

# CSIF

Certificate in Sustainable  
Investing and Finance



german  
brand  
award  
2019  
winner



DVFA  
FINANZAKADEMIE

Society of Investment  
Professionals in Germany



ri responsible  
investor



# Efficient markets, equilibrium prices, and rational agents! Really? What modern finance really is about.

This programme aims to introduce sustainable investment professionals and intermediaries from the responsible investment space into modern finance and investment practice. The program provides sustainable investment proponents with deeply needed technical and conceptual knowledge of financial markets, and modern methods of financial decision-making such as financial data science, in order to support them in building economically and environmentally meaningful products e.g., green bonds, SRI funds etc.

Conventional finance theory, as has been taught and applied over decades, has proven too stylized and too unrealistic in its base assumptions to capture the essence of sustainable finance. Instead of endorsing conventional finance, this program is based on truly state-of-the-art finance theory e.g., behavioral finance, evidence-based finance, and financial data science as the key enablers to unlock the potential of sustainability for good investment decisions and ethical finance practice.

Successful participants will significantly enhance their abilities and employability in three distinct ways:

1. Removing roadblocks to mainstreaming RI: understanding how the 'tools of the trade' of conventional finance constrain building the sustainable finance paradigm and how to cope with them;
2. Practicing truly modern and flawless finance: learning to apply state-of-the-art finance methods and investment thinking such as AI, quantitative approaches, and financial data science;
3. Learning to behave strategically towards mainstream finance: identifying inroads for sustainable products and investment techniques into the domain of orthodox and conventional investment management.

After passing the exam successful candidates are granted the title

Certified Sustainable Investing and Finance  
Professional

#### Target Group:

- SRI professionals
- Professionals in Sustainable Finance
- Green Bond specialists, originators
- Intermediaries e.g., rating analysts
- Representatives from NGOs and Sustainable Finance Initiatives

who seek to obtain in-depths expertise in finance.

## Module 1 – Financial Economics

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### Introduction

- Financial markets and the economy
- Asset classes
- Financial instruments
- Market actors

### Portfolio Theory

- Risk and return concepts
- Capital allocation
- Optimal risk portfolio
- Integration of ESG

### Fundamentals of Valuation

- Capital Asset Pricing Model (CAPM)
- Multifactor models
- Efficient market hypothesis
- Other theories?
- Does it all make sense?

### Lessons from Behavioral Finance

- Biases and heuristics
- Behavioral convergence/divergence
- Contagions
- Financial memes and ideologies

## Module 2 – Equities

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### Equity Valuation

- Financial statement analysis
- ESG financial analysis
- Dividends and distribution

### Corporate events

- Initial public offerings (IPO) and new issues
- Mergers and acquisitions

### Investment styles

- Active investing
- Passive investing and index benchmarks
- Value investing
- Other investment styles

### Corporate Governance

- International standards of CG
- Stewardship concept
- Executive remuneration
- Shareholder activism
- Board diversity and gender diversity

## Module 3 – Financial Data Science

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### Equity vs. Bond Markets

- Primary vs. secondary markets in debt and equity – market microstructure
- Comparison of instruments and liquidity
- Voting vs. covenants
- Financially independent information in equity and bond markets – common players

### Evidence-based Investment Analysis – fad or fashion?

- What are true evidences?
- The gist of EBIA: transparency of assumptions and test results
- Financial memes and ideologies

### The Elephant in the Room – a Primer in Financial Data Science

- Is FinTech killing jobs – also mine?
- Which opportunities does Artificial Intelligence offer? Or is it Augmented Intelligence?
- Is Deep Learning just Deep Imitation?
- When to apply which approach in Financial Data Science

### Comparison of ESG Aspects of Equity and Bond Markets

- Engagement in equity and bond markets
- Are standard environmental, social, and especially corporate governance ratings representing the views of bondholders, too?
- Debt denial vs. divestment – direct impact vs. symbolic action?

## Module 4 – Bonds

## Characteristics of Bonds – Credit Risk

- Maturity
- Currency
- Seniority
- Convertibility
- Callability
- Transparency - covenants

## Financial Data Science of Bond Markets

- Corporate hierarchy of units of analysis: private placement, security, legal entity, corporation, ultimate parent
- LEI: Global Legal Identifier Foundation
- ISO standards of sovereigns
- Other issuers of bonds
- DeepData.ai
- Matching and mapping data
- Volatility (uncertainty) vs. real downside risk
- Bond portfolio construction
- Benchmark indices in bond markets
- Sector classification for bond markets
- Asset pricing models for bond markets
- Empirical evidence of ESG alpha in bond markets

## Assessment of Bonds

- Financial independence of credit ratings ...?
- Empirical evidence on the accuracy of financially independent credit rating agencies
- Algorithms for independent buy-side assessments
- Green ratings: when are they of high quality and financially independent?
- Is green high yield attractive?
- Are investment bankers conflicted in their interests?
- ESG information in bond issuance documentation
- Creating transparency re potential co-investors – negotiating covenants
- Denying debt

## Post investment decisions

- Transparency and reporting
- Engaging for good corporate behavior

## Sovereign and regional bonds

- Assessing nation states
- Engaging with regulators
- Tax effectiveness and tax collection efficiency: cultural and default probabilities
- Municipal bonds
- Coherence of city regions
- Regional classifications
- Other issuers

## Green bonds and green infrastructure

- Market growth
- Investors
- Green bond due diligence
- Relative valuation of green bonds
- Regulatory, legislative framework and initiatives around green bonds: how independent are green ratings?
- Green bond indices
- Green infrastructure projects
- Reporting expectations
- From green bonds to social bonds to SDG bonds

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The programme consists of 3 in-class blocks.

The first placed at the beginning of the programme, the second before the exam. In between the workshops, candidates study in self-paced mode, supported by webinars.

Acquired knowledge will be subject to a two hour exam.

All students passing the exam will then start a project work. The result of the project work will be presented in a two-day closing session.

The overall workload for the students sums up to approximately 120 hours during the six month study period. On average, this means 5 hours per week during the programme.

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## Study Material

The study material will consist of a set of crucial articles to study basic structure of finance, equities and bonds and recommended video material. The material will focus on (i) financial theories and how it is applied in investment decision-making including valuation and price-formation, and (ii) applied equity and bond valuation and management including the application of ESG to valuation approaches. Participants need internet access, to watch videos of a certain bandwidth.

## Scientific Directors & Lecturers



### Prof Dr Andreas Hoepner

Professor of Operational Risk, Banking & Finance at the Michael Smurfit Graduate Business School and the Lochlann Quinn School of Business of University College Dublin (UCD)

He is currently also heading the 'Practical Tools' research group of the Mistra Financial Systems (MFS) research consortium. Prof Dr Hoepner serves as board member of the Financial Data Science Association and sits on independent assessment committees for the Investment & Pensions Europe (IPE) Awards, the Investment Innovation Benchmark (IIB), and the RI Awards. He sits on advisory boards for Bank J. Safra Sarasin, the Carbon Disclosure Project (CDP), the Deep Data Delivery Standards, the Future World Fund, Kempen and Invesco. Andreas received his PhD from St Andrews in June 2010, where he was on faculty 2009 to 2013 and built up the Centre for Responsible Banking and Finance as its Deputy Director. He is founding co-director of a social enterprise (Sociovestix Labs, a spin-off from the German Research Centre for Artificial Intelligence [DFKI]).

Prof Dr Hoepner's financial data science research has made him sole inventor of the US patent investment performance measurement (No. US8751357 B1).



### Prof Dr Alexander Bassen

Chair for Capital Markets & Management, Universität Hamburg, Faculty of Business, Economics and Social Sciences

Alexander Bassen is a full professor of capital markets and management at the University of Hamburg, Faculty of Business, Economics and Social Science (Germany). He teaches courses in finance and investment, ESG and capital markets and reporting. Alex is a member of the German Council for Sustainable Development - advisory body of the German Federal Government, member of the UN PRI Academic Network Advisory Committee, Honorary Research Associate, Smith School of Enterprise and the Environment, University of Oxford, member of the Environment, Social & Governance Issues (CESG) of the European Association of Financial Analysts Societies (EFFAS) as well as member of several other advisory committees.

# DVFA – Deutsche Vereinigung für Finanzanalyse und Asset Management

DVFA is the Society of Investment Professionals in Germany, founded in 1960. Currently, DVFA has more than 1,400 individual members representing over 400 investment firms, banks, asset managers, consultants and counselling businesses. DVFA assures the credibility of the professionals and the integrity of the market by offering internationally recognised qualification programmes, by providing platforms for professional financial communication, and by effective self-regulation.

Via EFFAS, the umbrella organisation of European Analysts' Societies, DVFA offers access to a pan-European network with more than 17,000 investment professionals in 27 nations. Via ACIIA, the Association of Certified International Investment Analysts, DVFA is part of a worldwide network of more than 100,000 investment professionals.

DVFA GmbH as provider of training programmes and courses is a limited company owned by DVFA e.V. Since 1987, more than 5.000 graduates have received a degree from DVFA in one of our postgraduate-programmes. About 250 candidates are currently enrolled with DVFA per year. More than 150 tutors are under contract, practitioners from the financial industry as well as academics and professional trainers.



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# Responsible Investor

Launched June 2007, Responsible Investor (RI) is the only dedicated newswire reporting on responsible investment, ESG (environmental, social and corporate governance) and sustainable finance for 6000+ institutional investment subscribers globally. RI also produces multiple specialist workshops and three major annual conferences in London, New York and Tokyo.

RI is published by Response Global Media Limited, a stakeholder media company focusing on responsible investment, ESG and sustainable finance. Our aim is to lead strategic, sustainable change in financial markets through thought-leadership, proprietary journalism and community building amongst business professionals. We define *stakeholder media* as: undertaking media activities which support and add value to the progress and growth of a specific community/sector, while maintaining strong principles of independence and impartiality.



June 2019 | Programme and exam structure  
as well as the syllabus might be subject to change.