

MONTHLY PROFILES | October 8, 2019

EUROPE HIGH GRADE INDICES

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Euro high grade index posts only second loss of 2019

It was only the second loss for the high grade Euro Broad Market Index so far in 2019. This setback comes after a three month period of sharply lower interest rates, so perhaps a breather was overdue. At any rate, the rising yield curve gave another opportunity for spread tightening to take the spotlight, and this past month the spread return significantly cushioned the blow from higher rates.

Sovereigns, not credit, lead spread rally

As usual, it was the Sovereign sector itself that contributed the lion's share to the Euro Broad Market's excess return. That is not simply because Sovereigns make up 56% of the Euro Broad Market Index, but because that sector outperformed risk-matched German governments by 0.77%. The next-best credit sector, Quasi-Governments, posted a +0.26% excess return.

Italy continues to tighten, but more room to go

Italy (+2.33% excess return) did the best vs risk-matched Bunds as the country appears to be re-stabilizing after ousting the populist La Lega party from government. However, despite Italy's +11.62% excess return over the last 12 months there is still room for further improvement. Italy's OAS differential versus Spain still stands at 53bps, compared to a 20bps historical average.

Sterling index daily return volatility spikes higher

Despite a modest 0.39% total return for September, the Sterling Broad Market Index saw significant gyrations intra-month. As a result, the short-term volatility of daily total return spiked higher to one of its highest readings – about 2x the 10-year historical average. That may be a bit surprising looking at the month's modest ending total return, but considering the global headline risks combined with the UK domestic political turmoil, it certainly makes sense.

Enhanced rebalancing preview information now available

We will now be publishing daily rebalancing previews starting on the 15th of each month. Previously, preview files were only available on the last three days of the month, so this change gives investors significantly more time to monitor anticipated changes in the index constituencies as they evolve.

Euro Broad Market Index

Overview

Euro high grade index sees only its second loss of the year.

It was only the second loss for the high grade Euro Broad Market Index so far in 2019. The rising German yield curve cost the index nearly 1%. This setback comes after a three month period of sharply lower interest rates, so perhaps a breather was overdue. At any rate, the rising yield curve gave another opportunity for spread tightening to take the spotlight, and this past month the spread return significantly cushioned the blow from higher rates (+0.41%, see Chart 1). As usual, it was the Sovereign sector itself that contributed the lion's share to the Euro Broad Market's excess return. That is not simply because Sovereigns make up 56% of the index, but because that sector outperformed risk-matched German governments by 0.77%. The next-best credit sector, Quasi-Governments, posted a +0.26% excess return.

Euro credit lagged sovereign excess return, but swings are not unusual.

The difference in excess return between the Euro Government Index (EG00) and the Euro Non-Sovereign Index (EX00) can be extreme from month to month, but over longer periods of time the average difference is usually only a few basis points (Exhibit A). In fact, the 10-year average excess return gap is +0.05% in favor of EX00, while the more recent 5- and 3-year averages of the monthly difference is exactly zero. The average spread gap between the Non-Sovereign and Sovereign indices is 28bp over the last 10 years (Exhibit B), so you would expect a modest average pick-up over time. It is also worth mentioning that while the excess returns of the two asset classes are relatively consistent – at least over time – the Non-Sovereign monthly series is notably less volatile, and thus has the higher information ratio.

Exhibit A: Non-Sovereign - Sovereign excess return%

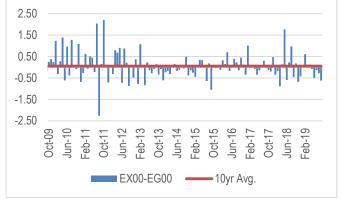


Exhibit B: Non-Sovereign - Sovereign OAS

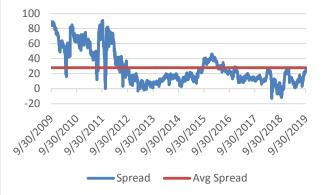


Chart 1: Euro Broad Market Index performance attribution (Sept)

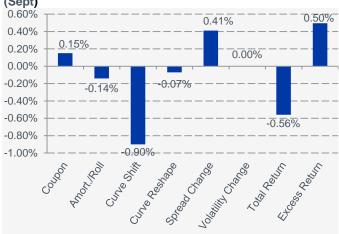


Chart 2: Euro Broad Market Index performance attribution (YTD)

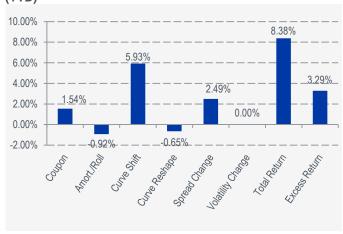


Table 1: Euro Broad Market Index return by sector (EUR terms)

| termaj | Total | Return | Price Return | | |
|----------------------------|---------|--------|--------------|--------|--|
| Sector | 1-month | | 1-month | YTD | |
| Broad Market | -0.559 | 8.385 | -0.706 | 6.845 | |
| | | | | | |
| Large Cap | -0.558 | 8.428 | -0.705 | 6.888 | |
| Euro Sovereigns | -0.411 | 10.009 | -0.577 | 8.241 | |
| 1-3 Years | -0.146 | 0.693 | -0.301 | -0.826 | |
| 3-5 Years | -0.229 | 2.870 | -0.409 | 1.192 | |
| 5-7 Years | -0.274 | 6.150 | -0.427 | 4.578 | |
| 7-10 Years | -0.459 | 9.717 | -0.609 | 8.163 | |
| 10+ Years | -0.690 | 22.712 | -0.869 | 20.473 | |
| Quasi-Governments | -0.807 | 6.934 | -0.911 | 5.853 | |
| 1-3 Years | -0.242 | 0.209 | -0.381 | -1.098 | |
| 3-5 Years | -0.500 | 2.014 | -0.591 | 1.143 | |
| 5-7 Years | -0.663 | 4.657 | -0.747 | 3.768 | |
| 7-10 Years | -0.839 | 8.532 | -0.927 | 7.639 | |
| 10+ Years | -1.696 | 21.978 | -1.809 | 20.562 | |
| Securitised/Collateralised | -0.625 | 4.317 | -0.725 | 3.312 | |
| Covered | -0.623 | 4.304 | -0.723 | 3.299 | |
| Asset backed | -1.150 | 10.815 | -1.296 | 9.378 | |
| Corporates | -0.757 | 6.746 | -0.901 | 5.266 | |
| 1-3 Years | -0.257 | 1.384 | -0.421 | -0.190 | |
| 3-5 Years | -0.567 | 4.137 | -0.701 | 2.793 | |
| 5-7 Years | -0.867 | 7.989 | -1.005 | 6.542 | |
| 7-10 Years | -1.098 | 11.844 | -1.233 | 10.382 | |
| 10+ Years | -1.699 | 17.868 | -1.848 | 16.086 | |
| Financial | -0.649 | 5.954 | -0.797 | 4.440 | |
| Non- Financial | -0.817 | 7.179 | -0.959 | 5.718 | |
| AAA Rated | -1.401 | 7.853 | -1.522 | 6.588 | |
| AA Rated | -0.885 | 4.409 | -1.010 | 3.186 | |
| A Rated | -0.878 | 5.937 | -1.004 | 4.626 | |
| BBB Rated | -0.628 | 7.919 | -0.790 | 6.241 | |

The German curve moved higher for the first time in three months, and in a nearly perfect parallel shift. But the move up was not enough to bring the curve out of negative territory.

Chart 3: Monthly change in the German curve



Chart 4: Duration-Adjusted German Government price returns (Aug)

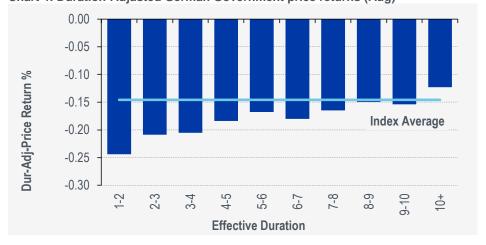


Table 2: Duration-matched combinations vs. German Government Index total return

| Eff. Duration | 1-2 yr | 2-3 yr | 3-4 yr | 4-5 yr | 5-6 yr | 6-7 yr | 7-8 yr | 8-9 yr | 9-10 yr | 10+ |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|
| 1-2 yr | n.a. | (0.05) | (0.05) | 0.08 |
| 2-3 yr | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | (0.05) | (0.06) | 0.05 |
| 3-4 yr | | | n.a. | n.a. | n.a. | n.a. | n.a. | (0.05) | (0.07) | 0.01 |
| 4-5 yr | | | | n.a. | n.a. | n.a. | n.a. | (0.06) | (0.07) | (0.03) |
| 5-6 yr | | | | | n.a. | n.a. | n.a. | (0.06) | (0.08) | (0.04) |
| 6-7 yr | | | | | | n.a. | n.a. | (0.06) | (0.09) | (80.0) |
| 7-8 yr | | | | | | | n.a. | (0.07) | (0.10) | (0.10) |
| 8-9 yr | | | | | | | | n.a. | n.a. | n.a. |
| 9-10 yr | | | | | | | | | n.a. | n.a. |
| 10+ | | | | | | | | | | n.a. |

Note: Each cell represents a combination of the bonds in each intersecting duration bands of the index weighted to match the average duration of the German Sovereign Index.

Excess Returns

The 13bp average sell-off in the German government yield curve was an easy hurdle for all Eurozone member countries with the exception of Slovakia (-0.03%) and Slovenia (-0.35%). All others managed to beat Bunds on a duration-matched basis. Italy (+2.33%) did better than any other country by a big margin as the Southern European nation appears to be re-stabilizing after ousting the populist La Lega party from government. However, despite Italy's +11.62% excess return over the last 12 months there is still room for further improvement. Italy's OAS differential versus Spain still stands at 53bps, compared to a 20bps historical average.

Table 3: Euro Government Index excess returns by country

| Table 3. Euro | Governin | ent maex ex | ccess returns | by counti | у | |
|------------------|----------------|-------------------|----------------------|--------------|----------------------|-----------------|
| | | Effective | 1-mth | | Excess Return | |
| | | Duration | Chg OAS (1) | 1-mo | 3-mo | 12-mo |
| Sovereign | | | 3 () | | | |
| AAA | | | | | | |
| Germany | G0D0 | 8.36 | 0 | 0.04 | 0.02 | 0.07 |
| Luxembourg | G0LU | 4.82 | -3 | 0.15 | 0.27 | 0.54 |
| Netherlands | G0N0 | 9.07 | -3 | 0.19 | 0.06 | 0.01 |
| AA | | | | | | |
| Austria | G0H0 | 11.52 | -2 | 0.24 | 0.38 | 0.28 |
| Belgium | G0G0 | 10.57 | -6 | 0.72 | 0.96 | 1.38 |
| Finland | G0K0 | 7.84 | -2 | 0.08 | 0.11 | 0.04 |
| France | G0F0 | 8.93 | -1 | 0.12 | 0.16 | 0.55 |
| Α | | | | | | |
| Ireland | G0R0 | 8.78 | -7 | 0.78 | -0.22 | 0.82 |
| Latvia | G0LV | 13.85 | -8 | 1.02 | 3.72 | 1.78 |
| Slovakia | G0SL | 8.47 | 1 | -0.03 | 0.55 | 0.89 |
| Slovenia | G0SV | 9.43 | 2 | -0.35 | -0.36 | 1.13 |
| Spain | G0E0 | 8.30 | -7 | 0.67 | 0.07 | 3.82 |
| Lithuania | G0LT | 10.81 | -10 | 1.15 | 2.84 | 0.03 |
| BBB | | | | | | |
| Italy | G0I0 | 7.34 | -31 | 2.33 | 6.72 | 11.62 |
| Portugal | G0U0 | 7.05 | -8 | 0.64 | 0.17 | 5.59 |
| Sovereign | EG00 | 8.51 | -9 | 0.77 | 1.66 | 3.55 |
| 1 moth Change Of | C annoad in ha | and an the consti | tronta for the month | and avaludes | the impost of the | and of month ro |

¹⁻mnth Change OAS spread is based on the constituents for the month and excludes the impact of the end of month rebalancing. Spread changes are averaged on the basis of beginning-of-month bond weights.

Euro Corporates (+0.06%) basically managed to keep pace with duration-matched German governments, but six sectors actually recorded negative excess returns. All sectors but two posted excess returns within a +/- 0.20% band. The only two that broke out of that corridor were Energy (+0.41%) and Capital Goods (+0.77%). Energy benefited from bounce in Pemex (+3.45%; 10.1% weight), while Capital Goods was propelled by a strong rebound in General Electric (+4.27%; 19.4% weight). GE's sizable rally followed its big loss in August as an accounting fraud investigation was announced that related to losses at its Baker Hughes subsidiary.

Table 4: Euro Non Sovereign Index excess returns by sector

| Tubio 4. Euro Non Sove | | Effective | 1-mth_ | Exc | | |
|----------------------------|------|-----------|-------------|-------|-------|-------|
| | | Duration | Chg OAS (1) | 1-mo | 3-mo | 12-mo |
| Non Sovereign | | | | | | |
| Quasi-Government | EQ00 | 7.30 | -2 | 0.27 | 0.63 | 0.86 |
| Covered Bonds | ECV0 | 4.90 | -4 | 0.16 | 0.49 | 1.31 |
| Asset Backed | EA00 | 6.78 | 4 | -0.14 | -0.17 | 0.82 |
| Securitized/Collateralized | EL00 | 4.90 | -3 | 0.16 | 0.49 | 1.31 |
| Banking | EBBA | 4.21 | -1 | 0.10 | 0.60 | 2.21 |
| Financial Services | EBFS | 5.37 | 1 | 0.04 | 0.71 | 2.19 |
| Insurance | EBIN | 5.55 | 2 | -0.02 | 1.42 | 4.77 |
| Sub-Total Financial | EB00 | 4.44 | 0 | 0.08 | 0.71 | 2.55 |
| Automotive | EJAU | 4.65 | -1 | 0.18 | 0.70 | 2.09 |
| Basic Industry | EJBS | 5.01 | 1 | 0.03 | 0.40 | 1.82 |
| Capital Goods | EJCP | 5.95 | -7 | 0.77 | 0.21 | 0.51 |
| Consumer Goods | EJCS | 6.05 | 4 | -0.20 | 0.30 | 1.39 |
| Energy | EJEN | 5.25 | -8 | 0.41 | 0.74 | 1.82 |
| Healthcare | EJHC | 7.04 | 3 | -0.12 | 0.24 | 1.41 |
| Leisure | EJLE | 3.68 | -4 | 0.15 | 0.55 | 1.34 |
| Media | EJME | 5.06 | -4 | 0.11 | 0.62 | 2.45 |
| Real Estate | EJRE | 5.75 | 0 | 0.06 | 0.60 | 3.12 |
| Retail | EJRL | 5.54 | 0 | 0.00 | 0.45 | 0.79 |
| Services | EJSE | 4.96 | 1 | 0.06 | 0.61 | 2.03 |
| Technology & Electronics | EJTE | 5.52 | 2 | -0.04 | 0.40 | 1.54 |
| Telecommunications | EJTC | 6.22 | 3 | -0.16 | 0.37 | 2.48 |
| Transportation | EJTR | 5.96 | 3 | -0.16 | 0.32 | 1.90 |
| Sub-Total Industrial | EJ00 | 5.68 | 0 | 0.05 | 0.45 | 1.85 |
| Sub-Total Utility | EK00 | 5.75 | 0 | 0.04 | 0.58 | 2.63 |
| Corporate | ER00 | 5.25 | 1 | 0.06 | 0.56 | 2.18 |
| Non-Sovereign | EX00 | 5.91 | -1 | 0.15 | 0.57 | 1.71 |

¹ Change OAS spread is based on the constituents for the month and excludes the impact of the end of month re-balancing. Spread changes are averaged on the basis of beginning-of-month bond weights.

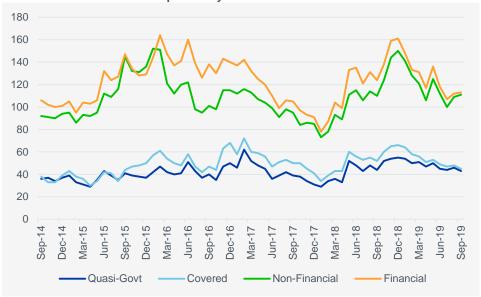
A total of eight Banking issuers were included in the top-twenty performers list, and five of them were British (Barclays, Royal Bank of Scotland, Lloyds, HSBC and Nationwide). However, neither a Banking issuer nor a British company was included in the top three. Those positions went to General Electric (+4.27%), Pemex (+3.45%) and Volkswagen (+0.37%). And in the case of the last one it was mostly due to its sheer weight, which at 2.05% share it is the second-biggest issuer in the Euro Corporate Index. At the other end of the spectrum, EDF (-0.61%) took the bottom position in the table as it announced it will cost an extra £2.9bn to complete the controversial Hinkley Point C nuclear power plant in the south-west of England.

Table 5: Best/Worst performers ranked by weighted excess returns

| Table | 5: Best/Wors | | <u>mers</u> rank | | ted excess r | eturns |
|--------|----------------------|------------------|------------------|-----------|--------------|--|
| | | 1-mo | | Beginning | Weighted | |
| | | Chg | Excess | of Month | Excess | |
| Rank | Issuer | OAS ¹ | Return | % Weight | Return | Sector |
| | enty Performer | | | | | |
| 1 | GE | -54 | 4.27 | 0.63 | 0.0268 | Capital Goods |
| 2 | PEMEX | -77 | 3.45 | 0.53 | 0.0182 | Energy |
| 3 | VW | -2 | 0.37 | 2.05 | 0.0077 | Automotive |
| 4 | ISPIM | -12 | 0.72 | 0.55 | 0.0040 | Banking |
| 5 | UCGIM | -18 | 0.76 | 0.50 | 0.0038 | Banking |
| 6 | BACR | -15 | 0.70 | 0.53 | 0.0037 | Banking |
| 7 | ASSGEN | -11 | 0.75 | 0.43 | 0.0032 | Insurance |
| 8 | MDT | -4 | 0.68 | 0.47 | 0.0032 | Healthcare |
| 9 | RBS | -20 | 0.94 | 0.34 | 0.0032 | Banking |
| 10 | AUCHAN | -33 | 1.46 | 0.19 | 0.0028 | Retail |
| 11 | LLOYDS | -11 | 0.77 | 0.33 | 0.0025 | Banking |
| 12 | TOTAL | -3 | 0.23 | 1.07 | 0.0025 | Energy |
| 13 | GAZPRU | -24 | 1.16 | 0.21 | 0.0024 | Energy |
| 14 | DAIGR | -2 | 0.20 | 1.06 | 0.0021 | Automotive |
| 15 | DB | -7 | 0.37 | 0.49 | 0.0018 | Banking |
| 16 | MRKGR | -2 | 0.70 | 0.23 | 0.0016 | Healthcare |
| 17 | HSBC | -3 | 0.24 | 0.67 | 0.0016 | Banking |
| 18 | ENELIM | -1 | 0.24 | 0.62 | 0.0015 | Utility |
| 19 | NWIDE | -10 | 0.82 | 0.17 | 0.0014 | Banking |
| 20 | BHP | -9 | 0.48 | 0.28 | 0.0013 | Basic Industry |
| | | | | 11.33 | 0.0952 | <u>, </u> |
| Bottom | Twenty Perfor | mers: | | | | |
| 697 | CFRVX | 9 | -0.78 | 0.1816 | -0.0014 | Retail |
| 698 | BPLN | 5 | -0.22 | 0.7037 | -0.0016 | Energy |
| 699 | NNGRNV | 14 | -0.56 | 0.2801 | -0.0016 | Insurance |
| 700 | JNJ | 11 | -1.06 | 0.1759 | -0.0019 | Healthcare |
| 701 | ABESM | 12 | -0.63 | 0.3047 | -0.0019 | Transportation |
| 702 | DGFP | 6 | -0.36 | 0.5956 | -0.0021 | Transportation |
| 703 | ABNANV | 11 | -0.35 | 0.6146 | -0.0021 | Banking |
| 704 | ANNGR | 6 | -0.44 | 0.5013 | -0.0022 | Real Estate |
| 705 | CMZB | 11 | -0.43 | 0.5306 | -0.0023 | Banking |
| 706 | ULFP | 6 | -0.37 | 0.6474 | -0.0024 | Real Estate |
| 707 | VZ | 6 | -0.42 | 0.5588 | -0.0024 | Telecommunications |
| 708 | SANFP | 5 | -0.34 | 0.7522 | -0.0026 | Healthcare |
| 709 | DT | 5 | -0.29 | 0.9176 | -0.0026 | Telecommunications |
| 710 | F | 31 | -0.87 | 0.3104 | -0.0027 | Automotive |
| 711 | Т | 8 | -0.33 | 0.8388 | -0.0027 | Telecommunications |
| 712 | TELEFO | 6 | -0.34 | 0.8093 | -0.0028 | Telecommunications |
| 713 | MO | 34 | -2.08 | 0.1849 | -0.0039 | Consumer Goods |
| 714 | ATLIM | 31 | -1.33 | 0.3146 | -0.0042 | Transportation |
| 715 | BATSLN | 19 | -1.27 | 0.3390 | -0.0043 | Consumer Goods |
| 716 | EDF | 10 | -0.61 | 1.0676 | -0.0066 | Utility |
| | | | | 10.63 | 0.7292 | |

Spread changes were mixed in September, with the Quasi Government and Covered sectors tightening while the Corporate sector widened. All sectors tightened over 3Q-19, with the Covered sector tightening the most – and twice as much as the next sector – at least on a percentage basis (-8%).





All Corporate rating spreads continued to widen and, for the second consecutive month, the highest-rated segments moved more on a percentage basis.

Chart 6: Euro corporate spreads by rating



Composition

The Euro Government Index saw a 0.11-year rebalancing duration extension that was slightly above the 10-year September average (+0.08yr). However, the index's duration remained practically unchanged MoM (-0.01yrs) as the rebalancing shift was not enough to offset both the monthly duration drift and the impact of the rising yield curve. The Sovereign sector gave up 0.16% share in the Euro Broad Market Index, Corporates gained 0.33% versus a month ago. Now at 21.10%, this is the most Corporates have represented in the Euro Broad Market Index since July 2011.

Table 6: Euro Broad Market Index characteristics

| | Effec | tive Mod D | ur | Q | % Sector | | %of I | Broad Mai | rket |
|-------------------------------|-----------------------|--------------|----------------|--------|----------|-------|--------|-----------|-------|
| Sector | 30-Sep | 31-Aug | Chg | 30-Sep | 31-Aug | Chg | 30-Sep | 31-Aug | Chg |
| Broad Market | 7.38 | 7.39 | -0.01 | 100.00 | 100.00 | 0.00 | 100.00 | 100.00 | 0.00 |
| | | | | | | | | | |
| Euro Sovereigns | 8.51 | 8.52 | -0.01 | 100.00 | 100.00 | 0.00 | 56.37 | 56.52 | -0.16 |
| Austria | 11.52 | 11.85 | -0.33 | 3.53 | 3.54 | -0.02 | 1.99 | 2.00 | -0.02 |
| Belgium | 10.57 | 10.17 | 0.40 | 6.05 | 6.31 | -0.27 | 3.41 | 3.57 | -0.16 |
| Finland | 7.84 | 7.63 | 0.20 | 1.39 | 1.44 | -0.05 | 0.78 | 0.82 | -0.03 |
| France | 8.93 | 9.05 | -0.12 | 25.21 | 25.06 | 0.15 | 14.21 | 14.17 | 0.04 |
| Germany | 8.36 | 8.31 | 0.05 | 15.97 | 16.30 | -0.33 | 9.00 | 9.21 | -0.21 |
| Ireland | 8.78 | 8.88 | -0.10 | 1.83 | 1.81 | 0.02 | 1.03 | 1.02 | 0.01 |
| Italy | 7.34 | 7.23 | 0.10 | 23.54 | 23.22 | 0.31 | 13.27 | 13.13 | 0.14 |
| Latvia | 13.85 | 14.01 | -0.17 | 0.07 | 0.07 | 0.00 | 0.04 | 0.04 | 0.00 |
| Lithuania | 10.81 | 10.91 | -0.11 | 0.04 | 0.04 | 0.00 | 0.02 | 0.02 | 0.00 |
| Luxembourg | 4.82 | 4.91 | -0.09 | 0.08 | 0.08 | 0.00 | 0.04 | 0.04 | 0.00 |
| Netherlands | 9.07 | 9.21 | -0.15 | 4.68 | 4.68 | 0.00 | 2.64 | 2.64 | -0.01 |
| Portugal | 7.05 | 7.12 | -0.07 | 2.27 | 2.24 | 0.03 | 1.28 | 1.27 | 0.01 |
| Slovakia | 8.47 | 8.56 | -0.09 | 0.56 | 0.56 | 0.00 | 0.32 | 0.32 | 0.00 |
| Slovenia | 9.43 | 9.59 | -0.16 | 0.42 | 0.42 | -0.01 | 0.24 | 0.24 | 0.00 |
| Spain | 8.30 | 8.37 | -0.08 | 14.35 | 14.19 | 0.16 | 8.09 | 8.02 | 0.07 |
| Cyprus | 6.69 | 6.75 | -0.06 | 0.10 | 0.10 | 0.00 | 0.05 | 0.05 | 0.00 |
| Quasi-Governments | 7.41 | 7.47 | -0.06 | 100.00 | 100.00 | 0.00 | 14.67 | 14.76 | -0.09 |
| | 7.41 | 7.47 | 0.05 | 7.42 | 7.52 | -0.10 | 1.09 | 14.76 | -0.09 |
| Foreign Sovereigns | 6.12 | 6.21 | -0.09 | 17.32 | 17.32 | 0.00 | 2.54 | 2.57 | -0.03 |
| Agencies Local Governments | 7.66 | 7.68 | -0.09 | 20.53 | 20.67 | -0.14 | 3.01 | 3.06 | -0.02 |
| Supranationals | 7.00 | 7.06 | -0.02 | 23.43 | 23.47 | -0.14 | 3.44 | 3.48 | -0.03 |
| Government Guaranteed | 7.55 | 7.69 | -0.01 | 31.30 | 31.03 | 0.27 | 4.59 | 4.60 | 0.00 |
| Government Guaranteed | 7.55 | 7.09 | -0.14 | 31.30 | 31.03 | 0.27 | 4.59 | 4.00 | 0.00 |
| Securitised/Collateralised | 4.90 | 4.92 | -0.01 | 100.00 | 100.00 | 0.00 | 7.86 | 7.95 | -0.09 |
| Covered Bonds | 4.90 | 4.91 | -0.01 | 99.69 | 99.69 | 0.00 | 7.84 | 7.92 | -0.09 |
| Asset backed | 6.78 | 6.90 | -0.12 | 0.31 | 0.31 | 0.00 | 0.02 | 0.02 | 0.00 |
| Cornorato | 5.25 | 5.18 | 0.07 | 100.00 | 100.00 | 0.00 | 21.10 | 20.77 | 0.33 |
| Corporate Financials | 5. 2 5 4.44 | 3.16 4.44 | 0.07 | 35.47 | 35.82 | -0.35 | 7.49 | 7.44 | 0.05 |
| Non-Financials | 5.69 | 5.59 | 0.00 | 64.53 | 64.18 | 0.35 | 13.62 | 13.33 | 0.05 |
| Broad Market | 7.38 | 7.39 | - 0.1 0 | 100.00 | 100.00 | 0.35 | 100.00 | 100.00 | 0.29 |
| DIDAU MARKEL | 1.38 | 1.39 | -0.01 | 100.00 | 100.00 | 0.00 | 100.00 | 100.00 | 0.00 |

Sterling Broad Market Index

Overview

After a 5+% two-month run, sterling high grade posts a "modest" return.

It was an almost notably modest return for the Sterling Broad Market Index in September (0.39%). A small Gilt rally gave a positive cast to performance, but after the strong rally over the prior two-month period delivered a 5.26% total return it seems exceedingly modest. But that is an illusion created by the unusually large scale of the June-August rally. In fact, given the 1% starting yield of the Sterling Broad Market Index, this past month's return represents over 4x the amount of pure interest accrual.

Daily return volatility spikes to twice the historical average.

The relatively staid performance of the sterling high grade index in September was the result of a roller-coaster ride over the course of the month. In the first couple of days the MTD return of the Sterling Broad Market Index was as over 1%, then slipped back to a nearly 2.5% loss by midmonth before recovering over the next few weeks. As a result the short-term volatility of daily total return spiked higher to one of its highest readings (1.72, Exhibit C), and about 2x the 10-year historical average. That may be a bit surprising looking at the month's modest ending total return, but considering the global headline risks combined with the UK domestic political turmoil, it certainly makes sense.

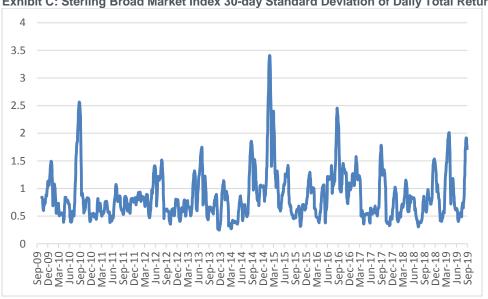


Exhibit C: Sterling Broad Market Index 30-day Standard Deviation of Daily Total Return %

Chart 7: Sterling Broad Market Index performance attribution (Sept)

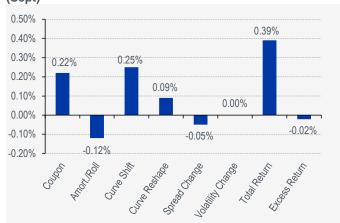


Chart 8: Sterling Broad Market Index performance attribution (YTD)

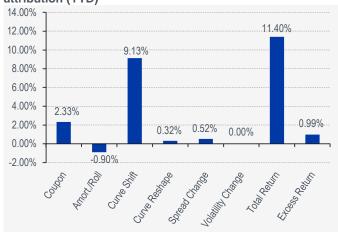
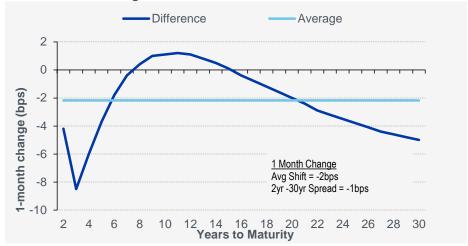


Table 8: Sterling Broad Market Index returns by sector (local)

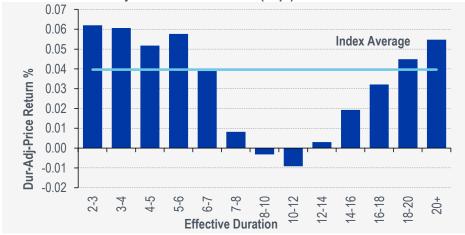
| | | | Total Return | | Price R | eturn |
|------------------------------|--------|----------|--------------|--------|---------|--------|
| | Ticker | # Issues | 1-month | YTD | 1-month | YTD |
| Broad Market | UK00 | 1244 | 0.389 | 11.398 | 0.170 | 9.071 |
| | | | | | | |
| Gilt | G0L0 | 42 | 0.530 | 11.953 | 0.334 | 9.846 |
| 1-3 Years | G1L0 | 6 | 0.085 | 1.069 | -0.181 | -1.483 |
| 3-5 years | G2L0 | 4 | 0.217 | 2.696 | 0.104 | 1.568 |
| 5-7 Years | G3L0 | 4 | 0.277 | 4.583 | 0.072 | 2.475 |
| 7-10 Years | G4L0 | 4 | 0.050 | 7.436 | -0.158 | 5.476 |
| 10+ Years | G9L0 | 24 | 0.782 | 18.566 | 0.594 | 16.364 |
| All Non-Gilts | UN00 | 1202 | 0.080 | 10.225 | -0.191 | 7.413 |
| 1-3 Years | UN01 | 251 | 0.116 | 2.679 | -0.124 | 0.350 |
| 3-5 years | UN02 | 180 | 0.268 | 4.820 | 0.013 | 2.502 |
| 5-7 Years | UN03 | 168 | 0.260 | 7.742 | -0.007 | 4.935 |
| 7-10 Years | UN04 | 170 | 0.025 | 9.790 | -0.267 | 6.698 |
| 10+ Years | UN09 | 433 | -0.039 | 16.873 | -0.323 | 13.715 |
| AAA Rated | UN10 | 167 | 0.123 | 6.321 | -0.065 | 4.435 |
| AA Rated | UN20 | 168 | 0.096 | 9.301 | -0.112 | 7.127 |
| A Rated | UN30 | 376 | 0.035 | 12.060 | -0.239 | 9.146 |
| BBB Rated | UN40 | 491 | 0.084 | 11.354 | -0.250 | 7.871 |
| Foreign & Quasi- Governments | UQ00 | 184 | 0.156 | 6.720 | -0.026 | 4.878 |
| 1-3 Years | UQ01 | 69 | 0.064 | 1.712 | -0.068 | 0.409 |
| 3-5 Years | UQ02 | 40 | 0.192 | 3.476 | 0.073 | 2.396 |
| 5-7 Years | UQ03 | 21 | 0.247 | 5.545 | 0.065 | 3.547 |
| 7-10 Years | UQ04 | 17 | 0.209 | 9.686 | -0.062 | 6.797 |
| 10+ Years | UQ09 | 37 | 0.177 | 15.439 | -0.065 | 12.761 |
| Corporate & Collateralized | UC00 | 1018 | 0.058 | 11.237 | -0.238 | 8.140 |
| 1-3 Years | UC01 | 182 | 0.146 | 3.337 | -0.157 | 0.322 |
| 3-5 years | UC02 | 140 | 0.304 | 5.393 | -0.016 | 2.526 |
| 5-7 Years | UC03 | 147 | 0.262 | 8.090 | -0.020 | 5.148 |
| 7-10 Years | UC04 | 153 | -0.032 | 9.797 | -0.331 | 6.646 |
| 10+ Years | UC09 | 396 | -0.071 | 17.109 | -0.361 | 13.877 |
| AAA Rated | UC10 | 45 | 0.238 | 9.005 | -0.015 | 6.409 |
| AA Rated | UC20 | 112 | 0.017 | 9.733 | -0.205 | 7.417 |
| A Rated | UC30 | 374 | 0.033 | 12.084 | -0.241 | 9.168 |
| BBB Rated | UC40 | 487 | 0.063 | 11.233 | -0.270 | 7.766 |

After back-to-back double-digit basis point curve rallies, the Gilt curve fell by only a relatively modest 2bp on average.

Chart 9: 1-Month change in the Gilt curve







Excess Returns

The Sterling Corporate Index (-0.17%) posted its second consecutive negative excess return, and just the third of 2019. Most sectors ended with a loss vs risk-matched Gilts, with the only exceptions Banking (+0.22%), Insurance (+0.64%) and Capital Goods (+0.89%). Capital Goods benefited from the rebound of General Electric (+1.54%) following August's sizable losses, as that issuer accounts for two thirds of the sector weight. At the other side of the spectrum, the worst-performing sector was Utility (-0.72%), mostly due to French issuer EDF (-1.61%; 16.9% weight), as it announced it will cost an extra £2.9bn to complete the controversial Hinkley Point C nuclear power plant in the south-west of England. Quasi-governments (-0.03%) and Securitized/Collateralized (-0.16%) also ended behind duration-matched Gilts. In the case of Securitized/Collateralized, like Corporates, September's result was a third negative monthly excess return and first negative calendar quarter of the year.

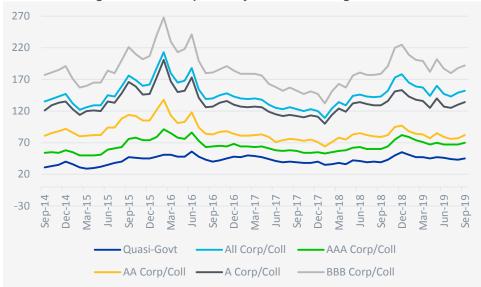
Table 9: Sterling Broad Market excess returns by sector

| Table 6: Sterning Bre | | Effective | 1-mo Chg | Excess Returns | | | | |
|----------------------------|------|-----------|----------|----------------|-------|-------|--|--|
| | | Duration | OAS (1) | 1-mo | 3-mo | 12-mo | | |
| Quasi & Foreign Sov | UQ00 | 6.404 | 2 | -0.03 | 0.21 | 0.18 | | |
| Corporates: | | | | | | | | |
| Banking | UFBA | 5.91 | -1 | 0.22 | 0.10 | 2.11 | | |
| Financial Services | UFFS | 9.84 | 3 | -0.29 | -0.27 | 1.42 | | |
| Insurance | UFIN | 6.38 | -4 | 0.64 | 0.10 | 3.58 | | |
| Sub-Total Financial | UF00 | 6.356 | -1 | 0.29 | 0.07 | 2.45 | | |
| Automotive | UIAU | 3.19 | 9 | -0.15 | 0.42 | 1.53 | | |
| Basic Industry | UIBS | 7.71 | 4 | -0.35 | -0.11 | 1.77 | | |
| Capital Goods | UICP | 8.53 | -10 | 0.89 | -1.03 | -5.30 | | |
| Consumer Goods | UICS | 6.86 | 6 | -0.40 | 0.22 | -0.23 | | |
| Energy | UIEN | 6.99 | 4 | -0.27 | -0.02 | 1.44 | | |
| Healthcare | UIHC | 12.21 | 7 | -0.70 | -0.87 | -0.61 | | |
| Leisure | UILE | 4.81 | 4 | -0.07 | 0.49 | 1.17 | | |
| Media | UIME | 8.81 | 6 | -0.59 | -0.68 | 1.37 | | |
| Real Estate | UIRE | 12.77 | 1 | -0.10 | 0.35 | 1.19 | | |
| Retail | UIRL | 8.30 | 7 | -0.52 | -0.31 | 0.71 | | |
| Services | UISE | 19.92 | 3 | -0.30 | 0.33 | 2.30 | | |
| Technology & Electronics | UITE | 7.02 | 4 | -0.19 | 0.06 | 0.69 | | |
| Telecommunications | UITC | 10.25 | 6 | -0.54 | -0.26 | 1.44 | | |
| Transportation | UITR | 9.62 | 2 | -0.20 | 0.29 | 1.42 | | |
| Sub-Total Industrial | UI00 | 9.952 | 4 | -0.27 | 0.00 | 0.75 | | |
| Sub-Total Utility | UU00 | 9.828 | 7 | -0.72 | -0.60 | 1.97 | | |
| Total Corporate | UR00 | 8.728 | 3 | -0.17 | -0.09 | 1.57 | | |
| Securitized/Collateralized | UL00 | 7.791 | 3 | -0.16 | -0.44 | 0.31 | | |
| Grand Total Non- Gilt | UN00 | 8.089 | 3 | -0.14 | -0.07 | 1.09 | | |

⁽¹⁾ Change OAS spread is based on the constituents for the month and excludes the impact of the end of month re-balancing. Spread changes are averaged on the basis of beginning-of-month bond weights.

After previously tightening, all credit segment spreads widened. By the end of the quarter only the Quasi Government sector was able to post a modest Q3 spread rally.





Composition

UK Gilt duration saw its third consecutive double-digit duration extension MoM to extend the index to another new all-time high of 13.61 years. At the rebalancing the Gilt index saw a 0.25-year extension, and while this might appear unusually large the last five of six October rebalancing extensions have been equal or bigger. This extension was partially the result of taps in the 6-, 10- and 35-year bonds for a total £10bn, but a larger impact came from the removal of a £25bn short bond.

Table 10: Sterling Broad Market Index characteristics

| | Effec | tive Mod | Dur | 9 | % Sector | | %of I | Broad Mai | rket |
|----------------------------|--------|----------|-------|--------|----------|-------|--------|-----------|-------|
| | 30-Sep | 31-Aug | Chg | 30-Sep | 31-Aug | Chg | 30-Sep | 31-Aug | Chg |
| Broad | 11.87 | 11.74 | 0.14 | 100.00 | 100.00 | 0.00 | 100.00 | 100.00 | 0.00 |
| Gilts | 13.61 | 13.38 | 0.23 | 100.00 | 100.00 | 0.00 | 68.60 | 68.77 | -0.17 |
| Oillo | 10.01 | 10.00 | 0.23 | 100.00 | 100.00 | 0.00 | 00.00 | 00.77 | -0.17 |
| For. & Quasi-Govt | 6.40 | 6.47 | -0.06 | 100.00 | 100.00 | 0.00 | 6.93 | 6.88 | 0.06 |
| Agency | 7.45 | 7.50 | -0.05 | 11.55 | 11.59 | -0.03 | 0.80 | 0.80 | 0.00 |
| Government Guaranteed | 5.94 | 5.99 | -0.05 | 41.86 | 42.13 | -0.27 | 2.90 | 2.90 | 0.00 |
| Local-Authority | 5.84 | 5.95 | -0.11 | 5.46 | 5.31 | 0.15 | 0.38 | 0.36 | 0.01 |
| Supranational | 6.40 | 6.45 | -0.05 | 37.08 | 36.94 | 0.13 | 2.57 | 2.54 | 0.03 |
| Foreign Sovereign | 9.11 | 9.25 | -0.14 | 4.06 | 4.04 | 0.02 | 0.28 | 0.28 | 0.00 |
| Corporate & Collateralized | 8.57 | 8.58 | -0.01 | 100.00 | 100.00 | 0.00 | 24.47 | 24.35 | 0.11 |
| Asset backed | 9.13 | 9.21 | -0.08 | 9.20 | 9.49 | -0.29 | 2.25 | 2.31 | -0.06 |
| Automotive | 3.19 | 3.22 | -0.03 | 2.73 | 2.58 | 0.15 | 0.67 | 0.63 | 0.04 |
| Banking | 5.91 | 5.92 | -0.01 | 18.11 | 17.76 | 0.35 | 4.43 | 4.32 | 0.11 |
| Basic Industry | 7.71 | 7.76 | -0.05 | 1.77 | 1.79 | -0.02 | 0.43 | 0.44 | 0.00 |
| Capital Goods | 8.53 | 8.27 | 0.26 | 1.59 | 1.64 | -0.05 | 0.39 | 0.40 | -0.01 |
| Consumer Goods | 6.86 | 6.92 | -0.06 | 3.76 | 3.80 | -0.04 | 0.92 | 0.93 | 0.00 |
| Energy | 6.99 | 6.69 | 0.30 | 2.32 | 2.36 | -0.04 | 0.57 | 0.57 | -0.01 |
| Financial Services | 9.84 | 9.93 | -0.09 | 2.29 | 2.30 | -0.01 | 0.56 | 0.56 | 0.00 |
| Healthcare | 12.21 | 12.28 | -0.07 | 2.39 | 2.41 | -0.02 | 0.58 | 0.59 | 0.00 |
| Insurance | 6.38 | 6.30 | 0.08 | 7.20 | 6.95 | 0.25 | 1.76 | 1.69 | 0.07 |
| Leisure | 4.81 | 4.89 | -0.08 | 0.32 | 0.32 | 0.00 | 0.08 | 0.08 | 0.00 |
| Media | 8.81 | 8.88 | -0.07 | 0.94 | 0.95 | -0.01 | 0.23 | 0.23 | 0.00 |
| Real Estate | 12.77 | 12.79 | -0.02 | 8.98 | 8.96 | 0.02 | 2.20 | 2.18 | 0.01 |
| Retail | 8.30 | 8.37 | -0.07 | 2.04 | 2.06 | -0.02 | 0.50 | 0.50 | 0.00 |
| Services | 19.92 | 19.81 | 0.11 | 2.14 | 2.13 | 0.00 | 0.52 | 0.52 | 0.00 |
| Technology & Electronics | 7.02 | 7.11 | -0.09 | 1.19 | 1.19 | 0.00 | 0.29 | 0.29 | 0.00 |
| Telecommunications | 10.25 | 10.15 | 0.10 | 6.18 | 6.24 | -0.06 | 1.51 | 1.52 | -0.01 |
| Transportation | 9.62 | 9.61 | 0.01 | 3.23 | 3.26 | -0.03 | 0.79 | 0.79 | 0.00 |
| Utility | 9.83 | 9.71 | 0.12 | 15.49 | 15.64 | -0.16 | 3.79 | 3.81 | -0.02 |

Return Attributions

Table 11: Pan-European index return attribution by sector (Sept)

| Table 11: Pan-Europear | n index r | return attrib | ution by secto | | Cumro | Cureed | Volotility | Total | Evene |
|----------------------------------|--------------|----------------|--------------------------|------------------|------------------|------------------|----------------------|------------------|------------------|
| | Index | Coupon | Amort./Roll | Curve Shift | Curve Reshape | Spread Change | Volatility Return | Total Return | Excess Return |
| Pan-Europe Broad Market | PE00 | 0.16% | -0.14% | -0.73% | -0.04% | 0.33% | 0.00% | -0.43% | 0.41% |
| Euro Markets | 1 200 | 0.1070 | 0.1470 | 0.1070 | 0.0470 | 0.0070 | 0.0070 | 0.4070 | 0.4170 |
| Euro Broad Market | EMU0 | 0.15% | -0.14% | -0.90% | -0.07% | 0.41% | 0.00% | -0.56% | 0.50% |
| Euro Large Cap | EMUL | 0.15% | -0.14% | -0.90% | -0.07% | 0.41% | 0.00% | -0.56% | 0.50% |
| Euro Governments | EG00 | 0.17% | -0.16% | -1.04% | -0.05% | 0.67% | 0.00% | -0.41% | 0.77% |
| Quasi-Governments | EQ00 | 0.10% | -0.12% | -0.91% | -0.07% | 0.19% | 0.00% | -0.81% | 0.26% |
| Pfandbriefe | EP00 | 0.05% | -0.07% | -0.65% | -0.11% | 0.09% | 0.00% | -0.70% | 0.14% |
| Corporates | ER00 | 0.14% | -0.11% | -0.63% | -0.10% | -0.05% | 0.00% | -0.76% | 0.06% |
| Asset-backed Financial | EA00 EB00 | 0.15% 0.15% | -0.31% -0.12% | -0.83% | -0.01% -0.11% | -0.14% -0.02% | 0.00% 0.00% | -1.15% -0.65% | -0.14% 0.08% |
| Non-Financial | EN00 | 0.13% | -0.12 <i>%</i> -0.11% | -0.54% -0.68% | -0.11% | -0.02% | 0.00% | -0.82% | 0.05% |
| AAA Corporates | ER10 | 0.12% | -0.11% | -0.90% | -0.10% | -0.47% | 0.00% | -1.40% | -0.35% |
| AA Corporates | ER20 | 0.12% | -0.13% | -0.61% | -0.09% | -0.17% | 0.00% | -0.89% | -0.10% |
| A Corporates | ER30 | 0.13% | -0.11% | -0.66% | -0.10% | -0.13% | 0.00% | -0.88% | -0.03% |
| BBB Corporates | ER40 | 0.16% | -0.11% | -0.61% | -0.11% | 0.04% | 0.00% | -0.63% | 0.18% |
| Banking | EBBA | 0.13% | -0.12% | -0.52% | -0.11% | 0.01% | 0.00% | -0.60% | 0.10% |
| Financial Services | EBFS | 0.13% | -0.09% | -0.67% | -0.10% | -0.08% | 0.00% | -0.82% | 0.04% |
| Insurance | EBIN | 0.26% 0.12% | -0.17% -0.08% | -0.67% -0.57% | -0.12% -0.09% | -0.19% 0.04% | 0.00% 0.00% | -0.89% -0.57% | -0.02% 0.18% |
| Automotive Basic Industry | EJAU EJBS | 0.12% | -0.06% | -0.57 % | -0.09% | -0.09% | 0.00% | -0.76% | 0.16% |
| Capital Goods | EJCP | 0.12% | -0.08% | -0.72% | -0.10% | 0.64% | 0.00% | -0.13% | 0.77% |
| Consumer Goods | EJCS | 0.12% | -0.09% | -0.75% | -0.09% | -0.32% | 0.01% | -1.13% | -0.20% |
| Energy | EJEN | 0.16% | -0.12% | -0.64% | -0.11% | 0.29% | 0.00% | -0.41% | 0.41% |
| Healthcare | EJHC | 0.11% | -0.08% | -0.78% | -0.09% | -0.23% | 0.01% | -1.07% | -0.12% |
| Leisure | EJLE | 0.14% | -0.11% | -0.44% | -0.10% | 0.05% | 0.00% | -0.47% | 0.15% |
| Media | EJME | 0.13% | -0.10% | -0.58% | -0.11% | -0.01% | 0.00% | -0.66% | 0.11% |
| Real Estate Retail | EJRE EJRL | 0.14% 0.14% | -0.10% -0.11% | -0.68% -0.69% | -0.11% -0.11% | -0.08% -0.11% | 0.01% 0.01% | -0.82% -0.88% | 0.06% 0.00% |
| Services | EJSE | 0.14% | -0.11% | -0.61% | -0.11% | -0.11% | 0.01% | -0.74% | 0.06% |
| Technology & Electronics | EJTE | 0.11% | -0.10% | -0.68% | -0.12% | -0.12% | 0.01% | -0.91% | -0.04% |
| Telecommunications | EJTC | 0.16% | -0.13% | -0.73% | -0.09% | -0.28% | 0.00% | -1.07% | -0.16% |
| Transportation | EJTR | 0.16% | -0.13% | -0.73% | -0.11% | -0.27% | 0.01% | -1.08% | -0.16% |
| Utility | EK00 | 0.18% | -0.15% | -0.70% | -0.10% | -0.08% | 0.01% | -0.85% | 0.04% |
| Sterling Markets | | 0.000/ | 0.400/ | 2.250/ | 2 222/ | 0.050/ | 0.000/ | 2.224 | 0.000/ |
| Sterling Broad Market | UK00 | 0.22% | -0.12% | 0.25% | 0.09% | -0.05% | 0.00% | 0.39% | -0.02% |
| UK Gilts Non-Gilts | G0L0 UN00 | 0.20% 0.27% | -0.13% -0.11% | 0.29% 0.17% | 0.13% 0.00% | 0.04% -0.26% | 0.00% 0.00% | 0.53% 0.08% | 0.03% -0.14% |
| Quasi-Governments | UQ00 | 0.18% | -0.10% | 0.17 % | 0.00% | -0.20% | 0.00% | 0.06% | -0.14 % |
| Corporates & Collateralized | UC00 | 0.30% | -0.11% | 0.18% | 0.00% | -0.31% | 0.00% | 0.06% | -0.17% |
| AAA Corporates & Collateralized | UC10 | 0.25% | -0.15% | 0.18% | 0.09% | -0.14% | 0.00% | 0.24% | -0.08% |
| AA Corporates & Collateralized | UC20 | 0.22% | -0.09% | 0.18% | 0.03% | -0.33% | 0.00% | 0.02% | -0.24% |
| A Corporates & Collateralized | UC30 | 0.27% | -0.09% | 0.21% | -0.01% | -0.35% | 0.00% | 0.03% | -0.24% |
| BBB Corporates & Collateralized | UC40 | 0.33% | -0.12% | 0.16% | -0.01% | -0.30% | 0.00% | 0.06% | -0.12% |
| Banking Finance & Investments | UFBA UFFS | 0.28% 0.29% | -0.12% -0.09% | 0.13% 0.21% | 0.00% 0.00% | 0.08% -0.43% | 0.00% 0.00% | 0.37% -0.01% | 0.22% -0.29% |
| Insurance | UFIN | 0.29% | -0.15% | 0.21% | 0.00% | 0.35% | 0.00% | 0.81% | 0.64% |
| Automotive | UIAU | 0.17% | -0.06% | 0.07% | 0.08% | -0.29% | 0.00% | -0.03% | -0.15% |
| Basic Industry | UIBS | 0.27% | -0.12% | 0.17% | -0.03% | -0.46% | 0.00% | -0.17% | -0.35% |
| Capital Goods | UICP | 0.34% | -0.12% | 0.18% | -0.05% | 0.73% | 0.00% | 1.08% | 0.89% |
| Consumer Goods | UICS | 0.28% | -0.13% | 0.15% | -0.01% | -0.50% | 0.00% | -0.21% | -0.40% |
| Energy | UIEN | 0.27% | -0.12% | 0.14% | -0.05% | -0.37% | 0.00% | -0.13% | -0.27% |
| Healthcare | UIHC | 0.27% | -0.10% | 0.26% | -0.06% | -0.77% | 0.00% | -0.39% | -0.70% |
| Leisure Media | UILE UIME | 0.25% 0.30% | -0.10% -0.09% | 0.10% 0.19% | 0.03% -0.09% | -0.20% -0.72% | 0.01% 0.00% | 0.09% -0.41% | -0.07% -0.59% |
| Real Estate | UIRE | 0.30% | -0.05% | 0.19% | 0.03% | -0.72% | 0.00% | 0.29% | -0.59% |
| Retail | UIRL | 0.30% | -0.13% | 0.27 % | -0.09% | -0.23% | 0.00% | -0.35% | -0.52% |
| Services | UISE | 0.21% | -0.06% | 0.43% | 0.35% | -0.34% | 0.00% | 0.58% | -0.30% |
| Technology & Electronics | UITE | 0.22% | -0.08% | 0.15% | -0.06% | -0.29% | 0.00% | -0.05% | -0.19% |
| Telecommunications | UITC | 0.32% | -0.11% | 0.22% | -0.05% | -0.66% | 0.00% | -0.29% | -0.54% |
| Transportation | UITR | 0.28% | -0.11% | 0.21% | 0.00% | -0.30% | 0.00% | 0.08% | -0.20% |
| Utility | UU00 | 0.32% | -0.14% | 0.21% | -0.01% | -0.86% | 0.00% | -0.48% | -0.72% |
| Other European Governments | G0M0 | 0.13% | -0.18% | -0.90% | -0.07% | 0.00% | 0.00% | -1.01% | 0.02% |
| Denmark Sweden | G0W0 | 0.13% | -0.18% -0.21% | -0.90% -0.57% | -0.07% -0.06% | 0.00% | 0.00% | -1.01% -0.65% | 0.02% |
| Switzerland | G0S0 | 0.13% | -0.21% | -3.07% | 0.04% | 0.00% | 0.00% | -3.02% | 0.01% |
| European High Yield Markets | | 21.070 | 2 | | | | 2.30,0 | | |
| European Currencies | HP00 | 0.34% | -0.08% | -0.32% | -0.07% | 0.02% | 0.01% | -0.10% | 0.37% |
| Euro Currencies | HE00 | 0.32% | -0.09% | -0.37% | -0.08% | -0.01% | 0.02% | -0.21% | 0.32% |
| ICE Data Indiana III C | | | | | | | | | |

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Table 11: Pan-European index return attribution by sector (Sept)

| | Index | Coupon | Amort./Roll | Curve Shift | Curve Reshape | Spread Change | Volatility Return | Total Return | Excess Return |
|---------------------|-------|--------|-------------|----------------|------------------|------------------|----------------------|-----------------|------------------|
| Sterling High Yield | HL00 | 0.48% | -0.02% | 0.07% | 0.03% | 0.31% | 0.01% | 0.87% | 0.77% |
| European Issuers | HWP0 | 0.41% | -0.07% | -0.38% | -0.05% | 0.51% | 0.04% | 0.46% | 0.90% |

Table 12: Pan-European index return attribution by sector (YTD)

| Table 12. I all-Europea | HIIIGCX | return attin | oution by secto | | C | Consod | Valatilita. | Total | Evene |
|--------------------------------|---------|--------------|-----------------|--------|---------|--------|-------------|---------|--------|
| | | | | Curve | Curve | Spread | Volatility | Total | Excess |
| | Index | Coupon | Amort./Roll | Shift | Reshape | Change | Return | Return | Return |
| Pan-Europe Broad Market | PE00 | 1.66% | -0.92% | 6.46% | -0.49% | 2.14% | 0.00% | 8.84% | 2.88% |
| Euro Markets | | | | | | | | | |
| Euro Broad Market | EMU0 | 1.54% | -0.92% | 5.93% | -0.65% | 2.49% | 0.00% | 8.38% | 3.29% |
| | | | | | | | | | |
| Euro Large Cap | EMUL | 1.54% | -0.92% | 5.95% | -0.64% | 2.50% | 0.00% | 8.43% | 3.30% |
| Euro Governments | EG00 | 1.77% | -1.10% | 6.81% | -0.34% | 2.87% | 0.00% | 10.01% | 3.66% |
| Quasi-Governments | EQ00 | 1.08% | -0.72% | 5.86% | -0.67% | 1.38% | 0.00% | 6.93% | 1.93% |
| Pfandbriefe | EP00 | 0.46% | -0.24% | 4.30% | -1.28% | 0.83% | 0.00% | 4.08% | 1.29% |
| Corporates | ER00 | 1.48% | -0.62% | 4.35% | -1.24% | 2.78% | 0.00% | 6.75% | 3.90% |
| Asset-backed | EA00 | 1.44% | -1.26% | 6.40% | -0.73% | 4.98% | 0.00% | 10.82% | 5.02% |
| Financial | EB00 | 1.51% | -0.69% | 3.74% | -1.42% | 2.81% | 0.00% | 5.95% | 3.93% |
| | | | | | | | | | |
| Non-Financial | EN00 | 1.46% | -0.58% | 4.69% | -1.14% | 2.76% | 0.00% | 7.18% | 3.88% |
| AAA Corporates | ER10 | 1.26% | -0.65% | 6.47% | -0.34% | 1.12% | -0.01% | 7.85% | 1.94% |
| AA Corporates | ER20 | 1.22% | -0.83% | 4.20% | -1.14% | 0.95% | 0.00% | 4.41% | 1.62% |
| A Corporates | ER30 | 1.31% | -0.64% | 4.47% | -1.18% | 1.98% | 0.00% | 5.94% | 2.91% |
| BBB Corporates | ER40 | 1.68% | -0.56% | 4.27% | -1.32% | 3.86% | 0.00% | 7.92% | 5.22% |
| Banking | EBBA | 1.34% | -0.67% | 3.53% | -1.45% | 2.35% | 0.00% | 5.10% | 3.33% |
| Financial Services | EBFS | 1.33% | -0.36% | 4.57% | -1.22% | 2.70% | 0.00% | 7.02% | 3.91% |
| Insurance | EBIN | 2.67% | -0.95% | 4.74% | -1.30% | 5.70% | 0.00% | 10.85% | 7.62% |
| | EJAU | 1.19% | -0.23% | 3.94% | -1.37% | 3.21% | 0.00% | 6.74% | 4.38% |
| Automotive | | | | | | | | | |
| Basic Industry | EJBS | 1.44% | -0.66% | 4.14% | -1.25% | 2.47% | 0.00% | 6.12% | 3.49% |
| Capital Goods | EJCP | 1.22% | -0.33% | 5.00% | -1.04% | 2.68% | 0.00% | 7.52% | 3.85% |
| Consumer Goods | EJCS | 1.20% | -0.43% | 5.02% | -1.01% | 2.17% | 0.00% | 6.95% | 3.19% |
| Energy | EJEN | 1.68% | -0.70% | 4.39% | -1.25% | 2.87% | 0.00% | 6.98% | 4.11% |
| Healthcare | EJHC | 1.10% | -0.35% | 5.21% | -0.88% | 1.89% | -0.01% | 6.96% | 2.88% |
| Leisure | EJLE | 1.33% | -0.58% | 3.26% | -1.44% | 1.14% | 0.00% | 3.70% | 2.22% |
| Media | EJME | 1.27% | -0.46% | 4.15% | -1.42% | 2.78% | 0.00% | 6.31% | 3.84% |
| Real Estate | EJRE | 1.47% | -0.33% | 4.76% | -1.42% | 4.47% | 0.00% | 9.13% | 5.88% |
| | | | | | | | | | |
| Retail | EJRL | 1.36% | -0.53% | 4.81% | -1.12% | 1.91% | 0.00% | 6.43% | 2.97% |
| Services | EJSE | 1.25% | -0.44% | 4.38% | -1.29% | 2.39% | 0.00% | 6.29% | 3.48% |
| Technology & Electronics | EJTE | 1.13% | -0.49% | 4.80% | -1.15% | 2.11% | 0.00% | 6.41% | 2.99% |
| Telecommunications | EJTC | 1.67% | -0.75% | 4.97% | -1.02% | 3.00% | 0.00% | 7.87% | 4.19% |
| Transportation | EJTR | 1.67% | -0.79% | 5.04% | -1.05% | 2.45% | 0.00% | 7.33% | 3.58% |
| Utility | EK00 | 1.85% | -0.96% | 4.80% | -1.14% | 2.97% | 0.00% | 7.52% | 4.04% |
| Sterling Markets | | | | | | | | | |
| | UK00 | 0.220/ | -0.90% | 0.420/ | 0.200/ | 0.500/ | 0.000/ | 11.40% | 0.000/ |
| Sterling Broad Market | | 2.33% | | 9.13% | 0.32% | 0.52% | 0.00% | | 0.99% |
| UK Gilts | G0L0 | 2.11% | -0.97% | 10.29% | 0.49% | 0.04% | 0.00% | 11.95% | 0.10% |
| Non-Gilts | UN00 | 2.81% | -0.75% | 6.55% | -0.04% | 1.65% | 0.00% | 10.23% | 2.96% |
| Quasi-Governments | UQ00 | 1.84% | -0.63% | 5.17% | -0.27% | 0.60% | 0.00% | 6.72% | 1.02% |
| Corporates & Collateralized | UC00 | 3.10% | -0.78% | 6.95% | 0.03% | 1.94% | 0.00% | 11.24% | 3.52% |
| AAA Corporates & | | | | | | | | | |
| Collateralized | UC10 | 2.60% | -1.10% | 6.58% | -0.22% | 1.15% | 0.00% | 9.01% | 2.01% |
| AA Corporates & Collateralized | UC20 | 2.32% | -0.60% | 7.08% | 0.08% | 0.86% | 0.00% | 9.73% | 1.75% |
| A Corporates & Collateralized | UC30 | 2.92% | -0.69% | 7.95% | 0.21% | 1.70% | 0.00% | 12.08% | 3.13% |
| | 0030 | 2.9270 | -0.09% | 7.95% | 0.2170 | 1.70% | 0.00% | 12.00% | 3.13% |
| BBB Corporates & | 11040 | 0.470/ | 0.040/ | 0.000/ | 0.000/ | 0.400/ | 0.000/ | 44.000/ | 4.000/ |
| Collateralized | UC40 | 3.47% | -0.84% | 6.23% | -0.08% | 2.46% | 0.00% | 11.23% | 4.38% |
| Banking | UFBA | 2.88% | -0.78% | 4.87% | -0.32% | 2.18% | 0.00% | 8.83% | 3.61% |
| Finance & Investments | UFFS | 3.26% | -0.69% | 7.07% | 0.19% | 1.65% | 0.00% | 11.48% | 3.44% |
| Insurance | UFIN | 3.89% | -1.11% | 5.44% | -0.50% | 3.85% | -0.01% | 11.56% | 6.00% |
| Automotive | UIAU | 1.58% | -0.05% | 2.69% | -0.77% | 1.51% | 0.00% | 4.96% | 2.45% |
| Basic Industry | UIBS | 2.93% | -0.93% | 6.24% | -0.09% | 1.95% | 0.00% | 10.09% | 3.16% |
| Capital Goods | UICP | 3.57% | -0.90% | 7.17% | 0.13% | 3.93% | 0.00% | 13.90% | 6.05% |
| | | | | | | | | | |
| Consumer Goods | UICS | 2.84% | -0.83% | 5.66% | -0.21% | 1.41% | 0.00% | 8.88% | 2.67% |
| Energy | UIEN | 2.74% | -0.73% | 5.55% | -0.19% | 1.61% | 0.00% | 8.97% | 2.88% |
| Healthcare | UIHC | 2.95% | -0.68% | 10.16% | 0.67% | 0.72% | 0.00% | 13.82% | 1.96% |
| Leisure | UILE | 2.47% | -0.38% | 4.12% | -0.59% | 1.59% | 0.00% | 7.21% | 3.08% |
| Media | UIME | 3.14% | -0.58% | 7.24% | 0.18% | 1.05% | 0.00% | 11.02% | 2.74% |
| Real Estate | UIRE | 2.93% | -0.22% | 10.43% | 0.62% | 2.02% | 0.00% | 15.78% | 3.79% |
| Retail | UIRL | 3.06% | -0.90% | 7.03% | 0.18% | 1.11% | 0.00% | 10.48% | 2.43% |
| Services | UISE | 2.47% | -0.35% | 16.06% | 1.05% | 2.92% | 0.00% | 22.15% | 4.75% |
| | | | | | | | | | |
| Technology & Electronics | UITE | 2.22% | -0.49% | 5.67% | -0.21% | 1.84% | -0.01% | 9.03% | 2.77% |
| Telecommunications | UITC | 3.42% | -0.80% | 8.26% | 0.36% | 2.12% | 0.00% | 13.36% | 3.99% |
| Transportation | UITR | 2.94% | -0.71% | 7.74% | 0.15% | 2.09% | 0.00% | 12.21% | 3.54% |
| | | | | | | | | | |

Table 12: Pan-European index return attribution by sector (YTD)

| | | | | Curve | Curve | Spread | Volatility | Total | Excess |
|-----------------------------|-------|--------|-------------|-------|---------|--------|------------|--------|--------|
| | Index | Coupon | Amort./Roll | Shift | Reshape | Change | Return | Return | Return |
| Utility | UU00 | 3.42% | -1.00% | 8.00% | 0.27% | 2.79% | 0.00% | 13.48% | 4.50% |
| Other European Governments | | | | | | | | | |
| Denmark | G0M0 | 1.44% | -1.30% | 8.37% | 0.01% | 0.03% | 0.00% | 8.54% | 0.07% |
| Sweden | G0W0 | 1.78% | -1.53% | 5.46% | -0.75% | -0.01% | 0.00% | 4.94% | 0.03% |
| Switzerland | G0S0 | 1.35% | -1.37% | 7.53% | 0.66% | -0.07% | 0.00% | 8.11% | 0.12% |
| European High Yield Markets | | | | | | | | | |
| European Currencies | HP00 | 3.42% | -0.24% | 2.84% | -1.21% | 4.41% | -0.01% | 9.22% | 7.76% |
| Euro Currency | HE00 | 3.26% | -0.28% | 2.85% | -1.30% | 4.61% | -0.01% | 9.13% | 7.85% |
| Sterling High Yield | HL00 | 4.68% | 0.10% | 2.78% | -0.55% | 2.90% | -0.02% | 9.89% | 7.04% |
| European Issuers | HWP0 | 4.15% | -0.60% | 3.05% | -0.77% | 5.39% | -0.07% | 11.16% | 8.35% |

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