Climate risk management solutions

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Physical risk

What is physical risk? The immediate risks arising from weather-related events and slow onset climatic changes. Physical risks present a risk to assets and businesses worldwide. The scale of these hazards, and their impact on firms varies substantially by industry, geography and planning time horizon.

What are the challenges of physical risk? Firms are affected by physical risks through acute weather-related risks and chronic risks from longer-term climate change.

Acute:

- Change in frequency of weather events (flooding, hurricanes, wildfires)
- Change in severity of weather events

Chronic:

- Sea level rise
- Rising temperatures
- Changing precipitation

Using the latest scientific research, we provide insights into:

Hazards: we use a range of globally consistent models to assess 13 acute and chronic hazards, at high resolution across the earth's surface for three future climate scenarios.

Vulnerabilities: our unique in-house data and risk engineering expertise measure the sensitivity of different assets (by sector and geography) to different hazards. Vulnerabilities include both direct effects to the organization's assets as well as to their supply chain.

Exposures: where clients lack precise data on the location/nature of their assets, we have a range of tools to assist in estimating this.

Climate diagnostic tool

Climate Diagnostic can provide insights into the impact of acute hazards, such as extreme wind and flood, as well as chronic stress factors, such as sea level rise, heat stress, drought & precipitation, and how those changes may affect your assets, businesses activities, and supply chain.

- Evaluate current and future climate footprint using an interactive geospatial map.
- Features a climate change atlas of climatic and exposure maps with options to view high risk areas, locate individual assets and identify relative impact of each hazard.
- Generates qualitative reporting summaries showing highest risk locations, regional impacts, and transitional risk differentials across the portfolio for all major acute and chronic climate risks.
- Uses industry recognized data and the gold standard in scientific projections, RCP, to offers a current and future assessment of risk upon your asset portfolio, considering multiple climate scenarios and time projections.
- Advances your operational journey to proactive climate risk management

Transition risk

What is transition risk? The financial risks arising from the transition to a lower-carbon economy. There are a host of factors that effect transition risk including: policy and regulation, market changes (e.g., demand for green steel), emerging technologies, and changes to consumer behavior.

What are the challenges of transition risk? The global transition to net-zero emission triggers large changes in economic activity, firms' profitability, and asset values. However, individual firms' emissions are a poor guide to transition risk. Emissions are backward looking and subject to systematic gaps and biases. They do not capture the effects of changes in consumer behavior, technology, societal pressure, and regulation.

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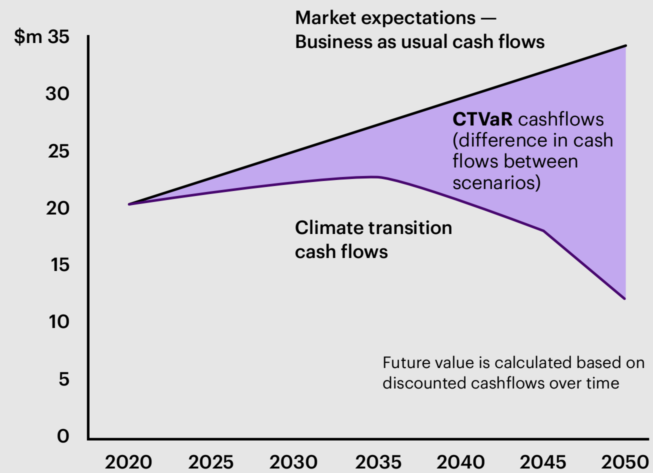
In our approach to understanding transition risk, we look beyond emissions, and estimate the impact of changes in consumer sentiment, regulation and technology on firm profitability. Our proprietary measure, Climate Transition Value-at-Risk (CTVaR) is the difference between market expectations of a firms' future cash flows, both currently and under transition scenarios. CTVaR is forward looking, taking into account both a firms' and consumers future behavior; granular, and calculated at the level of firms' business lines.

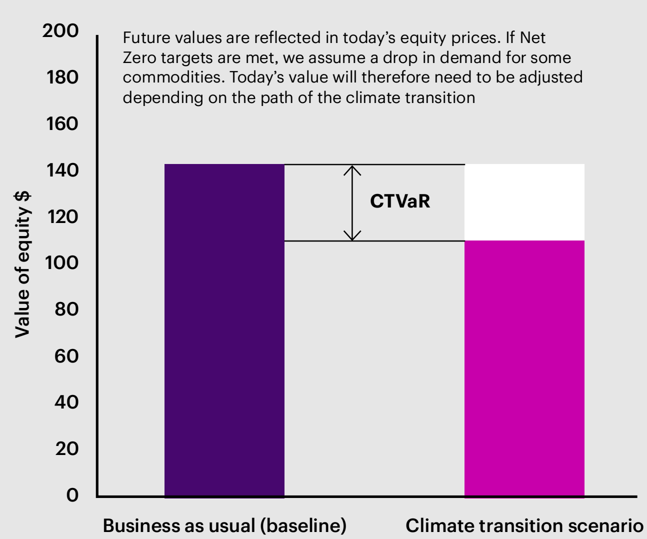
Indicative predictive cashflows of a negative CTVaR company



Our clients benefit from our approach to transition risk in a number of ways including:

- Data on transition risk to over 7500 listed firms worldwide.
- Estimates of transition risk to a range of assets beyond this — including unlisted firms, securities and sovereigns.
- Access to our climate analytics tool, updated daily, with portfolio analytics and construction tools.
- Portfolio strategy tools, that enable investment decision making based on when transition risk will bite across assets of different sectors and maturities.
- Financial products with which to hedge transition risk: our climate transition indices are major global equity indices re-weighted to favor stocks that will profit from transition.

Net present value



Climate liability risk

What is climate liability risk? It’s the risk of legal action alleging damage due to:

- Contribution to climate change,
- Failure to adequately incorporate climate risk into organizational planning or professional advice, or
- Regulatory and Governance issues including greenwashing

Climate liability risk is a growing concern for corporate leaders with over 2700 cases in the courts worldwide, and 70% of those in the U.S. As an emerging area of law, new cases and legal theories are regularly being tested. Plaintiffs include corporations, municipalities, and individuals; non-profit law firms such as Client Earth and the Conservation Law Foundation are also active on this front, suing on behalf of impacted citizens groups to change corporate behavior.

While the suits alleging contribution to climate change are most often directed at large fossil fuel companies and power utilities, other types of suits are being brought against a much broader set of industries including municipalities, architects and engineers, financial advisors, and landlords. In particular, recent greenwashing cases have been brought against organizations in industries as varied as the airlines, bottled water and wood pellet manufacturing.

Examples of climate liability cases:

Suits for failure to incorporate the impacts of climate change into an organization’s planning and operations.
Suits for fraud or misrepresentation of an organization’s sustainability.
Suits claiming property damage and bodily injury due to climate change.
Suits for promoting a business as ‘carbon neutral’ when operational emissions reductions have not been implemented.

Depending upon the type of allegations, directors and officers (D&O), professional liability, general liability, and other lines of coverage may provide protections. However, some cases are brought preemptively, before damages have occurred, but where it is likely that they will occur, to drive risk mitigation action in advance of an extreme weather event and associated loss. Because these suits are filed in advance of damages, there is limited insurance protection available.

WTW collaborates with an external network of legal and academic partners to stay abreast of new developments in this rapidly evolving area of risk. We offer advisory services in three distinct areas: liability, regulatory, and contractual, to offer a guidance on current and future areas of potential risk and to support mitigation. Through awareness and action, organizations can identify and mitigate climate liability risks.

Our approach

Liability — Analysis of current climate liability risk
We provide our clients with clarity about their current potential liability risks using a methodological approach.

Regulatory — Advisory on changes in climate regulation

Contractual — Auditing of third-party contracts to ensure compliance with sustainability representations

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About WTW
At WTW (NASDAQ: WTW), we provide data-driven, insight-led solutions in the areas of people, risk and capital. Leveraging the global view and local expertise of our colleagues serving 140 countries and markets, we help you sharpen your strategy, enhance organizational resilience, motivate your workforce and maximize performance. Working shoulder to shoulder with you, we uncover opportunities for sustainable success — and provide perspective that moves you. Learn more at wtwco.com.

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