#### REGISTRATION FEES:

EUR 2,500 plus VAT (where applicable) per person for the 3-day course. Fee includes tuition, lunch, refreshments and teaching materials. Hotel accommodation is not included in the course fee. VAT will be charged only on the invoice for (i) Swedish persons or entities or (ii) entities or persons not registered for VAT in other domiciles. INVOICE:

An invoice will be sent upon receipt of registration form. Please note that payment must be received prior to the course. TEAM DISCOUNT

When two or more colleagues from one institution attend the same course, there is a 10% discount available on the second and additional bookings

CANCELLATION POLICY

A full refund less an administration fee of EUR 100 will be given for cancellation requests received up to 10 working days before the event. Cancellations must be made by email before the 10 working days deadline. Delegates who cancel less than 10 days before the event, or who don't attend, are liable to pay the full course fee and no refunds can be given. However, if you have paid your course fee in full, you may wish to attend the next course, as an alternative. Of course, a replacement delegate is always welcome.

LAPTOPS:

Each

delegate will receive a

prestigious

Certificate of Completion together with free copies of all the software used.

Delegates must bring their own laptops complete with a version of Excel 2007 (or later) and Adobe Acrobat together

PERSONAL DETAILS Family Name (Mr/Mrs/Ms)	PAYMENT DETAILS  Please Invoice me/ my institution. Purchase order no
First Name	
Position Department	payments to SEB, ST BV, 106 40, Stockholm,
	Sweden Swift Code: ESSESESS,
Company	IBAN: SE50 5000 0000 0593 6825 9704
Address:	CHEQUE enclosed with order for EUR
	made payable to CREATIVE CAPITAL PARTNER
Postcode Country	
	□ PAYPAL to CREATIVE CAPITAL PARTNERS
Telephone Email	

## 4 FASY WAYS TO REGISTER

Post this form to:	Luke Mellor Creative Capital Partners	Register on Facebook: Creative Capital Partners
	Engelbrektsgatan 25 Stockholm S-114 32	Telephone us on: +46 73 645 9936
	Sweden	
Email us:	luke.mellor@creative-cap.co	m

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# Securitization Courses for **Securitization Professionals**

## **Course Director: Luke Mellor** Founding Partner – Creative Capital Partners



# **3 Day Excel Based Practical Programme**

This programme will teach you how to become the complete securitization professional with the soup-tonuts agenda covering structuring and modelling a Dutch Residential Mortgage Backed Securities

- Deriving WAFFs and WALS for Dutch mortgage pools rated by Fitch and Standard & Poor's
- Calibration of the default probability distribution for Moody's 'Expected Loss Rating' using the PCE and portfolio expected loss
- Optimizing capital structures through tranching
- Examining Standard & Poor's, Moody's and Fitch's EMEA Modelling Criteria
- Reverse engineering a Dutch RMBS rating agency compliant cash flow model from the offering circular and rating agencies' pre-sale reports of Green STORM 2018-1

Information Hotline: +46 73 645 9936 luke.mellor@creative-cap.com

# All New Case Studies

**STRUCTURING & CASH FLOW MODELLING FOR DUTCH RMBS** 

## WHO SHOULD ATTEND

- Securitization Professionals
- Sales & Trading
- Portfolio Managers
- Investment Analysts
- **Risk Management**
- Rating Agents
- Quantitative
- Analysts

21 Years Securitization Training 1999-2020



## COURSE BACKGROUND

Securitization is now back after 9 years in the wilderness. Investors are demanding more robust structures that go beyond the rating agencies. Key to those demands are the intricacies of structuring together with understanding how the available cash flows and the external facilities shape the capital structure.

## COURSE OBJECTIVES

. This three-day course in RMBS securitization offers delegates the opportunity to gain confidence in understanding and programming their own RMBS cash flow models. The course begins by offering a primer on the building blocks of RMBS as they relate to structures. The course then develops the delegates understanding into the rating agencies' programming requirements and outputs ("first dollar loss" vs "expected loss"). Lastly, by examining the offering circular, new issue and investor reports from the Dutch RMBS STORM 2018-1, the delegates will reverse engineer a rating agency compliant cash flow Excel programme for the purpose of calculating the capital structure.



# Structuring & Cash Flow **Programming for Dutch RMBS**

## REGISTRATION ON DAY ONE IS AT 8:30AM - THE COURSE STARTS AT 9:00AM UNTIL 5:00PM

## DAY ONE - CASH FLOW MODELLING PRIMER

The delegates compare the differences in approach between Fitch/S&P and Moody's and how this impacts the model outputs. We then move on to examine the "cash-in" "cash-out" elements for a typical RMBS using separate waterfalls. By contrasting synthetic and cash flow deals, the module examines which factors (prepayments, interest rate & default timing) influence the availability of excess spread for credit enhancement.

#### MOODY'S MILAN NETHERLANDS MODEL

We look at the how Moody's derive an indicative credit enhancement number (the MILAN CE) based on the risk characteristics of an individual mortgage loans as well as the portfolio effects using their collateral analysis tool.

# To understand securitization is to understand cash flow models

#### MOODY'S LOGNORMAL APPROACH

RMBS as an asset class is unique for Moody's in that they marry both their prescriptive approach (MILAN) together with their empirical approach (historical losses) to derive the final credit enhancement. Using the Moody's New Issue Rating Report, we will use an Excel cash flow model for the Green STORM 2018-1 RMBS to calibrate the lognormal distribution. Thus allowing the users to reverse into the ratings from the probability weighted expected loss used by Moody's.

#### DAY TWO - FITCH & S&P'S USE OF WAFFS & WALS

Fitch and S&P, use a WAFF and WALS for indicative credit enhancement derived from the risk characteristics of the pool. We focus on the prescriptive, or scorecard, approach that, leads from the Bsf base default probability, through a range of adjustments, to the AAAsf values. Equally, we examine how influences such as market value declines and foreclosure timings, will influence loss severities. The practical session uses an example portfolio to predict the capital structure of a Dutch RMBS.

#### RMBS MODELLING - SCENARIO TESTING

The delegates will input some of the rating agency stresses they learnt during the primer (prepayment speeds, recovery timing, interest rates, etc) to test their effects on credit enhancement sizing. Moreover, in the case of Fitch & S&P, we will examine how the WAFF and WALS form major inputs for a cash flow model

#### TYPICAL DUTCH RMBS SWAP STRUCTURES

The STORM 2018-1 case study reverts to the more traditional interest rate structure where the long dated fixed rate mortgages are swapped into a floating rate basis generating the costs for the collateralized notes together with an additional margin contributing to the loss and liquidity coverage

This STORM 2018-1 structure will be compared to the Arena 2014-1 deal where the interest rate risk was, in the pre-FORD period, handled through an interest rate cap followed by a subordinated entitlement by the noteholders to amounts above a 5% strike price together with the difference between the step-up and initial margin.



#### CASE STUDY - OVERVIEW

The module will cover the key structural features of the Dutch RMBS Arena 2014-1 that will be used as the programming case study. These will include the use of the total return swap to guarantee a margin over the funding cost. In addition we examine the use of PDL ledgers as a means of transferring excess revenue for deleveraging and providing

#### EXCEL CASE STUDY - THE INPUTS

We review the assumptions using the offering circular, mortgage file and the pre-sale report to construct the zero-default/zero prepayment amortization curves. When combined with the rating agency ssumptions, this will allow the delegates to show the stressed behavior prepayments, defaults, delinquencies) of the mortgage balances taking account of yield compression assumptions.

#### DAY THREE - EXCEL CASE STUDY - THE PDLS

The delegates will be able to program the life cycles of the defaulting assets from the first payment down, through foreclosure, ending in an entry in the principal deficiency ledgers. The module will examine how losses are allocated from the bottom-up and cleared from the topdown - resulting in transfers from revenue to principal for the purpose of deleveraging the notes

#### EXCEL CASE STUDY - THE PRIORITY OF PAYMENTS

Using a separate waterfall structure, the delegates will learn how to construct priority of payments for both interest and principal cash flows (in that order). These will range from simple senior expenses through the payment of coupons under the notes (checking whether any interest deferral events have been triggered) as well as using the crediting of the principal deficiency sub-ledgers and showing the profit extraction methods.

#### EXCEL CASE STUDY - LEARNING HOW TO SHOW THE OUTPUTS

In the case of Fitch & S&P, the delegates will learn how to present "the failure to pay principal & interest" on time and in full across a range of prepayment, interest rate and default vector scenarios. For Moody's, the delegates will learn how to construct a lognormal distribution of defaults using the mean and expected loss (combined with the MILAN CE). The distribution will be used to weight the discounted cash flows and average lives on each note class to back into the rating using Moody's Expected Loss



#### COURSE DIRECTOR

Luke Mellor is the founder of Creative Capital Partners, a training and securitization consultancy founded in 1999. Its clients include ECB, the UK FCA, EIB as well as other major banks worldwide. Thousands of securitization professionals have been taken his securitization courses. Previously, Mr Mellor was Global Head of Securitization at ABN AMRO. He has over 34 years' experience in securitization



**TEACHING METHODS** Great emphasis is placed in ensuring that all the delegates have a thorough grounding in each module, before each practical session. Each of the modules will start with a presentation explaining the theory. This will be followed by a practical session consisting of either testing a completed model or building a model from scratch



## PRE-COURSE READING

Upon registration, each delegate will be sent an email link to a Dropbox account where all the precourse material will be available. In addition, to the background course material, the Dropbox account will contain a short cheat sheet of Excel functions that will ensure even an Excel beginner will be armed with the requisite programming skills