

Why CDOEdge™?

In a growing and evolving CLO market, time and accuracy are key. CDOEdge™ runs cash flows significantly faster than Excel by replicating Moody's Investors Service's published quantitative approach to rating CLO transactions. CDOEdge empowers CLO market professionals to structure new transactions, monitor existing investments, and manage risk by analysing changes in collateral and market conditions.

CDOEdge is the same powerful structuring and modelling platform that is used by the CLO professionals of major US and European banks/investment banks to rate and monitor CLOs. Its intuitive and flexible user interface, coupled with trends and optimization modules make it an ideal choice for CLO structurers and managers.

CDOEdge is Comprised of 4 Functionalities

Structured Engine and Waterfall

Waterfall brings together all of the modules from the structuring tool including tranche, fee, hedge, and OC/IC tests, and allows the user to define how cash moves through the deal. Waterfall steps are displayed in a concise and intuitive point-and-click interface. Users can:

- » Create and edit any structures/waterfalls including multi-currency transactions
- » Run cash flows through the structure significantly faster than in Excel
- » Incorporate reinvestment assumptions

The screenshot displays the CDOEdge software interface. At the top, there is a table listing various transactions with columns for Name, Reinvestment, Amortization, Script, and Notes. Below this table are buttons for 'Export', 'New', and 'Delete'. The main area shows a detailed view for a 'Waterfall Step: B Interest'. This view includes fields for Name, Step Type, Test 1, and Test 2. It also features sections for 'Sources of Funds' (listing Payer 1 as IP and Payer 2 as PP) and 'Uses Of Funds' (listing Primary Order and Secondary Order for Payee T_B1_i_Paid, T_B1_i_Deferred, T_B2_i_Paid, and T_B2_i_Deferred). A 'Script' field contains the formula: Pay (IP, PP : T_B1_i_Paid & T_B1_i_Deferred & T_B2_i_Paid & T_B2_i_Deferred :).

Name	Reinvestment	Amortization	Script	Notes
1 SCMF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP, PP : F_SCMF_Paid & F_SCMF_Deferred :)	
2 Assign ICNum	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Assign (S_ICNum : IP)	
3 X and A Interest and X Principal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP, PP : T_X_i_Paid & T_X_i_Deferred & T_A_i_Paid &	
4 B Interest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP, PP : T_B1_i_Paid & T_B1_i_Deferred & T_B2_i_Paid	
5 AB Tests	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Test (IP, PP : T_A_Principal & T_X_Principal, T_B1_Principal	
6 B def Interest	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP, PP : T_B1_i_Deferred & T_B2_i_Deferred :)	
7 C Int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP : T_C_i_Paid :)	
8 C Tests	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Test (IP, PP : T_X_Principal & T_A_Principal, T_B1_Principal	
9 C def int	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP : T_C_i_Deferred :)	
10 C Int from PP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (PP : T_C_i_Paid, T_C_i_Deferred : If(T_B1_Principal+	
11 X principal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Pay (IP : T_X_Principal : If(V_PMTD=1,IP,0))	

Binomial Analytics

Two distinct binomial methods are available to provide comprehensive analytical perspectives for single/multi-currency deals using multiple interest rate scenarios and default timing profiles.

- » Estimate ratings of potential structures based on expected loss
- » Quickly analyze the impact of collateral and/or structural changes
- » Implement internal ratings based approaches
- » Perform ratings based analysis of deals in the secondary market
- » Provide cash flow analytics with different levels of detail
- » Download cash flow details into Excel in order to perform in-depth analysis
- » Given a benchmark spread, generate an expected price across all default and interest rate scenarios
- » Run collateral covenant matrices

All Scenarios
Binomial Summary
Binomial Payments
Cashflow Detail
Waterfall Detail
Deal Summary

WAL/Reinvestment Methodology

Expected Loss Methodology

Dataset Item

Structured Note Rating Type

Rate to Use

User Specified Rate

Use Local IRS
 Use Local DTP
 Use Local Other Parameters

Use Zero-Default WAL for hurdle
 Use rated cash flows only
 Display Calibrated Rating

Use Default Tranche Discount Rate
 Include deferred interest for WAL calculation

Report

All Scenarios - Multiple Tranches

	Tranche X	Tranche A	Tranche B1	Tranche B2
WA EL%	0.0000 %	0.0003 %	0.0696 %	0.0701 %
WA EL Target	0.0000 %	0.0031 %	0.0860 %	0.0860 %
WA Geomean Target	0.0001 %	0.0098 %	0.1216 %	0.1216 %
Implied Rating	N.A	N.A	N.A	N.A
Rating Index	N.A	N.A	N.A	N.A
Target Rating	Aaa	Aaa	Aa2	Aa2
Zero-Default WAL	0.9813	7.2474	8.7359	8.7359
WA Loss StDev	0.0000 %	0.0228 %	1.2051 %	1.2133 %
Moody's Metrics	0.0000	0.0983	2.6957	2.7060

Apply Matrix to: EL Methodology: Structured Note Rating Type:

	Binomial Portfolio(s)	Tranche(s)	Portfolio Characteristics			Fixed Cashflow Groups		Floating Cashflow Groups		
			MAC	Diversity	WARF	Par	WAC	WARR	Par	WAS
1	Benchmark	X								
2	Benchmark - Optimi	A							3.5000 %	
3	Benchmark - Optimi	B1		60	3600					
4		B2		65	3700				3.2000 %	
5		C								
6		PS								

Binomial Matrix Results

	Portfolio	Tranches	Zero Default WAL	WAL	WAL Hurdle	Pass/Fail EL Hurdle	Count EL Hurdle	WA Geomean
1	Benchmark	B1	8.225	0.0004 %	0.0778 %	Pass	0	0.1103 %
2	Benchmark	B1	8.224	0.0022 %	0.0778 %	Pass	0	0.1103 %
3	Benchmark	B2	8.225	0.0004 %	0.0778 %	Pass	0	0.1103 %
4	Benchmark	B2	8.224	0.0022 %	0.0778 %	Pass	0	0.1103 %
5	Benchmark	C	8.890	12.7193 %	4.7314 %	Fail	30	5.7129 %
6	Benchmark	C	8.889	19.2386 %	4.7310 %	Fail	30	5.7125 %

Optimization, Trends and WARF Sensitivity Analysis

- » Allows users to optimize for:
 - Tranche balances, spreads and coupons
 - Collateral covenant/asset quality matrix
 - Overcollateralization levels
- » Provides insight into current market trends for:
 - Collateral composition
 - Tranche credit enhancement levels
 - Tranche spread/coupon levels
 - Coverage test levels
- » Runs WARF sensitivity analysis to assess the impact of WARF changes on tranches' implied ratings

Optimization Assumption

Portfolio: Solve For: Tranches To Solve:

Minimum Balance Increment:

Capital Structure

Class Name	Current Balance	Rating	Coupon Type	Spread/Coupon	New Balance	New Spread/Cou	New Rating
X	\$5,765,625.00	<input type="checkbox"/> Aaa	<input type="checkbox"/> Floating	1.0000 %	<input type="checkbox"/>		
A	\$249,843,750.00	<input type="checkbox"/> Aaa	<input type="checkbox"/> Floating	1.5000 %	<input type="checkbox"/>		
B1	\$18,151,041.67	<input type="checkbox"/> Aa2	<input type="checkbox"/> Floating	2.2500 %	<input type="checkbox"/>		
B2	\$9,773,637.82	<input type="checkbox"/> Aa2	<input type="checkbox"/> Fixed	3.8200 %	<input type="checkbox"/>		
C	\$55,488,609.27	<input type="checkbox"/> Ba1	<input type="checkbox"/> Floating	3.2500 %	<input type="checkbox"/>		
PS	\$21,977,336.24	<input type="checkbox"/> NR	<input type="checkbox"/> Residual	0.0000 %	<input type="checkbox"/>		

Overcollateralization Tests

Basic Note Information

Test Name	Current Level	New Level	Min Level	Max Level	Increment
ABOC	1.256	<input type="checkbox"/>			
COC	1.174	<input type="checkbox"/>			
IntRT	1.052	<input type="checkbox"/>			

Matrix Assumptions

Diversity: Min: Max: Increment:

WAS: Min: Max: Increment:

	WARF	Diversity	WAS
1	2634	45	3.50 %
2	2715	45	3.70 %
3	2735	55	3.50 %
4	2817	55	3.70 %

Portfolio Name	Base WARF	Adjusted WARF	% Change	Portfolio Default Probability (Base WARF)	Portfolio Default Probability (Adjusted WARF)	Tranche Name	(A) Target Rating (Base WARF)	(B) Calibrated Rating (Base WARF)	(C) Calibrated Rating (Adjusted WARF)	# of Notches Between (A) and (C)	# of Notches Between (B) and (C)
Benchmark - Optimized Balance	2750	3163	15 %	25.6874 %	29.6889 %	A	Aaa	Aaa	Aa1	-1	-1
Benchmark - Optimized Balance	2750	3163	15 %	25.6874 %	29.6889 %	B1	Aa2	Aa2	A1	-2	-2
Benchmark - Optimized Balance	2750	3163	15 %	25.6874 %	29.6889 %	B2	Aa2	Aa2	A1	-2	-2
Benchmark - Optimized Balance	2750	3163	15 %	25.6874 %	29.6889 %	C	Ba1	Ba1	Ba2	-1	-1
Benchmark - Optimized Balance	2750	3163	15 %	25.6874 %	29.6889 %	X	Aaa	Aaa	Aaa	0	0

CDOEdge™ API

Users can combine and integrate their analytics using CDOEdge™ API to avoid running multiple models. CDOEdge's intuitive API enables VBA macros to utilize CDOEdge's cash flow engine. CDOEdge API's extensive operations allow developers to access essential functionalities available in the CDOEdge application.



Find out more information about Moody's Analytics award winning products and solutions.

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