

Index Perspectives

Index Research

J.P. Morgan SPG Indices: Collateralized Loan Obligation Index (CLOIE) Highlights

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J.P.Morgan

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Overview of J.P. Morgan's SPG suite with a special focus on CLOIE

The J.P. Morgan Collateralized Loan Obligation Index (CLOIE) is the first total return benchmark for broadly-syndicated arbitrage US CLO debt. Since its launch in 2014, the J.P. Morgan structured product suite has expanded and now includes the Asset Backed Securities Index (ABS Index), launched in 2015 and the Mortgage Backed Securities Agency (MAX) Index, launched in 2017.

The CLOIE is the most widely followed benchmark in the CLO market, with over US \$75 billion in assets tracking the index and rapidly growing.

In 2020, the CLOIE became the benchmark for the first CLO ETF brought to market (Ticker: JAAA), a milestone for the asset class. JBBB, launched in January 2022, is also tracked to CLOIE.

J.P. Morgan Structured Products Indices Overview

CLOIE

Launched in 2014

Tracks US \$644 billion in debt from broadly-syndicated, arbitrage floating-rate CLOs, approximately 93% of the total US CLO debt stock, across 1,400+ transactions and 8,200+ tranches managed by 130+ CLO managers.

ABS

Launched in 2015

Follows roughly US \$460 billion of floating and fixed-rate asset backed debt, nearly 75% of the total US ABS debt stock, from 240+ issuers, 1,100+ deals, and 2,900+ tranches. Sectors include Auto, Credit Card, Student Loan, Floorplan, Unsecured Consumer and Other ABS.

MBS

Launched in 2017

The index captures about 90% of the agency MBS market with a notional value of US \$7.5 trillion from fixed-rate 30-year, 20-year, and 15-year agency mortgage programs issued by FNMA, FHLMC, GNMA and GNMA II.

CLOIE Highlights

US \$75 billion estimate of benchmarked AUM

9,000 individual subscribers to the index from 500+ firms

Private mandates and ETF providers utilize **CLOIE custom indices** for performance attribution.

Benchmark for the **first-to-market actively managed CLO ETF**, launched by Janus Henderson

(Ticker: JAAA; 90% AAA and 10% AA/A)

Leverages the experience and **expertise of J.P. Morgan's leading CLO Research team**

Independent secondary market pricing from **prominent third-party provider PricingDirect**

Provides over **2,000+ combinations** of index dissections by end of reinvestment period (EORP), rating, vintage, period of origination (CLO 1.0 vs 2.0/3.0s)

Partnership in research thought pieces on topics such as: Manager Tiering, Factor Investing, CLO Ratings Downgrades, Efficient Frontier, and more

Dedicated SPG index specialists with round the clock client support

Clients readily acknowledge the CLOIE's unique presence in the market and its integral role in the investment process.

Rishad Ahluwalia,

Global Head of CLO Research, J.P. Morgan

Annual Index Governance Process

As the only independent CLO benchmark in the market, we engage the client base directly on an annual basis for input, which occurs in accordance with EU Benchmark regulations for financial benchmarks and the IOSCO principles.

In our 2021 Governance Consultation, feedback was provided from asset managers and asset owners who collectively manage US \$59 billion in assets, which is nearly 80% of the estimated benchmarked investor base tracking to CLOIE.

In 2020, the proposal for new bands by collateral manager AUM in CLOIE was the most discussed topic as part of the governance, with 83% of investors supportive of our proposal as a first step in the evolution of CLO Manager Bands. Overall, clients preferred the AUM-based approach due to its simplicity of capturing CLO debt issuance (although it does not factor in equity). The new CLO manager bands by debt size (exhibited below) are a starting point for attributing index performance by CLO managers.

Over one thousand new sub-indices by CLO Manager AUM (Large, Medium, and Small) with returns and statistics available historically back to index inception were rolled out in June 2021.

Below is a sample profile of the new manager bands and the 10 largest managers in CLOIE.

Indices	Market Value (\$bn)	Weight (%)	Balance (\$bn)	Price (\$)	Tranches (No.)	Deals (No.)	Managers (No.)
CLOIE	643.1	100.0	643.9	99.50	8275	1406	133
Large AUM	464.5	72.2	464.7	99.59	5566	933	44
Medium AUM	140.8	21.9	141.3	99.27	2075	356	44
Small AUM	37.8	5.9	38.0	99.16	634	117	45
Top 10 AUM Managers	185.7	28.9	185.8	99.61	2092	330	10
CSAM	24.9	3.9	24.8	99.81	222	39	1
CIFC	21.1	3.3	21.1	99.72	225	41	1
GSO/Blackstone	20.6	3.2	20.6	99.75	221	39	1
PGIM	20.0	3.1	20.0	99.73	234	41	1
Carlyle	19.9	3.1	19.9	99.39	237	26	1
Octagon	19.6	3.1	19.7	99.57	234	41	1
Ares	16.5	2.6	16.5	99.70	180	31	1
MJX	15.0	2.3	15.0	99.20	185	31	1
Neuberger	14.1	2.2	14.1	99.81	171	10	1
Voya	14.0	2.2	14.0	99.29	183	31	1

Source: J.P. Morgan, as of December 31, 2021

What's on the horizon for our CLO suite?

Are European CLOs ready for a benchmark?

In our 2021 governance consultation, we began soliciting feedback from clients as to whether the European CLO market is ready for a benchmark via survey. Given the market focus on USD LIBOR transition in 2021, all respondents ranked enhancing the current US CLOIE analytics (28%), followed by introducing a narrower subset of the CLOIE (22%) as a top priority enhancement ahead of introducing European CLOs (19%). As expected, for those investing in European CLOs, the biggest hurdle for adopting a European CLO benchmark were concerns around pricing from vendors (28%) followed by concerns around tracking error for primary investors (22%).

A new European CLO Index would only be introduced following a formal review period. We welcome further feedback ahead of next year's governance consultation.

Profile of Hypothetical EUR CLOIE

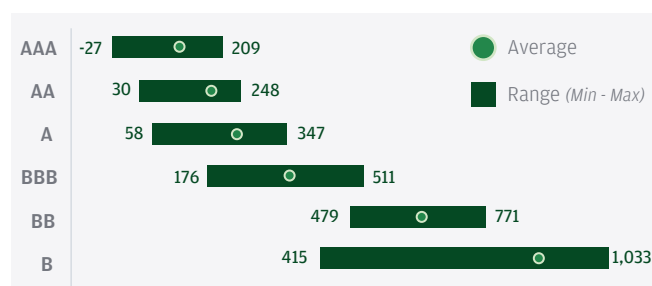
Across 437 deals and 62 CLO Managers

Indices	Market Value (€bn)	Balance (€bn)	Yield (%)	Spread (bps)
AAA	103.7	104.0	0.94	119
AA	13.5	13.6	1.64	183
A	11.4	11.4	2.19	240
BBB	10.6	10.7	3.39	352
BB	9.5	9.8	6.37	631
B	4.6	4.8	8.95	883

Source: J.P. Morgan, as of December 31, 2021.

Spread Range in Current EUR CLOIE

By original rating with secondary pricing by PricingDirect



Source: J.P. Morgan, PricingDirect, as of December 31, 2021

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SPG Index Historical Performance

	CLO AAA	CLO AA	CLO A	CLO BBB	CLO BB	CLO B	ABS	MAX
TR 2020	2.54%	2.97%	4.64%	5.47%	8.04%	6.22%	3.37%	4.07%
TR 2021	1.40%	2.09%	3.13%	4.30%	11.20%	28.43%	1.11%	-0.71%
Cum Return	28.92%	48.74%	72.62%	113.89%	194.54%	280.68%	22.27%	26.50%
Annualized Return	2.57%	4.05%	5.60%	7.89%	11.39%	14.29%	2.14%	2.38%
Annualized Volatility	2.05%	3.97%	5.66%	9.63%	16.14%	19.61%	1.72%	2.11%
Sharpe Ratio	0.88	0.82	0.85	0.73	0.65	0.68	0.79	0.78

Source: J.P. Morgan, as of December 31, 2021

Overview of SPG Rules

	CLOIE Index	ABS Index	MAX Index
Inception Date	July 2014	November 2015	June 2017
Currency Denomination	USD	USD	USD
Minimum Size	None	\$25mn (Snr) and \$1mn (Sub)	US\$ 500 mn ¹
Minimum Maturity	None	0.3yr WAL	12 months WAM
Eligible Coupon Type	Floating-Rate	Fixed-and Floating-Rate	Fixed-Rate
Rating Eligibility	AAA-B ²	Above CCC+	None

¹ The sum of both the 45-day and 55-day Freddie Mac outstanding balance will be used to satisfy the min. \$500 million outstanding index inclusion criteria.

² Refers to the lowest of three rating agencies for the tranche's original rating.

CLO Publications

- **Latest CLOIE Monitor:**
<https://www.jpmm.com/research/content/GPS-3989218-0>
- **Latest Governance Results:**
<https://www.jpmm.com/research/content/GPS-3891855-0>
- **The Audacity of CLOs:**
<https://www.jpmm.com/research/content/GPS-4000856-0>

How to access the SPG indices?

- **Bloomberg:** The SPG Index family is available on the J.P. Morgan index homepage, JPMX<GO> under Securitized.
- **DataQuery on J.P. Morgan Markets:** Allows clients to view, manipulate and download user-specific queries. The SPG Index family can be found in the product menu on DataQuery at Indices → Securitized → USD.
- **Subscription:** We offer a variety of standardized files for aggregate and subindex permutations to suit your needs. Files are available via secure file transfer protocol (FTP) and e-mail subscription basis.

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