

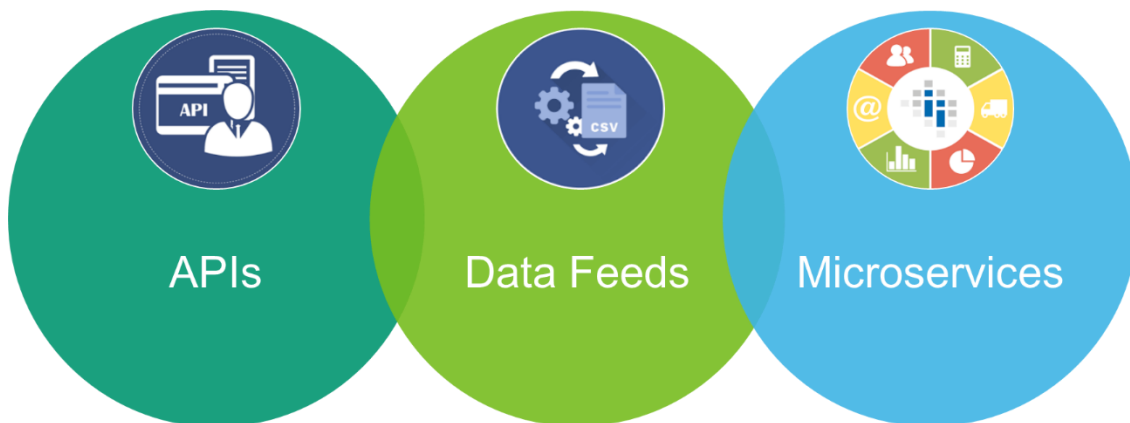
### Primary Markets – Key Benefits:

- » Assist with structuring of deals and many types of transactions within CDOEdge, CDOnet and Structured Finance Workstation (SFW)
- » Gain transparency and visibility into a deal's waterfall structure, swaps, supports, capital structure and underlying collateral
- » Share a link to potential investors who can access deal information and run cashflow analytics through our web-based Structured Finance Portal.

### Secondary Markets – Key Benefits:

- » Use our microservices to supplement bid lists and offer sheets with essential key deal and tranche level information
- » Leverage the vast amount of information in our Data Feeds to write research to disseminate to the market and keep current on recent trends
- » Utilize our APIs to enhance speed and scalability by performing multi-threaded deal analytics
- » Leverage cloud-based technologies to run price/yield analytics for a multitude of scenarios on the entire structured universe in a matter of moments

### Delivery Methods



### Structured Finance Application Programming Interface (API)

Analyze structured finance products by linking our structured finance data, asset/liability cash flows and analytics to custom in-house applications. Our credit and cash flow models cover global capital markets and asset classes including agency and non-agency RMBS, ABS, CMBS, CLOs and other esoteric structured products. Our API applies to a wide range of demanding use cases, from multi-threaded deal analytics to stochastic simulations. Our API integrations scale easily in most multi-server environments and can be implemented under various load balancing schemes.

## Data Feeds

- » Includes detailed data on tranche, deal, and loan performance via hundreds of performance metrics derived from surveillance reports, third-party providers, and Moody's Analytics proprietary databases
- » Includes both historical and current data that are updated on a daily basis
- » Contains the same data used by Moody's Analytics software and in Moody's Analytics research, and undergoes multiple layers of checks and verification

## Microservices

We offer advanced, customized solutions that can be delivered through easily consumable technologies. Our cloud-based analytics can quickly calculate prices, yields and DMs across the structured finance universe, and can be delivered through microservices in a nicely designed package. Everything is hosted by Moody's Analytics so there is little overhead and maintenance by the client.

### PRICE ANALYSIS: DM (BPS)/YIELD (%)

POWERED BY MOODY'S ANALYTICS' STRUCTURED FINANCE PORTAL

Price	TM - 0 CPR	TM - 20 CPR	First Call	Next Call + 1YR	Call @ Reinv End
100.40	439 / 4.42	439 / 4.42	367 / 3.69	418 / 4.20	430 / 4.32
100.60	436 / 4.38	435 / 4.38	327 / 3.29	404 / 4.06	422 / 4.24
100.80	432 / 4.35	432 / 4.34	288 / 2.89	391 / 3.93	413 / 4.15
101.00	429 / 4.31	428 / 4.30	248 / 2.49	377 / 3.79	405 / 4.07
101.20	425 / 4.27	424 / 4.27	209 / 2.10	363 / 3.65	396 / 3.98
101.40	422 / 4.24	421 / 4.23	170 / 1.70	350 / 3.51	388 / 3.90
101.60	418 / 4.20	417 / 4.19	131 / 1.31	336 / 3.38	380 / 3.82

[Click here for more options](#)

### DEAL ANALYSIS

POWERED BY MOODY'S ANALYTICS' STRUCTURED FINANCE PORTAL

Asset Price Distribution	Unpriced	<70	70-80	80-90	90-95	95-100	>=100
	-	0.00%	1.23%	3.03%	1.36%	25.19%	69.18%
Headline Industries*	% of Deal	Deal Exposure (USD)			WA Price		
CORP - Retail	2.87	12,196,874			86.89		
Oil & Gas	1.44	6,134,491			100.10		
Biggest Caa/CCC Assets	% of Deal	Rating*	Industry	Current Face (USD)			
Neiman Marcus Group Ltd LLC 2020 Term Loan	0.58	Caa1 / CCC	CORP - Retail	2,436,709			
Avaya, Inc. Exit Term Loan B	0.57	B2 / CCC+	CORP - Telecommunications	2,401,681			

[Click here for more options](#)

### MANAGER ANALYSIS

POWERED BY MOODY'S ANALYTICS' STRUCTURED FINANCE PORTAL

	U.S. Manager		European Manager	
Current AUM (MM)	12,535 \$		4,802 €	
# of Deals	21		11	
	U.S. Manager	U.S. Cohort	European Manager	European Cohort
Average Purchase Loan Spread (bps 12-mo trailing)	335.30	355.08	348.59	336.89
Average Purchase Loan Price (12-mo trailing)	99.53	99.48	99.81	99.81
Annualized Equity Return (%)	16.96	16.80	15.14	16.37
Annualized Default Rate (%)	0.39	0.65	0.78	0.17

[Click here for more options](#)

# Our Structuring & Cashflow Modeling Products

## CDOEdge

CDOEdge has an intuitive and flexible user interface, as well as trends and optimization modules, which make this solution an ideal choice for CLO structurers and CLO managers. Loan warehouse providers can also use this solution to calculate optimized attachment/detachment and risk weightings.

The screenshot shows the CDOEdge software interface. At the top, there are tabs for 'All Scenarios', 'Binomial Summary', 'Binomial Payments', 'Cashflow Detail', 'Waterfall Detail', and 'Deal Summary'. Below these are several configuration sections:

- WAL/Reinvestment Methodology:** European (dropdown)
- Expected Loss Methodology:** CDO (dropdown)
- Dataset Item:** WA Loss StDev (dropdown)
- Structured Note Rating Type:** Hurdle (dropdown)
- Rate to Use:** LIBOR Rate (dropdown)
- User Specified Rate:** 0 (input field)

There are several checkboxes for options:

- 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

Below the configuration is a 'Report' section titled 'All Scenarios - Multiple Tranches'. It contains a table with the following data:

	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

## CDOnet and SFW Cash Flow Engines

- » CDOnet and SFW is a comprehensive cash flow suite that can run analytics across all structured finance products including CDO/CLO/ABS/MBS products
- » Both CDOnet and SFW cash flow forecasts allows for deterministic parameters such as CPR, CDR, recovery constants or vectors; stochastic parameters; and Moody's Analytics Economic Scenarios
- » Both solutions have a wide variety of potential uses due to their expansive list of capabilities and customizable modules

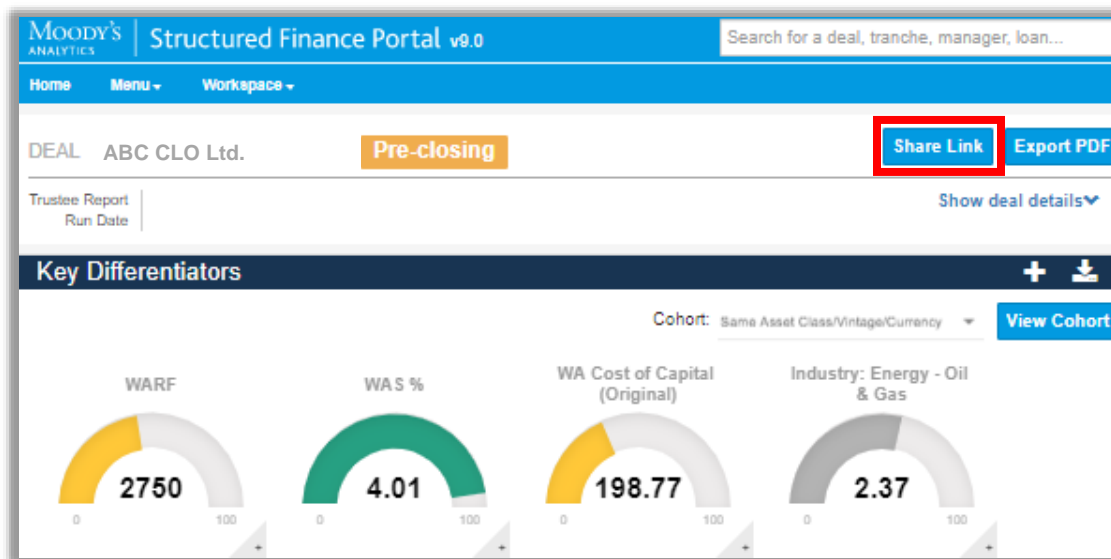
The screenshot shows the 'Liability Structure Editor' software interface. It has tabs for 'Structuring', 'Performance', 'Hedge Ratios', 'Sale Proceeds', 'Updated Values', and 'Data'. The 'Structuring' tab is active, showing various input fields for parameters like 'Run at', 'Prepays', 'Defaults', 'Period Begin', 'Next Pay', 'Settles', 'Closing', 'Non-Call End', 'Auction Call', 'Reinv End', 'Stated Maturity', 'Delay', 'Pays', and 'Print #'. Below these fields is a table with the following data:

Class	Face Value	Coupon	Average Life	Use	Bench	Pricing	Yield	Spread
1	257,000,000.00	2.0666000000	1.77	P			2.3094	
2	32,000,000.00	2.8866000000	3.76	P			3.2893	
3	41,000,000.00	3.6366000000	4.62	P			4.1197	
4	20,250,000.00	4.8866000000	5.86	P			5.4771	
5	16,750,000.00	5.5866000000	6.33	P			6.2173	
6	46,500,000.00	0.0000000000	4.81	P			0.0000	-215
7	0.00	0.0000000000	0.00	Y			0.0000	+07

At the bottom of the interface, there are buttons for 'Assumptions...', 'Script...', 'Model Summary', 'Cashflow Reports', and 'Tranche History'.

## Universal Deal Sharing

- » Create a link to your deal through the Structured Finance Portal and share with prospective investors free of charge
- » Users can access deals through any web browser without having to download any software
- » Easily share links to post-closing deal documents, comparative analytics, cashflows and price/yield tables
- » Keep track of who accessed your deals and other essential activities for better transparency
- » Model deals yourself using CDOnet/SFW or request express modeling service from one of our in-house experts free of charge



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



**Evaluated Pricing Solutions:** Calculate end-of-day prices for structured finance securities based on various pricing recipes across global structured asset classes



**Investor and Issuer Solutions:** Our end-to-end solution includes 500+ enhanced metrics, a sophisticated cash flow engine, global coverage, and advanced comparative analytics



**Portfolio Analytics & ALM Solutions:** Access structured cash flows models and data via APIs to calculate and report assets and liabilities under various economic scenarios



**Risk & Regulatory Solutions:** Leverage our proprietary interest rate, economic, credit and cash flow models to calculate advanced market risk measures and to assist with your regulatory needs, such as for CCAR, DFAST, IFRS9, and CECL

## CONTACT DETAILS

Visit us at [moodyanalytics.com](http://moodyanalytics.com) or contact us at a location below.



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