Morgan Stanley | RESEARCH

UPDATE

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Corporate Credit Research | North America

The Nature of the BBBeast

A consistent rule of thumb that we live by when looking for problems in credit cycles: Follow the debt growth. BBB IG debt outstanding has grown to ~$2.5trn today, a 227% increase since 2009. Along these lines, we see elevated downgrade activity as a "stress point" when the cycle eventually turns.

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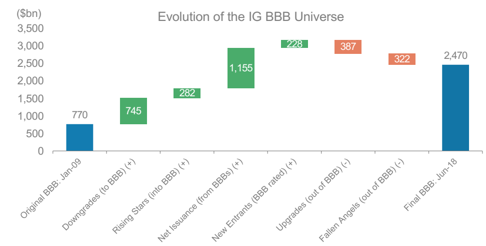
What has driven the growth? The majority of the increase in BBB debt in this cycle stems from net issuance ($1.2 trillion), followed by downgraded debt ($745 billion). Notably, the growth in BBB debt outstanding is not being skewed by a single sector or a small part of the market. Yes, large issuers have grown significantly. For example, the top 25 non-financial BBB names have a total of $685 billion in index debt (up from $257 billion in 1Q09). But the number of BBB issuers has also increased by 60% since 2009, while all sectors have increased BBB debt, large and small companies alike.

High debt growth has translated to high leverage: BBBs not surprisingly make up the majority of the leverage "tail" in the IG market, with 31% of BBB debt in our universe now leveraged at or above 4.0x. Our implied ratings analysis tells a similar story, where ~55% of BBB debt would have a HY rating if rated based on leverage alone. Meanwhile, interest coverage has declined steadily since 2014, particularly for BBB issuers, vs. some recent improvement in interest coverage for the A-rated universe.

Sizing up downgrades: In the last three broad downgrade cycles (1989-91, 2000-03, and 2007-09) 7-15% of the starting IG index size was downgraded to HY over the full period. Based on the size of the market today, that would equate to roughly $350-750 billion of total downgrades this time over a multi-year period. But remember, half the market is already BBB rated, compared to just 27% before the 2000-03 downgrade cycle. Adjusting for the size of the BBB index over time, downgrade volumes in the next cycle could be even larger, moving the range to $550 billion-$1.1 trillion.

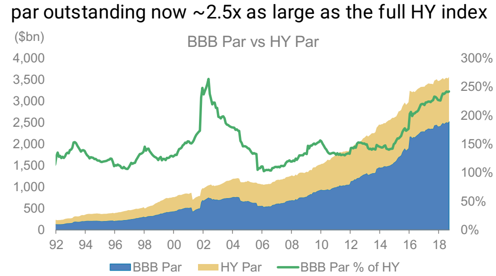
Downgrades lag the market: The good news is that this is not a story for today in that the big wave of downgrades will likely not come until credit spreads are much wider than they are right now, which will take time to play out. What matters today, in our view, is that valuations are pricing in very few long-term fundamental risks, with the BBB/A non-fin spread basis still near cycle tights. And lastly, when thinking about other markets that could feel the effect as these risks materialize down the line, remember that the BBB part of the IG index is now ~2.5x as large as the entire HY index, with this ratio near record highs.

Exhibit 1: Downgrades and net issuance have added most to the BBB total



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 2: Supply from above when the cycle turns: BBB par outstanding now ~2.5x as large as the full HY index



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Introduction

BBB IG debt outstanding has grown significantly in this cycle, a story most IG credit investors know quite well. For example, at ~$2.5 trillion outstanding, BBB par has increased 227% since the beginning of 2009. The majority of the increase in BBB debt stems from net issuance ($1.2 trillion), followed by downgraded debt ($745 billion). Notably, the growth in BBB debt outstanding is not being skewed by a single sector or a small part of the market. Yes, large issuers have grown significantly. For example, the top 25 non-financial BBB names have a total of $685 billion in index debt (up from $257 billion in 1Q09). But the number of BBB issuers has also increased by 60% since 2009, while all sectors have increased BBB debt, large and small companies alike. In other words, the increase has been broad-based across the market.

So what does this mean big picture? Credit cycles are always different from one to the next. But a consistent rule of thumb over time that we live by when looking for problems down the line: Follow the debt growth. Very simply, applying to the current cycle, we think BBBs will be one (of a few) stress points when the cycle does turn. Downgrade activity will likely be meaningful. And when thinking about other markets that could feel the effect, remember the BBB part of the IG index is now ~2.5x as large as the entire HY index.

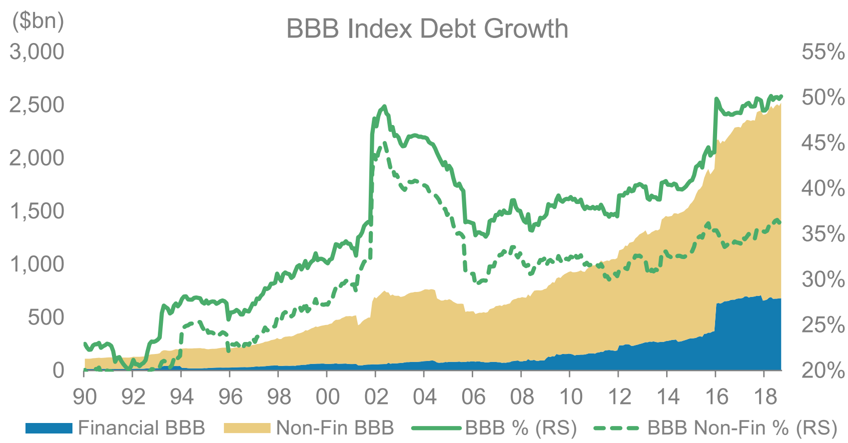
The good news is that this is not a story for today, in that ratings downgrades tend to lag the market. In other words, the big wave of downgrades will likely not come until credit spreads are much wider than they are right now, which will take time to play out. But more importantly, valuations are pricing in very few fundamental risks, in our view, with the BBB/A spread basis still near cycle tights. Hence we remain up-in-quality.

In the report that follows, we walk through the drivers of the growth in BBBs in this cycle and think about implications for credit markets when the cycle ultimately turns.

The Growth in BBBs

We start by walking through what has driven the increase in BBB debt in this cycle. First, after substantial growth for many years, BBBs now represent $2.5 trillion in par value (or just over 50% of the IG index). Downgrades in the Financial space have helped to propel this figure to all-time highs, a factor that we (and most investors) are not too concerned about, given very healthy Financial credit quality this time around. But Financials are only a small part of the story. Non-financial BBBs have also grown rapidly in this cycle (+181% since 2009), now totaling $1.84 trillion, or 52% of the total non-financial market (37% of the overall index).

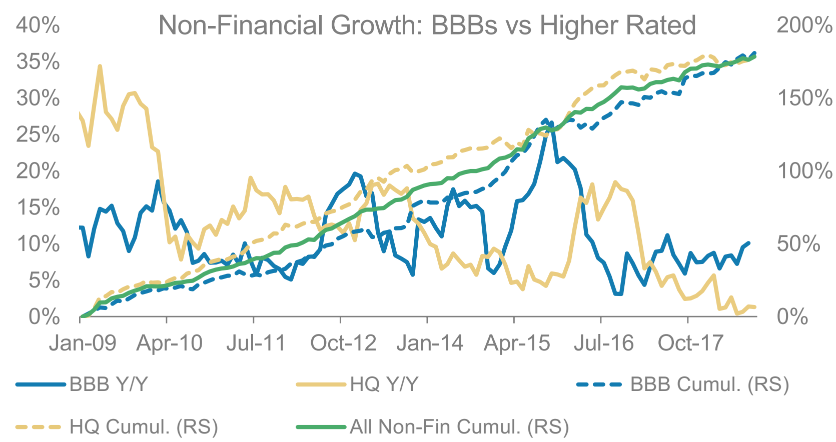
Exhibit 3: IG BBBs now total $2.5tn; 50% of IG index



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Over the last few years, the growth in non-financial BBBs relative to the full index has been moderated by strong issuance from companies with trapped cash overseas – a cohort that tended towards highly rated names such as Apple, Microsoft, Cisco, and the like. In other words, BBB non-financial debt was growing rapidly over this period, but so was higher-rated non-financial debt. However, with these companies now issuing less debt on account of repatriation reform, BBBs are once again growing faster than their high-quality counterparts (Exhibit 2). For example, non-financial BBBs grew nearly 7% y/y vs. only 1% growth in higher-quality names. Looking ahead, we expect this trend to persist, with non-financial BBBs continuing to increase as a portion of the overall market.

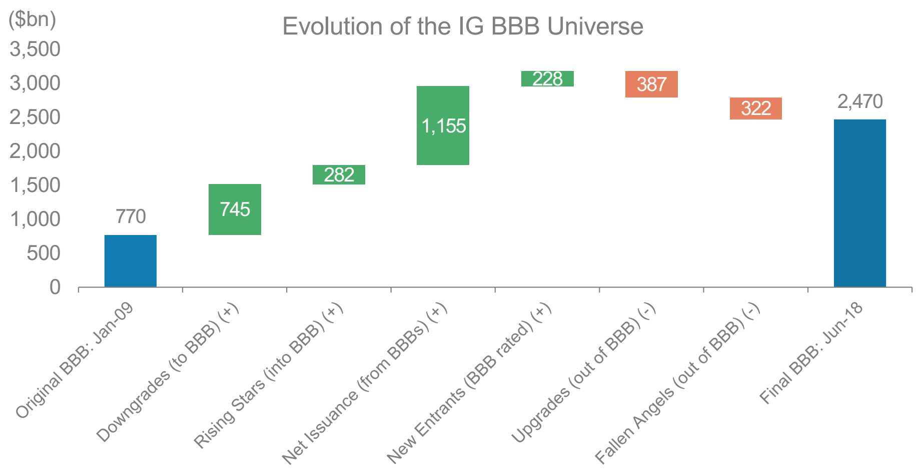
Exhibit 4: Higher-quality debt growth has recently trailed given repatriation, as BBB issuance continues



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Taking a step back, since the beginning of 2009, BBB par has more than tripled (3.3x), while the index has more than doubled (2.4x) – a shift in ratings composition that we can't ignore. Breaking down this growth (Exhibit 5), we note that the majority of the increase stems from net issuance ($1.2 trillion), followed by downgraded debt ($745 billion). Rising stars brought in less than $300 billion of new index debt, offset by approximately $300 billion of fallen angels. For a full breakdown of this analysis by sector, see Appendix: BBB Debt Growth by Sector.

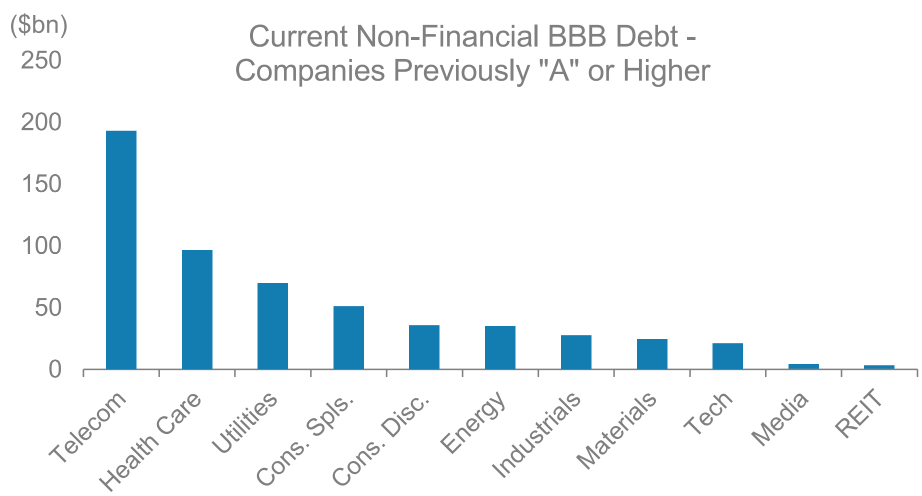
Exhibit 5: Downgrades and net issuance have added most to the BBB total



Source: Morgan Stanley Research, FTSE Fixed Income LLC; Note: Downgrades / upgrades counted for debt outstanding in year of downgrade; issuance in subsequent years, less maturities, included in "net" BBB issuance.

Within the "net issuance" cohort, a large portion actually comes from previously downgraded issuers. In other words, after these companies get downgraded, in most cases, they continue growing index debt outstanding. In particular, we find the largest BBB capital structures in the market today, which have increased debt significantly in this cycle, in many cases used to be higher rated. For example, $991 billion of BBB debt in the index (40% of total BBB par) is associated with ~90 companies that were downgraded into BBB since 2009. As we show in Exhibit 6, after Financials, Telecom and Healthcare have the most BBB debt (which was previously higher rated), followed by a combination of Consumer sectors.

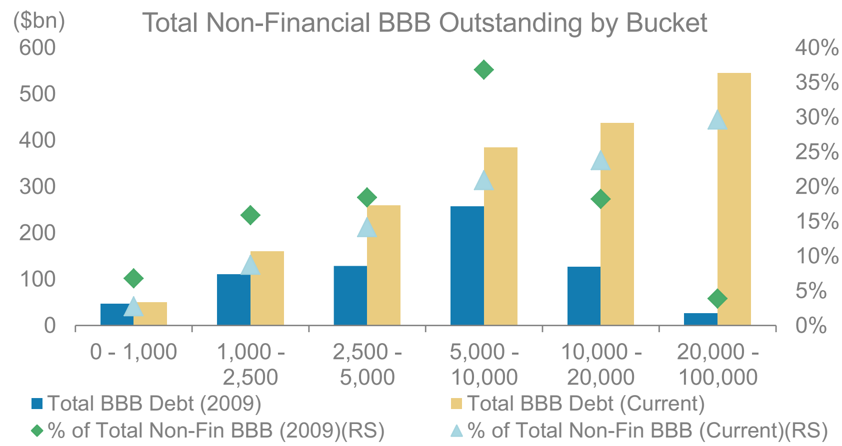
Exhibit 6: Outside of Financials, Telecom and Healthcare have largest BBB debt loads at companies that were previously "A" rated or higher



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Looking again at all issuers (not just the formerly high-rated ones), we note that the growth in BBB index debt is fairly widespread, not just coming from a handful of issuers. First, while the largest BBB issuers are much bigger today vs. earlier in this cycle, there is more BBB par in every debt-outstanding bucket (Exhibit 7).

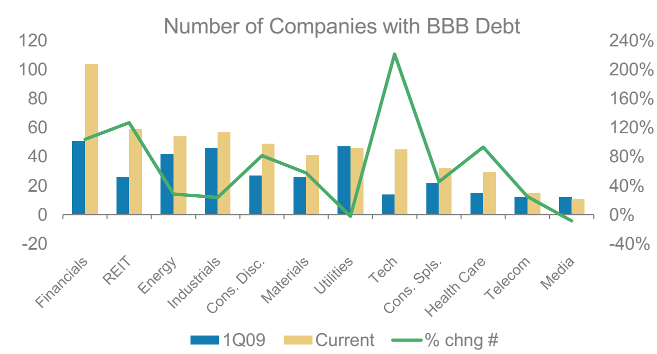
Exhibit 7: The biggest BBB issuers have gotten much bigger, but more BBB par in all debt-outstanding buckets today



Source: Morgan Stanley Research, FTSE Fixed Income LLC; Note: Debt outstanding bucket measures the total BBB par outstanding today and in 2009 from issuers with total index debt outstanding in each respective range.

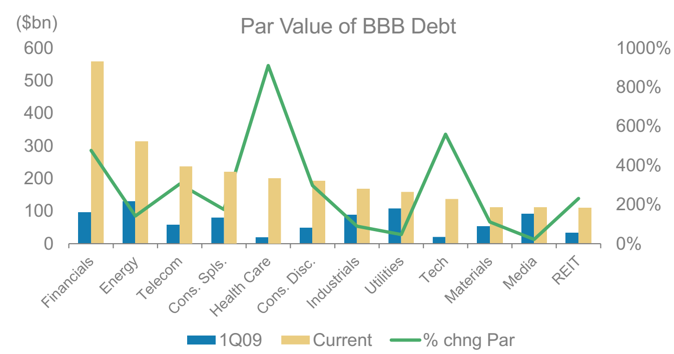
Second, the number of BBB issuers in the IG index has risen by about 60% since 1Q09 (Exhibit 8). Third, Exhibit 9 shows significant growth in non-financial BBB debt from the Telecom, Healthcare, Tech, Consumer and Energy sectors, but all sectors have increased BBB debt outstanding in this cycle. Fourth, at the median, non-financial BBB issuers have seen their index debt load grow 56% since 1Q09, which would not be the case if only a handful of largest issuers accounted for the full increase.

Exhibit 8: The number of BBB issuers has grown the most in Financials and Tech...



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 9: ...But all sectors have seen an increase in BBB par outstanding in this cycle



Source: Morgan Stanley Research, FTSE Fixed Income LLC

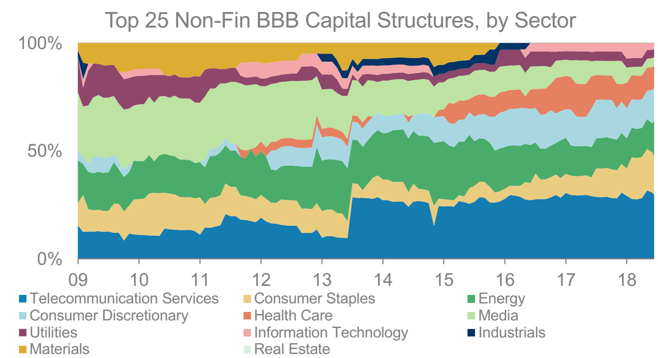
Lastly, we also examined the top 25 non-financial BBB names in the index to help to gauge how the market has evolved over time. As Exhibit 10 shows, the top 25 names have a total of $685 billion in index debt (up from $257 billion in 1Q09) and median debt of $20 billion (up from $9 billion in 1Q09) – growth rates in line with the broader non-financial BBB universe. Additionally, the top 25 still represent about a third of the total non-fin BBB universe, the same level as in 2009. However, the composition has changed significantly. For example, only 6 of the top 25 issuers from 2009 are still in the top 25 today and 7 of the names in today's list have resulted from downgrades. TMT and Healthcare are again well-represented at the top, totaling $351 billion, or 51% of the top 25 names, up from $104 billion in 1Q09. And we note that many of these issuers have seen debt loads grow as a result of M&A, as we previously discussed in detail (see Corporate Credit Research: M&Aking a Leveraged Balance Sheet, 2018.08.10).

Exhibit 10: The top 25 non-financial BBB capital structures – today vs. 2009

Top Non F nanc al BBB Names									
1Q09					Current				
Rank	Ticker	Sector	BBB Par 1Q09	in Current Rat ng	Rank	Ticker	Sector	BBB Par Current	Rat ng n 1Q09
1	CMCSA	Media	25,540	A	1	T	Telecommunication Services	81,912	A
2	TWC	Media	17,154	BBB	2	VZ	Telecommunication Services	75,772	A
3	TWX	Media	14,952	BBB	3	CVS	Consumer Staples	58,682	BBB
4	MDLZ	Consumer Staples	13,800	BBB	4	GM	Consumer Discretionary	37,848	Rising Star
5	EXC	Utilities	12,484	BBB	5	F	Consumer Discretionary	35,285	Rising Star
6	MO	Consumer Staples	11,900	A	6	KMI	Energy	29,360	BBB
7	DT	Telecommunication Services	11,250	BBB	7	ETP	Energy	27,294	BBB
8	TITIM	Telecommunication Services	11,071	Fallen Angel	8	BATSLN	Consumer Staples	24,959	BBB
9	FE	Utilities	10,291	BBB	9	CHTR	Media	23,839	New
10	KMI	Energy	10,011	BBB	10	KHC	Consumer Staples	22,445	BBB
11	FOXA	Media	9,396	BBB	11	D	Utilities	21,344	BBB
12	HD	Consumer Discretionary	9,250	A	12	WMB	Energy	20,781	BBB
13	BRKHEC	Utilities	8,867	A	13	AGN	Health Care	20,057	A
14	RIOLN	Materials	8,850	A	14	EPD	Energy	20,050	BBB
15	APC	Energy	8,275	BBB	15	CELG	Health Care	19,850	New
16	CTL	Telecommunication Services	8,160	BBB	16	ABT	Health Care	19,535	AA
17	XOM	Energy	7,997	AA	17	VOD	Telecommunication Services	17,945	A
18	PCG	Utilities	7,980	BBB	18	MCD	Consumer Discretionary	17,900	A
19	SUCN	Energy	7,675	A	19	AVGO	Information Technology	17,506	New
20	ARNC	Industrials	7,639	BBB	20	PCG	Utilities	17,505	BBB
21	WMB	Energy	7,203	BBB	21	DELL	Information Technology	16,250	A
22	EPD	Energy	7,200	BBB	22	TWX	Media	15,041	BBB
23	BRITEL	Telecommunication Services	7,000	BBB	23	BDX	Health Care	14,994	New
24	UNP	Industrials	6,950	A	24	FOXA	Media	14,989	BBB
25	AEP	Utilities	6,950	BBB	25	DISCA	Media	14,086	New
Total			**257,845**					**685,229**	

Source: Morgan Stanley Research, FTSE Fixed Income LLC; Note: New entrants defined as those with no HY debt prior to joining the IG index.

Exhibit 11: Sector composition of the top 25 non-financial BBB names over time

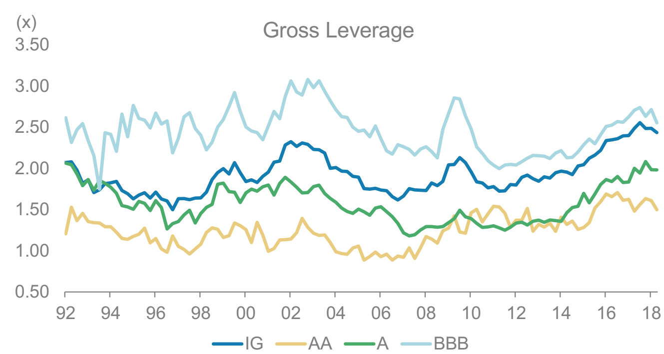


Source: Morgan Stanley Research, FTSE Fixed Income LLC

BBB Fundamentals

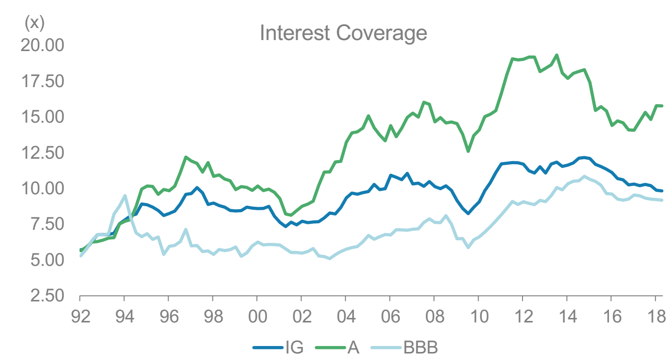
The growth in BBB debt outstanding has naturally coincided with weaker fundamentals, as one would expect. For example, in our IG fundamental universe of non-financial US names, median BBB gross leverage is 2.55x, vs. 1.98x for As (Exhibit 12). Gross leverage has ticked modestly lower very recently, as strong earnings growth and slowing debt growth have helped at the margin, but absolute leverage levels remain quite elevated, especially compared to past late-cycle environments. Meanwhile, interest coverage has declined steadily since 2014, particularly for BBB issuers, vs. some recent improvement in interest coverage for the A-rated universe (Exhibit 13).

Exhibit 12: Gross leverage elevated across the board, including for BBBs



Source: Morgan Stanley Research, FTSE Fixed Income LLC, Bloomberg

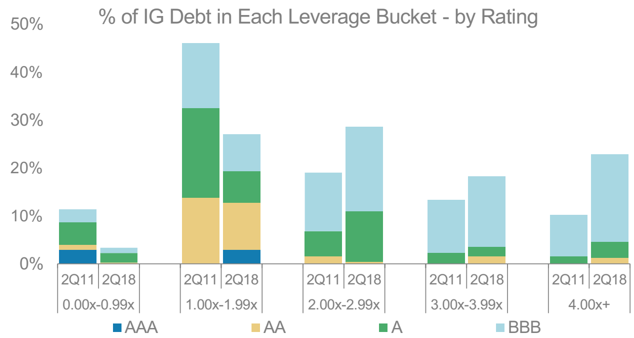
Exhibit 13: BBB interest coverage continues to weaken as As improve



Source: Morgan Stanley Research, FTSE Fixed Income LLC, Bloomberg

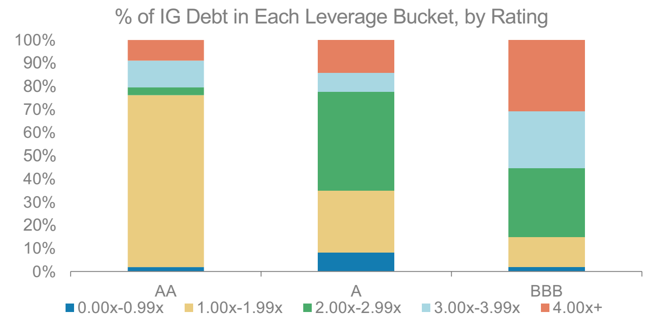
Additionally, BBBs not surprisingly make up the majority of the leverage "tail", with 31% of BBB debt in our universe now leveraged at or above 4.0x.

Exhibit 14: 18% of IG debt has a BBB rating and is levered 4.0x or more



Source: Morgan Stanley Research, FTSE Fixed Income LLC, Bloomberg

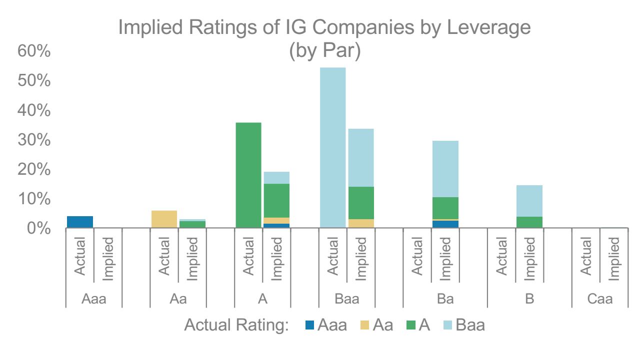
Exhibit 15: 31% of BBB debt, by par, has leverage of 4.0x or more



Source: Morgan Stanley Research, FTSE Fixed Income LLC, Bloomberg

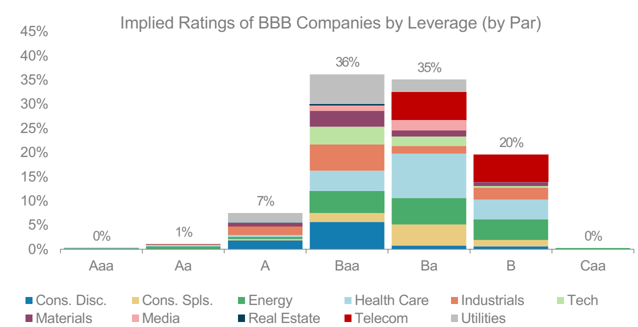
Our implied ratings analysis tells a similar story (for details of this analysis, see Corporate Credit Research: M&Aking a Leveraged Balance Sheet, 2018.08.10), where ~55% of BBB debt would have a HY rating if rated based on leverage alone (Exhibit 16). Breaking down the implied ratings of BBB companies only, we again see that Healthcare, Telecom, and Consumer Staples (along with Energy) account for a large portion of the debt with implied HY ratings (Exhibit 17).

Exhibit 16: 55% of BBB debt would have a HY rating based on leverage alone



Source: Morgan Stanley Research, Moody's, FTSE Fixed Income LLC

Exhibit 17: Healthcare, Telecom, and Staples have a lot of BBB debt with an "implied" HY rating



Source: Morgan Stanley Research, Moody's, FTSE Fixed Income LLC

Downgrade Risks Down the Line

It is important to remember that credit cycles are always different from one to the next. But a consistent rule of thumb over time that we live by when looking for problems down the line: Follow the debt growth. Very simply, applying to the current cycle, we think BBBs will be one (of a few) stress points when the cycle does turn. Downgrade activity will likely be meaningful.

Looking at the past three cycles as a guide, we note that broad downgrade waves tend to last 2-4 years and tend to coincide with a recession at some point as well as with elevated high yield defaults. Credit markets have also experienced "mini" downgrade waves outside of recessions, but those have typically been narrower, concentrated around just one or two sectors, such as Autos in 2005 and Energy/Materials in 2016.

Sizing up the potential risk this time around, in the last three broad downgrade cycles (1989-91, 2000-03, and 2007-09) 7-15% of the IG index was downgraded to HY over the full period (see Corporate Credit Insights: Revenge of the Fallen, 2016.02.26). Based on the size of the market today, that would equate to roughly $350-750 billion of total downgrades this time over a multi-year period. But remember, half the market is already BBB rated, compared to just 27% before the 2000-03 downgrade wave. Taking from a prior analysis of ours (see Corporate Credit Research: Living the HY-Life, 2017.07.28) where we adjust for the size of the BBB index over time, downgrade volumes in the next cycle could be even larger, as we show in Exhibit 18.

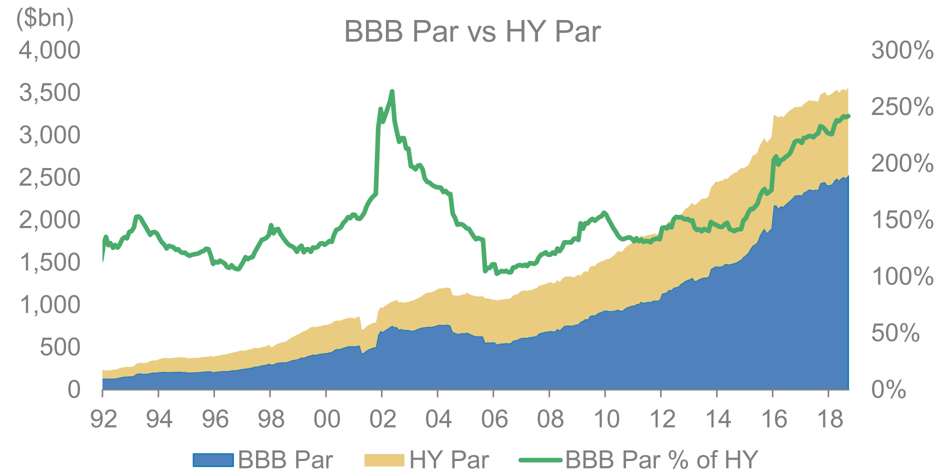
Exhibit 18: Assuming the downgrade rate remains the same as in the past, downgrade volumes will be significant

Statistics for Fallen Angels During Previous Credit Cycles					"Implied" Fallen Angels for this cycle* ($Bn)
Start	End	Length (Qtrs)	Net Fallen Angel Volume ($Bn)	% of BBB Index	
					850
					1,132
					587

Source: Morgan Stanley Research, Bloomberg, FTSE Fixed Income LLC, Moody's; Note: For the 2007 downgrade cycle, we estimate net fallen angels using actual index data. For prior cycles, we use Moody's data for fallen angels with a haircut for index-eligible debt relative to market size. *Implied fallen angels are calculated by multiplying the proportion of fallen angels seen in previous cycles as a percentage of the BBB index, times the current BBB index par.

What are the specific implications for markets? At the least, the liquidity issues experienced in early 2016, when Energy/Materials companies were getting downgraded at a rapid rate, will come back at some point – pushing credit markets (both IG and HY) to valuations that don't make sense fundamentally for short periods of time, as we saw back then. In our view, those liquidity challenges come from four drivers: 1) Credit markets have grown significantly in this cycle. 2) A large volume of bonds will have to change hands at some point, discussed in the downgrade analysis above. As we show in Exhibit 19, the BBB par outstanding in the IG index is now ~2.5x as large as the full HY index. 3) The buyer base of US credit has shifted in this cycle, with a greater percentage of bonds now held by mutual funds/ETFs and by foreign investors, which may impact the stickiness of the flows into or out of US credit as spreads are widening (a topic for another time). And lastly 4) the capacity to absorb risk on the way down is modest, with dealer balance sheets much smaller than pre-crisis levels.

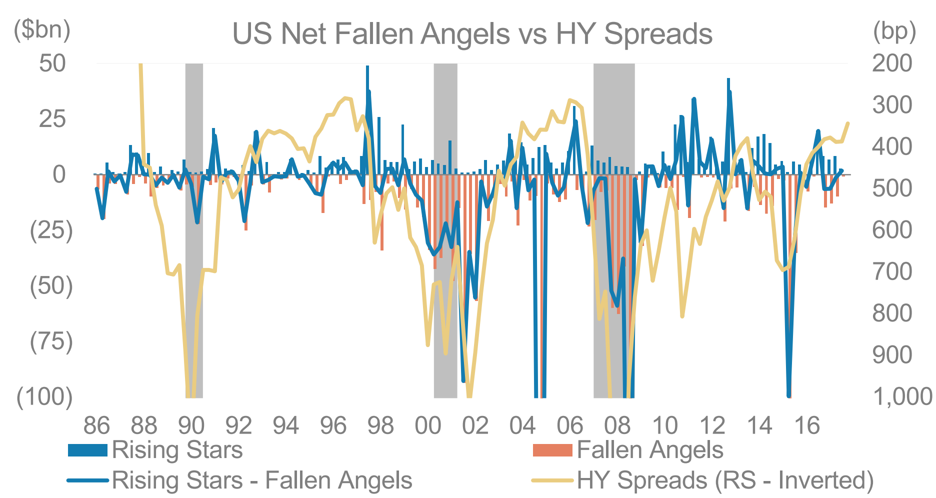
Exhibit 19: Supply from above when the cycle turns: BBB par outstanding now ~2.5x as large as the full HY index



Source: Morgan Stanley Research, FTSE Fixed Income LLC

The good news is that this is not a story for today in that ratings downgrades tend to lag the market. In other words, the big wave of downgrades will likely not come until credit spreads are much wider than they are today, which will take time to play out. Again, the mini downgrade cycle in 2016 provides a good example, where spreads began widening in the middle of 2014 and the big wave of Energy downgrades didn't peak until early 2016 almost two years later.

Exhibit 20: Downgrades lag the market – expect spreads to move first



Source: Morgan Stanley Research, Moody's, FTSE Fixed Income LLC

Addressing the Pushback

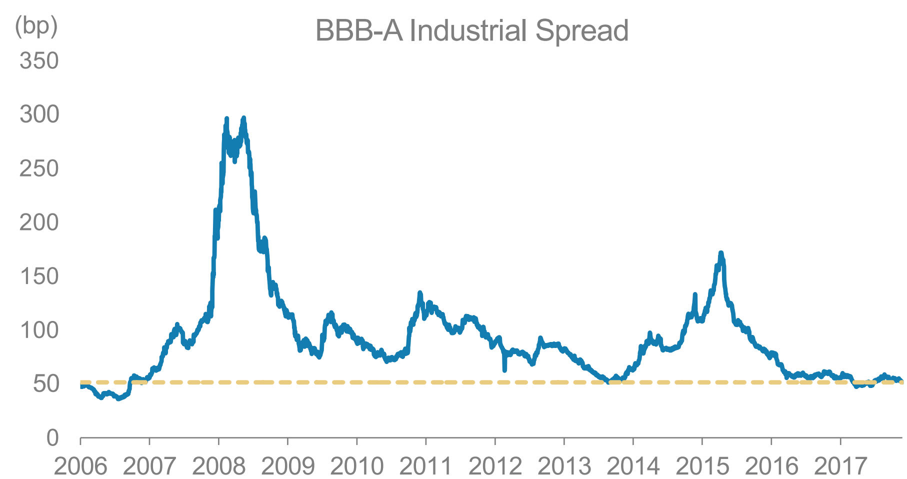
Lastly, we finish by addressing two points of pushback that we often get to this analysis.

First, and most importantly, we hear that better earnings growth will drive lower leverage and help to alleviate these BBB risks. In our view, better earnings growth helps at the margin, without a doubt. And leverage has ticked modestly lower over the past two quarters along these lines. But as we have seen in past cycles, companies won't delever in a big way until they are forced to through a credit cycle, especially when confidence is booming. More importantly, regardless of small changes in credit metrics at the margin, we believe the damage is already done. IG leverage is at unprecedented levels vs. past non-recessionary environments, and we now have ~$2.5 trillion of BBB rated IG debt, built up over nearly a decade. These dynamics won't change dramatically on the back of a year of strong earnings growth.

Second, we often hear that the risk in IG is in higher-rated credits, which have more of an incentive to increase leverage. While we don't disagree that the incentive to move from A to BBB may be higher than the desire to move from BBB to BB, leverage has risen across ratings buckets in this cycle. For example, we recently wrote about how M&A has driven big increases in leverage and BBB debt outstanding. And while these companies may pledge to delever over time, those promises often don't materialize even in a healthy economy. In a downturn, when earnings roll over, the ability to maintain an IG rating for 3 and 4x+ levered companies will be even tougher, regardless of the desire to remain IG.

Fundamental risks aside, our preference for As over BBBs is more about what is in the price. In short, as we show in Exhibit 21, the basis between BBB and A industrials is basically at cycle tights. Hence the cost of moving up-in-quality is still quite low.

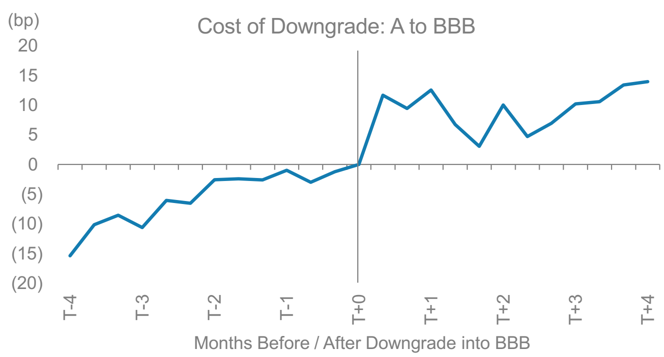
Exhibit 21: The market is still not paying investors appropriately to own beta



Source: Morgan Stanley Research, FTSE Fixed Income LLC

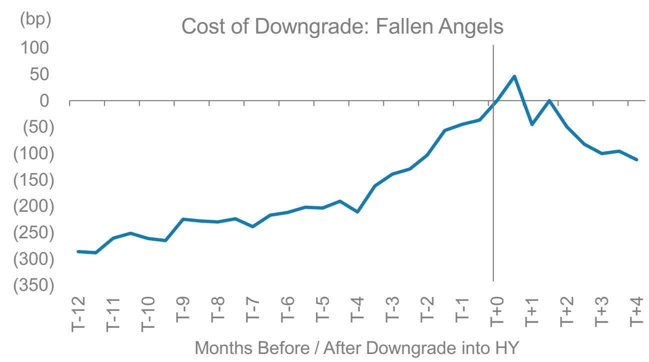
Additionally, as we show in Exhibit 22 and Exhibit 23, even if one could make the case that downgrades from A to BBB will be larger in magnitude than the volume of downgrades from BBB to BB, the cost of the former is much lower than the cost of the latter. As we show in Exhibit 22, leading up to and shortly after a downgrade within IG, spreads often widen by ~25bp. Leading up to a downgrade from IG to HY, on the other hand, spreads have historically widened by ~300bp. And as a sidenote, this chart also shows that most of the spread widening around a downgrade (especially a fallen angel) is done by the time the downgrade actually happens.

Exhibit 22: The cost of a downgrade from A to BBB is ~25bp at the median



Source: Morgan Stanley Research, Bloomberg

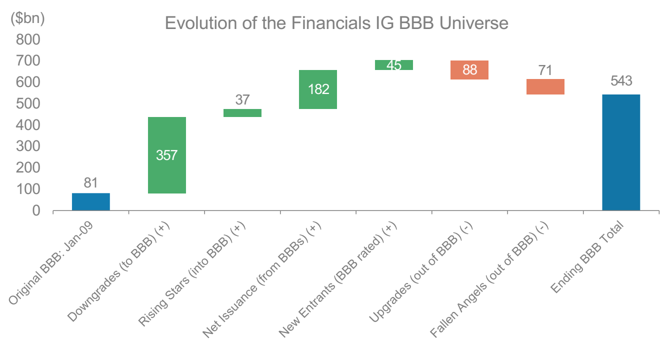
Exhibit 23: The cost of a downgrade from IG to HY is ~300bp at the median



Source: Morgan Stanley Research, Bloomberg

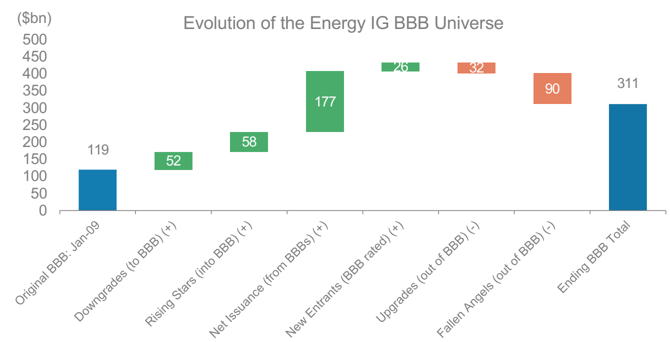
Appendix: BBB Debt Growth by Sector

Exhibit 24: Financials (ex-Real Estate)



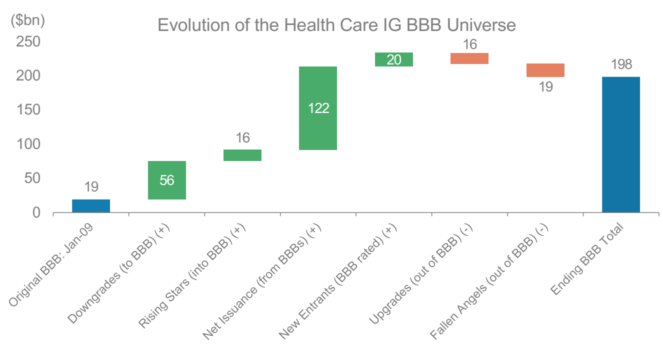
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 25: Energy



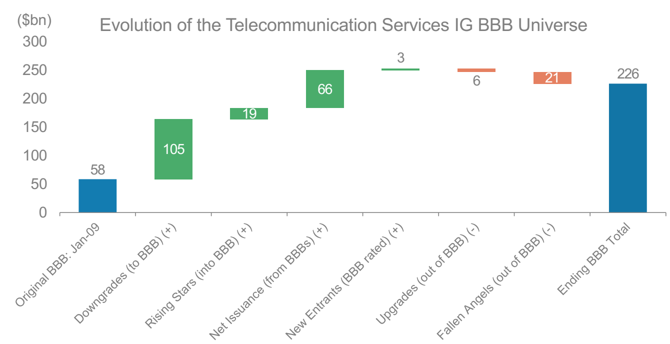
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 26: Healthcare



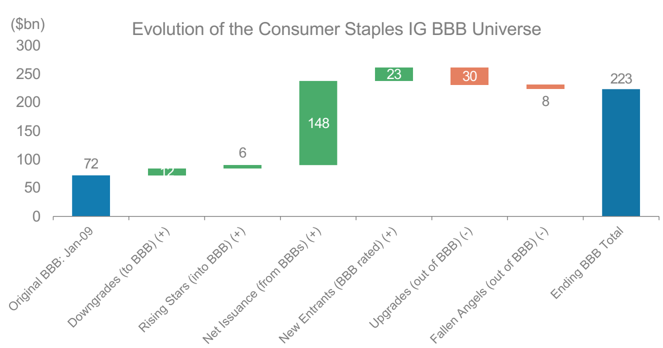
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 27: Telecommunication Services



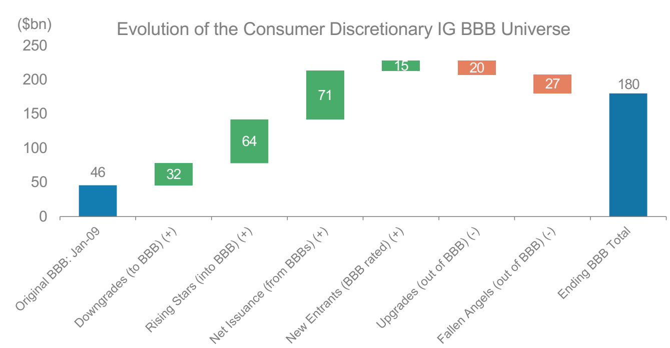
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 28: Consumer Staples



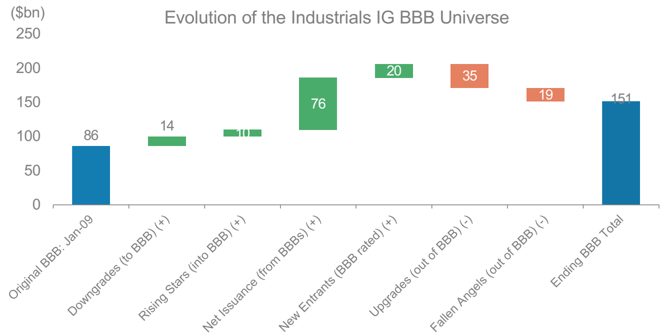
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 29: Consumer Discretionary



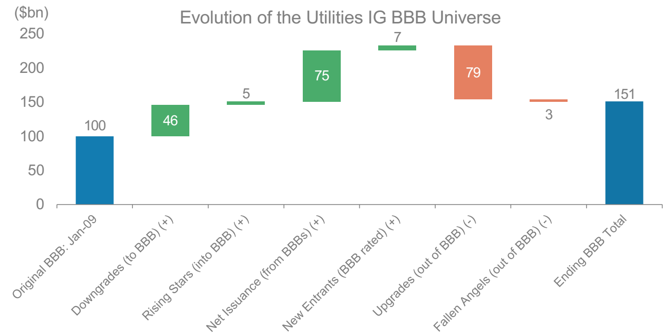
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 30: Industrials



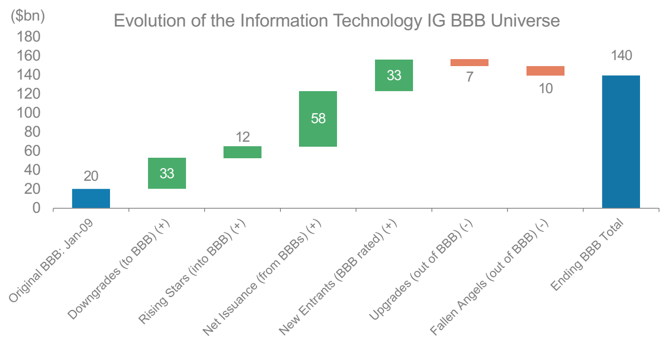
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 31: Utilities



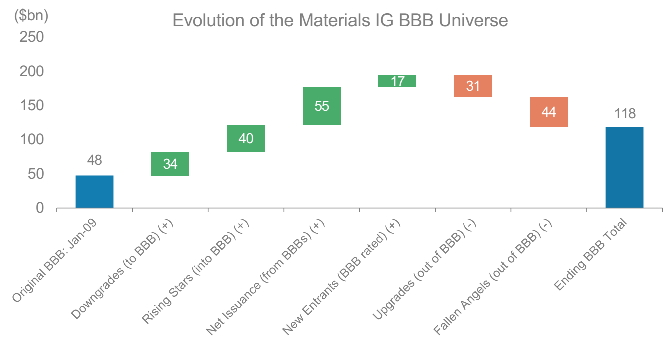
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 32: Information Technology



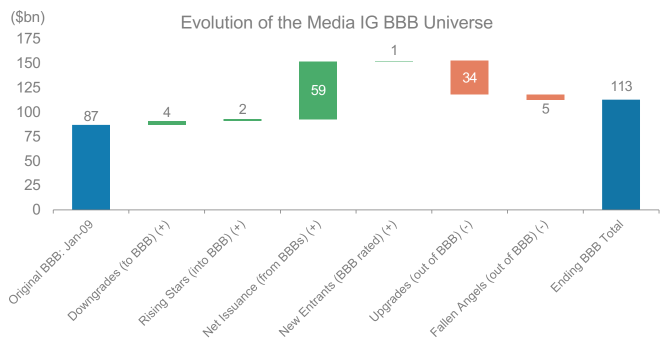
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 33: Materials



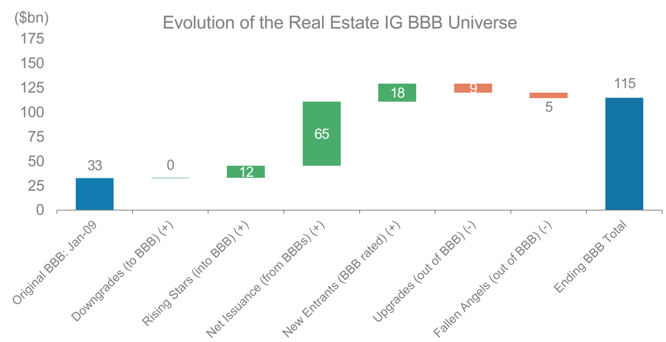
Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 34: Media



Source: Morgan Stanley Research, FTSE Fixed Income LLC

Exhibit 35: Real Estate



Source: Morgan Stanley Research, FTSE Fixed Income LLC

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(as of September 30, 2018)

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	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
STOCK RATING CATEGORY	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	**1178**	**37%**	**308**	**42%**	**26%**	**562**	**40%**
Equal-weight/Hold	**1378**	**44%**	**343**	**46%**	**25%**	**625**	**44%**
Not-Rated/Hold	**49**	**2%**	**5**	**1%**	**10%**	**7**	**0%**
Underweight/Sell	**554**	**18%**	**83**	**11%**	**15%**	**224**	**16%**
TOTAL	**3,159**		**739**			**1418**	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.
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