HSBC Quants Academy

Introduction to the program

October 2024

HSBC

Your HSBC coordinator

DR. PHILIPPE J.S. DE BROUWER

Passionate leader, expert in teamwork, personal growth, data science, AI, and innovation

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Polish and Belgian citizenship http://www.de-brouwer.com

WORK EXPERIENCE

Senior Vice President
HSBC
March 2016 – Present · Krakow, Poland

- created and matured the Model Risk Management team
- also created Credit Research for Asset Management and Regulatory Compliance
- was 5 years head of Diversity, Equity and Inclusion in Krakow
- head of academic partnerships

Head of Analytics Development
RBS
February 2015 – February 2016 · London, UK

- expand the scope of the big data and analytics team
- set up cooperation with the Imperial College of London

Head of Risk Consulting
KBC Consumer Finance
July 2012 – February 2015 · Warsaw, Poland

- create internal consulting for risk management
- hands on credit modelling experience

Executive Director and Member of the Board
KBC Fund Management
April 2009 – July 2012 · Dublin, Ireland

- build up the asset management company to manage 1000+ investment funds as COO,
- Chief Investment Officer (responsible for 120 Bln. EUR), and
- multiple board functions in investment funds

CEO of KBC TFI
KBC
June 2002 – April 2009 · Warsaw, Poland

- merge 4 asset management companies into one
- grow the business as CEO of KBC TFI S.A. (from 2005)
- create new investment funds and get them sold

leader in asset management

PUBLICATIONS

The Big R-Book: from data science to learning machines and big data
Wiley & Sons. homepage of the book

Refereed Publications
list at www.de-brouwer.com

Maslowian Portfolio Theory: a Coherent Approach to Strategic Asset Allocation
VUB Press

PUBLIC SPEAKING

Teamwork · Leadership · Career Development

Data Science · Artificial Intelligence · R · Statistical Analysis · innovation · investment management · quantum computers

EDUCATION

Ph.D. in Applied Economic Sciences
Free University of Brussels
2009 – 2012

Thesis title: “Maslowian Portfolio Theory, a Coherent Approach to Strategic Asset Allocation.”

M.Sc. in Applied Economic Sciences
Free University of Brussels
1992 – 1999

M.Sc. in Theoretical Physics
Free University of Brussels

Plan (changes might occur)

	time (h)	coordinator	lecturer	date
PART I: Introduction to Banking and Risk				
introduction + HSBC + jobs + CVs	3.0	Philippe De Brouwer	Philippe De Brouwer	07/10/2024
Banking / financial services organizations	3.0		Philippe De Brouwer	14/10/2024
Risk Management and risk types	3.0		Philippe De Brouwer	21/10/2024
loss distributions and risk metrics	3.0		Jorge Rosales	28/10/2024
PART II: Market Risk				
Coherent Risk Measures	3.0	Jorge Rosales	Philippe De Brouwer	04/11/2024
FRTB	3.0		Renato Barros	18/11/2024
PART III: Credit Risk				
Introduction to Credit Risk & the modelling framework	3.0	Piotr Kobus	Piotr Kobus	25/11/2024
Risk-Based Pricing	3.0		Roman Ivanov	02/12/2024
Regression techniques and scorecards in credit risk modelling	3.0		Sattwik Das, Michal Kusy	09/12/2024
PART V: Other topics				
Machine Learning from the Perspective of an Econometrician	3.0		Marcin Jaskowski	16/12/2024
PART IV: Counterparty Credit Risk				
Introduction to CCR + XVA	3.0		Eray Ferah	20/01/2025
Introduction to ST + PVA	3.0		Artur Zajac	13/01/2025
PART V: Concluding remarks & Exam				
Student's presentations & exam + starting in in a private company	3.0	Philippe De Brouwer	volunteers	27/01/2025

Grading

Subject	Percentage
Presence in classroom	10
Participation in classroom	10
End-work	80

From which:
50% - logic and content
25% paper (scientific paper)
25% presentation (slides and lecture)

The End-Work

- Choice of project
  - Market Risk
  - Credit Risk
  - Counterparty Credit Risk (maybe)
- Teamwork
  - 2 to 5 people per project
  - You choose your team
- Plan
  - May 13: communication of the project briefings
  - May 15: teams and subjects to be submitted to prof. Dzieza
  - June 10: presentation in HSBC – for each team:
    - 10 minutes presentation
    - 10 minutes discussion

Disclaimer

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