

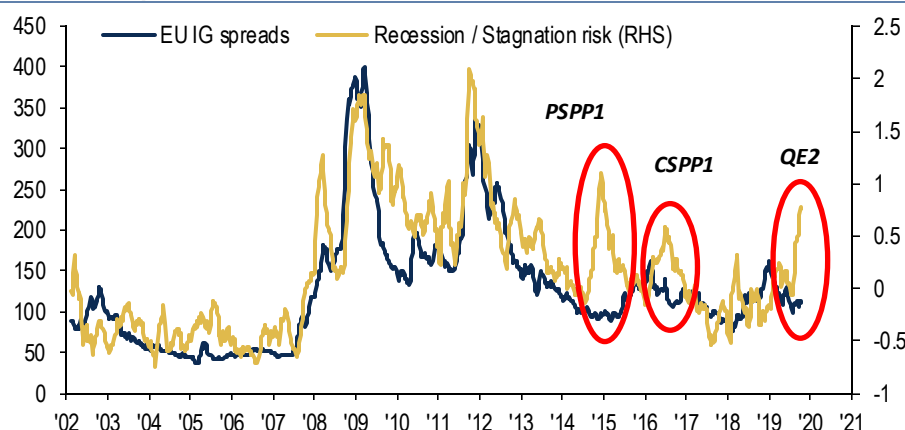
29 October 2019

The “Japanification” of credit market volatility

Central banks across the globe have created a powerful toolbox to suppress uncertainty to levels not seen before. Central banks have managed to achieve record-low monetary policy uncertainty, while global economic policy uncertainty is still at record highs.

Keeping rates vol at record lows improves the risk reward profile even for the less attractive pockets of the fixed income world. If a “Japanification” scenario keeps rates and risk-asset volatility subdued, this would be a pivotal tailwind for low risk/tight spread pockets in European credit.

Chart 1: The ECB “put”



Source: Bloomberg, ICE Data Indices, LLC

RHS is the average of z-scores of word count for “recession” and “stagnation” according to NT page in Bloomberg using weekly data

We think that a “Japanification” of performance metrics in Europe would be more than welcome. Note that the Japanese corporate bond market has enjoyed stellar risk-adjusted performance over the past years on the back of record low volatility. As we have written many times over the past years, **a low rates vol environment is pivotal tailwind for fixed income assets.**

Best extension trades

We think that cash curves are looking flat to entice us to add more duration risk across the board. However, there are still opportunities to switch to longer-dated bonds that provide decent levels of spread pick-up per annum of added duration. We think though, that curves in the CDS space are much more attractive to source extra spread. Main 5s10s are steep, in our opinion.

Assessing dispersion

Just before the ECB launches the second round of CSPP, it’s important to assess where dispersion is. Since our last assessment of dispersion, we can see some interesting trends. Dispersion has narrowed in the BBB space, back almost at the same levels seen before the start of the CSPP program in June 2016. By contrast double-Bs exhibit higher dispersion, as the tight end of the space has outperformed.

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Refer to important disclosures on page 16 to 18.

12058016

Timestamp: 29 October 2019 01:30AM EDT

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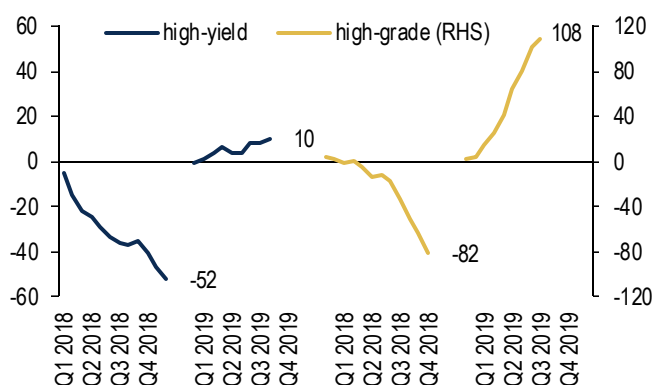
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This time is different

It's not that far back when the market stress-tested credit investors' appetite to own credit risk; Q4 2018 is still fresh in investors' minds. During the last three months of 2018, investors had to face two diametrically opposing trends: a deteriorating macro backdrop, as indicators were rapidly weakening; and a hawkish turn across a number of central banks worldwide, signalling that rates would most likely move higher than lower.

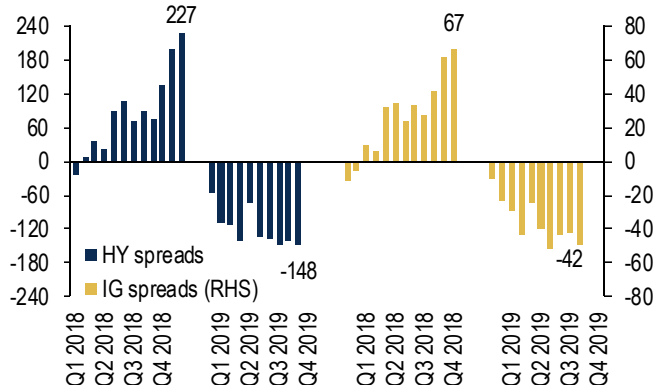
This happened amid a challenging liquidity backdrop in the bond market, as Q4 is typically the worst quarter to shift bonds around, according to our comprehensive annual liquidity review (more [here](#)). Put that on top of an already downbeat year, where the majority of funds were down (chart 3), while also suffering from major outflows (chart 2), and we ended up with a great sell-off in the last part of the year.

Chart 2: 2018 vs. 2019 – Fund flows trends have been much stronger this year. High-grade funds have more than reversed 2018 outflows



Source: EPFR Global

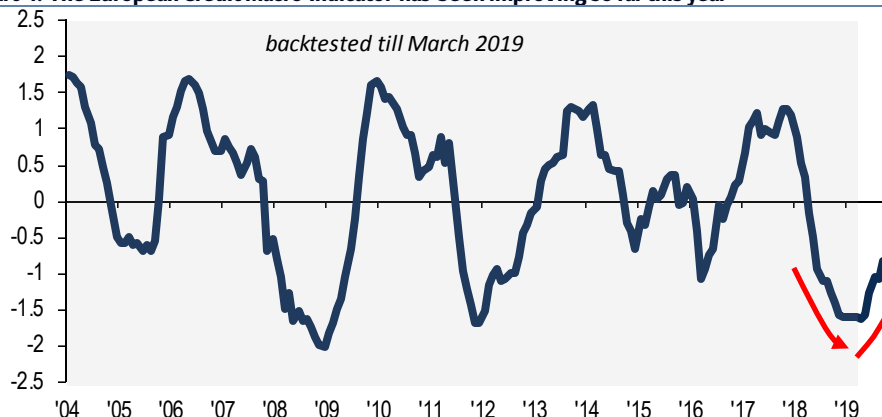
Chart 3: 2018 vs. 2019 – Market performance is also diametrically different as spreads are tighter this year (spread change YTD).



Source: ICE Data Indices, LLC

However, we feel that credit is now on a totally different footing. Not only have central banks reversed course, with the Fed already cutting twice (a total of 50bp) and broadly expected to do the same again this week, and the ECB restarting QE, but also macroeconomic indicators have bounced from the lows and seem to be on a much better trajectory than a year ago.

Chart 4: The European Credit Macro Indicator has been improving so far this year



Source: BofA Merrill Lynch Global Research, Bloomberg, ICE Data Indices, LLC; Note that a negative (positive) reading reflects deteriorating (improving) trends. This performance is back-tested and does not represent the actual performance of any account or fund. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein. The shaded area represents backtested results from January 2004 – March 2019. The un-shaded area represents actual performance since March 2019. Backtesting is hypothetical in nature and reflects application of the screen prior to its introduction; it is not intended to be indicative of future performance. The indicator identified as European Credit Macro Indicator above is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Merrill Lynch Global Research. This indicator was not created to act as a benchmark.

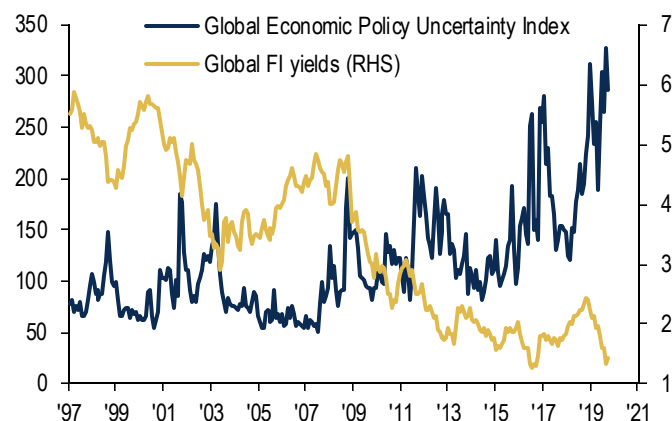
Not only that, but credit funds have so far experienced a stellar year, characterised by a strong performance on the back of sizeable inflows. This gives credit investors lots of ammunition to add risk at these levels. Our view remains that spreads are supported amid a new round of corporate bond buying.

QE infinity and how to battle a world of uncertainties

Central banks across the globe have created a powerful toolbox to suppress uncertainty to levels not seen before. Forward guidance, rate cuts and more QE by the ECB have all played a role in supporting risk assets over the past months. And this is unfolding before our eyes despite trade wars and the rising risk of a global economic slowdown. The ISM set a new 10-year low a couple of weeks ago (September print). Manufacturing PMIs in Europe are still (well) below 50.

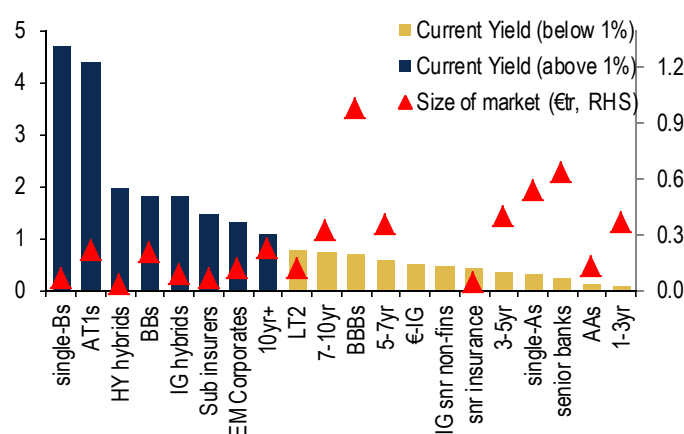
Central banks have managed to achieve record-low monetary policy uncertainty, while global economic policy uncertainty is still at record highs. Once again, central banks are trying to safeguard the economic outlook, while politics threaten to derail the achievements of years of accommodative policies across the globe.

Chart 5: Economic policy uncertainty at record highs; funding costs at record lows



Source: Bloomberg, ICE Data Indices, LLC; GFIM index for yields

Chart 6: Very few places that offer 1% yields. Note that those pockets that have “some” size have been the outperformers (AT1s, BBs & 10yr+)



Source: ICE Data Indices, LLC

Low rates for longer seem to be a one-way road for central banks across the globe to prevent the already fragile recovery from derailing. However, record low yields on offer create a powerful domino effect across risk assets. Accounts that used to invest in government bonds have been moving into high-quality corporate debt to add more yield.

Meanwhile, those that used to invest only in top-rated corporate bonds have also moved into the crossover space to add yield. So far, investors have been embracing beta in every form; from BBs to subordinated paper and (more recently) duration. Note that positioning on the back-end of the euro high-grade credit curve is at the highest level ever, and now an Overweight (data since 2004, more [here](#)).

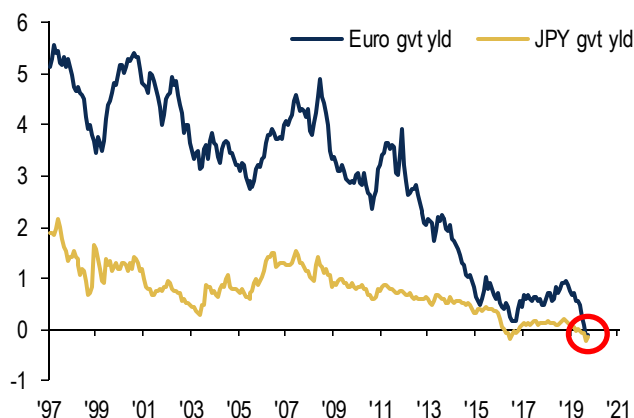
We feel though that a move further down the capital structure, in terms of ratings, could be a double-edged sword, especially during periods of stress, like the one we experienced in Q4 last year. When market liquidity becomes challenging and there are fewer bids for names with weak fundamentals, it is important for investors to own names that they feel comfortable with on the fundamental story.

Europe – Japan: not that far any more

Lots of ink has been used to write about the “risk” of the Japanification of Europe. Actually, we think that a “Japanification” of performance metrics in Europe would be more than welcome. Note that the Japanese corporate bond market has enjoyed stellar

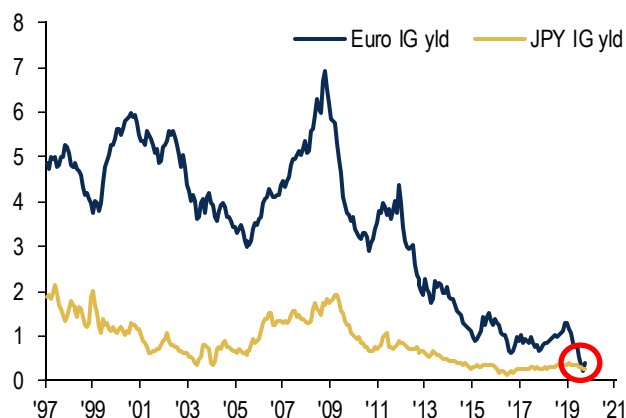
risk-adjusted performance over the past years on the back of record low volatility. As we have written many times over the past years, **a low rates vol environment is the single strongest tailwind for fixed income assets.**

Chart 7: The European government bond market yields at the same level as JGBs



Source: ICE Data Indices, LLC

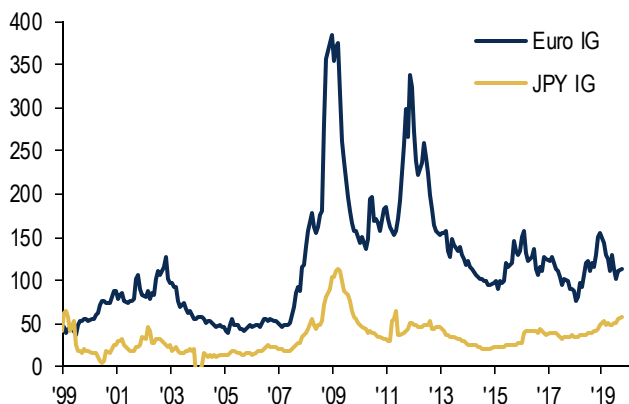
Chart 8: Same story in credit land, with euro-denominated corporate bond market yielding the same level as the Japanese corporates



Source: ICE Data Indices, LLC

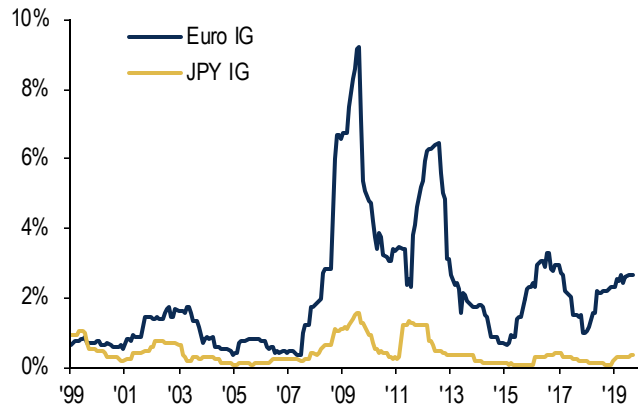
Keeping rates vol low improves the risk reward profile even for the least attractive pockets of the fixed income world. If a “Japanification” scenario keeps rates and risk-asset volatility subdued, this would be a pivotal tailwind for low risk/tight spread pockets in European credit. Note that the majority of high-grade investors are excess-return driven and thus are more sensitive to spreads than yields.

Chart 9: Japanese corporate bonds have offered just a fraction of the spread the euro-denominated market offered over the past two decades



Source: ICE Data LLC

Chart 10: Japanese corporate bond market realizes much lower volatility than European credit market



Source: BofA Merrill Lynch Global Research, ICE Data LLC; 12 month rolling excess returns realised vol
The market size has contracted over that period.

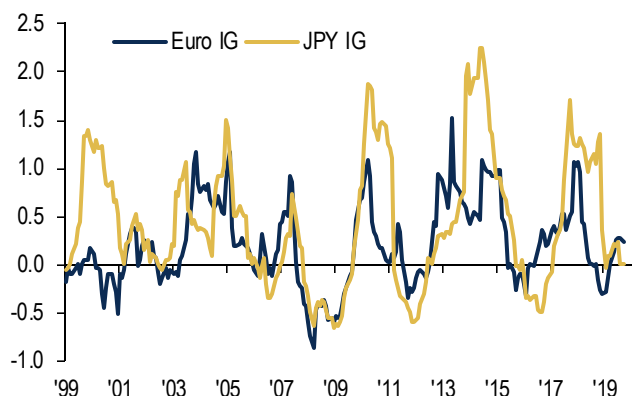
Our work shows that the Japanese corporate bond market has exhibited much lower volatility over the past two decades than its European counterpart (chart 10). Low economic policy uncertainty has also helped over the past nine years vs. Europe. This backdrop was pivotal lifting performance metrics for Japanese IG credit, an optically unattractive asset class (due to its low spread). We note that a market that has offered an average of “only” 34bp of credit spread (chart 9) has managed to produce a much higher information ratio than the European corporate bond market, despite offering on average more than triple that spread (118bp).

All in all, volatility, or in fact the lack of, has been pivotal to achieve stronger performance metrics in the JPY-denominated corporate bond market (chart 11).

We further look in duration and find that the front-end was the part of the curve that has managed to do the best over the past decades, producing risk-adjusted returns of around 50% stronger vs. Euros and almost double that of any other part of the curve (chart 12). This further highlights our preference to reduce duration exposure as bond curves are now looking too flat to entice us (chart 13).

Chart 11: The Japanese corporate bond market has posted stronger risk-adjusted returns over the past years

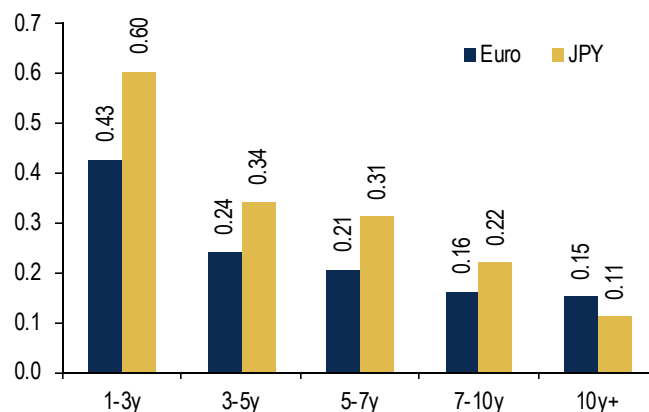
Rolling info ratios for € and ¥-denominated IG corporate debt



Source: BofA Merrill Lynch Global Research, ICE Data LLC

Chart 12: Info ratios for euro and yen corporate bond markets, across the curve

Information ratios per duration bucket based on data since 1998



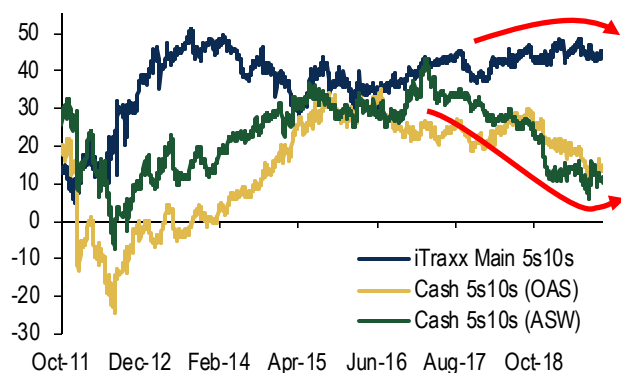
Source: BofA Merrill Lynch Global Research, ICE Data LLC

The next extension trade in credit

For over a year now, we have argued that extending duration is the “safest” (due to its high-grade rating) of the beta plays amid a plethora of geopolitical and macroeconomic headwinds. This trade has been in full swing so far this year, with cash curves flattening materially to levels not seen for several years (chart 13).

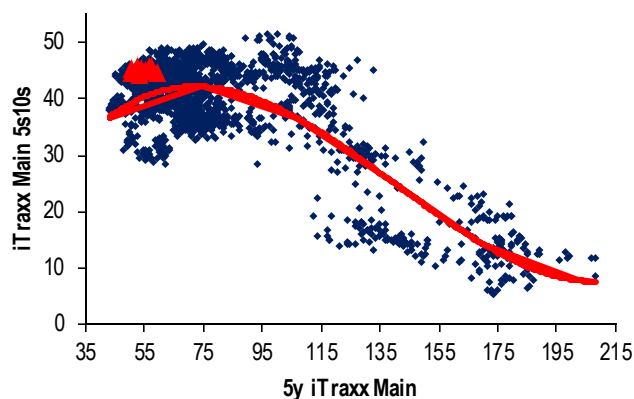
Even though we think the back-end is still supported on the back of (i) the lack of yield, (ii) the lack of inflation (and thus lesser risk of steeper curves) and (iii) the scarcity of paper, we think the best part of this trade is behind us. **We would only selectively look to own duration via switches that offer the best spread pickup per year of extension. We rerun our screen of best switches in the Appendix.**

Chart 13: CDS curves are steep vs. cash



Source: ICE Data Indices, LLC, Bloomberg

Chart 14: iTraxx Main 5s10s are too steep for the level of spreads



Source: Bloomberg, red triangle is latest prints

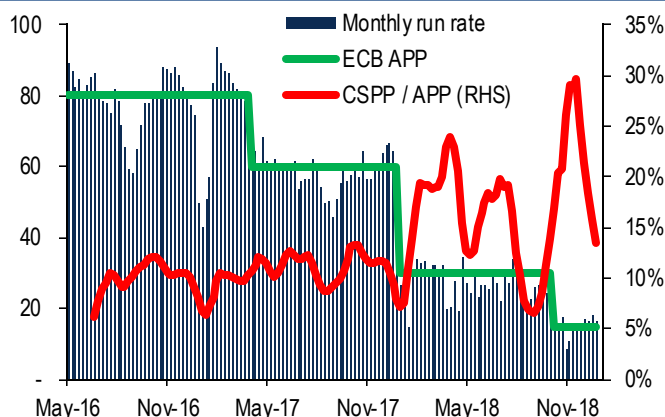
Since our [July note](#) cash curves have started to steepen; CDS curves have been on a slowly flattening trend so far this year. We think there is still room for more curves

flattening in the CDS space as iTraxx Main 5s10s are still too steep to 5y spreads (chart 14). Typically, at levels of 60bp and below for the 5y CDS index, we have seen sellers of outright 10y iTraxx Main emerge. We think this should push 5s10s materially flatter as current levels are at the top end of the historical steepness of the 5s10s Main curve.

CSPP2 – what to expect

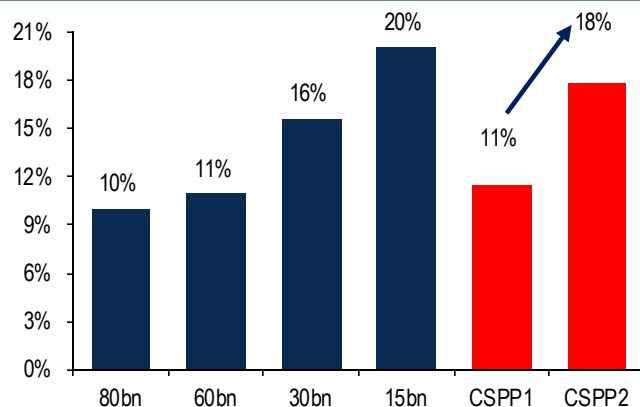
Starting from November the ECB will be a buyer of corporate bonds once again. CSPP2 is upon us and the big question is what to expect in terms of how much the ECB will allocate to the credit program vs. the rest of the APP.

Chart 15: The ECB was increasingly allocating more funds into CSPP vs. the rest of the APP pockets.



Source: ECB, BofA Merrill Lynch Global Research

Chart 16: We can potentially see ~20% of QE2 funds allocated into CSPP2



Source: ECB, BofA Merrill Lynch Global Research;
18% is the average of 16% and 20%, run rates at the last two stages of CSPP1

Looking back to the CSPP1 era we find that the ECB resorted to buying relatively more corporate bonds at the later stages of the program.

- Remember when the ECB introduced the CSPP, it also upped the size of the purchases under the QE program to €80bn. During that period (June 2016 until March 2017) the ECB allocated ~10% of the QE firepower to the credit market.
- From April 2017 to December 2017 the ECB reduced the QE size to €60bn. However the allocation to credit increased to around 11%.
- During the first nine months of 2018 the ECB bought around €40bn of corporate bonds under CSPP that was ~ 16% of the total QE size.
- At the last three months of CSPP1, the ECB cut the QE pace to €15bn, but the credit proportion was upped to 20%.

All in all, on average the ECB allocated around 11% of the full QE program to the credit portion. This would theoretically point to a meagre €2bn of monthly buying from November onwards. However, we think the increased reliance of the asset purchase program to the credit portion is key.

We think the ECB will do the same again, buying more than they did in the past. Assuming the ECB allocates around 16-20% of the total firepower to CSPP2, this should point to around €3-4bn of monthly buying. As our rates team highlighted, the only way to achieve pure “QE-infinity” is for the ECB to tap into the non-government bond market more heavily than in the past (more [here](#)).

Our latest survey (more [here](#)) highlights that the majority of the credit investors we polled also expect €2-4bn monthly buying. However, around a third of the IG and HY investors think that numbers could surprise to the upside. We also think this could be a

possibility if the ECB wants to buy more time and to show that this program can have longevity if needed.

How to position

Should we get such an upbeat buying figure then this should support CDS spreads too. However, at these levels we are more comfortable sellers of vol than sellers of CDS protection. As chart 17 highlights, implied vol remains “expensive” vs. spreads. We think Crossover will underperform iTraxx Main should spreads move tighter, as idiosyncratic risk is still rising in the high-yield space. We would be sellers of front-end months XO receivers (212.5bp levels for instance, as XO has struggled to move tighter since the recent roll as the new series traded at that point too tight, and at multiyear tightness).

In the event the ECB disappoints on the scale of its purchases under the corporate program, but more importantly we receive negative news on trade wars or on the Brexit front, we think that CDS spreads could bleed wider and vols back up a bit higher (but not to levels seen in the past couple of months as there is less vol to realise during the festive season in Dec).

We note that market dynamics are still favourable to see support for credit spreads, as the corporate bond market remains supported by strong demand/supply dynamics (low supply in the last part of the year vs. a still-strong inflow stream into IG funds, more [here](#)).

A nice way to position against this backdrop would be by owning longer-dated (January for instance) put spreads on iTraxx Main that offer protection to a modest widening in spreads and higher vols, while decaying slowly.

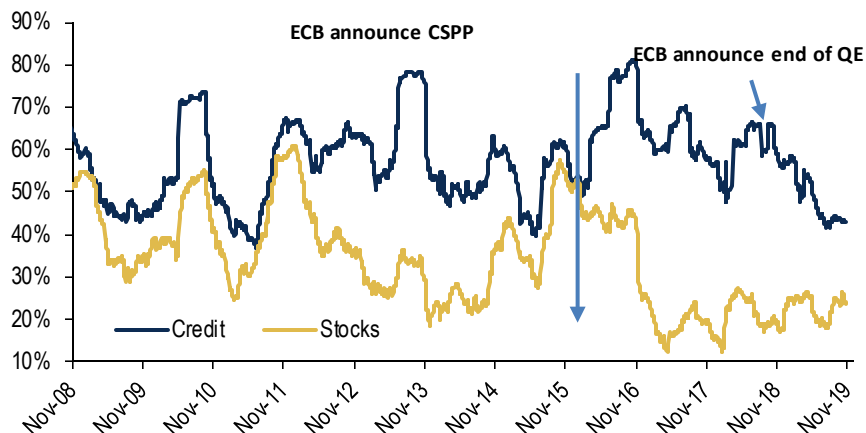
We think that Main outperforms Crossover in that case, amid a potentially deteriorating macroeconomic backdrop (QE-“infinity” is challenged and macro data could weaken further). In the tails, we think that Main outperforms (reach for quality), thus we feel more comfortable selling OTM puts in Main than in Crossover.

Dispersion is back, fundamentals matter

Despite much lower pair-wise correlations in the equity market, the credit market was characterised by high uniformity and thus a low level of alpha over the past years. A combination of central banks’ accommodation and a strong macro backdrop up to mid-2018 resulted in investors reaching for yield by buying beta indiscriminately.

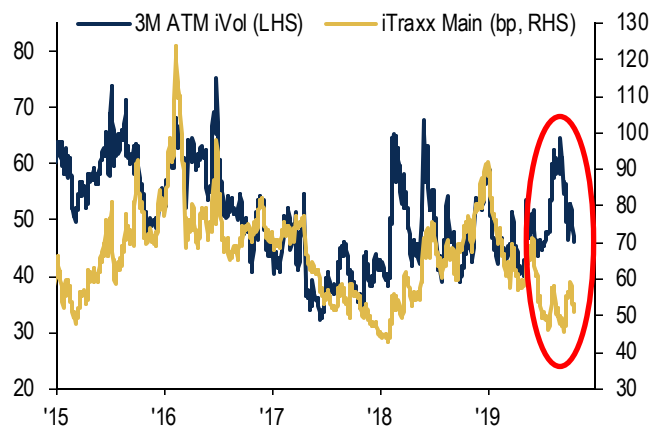
Chart 18: The return of alpha

Presenting pairwise correlations between 5y CDS levels and equities across a large basket of different entities



Source: BofA Merrill Lynch Global Research

Chart 17: Credit vols still expensive vs. spreads



Source: Bloomberg

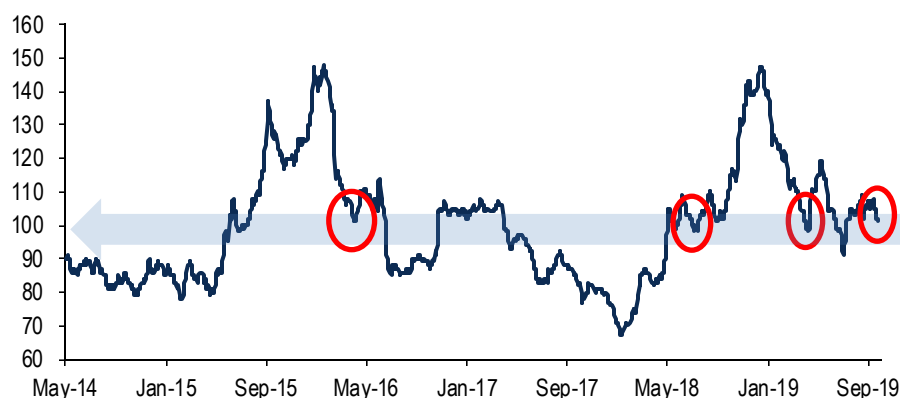
This has clearly changed since the ECB announced its intention (in mid-2018) to end QE and a much weaker macro backdrop. Currently pairwise correlations are at the lowest levels since the ECB started the CSPP program and only slightly higher than since the onset of the European sovereign crisis (chart 18). **We think that amid a still-challenging business cycle and still-fresh memories from last year's Q4 sell-off, investors should be careful what they own. We think that XO performance will remain challenged by rising idiosyncratic risk and a still-weak macro backdrop.**

Assessing dispersion

Just before the ECB launches the second round of CSPP (along with the rest of the assets under the APP), it's important to assess where dispersion is. We update our work from a couple of months ago (more [here](#)).

Chart 19: Almost back to where we started three years ago. Not everything though is the same

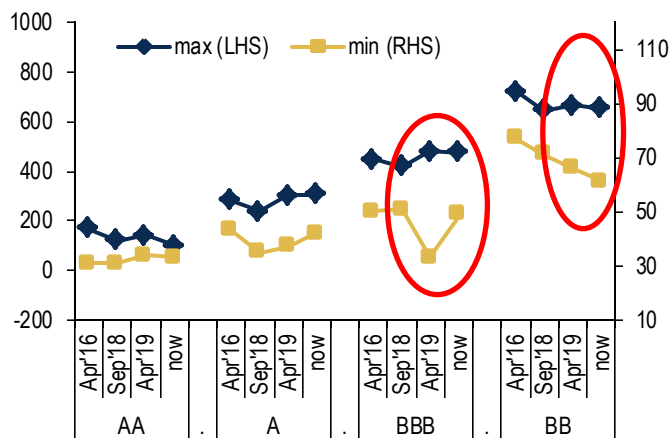
OAS spread for ENSO index, our proxy for the eligible bond universe under the CSPP (ECB's corporate QE program)



Source: ICE Data Indices, LLC

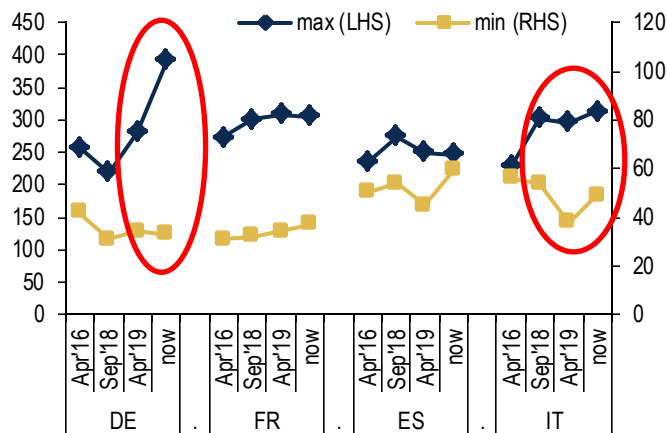
Currently, we are at around the 100bp level for CSPP-eligible debt. We use the ENSO corporate bond index to best proxy the "eligible" universe under the CSPP program. We think there is value to assess the market structure in terms of dispersion at four key points in time: in late April 2016 (before the CSPP program started); in mid-2018 (before markets materially sold-off); in May this year (before the announcement of CSPP2) and currently (just days before CSPP2 kicks off). Spread levels at these four time points were almost identical. Our work, as per our charts below, highlights that not all things have remained the same over these years.

Chart 20: Widest vs. tightest credit per bucket, split by ratings



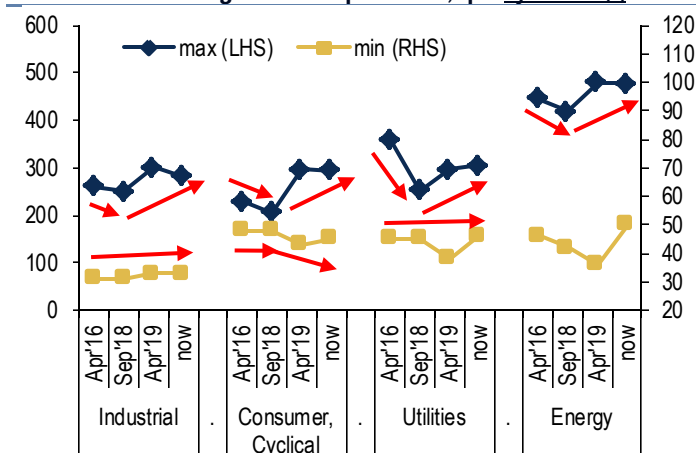
Source: ICE Data Indices, LLC, BofA Merrill Lynch Global Research; OAS

Chart 21: Widest vs. tightest credit per bucket, split by country of risk



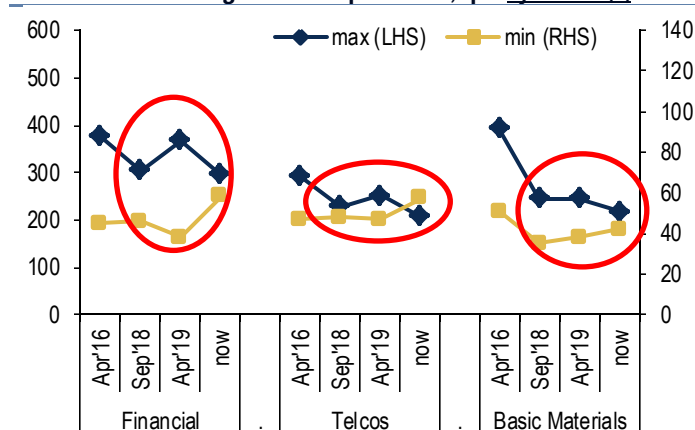
Source: ICE Data Indices, LLC, BofA Merrill Lynch Global Research; OAS; only IG names

Chart 22: Widest vs. tightest credit per bucket, split by sectors (a)



Source: ICE Data Indices, LLC, BofA Merrill Lynch Global Research; OAS; only IG names

Chart 23: Widest vs. tightest credit per bucket, split by sectors (b)



Source: ICE Data Indices, LLC, BofA Merrill Lynch Global Research; OAS; only IG names

In charts 20 to 23 we slice and dice the European IG senior non-fins credit market (ENS0). We focus on **ratings**, **domiciles** and **sectors**. We present the gap between the widest and the tightest bond per bucket. We also expand into BBs (when looking at ratings) by using the HECM bond index (only senior bonds are used). We remove bonds with less than 1.5yr to maturity at any given point in time to reduce the roll-down effect that is more pronounced in the front-end of the curve.

Our key findings can be summarised as follows:

- Since our last assessment of dispersion, we can see some interesting trends. Focusing on **rating** buckets, dispersion has narrowed in the BBB space, back almost at the same levels seen before the start of the CSPP program in June 2016. By contrast double-Bs exhibit higher dispersion, as the tight end of the space has outperformed. Rising stars and the return of the “upgrade” upside for names that could be added into the CSPP eligible universe has pushed high-quality BBs tighter. The tight end of the spectrum has outperformed the rest of the market, as there is more upside optionality, heading to CSPP2.
- This is also the case when looking at **domiciles**. With the German economy bearing the brunt of the recent macroeconomic weakness, amid protracted US-China trade wars, we have seen that fundamentals matter again. German credits have priced in more “fundamental” risk than ever before (chart 21).
- Looking into **sectors**, CSPP has minimised the impact of fundamentals in the more business cycle sensitive pockets, during the first two years of the program. Dispersion in industrials, cyclicals and utilities compressed from 2016 to 2018 (chart 22). However, over the past year dispersion has actually widened as the credits on the wide-end of these sectors have underperformed.
- This was felt to a much lesser extent in non-cyclical and less business cycle sensitive sectors, with dispersion remaining broadly the same over the past years (chart 23).

Appendix

Table 1: Best adjusted spread pick-up by extending 2-3yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	FR	AUCHAN 2.25 23s	140	3.45	BBB3	AUCHAN 2.375 25s	239	5.50	BBB3	99	2.05	48.18
2	GB	F 1.875 21s	143	1.67	BBB3	F 3.021 24s	269	4.37	BBB3	126	2.70	46.64
3	GB	F 0.869 21s	171	1.89	BBB3	F 3.021 24s	269	4.37	BBB3	98	2.48	39.52
4	LU	MTNA 3.125 22s	99	2.22	BBB3	MTNA 2.25 24s	176	4.23	BBB3	77	2.01	38.34
5	FR	AUCHAN 2.375 22s	149	3.13	BBB3	AUCHAN 2.375 25s	239	5.50	BBB3	90	2.37	37.98
6	FI	CITCON 2.375 22s	138	2.90	BBB3	CITCON 2.5 24s	215	4.94	BBB3	77	2.04	37.67
7	IT	ATLIM 1.625 23s	220	3.63	BBB3	ATLIM 4.375 25s	299	5.90	BBB2	79	2.27	34.87
8	FR	ETLFP 3.125 22s	68	2.96	BBB3	ETLFP 2 25s	171	5.94	BBB3	103	2.98	34.55
9	DE	SHAEFF 1.125 22s	115	2.42	BBB3	SHAEFF 1.875 24s	184	4.42	BBB3	69	2.00	34.45
10	GB	F 1.134 22s	191	2.30	BBB3	F 1.355 25s	286	5.29	BBB3	95	2.99	31.72
11	DE	BASGR 0.75 26s	53	7.05	A1	BASGR 0.875 29s	126	9.37	A1	73	2.32	31.42
12	IT	ATLIM 1.125 21s	198	2.03	BBB2	ATLIM 5.875 24s	276	4.63	BBB2	78	2.60	30.03
13	US	GM 0.2 22s	114	2.86	BBB2	GM 1.694 25s	188	5.42	BBB2	74	2.56	28.86
14	FI	CITCON 2.5 24s	215	4.94	BBB3	CITCON 2.375 27s	281	7.23	BBB3	66	2.29	28.82
15	FR	MERYFP 1.787 23s	199	3.43	BBB2	MERYFP 1.8 26s	279	6.35	BBB2	80	2.92	27.44
16	GB	IMBLN 1.375 25s	152	5.26	BBB2	IMBLN 2.125 27s	208	7.31	BBB2	56	2.04	27.40
17	RO	GWILN 2.875 22s	123	2.65	BBB3	GWILN 3 25s	193	5.43	BBB3	70	2.78	25.22
18	CZ	CPIPGR 1.45 22s	121	2.47	BBB2	CPIPGR 2.125 24s	182	4.95	BBB2	61	2.48	24.63
19	DE	SZUGR 1.25 23s	95	4.10	BBB3	SZUGR 1 25s	144	6.10	BBB3	49	2.00	24.50
20	GB	IMBLN 1.125 23s	126	3.81	BBB2	IMBLN 3.375 26s	188	6.35	BBB2	62	2.54	24.41
21	ES	ABESM 3.75 23s	102	3.65	BBB2	ABESM 0.625 25s	151	5.73	BBB2	49	2.07	23.66
22	US	WPC 2.25 24s	121	4.74	BBB2	WPC 2.125 27s	185	7.48	BBB2	64	2.74	23.36
23	GB	AALLN 3.25 23s	110	3.44	BBB2	AALLN 1.625 25s	167	5.90	BBB2	57	2.46	23.14
24	FR	RENAUL 1.375 24s	133	4.37	BBB2	RENAUL 1.625 26s	184	6.59	BBB2	51	2.22	23.01
25	DE	DT 1.75 31s	126	11.42	BBB1	DT 2.2 33s	179	13.76	BBB1	53	2.34	22.68
26	FR	RENAUL 0.25 21s	73	1.72	BBB2	RENAUL 1.375 24s	133	4.37	BBB2	60	2.66	22.58
27	FR	RENAUL 1 23s	110	3.37	BBB3	RENAUL 1.625 25s	157	5.47	BBB2	47	2.10	22.42
28	DE	VW 0.875 23s	92	3.23	BBB1	VW 1.375 25s	137	5.24	BBB1	45	2.01	22.35
29	GB	BATSLN 3.625 21s	77	2.04	BBB2	BATSLN 1.125 23s	122	4.06	BBB2	45	2.02	22.29
30	GB	IMBLN 0.5 21s	81	1.76	BBB2	IMBLN 1.125 23s	126	3.81	BBB2	45	2.05	21.96
31	DE	DT 4.5 30s	119	11.02	BBB1	DT 2.2 33s	179	13.76	BBB1	60	2.74	21.88
32	GB	LOGICR 2.25 25s	145	5.55	BBB2	LOGICR 1.625 27s	192	7.73	BBB2	47	2.17	21.63
33	FR	RENAUL 0.75 22s	102	2.92	BBB2	RENAUL 1.625 25s	157	5.47	BBB2	55	2.54	21.63
34	GB	F 1.615 23s	245	3.55	BBB3	F 2.386 26s	305	6.32	BBB3	60	2.78	21.62
35	CH	GLENLN 1.875 23s	129	3.89	BBB1	GLENLN 3.75 26s	184	6.44	BBB1	55	2.55	21.56
36	NL	KPN 4.25 22s	73	2.35	BBB2	KPN 5.625 24s	128	4.94	BBB2	55	2.59	21.27
37	FR	RENAUL 1.25 22s	97	2.62	BBB2	RENAUL 1.625 25s	157	5.47	BBB2	60	2.84	21.10
38	GB	BATSLN 2.375 23s	103	3.24	BBB2	BATSLN 2.75 25s	149	5.42	BBB2	46	2.18	21.09
39	GB	BATSLN 1 22s	90	2.58	BBB2	BATSLN 2.75 25s	149	5.42	BBB2	59	2.84	20.77
40	FR	RENAUL 0.625 21s	85	2.05	BBB2	RENAUL 1.375 24s	133	4.37	BBB2	48	2.33	20.64
41	FR	ACFP 2.375 23s	99	3.90	BBB3	ACFP 1.75 26s	147	6.28	BBB3	48	2.39	20.11
42	CZ	ENAPHO 1.659 24s	182	4.51	BBB3	ENAPHO 1.698 26s	227	6.77	BBB3	45	2.26	19.91
43	SE	SECUSS 1.25 22s	76	2.39	BBB2	SECUSS 1.25 25s	135	5.37	BBB2	59	2.98	19.81
44	GB	BATSLN 1.25 27s	183	7.39	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	56	2.85	19.65
45	FR	RENAUL 0.5 23s	121	3.89	BBB2	RENAUL 1 25s	164	6.10	BBB3	43	2.21	19.50
46	ES	ABESM 1 27s	159	7.35	BBB2	ABESM 1.625 29s	205	9.73	BBB2	46	2.38	19.32
47	CH	GLENLN 0.625 24s	146	4.88	BBB1	GLENLN 1.5 26s	186	6.98	BBB1	40	2.09	19.11
48	US	BDX 0.174 21s	69	1.61	BBB3	BDX 0.632 23s	107	3.61	BBB3	38	2.00	19.00
49	FR	RENAUL 2 24s	143	4.72	BBB2	RENAUL 2 26s	185	6.93	BBB3	42	2.22	18.95
50	DE	VW 2.125 22s	84	2.44	BBB1	VW 1.375 25s	137	5.24	BBB1	53	2.80	18.93

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

Table 2: Best adjusted spread pick-up by extending 3-4yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	GB	F 1.875 21s	143	1.67	BBB3	F 1.355 25s	286	5.29	BBB3	143	3.63	39.42
2	FI	CITCON 2.375 22s	138	2.90	BBB3	CITCON 1.25 26s	283	6.88	BBB3	145	3.98	36.42
3	FR	AUCHAN 0.625 22s	123	2.29	BBB3	AUCHAN 2.375 25s	239	5.50	BBB3	116	3.21	36.10
4	GB	F 0.869 21s	171	1.89	BBB3	F 1.355 25s	286	5.29	BBB3	115	3.41	33.77
5	IT	ATLIM 1.125 21s	198	2.03	BBB2	ATLIM 1.625 25s	295	5.28	BBB3	97	3.25	29.83
6	DK	MAERSK 1.5 22s	88	3.08	BBB3	MAERSK 1.75 26s	179	6.39	BBB3	91	3.31	27.50
7	IT	ATLIM 1.625 23s	220	3.63	BBB3	ATLIM 1.75 27s	312	7.28	BBB2	92	3.64	25.25
8	GB	IMBLN 1.125 23s	126	3.81	BBB2	IMBLN 2.125 27s	208	7.31	BBB2	82	3.50	23.42
9	FR	RENAUL 1 23s	110	3.37	BBB3	RENAUL 1.625 26s	184	6.59	BBB2	74	3.22	22.99
10	SE	BALDER 1.125 22s	90	2.39	BBB3	BALDER 1.875 25s	158	5.39	BBB3	68	3.00	22.65
11	FR	RENAUL 0.25 21s	73	1.72	BBB2	RENAUL 1.625 25s	157	5.47	BBB2	84	3.75	22.40
12	US	WPC 2.25 24s	121	4.74	BBB2	WPC 1.35 28s	204	8.48	BBB2	83	3.74	22.18
13	CH	GLENLN 1.625 22s	101	2.24	BBB1	GLENLN 1.75 25s	170	5.40	BBB1	69	3.16	21.82
14	GB	BATSLN 3.625 21s	77	2.04	BBB2	BATSLN 2.75 25s	149	5.42	BBB2	72	3.38	21.33
15	FR	RENAUL 0.5 23s	121	3.89	BBB2	RENAUL 2 26s	185	6.93	BBB3	64	3.04	21.06
16	FR	RENAUL 0.625 21s	85	2.05	BBB2	RENAUL 1.625 25s	157	5.47	BBB2	72	3.42	21.06
17	US	F 1.514 23s	242	3.32	BBB3	F 2.386 26s	305	6.32	BBB3	63	3.00	20.98
18	GB	IMBLN 0.5 21s	81	1.76	BBB2	IMBLN 1.375 25s	152	5.26	BBB2	71	3.51	20.25
19	GB	LOGICR 2.25 25s	145	5.55	BBB2	LOGICR 3.25 28s	216	9.06	BBB2	71	3.51	20.25
20	GB	LOGICR 0.75 24s	132	4.73	BBB2	LOGICR 1.625 27s	192	7.73	BBB2	60	3.00	20.00
21	FR	RENAUL 0.75 22s	93	2.22	BBB2	RENAUL 1.625 25s	157	5.47	BBB2	64	3.25	19.71
22	FR	RENAUL 0.75 22s	102	2.92	BBB2	RENAUL 1 25s	164	6.10	BBB3	62	3.18	19.53
23	FR	RENAUL 0.75 23s	123	3.46	BBB2	RENAUL 1.625 26s	184	6.59	BBB2	61	3.13	19.50
24	FR	RENAUL 1 23s	125	3.56	BBB2	RENAUL 1.625 26s	184	6.59	BBB2	59	3.03	19.49
25	FR	RENAUL 1.25 22s	97	2.62	BBB2	RENAUL 1 25s	164	6.10	BBB3	67	3.48	19.27
26	FR	RENAUL 0.25 23s	122	3.37	BBB2	RENAUL 1.625 26s	184	6.59	BBB2	62	3.22	19.26
27	SE	AKFAST 1.5 22s	83	2.25	BBB2	AKFAST 1.75 25s	141	5.29	BBB2	58	3.04	19.05
28	FR	PUBFP 1.125 21s	69	2.15	BBB2	PUBFP 0.625 25s	135	5.64	BBB2	66	3.49	18.89
29	FR	HITTFP 4.875 21s	74	2.01	BBB3	HITTFP 2.25 25s	138	5.42	BBB3	64	3.41	18.78
30	GB	LOGICR 0.5 21s	72	1.52	BBB2	LOGICR 0.75 24s	132	4.73	BBB2	60	3.21	18.69
31	FI	STERV 2.125 23s	94	3.64	BBB3	STERV 2.5 27s	168	7.62	BBB3	74	3.98	18.60
32	DE	TLGGR 0.375 22s	94	2.92	BBB2	TLGGR 1.5 26s	162	6.59	BBB2	68	3.68	18.48
33	CH	GLENLN 1.875 23s	129	3.89	BBB1	GLENLN 1.5 26s	186	6.98	BBB1	57	3.09	18.44
34	DE	VW 0.625 21s	75	1.87	BBB1	VW 1.375 25s	137	5.24	BBB1	62	3.37	18.40
35	GB	AALLN 3.5 22s	103	2.42	BBB2	AALLN 1.625 25s	167	5.90	BBB2	64	3.48	18.39
36	DE	DT 2 29s	112	10.11	BBB1	DT 2.2 33s	179	13.76	BBB1	67	3.65	18.36
37	GB	BATSLN 1.125 23s	122	4.06	BBB2	BATSLN 1.25 27s	183	7.39	BBB2	61	3.32	18.36
38	GB	BATSLN 2.75 25s	149	5.42	BBB2	BATSLN 3.125 29s	221	9.37	BBB2	72	3.95	18.22
39	GB	SMDSLN 2.25 22s	96	2.90	BBB3	SMDSLN 0.875 26s	168	6.89	BBB3	72	3.99	18.04
40	DE	VW 0.75 21s	78	1.97	BBB1	VW 1.375 25s	137	5.24	BBB1	59	3.27	18.04
41	US	BPPEHX 1.4 22s	112	2.70	BBB2	BPPEHX 2.2 25s	167	5.75	BBB2	55	3.05	18.02
42	GB	BATSLN 0.875 23s	122	3.97	BBB2	BATSLN 1.25 27s	183	7.39	BBB2	61	3.42	17.85
43	FR	CARDFP 2.375 24s	131	4.90	BBB2	CARDFP 2.125 28s	193	8.37	BBB2	62	3.47	17.85
44	GB	CNHI 1.375 22s	80	2.58	BBB3	CNHI 1.75 25s	139	5.89	BBB3	59	3.31	17.83
45	FR	TDFINF 2.875 22s	139	2.99	BBB3	TDFINF 2.5 26s	200	6.45	BBB3	61	3.47	17.59
46	GB	CNHI 2.875 21s	70	1.93	BBB3	CNHI 1.75 25s	139	5.89	BBB3	69	3.96	17.42
47	LU	JABHOL 1.625 25s	102	5.52	BBB1	JABHOL 2 28s	155	8.57	BBB1	53	3.05	17.37
48	NL	EXOIM 2.125 22s	96	3.11	BBB1	EXOIM 2.875 25s	149	6.16	BBB1	53	3.06	17.33
49	FR	MWDP 1 23s	89	3.49	BBB2	MWDP 1.375 26s	141	6.51	BBB2	52	3.02	17.22
50	US	WPC 2 23s	111	3.24	BBB2	WPC 2.25 26s	166	6.46	BBB2	55	3.22	17.09

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

Table 3: Best adjusted spread pick-up by extending 4-5yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	GB	F 1.875 21s	143	1.67	BBB3	F 2.386 26s	305	6.32	BBB3	162	4.65	34.80
2	FI	CITCON 2.375 22s	138	2.90	BBB3	CITCON 2.375 27s	281	7.23	BBB3	143	4.33	32.99
3	GB	F 0.869 21s	171	1.89	BBB3	F 2.386 26s	305	6.32	BBB3	134	4.43	30.23
4	FR	ETLFP 3.125 22s	68	2.96	BBB3	ETLFP 2.25 27s	207	7.72	BBB3	139	4.76	29.21
5	IT	ATLIM 1.125 21s	198	2.03	BBB2	ATLIM 1.875 25s	312	6.03	BBB2	114	4.00	28.48
6	GB	F 1.134 22s	191	2.30	BBB3	F 2.386 26s	305	6.32	BBB3	114	4.02	28.34
7	FR	ETLFP 1.125 21s	67	1.66	BBB3	ETLFP 2 25s	171	5.94	BBB3	104	4.28	24.30
8	GB	IMBLN 0.5 21s	81	1.76	BBB2	IMBLN 3.375 26s	188	6.35	BBB2	107	4.59	23.32
9	NL	DRGUCN 1.375 21s	107	2.16	BBB2	DRGUCN 1.75 26s	211	6.68	BBB2	104	4.52	23.01
10	IT	ATLIM 1.625 23s	220	3.63	BBB3	ATLIM 1.875 27s	311	7.72	BBB3	91	4.09	22.26
11	GB	ITVLN 2.125 22s	103	2.91	BBB3	ITVLN 1.375 26s	189	6.93	BBB3	86	4.02	21.41
12	GB	IAGLN 0.5 23s	134	3.69	BBB3	IAGLN 1.5 27s	218	7.70	BBB3	84	4.00	20.99
13	SE	BALDER 1.125 22s	90	2.39	BBB3	BALDER 1.125 27s	192	7.27	BBB2	102	4.88	20.89
14	FR	RENAUL 0.75 22s	93	2.22	BBB2	RENAUL 1.625 26s	184	6.59	BBB2	91	4.37	20.82
15	FR	RENAUL 0.25 21s	73	1.72	BBB2	RENAUL 1 25s	164	6.10	BBB3	91	4.38	20.76
16	FR	RENAUL 0.75 22s	102	2.92	BBB2	RENAUL 2 26s	185	6.93	BBB3	83	4.01	20.71
17	FR	RENAUL 1.25 22s	97	2.62	BBB2	RENAUL 2 26s	185	6.93	BBB3	88	4.31	20.42
18	GB	CNHI 2.875 21s	70	1.93	BBB3	CNHI 1.875 26s	158	6.24	BBB3	88	4.32	20.39
19	CH	GLENLN 1.625 22s	101	2.24	BBB1	GLENLN 3.75 26s	184	6.44	BBB1	83	4.20	19.75
20	FR	CARDFP 2.375 23s	105	3.90	BBB2	CARDFP 2.125 28s	193	8.37	BBB2	88	4.47	19.68
21	FR	RENAUL 0.625 21s	85	2.05	BBB2	RENAUL 1 25s	164	6.10	BBB3	79	4.05	19.50
22	GB	LOGICR 0.75 24s	132	4.73	BBB2	LOGICR 3.25 28s	216	9.06	BBB2	84	4.33	19.38
23	GB	BATSLN 1 22s	90	2.58	BBB2	BATSLN 1.25 27s	183	7.39	BBB2	93	4.81	19.34
24	GB	BATSLN 2.375 23s	103	3.24	BBB2	BATSLN 1.25 27s	183	7.39	BBB2	80	4.15	19.29
25	ES	ABESM 3.75 23s	102	3.65	BBB2	ABESM 2.375 27s	184	7.93	BBB2	82	4.27	19.19
26	GB	CNHI 1.375 22s	80	2.58	BBB3	CNHI 1.75 27s	172	7.42	BBB3	92	4.84	19.00
27	GB	LOGICR 1.5 22s	104	3.06	BBB2	LOGICR 1.625 27s	192	7.73	BBB2	88	4.67	18.85
28	GB	BATSLN 2.75 25s	149	5.42	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	90	4.82	18.69
29	FR	PEUGOT 1.125 29s	173	9.91	BBB3	PEUGOT 6 33s	247	13.91	BBB3	74	4.01	18.47
30	GB	LOGICR 0.5 21s	72	1.52	BBB2	LOGICR 2.25 25s	145	5.55	BBB2	73	4.04	18.08
31	GB	AALLN 2.5 21s	88	1.51	BBB2	AALLN 1.625 25s	167	5.90	BBB2	79	4.39	17.99
32	US	WPC 2 23s	111	3.24	BBB2	WPC 2.125 27s	185	7.48	BBB2	74	4.24	17.47
33	ES	ABESM 1 27s	159	7.35	BBB2	ABESM 3 31s	228	11.43	BBB2	69	4.08	16.91
34	US	MCK 0.625 21s	70	1.81	BBB1	MCK 1.5 25s	137	6.07	BBB1	67	4.25	15.75
35	DE	HOTGR 0.5 27s	127	7.86	BBB2	HOTGR 1.25 31s	190	11.87	BBB2	63	4.00	15.74
36	US	MO 1 23s	126	3.31	BBB1	MO 2.2 27s	194	7.64	BBB1	68	4.33	15.70
37	DE	ARNDTN 1.5 22s	89	2.52	BBB1	ARNDTN 2 26s	159	7.03	BBB1	70	4.50	15.54
38	FI	STERV 2.125 23s	94	3.64	BBB3	STERV 2.5 28s	168	8.41	BBB3	74	4.77	15.52
39	ES	ABESM 2.5 25s	137	5.35	BBB2	ABESM 1.625 29s	205	9.73	BBB2	68	4.38	15.52
40	NL	LYB 1.875 22s	83	2.35	BBB1	LYB 0.875 26s	153	6.90	BBB1	70	4.55	15.39
41	ES	ABESM 1.375 26s	154	6.57	BBB2	ABESM 3 31s	228	11.43	BBB2	74	4.85	15.24
42	US	GIS 1 23s	73	3.51	BBB2	GIS 1.5 27s	133	7.51	BBB2	60	4.00	14.99
43	DE	VW 0.625 21s	75	1.87	BBB1	VW 1.25 25s	139	6.15	BBB1	64	4.27	14.98
44	LU	JABHOL 1.625 25s	102	5.52	BBB1	JABHOL 2.5 29s	163	9.67	BBB1	61	4.16	14.68
45	DE	VW 0.75 21s	78	1.97	BBB1	VW 1.25 25s	139	6.15	BBB1	61	4.17	14.62
46	IT	ESSLNG 0.875 23s	146	4.00	BBB3	ESSLNG 1.875 27s	204	8.01	BBB3	58	4.00	14.49
47	NO	NHYNO 1.125 25s	133	5.47	BBB2	NHYNO 2 29s	190	9.47	BBB2	57	4.00	14.24
48	FI	FUMVFH 4 21s	67	1.58	BBB2	FUMVFH 1.625 26s	134	6.35	BBB2	67	4.77	14.05
49	LU	JABHOL 1.75 23s	85	3.58	BBB1	JABHOL 2 28s	155	8.57	BBB1	70	4.99	14.04
50	DE	VW 0.875 23s	92	3.23	BBB1	VW 1.875 27s	151	7.43	BBB1	59	4.20	14.04

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

Table 4: Best adjusted spread pick-up by extending 5-6yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	DE	SHAEFF 1.125 22s	115	2.42	BBB3	SHAEFF 2.875 27s	233	7.42	BBB3	118	5.00	23.59
2	GB	IMBLN 0.5 21s	81	1.76	BBB2	IMBLN 2.125 27s	208	7.31	BBB2	127	5.55	22.88
3	ES	AQUASM 1.413 22s	88	2.62	BBB3	AQUASM 2.629 27s	198	7.62	BBB3	110	5.00	21.99
4	IT	ATLIM 1.125 21s	198	2.03	BBB2	ATLIM 1.75 27s	312	7.28	BBB2	114	5.25	21.73
5	FR	RENAUL 0.25 21s	73	1.72	BBB2	RENAUL 2 26s	185	6.93	BBB3	112	5.22	21.47
6	GB	BATSLN 3.625 21s	77	2.04	BBB2	BATSLN 1.25 27s	183	7.39	BBB2	106	5.34	19.84
7	GB	BATSLN 1.125 23s	122	4.06	BBB2	BATSLN 3.125 29s	221	9.37	BBB2	99	5.31	18.66
8	CH	SYNNVX 1.875 21s	109	2.02	BBB3	SYNNVX 1.25 27s	218	7.88	BBB3	109	5.86	18.61
9	GB	CNHI 2.875 21s	70	1.93	BBB3	CNHI 1.75 27s	172	7.42	BBB3	102	5.49	18.57
10	GB	BATSLN 0.875 23s	122	3.97	BBB2	BATSLN 3.125 29s	221	9.37	BBB2	99	5.40	18.33
11	US	WPC 2 23s	111	3.24	BBB2	WPC 1.35 28s	204	8.48	BBB2	93	5.24	17.75
12	US	BPPEHX 0.5 23s	129	3.88	BBB2	BPPEHX 1.75 29s	226	9.39	BBB2	97	5.50	17.63
13	ES	ABESM 1 27s	159	7.35	BBB2	ABESM 1.875 32s	244	12.43	BBB2	85	5.08	16.73
14	US	BPPEHX 2 24s	144	4.31	BBB2	BPPEHX 1.75 29s	226	9.39	BBB2	82	5.07	16.16
15	ES	ABESM 1.375 26s	154	6.57	BBB2	ABESM 1.875 32s	244	12.43	BBB2	90	5.85	15.37
16	DE	ARNDTN 1.5 22s	89	2.52	BBB1	ARNDTN 1.625 28s	173	8.27	BBB1	84	5.75	14.61
17	US	DISCA 2.375 22s	86	2.37	BBB3	DISCA 1.9 27s	159	7.40	BBB3	73	5.04	14.50
18	US	IFF 0.5 21s	74	1.92	BBB3	IFF 1.8 26s	146	6.92	BBB3	72	5.00	14.39
19	DE	DT 1.5 28s	104	8.45	BBB1	DT 2.2 33s	179	13.76	BBB1	75	5.31	14.12
20	ES	ABESM 1.5 24s	134	4.68	BBB2	ABESM 1.625 29s	205	9.73	BBB2	71	5.05	14.05
21	LU	JABHOL 1.25 24s	92	4.58	BBB1	JABHOL 2.5 29s	163	9.67	BBB1	71	5.10	13.93
22	DE	VW 0.625 21s	75	1.87	BBB1	VW 1.875 27s	151	7.43	BBB1	76	5.56	13.67
23	DE	DT 3.25 28s	104	8.24	BBB1	DT 2.2 33s	179	13.76	BBB1	75	5.52	13.58
24	ES	ABESM 0.625 25s	151	5.73	BBB2	ABESM 3 31s	228	11.43	BBB2	77	5.70	13.51
25	DE	VW 0.75 21s	78	1.97	BBB1	VW 1.875 27s	151	7.43	BBB1	73	5.46	13.37
26	ES	NATUEN 0.918 22s	96	2.93	BBB3	NATUEN 2.065 27s	162	7.93	BBB3	66	5.00	13.19
27	ES	COLSM 1.45 24s	109	5.01	BBB1	COLSM 2.5 29s	176	10.10	BBB1	67	5.09	13.17
28	LU	JABHOL 2.125 22s	81	2.90	BBB1	JABHOL 2 28s	155	8.57	BBB1	74	5.67	13.04
29	US	BDX 0.174 21s	69	1.61	BBB3	BDX 1.9 26s	141	7.15	BBB3	72	5.53	13.01
30	GB	BRITEL 0.5 22s	76	2.66	BBB2	BRITEL 1.5 27s	141	7.67	BBB2	65	5.00	12.99
31	NL	EXOIM 2.125 22s	96	3.11	BBB1	EXOIM 1.75 28s	162	8.24	BBB1	66	5.13	12.86
32	US	MCK 0.625 21s	70	1.81	BBB1	MCK 1.625 26s	136	7.02	BBB1	66	5.21	12.68
33	DE	VW 2.125 22s	84	2.44	BBB1	VW 2.625 27s	154	8.07	BBB1	70	5.62	12.45
34	US	KMI 1.5 22s	77	2.39	BBB2	KMI 2.25 27s	137	7.39	BBB2	60	5.00	11.99
35	CH	LHNVX 3 24s	85	4.25	BBB2	LHNVX 1.75 29s	152	9.85	BBB2	67	5.61	11.95
36	DE	VW 1.35 22s	89	2.24	BBB1	VW 1.875 27s	151	7.43	BBB1	62	5.20	11.93
37	GB	BRITEL 1 24s	100	4.67	BBB2	BRITEL 1.125 29s	162	9.89	BBB2	62	5.22	11.87
38	GB	BRITEL 0.875 23s	91	3.92	BBB2	BRITEL 2.125 28s	150	8.93	BBB2	59	5.01	11.79
39	DE	VW 0.625 22s	88	2.44	BBB1	VW 2.625 27s	154	8.07	BBB1	66	5.63	11.72
40	DE	BASGR 2.5 24s	66	4.25	A1	BASGR 0.875 29s	126	9.37	A1	60	5.13	11.70
41	DE	VW 2.375 22s	94	2.87	BBB1	VW 2.625 27s	154	8.07	BBB1	60	5.20	11.54
42	DE	VW 0.5 22s	92	2.65	BBB1	VW 2.625 27s	154	8.07	BBB1	62	5.41	11.46
43	US	GE 4.625 27s	172	7.33	BBB1	GE 3.65 32s	235	12.84	BBB1	63	5.50	11.45
44	US	T 2.35 29s	129	9.87	BBB1	T 2.45 35s	192	15.40	BBB1	63	5.53	11.40
45	US	PPG 0.875 22s	63	2.38	A3	PPG 1.4 27s	120	7.39	A3	57	5.00	11.39
46	DE	VW 1.25 22s	94	2.77	BBB1	VW 2.625 27s	154	8.07	BBB1	60	5.30	11.33
47	US	T 0.8 30s	135	10.36	BBB1	T 2.45 35s	192	15.40	BBB1	57	5.03	11.33
48	US	T 2.6 29s	133	10.15	BBB1	T 2.45 35s	192	15.40	BBB1	59	5.24	11.25
49	US	GE 1.875 27s	176	7.59	BBB1	GE 3.65 32s	235	12.84	BBB1	59	5.24	11.25
50	US	GE 0.8 22s	115	2.24	BBB1	GE 4.625 27s	172	7.33	BBB1	57	5.09	11.20

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

Table 5: Best adjusted spread pick-up by extending 6-7yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	FR	ETLFP 1.125 21s	67	1.66	BBB3	ETLFP 2.25 27s	207	7.72	BBB3	140	6.06	23.11
2	GB	BATSLN 2.375 23s	103	3.24	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	136	7.00	19.44
3	GB	LOGICR 0.5 21s	72	1.52	BBB2	LOGICR 1.625 27s	192	7.73	BBB2	120	6.21	19.32
4	GB	BATSLN 1 22s	90	2.58	BBB2	BATSLN 3.125 29s	221	9.37	BBB2	131	6.79	19.29
5	GB	BATSLN 1.125 23s	122	4.06	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	117	6.17	18.95
6	GB	BATSLN 0.875 23s	122	3.97	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	117	6.27	18.67
7	GB	LOGICR 1.5 22s	104	3.06	BBB2	LOGICR 3.25 28s	216	9.06	BBB2	112	6.00	18.66
8	US	BPPEHX 1.4 22s	112	2.70	BBB2	BPPEHX 1.75 29s	226	9.39	BBB2	114	6.69	17.05
9	ES	ABESM 3.75 23s	102	3.65	BBB2	ABESM 1.625 29s	205	9.73	BBB2	103	6.07	16.96
10	ES	ABESM 2.5 25s	137	5.35	BBB2	ABESM 3 31s	228	11.43	BBB2	91	6.08	14.97
11	DE	ARNDTN 1.5 22s	89	2.52	BBB1	ARNDTN 1.45 28s	176	8.71	BBB1	87	6.19	14.06
12	ES	COLSM 2.728 23s	85	3.61	BBB1	COLSM 2.5 29s	176	10.10	BBB1	91	6.49	14.03
13	ES	ABESM 1.5 24s	134	4.68	BBB2	ABESM 3 31s	228	11.43	BBB2	94	6.75	13.92
14	ES	ABESM 0.625 25s	151	5.73	BBB2	ABESM 1.875 32s	244	12.43	BBB2	93	6.70	13.88
15	DE	DT 0.5 27s	96	7.70	BBB1	DT 2.2 33s	179	13.76	BBB1	83	6.06	13.70
16	DE	DT 1.375 27s	91	7.27	BBB1	DT 2.2 33s	179	13.76	BBB1	88	6.49	13.56
17	FR	PUBFP 1.125 21s	69	2.15	BBB2	PUBFP 1.25 28s	157	8.64	BBB2	88	6.50	13.55
18	IT	ATLIM 1.625 23s	220	3.63	BBB3	ATLIM 1.875 29s	301	9.93	BBB2	81	6.30	12.87
19	LU	JABHOL 1.75 23s	85	3.58	BBB1	JABHOL 2.5 29s	163	9.67	BBB1	78	6.09	12.81
20	DE	BAYNGR 1.25 23s	78	4.05	BBB1	BAYNGR 2.125 29s	156	10.15	BBB1	78	6.09	12.80
21	DE	VW 0.625 21s	75	1.87	BBB1	VW 2.625 27s	154	8.07	BBB1	79	6.19	12.76
22	GB	CNHI 2.875 23s	108	3.56	BBB3	CNHI 1.625 29s	186	9.70	BBB3	78	6.13	12.72
23	US	MO 1.7 25s	166	5.64	BBB1	MO 3.125 31s	242	11.65	BBB1	76	6.00	12.66
24	DE	VW 0.75 21s	78	1.97	BBB1	VW 2.625 27s	154	8.07	BBB1	76	6.09	12.47
25	FR	HITTFP 4.875 21s	74	2.01	BBB3	HITTFP 1.625 27s	149	8.10	BBB3	75	6.09	12.32
26	LU	JABHOL 2.125 22s	81	2.90	BBB1	JABHOL 2.5 29s	163	9.67	BBB1	82	6.78	12.10
27	LU	JABHOL 1.5 21s	78	2.08	BBB1	JABHOL 2 28s	155	8.57	BBB1	77	6.48	11.87
28	FR	PUBFP 1.625 24s	103	5.15	BBB2	PUBFP 1.75 31s	180	11.64	BBB2	77	6.49	11.86
29	GB	BRITEL 0.5 22s	76	2.66	BBB2	BRITEL 2.125 28s	150	8.93	BBB2	74	6.27	11.81
30	ES	MRLSM 2.225 23s	96	3.50	BBB2	MRLSM 2.375 29s	171	9.91	BBB2	75	6.41	11.71
31	FR	NK 0.875 22s	90	2.43	BBB2	NK 1.875 28s	160	8.44	BBB2	70	6.01	11.66
32	DE	HOTGR 1.75 25s	120	5.69	BBB2	HOTGR 1.25 31s	190	11.87	BBB2	70	6.17	11.34
33	GB	BRITEL 1.125 23s	89	3.38	BBB2	BRITEL 1.125 29s	162	9.89	BBB2	73	6.52	11.20
34	DE	FREGR 1.875 25s	98	5.32	BBB3	FREGR 3 32s	174	12.27	BBB3	76	6.95	10.93
35	FI	FUMVFH 2.25 22s	84	2.87	BBB2	FUMVFH 2.125 29s	154	9.35	BBB2	70	6.48	10.80
36	FR	PEUGOT 2.375 23s	104	3.47	BBB3	PEUGOT 1.125 29s	173	9.91	BBB3	69	6.44	10.72
37	CH	LHNVX 1.375 23s	85	3.59	BBB2	LHNVX 1.75 29s	152	9.85	BBB2	67	6.27	10.69
38	CZ	CEZCP 5 21s	84	1.99	A3	CEZCP 3 28s	153	8.62	A3	69	6.63	10.40
39	DE	VW 1.125 24s	120	4.45	BBB1	VW 3.25 30s	188	11.07	BBB1	68	6.63	10.26
40	US	T 0.8 30s	135	10.36	BBB1	T 3.15 36s	200	16.87	BBB1	65	6.51	9.99
41	US	T 2.6 29s	133	10.15	BBB1	T 3.15 36s	200	16.87	BBB1	67	6.72	9.97
42	DE	VW 2.625 24s	120	4.23	BBB1	VW 3.25 30s	188	11.07	BBB1	68	6.85	9.93
43	LU	GOOEUR 0.875 22s	84	2.99	BBB1	GOOEUR 1.125 29s	151	9.74	BBB1	67	6.75	9.93
44	FR	EDF 1 26s	82	6.97	A3	EDF 5.625 33s	145	13.34	A3	63	6.36	9.90
45	DE	VW 1.875 24s	121	4.27	BBB1	VW 3.25 30s	188	11.07	BBB1	67	6.80	9.85
46	DE	VW 1.25 24s	125	4.63	BBB1	VW 3.25 30s	188	11.07	BBB1	63	6.44	9.78
47	DE	BASGR 2 22s	65	3.12	A1	BASGR 0.875 29s	126	9.37	A1	61	6.26	9.75
48	GB	WPPLN 3 23s	81	4.07	BBB2	WPPLN 1.625 30s	142	10.42	BBB2	61	6.34	9.62
49	ES	TELEFO 1.46 26s	100	6.47	BBB2	TELEFO 5.875 33s	164	13.32	BBB2	64	6.85	9.35
50	DE	HEIGR 3.25 21s	82	1.99	BBB3	HEIGR 1.75 28s	142	8.50	BBB3	60	6.51	9.21

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

Table 6: Best adjusted spread pick-up by extending 7-8yrs duration

Rank	Cntry	Short-dated			Rating	Long-dated			Rating	OAS pick up	yrs extent	OAS pick up p.a.
		Security	OAS	yrs to mat		Security	OAS	yrs to mat				
1	GB	BATSLN 3.625 21s	77	2.04	BBB2	BATSLN 3.125 29s	221	9.37	BBB2	144	7.33	19.66
2	GB	BATSLN 1 22s	90	2.58	BBB2	BATSLN 2.25 30s	239	10.24	BBB2	149	7.66	19.46
3	GB	LOGICR 0.5 21s	72	1.52	BBB2	LOGICR 3.25 28s	216	9.06	BBB2	144	7.55	19.08
4	ES	ABESM 3.75 23s	102	3.65	BBB2	ABESM 3 31s	228	11.43	BBB2	126	7.77	16.21
5	ES	ABESM 2.5 25s	137	5.35	BBB2	ABESM 1.875 32s	244	12.43	BBB2	107	7.08	15.11
6	GB	CNHI 2.875 21s	70	1.93	BBB3	CNHI 1.625 29s	186	9.70	BBB3	116	7.77	14.93
7	GB	CNHI 1.375 22s	80	2.58	BBB3	CNHI 1.625 29s	186	9.70	BBB3	106	7.12	14.89
8	ES	ABESM 1.5 24s	134	4.68	BBB2	ABESM 1.875 32s	244	12.43	BBB2	110	7.75	14.19
9	DE	DT 1.125 26s	84	6.58	BBB1	DT 2.2 33s	179	13.76	BBB1	95	7.18	13.23
10	IT	ATLIM 1.125 21s	198	2.03	BBB2	ATLIM 1.875 29s	301	9.93	BBB2	103	7.90	13.04
11	DE	DT 0.875 26s	86	6.42	BBB1	DT 2.2 33s	179	13.76	BBB1	93	7.34	12.67
12	ES	MRLSM 2.375 22s	79	2.58	BBB2	MRLSM 2.375 29s	171	9.91	BBB2	92	7.33	12.55
13	DE	DT 1.375 25s	85	6.11	BBB1	DT 2.2 33s	179	13.76	BBB1	94	7.65	12.28
14	DE	VW 0.875 23s	92	3.23	BBB1	VW 3.25 30s	188	11.07	BBB1	96	7.84	12.24
15	GB	BRITEL 0.5 22s	76	2.66	BBB2	BRITEL 1.125 29s	162	9.89	BBB2	86	7.23	11.90
16	US	GE 0.875 25s	152	5.56	BBB1	GE 3.65 32s	235	12.84	BBB1	83	7.27	11.41
17	LU	JABHOL 1.5 21s	78	2.08	BBB1	JABHOL 2.5 29s	163	9.67	BBB1	85	7.59	11.20
18	FI	FUMVFH 4 21s	67	1.58	BBB2	FUMVFH 2.125 29s	154	9.35	BBB2	87	7.77	11.20
19	FR	PUBFP 0.5 23s	95	4.03	BBB2	PUBFP 1.75 31s	180	11.64	BBB2	85	7.61	11.16
20	DE	VW 1.125 23s	110	3.94	BBB1	VW 3.25 30s	188	11.07	BBB1	78	7.13	10.93
21	DE	VW 0.75 23s	107	3.64	BBB1	VW 3.25 30s	188	11.07	BBB1	81	7.43	10.90
22	DE	BAYNGR 0.625 22s	80	3.14	BBB1	BAYNGR 2.125 29s	156	10.15	BBB1	76	7.01	10.85
23	CH	ADENVX 1.5 22s	57	3.08	BBB1	ADENVX 1.25 29s	132	10.08	BBB1	75	7.00	10.71
24	US	PM 2.875 24s	84	4.60	A2	PM 0.8 31s	159	11.78	A2	75	7.18	10.45
25	DE	VW 1 23s	107	3.32	BBB1	VW 3.25 30s	188	11.07	BBB1	81	7.76	10.44
26	DE	VW 2.125 22s	84	2.44	BBB1	VW 1.625 30s	165	10.24	BBB1	81	7.79	10.40
27	DE	VW 0.875 23s	109	3.47	BBB1	VW 3.25 30s	188	11.07	BBB1	79	7.61	10.38
28	DE	VW 1.375 23s	115	3.98	BBB1	VW 3.25 30s	188	11.07	BBB1	73	7.10	10.29
29	US	T 3.5 25s	95	6.15	BBB1	T 3.55 32s	167	13.16	BBB1	72	7.01	10.28
30	ES	ABESM 3.125 24s	156	4.40	BBB2	ABESM 3 31s	228	11.43	BBB2	72	7.02	10.25
31	US	T 2.35 29s	129	9.87	BBB1	T 3.15 36s	200	16.87	BBB1	71	7.00	10.14
32	DE	VW 0.625 22s	88	2.44	BBB1	VW 1.625 30s	165	10.24	BBB1	77	7.80	9.87
33	US	T 1.8 26s	114	6.87	BBB1	T 3.375 34s	188	14.40	BBB1	74	7.53	9.83
34	GB	VOD 1.5 27s	108	7.75	BBB2	VOD 2.75 34s	179	15.11	BBB2	71	7.36	9.64
35	DE	VW 2.375 22s	94	2.87	BBB1	VW 1.625 30s	165	10.24	BBB1	71	7.37	9.64
36	DE	VW 0.5 22s	92	2.65	BBB1	VW 1.625 30s	165	10.24	BBB1	73	7.58	9.63
37	SE	MOLNLY 1.5 22s	77	2.35	BBB3	MOLNLY 0.875 29s	149	9.87	BBB3	72	7.52	9.57
38	DE	VW 1.25 22s	94	2.77	BBB1	VW 1.625 30s	165	10.24	BBB1	71	7.47	9.51
39	DE	GYCGR 1.5 25s	127	5.48	BBB1	GYCGR 2 32s	198	13.01	BBB1	71	7.53	9.43
40	US	GE 0.8 22s	115	2.24	BBB1	GE 1.5 29s	184	9.57	BBB1	69	7.32	9.42
41	US	GE 4.35 21s	113	2.03	BBB1	GE 1.5 29s	184	9.57	BBB1	71	7.54	9.42
42	DE	VW 0.5 22s	94	2.61	BBB1	VW 1.625 30s	165	10.24	BBB1	71	7.62	9.32
43	US	AGN 0.5 21s	69	1.60	BBB3	AGN 2.625 28s	138	9.07	BBB3	69	7.46	9.25
44	GB	VOD 1.75 23s	77	3.84	BBB2	VOD 1.6 31s	150	11.77	BBB2	73	7.93	9.20
45	GB	VOD 4.65 22s	59	2.24	BBB2	VOD 1.875 29s	131	10.08	BBB2	72	7.84	9.19
46	DE	VW 0.375 22s	96	2.70	BBB1	VW 1.625 30s	165	10.24	BBB1	69	7.54	9.15
47	FR	EDF 4 25s	79	6.05	A3	EDF 5.625 33s	145	13.34	A3	66	7.28	9.06
48	US	GE 0.375 22s	121	2.56	BBB1	GE 1.5 29s	184	9.57	BBB1	63	7.01	8.99
49	ES	TELEFO 1.495 25s	98	5.88	BBB2	TELEFO 5.875 33s	164	13.32	BBB2	66	7.43	8.88
50	DE	FREGR 0.875 22s	76	2.27	BBB3	FREGR 2.875 29s	138	9.32	BBB3	62	7.05	8.80

Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC

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