



From Academia to Non-Academic Jobs

Case of Climate Risk in Finance

YES

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Objectives

The purpose of this presentation is to present an overview of climate risk assessment in the Finance sector based on feedback from my personal experience and to provide practical guidance for building a career in climate finance and risk.

Key Objectives:

- Overview of my Present Position
- Present Climate Challenges in the Finance sector
- Understanding of the Financial Institutions and their needs
- Preparing for Job Applications
- Practical Advices on Job Application and Interview Preparation



Overview of my Present Position



My Background

Civil Engineer degree from Mines de Nancy with a specialization in Environmental Engineering.

PhD in Joint Supervision from the **University of Buenos Aires** (CIMA, UBA, Argentina) and the **Institut Polytechnique de Paris** (LMD, IPP, France) in climate modelling and land-atmosphere interactions.

EthiFinance

Head of Environmental Services and Senior Research Engineer on Climate risk



EthiFinance is a company with different activities: (1) credit rating agency, (2) ESG data provider, (3) consulting activities on ESG and financial risks topics.

I joined the EthiFinance Analytics team in June 2022, it is a team of about 8 PhDs in different topics (applied mathematics, environment, finance) working about the development of quantitative models and also on consulting mission as head of Environmental Services and Senior Research Engineer on Climate risk.

My tasks :

- Management of the research team on environmental and climate topics,
- Develop a physical risk assessment methodology (level of risk and potential financial losses),
- Development of other ESG indicators,
- Collaboration in integration of climate into credit risk.

ING

Senior Consultant - Climate Expert



Consulting Mission at ING Global ESG Risk Team on Climate Physical Risk Integration to drive the global integration of climate physical risks at ING Bank.

My tasks:

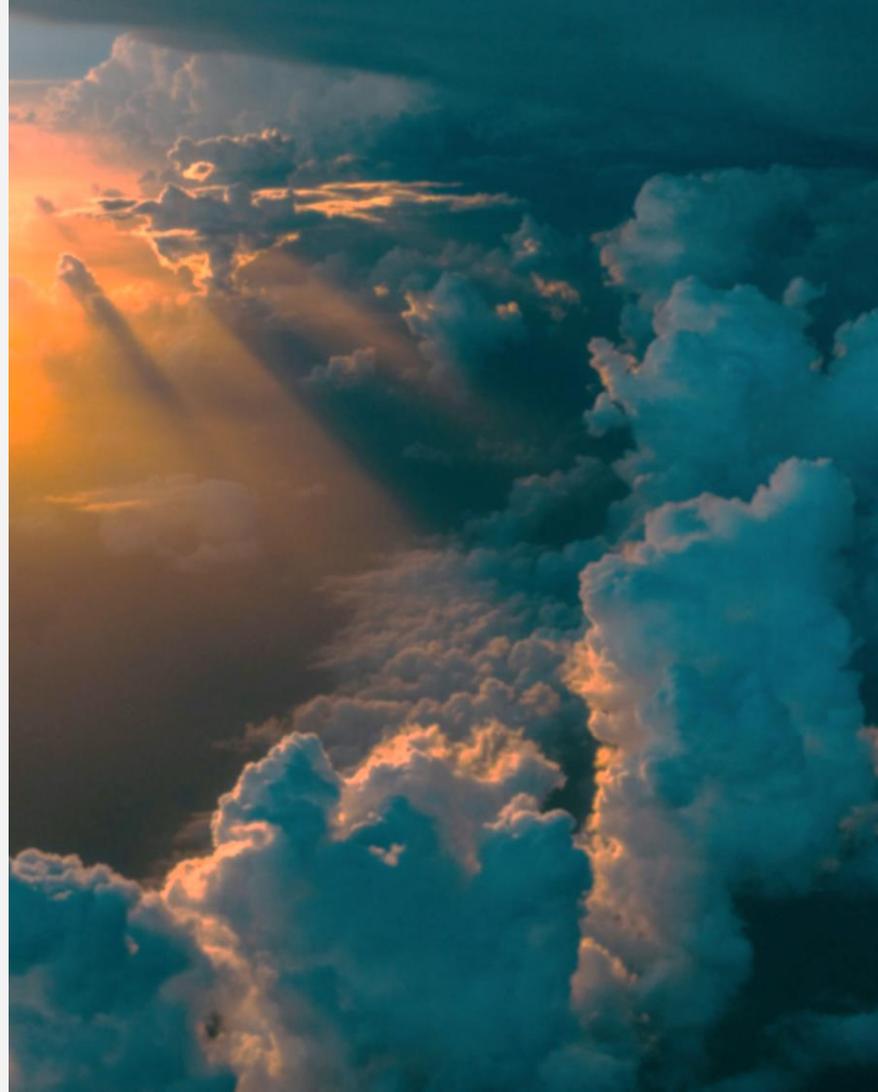
- Development and Implementation of an Internal Physical Risk Evaluation Tool

- Providing Training on Physical Risk Assessment and Climate Change Adaptation
- Integration of Climate Physical Risks into the Business Continuity Plan, in contact with the business units

Finance and Climate Change

“The challenges currently posed by climate change pale in significance compared with what might come. The horizon for monetary policy extends out to two to three years. For financial stability, it’s a bit longer, but typically only to the outer boundaries of the credit cycle – about a decade. In other words, once climate change becomes a defining issue for financial stability, it may already be too late.”

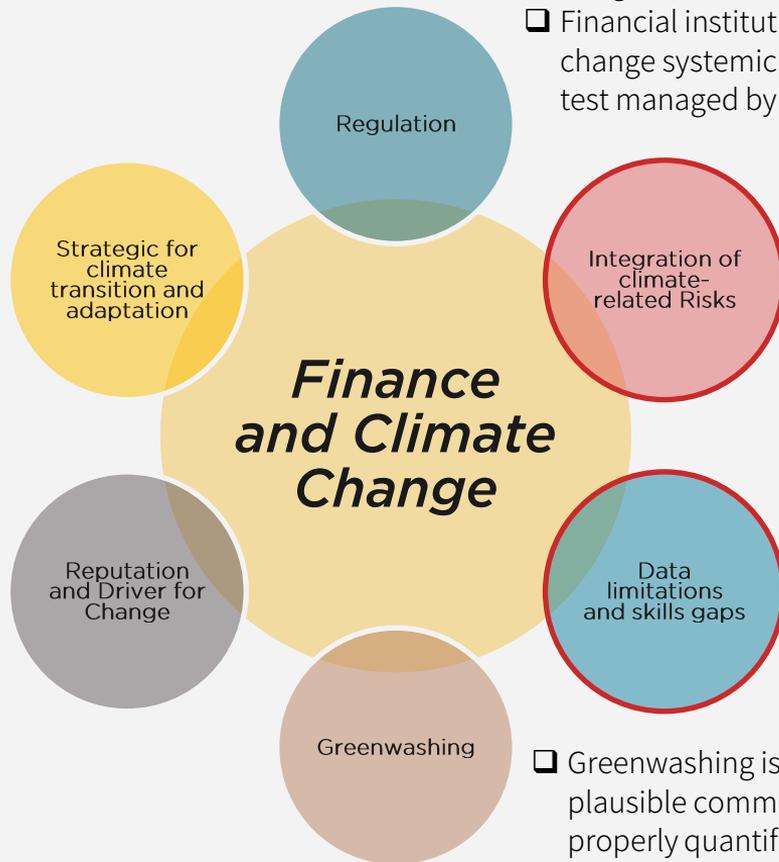
Mark Carney's "Tragedy of the Horizon" speech, delivered in 2015 as Governor of the Bank of England



Climate in Financial Institutions

- ❑ Positioning financial institutions as leaders in integrating climate risk will have a ripple effect across the broader economy, supporting these efforts and promoting the financing of both mitigation and adaptation measures.

- ❑ Financial institutions are keys to drive the transition toward a more sustainable economy (green technologies, renewable energy)
- ❑ They can create powerful incentives for business to reduce emissions and can also participate to finance adaptation effort.



- ❑ Important pressures from regulators to assess properly climate risk, report it and to implement proper risk mitigation (cf. TCFD)
- ❑ Financial institutions are also key to anticipate climate change systemic risk on the economy (see climate stress test managed by central banks)

- ❑ The sector is highly regulated (past financial crisis), risk management is already well integrated
- ❑ They need to integrate climate and environmental related risk in these frameworks and their financial models

- ❑ Lack of knowledges on climate-related topics and concepts (return period, climate impacts) and of skills on specific dataset (e.g., spatial data).

- ❑ Greenwashing is a direct risk; banks need to make plausible commitment and ensure that climate risk is properly quantified elsewhere this can highly affect their reputation

Understanding of the Financial Institutions and their needs

BANKS

Provide loans, financing, and investment opportunities across sectors, playing a crucial role in funding climate-aligned projects and shifting capital away from high-emission activities.

Needs: climate-related risk assessment, sustainable product development, reporting and compliance.

ASSET MANAGER and FUNDS

Allocate capital for clients, managing portfolios that increasingly prioritize ESG (Environmental, Social, Governance) and sustainability factors.

Needs: ESG integration into portfolio management, impact reporting (measure and report on climate impact)

INSURERS

Manage risks related to various industries, offering coverage for climate-related events and developing new products to address emerging climate risks.

Needs: climate-related risk assessment, parametric insurance, sustainable product development to support climate adaptation

MULTILATERAL AND DEVELOPMENT INSTITUTIONS

These institutions (e.g., World Bank, EIB, African Development Bank, etc.) fund climate adaptation and mitigation projects globally, particularly in emerging and developing economies.

Needs: same as banks and also expertises for project funding, climate risk assessment, etc.

RATING AGENCIES and DATA PROVIDERS

Assess climate-related risks for companies and assets, supplying vital ESG data for investors and financial institutions.

Need: Climate Risk analysis expertise, ESG and Climate Scoring, data for disclosure

Why is the expertise of climate scientists crucial for understanding physical climate risks?

- Financial institutions need to develop a real in-house expertise.
- Black-box models from providers are no longer sufficient, financial institutions are developing their own model, they need science based-model with science backed documentation with proper understanding of climate data.
- ESG ratings are increasingly regarded as equivalent to financial ratings, increase pressure on scientifically based model's climate assessment.

Long-Term Preparation

Build core knowledge for the position you are interested in



In this case (finance and banking) you can get information from :

- Understanding what is European Taxonomy, and the different reporting (CSRD, SEC climate reporting)
- Understand the concept of climate risk (see [European Central Bank document](#))
- Understand TCFD main recommendations
- Get an understanding of IAM and how they can be used (in the Finance sector you can look at general presentation of NGFS)
- Stay updated on climate regulations
- You can also read document from UNEPFI

Prepare your presentation



- Highlight your adaptability to show that you can also be useful for applications outside of your original specialties,
- Also insist on other competences you developed (e.g., [data science](#), [work in autonomy](#), [scientific method](#)),
- Practice explaining complex ideas simply

Outreach and Networking



- Contact people and demonstrate interest** for what they do. Ask for short meeting to ask questions.
- Consider that people might have a busy agenda, with lot of meetings, so do not take it personal if they do not answer, do not ask for too long meeting (15/20 min is fine).

Valorize your Research-Background



- Search for companies with **incentives to recruit and valorize candidate from academic research**
- Good signs:** many PhD in the team, financial incentives (Crédit Impôt Recherche, CIR in France)

Job Application and Interview Preparation

Resume



- Also focus on competences (data)
- Show capacity to adapt (different type of projects)
- Avoid too much « ChatGPT »
- Verify if you need a one-page minimalist version of CVs (depends on country).
- Tailor your resume to the role you are applying at

Knew them!

Who are they ? What are they looking for ?



Analyze carefully:

- The position description,
- The background of the interviewers(s) [career, work, publication] to be able to better connect and to demonstrate interest,
- The company, its activity, history, values.

Be proactive but let people speak and listen carefully to them

Prepare for classic questions : *why transition from academia ?*
Why are you interested in the position? Always show motivation, but be honest

During the interview



- Demonstrate that you are a problem solver, that you can adapt and make good hypothesis, also critical mind (understand limitations),
- Make connections between your knowledge and other topics.
- They do not necessarily want exact answers, but see how you think, if you seems to be adaptable. Demonstrate intellectual honesty.

Do the best interview you can, take it as an exercise. You can always step back after if this is not what you want.

Prepare specific questions, *how is the work (daily routine)*, *how do people the interviewer feel at the company*.

After the interview



- Ask for the next steps
- No answer after some time, ask for news by mail
- If you are refused, it is fine.
It is important to ask for feedback, you can even ask for a short 15 min meeting to have explanation



Thanks for your attention

Any questions ?
Feel free to ask

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