

# Structured Products

## 2016-17

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Course Title	Structured Products
Programme/Year	PGP II Elective, 2016-17 (Slot 9)
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### Course Objectives

The objective of this course is to introduce a variety of structured products sold by market makers in equity, foreign exchange and fixed income markets. Using real world term-sheets, the course would discuss products ranging from simple barrier options to complex structured notes. The focus would be on the business logic behind popular structures, and issues involved in pricing and risk managing such products.

The course assumes knowledge of basic concepts and derivative products covered in a course like PGP II *FORM*.

### Text Book

There is no single text book for the course. The reading material would consist of case studies, term sheets and articles from journals and practitioner publications.

### Evaluation

Class Participation	20%
Group Assignment	30%
End Term Examination	50%

## Session Outline

1 XX/09	<p>Overview of structured products</p> <p>Read: Maringer, D. et. al. (2015). Structured Products: Performance, Costs, and Investments, <i>Swiss Finance Institute White Paper</i>, June.</p> <p>Madigan, P. (2009). A return to structured products?, <i>Risk</i>, March, pp. 36 - 37.</p>
2 XX/09	<p>Simplest structured products</p> <p>Read: Qian, M. (2010). Barrier Options. <i>Encyclopedia of Quantitative Finance</i>, John Wiley &amp; Sons.</p> <p>Kaminska, I. (2009). When is an ETF actually a structured product? <i>Financial Times Alphaville Blog</i></p> <p>Milne, R. et. al. (2011). Investment: Exchange traded funds, <i>Financial Times</i></p> <p>Case: Julius Baer (2010). One Touch Call Warrants</p> <p>Commonwealth Bank (2014). Flexible Forward Double No-Touch (What you need to know)</p> <p>RBC Capital Markets (2015). Barrier Index Linked Notes</p>
3 XX/09	<p>Structured notes</p> <p>Read: Rule, D. et. al. (2004). Structured note markets: products, participants and links to wholesale derivatives markets, <i>Bank of England Financial Stability Review</i>, June, pp. 98 - 117.</p> <p>Helberger, D. (2012). Why Do Investors Buy Structured Products? A Behavioural Finance Explanation, <i>The Journal of Wealth Management</i>, Spring, pp. 51 - 60.</p> <p>Case: Hedging with Target Redemption Forward, <i>IIMA Case</i>, F&amp;A0506</p> <p>HSBC (2010). Double No Touch + Short DI Put on S&amp;P 500</p> <p>UBS (2015). Barrier Reverse Convertible with Early Redemption</p>
4 XX/09	<p>Pricing structured products</p> <p>Read: Henderson, B. J. and N. D. Pearson (2011). The dark side of financial innovation: A case study of the pricing of a retail financial product, <i>Journal of Financial Economics</i>, 100, pp. 227 - 247.</p> <p>Stoimenov, P. A. and S. Wilkens (2005). Are structured products ‘fairly’ priced? An analysis of the German market for equity-linked instruments, <i>Journal of Banking &amp; Finance</i>, 29, pp. 2971 - 2993.</p> <p>Wallmeier, M. and M. Diethelm (2009). Market Pricing of Exotic Structured Products: The Case of Multi-Asset Barrier Reverse Convertibles in Switzerland, <i>Journal of Derivatives</i>, pp. 59 - 72.</p> <p>Case: Clarus Capital (2015). Multi Barrier Reverse Convertible</p> <p>Leonteq (2014). Multi Barrier Reverse Convertible</p>
5 XX/09	<p>Sell side’s volatility risk: Dealing with the ‘smile’</p> <p>Read: Derman, E. (2003). Laughter in the Dark - The Problem of the Volatility Smile.</p> <p>Tompkins, R. G. (2011). Foreign exchange smiles, <i>Encyclopedia of Quantitative Finance</i>, Wiley.</p> <p>Beier, C. C. and C. Renner (2011). Foreign exchange options: Delta- and At-the-money quoting conventions, <i>Encyclopedia of Quantitative Finance</i>, Wiley.</p>
6 XX/09	<p>Pricing and hedging with the smile</p> <p>Read: Henrotte, P. (2004). Which model for equity derivatives? <i>Risk</i></p> <p>Bossens, F. (2010). Vanna-Volga methods applied to FX derivatives: from theory to market practice, <i>arXiv:0904.1074v3</i></p>

## Session Outline (contd.)

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7 XX/09	Buy side's tail risk: When exotic becomes toxic Read: Hens, T. and M. O. Rieger (2008). The dark side of the moon: structured products from the customer's perspective, <i>Swiss Finance Institute Working Paper</i>
8 XX/10	Warren Buffett's Put Read: Berkshire Hathaway (2009). Letter to the shareholders. Triana, P. (2013). Why does Warren Buffet make money? <i>Corporate Finance Review</i> , November-December, pp. 34-48. ... (2014). Buffett's puts: What are the risks? <i>Corporate Finance Review</i> , January-February, pp. 34-47. ... (2014). What type of puts did Warren Buffett sell? <i>Corporate Finance Review</i> , March-April, pp. 40-47.
9 XX/10	Interest rate risk management Read: Culp, C. L. (2002). The Revolution in Corporate Risk Management: A Decade of Innovations in Process and Products, <i>Journal of Applied Corporate Finance</i> , 14(4), pp. 8 - 26. Gay, G. D. et. al. (2002). How Firms Manage Risk: The Optimal Mix of Linear and Non-Linear Derivatives, <i>Journal of Applied Corporate Finance</i> , 14(4), pp. 82 - 93. Case: Liability Management at General Motors, <i>HBS Case</i> , 9-293-123.
10 XX/10	Group presentations

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