

## J.P. Morgan High-Yield Bond Indices

### Descriptions and Inclusion Rules



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#### High Yield and Leveraged Loan Research

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Also available on the J.P. Morgan Chase and Co.  
Research website:

[www.jpmorganmarkets.com](http://www.jpmorganmarkets.com)

**See page 21 for analyst certification and important disclosures.**

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## Introduction

The J.P. Morgan suite of high-yield indices provides investors with reliable and transparent performance benchmarks across global, US, emerging, and developed high-yield markets. Our platform caters to the diverse needs of industry professionals allowing for convenient access to index data and analytics via the web, Bloomberg, Excel add-in, and data files. Since the inception of our flagship J.P. Morgan Global High Yield Index 19 years ago, our high-yield index platform has grown significantly, now incorporating 12 high-yield benchmarks. The table below summarizes key characteristics and statistics for each index.

### J.P. Morgan High Yield Index characteristics and statistics

	Global	Developed	Domestic	Dev. BB	Inst'l	HY100	Liquid	Euro	Sterling	US\$ Euro.	Euro. Curr.	Euro. Agg.
<b>Index characteristics</b>												
Inception	Jan-94	Jan-95	Jan-95	Jan-95	Jan-95	Jan-95	Jan-95	Jan-99	Jan-99	Jan-99	Jan-99	Jan-99
Currency	\$	\$	\$	\$	\$	\$	\$	€	£	\$	€ / £	€ / £ / \$
Includes defaulted bonds	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Rebalance frequency	Daily	Daily	Daily	Monthly	Monthly	Monthly	Semi-ann	Daily	Daily	Daily	Daily	Daily
<b>Index statistics as of March 7, 2013</b>												
Market value (bn)	\$948.2	\$843.0	\$763.7	\$364.1	\$589.7	\$174.9	\$233.5	€107.8	£20.8	\$90.9	170.4	234.2
Number of issues	1,785	1,566	1,443	606	1,026	100	185	225	68	137	289	387
Number of issuers	1,257	1,090	1,004	405	728	100	185	167	53	95	214	268
Yield to worst	5.89%	5.79%	5.78%	4.45%	5.04%	5.72%	5.31%	5.62%	6.71%	5.75%	5.85%	5.90%
Spread to worst	509 bp	499 bp	499 bp	349 bp	420 bp	480 bp	460 bp	533 bp	555 bp	490 bp	541 bp	532 bp
Current yield	7.44%	7.37%	7.40%	6.13%	6.85%	7.25%	7.28%	7.22%	7.83%	7.01%	7.33%	7.25%
Coupon	7.83%	7.77%	7.82%	6.63%	7.38%	7.64%	7.76%	7.47%	8.21%	7.37%	7.60%	7.53%
Yield to maturity	6.61%	6.54%	6.56%	5.03%	5.82%	6.30%	6.15%	6.12%	6.94%	6.10%	6.31%	6.31%
Maturity	6.55 yrs	6.65 yrs	6.69 yrs	7.27 yrs	6.97 yrs	7.07 yrs	6.30 yrs	4.44 yrs	6.44 yrs	6.15 yrs	4.83 yrs	5.16 yrs
Yield to worst date	4.67 yrs	4.68 yrs	4.67 yrs	5.61 yrs	4.89 yrs	5.41 yrs	4.22 yrs	3.31 yrs	5.48 yrs	5.07 yrs	3.72 yrs	4.10 yrs
Duration	3.63 yrs	3.64 yrs	3.63 yrs	4.36 yrs	3.84 yrs	4.12 yrs	3.35 yrs	2.78 yrs	4.23 yrs	3.90 yrs	3.05 yrs	3.31 yrs
<b>Rating marketweight as of March 7, 2013</b>												
BB	25.36%	23.12%	20.36%	53.53%	26.37%	23.27%	20.95%	45.99%	41.04%	57.09%	44.48%	47.20%
B	35.20%	34.76%	35.19%	0.14%	45.43%	39.17%	39.60%	25.91%	25.92%	25.85%	26.24%	27.03%
CCC/Split CCC	9.96%	10.77%	11.13%	0.00%	0.00%	11.27%	8.99%	9.71%	7.63%	5.96%	9.45%	8.60%

Source: J.P. Morgan

Note: The Developed BB Index was established in 2004, with history back-filled to 1995, the Institutional and 100 Indices were established in 2007, with history back-filled to 1995, and the Liquid Index was established in 2011, with history back-filled to 1995.

## Overview

All of our J.P. Morgan High Yield Indices have specific inclusion rules which help to define the specific markets they are designed to mirror. We outline the inclusion rules, bond selection methodology and rebalancing process for each index in the pages that follow. All indices conform to general guidelines, as follows:

### Frequency of data

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Analytics for all bonds are calculated daily. Performance for all bonds and indices is tracked on a daily, weekly, and monthly basis. Please note, data and analytics are available on a daily basis starting in January 1999. Prior to that, only weekly and monthly data and analytics were calculated. No intra-day levels are available.

### Calendar

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All indices follow the US bond market holiday schedule.

### Pricing

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All bonds are priced on a daily basis. Prices for US\$ denominated bonds are provided by FT Interactive Data (roughly 97% of all high-yield prices) and PricingDirect (the remaining 3%). All non-US\$ denominated bonds are priced by FT Interactive Data. Prices are representative of closing market bids for that specific day.

### Sub-indices

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Each of our 12 indices is broken down into sub-indices, allowing clients to track specific high-yield market segments, such as rating, industry, country, issue size, duration, percent of par, security type, and seniority.

### Analytics

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J.P. Morgan high-yield data and analytics are available at the index, sub-index, and constituent level, and include yield to worst, yield to maturity, current yield, spread to worst, modified duration, years to worst date, average rating, price volatility, and performance, including total return, principal return, interest return, and index values (on the index and sub-index levels only). Please refer to Appendix III for some of the analytics calculation definitions and methodologies.

### Availability

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Data and analytics are available on the following two platforms:

**MorganMarkets:** The J.P. Morgan website provides access to all high-yield index, sub-index, and constituent level data through the research tool *Dataquery*. An Excel add-in is also available, allowing for easy download of data.

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## High Yield and Leveraged Loan Research J.P. Morgan High-Yield Indices



**Bloomberg:** All 12 indices are available on Bloomberg. To access the J.P. Morgan High Yield Index main menu on Bloomberg, type CHHY <GO>. The following provides the menu key to access each high-yield index homepage directly.

<u>Index</u>	<u>Menu Key</u>	<u>Index</u>	<u>Menu Key</u>
USD Global	CHYI	Euro	CHYE
USD Domestic	JPDO	Sterling	CHYP
USD Developed	JPDV	USD European	CHYD
USD Developed BB	JPBB	European Aggregate	JPEA
USD Institutional	JINS	European Currency	JPEY
USD HY 100	JHYT	USD HY Liquid	JHLI

For example, type CHYI <GO> to bypass the main menu page and proceed directly to the J.P. Morgan Global High-Yield Index.

For each index, five options are available: 1-Index Values and Returns; 2-Yield to Worst Values; 3-Spread to Worst Values; 4-Market Weighted Average Statistics; and 5-Index Description and Inclusion Rules. Each option contains index and sub-index level data, based on the following categories: Industry Type, Security Type, Size, Rating, YTW Date, Country Tier, Industry, Seniority, and Region.

If you do not have access to J.P. Morgan High Yield indices on Bloomberg and would like to gain access, please send an email with your Bloomberg S/N and UUID numbers, as well as the name of your J.P. Morgan sales coverage, to the team at [hy\\_strategy@jpmorgan.com](mailto:hy_strategy@jpmorgan.com).

## Publications

Index data is also published in our weekly publication, the *Credit Strategy Weekly Update* and monthly publication, the *High-Yield Market Monitor*. These publications are available on our MorganMarkets website, and via e-mail distribution list. If you would like to be added to the e-mail distribution list for these publications, please send an e-mail to [hy\\_strategy@jpmorgan.com](mailto:hy_strategy@jpmorgan.com).





## J.P. Morgan Global High-Yield Index (CHYI)

The J.P. Morgan Global High Yield Index is designed to mirror the investable universe of the US dollar high-yield corporate debt market, including domestic and international issues. The index was established in January 1994. Index inclusion rules, bond selection methodology and the rebalancing process are as follows:

### **Issue size**

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The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

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Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

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Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

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Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

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Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled across the global markets. The international component of the index is comprised of emerging market and developed market domiciled issuers. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

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Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

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The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

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The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan Developed High-Yield Index (JPDV)

The J.P. Morgan Developed High Yield Index is designed to mirror the investable universe of the US dollar developed high-yield corporate debt market, including domestic and developed market international issues. The Developed Index is a subset of the J.P. Morgan Global High Yield Index. The index was established in January 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

---

Issues must be denominated in US dollars only.

### **Country regions**

---

The index is comprised of issuers domiciled across the global developed markets. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.



### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan Domestic High-Yield Index (JPDO)

The J.P. Morgan Domestic High Yield Index is designed to mirror the investable universe of the US dollar domestic high-yield corporate debt market, including issues of US and Canadian domiciled issuers. The Domestic Index is a subset of the J.P. Morgan Global High Yield Index. The index was established in January 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

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Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled in the United States and Canada.

### **Issue type**

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Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan Developed BB High-Yield Index (JPBB)

The J.P. Morgan Developed BB High Yield Index is designed to mirror the investable universe of the US dollar developed, higher-quality high-yield corporate debt market, including domestic and international developed market issues. The constituents of the Developed BB Index are rebalanced monthly, using bonds that are in the JPMorgan Developed High Yield Index and meet certain ratings criteria. The index was established in 2004, with history back-filled to 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B", "4B", or "3B" at the time of rebalancing at the start of the month. That is, either one or both of Moody's or S&P ratings must be Ba1/Ba2/Ba3 or BB+/BB/BB-. Bonds that are downgraded below "3B" remain in the index until month-end. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Defaulted bonds are excluded from the index. However, indexed issues that default remain in the index until the index rebalances at month-end.

### **Currency**

---

Issues must be denominated in US dollars only.

### **Country regions**

---

The index is comprised of issuers domiciled across the global developed markets. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

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As mentioned, constituents for the Developed BB Index are selected from those that are in the Developed High Yield Index (JPDV) and that meet the rating requirements on the first business day of each month. The selection of bonds for the Developed Index are as follows: if an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

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Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

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The index is rebalanced monthly (based on selection criteria on the first-business day). Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned ratings criteria and bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan Institutional High-Yield Index (JINS)

The J.P. Morgan Institutional High-Yield Index is designed to mirror the investable universe of the US-dollar domestic high yield corporate bond market, excluding the most aggressively rated bonds and those trading at distressed levels. By excluding these characteristics, the benchmark is designed to mimic the investment style of most institutional investors, who do not typically invest in the riskiest portion of the high-yield market. The Institutional Index is rebalanced monthly, selecting a subset of bonds in the broader J.P. Morgan Domestic High-Yield Index. The index was established in 2007, with history back-filled to 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

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The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

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Based on Moody's and S&P rating agencies, issues must be rated "5B", "4B", "3B", or "2B" at the time of rebalancing at the start of the month. That is, neither Moody's nor S&P can have a triple-C rating. Bonds that are downgraded below "2B" remain in the index until month-end. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

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Defaulted bonds are excluded from the index. However, indexed issues that default remain in the index until the index rebalances at month-end.

### **Currency**

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Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled in the United States and Canada.



### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

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The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

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As mentioned, constituents for the Institutional Index are selected from those that are in the Domestic High Yield Index (JPDO), excluding credits rated Split B, CCC, and nonrated, defaulted bonds, and any bond trading with a price below \$70 on the first business day of each month. The selection of bonds for the Domestic Index are as follows: if an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

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Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

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The index is rebalanced monthly (based on selection criteria on the first-business day). Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned ratings criteria and bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan High-Yield 100 Index (JHYT)

The J.P. Morgan High Yield 100 Index is designed to mirror the investable universe of the US-dollar global high yield corporate debt market, including domestic and international issues. By selecting the 100 largest bonds, the benchmark is designed to track the most liquid portion of the high-yield market. The HY 100 Index is rebalanced monthly, selecting a subset of bonds in the broader J.P. Morgan Global High-Yield Index. The index was established in 2007, with history back-filled to 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

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The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index. However, these minimum amounts are unlikely to become a factor given the selection of the Global Index's 100 largest issues.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

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Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

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Defaulted bonds are excluded from the index. However, indexed issues that default remain in the index until the index rebalances at month-end.

### **Currency**

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Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled across the global markets. The international component of the index is comprised of emerging market and developed market domiciled issuers. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

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Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

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The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

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The HY 100 is rebalanced monthly, selecting the 100 largest issues in the broader J.P. Morgan Global High-Yield Index on the first business day of each month. The selection process chooses the 100 largest bonds by par amount outstanding, but is limited to only one bond per unique issuer. In the event that a unique company’s two largest issues are the same size, bonds will be chosen by first selecting the issue with the most recent offering date, and then by selecting the issue with the longer maturity. When determining the last issue (or 100th largest bond), if multiple issues have the same amount outstanding, bonds will be chosen by first selecting the issue with the most recent offering date, and then by selecting the issue with the longer maturity.

### **Fallen angels and rising stars**

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Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced monthly (based on selection criteria on the first-business day). Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available.

Additions: No new issues or replacement issues will be added to the index until the next rebalancing. As such, the HY 100 could, by month end, have fewer than 100 bonds in its composition, but on no occasion could it have greater than 100 bonds.

## J.P. Morgan High-Yield Liquid Index (JHLI)

The J.P. Morgan High-Yield Liquid Index is designed to mirror the investable universe of the US-dollar high yield corporate debt market, including both domestic and developed market issuers. By selecting the 200 largest bonds, the JHLI is intended to track the most liquid portion of the high-yield market, thereby providing a more accurate proxy for real time market performance. The JHLI is rebalanced semi-annually. The index was established in 2011, with history back-filled to 1995. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index. However, these minimum amounts are unlikely to become a factor given the selection of the market's largest issues.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, trust preferred securities, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

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Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

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Defaulted bonds are excluded from the index during the rebalance period. Indexed issues that default will be removed from the index 30-days after the official default date.

### **Currency**

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Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled across the global developed markets. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any corporate bond that is 100% owned or guaranteed by the government.

### **Issue type**

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Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from rebalance date to maturity for each issue must be greater than or equal to one-and-a-half years. Bonds with perpetual maturities are excluded.

### **Bond selection**

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The JHLI is rebalanced semi-annually on the first business day of April and October. The selection process chooses the 200 largest bonds by par amount outstanding, but is limited to only one bond per unique issuer. In the event that a company’s two largest bonds are the same size, bonds will be chosen by first selecting the issue with the most recent offering date, and then, if needed, by selecting the issue with the longer maturity. When determining the last issue (or 200th largest bond), if multiple issues have the same amount outstanding, bonds will be chosen by first selecting securities that are in the current index portfolio [oldest member preference], then by selecting the issue with the most recent offering date [newest offering preference], then by selecting the issue with the longer maturity [longest maturity preference], and finally by selecting the issue with the greater market value [market value preference].

### **Fallen angels and rising stars**

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On the rebalance date, fallen angels are eligible for the JHLI if they qualify for inclusion in any of our high-yield indices. Specifically, fallen angels are added to our high yield indices subject to: 1) a seasoning period of approximately 90-days; bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield, and 2) the bond selection criteria described above; except that market value is used instead of par value. For example, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars remain in the JHLI until the next rebalance date, which means a portion of the index could be rated investment grade at any time except on the rebalance date.

## **Rebalancing**

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The index is rebalanced semi-annually. Prior to the rebalance date, no bonds will be added to the index, but bonds can be removed. There are two reasons for removal prior to the rebalance date: 1) a bond defaults (it will be removed 30-days after the official default date) and 2) a bond is fully called or tendered. If a bond is partially called or tendered prior to the rebalance date, its par amount will be reduced accordingly, but it will remain in the index until the next rebalance date. The JHLI could have fewer than 200 bonds, but on no occasion will it have greater than 200 bonds.

On the rebalance date, bonds are automatically removed as follows:

- 1) a bond is partially called, tendered, or repurchased in the open market, reducing the bond's par amount outstanding to a level that no longer qualifies based on the 200 bond selection process.
- 2) a bond has been upgraded to investment grade.
- 3) a bond defaulted less than 30 days before the rebalance date and had not yet been removed from the index
- 4) the time to maturity for a bond declines below one-and-a-half years.
- 5) pricing is not available.

If an existing bond in the index still qualifies for inclusion in the index based on the selection process, but is no longer the largest bond for that particular issuer—the result of either the pricing of a new-issue or a partial call or tender of the existing bond—it will only be replaced if the larger bond is more than two times larger than the smaller bond. For example, Company ABC has two bonds outstanding \$1.5 billion and \$1.2 billion and the \$1.5 billion bond is currently in the index. Prior to the next rebalance, the \$1.5 billion deal is partially tendered and now has a par amount outstanding of \$750 million. At the next rebalance date, this bond would not be replaced by the \$1.2 billion bond, since the other bond (\$1.2 billion) is not more than two times the size of the remaining \$750 million bond. Only if the tender had dropped the par amount of the bond below \$600 million, would it be replaced by the \$1.2 billion issue.



## J.P. Morgan Euro High-Yield Index (CHYE)

The J.P. Morgan Euro High Yield Index is designed to mirror the investable universe of the Euro denominated high-yield corporate debt market, including domestic and international issues. The index was established in January 1999. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

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Issues must be denominated in Euros only.

### **Country regions**

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The index is comprised of issuers domiciled across the global markets. The international component of the index is comprised of emerging market and developed market domiciled issuers. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan Sterling High-Yield Index (CHYP)

The J.P. Morgan Sterling High Yield Index is designed to mirror the investable universe of the Pound Sterling denominated high-yield corporate debt market, including domestic and international issues. The index was established in January 1999. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

---

Issues must be denominated in Pound Sterling only.

### **Country regions**

---

The index is comprised of issuers domiciled across the global markets. The international component of the index is comprised of emerging market and developed market domiciled issuers. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan US-Dollar European High-Yield Index (CHYD)

The J.P. Morgan US-Dollar European High Yield Index is designed to mirror the investable universe of the US dollar denominated European high-yield corporate debt market. The index was established in January 1999. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "SB" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

---

Issues must be denominated in US dollars only.

### **Country regions**

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The index is comprised of issuers domiciled in Europe. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding, the two largest are selected for inclusion in the index. If the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.



## J.P. Morgan European Currency High-Yield Index (JPEY)

The J.P. Morgan European Currency High Yield Index is designed to mirror the investable universe of the European-currency denominated high-yield corporate debt market, including domestic and international issues. The index was established in January 1999. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

---

Issues must be denominated in Euro or Pound Sterling.

### **Country regions**

---

The index is comprised of issuers domiciled across the global markets. The international component of the index is comprised of emerging market and developed market domiciled issuers. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A “for-life” bonds are included.

### **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

### **Bond selection**

---

If an issuer has more than two issues outstanding with bonds denominated in both Euros and Pound Sterling, the largest issue within each currency will be selected for the index. If an issuer has more than two issues outstanding, but only denominated in one currency, the two largest are selected for inclusion in the index. When selecting bonds either by currency or overall, if the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

### **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

### **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond’s par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## J.P. Morgan European Aggregate High-Yield Index (JPEA)

The J.P. Morgan European Aggregate High Yield Index is designed to mirror the investable universe of the European high-yield corporate debt market. The index was established in January 1999. Index inclusion rules, bond selection methodology and rebalancing process are as follows:

### **Issue size**

---

The minimum amount outstanding for issues to be added to the index is \$75 million (par value). Indexed issues that fall below \$50 million outstanding are removed from the index.

### **Security type**

---

Only fixed rate corporate debt securities, PIKS (pay-in-kind), step-ups, and deferred coupon bonds are eligible for inclusion in the index. Convertible bonds, preferred stock, and floating-rate, fix-to-float, and variable rate bonds are excluded.

### **Credit rating**

---

Based on Moody's and S&P rating agencies, issues must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. See Appendix II, "Ratings in the JPMorgan High Yield Indices" for more information.

### **Defaults**

---

Indexed issues that default remain in the index. Defaulted bonds will not be added to the index. For example, if a fallen angel defaults prior to the completion of its seasoning period, it will not be added to the index.

### **Currency**

---

Issues must be denominated in Euro, Pound Sterling, or US Dollar.

### **Country regions**

---

Issuers of Euro or Pound Sterling denominated bonds are domiciled across the global markets, including both emerging and developed markets. Issuers of US Dollar denominated bonds must be domiciled in Europe. All sovereign and quasi-sovereign issues are excluded. We define quasi-sovereign issues as any bond that is 100% owned or guaranteed by the government.

### **Issue type**

---

Issues must be publicly registered or must be issued under rule 144A. Securities issued under rule 144A are eligible for index inclusion regardless of whether a Reg S statement is attached. Thus, 144A "for-life" bonds are included.

## **Maturity**

---

The number of years from trade date to maturity for each issue must be greater than or equal to one year. Bonds with perpetual maturities are excluded.

## **Bond selection**

---

If an issuer has more than two issues outstanding with bonds denominated in two or three currencies, the largest issue within each currency will be selected for the index. As a result, an issuer with bonds outstanding in all three currencies may have three bonds included in the index. If an issuer has more than two issues outstanding, but only denominated in one currency, the two largest are selected for inclusion in the index. When selecting bonds either by currency or overall, if the difference between issue size (face amount) is less than or equal to 20%, bonds are chosen by first differentiating between security type, second by differentiating between seniority, third by selecting the more recently issued bond, and fourth by selecting the longer dated maturity.

## **Fallen angels and rising stars**

---

Fallen angels are added to the index subject to: 1) the new-issue criteria; except that market value is used instead of par value, and 2) a seasoning period of approximately 90-days. Bonds will be added to index on the first business day of the month closest to 90-days following the downgrade to high-yield. Specifically, downgrades occurring during the first 15 days of a month will enter the index in approximately two-and-a-half months, while downgrades occurring on or after the 16th day of a month will enter the index in approximately three-and-a-half months.

Rising stars are removed from the index when they are upgraded to high grade.

## **Rebalancing**

---

The index is rebalanced daily. Bonds are added or removed as follows:

Removals: 1) a bond is called, tendered, or repurchased in the open market, either in full or when a partial reduction lowers the bond's par amount outstanding below \$50 million; 2) a bond is upgraded to investment grade; 3) the time to maturity for a bond declines below one year; 4) pricing no longer becomes available; 5) a new issue comes to market that, based on the bond selection process previously described, replaces an existing issue.

Additions: 1) new issues are added upon issuance, assuming they qualify given the aforementioned bond selection process; 2) replacement issues will be added to the index simultaneously with a bond removal (in the event of a removal as described above); 3) fallen angels are added on the first business day of a month, based on the aforementioned fallen angel criteria.

## Appendix I: Historical Index Performance

### Returns of JPMorgan high-yield indices

	Global	Domestic	Developed	Dev. BB	HY Inst'l	HY 100	Liquid	Euro	Sterling	US\$ European	Euro Currency	Euro Aggregate
1994	-1.57%	-	-	-	-	-	-	-	-	-	-	-
1995	19.56%	19.25%	19.47%	21.19%	19.05%	22.18%	20.73%	-	-	-	-	-
1996	13.01%	12.74%	12.89%	9.71%	12.25%	12.88%	12.16%	-	-	-	-	-
1997	12.49%	12.97%	12.96%	12.41%	12.85%	10.97%	12.14%	-	-	-	-	-
1998	0.97%	1.88%	1.73%	6.75%	3.80%	1.55%	0.90%	-	-	-	-	-
1999	3.38%	2.05%	2.34%	2.53%	2.57%	3.33%	2.21%	15.26%	9.17%	8.18%	12.76%	9.32%
2000	-5.83%	-6.04%	-6.33%	4.67%	-0.77%	-5.44%	-5.94%	-15.90%	-3.01%	-11.40%	-12.46%	-11.88%
2001	5.48%	6.68%	5.70%	10.50%	9.80%	-1.29%	1.66%	-16.30%	0.39%	-15.91%	-12.00%	-13.91%
2002	2.14%	3.20%	1.98%	6.00%	4.88%	-1.84%	-1.42%	-8.60%	-12.06%	-19.68%	-9.41%	-13.75%
2003	27.50%	26.80%	27.47%	19.03%	19.70%	30.39%	28.66%	20.37%	23.94%	37.66%	20.84%	27.30%
2004	11.55%	11.10%	11.25%	9.28%	9.87%	11.44%	11.29%	14.02%	22.73%	14.72%	15.32%	14.99%
2005	3.07%	2.42%	2.62%	2.58%	2.86%	2.34%	2.34%	4.61%	4.25%	7.12%	4.57%	5.26%
2006	11.45%	11.56%	11.58%	8.67%	9.31%	11.52%	10.64%	9.66%	12.32%	10.68%	9.25%	9.60%
2007	2.88%	2.58%	2.69%	3.57%	3.97%	2.36%	2.40%	-1.35%	0.68%	3.70%	-0.74%	0.37%
2008	-26.83%	-26.55%	-26.80%	-16.81%	-17.80%	-25.03%	-26.33%	-34.86%	-19.80%	-30.17%	-31.35%	-31.73%
2009	58.90%	58.18%	58.76%	39.64%	35.09%	55.03%	55.05%	73.44%	45.31%	69.31%	68.42%	70.20%
2010	15.05%	14.73%	14.86%	12.86%	13.28%	14.58%	14.42%	14.75%	16.09%	16.12%	14.79%	15.13%
2011	5.73%	6.96%	6.59%	8.69%	8.49%	6.01%	6.96%	1.70%	1.27%	0.86%	1.46%	1.04%
2012	16.21%	15.39%	15.67%	13.73%	14.40%	17.04%	16.61%	27.80%	31.50%	21.50%	28.78%	26.25%

Source: J.P. Morgan

Notes: The European Currency Index includes euro- and sterling-denominated corporate bonds and returns are stated in local currency. The European Aggregate Index includes euro-, sterling-, and US dollar-denominated corporate bonds and returns are stated in local currency.

## Appendix II: Ratings in the J.P. Morgan High Yield Indices

The J.P. Morgan High Yield Indices use a single “blended” Moody’s/S & P rating to compute aggregate yields, spreads and returns sorted by rating. There are nine blended ratings: Investment Grade (which, of course, is excluded from the Index), Split BBB, BB, Split BB, B, Split B, CCC/Split CCC, Default, and not rated. We developed the blended ratings because Moody’s and S & P do not always agree on the equivalent ratings for an issue. The number of unique Moody’s/S & P parings in the Index is large, with many groupings containing only a few issues. (We also compute aggregate yields, spreads, and returns sorted by Moody’s rating alone and by S & P rating alone.)

We created the blended ratings by classifying the Moody’s and S & P ratings by major ratings category, ignoring the 1, 2 and 3 Moody’s subcategories and the + and – S & P subcategories. If both agencies rate an issue in the same major category, we assign that rating. If the agencies disagree on the rating by one major step, we assign a split rating. If the agencies disagree by two or more major steps, we make the conservative assumption and pick the lower rating.

There are some special cases. If one agency does not rate the issue, the other agency’s rating determines our rating. If either agency assigns an A major rating or better, we classify the issue as investment-grade independently of the other agency’s rating. Similarly, if the default flag is set (a separate field in our database), we classify the issue as default independently of the agency ratings; or, if the S & P rating is D, we classify the issue as default independently of the Moody’s rating.

The motivation for creating the blended rating derives from the fact that there are about 70 unique Moody’s/S & P parings in the Index; the exact number varies as individual ratings on issues change over time. Seventy groupings are too many to draw conclusions about the market’s behavior. Further, about half of these groups contain five or fewer issues, making aggregate calculations statistically meaningless.

(Theoretically, there are 212 possible high yield Moody’s/S & P parings. A high yield issue can have a Moody’s rating as high as Baa1 when the issue is rated BB+ or below by S & P; similarly, a high yield issue can have an S & P rating as high as BBB+ when the issue is rated Ba1 or below by Moody’s. There are 13 Moody’s ratings from Baa1 or below and 17 S & P ratings from BBB+ or below, including “not rated” by each agency. This gives  $13 \times 17 = 221$  parings, less 9 BBB-only parings, resulting in 212 high yield ratings.)

The precise ratings definitions are as follows:

### Investment Grade

- a) Moody’s rating is Baa3 or higher and S & P rating is BBB– or higher; or
- b) Moody’s rating is Baa3 or higher and S & P rating is NR; or
- c) Moody’s rating is NR and S & P rating is BBB– or higher; or
- d) Moody’s rating is A3 or higher (S & P rating is ignored); or
- e) S & P rating is A– or higher (Moody’s rating is ignored)



### **Split BBB**

- a) Moody's rating is Baa1, Baa2 or Baa3 and S & P rating is BB+, BB or BB-; or
- b) Moody's rating is Ba1, Ba2 or Ba3 and S & P rating is BBB+, BBB or BBB-

### **BB**

- a) Moody's rating is Ba1, Ba2 or Ba3 and S & P rating is BB+, BB or BB-; or
- b) Moody's rating is Ba1, Ba2 or Ba3 and S & P rating is NR; or
- c) Moody's rating is NR and S & P rating is BB+, BB or BB-

### **Split BB**

- a) Moody's rating is Ba1, Ba2 or Ba3 and S & P rating is B+, B or B-; or
- b) Moody's rating is B1, B2 or B3 and S & P rating is BB+, BB or BB-

### **B**

- a) Moody's rating is B1, B2 or B3 and S & P rating is B+, B or B-; or
- b) Moody's rating is B1, B2 or B3 and S & P rating is NR; or
- c) Moody's rating is NR and S & P rating is B+, B or B-; or
- d) Moody's rating is B1, B2 or B3 and S & P rating is BBB+, BBB or BBB-; or
- e) Moody's rating is Baa1, Baa2 or Baa3 and S & P rating is B+, B or B-

### **Split B**

- a) Moody's rating is B1, B2 or B3 and S & P rating is CCC+, CCC or CCC-; or
- b) Moody's rating is Caa and S & P rating is B+, B or B-

### **CCC/Split CCC**

- a) Moody's rating is Caa and S & P rating is CCC+, CCC, CCC-, CC, C or CI; or
- b) Moody's rating is Caa, Ca or C and S & P rating is CCC+, CCC or CCC-; or
- c) Moody's rating is Caa and S & P rating is NR; or
- d) Moody's rating is NR and S & P rating is CCC+, CCC or CCC-; or
- e) Moody's rating is Caa and S & P rating is BBB+, BBB, BBB-, BB+, BB or BB-; or
- f) Moody's rating is Baa1, Baa2, Baa3, Ba1, Ba2 or Ba3 and S & P rating is CCC+, CCC or CCC-

### **Default**

- a) Default flag is set (Moody's rating and S & P rating are both ignored); or
- b) S & P rating is D (Moody's rating is ignored); or
- c) Moody's rating is Ca or C and S & P rating is CC, C or CI; or
- d) Moody's rating is Ca or C and S & P rating is NR; or
- e) Moody's rating is NR and S & P rating is CC, C or CI; or
- f) Moody's rating is Ca or C and S & P rating is BBB+, BBB, BBB-, BB+, BB, BB-, B+, B or B-; or
- g) Moody's rating is Baa1, Baa2, Baa3, Ba1, Ba2, Ba3, B1, B2 or B3 and S & P rating is CC, C or CI

### **Not Rated**

- a) Moody's rating is NR and S & P rating is NR

## Appendix III: Analytics

### Bond level analytics:

Yield to maturity: Bond yield based on coupon rate, time remaining until maturity, and current price.

Yield to worst: Yields are computed at all possible redemption dates: maturity and each call date. The minimum of these yields is the yield to worst, except that this yield must be above the interpolated US Treasury curve at the redemption date. The yield selected as yield to worst always has a positive spread above the curve.

Current yield: For cash-pay bonds, current yield is the coupon divided by the bond's current price. For zero-coupon bonds, current yield equals yield to worst and for PIKs, the current yield is the PIK rate.

Spread to worst: The spread of the yield to worst above the interpolated US Treasury curve is the spread to worst.

Yield-to-worst date: The redemption date for the yield to worst is the yield-to-worst date.

Modified duration: The modified duration is computed at the yield-to-worst date.

Price volatility: A measure of volatility based on the standard deviation of daily prices over an 8-month period.

Performance: Total return is computed for each bond, which is the percent change in the value of each bond during the measurement period. The total return is:

$$\frac{(\text{current price} + \text{accrued interest} + \text{coupon paid (if any)} + \text{reinvestment interest on coupon paid}) - (\text{previous price} + \text{accrued interest})}{(\text{previous price} + \text{accrued interest})}$$

Total return can be broken down into the sum of three components: principal return, interest return, and reinvestment return. The principal return is:

$$\frac{\text{current price} - \text{previous price}}{\text{previous price} + \text{accrued interest}}$$

The interest return is:

$$\frac{(\text{current accrued interest} + \text{coupon paid (if any)}) - (\text{previous accrued interest})}{(\text{previous price} + \text{accrued interest})}$$

The reinvestment return is:

$$\frac{\text{reinvestment interest on coupon paid (if any)}}{\text{previous price} + \text{accrued interest}}$$

The reinvestment interest on the coupon is the amount of interest earned at short-term rates (using the three-month Treasury yield) on the coupon, for the period from the coupon payment date to the end of the measurement period.

### **Index and sub-index level analytics:**

Average values are computed over the index and sub-indices for yield to maturity, yield to worst, current yield, spread to worst, modified duration, years to yield-to-worst date, years to maturity, coupon, and price volatility. The averages for each analytic are weighted by market value (amount outstanding \* price) at the end of the measurement period for each nondefaulted bond in the index.

The average principal return, interest return, reinvestment return, and total return are computed over the index and sub-indices. The averages for each return component and for total return are weighted by market value (amount outstanding \* price) at the beginning of the measurement period for every bond in the index, including defaults (although the interest return and reinvestment return for defaulted bonds will always be zero).

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