M7: Alternative Investments (Module Group: Choose 3 Electives)

General Information	
Module Code	W.MSCBF_AI03.08
Programme	Master of Science / Banking and Finance
Type of Module	Core module in focus programme
Level of Module	Specialisation
ECTS Credits / Workloa	6 ECTS Credits (180 hours)

Module Dependencies	
Pre-requisites	Students have a Bachelor's degree in Business Administration with a specialisation in Banking and Finance or related subjects and have previously attended Module 4 "Investments". They already have basic knowledge in the subject area of the individual courses. In particular, the following competences are required: - Basic knowledge of financial instruments (options and futures) - Basic knowledge of investment funds - Knowledge of portfolio theory (capital asset pricing; arbitrage pricing theory) - Knowledge of performance and risk measures (Sharpe Ratio, Jensen Alpha, VaR) - Knowledge of fixed-interest investments - Knowledge of statistics (basic concepts, probability distributions etc.) and financial statistic
Follow-up modules	

Module Aims

Alternative investments have substantially gained importance in recent years. Investments in hedge funds, private equity, real estate and commodities often intend to improve the risk-return profile of a portfolio. In the Alternative Investments module, selected alternative investment categories are therefore analysed in depth, focusing on the respective markets and participants as well as their contribution to the risk and return of portfolios.
Students must choose three elective modules from this module group. Each module below must be passed.

Submodule 1: Hedge Funds

Submodule code	EHF
ECTS Credits / Workloa	2 ECTS Credits (60 hours)

Learning Outcome 1

This course provides an overview to the basics of hedge funds. Goal is to develop a common understanding on what hedge funds are, which typical characteristics they have, which advantages and disadvantages they stand for, how they function and what they add to overall portfolio performance. Together with experts from the industry we will also dive into different hedge fund strategies and current hedge fund industry trends. We will begin with basics in order to get everyone on the same level, given the heterogeneous background of the students and their knowledge about the topic.
Course content: Introduction to hedge funds with definition and characteristics, typical legal structures, stakeholders, typical products, market overview, liquidity, investment case for hedge funds, performance and risk contribution to traditional portfolios, indices, benchmarks. Overview of hedge fund styles and strategies, with deep dive into certain strategies. Due diligence of hedge funds and current examples.

	Importance	Relevant NQF-Descriptors
Subject knowledge and skills: Understanding hedge funds, their organisation and strategies.	high	knowledge; application; judgement
Problem-solving: Elaborate on the contributioin of hedge funds to a portfolio.	medium	knowledge; application; judgement; communication

Learning Outcome 2

	Importance	Relevant NQF-Descriptors

Content Outline

Basics 1
Hedge fund definition, comparison to traditional funds & investment case, market development, investment case & role of hedge funds in traditional portfolios, risks, single hedge funds vs. funds of hedge funds, onshore vs. offshore funds, structures and counterparties of a hedge fund, performance measurement
Prof. Dr. Anina Hille

Basics 2
Hedge fund indices, hedge fund styles, hedge fund strategies, payoff profile, important terms
Prof. Dr. Anina Hille

Basics 3
& Deep dive 1: Systematic hedge fund strategies, success & failure stories of hedge funds
Wrap-up of the hedge fund basics.
Deep dive into selected systematic hedge fund strategies. Evolution of systematic strategies from trend following strategies as it began to current trends such as big data, machine learning and digital asset strategies. Accidents, success stories, institutionalization, and outlook on the hedge fund industry. Get insights from an industry insider.
Prof. Dr. Anina Hille
Guest Speaker Deep Dive 1: Roman Berri, Julius Baer

Deep dive 2: Discretionary hedge fund strategies and Due Diligence
Deep dive into discretionary hedge fund strategies and hedge fund due diligence (learn from a practitioner how to analyze hedge funds)
Guest Speaker Deep Dive 2: Raimund Seeholzer, LGT Capital

Casestudy "Hedge Fund Analysis"
& Deep dive 3: Risk Management
Analyze your own hedge fund and learn from your peers and your professor as a coach.
Risk Management in hedge funds with our guest speaker.
Prof. Dr. Anina Hille
Guest Speaker Deep Dive 3:: Karen Wendt

Deep dive 4: Hedge Funds and Sustainable Investing
Deep dive into Long Short Equity Strategies and sustainable hedge fund strategies
Guest Speaker Deep Dive 4: Joseph Naayem, Kalmus Capital

Teaching and Learning Methods

Contact Hours	seminar; lecture; discussion
Directed Study	individual work; group work

Workload

Contact Hours	24 lessons / 18 hours (30%)
Directed Study	20 lessons / 15 hours (25%)
Private Study	27 hours (45%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Written examination	60 minutes	100%	closed book	grades	during exam weeks

Submodule 2: Private Equity

Submodule code EPE
ECTS Credits / Workloa 2 ECTS Credits (60 hours)

Learning Outcome 1

The course objective is to provide a comprehensive overview and in-depth understanding of the private equity markets and their differences from other asset classes. It will also include a module of Private Debt and Leveraged Finance that are critical to today's Private Equity markets. The Private Equity sector will be analysed from different perspectives. The course tackles the different techniques of private equity investments and how these match the needs of different investors. Both demand and supply side of the market will be analysed. Students will be provided an overview of the key topics concerning private equity practices and private equity as an asset class. In addition, students will learn both from a theoretical and empirical standpoint the mechanisms of private equity deal structuring and investing strategies, including a review of private equity and private debt as an asset class. We will host guest speakers from leading investment houses, do some modelling analysis and conduct case studies. The course requires a basic understanding of Corporate Finance and Financial Statement Analysis

	Importance	Relevant NQF-Descriptors
Subject knowledge and skills: Students i) understand the interests of different market participants; ii) are able to critically discuss private equity investments	high	knowledge; application; judgement
Methodology: Students are able to analyse the advantages and disadvantages of investment products for different investors.	medium	application; judgement

Content Outline

Session 1: Introduction

i) Definitions and Historical Overview
ii) Private Markets Overview
iii) Venture Capital, Growth Equity, Leveraged Buyouts
iv) Current Trends and Developments

Session 2: Private Equity Funds

i) Organizational Structure of Private Equity Funds
ii) Private Equity Assets, Private Equity Fund Managers and Investors
iii) Private Equity Intermediation Model
iv) LP/GP Relationship Overview
v) Private Equity Fund Fees and Key Terms

Session 3: Private Credit, LBO Markets and Distressed Debt

i) Different Types of LBO and Private Debt
ii) LBO and Private Debt Instruments
iii) Rating and Default Considerations
iv) LBO exercise

Session 4: Private Markets Performance

i) Venture Capital and Private Equity Performance
ii) Private and Distressed Debt Performance

Session 5: Venture Capital and PE from the Viewpoint of an Institutional Investor with two guest speakers

i) Deep Dive European Venture Capital (Gues Speech by HBM Partners)
ii) Institutional Investors Perspective (Guest Speech by SUVA Alternative Asset Team)

Session 6: Deep Dive Secondaries and Private Markets for PE with two guest speakers

i) Deep Dive Secondaries Market (Guest Speech by ARDIAN)
ii) Retail Investors / Fund of Funds (Guest Speech by Hamilton Lane)
iii) Conclusion and Outlook

Main textbooks (additional reading to be provided during course)

i) CAIA Association – Alternative Investments CAIA Level I (Fourth Edition) –Chambers/Anson/Black/Kazemi 2018 – Chapters 20 – 22
ii) McKinsey – Private Assets 2023
iii) Bain – Private Equity 2023

Teaching and Learning Methods

Contact Hours	seminar; exercises; lecture; group work
Directed Study	group work

Workload

Contact Hours	24 lessons / 18 hours (30%)
Directed Study	40 lessons / 30 hours (50%)
Private Study	12 hours (20%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Written examination	60	100%	closed book	grades	during exam weeks

Submodule 3: Commodities

Submodule code	ECO
ECTS Credits / Workloa	2 ECTS Credits (60 hours)

Learning Outcome 1

This course provides an overview of the basics and foundations of commodity investing. After successful completion of the course, participants will be able to:
a) understand and explain the fundamentals & mechanics of the major commodities markets
b) explain and evaluate trading strategies involving commodities against the background of pricing, risk management and asset allocation

	Importance	Relevant NQF-Descriptors
Subject knowledge and skills: Students are able to i) evaluate the major alternative investments w.r.t. their risk-return profile; ii) evaluate strategic motivations and tactical opportunities of alternative investments	high	knowledge; application; judgement
Methodology: Students are able to i) critically reflect work and thought processes and develop possible courses of action; ii) learn and work independently, recognize gaps in their knowledge and fill these gaps independently	medium	application; judgement

Content Outline

Block 1, Prof. Dr. Torsten Dennin
Introduction to Commodity Markets
• Introduction to global commodity markets
• Law of demand and supply
• Commodity sectors
• Commodity exchanges
• Market participants and interests
• Regulatory bodies and policies

Block 2, Prof. Dr. Torsten Dennin
Commodities as an asset class
• Pricing of commodity futures
• Access to commodity markets / investment products
• Access to commodity research
Selected Case Studies of Commodity Price Bubbles
• Tulips – The Biggest Bubble in History
• Oil Crisis of the 1970ies in the rear mirror
• Silver Thursday and The Hunt Brothers
• Copper – Japan vs China
• Amaranth Advisors and Brian Hunter

Block 3, Prof. Dr. Torsten Dennin
Financialization, (Physical) Commodity Trading, ethics and portfolio context
• Physical Commodity Trading
• Investment properties of commodities: diversification, excess return, inflation protection
• Financialization & ethics: primer to ethics and financialization, thoughts on policies and geopolitics
• How to build a portfolio including commodity investments: scenario approach, instruments & jurisdictions, putting the blocks together

Block 4, Prof. Dr. Torsten Dennin
Commodity fund management I. Commodities and Natural Resources Equities
• Mine or Metal. Exxon or Oil. What is the difference?
• Oil & Gas, and the Mining Life Cylce
• How to improve a portfolio with Commodity Investment Strategies
• Real Case Implementation of a Commodity Portfolio Investment Strategy
• Guest Speaker: tba

Block 5, Prof. Dr. Torsten Dennin
Commodity fund management II
• The commodity investment process (different approaches)
• Actively managed commodity products (benchmarks, track records and peers)
• Challenges within the active commodity portfolio management (from market analysis to allocation and rebalancing)
• Guest Speaker: tba

Block 6, Prof. Dr. Torsten Dennin
Exotic commodity investments, trading strategies and practice insights
• Background information to market structure, price finding mechanism, derivative products and risk management in exotic commodity markets
Several case studies:
• Case Hedging of a Refinery
• Case Curve Trading
• Case Hedging of Chocolate
• Case Volatility Trading
• Case CO2Trading

Recommended Literature:
• Helyette Geman (2009): Commodities and Commodity Derivatives: Modeling and Pricing for Agriculturals, Metals and Energy
• Peter Schaeffer (2008): Commodity Modeling and Pricing: Methods for Analyzing Resource Market Behavior
• Julien Chevallier, Florian Ielpo (2013), The Economics of Commodity Markets
• Torsten Dennin (2019): From Tulips to Bitcoins: A History of Fortunes Made and Lost in Commodity Markets (English)
• Torsten Dennin (2019): Von Tulpen zu Bitcoins: Eine Geschichte der größten Finanzblasen und wie man sie erkennt (German)

Teaching and Learning Methods	
Contact Hours	seminar; lecture; case studies
Directed Study	individual work

Workload	
Contact Hours	24 lessons / 18 hours (30%)
Directed Study	40 lessons / 30 hours (50%)
Private Study	12 hours (20%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Written examination	60 minutes	100%	closed book	grades	during exam weeks

Submodule 4: Real Estate

Submodule code	ERE
ECTS Credits / Workloa	2 ECTS Credits (60 hours)

Learning Outcome 1

The students get to know the different characteristics of real estate investments and their appropriateness for different investors. Therefore the specific real estate markets, market participants and investment processes are examined.

	Importance	Relevant NQF-Descriptors
Subject knowledge and skills: The students understand the interests of the market participants and can critically examine real estate investment opportunities	high	knowledge; application; judgement
Methodology: The students can analyse the investment opportunities using different criteria for the relevant investors	medium	application; judgement

Content Outline

Session 1
Real estate as an asset class
i) Definition and real estate as an investment ii) Real estate investment opportunities (direct vs indirect) iii) Market situation iv) Real estate in a multi asset portfolio

Session 2
Real estate as an asset class
i) Definition and real estate as an investment ii) Real estate investment opportunities (direct vs indirect) iii) Market situation iv) Real estate in a multi asset portfolio

Session 3
Excursion

Session 4
Investment strategy, investment processes, monitoring and exit for real estate investments (part 1)
i) Different business models (Independent vs Captive) ii) Investment strategy for real estate investments (risk/performance, sectors, geography, etc.) iii) Investment process incl. due diligence and real estate valuation

Session 5
Investment strategy, investment process, monitoring and exit for real estate investments (part 2)
i) Different business models (Independent vs Captive) ii) Investment strategy for real estate investments (risk/performance, sectors, geography, etc.) iii) Investment process incl. due diligence and real estate valuation

Session 6
Discuss developments in the field of real estate transactions

Recommended Literature:

- John Davidson: “Indirect Real Estate Strategies”, 2018, SECA (On Ilias)
- Further literature: see Ilias

Teaching and Learning Methods

Contact Hours	seminar; exercises; lecture; presentations; group work
Directed Study	individual work

Workload

Contact Hours	24 lessons / 18 hours (30%)
Directed Study	40 lessons / 30 hours (50%)
Private Study	12 hours (20%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Written examination	30 minutes	50%	closed book	grades	during exam weeks
Individual oral examination	20 minutes	50%	presentation	grades	during semester

Submodule 6: Asset-Backed Securities and Insurance-Linked Securities

Submodule code	EAB

ECTS Credits / Workloa 2 ECTS Credits (60 hours)

Learning Outcome 1

Insurance-linked securities (ILS) have emerged as a pivotal asset class that links traditional insurance and reinsurance markets with global capital markets, enabling the securitization of risks from natural catastrophes to longevity exposures and diversifying investment portfolios. This course examines ILS instruments—such as catastrophe bonds—alongside real estate debt structures, covering their fundamental mechanics, pricing dynamics under catastrophic events, risk-return profiles, and the role of traditional and alternative risk transfer forms, including facultative and treaty reinsurance, in distributing risk efficiently across markets.

	Importance	Relevant NQF-Descriptors

Content Outline

Session 1: Reinsurance as Risk Transfer Mechanism
Prof. Dr. Florian Schreiber

Session 2: Review of Insurance Pricing & Reserving
Dr. Carlo Pugnetti

Sessions 3-5: Insurance-Linked Securities - Introduction, Product, Markets
Christian Bleitzhofer, CIIA, CIWM, CESGA, CAIA, Portfolio Manager Insurance Linked Securities, Schroders Capital

Session 6: Real Estate Debt
Zoltan Szelyes, Macro Real Estate AG

Session 7: Case Study & Closing
Prof. Dr. Florian Schreiber, Dr. Carlo Pugnetti

Teaching and Learning Methods

Contact Hours	seminar; exercises; lecture; presentations
Directed Study	individual work

Workload

Contact Hours	24 lessons / 18 hours (30%)
Directed Study	20 lessons / 15 hours (25%)
Private Study	27 hours (45%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Written examination	60 minutes	100%	closed book	grades	during exam weeks

Submodule 7: Crypto Assets

Submodule code ECA
ECTS Credits / Workloa 2 ECTS Credits (60 hours)

Learning Outcome 1

By the end of this course, students will understand the core principles of Distributed Ledger Technology (DLT) and its transformative applications in the financial domain. They will gain hands-on experience with blockchain networks, smart contracts, and decentralized financial systems, while also exploring crypto assets as an emerging asset class. Finally, students will choose their own case study focused on the application of DLT and implement a technical solution, culminating in a project pitch.

	Importance	Relevant NQF-Descriptors
Subject knowledge and skills: Students will understand the core principles of Distributed Ledger Technology (DLT) and ist transformative applications in the financial domain.	medium	
Problem-solving: Students will choose their own case study focused on the application of DLT and implement a technical solution.	high	
Communication: Pitch of the technical solution.	medium	
Social skills: Cooperating in teams.	medium	

Content Outline

1) Introduction to Distributed Ledger Technology (this sessions is held together with the first half-day of the Technologies and Business Models course) (Dr. Denis Bieri)

This session provides a foundational understanding of DLT, exploring its structure, key concepts, and underlying technology. Students will learn, for example, about the various types of distributed ledgers and how consensus mechanisms work.

2) Use Cases of Decentralized Finance (DeFi) (Prof. Dr. Thomas Ankenbrand)

This session will explore how decentralized technologies, including blockchain and DLT, are transforming various aspects of the financial industry.

3) DLT Hands-On (Dr. Denis Bieri)
In this session, students will get hands-on experience coding and deploying smart contracts on a blockchain. They will learn about the structure of smart contracts, how they are programmed, and the conditions under which they are executed.

4) Smart Contracts Hands-On (Prof. Dr. Tim Weingärtner)
In this session, students will get hands-on experience coding and deploying smart contracts on a blockchain. They will learn about the structure of smart contracts, how they are programmed, and the conditions under which they are executed.

5) Crypto Assets as an Asset Class (Prof. Dr. Thomas Ankenbrand)
This session will introduce students to the financial and investment side of the blockchain ecosystem. It will cover the rise of crypto assets, exploring their role as an emerging asset class.

6) Pitches (Prof. Dr. Thomas Ankenbrand und Dr. Denis Bieri)
The final session is focused on student presentations, where participants will pitch their projects based on the knowledge they have gained throughout the course. **The attendance in this session is mandatory. Absence will be graded as "fail", 1.0.**

Assignment
Students will choose their own case study in groups of two, focused on the application of DLT and implement a technical solution. In case of documented uncooperative behavior of one or several team members, the Head of Programme can subtract a maximum grade of 1.0 from the final grade, leading to individual grades for the project team members.

Teaching and Learning Methods

Contact Hours	seminar; case studies
Directed Study	group work

Workload

Contact Hours	24 lessons / 18 hours (30%)
Directed Study	0 lessons / 0 hours (0%)
Private Study	42 hours (70%)

Assignments and Assessments

Assessment Type	Quantity	Weight	Form	Evaluation Type	Time
Oral group examination		33%	case study	grades	during semester
Written group assignment		67%	case study	grades	during exam weeks