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Deconstructing Spreads

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Last week, we highlighted that after adjusting for ratings and duration differences, the High Yield Index is nearly 160bp wide of its pre-financial crisis tights (see *How Much More Room to Run*). But just as the composition of the high yield market has changed, so have the specific risks relevant to investors and how they are valued in spread terms. We believe that our spread model can provide a more objective look at valuations in the current environment.

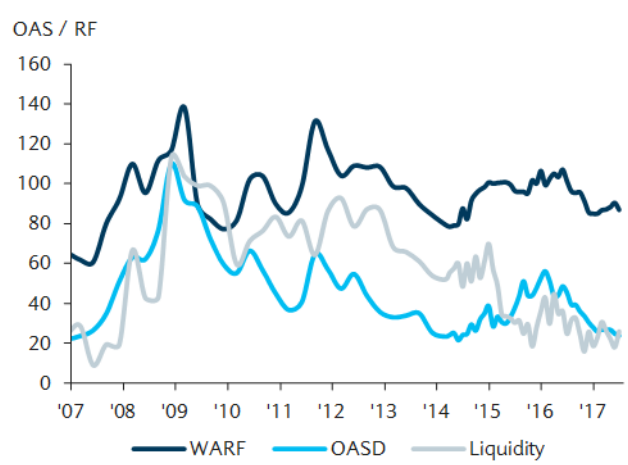
How Specific Risk Premia Have Evolved

As a reminder, our spread model decomposes high yield spreads into three broad categories: liquidity, term, and credit risks. We specifically run monthly multivariate cross-sectional regressions over the past 10 years on each of the three factors considered in our model: spread duration (term risk), WARF (credit risk), and a binary variable set to one for bonds that are smaller than the median (liquidity risk). For background on the construction, history, and interpretation of our spread model, see *High Yield Spread Model, Refined*.

Figure 1 shows the historical moves in the coefficients for the considered factors. The model does not opine on whether the overall market is "rich" or "cheap," but simply what might explain the premia embedded in the overall market valuation over time. Any difference (noted as a residual) between the model-predicted spread and actual index levels is explained by other variables not in our model, such as market sentiment, volatility, and easiness or tightness of financial conditions. Figure 2 shows that the residual tends to widen with equity market volatility, suggesting that the various micro factors, by themselves, cannot explain the full variation in spreads. But in periods such as this, with broader market volatility relatively subdued, we think that our spread model can provide a clearer glimpse into the specific risks assessed by investors.

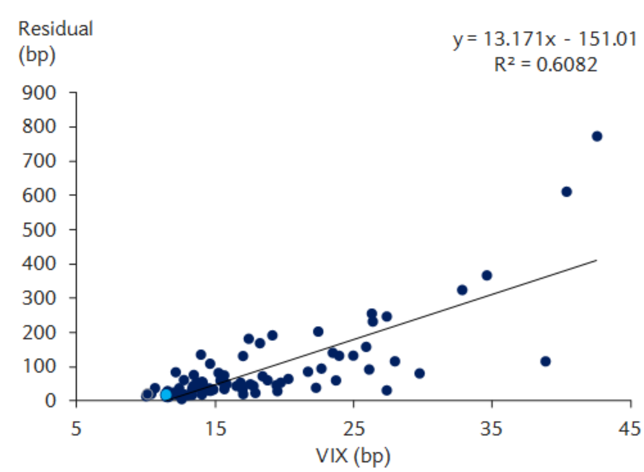
As shown in Figure 1, the compensation required for bearing liquidity and term risk declined steadily over time and is now through pre-crisis lows. In contrast, investors have recently demanded more compensation for credit risk, and there appears to be less of a premium for out-of-model factors. In our view, liquidity and term premia do not adequately compensate investors for their inherent risks, while being long credit risk appears relatively attractive.

FIGURE 1
Liquidity and Term Premia at the Lows; Credit Risk Still Matters



Note: Liquidity premium is calibrated with bonds below the median. The WARF coefficient is scaled by a factor of 1000. Source: Bloomberg Barclays Indices

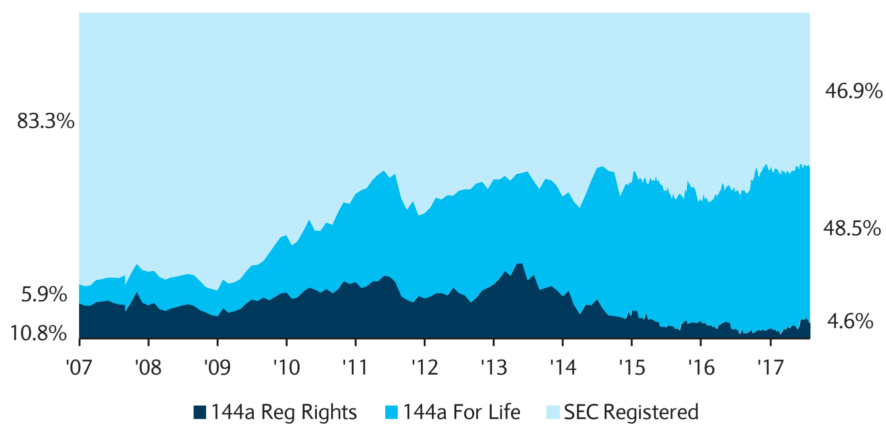
FIGURE 2
As VIX Rises, It Helps Account for the Model's Residual



Note: Blue dot reflects current levels. Source: Bloomberg, Bloomberg Barclays Indices

Liquidity premium: We previously captured the liquidity premium as compensation for both 144A-for-life bonds and smaller-than-median issues. 144As have gained acceptance among the high yield investor base over time and currently make up roughly 49% of the market (Figure 3). The 144A premium declined to new lows only after the introduction of TRACE reporting for 144As in July 2014. Indeed, as Figures 4 and 5 show, 144A/registered turnover has been more or less in line with registered bonds, and the transaction cost differential between the cohorts has narrowed as well. Therefore, we believe that issue size is now a more effective gauge of liquidity risk. In fact, the decline in the 144A premium has been partly driven by a material increase in the average size of 144A-for-life securities from $355mn in 2007 to $631mn in 2017 (versus $627mn for registered securities).

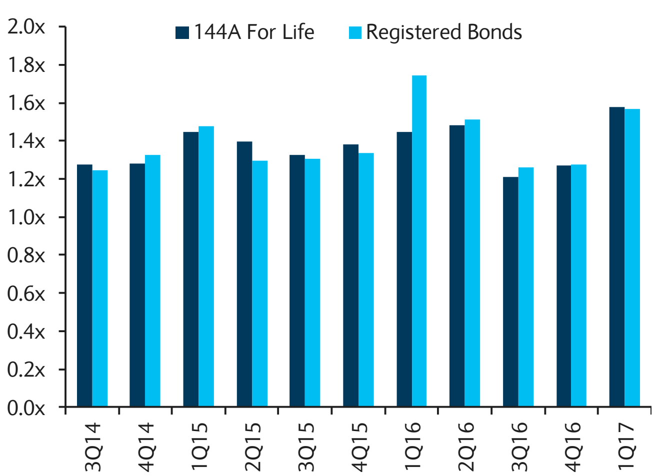
FIGURE 3
144A Bonds Now Account for a Majority of the High Yield Bond Market



Source: Bloomberg Barclays Indices

Figure 6 shows that in the early 2016 risk-off environment, investors distinguished between 144A-for-life bonds and the securities of smaller issue size, displaying a clear preference for the former given better relative liquidity. Even today, the 144A premium is essentially zero, while the premium for holding smaller-than-median issues is closer to 20bp. The shaded area denotes the level of significance for the 144A factor in increments of 10%. Although the factor

FIGURE 4
Turnover for 144A-for-Life Securities Now Matches That of Registered Bonds



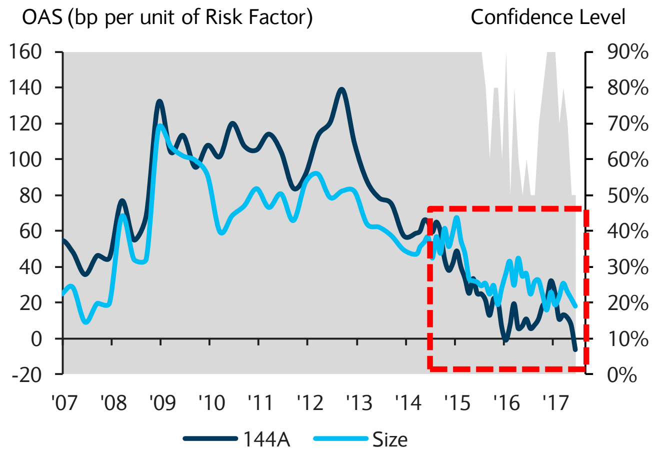
Source: Bloomberg Barclays Indices, MarketAxess

FIGURE 5
The Transaction Cost Differential between Registered Bonds and 144A-for-Life Bonds Has Declined by Half over Four Years

Note: Transaction costs are estimated by the Liquidity Cost Scores published by the Quantitative Portfolio Strategy Group. Source: Bloomberg Barclays Indices, MarketAxess

FIGURE 6

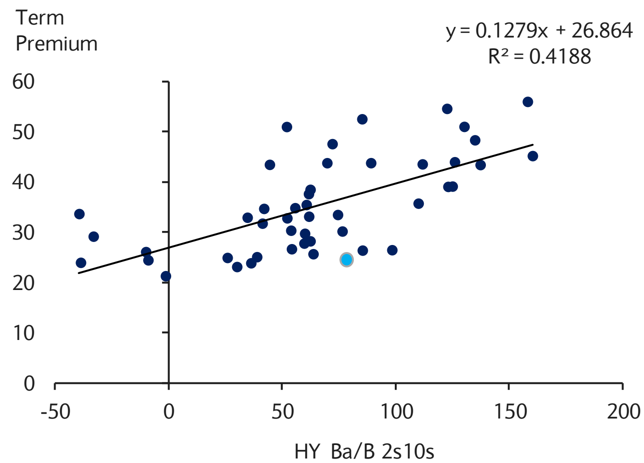
144A Premium versus Size Premium



Note: Shaded blue area reflects the significance level for the 144A factor in increments of 10% using two-tailed t-test to determine the associated p-value. Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 7

Term Premium versus Steepness of High Yield Credit Curve



Note: The high yield 2s10s curve is measured as the spread differential between the 5-8y duration bucket and the sub-2y bucket for the past five years. Blue dot denotes current data point. Source: Bloomberg Barclays Indices, Barclays Research

was significant at the 90% level for much of the past decade, it has recently become less relevant, so we do not use it in our base spread model. In general, the recent drop in the size premium appears commensurate with today's lower level of volatility, but we would expect the premium for smaller issue sizes, in particular, to pick up with any increase in broader market volatility that hampers general trading liquidity and transaction costs.

Term risk premium: Our model suggests that the spread required per unit year of duration is 25bp, down from a recent high of 56bp in early 2016. But this itself is a function of curve steepness, as shown in Figure 7. Given our belief that the credit curve will continue to steepen (see *Lift the Barbell, Trim the Belly*), we expect investors to charge more for term risk in the future, especially considering that the current term premium is low relative to its historical relationship.

Credit risk premium: As seen in Figure 1, the credit risk premium (measured by Moody's WARF) compressed after the late 2016 risk-on recovery, but now appears more average in historical context and is 20-30bp off the 2007 lows. Note that WARF captures the nonlinear relationship between ratings notches and default risk. In other words, investors typically require an additional 32bp in spread for a one notch move down the quality scale from BB+ to B+ and an additional 64bp from B+ to CCC+.[1] The current levels of credit risk premiums reinforce our findings from last week – that when adjusted for quality differences, the high yield market today looks reasonably wide of the 2007 tights.

Overlaying the Model with Analyst Views

Figures 8 and 9 screen for credits with the largest positive and negative residuals when comparing current trading levels with model-predicted spreads, with a focus on issues where the model output is reinforced by our fundamental analysts' ratings. Figure 8 highlights select credits that trade more than 100bp cheap to the model that our fundamental analysts rate Overweight. Admittedly, the model does not capture the idiosyncratic risk inherent in distressed situations, but on average, the highlighted credits offer roughly 380bp of spread upside relative to the modeled spread.

Among the names that trade wide of the model's prediction, we highlight Genworth as a company favored by our insurance analyst, Peter Troisi. While the market awaits greater

[1] We normalize the contribution of WARF to spread by scaling its coefficient by a factor of 1000.

clarity on the timing of GNW's merger with China Oceanwide, 2Q results were stable and do not change Peter's view on either the pending acquisition or the company's liquidity position (see *Genworth Financial (GNW): 2Q17: Transaction Timing Pushed out to 4Q*). The GNW holdco has access to existing liquid assets in excess of this maturity ($750mn) and the one that precedes it (GNW 2018s, $597mn par), suggesting that their value is protected even if the transaction falls apart. Barclays' high yield energy analyst, Paul Chambers, favors Ensco 2024s, believing that the bonds are mispriced relative to his forecast for lower net leverage due to meaningful improvements in its cost structure and breakevens (see *Ensco PLC (ESV): ESV Committed to ATW Deal Closing 3Q17; ESV Credit Looks Attractive to Us*). Finally, utilities analyst Srinjoy Banerjee believes that the DYN 2022s could be among the next maturities addressed after management's explicit intention to address the 2019 maturity outside of the capital markets (see *Dynegy (DYN) 1Q17: Clear Focus on Addressing the 2019 Maturities*).

On the flip side, Figure 9 presents a list of B and BB credits that trade more than 25bp rich to the model and that our fundamental analysts rate Underweight. We note the Underweight rating by Andrew Keches on Reynolds Group. The company's 2Q results were light compared with expectations, margins declined, and valuations are not attractive; he favors Ardagh (ARGID) (see *Reynolds Group (REYNOL): Margin Pressure Accelerates in 2Q; Continue to Prefer ARGID over REYNOL*). Finally, Paul Chambers is Underweight Range Resources based on disappointing results for 2Q, including cash costs that were higher than expected, with weak guidance for 2H17 (see *Range Resources (RRC): Miss on 2Q17 Results…2H17 Production Guided Lower; Remain Underweight*).

FIGURE 8

Bonds that Screen Cheap to the Model and Are Rated Overweight

Ticker	Security	Amt Out. ($ mn)	Index Rating	Price ($)	Yield (%)	Spread (bp)	Modeled Spread (bp)	Excess Spread(bp)
NMG	8s of 2021	960	CA	55.9	25.7	2411	945	1466
GNW	7.625s of 2021	750	B2	95.8	8.7	705	319	386
ESV	4.5s of 2024	623	B1	76.0	9.1	707	331	376
HXN	10.375s of 2022	560	CAA1	101.5	9.9	816	494	322
OAS	6.875s of 2022	937	B3	99.0	7.1	533	380	153
UNIT	8.25s of 2023	1110	B3	103.9	7.0	514	390	123
WFT	9.875s of 2024	790	CAA1	107.9	8.2	629	523	106
DYN	7.375s of 2022	1750	B3	101.7	6.7	491	389	102

Source: Bloomberg Barclays Indices, Barclays Research

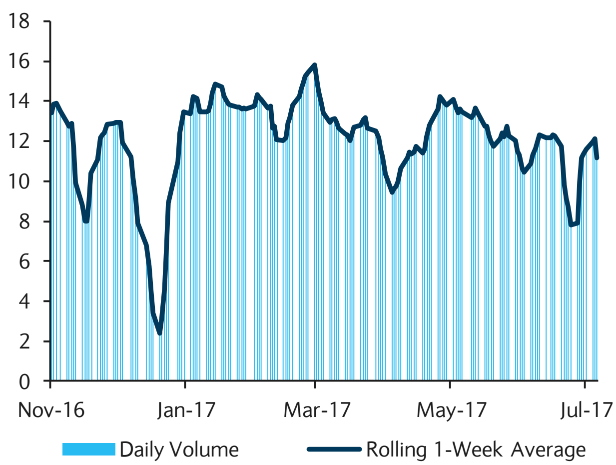
FIGURE 9

Bonds that Screen Rich to the Model and Are Rated Underweight

Ticker	Security	Amt Out. ($ mn)	Index Rating	Price ($)	Yield (%)	Spread (bp)	Modeled Spread (bp)	Excess Spread(bp)
CCK	4.5s of 2023	1000	B1	105.9	3.3	144	308	-164
BGS	4.625s of 2021	700	B3	102.4	3.0	170	331	-161
CLR	4.9s of 2044	700	BA3	86.4	5.9	328	475	-148
REYNOL	5.75s of 2020	3237	B2	102.4	2.2	118	241	-123
BLL	5.25s of 2025	1000	BA1	110.3	3.7	164	237	-73
ASH	4.75s of 2022	1086	BA3	104.8	3.6	184	256	-72
CBSOAM	5.25s of 2022	550	B1	103.8	2.8	161	209	-48
RRC	4.875s of 2025	750	B1	97.4	5.3	318	343	-26

Source: Bloomberg Barclays Indices, Barclays Research

High Yield Average Institutional Trade Volume ($bn)

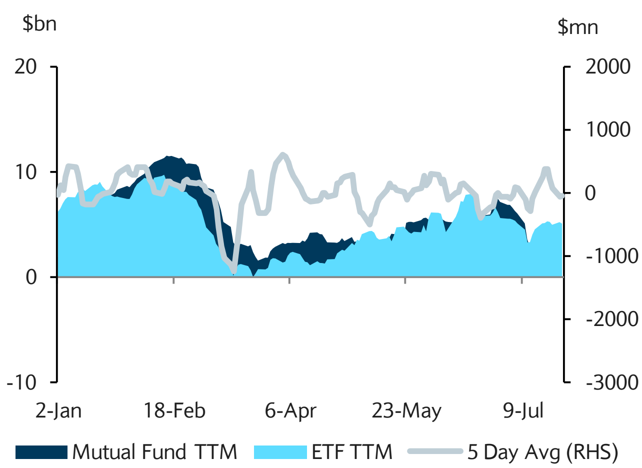


Note: Includes both registered and 144A volumes. Source: FINRA TRACE

On-the-Run HYCDX versus US High Yield Index (bp)

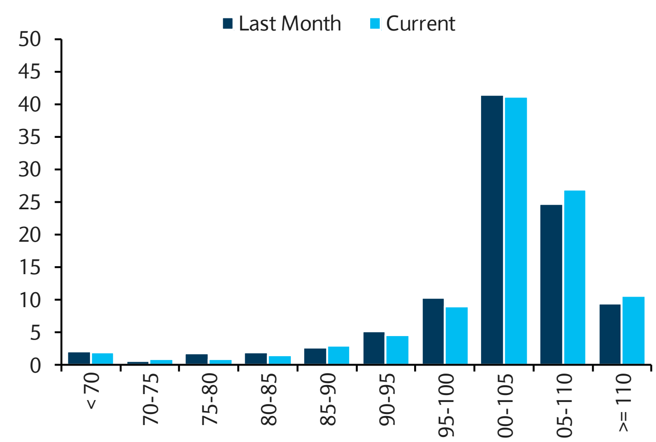
Source: Barclays Research

Flows to High Yield Mutual Funds and ETFs



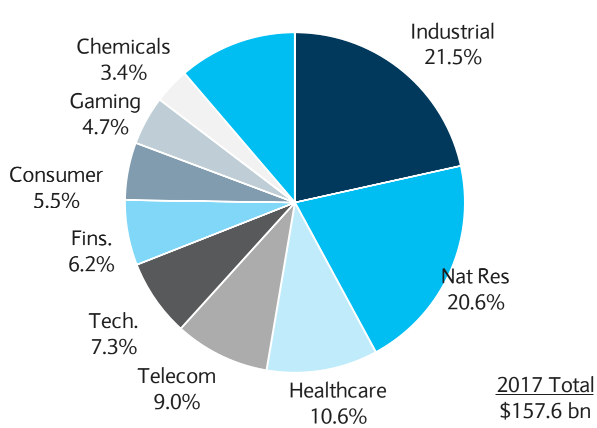
Note: Daily reporters only. Source: EPFR

High Yield Index Price Distribution by Par (%)



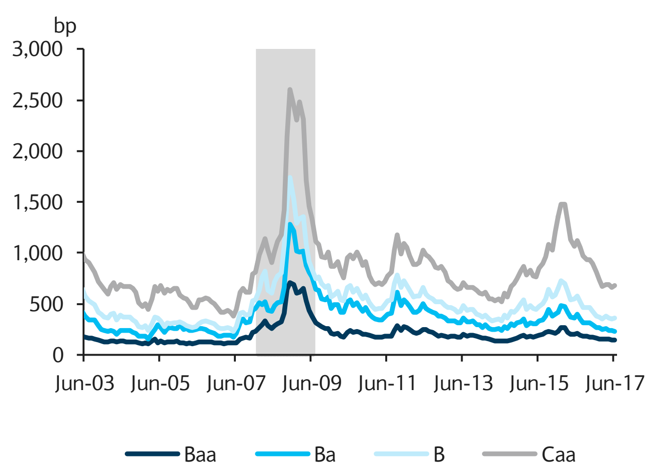
Source: Barclays Research

High Yield Supply by Sector



Source: Barclays Research

High Yield Spreads by Credit Quality



Source: Bloomberg Barclays Indices

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Materially Mentioned Issuers/Bonds

ASHLAND LLC, CD/J
ASH 4 3/4 08/15/22, Underweight (USD 104.38, 02-Aug-2017)

B&G FOODS INC, A/CD/CE/D/J/K/L/M
BGS 4 5/8 06/01/21, Underweight (USD 102.50, 02-Aug-2017)

BALL CORP, CD/CE/D/J/K/L/M/N
BLL 5 1/4 07/01/25, Underweight (USD 110.00, 02-Aug-2017)

CONTINENTAL RESOURCES INC/OK, CD/CE/J
CLR 4.9 06/01/44, Underweight (USD 85.75, 02-Aug-2017)

CROWN AMERICAS LLC / CROWN AMERICAS CAPITAL CORP IV, CD/J
CCK 4 1/2 01/15/23, Underweight (USD 105.50, 02-Aug-2017)

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DYN 7 3/8 11/01/22, Overweight (USD 101.88, 02-Aug-2017)

ENSCO PLC, B/CD/CE/J
ESV 4 1/2 10/01/24, Overweight (USD 75.50, 02-Aug-2017)

GENWORTH HOLDINGS INC, CD/E/J/K/L/M/N
GNW 7 5/8 09/24/21, Overweight (USD 95.13, 02-Aug-2017)

HEXION INC, CD/J/K/M
HXN 10 3/8 02/01/22, Overweight (USD 100.88, 02-Aug-2017)

NEIMAN MARCUS GROUP LTD LLC, CD/J/K/M
NMG 8 10/15/21, Overweight (USD 55.25, 02-Aug-2017)

OASIS PETROLEUM INC, CD/CE/J

OAS 6 7/8 03/15/22, Overweight (USD 98.75, 02-Aug-2017)

OUTFRONT MEDIA CAPITAL LLC / OUTFRONT MEDIA CAPITAL CORP, CD/J
CBSOAM 5 1/4 02/15/22, Underweight (USD 103.88, 02-Aug-2017)

RANGE RESOURCES CORP, CD/CE/D/J/K/L/M
RRC 4 7/8 05/15/25, Underweight (USD 97.00, 02-Aug-2017)

REYNOLDS GROUP ISSUER INC / REYNOLDS GROUP ISSUER LLC / REYNOLDS GROUP ISSUER LU, CD/J/K/M
REYNOL 5 3/4 10/15/20, Underweight (USD 102.00, 02-Aug-2017)

UNITI GROUP LP / UNITI GROUP FINANCE INC / CSL CAPITAL LLC, A/CD/D/J/K/L/M
UNIT 8 1/4 10/15/23, Overweight (USD 103.75, 02-Aug-2017)

WEATHERFORD INTERNATIONAL LTD, CD/D/J/K/L/M/N
WFT 9 7/8 02/15/24, Overweight (USD 107.75, 02-Aug-2017)

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For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to be in line with the six-month total return of the relevant index.

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Market Weight (MW): The analyst expects the six-month total return of the debt security subject to this rating to be in line with the six-month expected total return of the relevant sector.
Underweight (UW): The analyst expects the six-month total return of the rated debt security subject to this rating to be less than the six-month expected total return of the relevant sector.
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Overweight (OW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to exceed the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively.
Market Weight (MW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to be in line with the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively.
Underweight (UW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to be below the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively.
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Market Weight (MW):
The analyst expects the three-month excess return of the country's index eligible bonds to be in line with the three-month excess return of the Bloomberg Barclays EM USD Sovereign Index.
Underweight (UW):
The analyst expects the three-month excess return of the country's index eligible bonds to be less than the three-month excess return of the Bloomberg Barclays EM USD Sovereign Index.

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