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Time for the BBB team to shine

- We forecast the US Corporate Index to post an excess return of 150-200bp, corresponding to about 10bp of tightening, and a total return of 3.75-4.25% (based on our Interest Rates Strategy team's forecast) in 2020. Low but stable growth combined with robust corporate fundamentals and an accommodative Fed should support valuations despite the current tight trading levels.
- We expect BBBs to lead the rally, compressing the BBB/A spread ratio back to historical averages. The beta compression should be aided by continued BBB deleveraging as leverage reduction remains a focus of both equity and debt investors. Within BBBs, we think the BAA2 cohort should outperform: it appears cheap and should be the largest beneficiary as investors reach for yield. The theme of beta compression should extend to hybrids as well, and we expect them to outperform senior debt in absolute and beta-adjusted terms.
- We favor extending duration and see marginal flattening of 5s10s and 10s30s curves, led by BBBs. Insurance and pension demand has stayed strong even as yields declined, and continued buying from this cohort should support long-dated valuations.
- Aligning with our preference for BBBs and extending duration, we favor Industrials over Financials. Even when compared with industrial debt of similar rating and duration, bank spreads trade near three-year tights and appear to have little room to compress.
- Modestly tighter spreads should imply outperformance of the widest sectors. However, this is complicated by low sector dispersion: only five sectors offer a substantial sector premium and trade meaningfully wide of the index, of which we prefer Midstream, E&P and Tobacco. Further, we raise our sector rating on Chemicals to Overweight, Health Insurance to Overweight, Food & Beverage to Market Weight, and Refining to Market Weight. We lower our sector rating on Pharmaceuticals to Underweight.
- We forecast \$920bn of gross fixed-rate corporate issuance (down 0-5% y/y), corresponding to \$320bn in net supply (down 5-10%). Terming out debt will remain a key theme as companies take advantage of low long-dated yields and flat yield curves.
- We think the historically tight level of CDX.IG will limit upside for the index.
 Assuming that index returns follow their long-run beta to cash and equity returns, we think CDX.IG should return 50-75bp in 2020, which would leave the index unchanged to 5bp tighter from current levels. Recent portfolio product trends have been encouraging, and we think activity levels are likely to remain robust.

2020 performance outlook

After the fourth quarter sell-off in 2018, IG credit spreads have tightened almost 50bp year-to-date, with most of the move happening in 1Q 19. IG excess returns (through November-end) have been 545bp, which combined with the significant rally in Treasury yields has resulted in a total return of 14.2%. Assuming returns hold through year-end, they would represent the highest excess and total returns since 2012 and 2009, respectively. Despite the strong rally, high beta credit has generally lagged on a beta-adjusted basis with the BBB/A ratio widening modestly and 10s30s industrial curves steepening 10bp.

Looking forward to 2020, our house forecasts for growth and Treasury yields imply a low growth/low yield environment in the US next year. Our economists expect US growth to slow to 1.8%, down from over 2% this year, and our house forecast is for the 10y Treasury yield to be 1.7% at YE 2020. This, combined relatively tight starting spreads, should keep corporate yields at depressed levels, which will leave most DM investors facing a dilemma: go down the quality spectrum to meet yield/return targets or prefer higher quality amid a stable but low growth backdrop.

We prefer the former. We remain constructive on investment grade valuations and expect spreads to tighten modestly in 2020. Against that backdrop, reaching for yield – going down the quality spectrum or capital structure – should be an effective strategy. Most IC companies only need stable EBITDA to maintain fundamentals, something that should be eminently achievable in a positive (albeit low) growth environment. Corporate fundamentals also appear robust with leverage trending down this year as many highly leveraged companies have made leverage reduction a priority, a trend we expect to continue. In addition, the technical backdrop remains strong: US insurance and international demand has remained elevated in the face of declining yields and retail flows have been robust. Further, we expect net supply to be down 5-10% y/y in 2020 and nearly 30% lower than pre-2018 levels.

Although we are constructive as our base case, we acknowledge that growth rates this low leave little margin for error. Evidence of the manufacturing slowdown spreading to the consumer, slowing global growth or a potential worsening of US-China trade could drive spreads wider. With the lowa democratic caucuses about two months away, the US Presidential election is likely to drive volatility in risk assets. In particular, Senator Warren's proposals could have several implications for the credit market, which we analyze in detail in *Parsing Senator Warren's Policies (28 October 2019)*. Any sell-off will likely be exacerbated by rich valuations: IG credit spreads on a rating/duration adjusted basis are tight in a historical context. These factors will keep spreads volatile, but in our base case will not weigh on valuations for an extended period of time.

2020 excess return forecast

Coming into 2019, the key concerns for investors included slowing US and global growth, an aggressive Fed and the risk of a significant spike in fallen angel volumes. With the Fed turning dovish very early in the year, one of the risks went off the table fairly quickly. Rising star volumes have outpaced fallen angel volumes and the spate of large cap BBB downgrades investors were worried about did not materialize. Global and US growth did slow down; however, it appears to be much more of a soft landing, which is not as negative for risk assets.

The above factors should continue to pose minimal risk to valuations in 2020, in our view. Although growth in the US is likely to slow down modestly (to 1.8%), we believe the risk of more substantial weakening is relatively low. As we discuss in *Macroprudential regulation: Reading the benefits of a safer banking system*, 5 December 2019, a strong banking system has played a key role in lowering inter-sector correlations and reducing contagion risk in the US economy over the last decade. This means that sector-specific weakness has not spread to the rest of the economy, as best exemplified by the 2016 energy sell-off. With banks remaining well capitalized, we expect this trend to continue next year as well, reducing the potential tail risk for credit. Further, while our house view calls for no further rate cuts, the October Fed minutes also confirmed that the bar to hike rates is very high. Most FOMC members saw policy as "well calibrated" to deliver an ongoing economic expansion, and agreed that the policy stance would change only when incoming data caused a "material change" in the committee's assessment of the economic outlook (see *October FOMC minutes: Policy well calibrated to support the outlook,* 21 November 2019). Finally, as we discuss in the Fundamentals section, our view on corporate fundamentals remains fairly benign.

Our macro credit framework (see *Let's Be Reasonable*, 11 August 2017) looks at a few early economic indicators to determine the expected return distribution for the following year. In a period of stable growth, returns are more normally distributed ("stable state"), with average excess returns of carry plus a little bit of spread tightening. On the other hand, during "transitional states" – starting about four quarters prior to a recession – average excess returns turn negative. The weakness in manufacturing has weighed on the index of Leading Economic Indicators (LEI), which has declined most of this year. For now, it remains in positive territory, however, and importantly the other early indicators – SLOOS, initial jobless claims and output gap – all point to a stable growth environment (Figure 1). Combined with our view that a safer banking system is likely to limit contagion risk in the economy, we believe credit excess returns next year will mirror those with the economy in a stable state.

Expect spread tightening but low yields will limit the extent of a further rally

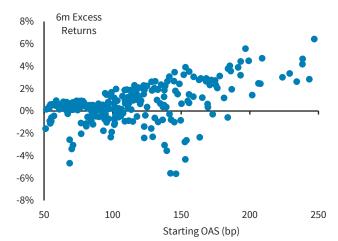
Figures 2 and 3 show the distribution of 6m forward returns versus the starting spread for periods when the economy is in a stable state (i.e. ignoring periods four quarter prior to and during recessions). Starting with spreads in the 100-130bp range, the median 6m forward excess return has been 75bp, which on an annualized basis, would imply excess returns of about 150bp. Accounting for our view for curve flattening, especially in BBB debt, which should further boost excess returns this time around, we forecast 2020 excess returns to be in the 150-200bp range. This corresponds to about 10bp of spread tightening at an index level and accounts for a minor drag from losses stemming from fallen angels.

FIGURE 1
Early macro indicators point to a stable economic backdrop

Factors	Current State	Recession Indication (on average)
Treasury Curve Term Spread (2s10s and 3m10s)	Both 2s10s and 3m10y are now back in positive territory, as risk sentiment has improved with the announcement of a potential phase-one trade deal and better than expected labor data	Recession starts 5Qs following 2s10s curve inversion (using 3m10s, it's ~4Qs)
Output Gap	Has plateaued at multi-year highs and has shown no indication of rolling over	Output gap starts to roll over 3-4Qs before a recession
Jobless Claims	Stable at low levels	Jobless claims turn from decreasing to increasing 3Qs prior to a recession
Leading Economic Indicators	After reaching multi-year highs in 3Q19, LEI has been declining, driven by weak manufacturing, but for now it is still in positive territory	Recession starts 2Qs after LEI turns negative Typically, a mini-cycle in the LEI (defined as zero to local peak, and back to zero) takes ~3y. If we are at peak today, it would take another 18m for the LEI to hit zero

Source: Barclays Research

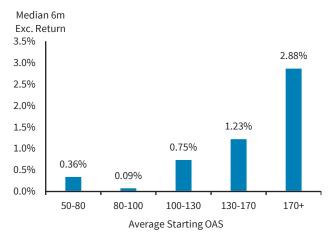
FIGURE 2
6m forward excess returns versus starting spread in "stable"



Source: Bloomberg, Barclays Research

FIGURE 3

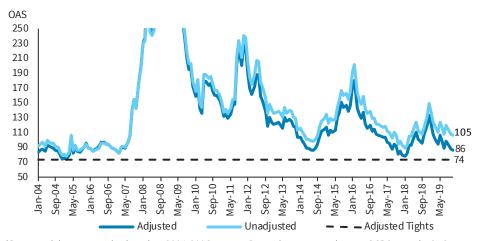
Median 6m excess returns by starting spread with economy in "stable" state



Source: Bloomberg, Barclays Research

Tight valuations should limit the extent of any further rally. This is especially the case since the rally in risk-free yields has driven the long index price to over \$118. At such a high premium over par, bonds have meaningfully higher losses on defaults (compared to par debt) and consequently, the \$-px adjusted spreads are tighter than nominal levels. In fact, combined with the significant lengthening in duration of the index over the last few years, as well as continued deterioration in quality, this makes historical comparisons less favorable. Figure 4 shows the effective spread of the index today adjusting for rating/duration/\$px differences. These adjustments lower the nominal spread by ~20bp, resulting in an adjusted spread of 86bp, only 12bp wider than the post-2000 tights. Therefore, a 10bp tightening from current levels would leave valuations within striking distance of 20y lows. Although a technical imbalance (low supply/elevated demand) may drive spreads through the lows, given concerns about the lack of liquidity, it is unlikely they trade through the tights for a sustained period of time.

FIGURE 4
Rating/duration/price adjusted spreads* are meaningfully tighter than nominal levels



*Rating and duration weights based on 2004-2006 average. Price adjustment made using BCDS spreads. OAS axis truncated for clarity. Source: Bloomberg, Barclays Research

In addition to driving prices higher, we believe low Treasury and corporate yields will have several other implications for the investment grade market, which we will examine throughout this report. Although demand has remained elevated in the face of declining yields, investors will increasingly be pushed down the quality spectrum, resulting in beta compression between BBBs and As and driving 10s30s curves flatter, especially for BBBs. We expect issuers to monetize low long-dated yields by continuing to term out debt.

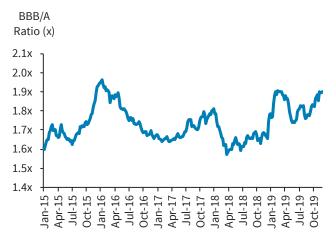
The key risk to our forecast stems from a worsening in the growth backdrop. While most investors appear comfortable with a forecast for a "soft landing", which is our house view as well, a more severe slowdown in growth could reignite concerns about an impending recession. In such a scenario, the potential widening could be significant, especially given the tight starting spread levels. Given that personal consumption accounts for nearly 70% of US GDP, the key thing to watch will be the extent to which the weakness in manufacturing is spreading to the consumer. The trends have been relatively supportive of late – consumer confidence remains elevated as evident in the recent print of the University of Michigan Consumer Sentiment index – but any sustained reversal should be treated as a warning sign.

BBBs should lead the rally

As credit spreads have rallied, BBBs have outperformed higher quality IG credit in nominal terms. Year-to-date, BBB excess returns have been 220bp more than As. BBB performance on a beta-adjusted basis has been less compelling, however, with the BBB/A spread ratio for industrials increasing from 1.8x to 1.9x this year (Figure 5). The beta-adjusted underperformance of BBBs has occurred even as this cohort has reduced leverage in aggregate (see Fundamental section). Importantly, as evident in Figure 6, the most leveraged companies in this cohort have reduced leverage the most.

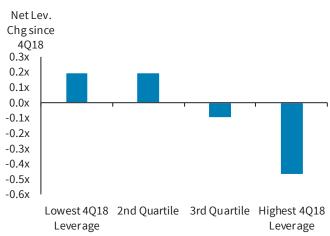
We expect the BBB deleveraging trend to continue next year. Reducing corporate leverage is likely to remain a focus among market participants – the most recent FOMC minutes alluded to the high level of nonfinancial corporate indebtedness as a source of risk. Any such actions are likely to be supported by equity investors: debt reduction was one of the most favored uses of cash by equity investors (based on our *Global Macro Survey*, 3 April 2019). This was also evident in the equity performance of companies that have reduced debt: this cohort has seen their equity outperform peers recently, a significant departure from the historical relationship (see *Issuers Go on Debt Diet*, 14 June 2019).

FIGURE 5 Industrial BBB/A spread ratio has increased ...



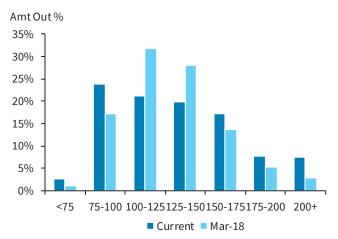
Source: Bloomberg, Barclays Research

FIGURE 6 ... even as BBBs have reduced leverage



Source: Compustat, Bloomberg, Barclays Research

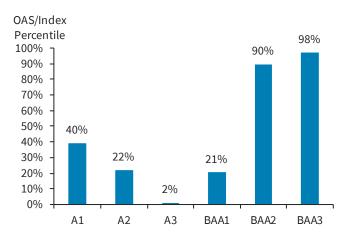
FIGURE 7
Distribution of BBB spreads March 2018 vs. current



Source: Bloomberg, Barclays Research

FIGURE 8

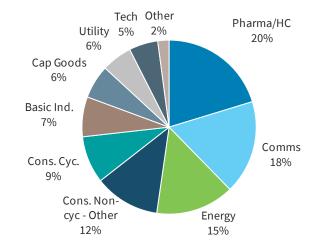
Spread percentile rank vs. last 12-month range by rating



Source: Bloomberg, Barclays Research

Cheap valuations, an improved fundamental backdrop and a reach for yield should drive a compression in the BBB/A spread ratio. It is unlikely to be uniform, however. BBB spread dispersion remains elevated. This is evident in Figure 7, which shows the distribution of BBB spreads in March 2018 (when index spreads were 105bp) versus now, and the valuations across the different BBB notches. The BAA1 spread ratio (versus the index) is at its LTM tights, but still near the wide end of the range for BAA2 and BAA3 issuers (Figure 8. We believe this is a reflection of investors' concern about downgrade risk in lower rated BBBs as well as mandate-driven preferences. Although the latter will continue to weigh on BAA3 paper, we believe BAA2 debt will benefit the most as improving fundamentals push investors down the quality spectrum in search of spread/yield. The BAA2 non-financial universe is over \$900bn in size and has a fairly diverse sector distribution (Figure 9)

FIGURE 9
Sector breakdown of non-financial BAA2 debt



Source: Bloomberg, Barclays Research

FIGURE 10 **IG** ownership breakdown

Category	Current Est.*	2018 Est.	Y/Y % Chg
Life Insurance	28%-32%	26%-30%	+2%
P&C Insurance	5-7%	4-6%	+1%
Pension Funds	16-18%	16-18%	-
Mutual Funds	17-19%	18-20%	-1%
Banks	2-4%	2-4%	-
Corporate Treasuries	2-4%	4-6%	-2%
Hedge Funds	1-3%	1-3%	-
Other**	18-22%	18-22%	-

Note: *As of 2Q 2019 **Other includes endowments, foundations, sovereign wealth funds, offshore funds, direct holdings by households, and bonds held by foreign buyers. Source: Bloomberg, Federal Reserve, Lipper, SNL Financial, HFR, Barclays Research

The increased dispersion within the BBB universe should make credit selection especially critical in the space, particularly for BAA3 credits. In fact, in *Bad Apple Picking in BBBs*, 8 November 2019, we highlighted select tight BAA3 credits which trade inside the aggregate BBB universe. Although in most cases the rally is justified by fundamental improvements, we believe the risk/reward of owning the debt does not appear attractive.

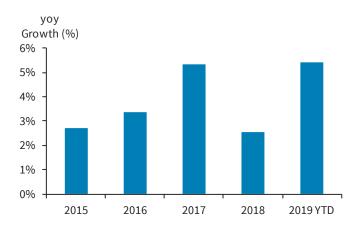
Demand backdrop should remain supportive despite falling yields

Despite low yields and flat yield curves, which have weighed on hedge-adjusted yields, international demand has remained stable, and ownership by US insurance companies has increased this year. After years of ownership share decline, life insurance companies' share has increased 2% y/y in 2019 (Figure 10). Improved profitability for P&C insurers has boosted demand from that buyer base, leading to a 0.5% increase in ownership of the investment grade universe. The international buyer base (a major component in our "other" category) has remained a robust source of demand for USD investment grade credit. Pension ownership has remained steady, with demand keeping pace with issuance.

With investors increasingly comfortable with the notion that the low yield environment is likely to persist for an extended period, we expect the above trends to continue. Insurance flows into credit should remain elevated. Increased demand has shifted further into BBBs as investors reach for yield, which should be the case next year as well. The lack of longer-duration securities in local markets should continue to drive international demand into dollar credit, and if the Treasury curve continues to steepen as it has recently, the relative value of dollar debt should look even more attractive net of hedging.¹

The declining yield environment has also supported mutual fund flows year-to-date, as retail investors tend to chase total returns (see *Demand in the Face of Lower Yields*, 1 November 2019, for more details). Fund flows according to Lipper into aggregate-benchmarked funds have already reached \$153bn (as of 27 November 2019), exceeding 2018's end-of-year total of \$95bn. Among the smaller subset of corporate-benchmarked funds, flows have been concentrated in longer-duration assets – US corporate intermediate and long bond funds have totaled over \$22bn year-to-date – after these funds experienced outflows last year. Strong total returns this year as well as a stable economic backdrop should continue to drive fund flows into IG credit.

FIGURE 11 Year-over-year changes in investment grade corporate allocations for US Life Insurers (as of year-end)



Source: SNL Financial, NAIC, Barclays Research

FIGURE 12 Monthly net dealer to affiliate flows into US credit



Source: Bloomberg, Barclays Research

¹ The significant rally in yields this year has also driven the ownership fraction of life insurers higher. Longer-dated bonds appreciate more in such an environment, and given that life insurance portfolios are tilted more toward the long end, their share of the overall index has grown.

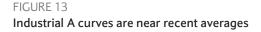
Usually a declining yield environment drives pension funded ratios lower, making it difficult for them to rotate into fixed income. However, this year, the move up in equities has softened the effect of lower rates, and funded ratios remain elevated relative to historical levels. The risk to this buyer base stems from declining yields which are not accompanied by a rally in equities; funding ratios could come under pressure in such a scenario and weigh on fixed income demand.

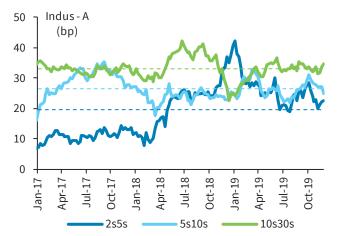
Curves – flattening led by BBBs

Credit curves usually steepen when yields decline and this year was no exception with 5s10s and 10s30s industrials steepening by 5bp and 10bp, respectively. However, the move has been less extreme than the historical relationship would imply. As discussed above, insurance and pension demand has stayed strong in the face of declining yields, which has provided support to valuations in the long-end.

We expect long-dated demand to remain robust, which should drive flattening in 10s30s curves. The move should be led by BBBs which appear steep compared to recent averages and should also benefit from incremental demand as low yields push some investors – who typically focus on higher-quality parts of the corporate bond market – into higher-yielding BBBs. The flattening in 10s30s BBB curves is unlikely to be uniform, however. BAA2 and BAA3 10s30s curves have steepened significantly this year and should drive the flattening as well. In contrast, we see limited room for flattening in A 10s30s curves. Along similar lines, we expect BBBs 5s10s curves to flatten modestly. While the average A 5s10s curve has not moved from historical levels, the 2019 average BBB 5s10s curve is materially higher than 2017-18 levels.

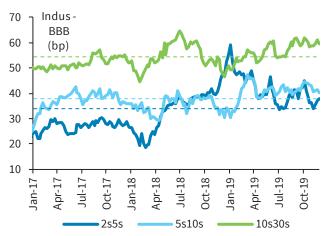
In the front-end, the lack of supply as issuers have termed out debt has steepened 2s5s curves. Although they have retraced some of the move recently, 2s5s curves still look steep relative to the past three years. While we believe a strong technical backdrop is likely to keep 2y spreads anchored, we see better value in 5y debt.





Source: Bloomberg, Barclays Research

FIGURE 14 Industrial BBB curves have room to compress



Source: Bloomberg, Barclays Research

Fins versus industrials basis: No room to compress further

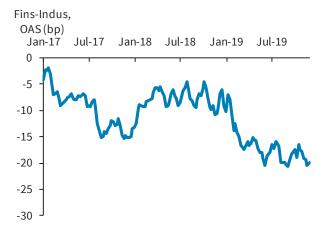
The Financial-Industrial basis has compressed nearly 10bp YTD and is now at the tightest level in the last three years (Figure 15). Within Financials, bank spreads tightened 56bp, outperforming insurers and REITS which were 42bp and 50bp tighter, respectively. Bank credit valuations have benefited from a robust fundamental backdrop as well as lower sensitivity to the yield environment (see *At Any Rate, Bank Debt Looks Good, August 2, 2019*). Further, banks had underperformed in the sell-off late last year, partly due to being used as a liquid vehicle for managing credit exposure, and started the year at relatively elevated spread levels.

Looking forward to 2020, our expectation for BBB/A compression and for credit curves to flatten should naturally favor Industrials over Financials (which are higher rated and have a shorter duration). Even on a duration/rating adjusted basis, Financial – and especially bank – spreads have little room to compress further. For instance, banks are currently trading near three-year tights versus A1/A2 rated industrials.

That said, we remain constructive on the fundamental and technical backdrop for Financials. In addition to high capitalization and strong asset quality, bank valuations should be supported by lower net supply from G-SIBs who have transitioned from positive to neutral net issuers as they get close to meeting TLAC requirements (see *2020 Supply Outlook: Lower and Longer*, 15 November 2019). Our bank analyst Brian Monteleone remains Market Weight US Banks, which make up the majority of the Financial sector. Analyst Peter Troisi is Market Weight the Life Insurance sector and while he is Underweight P&C insurers, that view is largely valuation based. Consequently, we expect Financials to perform in line with Industrials, on a rating/duration adjusted basis.

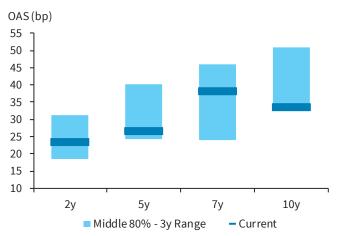
We do see banks as relatively attractive in the seven-year part of the curve. The spread between A-rated banks and A-rated industrials is still wide relative to the three-year range in the seven-year maturity bucket, while trading close to the tights in both the five-year and 10-year buckets (Figure 16).

FIGURE 15
Financial-Industrial basis is at three-year tights



Source: Bloomberg, Barclays Research

FIGURE 16 However, 7y bank debt trades wide compared to the threeyear range



Source: Bloomberg, Barclays Research

Beta compression should extend to hybrids

A supportive macro backdrop combined with low yields drove a sharp rally in hybrids this year and should continue to be positive for valuations down the capital structure as investors reach for yield. Hybrid total returns have been impressive this year, with bank preferreds generating total returns of about 17%. Corporate and insurance hybrids have been even higher, with the latter benefitting from having a higher duration.

Despite the strong year-to-date performance, hybrid valuations appear cheap with median spreads in the 200-300 range (Figure 17). This corresponds to a meaningful spread pickup over senior debt. Bank preferred spreads to call are about 3.0-4.0x senior debt (of similar maturity), while the ratio is about 3.0x for insurance/corporate hybrids (Figure 18). Not only do bank preferreds offer a higher spread pickup over senior, their fundamentals are likely to be more stable given that their ability to increase leverage significantly is limited by regulation.

Although hybrids appear cheap when priced to call, they face significant extension risk given their call/maturity structure (near-term calls with long final maturities). The potential negative convexity is especially magnified in the current environment of low yields – the upside is relatively limited compared to the potential downside if spreads widen. Extension risk is also magnified given the planned discontinuation of Libor in 2021, which for many securities could freeze Libor at the last available level (see *Libor Worries Afloat*, 18 August 2017). Although Libor is currently about 1.9%, it is projected to decline further (1y forward 3m Libor is 1.4%), suggesting the potential downside could be substantial.

Therefore, while we continue to recommend going down the capital structure to pick up spread/yield, investors should be increasingly selective about the credits/structures they buy. In general, we prefer regulated (banks, insurers, utilities) over unregulated (corporate) issuers. Further, we recommend minimizing extension risk exposure in the space. For securities that continue to receive capital treatment/equity credit after the first call date (bank preferreds and many corporate hybrids), this implies favoring those with higher backend spreads. We believe a reset spread to long-dated senior ratio of 1.5-2.0x is essentially at-the-money, and securities with resets above this range are likely to be redeemed on the first call date. Furthermore, many insurance/corporate hybrids are also structured to lose rating agency credit after the call date, which significantly lowers the likelihood of extension. Although they trade tighter than the prior cohort, we believe risk/reward is compelling given their lower extension risk. For more details and security recommendations, see *Hybrid Capital: Seeking Value down the Capital Structure*.

FIGURE 17 Hybrid capital valuations

	Price		Spread to Call		Reset Spread	Rating
Big 6 Bank Prefs	\$108.8	3.7%	215 bp	4.6	354bp	BBB-
Reg Bank Prefs	\$104.8	4.1%	254 bp	4.5	314bp	BBB-
Corp Hybrids	\$103.8	4.7%	300 bp	5.1	364bp	BBB-
Insurance Hybrids	\$114.5	4.1%	227 bp	9.3	303bp	BBB
Intermediate BBB*	\$105.4	2.7%	105bp	5.2**	NA	BBB
BB*	\$103.7	3.9%	231bp	4.4**	NA	BB

Note: * Yield metrics to worst. For spread, we use OAS. ** Years to maturity for BBBs and years to workout date for BBs.

 $Source: Bloomberg, Bloomberg \ Barclays \ Indices, Barclays \ Research$

FIGURE 18 **Hybrid valuations compared with senior spreads**

	Hybrid Spread/ Senior Spread to Call	Reset Spread/Long- Dated Senior Spread*
Big 6 Banks	3.1x	2.5x
Regional Banks	3.9x	2.5x
Corps	3.1x	1.7x
Insurance	3.1x	1.8x

Note: * Where available, we use 30y senior spreads. For banks with no 30y bonds available, we assume a flat 10s30s Treasury OAS curve. Source: Bloomberg, Bloomberg Barclays Indices, Barclays Research

Sector outlook – be selective at the wides

Sector dispersion dipped sharply this year, continuing the trend from 2016 when the energy sell-off drove dispersion higher. In fact, the standard deviation of excess returns normalized by average sector returns is at the lowest level in the last 20 years (Figure 19). The fundamentally driven dispersion is likely even lower – after playing a much weaker role in 2018, starting spreads were a key driver of sector performance in 2019 with wider trading sectors outperforming the index, as is usually the case during periods of spread tightening (Figure 20). This suggests that on a beta-adjusted basis the difference in performance is even less dispersed than nominal levels suggest.

Looking forward to 2020, our base case for modestly tighter spreads should prima facie imply that the widest trading sectors will again be among the best performers next year. However, that view is complicated by the current sector distribution – most sectors trade relatively close to the index (especially after accounting for rating/duration differences) and only five sectors stand out as meaningfully wide. Sector RV next year will therefore will be driven by this relatively small set.

Our sector positioning views are based on two analyses.

- 1. Valuations: Figure 21 shows the current spread of each sector versus the US credit index. We also show the "sector premium" for each sector. This is the "true" spread compensation offered by each sector after accounting for differences in ratings, duration and dollar price².
- 2. **Fundamentals**: Figure 22 shows the key fundamental metrics across different sectors, and highlights the sectors in the top and bottom quartiles in each category.
 - Sector net leverage change from Q2 16 to Q2 19 Sectors with a large increase
 in leverage could face meaningful ratings risk if rating agencies become more
 stringent.

FIGURE 19 Sector standard deviation vs. average excess returns is the lowest it has ever been

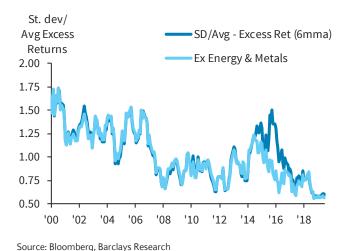
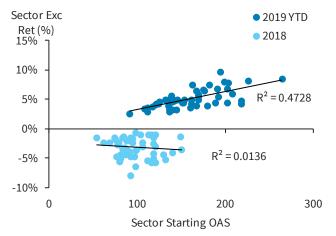


FIGURE 20
Sector starting spread vs. excess returns, 2018 and 2019



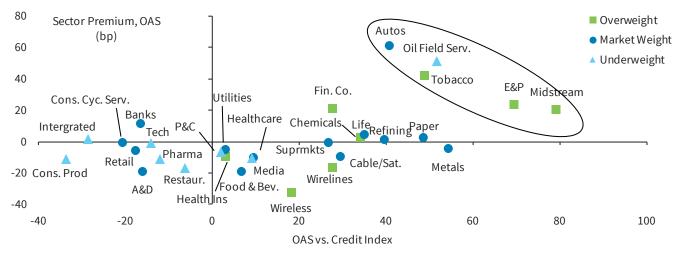
Source: Bloomberg, Barclays Research

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 $^{^2}$ To isolate what the market is pricing for sector-specific risks, we factor out ratings (using WARF), duration, coupon, and a Yankee issuer dummy variable for all senior bonds with greater than four years to maturity. We then market-value weight the residuals (each bond's actual OAS minus its model OAS) for all bonds in a sector to get a measure of the "all-else-equal" sector OAS premium

FIGURE 21
Sector spread model premium vs sector OAS minus US credit index OAS



Source: Bloomberg, Barclays Research

- Current EBITDA margins versus long-term median (2003-2018) Sectors that have seen the highest increase in margin are likely to be more resilient.
- US revenue as a % of total revenue Given the divergence in growth between the US and the rest of the world, sectors with more earnings in the US should be relatively better positioned than those with higher international exposure.

FIGURE 22 Sector fundamental scorecard

Sector	Net Leverage Change Since 2016	EBITDA Margin vs '03-'19 Median	US Revenue (% of Total)	Change in BBB Weight Since 2010	Sales Growth 2008-2009	Sector/Index OAS Ratio - % of LTM Range
Independent	-12.4x	9.5%	63%	17.6%	-37%	95%
Integrated	-1.4x	1.9%	25%	-16.1%	-28%	53%
Midstream	-1.1x	8.3%	87%	na	-21%	100%
Consumer Products	-0.9x	0.9%	37%	-8.7%	-4%	19%
Pharmaceuticals	-0.6x	5.5%	52%	47.1%	8%	15%
Consumer Cyclical Services	-0.4x	4.7%	59%	-6.0%	-4%	40%
Basic Industry	-0.3x	-5.7%	31%	12.7%	-19%	96%
Capital Goods	-0.1x	1.4%	56%	27.8%	-8%	0%
Healthcare	0.2x	4.0%	52%	25.9%	4%	68%
Tobacco	0.2x	1.2%	49%	5.2%	1%	83%
Communications	0.2x	1.9%	72%	22.1%	4%	13%
Oil Field Services	0.2x	-14.9%	48%	-2.0%	-14%	98%
Technology	0.3x	5.8%	42%	6.2%	-9%	43%
Transportation	0.4x	3.5%	76%	-11.9%	-15%	100%
Utilities	0.8x	1.1%	88%	-14.3%	-8%	97%
Restaurants	0.9x	9.8%	47%	58.0%	-3%	39%
Automotive	0.9x	0.2%	48%	7.5%	-23%	51%
Refining	1.0x	0.0%	100%	0.0%	-42%	54%
Food And Beverage	1.4x	-4.0%	51%	24.9%	6%	15%
Retailers	1.4x	-0.7%	80%	3.9%	1%	58%
Supermarkets	2.1x	-1.3%	90%	0.0%	-1%	29%

Source: Factset, Bloomberg, Barclays Research

- Change in BBB weight since 2010.
- Sales growth in the previous recession Defensive sectors had the least decline in sales in the last recession.

From a valuation standpoint, five sectors are trading materially wider than the rest of the index.

- E&P and Midstream are among the widest sectors in the index despite the fact that they have meaningfully de-levered, from a net debt/EBITDA perspective. However, the sector's sensitivity to oil has increased significantly over the past three years, resulting in higher return volatility (see *Energy: Wide, Perhaps Not Cheap, October 25, 2019*). In addition, equity valuations in both sectors have declined significantly, which has driven net debt/EV higher. As a result, we believe that energy credits need to reduce leverage even further, which broadly speaking management teams appear committed to achieving. This drives our bullish view on E&P and Midstream. While the Oil Field Services sector also trades wide, we think it still faces headwinds from the upstream industry's focus on capital discipline, likely pressuring valuations in 2020.
- The Auto sector offers the highest sector premium, having underperformed the US Corporate Index in 2019. Fundamentally, we expect global auto production to modestly decline next year as the industry moves past difficulties experienced in multiple end markets in 2019. We expect US auto sales to decline 2-3% y/y but think that largely benign economic conditions will remain supportive of a stable domestic auto market. Separately, although not our base case, we expect the risk of Ford being downgraded to high yield to remain an overhang on the sector in 2020. Consequently, we are Market Weight the sector.
- Tobacco has seen significant outperformance in 2019, beating the US Credit Index by 200bp in excess returns. With Tobacco still the fourth widest trading sector in the Index, we think it screens as attractive and maintain an Overweight rating on the sector. We expect performance to be driven by compression in the A/BBB differential, and recommend a bias to the BBB part of the sector, which accounts for 72%. Over the course of 2020, while we believe headline risk is going to be elevated, the sector should continue to benefit from leverage improvement at Altria and British American Tobacco.

Telcos has been among the best performing sectors this year. While that has driven the sector premium tighter, we still see room for further outperformance and remain Overweight Wireless and Wirelines. The large caps within each sector continue to deleverage and we expect issuance to remain subdued which should drive further spread compression.

Further, we are revising ratings for five sectors:

Chemicals raised to Overweight from Market Weight: 2019 has been a challenging year for North American Chemicals, driven by a mix of slowing demand, customer destocking, and increased supply pressuring prices and margins. We disagree with the idea that "2020 has to be better," but do see a credible thesis for an earnings floor to be reached in the near term. Fundamentals in 2020 are still challenged, but there is room for modest improvement to margins, particularly as the restocking cycle begins. While this does not setup to be an overly bullish environment in an historical context, the sector's valuation has deteriorated and its discount to the corporate index is now at the five-year wides. Given the wide valuations and our view of modestly tighter IG spreads, we think the chemicals sector is a candidate to outperform in 2020.

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Harry Mateer +1 212 412 7903 harry.mateer@barclays.com BCI, US Food & Beverage raised to Market Weight from Underweight: We expect debt reduction actions, driven by asset sales, to help mitigate concerns around weaker rated, higher leveraged credits, thereby supporting performance more in line to modestly better than the Index. We remain of the view that fallen angel risk is low in the sector; however, focus is likely to remain on mid- to low-BBB rated credits delivering against objectives to support IG ratings, which doesn't put the potential for ratings pressure completely out of the realm of possibilities.

Health Insurance raised to Overweight from Market Weight: The tail risk that the US adopts a true single-payer system has further diminished meaningfully since we raised our sector rating to Market Weight from Underweight in mid-September (see *Dusting off the managed care textbook after the latest Democratic debate*), driven by: 1) Elizabeth Warren unveiling a three-year plan for how she would transition the country fully to Medicare for All, a significant moderation of her initial hard line stance (see *BBButtoning up the third act with an unexpected ending*); 2) Michael Bloomberg, who has publicly rejected the feasibility of Medicare for All, formally announcing a bid for the Democratic nomination, making him the third of the top five poll leading candidates (according to Real Clear Politics, 11/21-12/3) to oppose a true single-payer system; and 3) Pete Buttigieg, who too is a proponent of more moderate mechanisms to expand healthcare in the country, recently jumping in national polling results, now just 2.8pts behind Elizabeth Warren (according to Real Clear Politics, 11/21-12/3). Despite this, the sector is still trading wide of its 1y, 3y, and 5y trailing average differentials versus US Credit; as such, it now appears cheap on a risk-adjusted basis.

Pharmaceuticals lowered to Underweight from Market Weight: Pharma is trading with an unwarranted premium versus US Credit considering its higher duration and tighter absolute credit spread levels, which will make it more challenging for tight trading non-cyclical sectors to outperform, in our view. Although several bellwether issuers are expected to remain in deleveraging mode through 2020, others will continue to carry elevated event risk. Moreover, wavering public endorsement of Medicare for All has resulted in policymakers refocusing their energy on addressing drug prices, renewing policy risk.

Refining raised to Market Weight from Underweight: Although the sector's low EBITDA margins and historical spread and cash flow volatility are concerns during an economic downturn, we think that the Fed's more accommodative stance and our expectation for low, but still stable EBITDA growth should keep refining spreads supported. From a fundamental standpoint, the implementation of the International Maritime Organization's (IMO) new sulfur standard at the start of 2020 is expected to be a tailwind for profitability, albeit with most incremental cash flow allocated to shareholder returns. With our spread model implying fair value, we raise the sector to MW from UW.

Outside the sectors we mention above, our key sector recommendations and rationales are listed in Figure 23.

FIGURE 23

Key sector summaries

Sector	OAS	Rating	Justification
Aerospace & Defense	84bp	MW	Boeing continues to drive the sector's performance, particularly as the ticker's weight has grown (12% to 23% in 2019). Although A&D is tight to the index and has historically lagged in spread tightening environments, the fact that its premium has narrowed and that BA has a near-term catalyst leaves our Market Weight sector rating unchanged. (A. Keches)
Cable/Sat.	130bp	MW	While Cable & Satellite remains one of the wider trading sectors, we think this is fair given the credit quality, longer duration, and ongoing pressure in the pay TV market which is partially offset by continued broadband strength. We would note that pay TV subscriber declines have recently accelerated to over 4% y/y, as competition from OTT providers has been rising. This could accelerate should newer services, such as Disney+ and HBOMax, succeed. (S. Gupta)
Consumer Products	66bp	UW	We remain Underweight Consumer Products as the sector continues to trade at the tight end of valuation relative to the Index. Given its high quality bias (78% is AA/A rated), there is capacity for potential M&A activity. (P. Ohri-Gupta)
Energy - Independent	170bp	OW	We estimate that the pace of the sector's leverage improvement will ease in 2020, but even at a price deck of \$50/bbl WTI oil and \$2.50/mmbtu Henry Hub natural gas, we think that leverage will remain moderate as management teams continue their pivot toward spending within cash flow. In part, we attribute the sector's wide spreads (1.6x the US Credit Index OAS) to commodity price volatility, but even adjusted for above-average beta, we think that sector valuation fails to account for the significant improvement in cost structures and balance sheets. (H. Mateer)
Energy - Integrated	72bp	UW	The sector's composition is weighted toward very large, highly-rated major oil companies that have operations spanning upstream, midstream and downstream. As a result, the integrated sector tends to trade defensively compared to other energy sectors, but is also tight (0.7x OAS ratio) of the US Credit Index and still faces commodity price volatility and a large maturity stack for which we expect active refinancing issuance in 2020. (H. Mateer)
Energy - Oil Field Services	152bp	UW	Although the sector trades wide, we think that the largest issuer in the group (Halliburton [MW], at 47% of sector market value) is overrated relative to its leverage and the oil field service sector is negatively affected by the upstream industry's focus on capital discipline. Although it appears to be cheap in our spread model, we think that investors should remain cautious on oil field service until there are more tangible indications that E&P activity is starting to inflect higher or until sector ratings further migrate lower. (H. Mateer)
Energy - Midstream	180bp	OW	We estimate that sector average leverage will improve slightly in 2020, to 4.3x from about 4.5x; management teams have been lowering leverage targets to account for slower growth and thinner equity cushions. In our view, a key risk is whether slower US oil production growth translates into more acute midstream overcapacity issues. (H. Mateer)
Healthcare	110bp	MW	We reaffirm our rating on Healthcare at Market Weight. The healthcare index encompasses a wide range of companies that are each affected by different factors. Within the sector, we prefer services over medtech and life sciences/tools/diagnostics. The key driver of our view for eac category is the market value of debt within their respective cohort that should be considered vulnerable to re-leveraging versus deleveraging corporate activity. (B.Chen)
Insurance - Life	135bp	MW	The life insurance sector is sensitive to interest rates, so we expect operating conditions to remain challenging based on our house forecast for relatively flat Treasury yields in 2020. The Life Insurance Index remains one of the widest trading sectors outside Energy, and we believe the absolute spread is adequate compensation for the interest rate risk of the sector. Our view also factors the industry's strong capital and liquidity positions and its moderate leverage. (P.Troisi)
Insurance - P&C	102bp	UW	We believe it is likely for P&C to underperform in 2020, trading near the three-year tights relative to US Credit. We have become less negative on the sector's fundamentals as pricing pressure has largely abated, and P&C's lower sensitivity to equity markets and lower long-term rates are positives. However, we would value the sector's defensiveness more in a less stable macro environment. (P.Troisi)
Media	109bp	UW	The Media sector has undergone meaningful consolidation which has improved average credit ratings but the sector is still being strained from pay TV declines and shifting consumer preferences. Also, Media is likely to underperform in a downturn as it remains reliant on cyclical advertising revenues, while affiliate fees are in secular decline. (S. Gupta)
Metals & Mining	155bp	MW	Credit fundamentals are stronger in metals than other basics sectors, but commodities are expected to remain choppy. We anticipate generally flat metrics in 2020, but with sector spreads inside the five year median (vs. corporate), we maintain a Market Weight sector rating. (A. Keches)
Paper	149bp	MW	2020 is setting up to be a year of stabilization for the sector following softer margins in 2019. Although the industry is not out of the woods ye as containerboard supply increases in 2020/21, with the two largest index constituents still in deleveraging mode, we expect paper to trade in line with the market. (A. Keches)
Retail	83bp	MW	We remain Market Weight Retail given the high quality nature of the sector, with almost two-thirds of the sector rated A or better. We hold this view despite recent evidence of higher tail risk among some of the smaller issuers in the sector. Credits that continue to invest in areas that offer flexibility in how consumers can shop while maintaining relevant products will likely continue to take market share, while those that focus simply on 'value' will likely cede share. (P. Ohri-Gupta)
Technology	86bp	UW	The sector trades tight of the index and faces several challenges – slowing global growth, ongoing trade war, declining credit quality as low-BBB tech debt has been growing, as well as the rising duration of the index. We are also at the end of several sub-sector growth cycles such a 4G, with the 5G spending cycle yet to start. (S.Gupta)
Telecom	125bp	OW	Telcos remain in de-leveraging mode despite potential spectrum purchases in 2020. They are also primarily US focused and non-cyclical which makes them defensive against a potential downturn. We think the sector's discounted valuation remains attractive. Delay in the C-Band spectrum auction is also likely to reduce issuance expectations. (S. Gupta)
Tobacco	149bp	OW	We maintain an Overweight sector rating as Tobacco valuations remain compelling. Tobacco is the fourth widest trading sector in the Index and we expect performance to be driven by compression in the A/BBB differential. Over the course of 2020, we think that increased regulation with regard to e-cigarettes will be a positive, and the sector should continue to benefit from leverage improvement as Altria and British American Tobacco potentially pay down upcoming maturities. (P. Ohri-Gupta)
Utilities	103bp	MW	Utility managements are taking measured steps to stabilize or improve credit metrics (including equity issuance), and, given sizable medium-term capex plans, also see high hurdles to any potential acquisitions. We expect a similar level of sector issuance in 2020 (~\$75bn) versus 2019; however, PG&E's emergence in mid-2020 could add significantly more supply (the company's proposed plan contemplates \$27bn of opco debt). We view this as a potential overhang into 2020. (S. Banerjee)

Source: Bloomberg, Barclays Research

Corporate fundamentals

On the surface, net leverage looks to have materially picked up in 2019; however, this is largely due to a GAAP accounting change requiring companies to count operating leases as liabilities (Figure 24). While companies are now required to count operating lease obligations toward total debt from a GAAP standpoint, the company doesn't have any added risk to the ability to pay future liabilities. In fact, after adjusting for this change, net leverage actually declined in 2019 and looks more in line with historical levels around 2.2x for US non-financials (see *BBBs Have Only a Few Bad Apples*, *11 October 2019*). As previously mentioned, we have found that the highest leveraged companies are reducing leverage the most and we see this trend continuing in 2020.

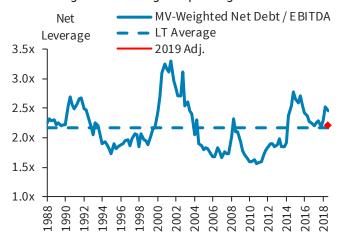
At face value, BBB leverage has increased from 2.7x to 3.0x through the first half of 2019, whereas in fact, net leverage for the cohort reduced to 2.5x (the largest decline of the ratings buckets, Figure 25). As we discuss in *Issuers Go on Debt Diet*, 14 June 2019, we expect the BBB deleveraging to continue. The reduction in leverage has alleviated the concerns prevalent in the market at the beginning of 2019 of a material pickup in fallen angels' volumes. We think the following factors should also be supportive of fundamentals of the highest leveraged companies:

- 1. Larger market caps the highest leverage companies have much larger market capitalizations now than pre-crisis. Their increased size and diversification should give them more flexibility to navigate an economic slowdown as these companies have multiple levers to pull if they face significant operational challenges.
- 2. Higher margins the highest leveraged quartile has seen margins increase to 26% compared to 19% in 2004. We have previously shown that EBITDA margins are a better predictor of spread performance than leverage in a significant sell-off (see *Beyond Leverage: fundamental Factors that Matter, September 14, 2018*).

On the revenue side, consensus FY 2020 estimates are for mid-single digit EBITDA growth. In addition to positive EBITDA growth, corporates terming out debt should be a meaningful credit positive in 2020. Almost 65% of supply has come in the 10y and longer bucket in 2019, the largest percentage in recent years, as companies monetized the low level of yields. While the longer duration means greater exposure to changes in yields, increasing the average maturity lowers the reliance on funding markets in the near to medium term and extends companies' timelines to meet operational challenges. Therefore, companies with a greater portion of long-dated debt should see reduced pressure on spreads during significant sell-offs. Indeed, we find that BBB non-financials with a higher portion of 10y+debt significantly outperformed in 2018 (see *Terming Out is Good for Credit Health, September 6, 2019*). Overall, we believe corporate fundamentals remain robust even with slowing EBITDA growth.

While overall we think fundamentals are strong enough to support modest tightening in credit spreads, we recognize that ratings agencies have become more stringent with companies running behind deleveraging paths. In the recent example of Newell, the downgrade by S&P to high yield should serve as a cautionary tale for other leveraged credits, particularly those in the BBB- cohort. This could drive other corporates to take steps to mitigate fundamental weakness when operating results fall short of expectations.

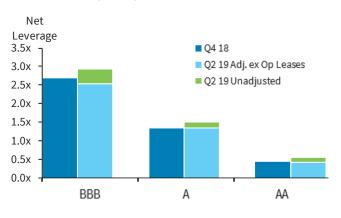
FIGURE 24
2019 non-financial net leverage increase was due to the GAAP change in accounting for operating leases as debt



Source: Compustat, Bloomberg, Barclays Research

FIGURE 25

BBB leverage has declined the most after adjusting for the GAAP accounting change



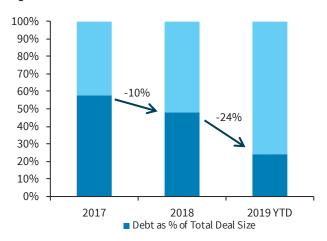
Source: Compustat, Bloomberg, Barclays Research

2020 M&A outlook

M&A volumes in 2019 were down 21% y/y as geopolitical tensions and trade uncertainty weighed on growth, contributing to elevated equity volatility and widening bid-ask spreads for prospective deals. Furthermore, the rally in US equities to all-time highs, fueled by the dovish turn taken by central banks has driven up target valuations, with EV/EBITDA multiples for announced deals near 20-year highs. Not only did M&A volumes decline, the average portion of debt funding in M&A transactions was significantly less than in previous years (Figure 26). Overall M&A-related supply is down 25% y/y and tilted more toward higher quality (Figure 27). We expect this trend to continue next year as the focus on corporate leverage should limit investor and issuer appetite to partake in debt-funded M&A.

We expect M&A deal volumes to be down 5-10% in 2020 (see M&A Sees Sunnier Technicals, Election Clouds, November 8, 2019). Some of the macro risks, namely the US-China trade negotiations and the UK's withdrawal from the EU, appear to be progressing towards, at least, initial resolutions. While the timeline of a trade deal between the US and China remains in flux, sentiment has been more positive, reducing concerns of further escalations. In addition, Barclays boosted the 2020 GDP forecast on the back of encouraging signs from recent economic data. Progress on these macro concerns has kept the VIX subdued in recent weeks, and low all-in yields have contributed to an increase in the expected return in excess of debt yields - both of which should be positive for next year's M&A volumes. However, US political uncertainty will likely inhibit M&A activity. Democratic candidate Elizabeth Warren has proposed major changes to several large sectors and companies are less likely to make transformative changes in a uncertain regulatory environment (see Parsing Senator Warren's Policies, October 28, 2019). M&A activity has been down year-over-year in four of the past five Presidential election years. In addition, the concentration of market power within certain industries has brought increased scrutiny from both parties which could further limit M&A activity. Because of these headwinds and after incorporating sector specific outlooks from Barclays' fundamental analysts, we forecast a marginal decline in M&A transactions.

FIGURE 26
The portion of transaction value funded by debt for the largest deals declined further in 2019



Source: Factset, Bloomberg, Barclays Research

FIGURE 27

M&A supply is down and tilted more toward higher quality



Source: Bloomberg, Barclays Research

2020 supply forecast

We forecast gross fixed-rate corporate supply to be unchanged to down 5% year-over-year, which translates to net supply down 5-10%. Several key factors have driven supply lower (in particular net supply) over the past two years, a trend we expect to continue in 2020 (Figure 28): 1) as overseas cash balances have declined, so has the issuance against them; 2) M&A activity has slowed, and companies that have engaged in debt-funded M&A in recent years remain in deleveraging mode; 3) US companies have increasingly issued in non-USD currencies, while Yankee issuance has declined; and 4) money-center banks have transitioned from positive to neutral net issuers as they get close to meeting TLAC requirements.

While we expect net supply to finish 2019 up 30% y/y at \$360bn, this would be well below levels seen in previous years, even as gross supply remains much closer to the seven-year average (Figure 29). One of the main reasons for this divergence is that companies have

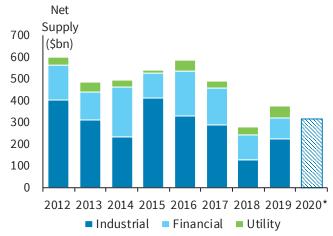
FIGURE 28 2020 investment grade fixed-rate issuance forecast (\$bn)

	2019 Issuance*	2020 Gross Forecast	2020 Maturities	2020 Net Forecast
US Non-Fins	502	450	219	231
Yankee Non-Fins	116	115	65	50
US Financials	227	190	153	37
Yankee Fins	129	115	116	-1
Total**	975	920	553	317

Note: ** Includes a \$50bn upward revision for our expectation that companies will continue to term out debt in 2020, which changes gross supply but not net supply. Source: Bloomberg, Barclays Research

FIGURE 29

Corporate net supply remains well below 2012-2017 levels



Note: *Forecast. Source: Bloomberg, Barclays Research

taken advantage of low long–dated yields and flat yield curves and termed out debt. While we expect companies to continue tendering for their short-dated debt and issuing longer-dated securities to replace it, we also expect issuers to favor the long end of the market in 2020, driving gross issuance and the tenor of supply higher but having a more muted effect on net supply. For sector specific issuance outlooks, see our *2020 Supply Outlook: Lower and Longer*, November 15, 2019.

Credit derivatives outlook

CDX outperforms on a beta-adjusted basis

CDX.IG is on track to record its best full-year performance since 2013, with unfunded returns of 306bp and cumulative spread tightening of 53bp through the end of November this year (Figure 30). The strong performance of the derivatives index should not be surprising as performance was robust across the risk-asset spectrum, with investment grade corporate excess returns the highest since 2012 and S&P total returns the highest since 2013. However, CDX.IG performance stands out as the index outperformed both cash and equities on a beta-adjusted basis (Figure 31). This year's market backdrop was particularly supportive of CDX.IG performance as improved risk sentiment due to the shift in Fed policy and low realized volatility helped drive spreads meaningfully tighter. From a bottom-up perspective, the rally was broad-based, with 124 out of 125 IG33 constituents tighter on the year on a roll-adjusted basis (Boeing was the lone exception but was only a few bp wider). We think this illustrates the degree to which the improvement in sentiment benefited CDS valuations across the investment grade market.

2020 should bring modestly positive returns

For 2020, we think that the historically tight level of spreads will limit the upside for the index. In addition, our expectations for cash excess returns of 150-200bp and S&P price returns of 5-6% (see *U.S. Equity Strategy: 2020 Outlook: Easy(Policy) does it, November 26, 2019*) imply that CDX.IG should return 50-75bp in 2020. This calculation is based on a longrun CDX.IG-cash excess return beta of 0.35 and a CDX.IG-SPX return beta of 0.10. In our view, the base case is for the index to end the year at 45-50bp, or unchanged to 5bp tighter from current levels. However, for a traded macro product like CDX.IG, which tends to be

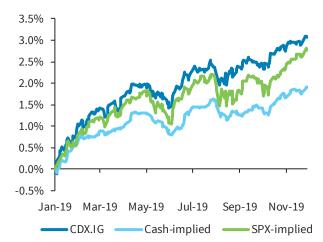
FIGURE 30 OTR CDX.IG tightened by more than 50bp through the end of November...



Note: Data as of November 29, 2019. Source: Barclays Research

FIGURE 31

...and outperformed its beta to cash excess returns and S&P total returns



Note: Returns as of November 29, 2019. Analysis based on a monthly return beta of 0.35 for CDX.IG to cash excess returns and of 0.10 for CDX.IG to SPX total returns. Source: Bloomberg Barclays Indices, Bloomberg, Barclays Research

used more as a short-term instrument, we think that the path for spreads is more important than where the index ends up at the end of the year. Spreads rarely move in a straight line, and given the potential for some risk flare-ups related to trade negotiations, the impeachment process, the election, and monetary policy, we think that there could be several episodes of spread widening, which we would use as opportunities to add risk. The main risk to our forecast for CDX.IG is a worsening of the economic outlook, in which case we could see the index widen in a similar manner to the selloff at the end of 2018.

Differences between CDX.IG 5y and cash have grown, but there are ways to address them

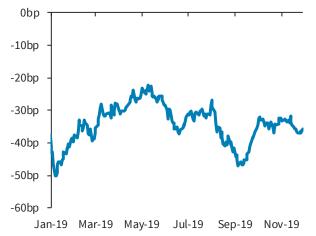
For investors looking to hedge cash portfolios or replicate index performance, one growing concern about using CDX.IG 5y is that it is meaningfully shorter in duration than the cash market, with this difference having grown over the past several years as issuers have increasingly expressed a preference for longer-dated debt. We think one potential alternative could be the 10y version of the index, which has a higher beta to cash excess returns than the 5y index and could make sense for some investors (see *A Growing Divide between IG Cash and CDX, September 27, 2019*).

Another concern about using CDX.IG for hedging or replication is the lack of bank exposure in the index. IHS Markit, the administrator for CDX, recently announced that it is considering adding the Big Six banks to the index at the March 2020 roll. While this would not be a significant change from a sector weight perspective as each CDX.IG constituent only accounts for 0.8% of the index, the banks are some of the most liquid single-name CDS credits in the investment grade market, and adding them to the index would move us one step closer to having an index that more closely reflects the cash market.

The basis and skew have been range bound, which should continue in 2020

The CDS-cash basis followed a familiar pattern in 2019 – tightening (becoming less negative) when the market rallied and widening (becoming more negative) when the market sold off (Figure 32). Despite the moves in the basis throughout the year, our measure of the matched CDS-cash basis is only 5bp tighter than at the start of 2019. For 2020, our expectation is that this pattern is likely to continue as cash tends to underperform in selloffs due to concerns about cash market liquidity and funding stress, and then tends to outperform in rallies as those concerns dissipate. Overall, we expect modest tightening in the CDS-cash basis due to our forecast for cash outperformance.

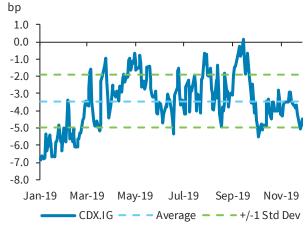
FIGURE 32
Despite some movement during the year, the CDS-cash basis is only 5bp tighter YTD



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 33

After tightening at the start of the year, the CDX indexintrinsic skew has since been relatively well-contained



Source: Barclays Research

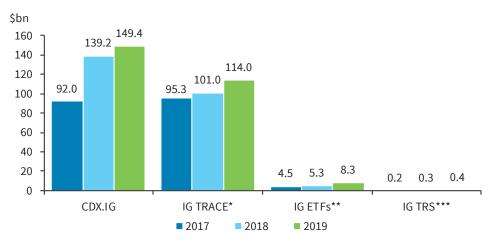
The CDX.IG skew, or market-intrinsic basis, remained fairly range bound for the second consecutive year (Figure 33). The one exception was the early part of 2019 when credit markets were still recovering from the December 2018 selloff. We think the combination of low dispersion among CDX.IG constituents and a fairly active arbitrage community kept the index fairly close to its NAV for most of the year. In 2020, if volatility remains low, the skew should remain stable, but a pickup in dispersion (similar to what we saw in 2015-early 2016) or greater demand for liquidity (i.e. more investors expressing longs via CDX) could lead to more significant differences between the index and its NAV.

CDX, ETF, and TRS usage continues to grow

Despite relatively muted volatility for most of 2019, portfolio product volumes actually increased on a y/y basis (Figure 34). CDX.IG remained by far the most liquid portfolio product, with the on-the-run index averaging \$149bn in weekly volume through the first 45 weeks of the year, up 7% from the comparable year-ago period. The percentage gains in ETFs and TRS were even more significant, although those products were starting from a lower base; ETF volumes grew 56% (based on volumes for five of the largest investment grade ETFs: LQD, VCSH, VCIT, IGSB, IGIB), and iBoxx TRS volumes increased 28% (for more details on TRS, please see *iBoxx TRS Primer, April 17, 2019*). Notably, the pickup in portfolio product activity did not result in a decline in bond trading, as investment grade TRACE volumes (including 144As) were up 13%.

We think that the increase in activity across cash and portfolio products is a positive sign for investors as the number of viable options to manage the liquidity and beta risks in their portfolios continues to grow. For investors that are set up to trade all of the products, the growing liquidity of ETFs and TRS should increase the number of opportunities to express CDS versus cash relative value views at a macro level. One potential way to screen for opportunities is to compare the premium to NAV for each product to its own one-year range. Currently, the premium to NAV for both CDX.IG and iBoxx IG TRS is toward the richer end of the LTM range (70-75th percentile), while the premium for LQD is more neutral (at the 50th percentile), which could make CDX and TRS more attractive as shorts and LQD more attractive as a long at current levels.

FIGURE 34
Activity levels increased across portfolio products as well as bonds



Note: Chart compares average weekly volumes for the first 45 weeks of each year. *Includes 144As. **Based on notional volumes for LQD, VCSH, VCIT, IGSB, IGIB. ***Using data reported by DTCC. Source: DTCC, TRACE, Bloomberg, Barclays Research

Single-name CDS volumes increased in a potential sign of stabilization

Following two consecutive years of declining volumes, investment grade single-name CDS activity rebounded in 2019, with volumes through the first three quarters of the year up 4% versus the comparable year-ago period (see *Signs of Stabilization in Single-Name CDS, November 1, 2019*, for more details). The uptick in volumes came despite relatively muted volatility, which could indicate that volumes have found a floor. Consistent with past experience, the volume gains were mostly led by credits with event risk; Cardinal Health, Johnson & Johnson, Altria, and AT&T all recorded y/y volume gains of more than 100%. We continue to expect volumes to increase during periods of volatility and for credits with fundamental or event-risk concerns. However, it doesn't appear likely that market-wide volumes will increase in a meaningful way until we start to see broader fundamental concerns.

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Materially Mentioned Issuers/Bonds

HALLIBURTON CO, CD/CE/J/K/M/N HAL 4.5 11/15/2041 (USD 105.31, 03-Dec-2019)

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