

Climate Risk, Valuation, and Investing Certificate

LEARNING OUTCOMES

The Climate Risk, Valuation, and Investing Certificate enables learners to apply climate-related investment principles to real-world scenarios. It uses practical activities and case studies from around the world to develop these skills. Participants learn how to integrate climate considerations into valuations and portfolio building, understand scenario analysis, and communicate their insights effectively with stakeholders.

The certificate is available in two versions: self-paced and cohort:

- The self-paced version offers flexibility, allowing you to study independently at your own pace. You control your learning schedule and have access to an online forum for questions and idea-sharing.
- The cohort version connects you with other investment professionals as you progress through the course together. Each course has a schedule with some flexibility to study at your own pace. The clear timeline and sense of community in the focused discussion forums can increase motivation.

Participants must complete all the courses successfully to sit for the final assessment.

*Learning outcomes outlined in this document are subject to change.

Course 1: Climate Science, Risks, and Regulations

This course provides financial professionals with a comprehensive understanding of climate science (basic facts and findings), the associated risks and opportunities for corporations and investors (impacts), and the regulatory responses (regulations, policies, and market-based approaches). By the end of the course, participants will have gained the knowledge and skills necessary to understand the evolving landscape of climate change, its impacts and government responses.

Course 1 Learning Outcome Statements*

- Explain the basic principles of climate science, including what is meant by climate change, complex interactions among components of the Earth system, climate change mitigation, the interdependence of climate and biodiversity, the greenhouse effect, and the carbon cycle.
- Interpret historical climate data, including temperature records, greenhouse gas levels, sea level measurements (and other essential climate variables), and extreme weather events, to identify and explain trends and cycles.
- Analyze key drivers (forcings) of climate change, including natural and man-made processes, and be able to assess the changing relative contribution of these processes to changes in Earth's climate
- Compare key types of climate models, the use of socio-economic scenarios and other commonly used analytical scenarios to explain how we attempt to predict climate change through to the year 2100.
- Explain what is meant by climate change adaptation, mitigation, and geoengineering. Describe and explain the main ways by which climate change can be mitigated, and some of the technological solutions.
- Describe client objectives and differentiate between various institutional investors and retail investors (risk tolerance, time horizon etc).
- Evaluate climate-related risks, including the frequency and severity of climatological, meteorological, and hydrological events, and feedback loops, leading to physical risks, transition risks and stranded assets.
- Describe climate-related opportunities, e.g. resource efficiency, new energy sources, innovative products and services, new markets, and enhanced resilience.
- Discuss the history of multilateral treaties and agreements on climate change and the role of the Paris Agreement in shaping global responses.

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- Discuss the multilateral efforts of financial regulators to address climate change.
- Describe the types of national and regional policy responses to climate change.
- Compare major national and regional legislative and regulatory responses in the European Union, China, and the United States.
- Explain how carbon emissions are quantified and measured.
- Explain different carbon instruments and what each class of instruments represents.
- Analyze the three different types of pricing mechanisms (carbon taxes, compliance markets, and voluntary markets). Explain differences in ambition and scope between various carbon markets and their interrelationships.
- Explain the key price drivers in the main compliance markets and the factors driving voluntary carbon credit pricing.
- Evaluate the effectiveness of different carbon pricing mechanisms and their impact on corporate behaviour and investment decisions.

Course 2: Transition Finance

Climate change considerations are often framed as either physical risks or transition risks. Physical risks include damage to or destruction of assets by severe weather, which is expected to increase significantly in frequency as the climate changes. Physical risks can often be insured against or diversified. Transition risks are losses related to the transition to a lower-carbon economy, which may result from regulations or shifting consumer demand.

The key focus of this course is to help financial analysts understand how companies make their transition plans – what frameworks and standards to use. How do they finance new projects? How do they invest in green technology or new business models? How can analysts identify insufficient transition plans? All these decisions eventually have an impact on financial performance and valuation.

As transition plans vary across industries, the course provides various case studies across geographies and industries.

Course 2 Learning Outcome Statements*

- Define the concept of corporate transition planning and its significance in addressing climate change risks and opportunities. Identify key drivers and motivations for companies to undertake transition planning.
- Discuss the importance of regulations and the development of international frameworks as a key driver for companies to undertake transition planning.
- Explain the key steps in implementing corporate transition plans, and the associated potential challenges and mitigation actions.
- Explain how financial markets assess corporate transition plans using relevant frameworks and standards and evaluate their potential implications for investment analysis and valuation.
- Describe benchmarking and evaluation of investors' own transition plans and journey.

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- Describe the opportunities and the challenges in investing in green energy and green technology.
- Explain the core components of the Green Bond Principles, green loans, sustainability bonds, green mortgages and transition bonds.
- Describe the landscape of corporate disclosure on carbon footprint, and climate-related risks and opportunities.
- Analyze the effectiveness of key frameworks and standards driving climate-related corporate disclosure.
- Explain the key drivers and elements of investor climate-related disclosures.
- Assess the concept of materiality as it relates to climate-related risk management, disclosures, and financial reporting, including financial and non-financial materiality, and dual/double and dynamic materiality.
- Explain greenwashing and discuss regulations to prevent it.

Course 3: Climate and Valuation: Listed Equity and Debt

This course provides investment professionals with an understanding of the nature of material climate-related risks and opportunities, and their impacts on corporate performance and valuation. It explores various climate data, metrics, and tools, including stress testing and climate scenarios. The course then focuses on the application of these tools in analyzing two asset classes: equity and fixed income. Case studies from asset managers and asset owners illustrate various approaches to integrating climate into the investment process.

Course 3 Learning Outcome Statements*

- Evaluate the impacts of physical risks and transition risks on corporate performance and valuation.
- Describe the main climate metrics as recommended by SASB and TCFD.
- Explain the methodologies for measuring and assessing climate risks, including climate value-at-risk and carbon value-at-risk, scenario analysis and stress testing for given carbon prices at asset level and portfolio level.
- Describe stress testing, including a focus on scenarios for financial system analysis (e.g. Network for Greening the Financial System).
- Evaluate frameworks and approaches for integrating climate analysis into a firm's investment process, including the determination of materiality.
- Analyze the impact of material climate risks and opportunities on company cash flow across different sectors.
- Discuss the differences between listed equities and fixed income asset classes with regard to the integration of climate considerations.
- Compare the impact of climate factors on equity and debt valuations across different sectors.
- Discuss an opportunity for investors to participate in climate transition via thematic bonds.
- Describe approaches, challenges, and opportunities for the integration of climate risk within sovereign debt.

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COURSE 4: Climate and Valuation: Alternatives

This course provides investment professionals with an understanding of the strengths and limitations of integrating climate risks and opportunities in the investment process. It covers four key asset classes: Private Equity, Private Debt, Infrastructure and Real Estate. Participants learn how to use climate-related tools and metrics for asset valuation and assess the strengths and limitations of managing each asset class in the context of climate change.

The course provides case studies from asset managers and asset owners to illustrate various approaches to integrating climate into the investment process.

Course 4 Learning Outcome Statements

- Contrast strengths and weaknesses of key approaches to managing private equity/unlisted equities and venture capital in relation to climate change.
- Explain key climate-related tools and metrics to valuation during the lifecycle management of investment of private equity (deal sourcing and new investments, post investment monitoring and engagement, and exit).
- Explain different approaches of integrating climate risks and opportunities in the private equity investment process.
- Describe the key attributes of private debt/private loan, the market size, potential participants, and the motivations behind the various stakeholders in the eco system.
- Explain the characteristics of the various types of private debt/private loan instruments in relation to climate change.
- Explain the use of key climate-related tools and metrics in the origination process of individual debt instruments.
- Explain the role of ESG and climate considerations in private debt valuation and discuss the impact of ESG ratings on investment decision.
- Explain the specific impacts of climate change on infrastructure assets.
- Discuss climate risk assessments framework for infrastructure investments.
- Explain the concept of resilience in infrastructure and compare the risk framework methodologies used in resilience planning.
- Explain the various ESG performance standards and their importance in guiding climate and infrastructure projects.
- Describe the role of blended finance in infrastructure financing.
- Analyze the role of green infrastructure and discuss the role of carbon pricing in the valuation of externalities.
- Explain the effects of climate change on real estate investments.
- Explain key climate-related tools and metrics to valuation for direct real estate.
- Discuss sustainable building practices, green certifications, and approaches of integrating climate risks and opportunities in direct real estate investments.

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Course 5: Portfolio Management and Stewardship for Climate Risk

This course is for financial professionals seeking to deepen their understanding of the impacts of climate change on portfolio management, risk management, and engagement and stewardship. Participants explore the integration of climate-related factors into portfolio construction and risk management and develop strategies for engaging with companies on climate issues. Through a combination of theoretical concepts and real-world case studies, participants develop the knowledge and gain the skills necessary to navigate the evolving landscape of climate change and sustainable investing in portfolio management.

Course 5 Learning Outcome Statements*

- Describe approaches to integrating climate risks into the portfolio management process, including the concepts of portfolio decarbonization and net zero portfolio alignment.
- Evaluate the role of climate-related metrics and data in portfolio decision-making.
- Explain risk return dynamics of portfolio optimization in equities by integrating climate risk.
- Explain risk return dynamics of portfolio optimization in fixed income by integrating climate risk.
- Describe climate benchmarks and different approaches to managing passive portfolios.
- Describe discretionary and quantitative approaches to portfolio management when integrating climate risk.
- Describe how asset owners select asset managers with expertise in integrating climate risk into portfolio management.
- Explain the purpose of investor engagement and stewardship, why engagement is considered beneficial, and some of the key criticisms of engagement.
- Explain the main principles and requirements of stewardship codes.
- Analyze strategies for effective shareholder engagement and active ownership.

Final Assessment

Once they have completed the requirements for Courses 1 - 5, learners will be eligible to complete the final assessment. The final assessment is an online assessment consisting of 60 multiple-choice questions. Participants need to achieve a score of 42/60 to pass the final assessment. They will have two attempts to do this. Once they have passed the final assessment, they will earn the Climate Risk, Valuation, and Investing Certificate.