group III’s recently published Sixth Assessment Report which provides the following definitions.

**Physical risk.** On the one hand, unmitigated climate change implies an increased potential for adverse socio-economic impacts especially in more

exposed economic activities and areas. Accordingly, physical risk refers to the component of financial risk associated with the adverse physical impact of hazards related to climate change (e.g., extreme weather events or sea level rise) on the financial value of assets such as industrial plants or real estate. In turn, these losses can translate into losses on the values of financial assets issued by exposed companies (e.g., equity/bonds) and/or sovereign entities as well as losses for insurance companies. The assessment of climate financial physical risks poses both challenges in terms of data, methods and scenarios.

It requires to cross-match scenarios of climate-related hazards at granular geographical scale, with the geolocation and financial value of physical assets.

The relationship between the value of physical assets (such as plants or real estate) and the financial value of securities issued by the owners of those assets is not straightforward. Furthermore, repercussions of climate related hazards on sovereign risk should also be accounted for.

Transition risks and opportunities. On the other hand, the mitigation of climate change, by means of a transition to a low-carbon economy, requires a transformation of the energy and production system at a pace and scale that implies adverse impacts on a range of economic activities, but also opportunities for some other activities. If these impacts are factored in by financial markets, they are reflected in the value of financial assets.

Thus, transition risks and opportunities refer to the component of financial risk (opportunities) associated with negative (positive) adjustments in assets’ values resulting directly or indirectly from the low-carbon transition.’

As implied by the sources of these comments on climate risk, the NGFS (a network of mainly central banking supervisors) the primary concern of global regulators is for the stability of the backbone of the financial system: global banks and global insurers.

Concerns with systemic risk drove the development of TCFD, concerns which have followed through to individual banks and insurers and other financial institutions.

The Bank for International Settlements (BIS), the central bankers’ bank, conceptualises these risks into climate risk drivers and explains its thinking on how these drivers impact on its traditional banking risk categories.

The BIS is presently working on guidance on incorporation of climate risk into the Basel three pillar capital framework, though it is unlikely to recommend specific climate risk weightings in its framework. It is market risk that becomes of key significance, concern as relevant to private as much as any other form of capital. And it is the impact of market risk on pricing that we will look to as the basis for our view on the relevance of TCFD disclosures for other market participants.

Risk	Potential effects of climate risk drivers (physical and transition risks)
Credit risk	Credit risk increases if climate risk drivers reduce borrowers’ ability to repay and service debt (income effect) or banks’ ability to fully recover the value of a loan in the event of default (wealth effect).
Market risk	Reduction in financial asset values, including the potential to trigger large, sudden and negative price adjustments where climate risk is not yet incorporated into prices. Climate risk could also lead to a breakdown in correlations between assets or a change in market liquidity for particular assets, undermining risk management assumptions.
Liquidity risk	Banks’ access to stable sources of funding could be reduced as market conditions change. Climate risk drivers may cause banks’ counterparties to draw down deposits and credit lines.
Operational risk	Increasing legal and regulatory compliance risk associated with climate-sensitive investments and businesses.
Reputational risk	Increasing reputational risk to banks based on changing market or consumer sentiment.

(source BIS)



# TCFD Metrics and 'financed emissions'

When it comes to financial institutions, the pertinent question is what they being required to measure, qua financial institutions? That is over and above other types of organisation. And even more pertinent, how does this help understand and manage risk?

With greater granularity provided on a sector-by-sector basis, the TCFD states, in guidance for financial firms that, over and above firm level scope one and two emissions, **asset owners should disclose the appropriate financed-emissions metric, based on the partnership for carbon accounting financials' methodology and weighted average carbon intensity, if relevant, or a comparable methodology, for their industry where data are available or can be reasonably estimated.**

If a comparable methodology is used, the TCFD recommends the details of such methodology be made publicly available.

Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions including, significantly as far as we are concerned, **category 15, financed emissions.**

**The calculation of financed emissions is pivotal to understanding and measuring the impact of climate risk on portfolios.**

Conceptually, portfolio level financed emissions is a simple measure of attribution of the CHG of the portfolio to the financing by the financial institution. But there are many alternatives for its

reporting ranging from simple total carbon emissions and proportional exposure to carbon related assets to weighted average carbon intensity of the portfolio, the carbon footprint of the portfolio by (dollar) investment or carbon intensity by (dollar) revenues.

Easier conceptually than in practice, given significant issues with data, financed emissions are the clear favourite metric of financial services regulators as indicated by the ECB's public comments on the paucity of reporting of financed emissions by European banks earlier this year.

The Partnership for Carbon Accounting Financials sets out techniques endorsed by the GHG Protocol including agreed calculation methodologies for various asset types including listed equity and corporate bonds, business loans, project finance (which can be applied to private equity although the Initiative Climat International recently published specific guidance for the private equity sector), commercial real estate, mortgages and motor vehicle loans.

Data coverage is widely recognised as a major impediment to reporting and for this reason estimation and parametrisation is permissible (with the expectation for it to be reduced over time) to fill gaps.

Indeed, it is clearly recognised as the only possible route possible for most at the present time.

There is one metric that conceptually provides a simple and easy to understand view of the portfolio. Indeed, our opinion is that with a sufficiently informed and educated public, this one measure conveys all the necessary information required to assess the portfolio, at least on a heuristic basis. This measure being the present temperature alignment of the portfolio. That is the future global temperature associated with the portfolio's level of financed emissions.

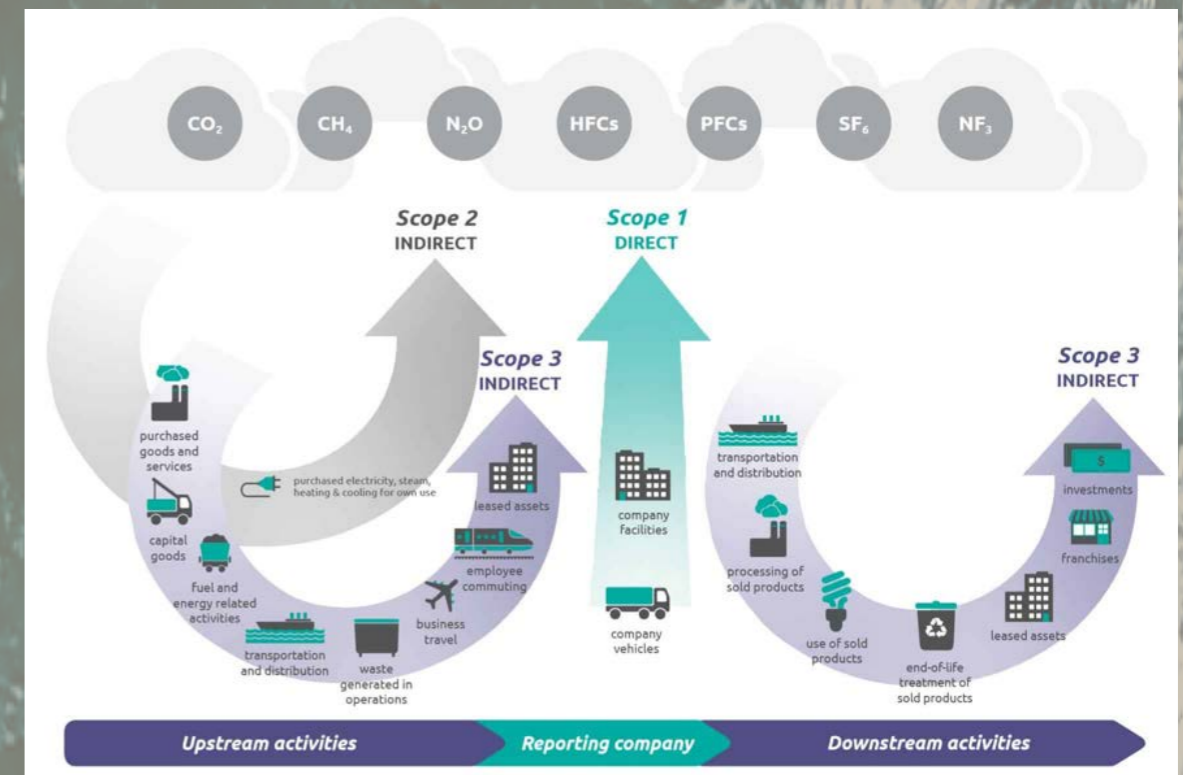


Figure: Scope 1, 2 and 3, GHG Emissions (source PCAF)

This one measure has the potential to be the cornerstone of financial risk assessment and asset pricing in our view. The University of Cambridge Institute for Sustainability Leadership sets out a simple four step process.

- 1) Estimate the emissions intensity of the portfolio under analysis;
- 2) Estimate the equivalent global GHG emissions of the portfolio;
- 3) Estimate the cumulative GHG emissions of the portfolio;
- 4) Estimate the implied temperature rise of the portfolio.

Straightforward but not simple, this methodology has the attraction of providing beneficial owners of private capital a straightforward measure of the alignment of their assets to the IPCC targets.

We believe that this measure will be in the future the key variable for consideration of climate risk for

investment portfolio, providing a simple, easy to understand comparator.

No discussion would be complete without a reference to the Science Based Targets Initiative. Indeed, a report outlining guidance for private equity (as owners of physical assets) was published in 2021. Once again, conceptually simple but more complicated in practice: the two main routes being to measure current emissions or temperature alignment and then use that to set a (science based) correct target for reduction of emissions to achieve alignment with the IPCC target of 1.5°.



# The impact of climate risk on asset prices: a simplified exposition

In his contribution 'The tragedy of the horizons' Mark Carney, then Governor of the Bank of England and Chair of the Financial Stability Board, outlined the 'tragedy' in which the horizon for the impact of climate risk is so distant that consideration is forever deferred until too late and a cliff edge type realization of risk occurs, creating a potential financial stability event in the extreme case. The title borrowing credibility with its deliberate nod to the 19th century classic 'Tragedy of the Commons' a seminal work in environmental economics.

In truth, this relies upon a pejorative view of human behaviour, though one that many environmentalists would say is being borne out by the lack of action on climate change. Notwithstanding, this view that market participants need to be encouraged to think of this long-term risk, is consistent with a regulatory mindset and is the foundation of the TCFD four pillar structure.

However, as articulated by Nobel Laureate Robert Engle there is a more immediate, positive view of the reaction to the impact of climate risk. As he puts it, *'you think of climate risk as taking 50 years before you see anything but in the financial markets, this affects peoples' decisions today.'* Engle may be taking an idealized view whereby the future is discounted today with perfect foresight, that is today's price is discounted by the future climate risk.

It is the more Engle version of reality that we believe lays the foundation for pricing in climate risk into today's asset values. The practical experience will lay somewhere between the two extremes, resulting in a stepwise re-pricing of risk as it become better known and understood

but its impact can be readily illustrated by reference to a simple conceptual model below.

For expositional clarity and simplicity, we take the manifestation of climate risk as a negative impact on price and consider it to be a) proportional, if nonlinear, to the degree of divergence of the temperature alignment from the IPCC's objective of a 1.5° rise in mean global temperatures and b) a function of time.

To achieve the IPCC target of 1.5° the global target of achieving net zero GHG emissions by 2050 has been set. This we treat as our baseline impact case. To simplify we assume no impact on price arising from this pathway, that is the real price of the asset is unchanged over time by climate risk associated with the 1.5° Net Zero path.

What we illustrate is a notional price path associated with an arbitrary temperature alignment of a 3°, a 5° and an 8° future.

The price path is shown as being subject to a non-linear impact proportional to the degree of divergence from net zero and time (left figure) As can be inferred, in theory a price path will exist for any temperature alignment. In this stylized model, there is no discounting of the future - the Carney case.

In practice discounting will take place (right hand figure) and the degree of discounting will be proportional to the degree (no pun intended) of divergence of temperature alignment from the 1.5° path. A price wedge is created by climate risk between the Net Zero price and the implied temperature rise price.

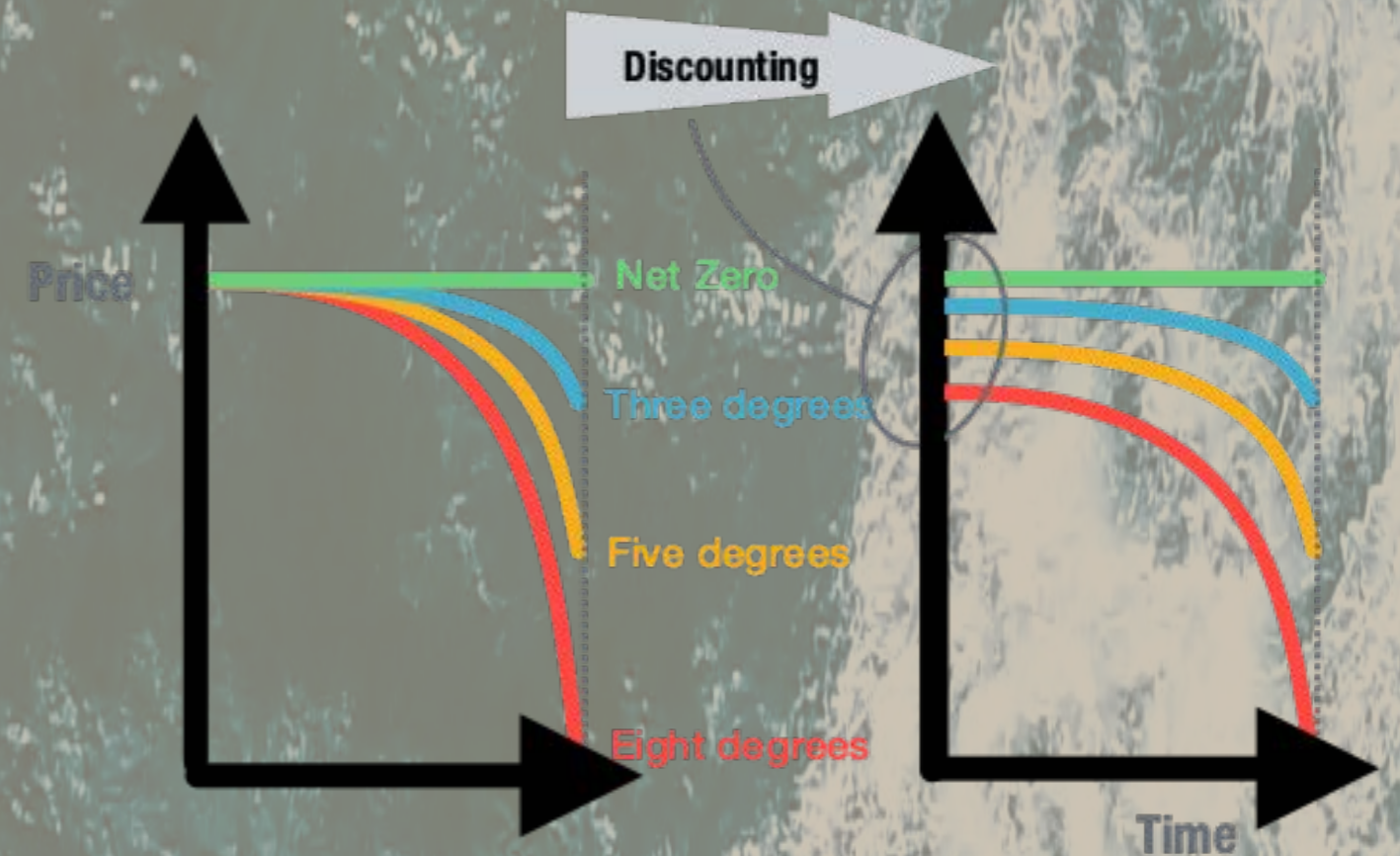


Figure: Illustrating the impact on price of climate risk (source ISICI)

This wedge or discount will be a function of the degree of divergence from the Net Zero path. In practice the degree of discount will depend on several factors including the jurisdictional location of the asset, the underlying economic sector of the asset as well as its own unique idiosyncratic GHG characteristics.

Whilst the information set is unlikely to be immediately perfect, with time as climate risks are understood, we believe the discount applied to assets aligned to a non-Net Zero path will be known with greater certainty and accuracy leading to more efficient pricing. Indeed this topic is a planned future research project for the ISICI.

Through this refining process TCFD metrics can be honed down to a single comparable variable, the implied

temperature rise of the portfolio. Simple, easily understood and readily comparable. This one measure should incorporate sufficient information for most to be able to take heuristic decisions regarding pricing and portfolio allocation decisions based on climate risk.

Appreciation of this process is key to developing an understanding and utilising this metric. The metrics of TCFD should provide reliable information to develop heuristic (rule of thumb) approximations and preferences (for example that is, ceteris paribus, the preference for a 3.5° asset over a 4.5° asset) which we believe will prove to be important and useful to financial professionals and beneficial owners alike.





# What relevance public disclosure rules to private capital?

*'As the Supreme Court has explained, information is material if "there is a substantial likelihood that a reasonable shareholder would consider it important" in making an investment or voting decision, or if it would have "significantly altered the total mix of information made available."*

Gary Gensler, Chair, SEC

Listed companies will follow public TCFD based disclosure rules compelled by regulators (above) to provide investors sufficient information to guide their investment decisions.

Large global organizations employing teams of economists and financial analysts will be able to consider the long-term impact of climate risks on their investment performance and balance sheet. But whatever their own assessments, they will disclose whatever takes the regulators' fancy.

But what of private capital and its managers and owners? What rights do regulators have for prescribing practices and rules relating to transparency in this instance? What concerns for investor protection or prudential safeguards are relevant here? What grounds can one compel consideration of the rules prescribed by TCFD for governance, strategy, and risk management irrespective of whether they serve a useful purpose? TCFD, once guidance, now rules, is at the most basic level an articulation of good practice. Is this sufficient grounds for legislation?

Many will argue that the prudential and conduct principles that provides legislative legitimacy in public markets is lacking in private markets. Yet the sheer scale of private capital markets,

accounting for \$7trn in assets in 2020 according to Morgan Stanley gives rise to grounds for significance.

As we have outlined, it is the metrics at the core of TCFD, and in particular financed emissions, that provide the foundation for understanding the impact of climate risk on portfolios and assets. This \$7trn of private capital is as exposed to this risk as any listed security.

The US Supreme Court's ruling on materiality may have been made with public markets in mind but the rationale applies as equally to the private sphere. In our view, the prudent steward of assets thus would look to ensure calculation of TCFD metrics on valuation grounds. Logic dictates that it is nonsensical to purchase an asset today where no attempt has been made to consider the impact of climate on its price tomorrow (or rather over the subsequent five to seven years, the typical hold of a private equity investor).

We showed in the preceding section, with a simplified exposition, there will be a price wedge forming between Net Zero and non-Net Zero aligned assets. Knowing that such risk will have a direct impact on price means it would be an abrogation of fiduciary duty not to ensure assets and portfolios are assessed on this basis.

If owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship.

***'If owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship.'***



# A place for TCFD in the regulatory world of private wealth?

*'If owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship.'*

ISICI, 2022

A debate is presently taking place amongst market professionals and media commentators as to the 'correct' amount and extent of climate and other ESG reporting. In our view less is more and simple is more effective. For sure, taking a comprehensive balanced view of risks is good practice but the practice of building a overly complex matrix of metrics to measure one risk is not. Better the simplicity of a robustly calculated, easy to understand single measure such as Implied Temperature Rise supplemented by broader information.

This debate ironically does not extend to the regulatory world where we have demonstrated in other work (ISICI 2022) that in the USUKASEA regulatory world has firmly landed on TCFD and its metrics as the core of their required reporting. We suggested that reliance of streamlined or singular measures of climate risk as a proxy for general sustainability compliance was a much more cost-effective route that that taken by the European Union in its approach to sustainable finance regulations.

Whilst surfacing in all sectors in large onshore centres such as the UK, TCFD type requirements have yet to be commonly found in the offshore regulatory world of the Channel Islands and the Caribbean. Amongst these regulators, the Guernsey Financial Services Commission has to date led the way in the development of sustainable finance. In 2021, it brought consideration of climate change risk within the scope of the Code

of Corporate Governance. Specifically it requires Boards to *'consider the impact of climate change on the firm's business strategy and risk profile and, where appropriate in the judgement of the board, make timely climate change related disclosures'*.

Our view is that calculation of the financed emissions and the implied temperature rise of an assets or a portfolio is in line with this statement. Anything less and it is questionable what consideration could possibly take place, particularly given the potential impact on price of climate risk.

The TCFD framework, as was discussed, comprises a four-pillar framework of governance, strategy, risk management and metrics. It is one thing for regulators to compel global banks, insurance companies and asset managers to publicly disclose a) how they incorporate consideration of climate risk into strategic deliberations, b) what governance arrangements they have in place, and require c) their reporting of various metrics relating to their assets or managed portfolios to enable investors to make informed choices of the impact of climate risk on their investments. This is after all the rationale for the insistence on public disclosures of such granularity. But it's quite another to try to compel a fiduciary, regulated in the Channel Islands or Caribbean, administering sizable private assets to do the same.

Yet, as we have spent much of this paper articulating, there is a strong sensible rationale for the calculation of various TCFD metrics of private assets. Publication would be a bridge too far no doubt, but it is really the thin end of the wedge to suggest that best practice would be to ensure that financed emissions and implied temperature rises of private assets and portfolios are regularly calculated?

There is a strong argument that this would be in line with fiduciary duty, where there is a duty of care to act in the client's best interests. Indeed, we believe is more than just strong. It is clearly in line with the fiduciary duty to take all reasonable steps to preserve capital values as that is embedded in trust laws across common law jurisdictions.

Recognising that climate risk is a real and present danger (limiting impact to asset prices rather than the more existential threat to the human race) common sense suggests that climate risk ought to be taken into consideration by those discharged with the prudent stewardship of private assets.

Whether this requires the creation and documentation of complete new process as in the case of TCFD is unlikely. We suspect the more pragmatic (impending) approach recommended by the Bank for International Settlements treating climate risk as one more market risk is much more pragmatic.

Whether or not regulatory guidance will come into place to mandate these requirements remains to be seen.

Either way, in our opinion, prudent stewardship of private assets ought to lead to the calculation of these metrics as a matter of course.



# Conclusion

We began this report by citing the IPCC which noted that between the production of its Third Working Group's fifth and sixth round assessments a 'a remarkable development' had occurred. Namely that financial supervisors had explicitly recognising climate change as a source of financial risk of relevance to financial institutions and personal savings. It is climate change as a source of financial risk that is thus relevant to private capital.

But the question we posed as the topic of this paper was whether TCFD, a public disclosure regime established to inform investors of the approach to climate risk taken by financial institutions, was relevant to private capital. We first explained the degree to which in the five years since its initial publication it has become the bedrock of the regulatory approach across the globe. And in 2022 becoming the foundation of proposed sustainable accounting reporting standards.

We believe that the financial stability risks are perhaps overblown and thus the mandate for the scale of the approach taken by financial supervisors is perhaps questionable. Nevertheless, climate risk is a clear threat to the price of assets, as the world seeks to transition to a net zero future and we provide a pedagogically crude, but easy to follow, exposition of how this impact is likely to work in practice.

A whole new layer of reporting and compliance following the framework of TCFD has been established across the regulatory world. And we find it difficult to look to advocate the transposition of the whole bureaucracy of TCFD to the private capital sphere.

But at its core, TCFD requires the calculation of conceptually simple metrics relating to investment portfolios and assets. Scope III, category 15 emissions. Financed emissions. The methodology and these metrics then enable, amongst other things, the calculation of an easy to understand, informative variable of real value. The implied temperature rise.

We have repeatedly stressed that if owners of private capital have no other information about climate risk, knowledge of the temperature alignment of their assets and portfolios will be vital for prudent stewardship. Knowledge of the potential impact on the value of assets of climate change is clearly consistent with fiduciary duty of preservation of value of capital which is a duty of care set out in in trust laws throughout common law jurisdictions.

We have seen the first signs of regulatory prods from supervisors in the Channel Islands. Whether regulators will soon feel the need to be more explicit as to what specific steps fiduciaries ought to ensure are taken remains to be seen.

Irrespective of this, our view of what those steps are is clear.

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# Appendix: scenario analysis, its relevance and scope.

The IPCC published its updated future scenarios in 2021 basing their modelling on five differing narratives of possible economic, social, political, and technological developments leading to five outcomes for emissions and climate change. These include a worst case, do nothing, 8.5° future which some argue that its inclusion gives a skewed impression of risk as this scenario is unlikely to materialize since it does not account for mitigating measures and global commitments already made during the CoP process, assuming, as it does, a threefold increase in emissions to 2100.

Scenario analysis is an obvious tool to use to assess climate-related financial risks, as it is forward-looking and can be particularly helpful when the future is uncertain but there are significant challenges. Long time horizons, limited data availability and unproven modelling techniques to name a few. Despite this, this has not stopped supervisors moving forward and attempting to use these tools, particularly amongst European Banking supervisors. The ECB launching its 2022 climate risk supervisory stress test this January with the UK's Climate Biennial Exploratory Scenario exploring the resilience of the UK financial system (banks and insurers) to physical and transition risks associated with three scenarios of early, late and no additional action which build on a subset of the scenarios developed by the NGFS. The Bank of England promising that the results of the tests will not impact subsequent capital requirements of individual banks.

For those with just a limited exposure to scenario analysis the exposition of the four NGFS scenarios will be quite familiar. Using integrated assessment (economic) models, the NGFS then calculated the paths of various physical and economic variables, including global GDP and real interest rates associated with each scenario.

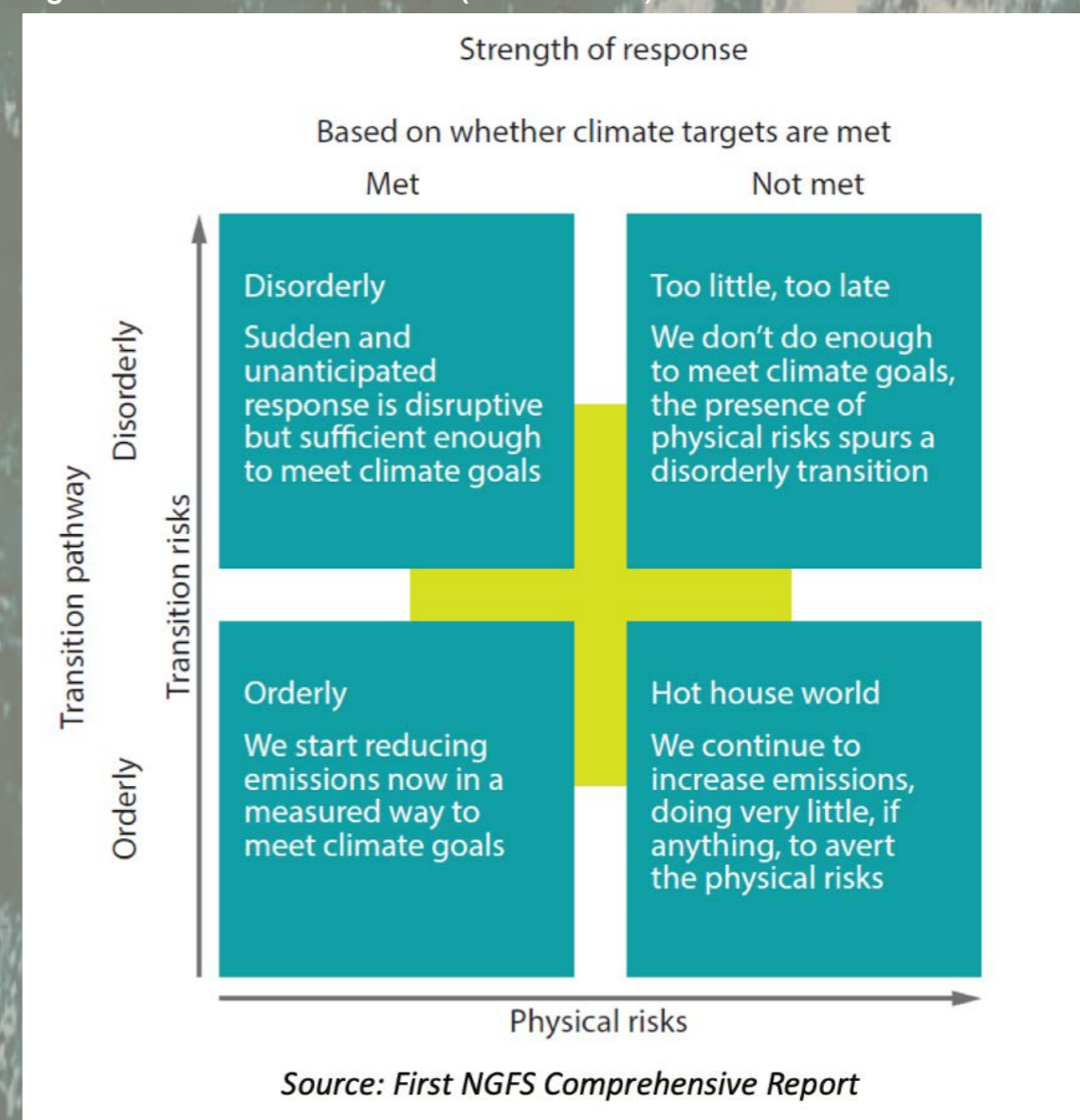
The question is what relevance do these scenarios have for chief executives and boards of financial firms looking to consider climate risk during the development of their business strategy or assessment of their portfolios? A challenge certainly, as the Global Association of Risk Practitioners puts it:

'Imagine you are the CRO of a bank. But it is 1980, and you're being asked to undertake scenario analysis, looking at how you expect your business will evolve over the next 30 years. Would you have any inkling about the growth of personal computers, the Internet, big data or even mobile devices? You might be hard pressed to imagine the growth of social media, and the ways in which it would connect people across the globe, creating platforms for consumers to share views on your firm, changing market dynamics and the sizable impact on firms' reputations. However, the same is being asked of banks today. Regulators are increasingly demanding that banks perform scenario analysis over a similar time horizon. Yet today the focus is on how climate change might impact their balance sheets and business models.'

Whilst of interest and use to regulators and large global financial institutions able to employ teams of economists to run these large-scale complex models, IAM modelling, and scenario analysis is probably beyond the scope of most owners of private capital.

Though it should not be completely discounted, an attempt to consider and assess the different performance of portfolios across the scenarios using published parameters and macroeconomic variables ought to make for an informative exercise, highlighting vulnerabilities and sensitivities in the portfolio.

Figure: Future climate scenarios (source NGFS)



IPCC Scenarios	
SSP1-1.9	very ambitious scenario to represent the 1.5°C goal of the Paris agreement
SSP1-2.6	sustainable development scenario
SSP2-4.5	intermediate scenario
SSP3-7.0	regional rivalry scenario
SSP5-8.5	fossil-fuel based development



# developing sustainable research and thought



**INTERNATIONAL SUSTAINABILITY INSTITUTE  
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## Research programme

The policy of the ISICI is to set out a proposed research programme and invite support from individuals and firms sharing our philosophy and thoughts. This can be found on our website. The research programme of the ISICI relies on patronage and sponsorship. Commissions are accepted.

Research briefings outlines the backdrop in thinking to our present proposed programme in sustainable finance. The basic premise being that the new ideas and new methods are needed to facilitate private capital of the scale required and accelerate cross border flows.

Support for the programme or individual papers is welcomed. Abstracts are available on request.

In the first instance email [contact@isici.org](mailto:contact@isici.org).

## About the ISICI

Founded by Dr Andy Sloan, the International Sustainability Institute Channel Islands was established to further the development of sustainable research and thought, advocating global fiscal, environmental and financial sustainability.

The Institute provides a forum for the exchange and development of new ideas between stakeholders across the Channel Islands.

The work of the Institute is concentrated in three key areas: global fiscal, environmental, and financial sustainability. Areas where the Channel Islands have intellectual capital, natural resource, and professional expertise that be harnessed in the pursuit of global good. Through the development of a core research programme, the Institute contributes to global thinking on strategy and policy in these chosen policy areas.

It publishes a forward-looking schedule of planned research topics. Its research programme is open to proposals, contributions, and commissions.

The Institute also provides advocacy and advisory services. Through a network of experts and researchers and leveraging the expertise of its founder, it can draw on experience of international policy work at the highest levels in fiscal, economics, finance services regulation and green and sustainable finance accrued over three decades.

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