

Welcome to School of Business and Economics

MSc Financial Economics

A passport to the world of financial
markets

Stefan Straetmans

Associate Professor of Finance





What will you learn?

Quantitative focus on financial markets, financial instruments (types and price formation), financial institutions and their economic environment

Three specialisations:

- Asset Pricing
- Banking
- Financial Analysis



Programme structure

- A specialisation consists of
 - 3 obligatory courses (common to all specialisations)
 - 2 specialisation courses per specialisation (one “integration” course)
 - 1 elective
- No specialisation: 3 obligatory courses + 1 integration course + 2 electives

MSC Financial Economics - specialisation

Asset pricing

<i>Period</i>	<i>Asset pricing</i>	
1	ECB and Monetary Policy	Quantitative Techniques for Financial Economics
2	Institutional Investors	Elective
3	Skills training: writing a master's thesis	
4	Fixed Income Management	Writing the Master's Thesis
5	Empirical Analysis of Financial Markets	
6	Completing the master's thesis	

NB. The details of this programme could change; before applying, please check www.maastrichtuniversity.nl/sbe for the latest information.

MSC Financial Economics - specialisation

Banking

<i>Period</i>	<i>Banking</i>	
1	ECB and Monetary Policy	Quantitative Techniques for Financial Economics
2	Global Banking	Elective
3	Skills training: writing a master's thesis	
4	Fixed Income Management	Writing the Master's Thesis
5	Risk Management	
6	Completing the master's thesis	

MSC Financial Economics - specialisation

Financial Analysis

<i>Period</i>	<i>Financial Analysis</i>	
1	ECB and Monetary Policy	Quantitative Techniques for Financial Economics
2	Accounting for Financial Markets	Elective
3	Skills training: writing a master's thesis	
4	Fixed Income Management	Writing the Master's Thesis
5	Empirical Analysis of Financial Markets	
6	Completing the master's thesis	

MSC Financial Economics - no specialisation

<i>Period</i>	<i>No specialisation</i>	
1	ECB and Monetary Policy	Quantitative Techniques for Financial Economics
2	Global Banking*/Elective	Elective
3	Skills training: writing a master's thesis	
4	Fixed Income Management	Writing the Master's Thesis
5	Emp. Analysis of Financial Markets*/Elective	
6	Completing the master's thesis	

* At least one of the two indicated courses

Quantitative Techniques for Financial Economics

- Econometric techniques for modeling financial time series with empirical applications
- Pricing, construction of (derivative) securities and their use by market practitioners (hedging, speculation)

Applying Ito's lemma

$$\begin{aligned}dY_t &= \frac{df}{dt} dt + \frac{df}{dx} dX_t + \frac{1}{2} \frac{d^2f}{dx^2} \sigma^2 X_t^2 dt \\&= -f dt + 2e^{-t} X_t dX_t + e^{-t} \sigma^2 X_t^2 dt \\&= -Y_t dt + 2e^{-t} X_t^2 \frac{dX_t}{X_t} + e^{-t} \sigma^2 X_t^2 dt \\&= -Y_t dt + 2Y_t [0.25 dt + \sigma dW_t] + \sigma^2 Y_t dt \\ \frac{dY_t}{Y_t} &= [2 \times (0.25) - 1 + \sigma^2] dt +\end{aligned}$$

ECB and Monetary Policy



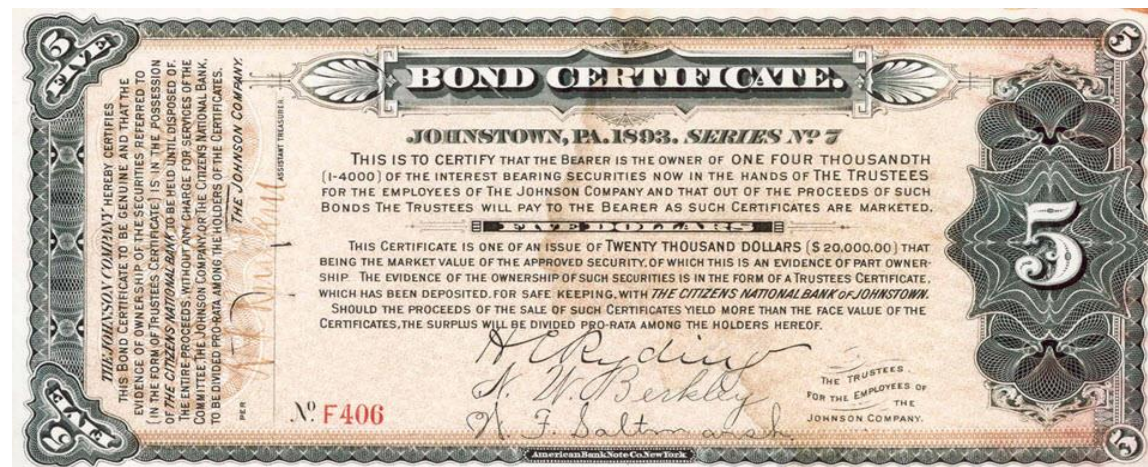
- What is money and why do we need it? Is money “neutral”?
- “Transmission” channels between monetary /real sphere of the economy and how effective is monetary policy?
- Position, policies of the ECB (including a visit to the ECB)
- Monetary policy has been THE crucial factor in stabilizing the financial system!

→ ‘Unconventional’ monetary policy and exit strategies



Fixed Income Management

- Basics of bond “arithmetics” (duration, convexity, term structure, forward rates etc)
- Fixed income portfolio management
- Fixed income derivatives, mortgage backed securities, their role in the European sovereign debt crisis
- 6 cases (inflation-protected bonds, covered bonds, Greek crisis etc)



Specialisation courses Asset Pricing

- Institutional investors
 - Pension funds, mutual funds, hedge funds
 - Asset liability management, strategic asset allocation, shareholder activism and responsible investing
- Empirical Analysis of Financial Markets
 - predictability of financial returns with special focus on advances in artificial intelligence and big data. Do these enable investors to uncover and exploit new data patterns and thus profitable trading strategies?

$$P = E(mx)$$



Specialisation courses Banking

- Global Banking
 - Why do banks exist?
 - Systemic risk
 - Fintech and digitalisation
 - Shadow banking as a new threat for financial stability
- Risk Management
 - How to manage risk in financial institutions
 - Market, credit and operational risk
 - Changes in financial regulation after the financial crisis



Specialisation courses Financial Analysis

- Empirical Analysis of Financial Markets
- Accounting for Financial Markets



Master's Thesis

- Skills training: Develop a high quality research proposal for a master's thesis
- In-depth study of financial economics problem (academic relevance, practical relevance, relevance to you)
- Team up with staff member (supervisor) before or after skills training 'Writing a Master's Thesis'
- Cover 2 of 3 main orientations (monetary economics, finance, quantitative techniques)

Is Financial Economics right for you?

- Have a keen interest in financial markets and financial institutions
- Have a keen interest in the economic environment in which companies have to operate
- Show familiarity with quantitative techniques

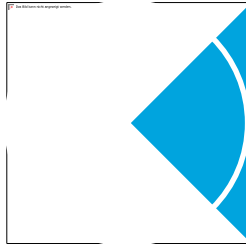


Careers of our alumni

MSc – Financial Economics (no specialisation)



Graduates
employed in 19 countries



Consultant
Financial Advisor
Statistical Analyst
CEO



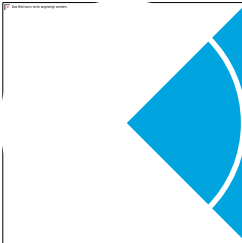
MSc graduates SBE Financial Economics period 2004-2017

Careers of our alumni (2)

MSc – Financial Economics Track Banking



Graduates
employed in 6 countries



Analyst Mergers & Acquisitions
Economist
Investment Analyst
Consultant



[Empty blue box with a thin black border]

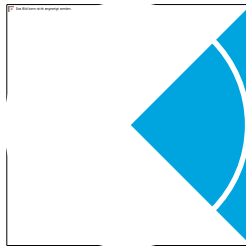
MSc graduates SBE Financial Economics Track Banking period 2004-2017

Careers of our alumni (3)

MSc – Financial Economics Track Financial Analysis



Graduates
employed in 13 countries



Economist
Investment Analyst
Consultant
Financial Analyst



Deloitte.



ING



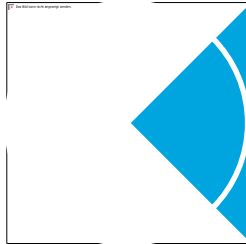
MSc graduates SBE Financial Economics Track Banking period 2004-2017

Careers of our alumni (4)

MSc – Financial Economics Track Asset Pricing



Graduates
employed in 11 countries



Credit Risk Manager
Economist
Financial Analyst
Consultant



MSc graduates SBE Financial Economics Track Asset Pricing period 2004-2017

Further questions?

www.maastrichtuniversity.nl/sbe

➤ Contact

➤ Or visit us at the information market in the Mensa