

## Seeing value in EUR versus USD HY

### European Credit Strategy

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The accelerated climb in US government benchmark yields brought an uptick in volatility to financial markets last week. However, their outpaced rise relative to other global rates has negatively impacted the relative value of USD fixed income assets for longer than that. Specifically, the rise in currency hedging costs for non-USD based investors has slowly eroded the value in US fixed income that would otherwise arise from a simple comparison of global nominal yields alone. We now find the European high yield market of particular value when compared to its US counterpart. Specifically, this relative value exists among bonds of differing currencies from the same issuer, allowing investors with a global mandate to avoid having to take a particular view on the credit and macro trends that could vary by geography.

To start, there are compositional differences between the European and US high yield markets (ex-fins) as noted in Figure 1. The EUR market is smaller, of reasonably higher quality (as indicated by ratings) and modestly shorter duration (although the duration differential between the two indices has compressed in recent years). To set the relative value discussion for investors who can invest across geographies, we track the YTW differential between the USD and EUR HY indices, both before and after currency hedging costs in Figure 2.

Putting the noted duration and constitutional differences aside, the divergence between USD and EUR Libor as well as the climb in the cross-currency basis given tighter USD funding through year-end have both negatively impacted the valuation argument of US HY for non-USD investors. That relative attractiveness peaked in early 2016, shortly after the Fed started its hiking campaign. Instead, USD-based investors should now find EUR HY attractive, all else equal. Indeed, the persistent rise in US nominal yields generally has paradoxically left US fixed income assets increasingly less attractive for investors around the world when purchased on a currency hedged basis. In line with the most common practice by investors who invest across geographies, we employ rolling 3m FX forwards to calculate the cost of currency hedge. For a full discussion on cross-currency hedge dynamics and estimating forward FX hedge costs, please see [Forward Thinking](#).

FIGURE 1

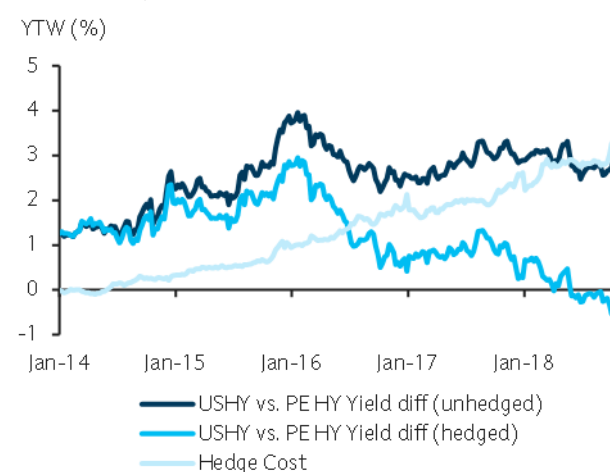
EUR vs. USD HY, ex-fin comparison: EUR market is smaller, somewhat higher quality and has shorter duration

| Index                           | EUR HY ex-fin         | USD HY ex-fin         |
|---------------------------------|-----------------------|-----------------------|
| Currency                        | EUR                   | USD                   |
| Market Value, €bn               | 200                   | 983                   |
| Number of Bonds                 | 388                   | 1,786                 |
| Number of Issuers               | 227                   | 842                   |
| Average Issue Size, €mn         | 506                   | 555                   |
| Average Duration, years         | 5.3                   | 6.1                   |
| Average Duration, OAD           | 3.7                   | 3.9                   |
| Average Liquidity Cost Score    | 0.9                   | 1.1                   |
| Average Rating                  | BA3                   | B1                    |
| Average OAS                     | 405                   | 373                   |
| Average weighted OAS            | 372                   | 363                   |
| Average Cash Price              | 100                   | 98                    |
| Average YTW                     | 3.9                   | 6.9                   |
| Rating Breakdown (by par value) | BB 60%, B 34%, CCC 6% | BB 40% B 43%, CCC 16% |

Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 2

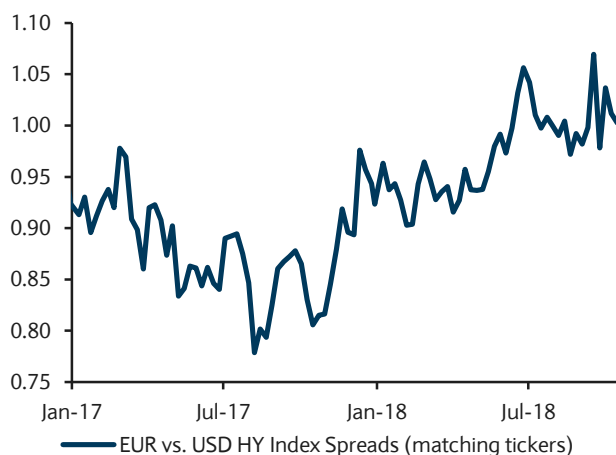
Rising hedge costs have dimmed the allure of US HY for the non-USD buyer base



Source: Bloomberg, Bloomberg Barclays Indices, Barclays Research

FIGURE 3

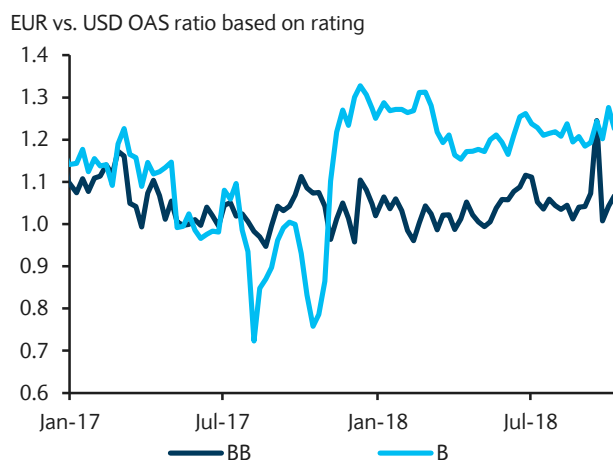
Ratio of EUR/USD spreads of matched issuers at their highest level over the past 18 months...



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 4

...but the spread ratio has cheapened up the most for matched Bs in EUR HY while being largely stable for BBs



Source: Bloomberg Barclays Indices, Barclays Research

To look specifically at credit alone and to isolate any potential constituent differences, we track the ratio of spreads of matched issuers who have bonds outstanding in both the USD and EUR HY markets in Figure 3. Using the Bloomberg Barclays USD and EUR HY indices (modified, ex-financials and hybrids but inclusive of debt collectors), we created two indices for USD and EUR bonds where the issuers have both USD and EUR bonds outstanding. As the indices have not been rebalanced over time, there are fewer observations in the universe going back in history. Unlike the modest duration differential at the index level noted above, the cohorts of matched pairs both have duration of approximately 4.1. Because each issuer may have more bonds in one currency than the other (and of different debt tier), we note this to explain the difference in rating breakdown of the two indices in Figure 6.

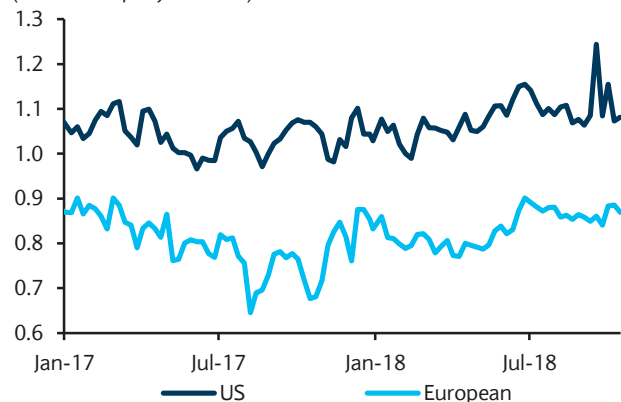
While EUR spreads for these matched pairs outperformed for much of 2017, the ratio between the two cohorts has reversed and now sits at essentially the highest level of the past 18 months. This suggests to us that the relative value attractiveness of select EUR HY for USD investors rests on more than just the hedging dynamics noted above. Additionally, it guides EUR-based investors with a global mandate to realise value in their domestic market. Also, note that because we are tracking matched pairs (ie, bonds of the same issuer but of different currencies), we are essentially eliminating broader macro risks that investors may perceive between the two regions, which could otherwise drive relative value.

For the next level of analysis, we track the ratio of spreads by rating category in Figure 4. Spreads of matched pairs in the BB cohort have largely tracked each other in both the EUR and USD markets, with the current OAS ratio of bonds issued across currencies by the same issuers residing around 1.0x. Instead, the climb in the spread ratio noted in Figure 3 has been driven largely by the underperformance of single-B EUR bonds. There does not seem to be a particular sector driving the underperformance of EUR HY of these matched issuer pairs as we saw on aggregate broader spreads for EUR vs. USD bonds across sectors for the B-rated cohort (unlike the BB bucket for example, where there were a more equal number of sectors where the EUR bonds were trading wider vs. its USD bonds and those where the EUR bonds were trading tighter vs. its USD bonds).

FIGURE 5

**Relative currency spreads ratio suggest home bias**

EUR vs. USD OAS ratio based on country of risk  
(where company is based)



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 6

**Comparison of matching tickers universe – EUR vs. USD**

| Index                              | EUR HY ex-fin            | USD HY ex-fin           |
|------------------------------------|--------------------------|-------------------------|
| Currency                           | EUR                      | USD                     |
| Market Value, €bn                  | 97                       | 148                     |
| Number of Bonds                    | 154                      | 203                     |
| Number of Issuers                  | 77                       | 77                      |
| Average Issue Size, €mn            | 568                      | 676                     |
| Average Duration, years            | 5.8                      | 6.5                     |
| Average Duration, OAD              | 3.7                      | 4.4                     |
| Average Liquidity Cost Score       | 0.8                      | 1.0                     |
| Average Rating                     | BA3                      | BA3                     |
| Average OAS                        | 346                      | 317                     |
| Average weighted OAS               | 320                      | 313                     |
| Average Cash Price                 | 102                      | 99                      |
| Average YTW                        | 3.5                      | 6.4                     |
| Rating Breakdown<br>(by par value) | BB 66%, B 31%,<br>CCC 3% | BB 41% B 51%,<br>CCC 9% |

Source: Bloomberg Barclays Indices, Barclays Research

To determine if the domicile of the issuer itself drives any valuation bias by currency, we track the OAS ratio of two cohorts delineated by geography of matched issuer pairs in Figure 5. The EUR bonds of US-domiciled issuers have consistently traded cheap (ratio >1x) when compared to their USD bonds. Similarly, we find that the EUR bonds of European-based issuers have consistently traded rich (ratio <1x) when compared to their USD bonds. While there are technical factors by investment mandates that can keep these valuation divides in place, investors who are agnostic to marketplace and domicile of issuer should be considering the EUR bonds of US issuers in particular, but as well, the USD bonds of European issuers.

In Figure 7, we highlight ten EUR-USD pairs (from a longer list) where we think the EUR bonds offer attractive spread and yield pick-up, as well as a positive cash price difference when swapping out of the USD into the EUR bond. Using the universe of matched tickers above (Figure 3-Figure 6), we have tried to match bond pairs with the closest duration and that are from the same debt capital structure. We then calculate the OAS and yield to worst pick-up in USD-hedged value and ranked the list by the highest USD-hedged OAS pick-up for swapping out of the USD into the EUR bond. Finally, we removed names with a negative cash price difference (ie, swapping out of a cheaper bond into a more expensive bond) and highlight the top ten pairs. Note that many of these names are single-B rated by US issuers, consistent with our thematic relative value findings above.

The pairs discussed above are all for index-eligible bonds. One meaningful capital structure which is not considered above, as the USD bonds are not 144A is SOFTBK. Our analysts have recently initiated coverage on the company (*Initiating Coverage: Rapid Shift from Telecom-Focused to Technology Holding Company, 17 October 2018*) with a Market Weight rating on the EUR bonds and an Under Weight on the USD bonds. The main reason for the difference in ratings of the bonds is that the EUR bonds trade significantly cheaper than the USD bonds on a cross-currency hedged basis, with a pick-up in spread terms close to 150bp – far higher than the general BB-rated pick-up of approximately 55bp.

FIGURE 7

## EUR-USD swaps with attractive spreads, yields and cash pick-up

| Swap out of USD bond  |        |       |         |        | Swap into EUR bond    |        |       |         |        |
|-----------------------|--------|-------|---------|--------|-----------------------|--------|-------|---------|--------|
| Security              | Rating | Price | OAS, bp | YTW, % | Security              | Rating | Price | OAS, bp | YTW, % |
| SGMS 10 12/01/22      | CAA1   | 105   | 386     | 7.3    | SGMS 5 1/2 02/15/26   | CAA1   | 90    | 703     | 7.2    |
| VMED 6 3/8 04/15/23   | B2     | 103   | 180     | 5.3    | VMED 4 1/2 01/15/25   | B2     | 102   | 360     | 4.0    |
| BMC 9 3/4 09/01/26    | CAA2   | 100   | 615     | 9.7    | BMC 8 3/8 09/01/26    | CAA2   | 100   | 782     | 8.4    |
| KRA 7 04/15/25        | B3     | 100   | 342     | 6.9    | KRA 5 1/4 05/15/26    | B3     | 100   | 486     | 5.3    |
| FINRSK 6 1/4 05/15/26 | B2     | 100   | 272     | 6.2    | FINRSK 4 1/2 05/15/26 | B2     | 100   | 408     | 4.5    |
| EQIX 5 3/4 01/01/25   | BA2    | 102   | 189     | 5.3    | EQIX 2 7/8 10/01/25   | BA2    | 98    | 282     | 3.1    |
| EQIX 5 7/8 01/15/26   | BA2    | 102   | 202     | 5.5    | EQIX 2 7/8 02/01/26   | BA2    | 98    | 281     | 3.1    |
| SIGHCO 7 7/8 05/15/26 | B3     | 94    | 565     | 9.0    | SIGHCO 5 3/4 05/15/26 | B3     | 94    | 644     | 6.7    |
| NFLX 5 7/8 11/15/28   | B1     | 99    | 291     | 6.1    | NFLX 3 5/8 05/15/27   | B1     | 98    | 363     | 3.9    |
| EQIX 5 3/4 01/01/25   | BA2    | 102   | 189     | 5.3    | EQIX 2 7/8 03/15/24   | BA2    | 101   | 251     | 2.6    |

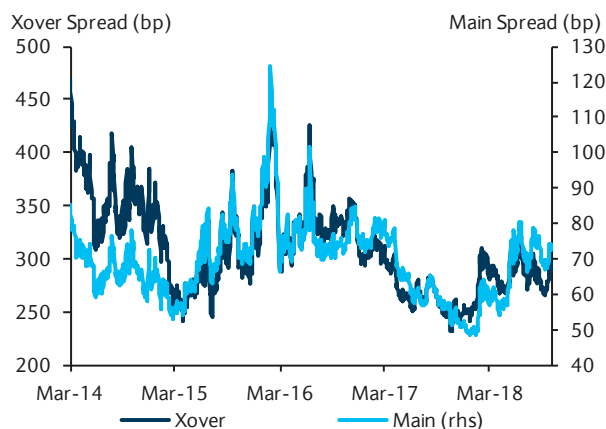
| Ticker | Issuer               | Debt Tier    | Sector            | Country of Issuer | Pick-up in USD hedged |        |                       |
|--------|----------------------|--------------|-------------------|-------------------|-----------------------|--------|-----------------------|
|        |                      |              |                   |                   | OAS, bp               | YTW, % | Cash Price Difference |
| SGMS   | Scientific Games     | Sr Unsecured | Gaming            | US                | 336                   | 3.23   | 14.77                 |
| VMED   | Virgin Media Finance | Sr Unsecured | Media             | UK                | 198                   | 2.04   | 0.53                  |
| BMC    | Banff Merger         | Sr Unsecured | Technology        | US                | 186                   | 2.03   | 0.23                  |
| KRA    | Kraton Polymers      | Sr Unsecured | Chemicals         | US                | 163                   | 1.77   | 0.80                  |
| FINRSK | Refinitiv            | 1st lien     | Technology        | US                | 154                   | 1.69   | 0.41                  |
| EQIX   | Equinix              | Sr Unsecured | Technology        | US                | 112                   | 1.13   | 3.12                  |
| EQIX   | Equinix              | Sr Unsecured | Technology        | US                | 98                    | 1.00   | 3.51                  |
| SIGHCO | Sigma                | Sr Unsecured | Food and Beverage | Netherlands       | 97                    | 1.13   | -0.05                 |
| NFLX   | Netflix              | Sr Unsecured | Media             | US                | 91                    | 1.20   | 0.76                  |
| EQIX   | Equinix              | Sr Unsecured | Technology        | US                | 81                    | 0.59   | 0.47                  |

Source: Bloomberg Barclays Indices, Bloomberg, Barclays Research

## HY credit at a glance

FIGURE 8

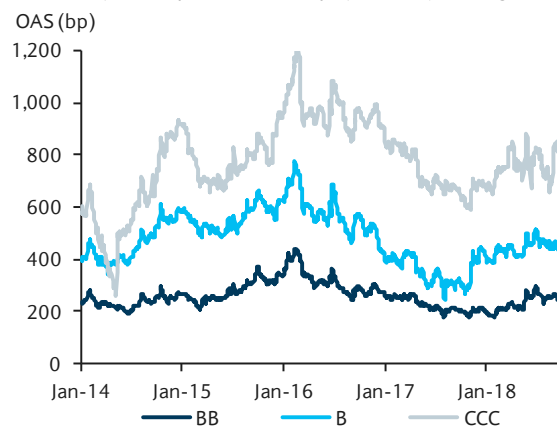
## iTraxx Crossover vs. iTraxx Main

Please click [here](#) to see on Barclays Live.

Source: Markit, Barclays Research

FIGURE 9

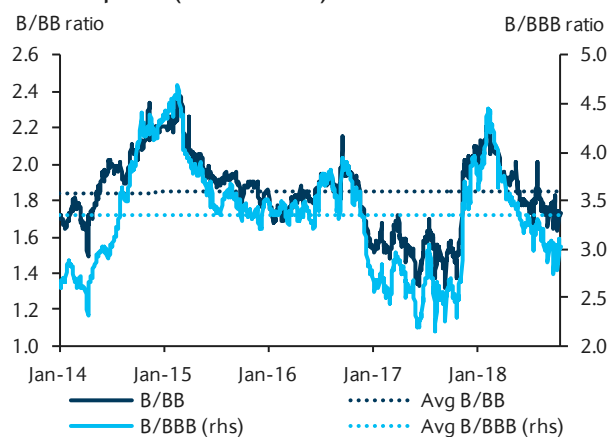
## Pan-Europe HY (ex-financials) spread by rating

Please click [here](#) to see on Barclays Live

Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 10

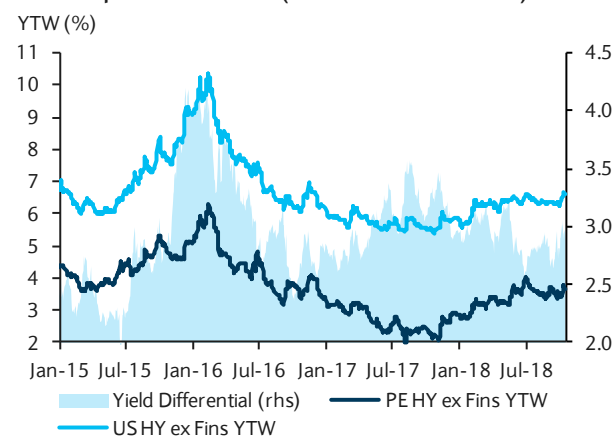
## Pan-Europe HY (ex-financials): B vs. BB and BBB ratios

Please click [here](#) to see on Barclays Live

Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 11

## Pan-Europe HY vs. US HY (ex-financials for both)

Please click [here](#) to see on Barclays Live.

Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 12

## European HY issuance

| Issuers: | All firms, in any European currency |               | European firms |
|----------|-------------------------------------|---------------|----------------|
| Market:  | Pan-European High Yield             |               | US High Yield  |
| Crncy:   | €                                   | £, CHF, other | \$             |
| WTD      | 0.0                                 | 0.0           | 0.0            |
| MTD      | 1.6                                 | 0.0           | 0.4            |
| YTD      | 49.0                                | 4.1           | 9.5            |
| YoY      | -17%                                | -65%          | +82%           |
| YTD '17  | 59.4                                | 11.6          | 5.2            |

Source: S&amp;P LCD, Bloomberg, Barclays Research Note: Supply in billion.

FIGURE 13

## European HY issuance monthly trends

| Issuers: | All firms, in any European currency |      |               |      | European firms |      |
|----------|-------------------------------------|------|---------------|------|----------------|------|
| Market:  | Pan-European High Yield             |      |               |      | US High Yield  |      |
| Crncy:   | €                                   |      | £, CHF, other |      | \$             |      |
| Year:    | 2017                                | 2018 | 2017          | 2018 | 2017           | 2018 |
| Jan      | 2.9                                 | 4.7  | 2.8           | 1.6  |                | 1.1  |
| Feb      | 6.2                                 | 3.3  | 0.7           | 0.1  | 1.3            | 1.3  |
| Mar      | 11.2                                | 8.7  | 1.5           | 0.6  | 0.4            | 1.4  |
| Apr      | 6.1                                 | 8.4  | 1.2           | 0.3  |                | 1.4  |
| May      | 2.2                                 | 3.6  | 0.6           | 0.3  | 0.5            | 0.8  |
| Jun      | 7.2                                 | 6.5  | 2.1           |      | 0.4            | 0.8  |
| Jul      | 6.8                                 | 5.4  | 0.7           |      | 0.5            | 1.5  |
| Aug      |                                     | 0.5  |               |      |                |      |
| Sep      | 9.1                                 | 6.6  | 1.8           | 1.3  |                | 0.6  |
| Oct      | 13.0                                | 1.6  | 1.1           |      | 2.6            | 0.4  |
| Nov      | 7.8                                 |      | 0.5           |      | 1.1            |      |
| Dec      | 4.3                                 |      | 0.8           |      | 0.3            |      |
| Total    | 76.7                                | 49.0 | 13.9          | 4.1  | 7.0            | 9.5  |

Source: S&amp;P LCD, Bloomberg, Barclays Research Note: Supply in billion.

#### Analyst Certification

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##### **BANFF MERGER SUB INC, A/CD/D/J/K/L/M**

BMC 8 3/8 09/01/26 (EUR 100.08, 17-Oct-2018)

BMC 9 3/4 09/01/26 (USD 99.88, 17-Oct-2018)

##### **EQUINIX INC, A/CD/CE/D/J/K/L/M/N**

EQIX 2 7/8 02/01/26 (EUR 98.59, 17-Oct-2018)

EQIX 2 7/8 03/15/24 (EUR 101.08, 17-Oct-2018)

EQIX 2 7/8 10/01/25 (EUR 98.67, 17-Oct-2018)

EQIX 5 3/4 01/01/25, Market Weight (USD 102.13, 17-Oct-2018)

EQIX 5 7/8 01/15/26, Market Weight (USD 102.00, 17-Oct-2018)

**Valuation Methodology:** With its global data center footprint and leading interconnection strategy, Equinix is well positioned to meet the rapid growth in enterprise adoption of cloud and hybrid deployments. We expect spread compressions over time as the company executes its growth strategy.

**Risks that May Impede Achievement of the Rating:** Risks include unfavorable currency trends from strong USD, potential M&A/leveraging risk, and limited cash available for debt reduction after growth capex and funding dividend.

##### **KRATON POLYMERS LLC / KRATON POLYMERS CAPITAL CORP, CD/J/K/M**

KRA 5 1/4 05/15/26 (EUR 100.09, 17-Oct-2018)

KRA 7 04/15/25 (USD 100.13, 17-Oct-2018)

##### **NETFLIX INC, CD/CE/J/K/N**

NFLX 5 7/8 11/15/28, Market Weight (USD 99.13, 17-Oct-2018)

**Valuation Methodology:** Despite improving results, investors will likely continue to deemphasize Netflix's elevated (and rising) leverage as well as its sizeable content spend, which has caused cash flow to be meaningfully negative. Given the company's significant cash burn from content investment, we think Netflix will likely again be an issuer in the capital markets at some point. Trading in a YTW range of 4.4-6.1%, we see limited upside to current trading levels and view the structure as fairly valued.

**Risks that May Impede Achievement of the Rating:** Strong subscriber growth continues, ultimately resulting in significant cash flow generation and deleveraging.

NFLX 3 5/8 05/15/27 (EUR 98.90, 17-Oct-2018)

##### **Refinitiv US Holdings Inc, A/CD/D/J/K/L/M**

FINRSK 4 1/2 05/15/26 (EUR 100.47, 17-Oct-2018)

FINRSK 6 1/4 05/15/26 (USD 100.25, 17-Oct-2018)

SCIENTIFIC GAMES INTERNATIONAL INC, CD/J/K/M  
SGMS 10 12/01/22 (USD 104.88, 17-Oct-2018)  
SGMS 5 1/2 02/15/26 (EUR 90.36, 17-Oct-2018)

SIGMA HOLDCO BV, CD/J  
SIGHCO 5 3/4 05/15/26 (EUR 94.10, 17-Oct-2018)  
SIGHCO 7 7/8 05/15/26 (USD 93.38, 17-Oct-2018)

VIRGIN MEDIA FINANCE PLC, CD/D/E/J/K/L/M/N  
VMED 6 3/8 04/15/23 (USD 103.20, 17-Oct-2018)  
VMED 4 1/2 01/15/25, Market Weight (EUR 101.88, 17-Oct-2018)

**Valuation Methodology:** We rate Virgin Media bonds on an individual/relative value basis, taking into consideration current trading levels, maturity/duration and currency, among other factors. Virgin Media is the leading cable operator in the UK, and benefits from strong EBITDA generation as well as high free cash flow.

**Risks that May Impede Achievement of the Rating:** The competitive environment in the UK could deteriorate and negatively impact Virgin Media.

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#### Explanation of the Barclays Research Corporate Credit Sector Rating System

##### Overweight (OW):

For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to exceed the six-month excess return of the relevant index.

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 exceed the six-month total return of the relevant index.

**Market Weight (MW):**

For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to be in line with the six-month excess return of the relevant index.

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.

**Underweight (UW):**

For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to be less than the six-month excess return of the relevant index.

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 less than the six-month total return of the relevant index.

**Sector definitions:**

Sectors in U.S. High Grade Research are defined using the sector definitions of the Bloomberg Barclays U.S. Credit Index and are rated against the Bloomberg Barclays U.S. Credit Index.

Sectors in U.S. High Yield Research are defined using the sector definitions of the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index and are rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index.

Sectors in European High Grade Research are defined using the sector definitions of the Bloomberg Barclays Pan-European Credit Index and are rated against the Bloomberg Barclays Pan-European Credit Index.

Sectors in Industrials and Utilities in European High Yield Research are defined using the sector definitions of the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials and are rated against the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials.

Sectors in Financials in European High Yield Research are defined using the sector definitions of the Bloomberg Barclays Pan-European High Yield Finance Index and are rated against the Bloomberg Barclays Pan-European High Yield Finance Index.

Sectors in Asia High Grade Research are defined on Barclays Live and are rated against the Bloomberg Barclays EM Asia USD High Grade Credit Index.

Sectors in Asia High Yield Research are defined on Barclays Live and are rated against the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index.

Sectors in EEMEA and Latin America Research are defined on Barclays Live and are rated against the Bloomberg Barclays EM USD Corporate and Quasi Sovereign Index. These sectors may contain both High Grade and High Yield issuers.

To view sector definitions and monthly sector returns for Asia, EEMEA and Latin America Research, go to <https://live.barcap.com/go/research/EMSectorReturns> on Barclays Live.

**Explanation of the Barclays Research Corporate Credit Rating System**

For all High Grade issuers covered in the US, Europe or Asia, and for all issuers in Latin America and EEMEA, the credit rating system is based on the analyst's view of the expected excess return over a six-month period of the issuer's index-eligible corporate debt securities\* relative to the expected excess return of the relevant sector, as specified on the report.

**Overweight (OW):** The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to exceed the six-month expected excess return of the relevant sector.

**Market Weight (MW):** The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be in line with the six-month expected excess return of the relevant sector.

**Underweight (UW):** The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be less than the six-month expected excess return of the relevant sector.

**Rating Suspended (RS):** The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity in a merger or strategic transaction involving the company.

**Coverage Suspended (CS):** Coverage of this issuer has been temporarily suspended.

**Not Covered (NC):** Barclays' fundamental credit research team does not provide formal, continuous coverage of this issuer and has not assigned a rating to the issuer or its debt securities. Any analysis, opinion or trade recommendation provided on a Not Covered issuer or its debt securities is valid only as of the publication date of this report and there should be no expectation that additional reports relating to the Not Covered issuer or its debt securities will be published thereafter.



For all High Yield issuers (excluding those covered in EEMEA or Latin America), the credit rating system is based on the analyst's view of the expected total returns over a six-month period of the rated debt security relative to the expected total return of the relevant sector, as specified on the report.

**Overweight (OW):** The analyst expects the six-month total return of the debt security subject to this rating to exceed the six-month expected total return of the relevant sector.

**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.

**Rating Suspended (RS):** The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity in a merger or strategic transaction involving the company.

**Coverage Suspended (CS):** Coverage of this issuer has been temporarily suspended.

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Where a recommendation is made at the issuer level, it does not apply to any sanctioned securities, where trading in such securities would be prohibited under applicable law, including sanctions laws and regulations.

\*In EEMEA and Latin America (and in certain other limited instances in other regions), analysts may occasionally rate issuers that are not part of the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or Bloomberg Barclays EM USD Corporate and Quasi Sovereign Index. In such cases the rating will reflect the analyst's view of the expected excess return over a six-month period of the issuer's corporate debt securities relative to the expected excess return of the relevant sector, as specified on the report.

#### **Distribution of ratings assigned by Barclays Corporate Credit Research at the bond level:**

26% have been assigned an Overweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Buy rating; 60% of bonds with this rating category are investment banking clients of the Firm; 69% of the issuers with this rating have received financial services from the Firm.

50% have been assigned Market Weight rating which, for purposes of mandatory regulatory disclosures, is classified as a Hold rating; 55% of bonds with this rating category are investment banking clients of the Firm; 74% of the issuers with this rating have received financial services from the Firm.

24% have been assigned an Underweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Sell rating; 48% of bonds with this rating category are investment banking clients of the Firm; 72% of the issuers with this rating have received financial services from the Firm.

#### **Explanation of the Barclays EM Sovereign Credit Issuer Rating System**

##### **Overweight (OW):**

The analyst expects the three-month excess return of the country's index eligible bonds to exceed the three-month excess return of the Bloomberg Barclays EM USD Sovereign Index.

##### **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.

##### **Rating Suspended (RS):**

The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity.

#### **Distribution of ratings assigned by Barclays Emerging Markets Sovereign Research at the issuer level:**

37% have been assigned an Overweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Buy rating; 14% of issuers with this rating category are investment banking clients of the Firm; 64% of the issuers with this rating have received financial services from the Firm.

24% have been assigned Market Weight rating which, for purposes of mandatory regulatory disclosures, is classified as a Hold rating; 33% of issuers with this rating category are investment banking clients of the Firm; 78% of the issuers with this rating have received financial services from the Firm.

39% have been assigned an Underweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Sell rating; 47% of issuers with this rating category are investment banking clients of the Firm; 93% of the issuers with this rating have received financial services from the Firm.

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