CLIMATE RISKS

A VARIABLE TO CONSIDER FOR BETTER FINANCIAL DECISIONS





What impact do the energy transition and changing weather phenomena have on markets? How can it be assessed? National Bank Investments is now incorporating climate risks into its long-term market expectations and portfolio manager selection process. Here's how.

→ A COLLABORATION BETWEEN THE RESPONSIBLE INVESTMENT TEAM AND THE CIO OFFICE AT NATIONAL BANK INVESTMENTS

CONTENT OVERVIEW

- → National Bank Investments (NBI) has integrated climate risks into its decision-making processes, following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- \rightarrow The TCFD divides climate risks into two categories: transition risks, which result from the transition to a low-carbon economy, and physical risks, which are related to the increased impact of weather phenomena.
- \rightarrow NBI incorporates climate risks into its long-term market expectations (5 to 10 years) using scenarios put forth by the Network for Greening the Financial System (NGFS). These scenarios predict that the combined effect of physical and transition risks will have a negative impact on the global economy over the coming decades. However, even in the worst-case scenario, their impact on market expectations is marginal, with most economic damage occurring beyond the investment horizon. This illustrates an inherent characteristic of climate change: effects that aren't apparent today could become significant in the future.
- these risks.

 \rightarrow NBI has an open architecture model and must therefore ensure that any portfolio manager with whom it does business also takes climate risks into account. A rating system is used to assess its partners' maturity when it comes to managing



Guidelines for assessing climate risks

What are the different types of climate risks?

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GUIDELINES FOR ASSESSING CLIMATE RISKS

Systemic risk – the possibility of an event triggering severe economic instability - has been a widespread concern in the financial sector, particularly since the 2008 financial crisis. More recently, climate risks have been added to the list of factors that could disrupt the market.

The investment industry recognizes that climate change can create systemic financial risks and is pursuing efforts to incorporate the recommendations of the TCFD into its activities. These are corporate disclosures that serve as a framework for investors, lenders and insurers to help them assess and set rates for risks related to climate change.

Two types of measures

As an asset manager, NBI strives to take these recommendations into account and adapt them to its activities. The plan put in place to address climate risks is based on two strategies:

ightarrow Optimizing portfolios through strategic asset allocation by the CIO Office

Though still in development within the financial industry, this strategy could become essential to asset allocation as climate impacts gain momentum and the data used by existing models is refined.

 \rightarrow Selecting and monitoring portfolio managers in an open architecture model

This strategy is easier to integrate and already makes it possible to enhance the evaluation process of portfolio managers.

The first strategy presents a far greater challenge. To date, few firms integrate the concept of climate risk into their portfolio construction exercises, as the complexity of predictive calculations and the absence of historical data make it extremely difficult.

WHAT ARE THE DIFFERENT TYPES OF CLIMATE RISKS?

Climate risks encompass all potential negative impacts of climate change on the economy and the financial system. The TCFD divides these risks into two main categories:

ightarrow Transition risks

These risks result from the process of adapting to a lower-carbon economy in order to limit global warming. They may be associated with environmental policies (carbon pricing, prohibition on new fossil fuel projects), disputes and other legal risks, technological disruptions or changing consumer preferences. The reputation, profitability and continued existence of organizations can be affected by transition risks. The severity of the impact will ultimately depend on the pace and scope of the energy transition.

ightarrow Physical risks

There are **acute physical risks**, which result from the greater frequency and intensity of extreme weather events, such as hurricanes, forest fires and floods. **Chronic physical risks**, on the other hand, result from long-term shifts in climate patterns, such as sustained higher temperatures, sea level rise, the degradation of agricultural land and health problems linked to pollution. Both acute and chronic physical risks can have major financial impacts for organizations through damage to assets, supply chain disruptions and lost productivity. THROUGH THEIR IMPACT ON ECONOMIC ACTIVITY, CLIMATE RISKS NECESSARILY AFFECT FINANCIAL MARKETS AND, ULTIMATELY, RETURN ON ASSETS. IT'S THEREFORE IMPORTANT FOR INVESTMENT FIRMS TO INTEGRATE THESE RISKS INTO THEIR DECISION-MAKING PROCESS.

INTEGRATING CLIMATE RISKS INTO LONG-TERM MARKET EXPECTATIONS

Twice a year, NBI's CIO Office updates its long-term market expectations for major asset classes. Based on a building-block methodology for 5- and 10-year investment horizons and risk premia methodology for a 30-year horizon, these projections are the foundation of NBI's asset allocation strategy.

Integrating climate risks into projections inevitably requires quantifying the economic impact of environmental issues while considering the wide range of possible scenarios over the coming decades. This ambitious task goes well beyond NBI's expertise. To remedy this issue, the CIO Office uses the climate scenarios set out by the NGFS,¹ a group of central banks whose objectives include contributing to the development of climate risk management in the financial sector.

¹ The data for this analysis comes from Phase IV of the NGFS scenarios, published in November 2023.



Updated annually since 2020, NGFS scenarios consider a wide range of economic and financial variables under different global and long-term climate trajectories. It's important to note that these scenarios are not predictions, but rather tools used to shed light on future risks.

Three climate scenarios

For the purposes of this analysis, the CIO Office has selected three scenarios that cover different combinations of transition and chronic physical risks:

\rightarrow Net Zero 2050

This scenario limits global warming to 1.5°C through the immediate adoption of stringent environmental policies, enabling us to reach net zero emissions by 2050 and mitigating physical risks.

\rightarrow Delayed Transition

This scenario assumes CO₂ emissions will not decrease until 2030, after which even more stringent policies will be needed to limit global warming to below 2.0°C.

GRAPH 1

\rightarrow Current Policies

This scenario assumes that the status quo is maintained, leading to higher physical risks but no transition risks.

THE IMPACT OF CLIMATE RISKS ON THE GLOBAL GDP

If we compare these three scenarios to a hypothetical baseline scenario with no climate risks, the combined effect of chronic physical and transition risks would have a negative impact on global gross domestic product (GDP). However, an immediate and coordinated energy transition would ultimately be less damaging than inaction or a late transition.



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THE IMPACT OF CLIMATE RISKS ON RETURNS

For long-term market projections, the expected economic impact of climate risks can be integrated into the building-block methodology used to forecast 5- or 10-year equity performance, under the assumption that lower GDP growth will directly affect corporate earnings growth. As a measure of caution, the most pessimistic scenario is retained for each regional stock market. For example, over the next 5 years, the Net Zero 2050 scenario is the most damaging for Canadian GDP - we have therefore used this scenario to adjust forecasts for the performance of Canadian equities. This approach suggests that climate risks will only have a marginal effect on expected returns, with a slightly more significant impact in the United States and Canada, as these countries are especially vulnerable to transition risks.

A SLIGHT DROP IN ANTICIPATED YIELDS



Building-block methodology for equities

For the moment, climate risks appear primarily as a factor of uncertainty that add to the margin of error that already accompanies yield forecasts, at least for the next decade. That said, we're only just beginning to understand the impact that environmental issues will have on markets and the economy. It's essential to highlight the limitations of climate scenarios, particularly with regard to tipping points, extreme risks and second-round effects. Given these limitations, the exercise cannot be considered a cost/benefit analysis for action on climate change.

What's next?

Since they're treated separately from other risks, acute physical risks haven't been taken into account in this analysis. Because of their probabilistic nature, they're even more difficult to quantify, but adding acute physical risks to future analyses could be an interesting improvement. In fact, the NGFS published Phase IV of their scenarios in 2023 and took acute physical risks into account on a global scale for the first time. We can expect their modelling to be improved in future updates. Thanks to other macroeconomic variables (inflation, key rate, etc.) provided by the NGFS scenarios, this analysis could potentially include asset classes other than equities, such as bonds and cash assets.

CLIMATE RISKS IN PORTFOLIO MANAGER ASSESSMENTS

NBI has an open architecture model that involves sourcing and selecting portfolio managers from around the world. In recent years, it has become imperative that the method used to assess their practices take climate risks into account. Each partner is selected and monitored using the OP4+ process, which is based on five pillars: Organization, People, Process, Portfolio and Performance. To ensure consistency with this existing framework, NBI's Responsible Investment team has added components of responsible investment practices into each of these categories.



ULTIMATELY, THIS PROCESS ENABLES US TO BETTER UNDERSTAND EACH MANAGER'S LEVEL OF PREPAREDNESS AND PROVIDES A COMPREHENSIVE OVERVIEW OF THEIR CAPACITY TO DEAL WITH FINANCIAL TURBULENCE ALONG THE PATH TO NET ZERO OBJECTIVES.

HERE'S AN EXAMPLE OF A RATING SYSTEM FOR PORTFOLIO MANAGERS:

Category	Component	Criteria (examples)	Score
Organization	Climate action plan	Does the firm have a climate plan? Does the plan apply to the entire firm? Is the organization involved in active stewardship?	(1–5)
People	Climate expertise	Do employees have the requisite climate-related competencies? What is the level of communication between employees with climate expertise and those who make investment decisions?	(1–5)
Process	Investment decisions and shareholder engagement	Is the concept of double materiality applied? Does the voting rights policy include specific recommendations?	(1–5)
Portfolio/Performance	Carbon metrics and exposure	Do certain exclusions apply? What is the portfolio intensity and carbon footprint, degree of alignment with net zero, etc.	(1–5)

HERE'S AN EXAMPLE OF SCORES FROM 1 TO 5 GIVEN FOR ONE OF THE COMPONENTS:

Not applicable (1 point)	In development (2 points)	Intermediate (3 points)	Advanced (4 points)	Leader (5 points)
No climate plan is in place.	The firm occasionally measures the carbon footprint of its business and/or portfolios.	The firm annually measures the carbon footprint of its business and/or portfolios. It has a climate change policy, but no formal objective.	The firm regularly measures its carbon footprint and takes concrete action to reduce it. It has made a commitment to achieve net zero.	The firm has a number of internal and external initiatives in place to promote progress towards net zero objectives. It is involved in active stewardship and is recognized as a leader in the fight against climate change.

A NEW IMPERATIVE FOR THE FINANCIAL SECTOR

In conclusion, it's clear that taking stock of climate risks has become an imperative for the financial sector. This recognition has led to significant efforts to integrate TCFD recommendations into investment practices, as demonstrated by NBI's own commitment.

Although methods for integrating climate risks into long-term predictions are still being developed, it's encouraging to see the progress being achieved by initiatives such as those implemented by the NGFS. As existing data is refined and more becomes available, these models will produce more accurate scenarios. In addition to considering climate risks to optimize portfolio construction, NBI is committed, as an asset manager, to assessing the degree to which partner firms in its open architecture anticipate the challenges that climate change will bring to their activities.

By effectively integrating these risks into its decision-making processes, NBI aims to help build a more resilient and sustainable economy for future generations. CURRENT RESEARCH SHOWS THAT CLIMATE RISKS WILL HAVE LITTLE NEGATIVE IMPACT ON GDP WHEN INTEGRATED INTO 5- AND 10-YEAR PROJECTIONS, BUT WILL BE FELT MORE STRONGLY IN 25 TO 50 YEARS.

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