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BTRM®

The Certificate
of Bank Treasury
Risk Management



BTRM ADVANCED TREASURY MASTERCLASS SERIES

FIXED INCOME YIELD CURVE AND RELATIVE VALUE

Start date: Tuesday 18th May 2027

Course Overview

This course provides a practical understanding of fixed income markets, covering government bonds, interest rate swaps, yield curve construction and modelling, and the impact of changing market conditions on valuations and risk.

Participants will learn how to identify relative value opportunities, structure yield curve trades, and use repo and bond futures markets to manage positions and exposures. The course also explores systematic approaches to fixed income trading, including the design, implementation and evaluation of historical backtests. Through practical examples such as carry and roll-down strategies, participants will develop a rigorous, evidence-based framework for evaluating trading opportunities and making informed investment decisions.

With a start time of 1pm UK time enabling students to join live from many locations around the world. The live format encourages real-time interaction with the Faculty instructors and peers, fostering deeper discussions and immediate problem solving. Spacing the sessions weekly also accommodates the busy schedules of banking professionals, ensuring minimal disruption to daily responsibilities while maximising learning retention and practical application. The course ends with a structured assessment multiple-choice test & certificate. Students get to keep the course in their own personal BTRM educational portal for 12 months.

Course Details

A lecture style course with demonstrations and spreadsheet takeaways/homework.

START DATE:
Tuesday 18th May 2027

LIMITED AVAILABILITY:
Enrol today

DELIVERY MODE:
Live Online (flexible learning over 4 weeks, 1 lecture per week)

GLOBAL START TIME:
Accessible for many participants worldwide.

STRUCTURED ASSESSMENT:
Multiple-Choice Test & Certificate

TOTAL LECTURE HOURS:
20 hours

INSTRUCTOR:
Dr. Jessica James

EMPOWERING GLOBAL TALENT:
Emerging Markets Subsidy

BTRM ALUMNI AND CURRENT STUDENTS:
40% Discount (off the standard fee)

Global Start Times

London (BST, UTC+1) ➔ 1:00 PM
Johannesburg (SAST, UTC+2) ➔ 2:00 PM
India (IST, UTC+5:30) ➔ 5:30 PM
Singapore (SGT, UTC+8) ➔ 8:00 PM
São Paulo (BRT, UTC–3) ➔ 9:00 AM
New York (EDT, UTC–4) ➔ 8:00 AM

16 hours: Delivered over 4 weeks, live online, one lecture per week (with a 30 minute break) as follows:

Week 1: Tuesday 18th May 2027
1.00 PM UK – live start – 1pm – 5.30pm
5.30 PM IST – live start – 5.30pm – 10.00pm
8.00 AM EDT – live start – 8am – 12.30pm

Week 2: Tuesday 25th May 2027
1.00 PM UK – live start – 1pm – 5.30pm
5.30 PM IST – live start – 5.30pm – 10.00pm
8.00 AM EDT – live start – 8am – 12.30pm

Week 3: Tuesday 1st June 2027
1.00 PM UK – live start – 1pm – 5.30pm
5.30 PM IST – live start – 5.30pm – 10.00pm
8.00 AM EDT – live start – 8am – 12.30pm

Week 4: Tuesday 8th June 2027
1.00 PM UK – live start – 1pm – 5.30pm
5.30 PM IST – live start – 5.30pm – 10.00pm
8.00 AM EDT – live start – 8am – 12.30pm

Who is this for?

- Treasury professionals looking to refresh their knowledge and stay ahead of the curve
- Students or banking and finance professionals who have taken or are taking the BTRM qualification, who are interested in the bond markets, how they function and how they may be used for investment purposes

Learning outcomes

- Understanding of government bonds and swaps; construction, valuation and sensitivity to market environments
- Yield curve construction, evolution, history and modelling techniques
- How to construct fixed income trades to take advantage of relative value opportunities on the yield cuve
- A good understanding of the repo and bond futures market, and how bonds, repos and futures relate to each other and can be used to balance positions and manage risk
- Backtesting bond and yield curve strategies; how to set up a backtest, run it and evaluate it, with examples from history like carry and roll. This will enable participants to apply rigour and a scientific approach to their position taking

Weekly Forum

Q&A weekly lecture forum. Students can submit question on the forum that will be answered live in weeks 2, 3, and 4.

Multiple-Choice Test & Certificate

The BTRM Advanced Treasury Masterclass Series ends with a Multiple-Choice Test. This test is available for seven days after the final lecture week.

Learning Resource

Students get to keep the training for 12 months post course.

Course Schedule And Contents

Week 1 – The yield curve

- Introduction to govt bonds and swaps, with specific reference to Germany, UK and US. These currencies will be used as examples throughout.
- Practical guidance on what rates should you be choosing for the curve, and what to be careful of in the post-Libor world
- Maths of the yield curve – forward rates, FRAs, forward 'curves', forward 'path' of an individual rate.
- Stripping the curve to discover discount factors. Case Study: Curve stripping
- Fitting the curve with Svensson 94. Case Study: Curve fitting
- Bond maths – duration, convexity, convexity + other terms. Practical Example: duration, convexity for simple yield changes
- Examples of the recent period of rising rates and falling bond values, with examples of successful hedging practices. Case Study: hedging a bond in a rising yield environment

Week 2 – Yield curve behaviour

- Past evolution of curves, illustrated in dynamic spreadsheets. Discussion of which market events resulted in different curve types and shifts.
- Is the curve a predictor? Examples of curve 'predictions' and results. Practical Example: 'Feather' chart illustrations
- Principal Component Analysis of yield curves
  - PCA theory
  - Application to curves
  - Examples of the PCA decomposition of curve shifts into parallel, steepener/flattener, curvature shift components
- Case Study: PCA on the US and EU swap curves, looking at different periods

Week 3 – Yield curve relative value analysis

- Intro: how one would use the previous taught analysis to identify potential "relative value" trades in bonds of the same homogenous issuer set, assuming a 3- or 6-month horizon
- Anatomy of a simple set of trades
- Carry and roll on the curve
- Duration weighting for steepeners and barbells – why we use it
- PCA weighting – why it's better – contrast it with traditional duration weighting and demonstrate that it is a better system. Case Study: PCA vs duration weighting for steepener and barbell trades
- The impact of funding cost: how to allow for / incorporate where my cost of funds is not IBOR-flat
- Cross-currency trading – a quick recap of xccy basis. A look at hedge pickup trading bonds in different regions, from (a) corporation and issuance point of view, (b) investment view.
- The vanilla approach to HQLA securities selection: given the current shape of the yield curve and a 1-12 month horizon, what approach should I use when determining what securities to select for the HQLA? Include factors such as yield vs tenor, and impact of hedging using IRS or (for sub- 3yr securities) futures

Week 4 – Backtesting yield curve strategies

- How to set up a backtest – what data to use, uses and pitfalls
- Carry trades in all currencies, different parts of curve. How to improve carry trade performance with volatility cutouts and risk management. Case Study: volatility cutout on carry trade
- Steepener/flattener and barbell trades in backtest. Can we use PCA signals for trades?
- Xccy trades, looking across different yield curves in backtest. Hedge pickup backtest.
- Practical Example: Locking in profit with the EUR-USD xccy basis

Case Studies and Practical Examples

- **Case Study:** Curve stripping. Stripping the curve, using different instruments as appropriate, to discover discount factors.
- **Case Study:** Curve fitting. Fitting the curve with Svensson 94.
- **Practical Example:** Bond maths – duration, convexity, convexity + other terms. Duration, convexity for simple yield changes
- **Case Study:** hedging a bond in a rising yield environment – why the starting point is important. Examples of the recent period of rising rates and falling bond values, with examples of successful hedging practices.
- **Practical Example:** Examples of curve 'predictions' and results. 'Feather' chart illustrations
- **Case Study:** PCA on the US and EU swap curves, looking at different periods
- **Case Study:** PCA vs duration weighting for steepener and barbell trades. Why PCA weighting is better.
- **Practical Example:** Cross-currency trading; locking in profit with the EUR-USD xccy basis
- **Case Study:** volatility cutout on carry trade. Carry trades in all currencies, different parts of curve. How to improve carry trade performance with volatility cutouts and risk management.

Course Instructor



Dr. Jessica James

Jessica James is a Senior Quantitative Researcher at Commerzbank in London, previously Head of the Quantitative Solutions Group. She joined Commerzbank from Citigroup where she held a number of FX roles, latterly as Global Head of the Quantitative Investor Solutions Group. Prior to this she was the Head of Risk Advisory and Currency Overlay Team for Bank One. Before her career in finance, James lectured in physics at Trinity College, Oxford. She holds a BSc in Physics from Manchester University and a D. Phil. in atomic and nuclear physics from Oxford University.

Her significant publications include the 'Handbook of Foreign Exchange' (Wiley), 'Interest Rate Modelling' (Wiley), and 'Currency Management' (Risk books). Her latest book 'FX Option Performance' came out in 2015. She has been closely associated with the development of currency as an asset class, being one of the first to create overlay and currency alpha products.

She is a Trustee Director of Citigroup Pension Board, and a Trustee of Commerzbank AG pension scheme, and a member of the Advisory Committee for the Money Purchase Pension Forum.

Jessica is a Member of the Faculty of Bank Treasury Risk Management, an Industry Advisory Panel member for Edinburgh University Finance programme, and a Visiting Professor both at UCL and at Cass Business School. She is a Managing Editor for the Journal of Quantitative Finance. Apart from her financial appointments, she is a Fellow of the Institute of Physics and has been a member of their governing body and chaired their Audit and Risk Committee.

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Pricing Structure

STANDARD FEE: £2295.00 + UK VAT

BTRM 40% ALUMNI & STUDENTS: £1377.00 + UK VAT – Please submit an enquiry

SUPER EARLY BIRD 20%: £1836.00 + UK VAT

EMERGING MARKETS DISCOUNT: Please submit an enquiry

GROUP DISCOUNT: If 2 or more people from your institution wish to join the masterclass please contact us.

VAT EXEMPTION: If you are a non-UK or EU resident, you are exempt from UK VAT

Discount Structure

20% Super early bird discount
Until 12th March 2027

10% Early bird discount
Until 16th April 2027

40% BTRM Alumni and current student discount

The BTRM is pleased to offer a 40% special discount for both alumni and current students on our new Advanced Treasury Masterclasses, covering Ai in Bank Treasury, FTP, IRRBB, and Advanced Liquidity Risk Management.

Whether you've previously completed our flagship programme or are currently enrolled, you'll benefit from an exclusive rate designed to reward your ongoing commitment to professional development. This preferential pricing reflects our appreciation for your dedication to continuous learning and ensures that our expert-level training remains accessible to those building upon their BTRM foundation. Don't miss this chance to expand your treasury and risk management expertise at a reduced rate, just our way of saying "welcome back" or "keep growing."

Please submit an enquiry.

Empowering Global Talent: Emerging Markets Subsidy

Finance is global. So is talent. That's why the BTRM also offers an Emerging Markets Subsidy to support applicants from developing and underrepresented regions. We believe that potential shouldn't be limited by geography—and this initiative ensures broader access to high-quality financial education.

If you're based in an emerging market and passionate about entering or advancing in the quant finance space, this tailored subsidy is designed for you.

Please submit an enquiry.

Registration Form

Fixed Income Yield Curve and Relative Value Masterclass

Start Date: Tuesday 18th May 2027

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Regular Course Fee

☐ Full Course Fee: £2295.00 + UK VAT

20% VAT IS ONLY CHARGEABLE FOR RESIDENTS IN THE UK AND EU

Early Bird Discount

☐ 20% Discount until 12th March 2027

☐ 10% Discount until 16th April 2027

Discount code

VOLUME DISCOUNT: If 2 or more people from your institution wish to take the masterclass please contact us.

To register, please scan and email the completed booking form to enquiries@btrm.org

DELEGATE DETAILS
NAME:
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