Fixed Income Strategist

Monthly July 2019

And that's a record…

Our review of key topics influencing the taxable fixed income landscape, with an assessment of relative value trends at the sector and individual security level.

This report has been prepared by UBS Financial Services Inc. (UBS FS). **Analyst certification and required disclosures begin on page 26.**

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Dear readers,

In this month's *Fixed Income Strategist,* we discuss the record expansion in US. We discuss why this recent expansion is the longest on record and what we anticipate going forward for fixed income.

We examine the impact of previous easing cycles on the US Treasury and credit markets. We conclude 1) the majority of the total returns gained from US Treasuries may be behind us and 2) given the historical performance in fixed income risk assets, we believe it is better to be more defensive entering into the second half of 2019.

We analyze how the 10-year Treasury behaves before and after easing cycles, dating back to 1989. Although no cycle is the same, we do believe this information is prudent as the 10-year yield reached a 2019 low of 1.93%.

We discuss our preferences for short end investment grade corporates, our overweight to senior loans and our overweight to Treasury Inflation Protected securities for the second time this year.

As always, feedback and questions are welcome.

Leslie Falconio
Senior Fixed Income Strategist
UBS CIO

FEATURE

And that's a record…

Leslie Falconio

In this month's *Fixed Income Strategist,* we discuss the record US economic expansion and the potential risks embedded in the market's current expectations of an overly accommodative Federal Reserve. We review our more defensive credit positioning and discuss the relative value of our overweight to Treasury Inflation Protected Securities (TIPS) for the second time this year.

As the 10-year Treasury yield recently reached a 2019 low of 1.93%—a decline of over 60 basis points (bps) in two months—while the equity market continues to record new highs, the magnitude of further incremental total returns from US Treasuries looks limited, in our view. We continue to prefer an up in credit-quality exposure, earning incremental yield through senior loans and short-end corporate bonds (i.e. financials), combined with the government guarantee of TIPS, as investors' low inflation expectations have once again created an opportunity in the asset class.

A new record

This month the US expansion, which started in June 2009, officially became the longest on record. Below we chart the length of each expansion dating back to 1949, alongside the average annualized GDP growth during those expansions. While this expansion may be the longest on record, it is also the weakest. Even after extensive stimulus from the Fed through quantitative easing and a zero-interest-rate policy, this expansion only generated a 2.3% annualized GDP growth, well below the 10 business cycles between 1949 and 2007 when annual growth averaged 4.7%, and even during the 1990s when annual growth was 3.6%.

The current decade-long expansion has created more than 20 million jobs since the end of the Great Recession and brought down the unemployment rate from a peak of 10% to a five-decade low of just 3.6%. However, the jobless rate took years to recede and real wage growth only showed signs of life in the past few years, as inflation remained lower than during previous expansions and consistently below the Fed's 2% target.

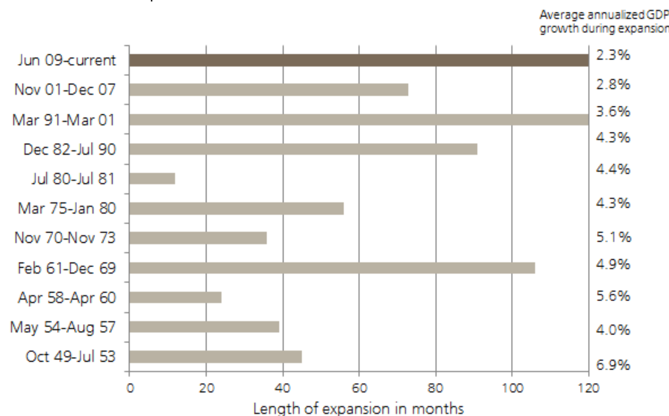
As gradually rising growth and muted inflation have helped stretch out this expansion, they have also created unease within fixed income. The large decline in US interest rates, along with the magnitude of anticipated Fed rate cuts over the next 6–8 months (see Treasury section), demonstrates the market's fragility with regard to a potential slowing in global growth and continued geopolitical risk. Given current conditions, however, we believe markets are pricing in an overly aggressive Fed and a substantial decline in the growth outlook.

Easing up on the Fed

Although we anticipate a Fed move lower before the end of the year, we do not agree with the 100bps of interest rate cuts the market is pricing in over the next year. And although we have trimmed our own interest rate projections to 2.3%, the magnitude of the move in 10-year yields has come a long way in a few months, and so we continue to recommend maintaining low duration risk, if not using the risk as a hedge to potential equity corrections and maturing credit cycles.

We examined the market changes during previous Fed easing cycles going

Length and strength of U.S. economic expansions
October 1949 to present



Source: Nation; UBS, as of 5 July 2019

Policy cycles may not all be the same, but lessons can be learned

Fed moves First	Fed moves Last	Length (Mos)	Fed Funds Before Cycle	Fed Funds Ending Rate	FF Changes (bps) First	FF Changes (bps) Total Cycle
5-Jun-89	2-Jul-92	37	9.75	3.25	-12	-650
6-Jul-95	31-Jan-96	7	6	5.25	-25	-75
15-Oct-98	17-Nov-98	1	5.25	4.75	-25	-50
3-Jan-01	11-Dec-01	11	6.5	1.75	-50	-475
18-Sep-07	16-Dec-08	15	5.25	0.25	-50	-500

Fed moves First	Fed moves Last	Initial Levels % 2yr	Initial Levels % 10yr	Initial Levels bps 2s/10s	10yr Treas Change 3mo Prior	10yr Treas Change 3mo After
5-Jun-89	2-Jul-92	8.48	8.43	-5	-80	-18
6-Jul-95	31-Jan-96	5.76	6.18	42	-93	-6
15-Oct-98	17-Nov-98	4.09	4.61	52	-86	21
3-Jan-01	11-Dec-01	4.86	4.92	5	-90	6
18-Sep-07	16-Dec-08	4.07	4.47	40	-72	-23

Source: Wells Fargo, UBS, as of 5 July 2019

back to 1989, including the amount of easing, the length of time, the yield curve impact, and the amount the 10-year yield declined before and after the first easing. Although no cycles are the same, some observations are worth pointing out. For one, in 2001 and 2007, the Fed made a statement by easing 50bps the first time at the plate.

Although not impossible, this seems unlikely today given the strength of the June jobs report. If it were to occur, however, it could be the one catalyst that pushes both US interest rates and equity markets lower. As shown, even during the modest cycles of 1995–96 and 1998, a one-and-done move is not the norm. So a large initial move would be an indication that the fundamentals are weaker than they appear (i.e., a potential recession), which could force yields and equity markets lower.

Historically during Fed easing cycles, the 10-year yield begins to fall 7–8 months before the first easing, and continues until six months after. The average move is 125bps. As shown, the 10-year yield today is much lower than in previous cycles. Lower inflation, negative yields abroad, and demand from pension funds have all helped anchor the long end. In fact, the 10-year yield has already moved over the average 125bps decline since the fall of 2018, and the Fed is yet do to anything but shift its language.

Given the large decline in interest rates the market has already witnessed, and the market expectations of a dovish Fed, the returns gained from declining Treasury yields will be small and protection limited, in our view. We may see a 1.75% 10-year yield in 2019, but this is a mere 24bps from the low already witnessed.

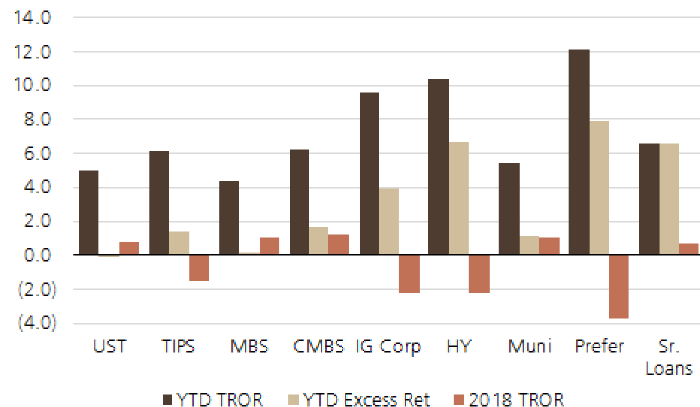
Spread and carry vs. interest rates
CIO has maintained an overweight in US equities versus US fixed income. As the equity market continues to reach historic highs, this has been the appropriate allocation. Fixed income, however, has also set decade-plus records with total returns in the first six months of 2019.

With high yield (HY), IG corporates and preferreds returning 9.6–12% in the first half, fixed income has ridden the wave of accommodation by global central banks. Although CIO has remained neutral in HY, with a preference for equity, we have maintained an overweight in senior loans. While the shift in market sentiment has pushed Treasury yields down—forcing demand for rising-rate protection to lessen—floating-rate securities such as senior loans have returned close to 6% in the first half. With the market pricing in an aggressive Fed, we maintain our overweight to senior loans while monitoring potential shifts lower in Libor.

With Treasury yields declining and spreads on risk assets remaining range-bound after tightening in 1Q, we are more defensive on credit over the next six months. If Treasury yields continue to decline due slowing economic growth, fixed income spreads will widen. If the Fed proves more hesitant to act due to strengthening fundamentals, we also believe spreads will widen given their current richness and the markets' initial reaction, which may ultimately lean toward disappointment, pushing the equity market lower.

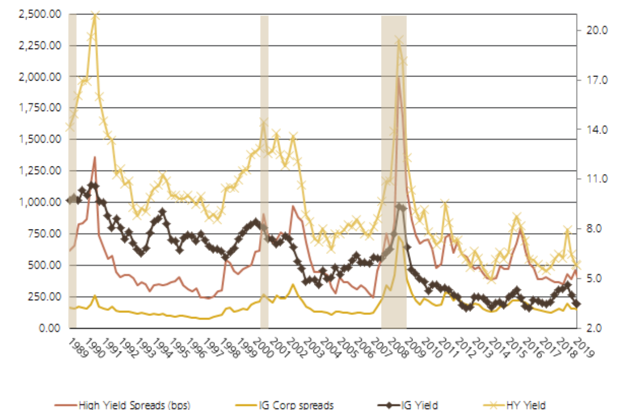
We show the yield and spreads of HY and investment grade (IG) dating back to the late 1980s. As expected, yields may not be abundant given the lower-for-longer view of the US Treasury market. However, spreads, although not at their all-time tights, are paltry given this stage in the cycle. This makes the potential returns and the overall carry earned not overly opportunistic. Instead of searching for pennies in front of a steamroller, stay up in credit quality in short-end IG, where investors earn yields well above US Treasury without substantially moving down in credit quality, while adding to safe havens via the TIPS market.

Fixed Income performance the first half of 2019 has set records
Total return, in %



Source: ICE BAML, UBS, as of 3 July 2019

HY/ IG yields and spreads are not at attractive levels given where we are in the cycle
Lhs: spreads, in bp; rhs: yield, in %



Source: Morningstar; ICE BAML, UBS as of 5 July 2019

US Fixed Income Preferences

	Underweight	Neutral	Overweight
Total Fixed Income	⊖		
US government	⊖		
TIPS			⊕
Agency debt	⊖		
MBS		⊜	
MBS securitized		⊜	
IG corporates		⊜	
High yield		⊜	
Taxable muni	⊖		
Preferred		⊜	
Senior loan			⊕

Legend

⊕ **Overweight:** Tactical recommendation to hold more of the asset class than specified in the moderate risk strategic asset allocation (see House View, page 23)

⊖ **Underweight:** Tactical recommendation to hold less of the asset class than specified in the moderate risk strategic asset allocation (see House View, page 23)

⊜ **Neutral:** Tactical recommendation to hold the asset class in line with its weight in the moderate risk strategic asset allocation (see House View, page 23)

NOTE: TACTICAL TIME HORIZON IS APPROXIMATELY SIX MONTHS, AS OF 5 JULY 2019

GRAPHIC PERTAINS TO THE HOUSE VIEW MODERATE RISK TAXABLE ASSET ALLOCATION

Taxable allocations & recommendations

We updated our taxable fixed income asset allocation table to reflect the changes in the strategic asset allocation in *UBS House View* and the updated capital market assumptions. Our goal with this table is to provide investors with a more detailed road map of *UBS House View*.

	Underweight	Neutral	Overweight
Total Fixed Income	−		
US government	−		
TIPS			+
Agency debt	−		
MBS		=	
MBS securitized		=	
IG corporates		=	
High yield		=	
Taxable muni	−		
Preferred		=	
Senior loan			+

US taxable fixed income allocation

		Conservative	Moderate	Aggressive
Treasuries	We are **underweight** US Treasury. For investors with a large overweight to US equity, maintaining a Treasury hedge may be prudent. Otherwise we believe the incremental total return from holding US Treasuy has run its course in 2019, and we anticipate feeble returns ahead. TIPS offer better relative value than Treasury.	**32.5**	**16.0**	**5.5**
Short		17.6	7.1	0.0
Intermediate		7.5	4.7	0.0
Long		7.4	4.2	5.5
TIPS	We turned **overweight** on our 5-year TIPS allocation mid June, for the second time in 2019. After profiting over 2% from Jan-Apr versus US Treasury we closed our allocation. We once again re-enter as the market is projecting too low of a forward inflation forecast.	**9.2**	**10.5**	**4.2**
Short		3.6	3.3	0.7
Intermediate		3.7	5.7	2.2
Long		1.9	1.5	1.4
Agency debt	We are **underweight** agency debt versus cheaper spread product such as investment grade corporates. We currently do not see much value in this asset class.	**9.2**	**6.4**	**0.0**
Short		6.7	3.7	0.0
Intermediate		1.5	2.0	0.0
Long		1.1	0.7	0.0
Mortgage backed securities	We are **neutral** on MBS, with a preference for higher coupons. Although MBS spreads represent a strong late cycle asset class we are maintaining our 23% allocation within investors AAA allocations. Although the asset class is cheap to IG Corporates given the potential cycle extension via the Fed, we maintain our 23%, neutral allocation.	**18.5**	**23.0**	**12.1**
Short		8.1	10.3	3.0
Intermediate		8.4	12.4	6.7
Long		2.0	0.2	2.4

Allocations and recommendations *(cont'd)*

US taxable fixed income allocation		Conservative	Moderate	Aggressive
MBS/Securitized Products	Credit MBS has performed well in 2019, but has underperformed IG and HY. The yield, (carry), of the asset class remains strong under current positive economic fundamentals. We remain **neutral** with a preference for Agency and private label CMBS.	**8.0**	**10.0**	**12.0**
Short		3.5	5.0	3.2
Intermediate		3.6	4.9	8.9
Long		0.9	0.1	-0.2
Investment grade corporates	We are **neutral** on IG corporate bonds. At 119bps, IG spreads are hovering near the low end of their YTD range. Strong total returns have materialized from both lower rates and a narrowing of credit spreads. This situation is unlikely to persist, with either higher rates or wider spreads serving as a headwind. That said, modest IG supply and strong demand should limit the extent of any spread widening. We continue to find value in IG corporates with short maturities (1- 3 years) which provide attractive yield relative to their low duration..	**9.7**	**12.0**	**8.8**
Short		3.7	5.6	2.4
Intermediate		3.0	3.2	3.2
Long		3.0	3.2	3.3
High yield corporates	We are **neutral** on HY bonds. We note the relative outperformance of BB credit year-to-date and are mindful of the limited potential for returns to exceed coupon income in the balance of the year. We believe that leveraged loans continue to represent a differentiated segment of HY, although rate cust may create a drag on asset class returns.	**3.9**	**10.9**	**34.0**
By credit rating				
BB-rated	We are **neutral** on BB rated credit, having previously revised this from an underweight (vs B's). In recent weeks BB spreads have demonstrated renewed strength and outperformed lower tiers of credit.	3.9	5.8	5.4
B-rated	We are **neutral** on B rated credit, having previously revised this from an overweight (vs BB's). Concerns over market conviction in the credit rally and the threat from geopoliticial challenges have prevented this segment from outperforming BB-rated credit.	0.0	5.7	28.6
Taxable municipals	We have slight to moderate **underweight** positions on taxable municipals but see room for positioning these as a carve-out exposure within an investors' government fixed income allocation.	**4.9**	**1.9**	**1.5**
Preferred securities	We are **neutral** on preferreds. This year's strong rebound has led to solid YTD returns. For the remainder of 2019, we expect preferreds to track a "two steps forward, one step back" performance pattern. Among fixed-rate preferreds, we favor higher coupons. When it comes to fixed-to-floating rate (F2F) preferreds, we favor those with call protection (> 4 years) & high reset spreads. Prospectus language regarding floating-rate calculation in the absence of Libor is also important.	**2.0**	**2.7**	**10.2**
Bank loans	We are **overweight** senior loans as a carve-out exposure within an investors' high yield bond allocation. The repricing wave should lose momentum and we expect the drag on coupons to diminish, but not disappear in the months ahead.	**1.3**	**6.1**	**11.6**

Note: See Appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

Source: UBS, WMA AAC, as of 5 July 2019

US Treasury

The market got a glimpse of how quickly sentiment can change following the release of the June employment report. After reaching a year-to-date low of 1.93% in the 10-year yield on 3 July—and with the market pricing in over 100bps of Fed rate cuts over the next year, with 100% certainty that July would result in a 25bps cut and potentially a 50bps cut—the market quickly reversed course. The 10-year Treasury moved to 2.06% as the market took out the probability of a 50bps move in July and is now pricing in 27bps of easing for the 31 July FOMC meeting.

As discussed in the lead, US Treasury rates have moved substantially lower over the past two months. Although slowing global growth and dovish central banks will keep a lid on how far interest rates may rise going forward, the market appears overly convinced of substantial moves lower in the fed funds rate.

This time it's different

We calculated the mean, minimum, and maximum movements in 10-year Treasury rates during times of cycle easing. As shown, on average, interest rates begin to decline about eight months prior to the first easing and continue six months after. The sharpest moves occur a few months prior to the first easing and average around 125bps. In November 2018, 10-year yields reached the year-to-date high of 3.24%, and this July they reached their year-to-date low of 1.93%. That’s a 131bps decline in eight months, with the FOMC staying pat on the fed funds rate.

We acknowledge that not every cycle is the same. Negative interest rates abroad, converging dovish central banks, negligable inflation, and potential equity market corrections may push the 10-year yield lower to a 1.75%. However, CIO continues to view a recession in the near term as unlikely, and as previous cycles have dictated, much of the yield move from a potential shift in monetary policy has already occurred. In our view, the greater risk lies with the market being overly aggressive with its dovish Fed outlook. We look for interest rates—10-year yields—to trend higher to 2.3% over the next several months.

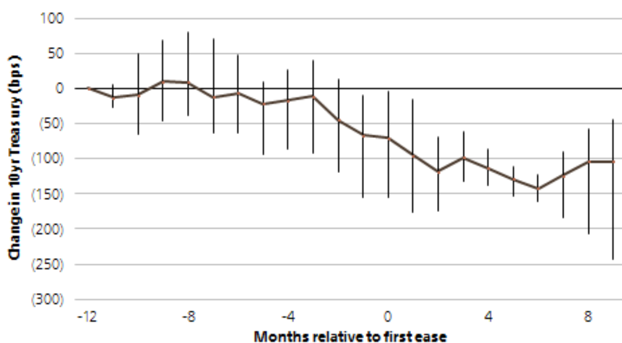
Not INFLATING

As discussed, we have increased our TIPS allocation after closing the original allocation at a profit this past April. Although we recognize we may be slightly early on this allocation given the below-consensus CPI data expected over the next month, we do believe the market's expectation of future inflation is a bit low.

Although we do not foresee a large increase in CPI, UBS is projecting a move slightly above 2% over the next year. The allocation to TIPS is mainly due to our view that real yields will decline more than nominal if GDP growth is slower than what UBS currently projects—benefiting TIPS—or inflation expectations will rise due to a declining dollar, stable to higher commodity prices, or higher inflation due to the impact from trade tariffs.

There are a few relative value opportunities within fixed income at the moment, and TIPS is a way to maintain a government-guaranteed asset class combined with expected total return.

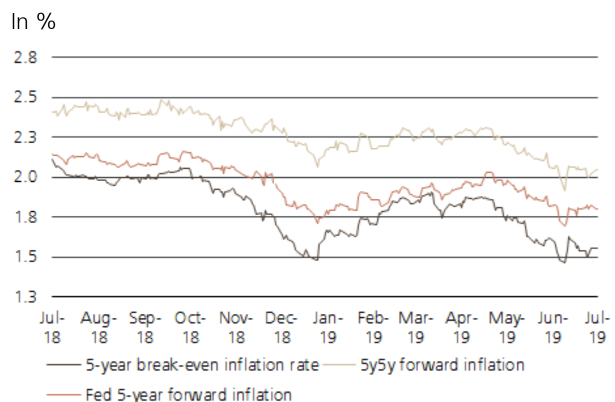
10-yr Treasury cumulative changes: mean, min, max, during easing cycles



Source: Wells Fargo, UBS, as of 5 July 2019
Note: We use the cycles beginning 1989, 1995, 2001, and 2007

TIPS break-even inflation rate appears low versus forward projections

In %



Source: Bloomberg, UBS, as of 7 July 2019

Mortgage-backed securities

The decline in overall interest rates has sparked a bit of a refinancing wave as we discussed in last month's *Fixed Income Strategist*. Overall, these lower interest rates and increase in refinancing are a positive for the mortgage sector. Given the extent of the refi activity going back to July 2016, as a result of the 10-year yield hitting a low of 1.32%, this round of rising refinancing from the 2018 high in interest rates of 3.24% has not been much of a performance drag.

In fact, as it relates to the residential and commercial mortgage sectors, increasing refinancing activity improves the credit of the underlying loans by enhancing the debt service coverage ratios in CMBS (due to lower monthly payments), and also increases underwriting standards due to increasing demand.

UBS believes the Fed will cut in 2019; however, we disagree with the magnitude of cut the market is currently pricing in. Although MBS has underperformed IG corporates this year, with the Fed potentially extending the credit cycle, we remain neutral on agency MBS, with a preference for IG corporates. We anticipate this relationship will shift when and if liquidity conditions start to shift due to a maturing credit cycle. As this occurs, MBS will outperform IG as investors reach for safe havens.

Within our neutral MBS allocation, we prefer FNMA 4.5% coupon. The market has priced in a rise in refinancing activity given the decline in interest rates, impairing the overall performance of the coupon. We believe this underperformance is overdone as we anticipate Treasury yields to rise over the next several months.

Currently, we prefer agency CMBS within our mortgage allocation. Although the sector is up 5.9% year-to-date, we believe it will continue to outperform over the remainder of the year as investors take a somewhat more defensive stance and increase portfolio diversification within their fixed income allocation.

Residential mortgages and private label CMBS

The Fed's dovish shift is positive for risk assets, and this includes RMBS and CMBS. We are constructive on non-agency RMBS as borrowers continue to benefit from favorable credit conditions and strengthening housing fundamentals. However, as with corporate credit, we prefer better-quality and shorter-maturity sectors.

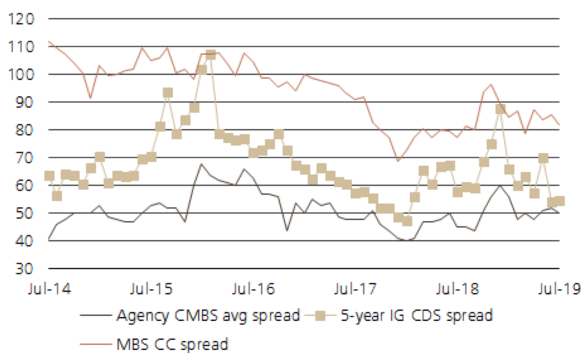
Our preference remains for agency CMBS over private label CMBS. Although lower interest rates will benefit both sectors, and long-end AAA private label CMBS has underperformed agency CMBS over the past several months, we prefer an up in credit quality posture. Our allocation to credit risk remains within the corporate credit markets, not CMBS.

Value in floating rate securities

Floating rate securities within the residential and ABS market have underperformed due to declining interest rates. As Treasury yields decline, the need for floating rate assets declines potentially widening spreads. Although the US consumer remains strong, supporting floating rate securities such as credit card and auto loans, we prefer floating rate IG corporates and senior loans.

Agency MBS are cheap to IG Corporates

Spread, in bps



Source: Bloomberg, UBS, as of 5 July 2019

Residential and CMBS has performed well in 2019. We prefer Agency CMBS

Non agency	Duration	YTD total return	CMBS	Duration	YTD total return
Prime fixed	3-5yr	4.5	**CMBS**	4.8	6.3
Alt-A ARM	0-1yr	4.3	AAA	5.1	6.1
Option ARM	0-1yr	4.1	BBB	5.0	8.6
Subprime ARM	0-1yr	3.7	**Agency**	**5.1**	**5.9**

Source: BAML, UBS, as of 1 July 2019

Investment grade bonds

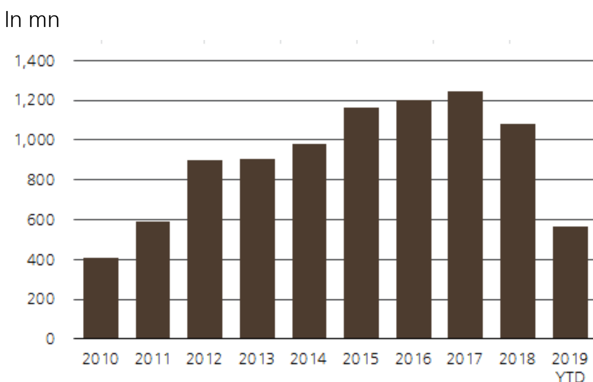
Supportive technicals for IG
IG credit provided investors with a total return of 9.6% for 1H19, marking the best first-half performance over the past 20 years. The decline in Treasury yields played a major role, with the 7-year Treasury note returning 5.9%. Due to a 37bps improvement in credit spreads, IG also performed well on an excess return basis at 3.6% versus duration-matched Treasuries. This strong excess return ranks behind only the first half of 2009 (13.8%), 2003 (3.7%), and 2001 (3.1%). The bad news for IG going forward is that either higher interest rates or wider credit spreads will likely be a headwind. Consider that with multiple Fed cuts already being priced into the bond market, a further decline in Treasury yields would likely stem from either weaker economic data or heightened trade tensions, which would likely be accompanied by wider credit spreads. On the other hand, should it become more clear that the economic expansion remains on solid footing, Treasury yields would likely move higher and relinquish some of IG's existing price return.

That said, we believe the favorable technical environment will limit the extent of any spread widening. Consider that IG bonds have a yield of 3.3%, on average, which is appealing to a global investor base that faces an increasing stock of negative yielding bonds. New issue IG supply has not overwhelmed this year (down 10% year-over-year, gross) on account of less issuance by financial institutions and more US companies issuing debt in the EUR market. Net IG issuance, which takes into account bond redemptions, is projected to be among the lightest that the IG market has witnessed over the past 10 years. In addition, the European Central Bank (ECB) signaled that it may resume quantitative easing that may include corporate bond purchases. The ECB purchased corporate bonds from June 2016 to December 2018 and currently holds a EUR 178bn portfolio that is in reinvestment mode. Although US-based corporate bonds were not eligible, this program helped push down risk premiums throughout global credit markets.

Mind the duration
The duration of the IG index has set a new high at 7.4 years, which makes IG prices more sensitive to changes in interest rates or credit spreads. This is evident in low IG breakeven levels. IG's total return breakeven measures how much IG's yield needs to rise to result in a zero total return and currently stands at 22bps over the next six months. Excess breakeven measures the spread rise that equates to flat performance versus Treasuries and stands at 8bps. Both are on the low end of their historical ranges over the past 10 years, sitting at their 19th and 14th percentiles, respectively.

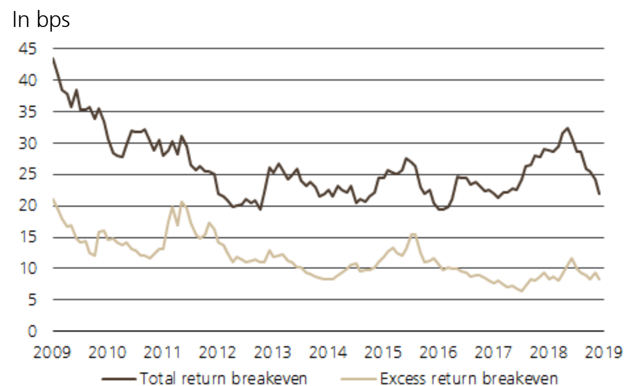
In terms of curve positioning, we see 1–3 year IG primarily as a way to capture an average yield of 2.5% but with lower risk since this segment's duration is only 1.9 years, and the six-month total return breakeven is 66bps. However, in order to capture the risk-return properties of the IG asset class, investors need to venture further out the curve into medium maturities of up to 10 years. We advise caution in longer maturities of 10+ years, where the duration risk is substantially higher.

Gross issuance volume peaked in 2017
In mn



Source: S&P LCD, UBS, as of 5 July 2019

IG breakeven spreads over six months
In bps



Source: ICE BAML, UBS, as of 30 June 2019

High yield corporate bonds

HY performance recap
Year-to-date, the US high yield (HY) market has produced a 10.4% return. This represents a notable increase in year-to-date return since the last publication of the *Fixed Income Strategist*. As market concerns over global trade conflicts and other factors eased, HY participated in the rally of risk assets, and spreads tightened by approximately 50bps in June to drive returns. June's rally pushed the 1H19 returns above 10%, with the BB, B, and CCC indices delivering returns of 11%, 10.1%, and 8.5%, respectively, for the period.

On multiple occasions we have commented on the outperformance of BB credit despite its being a relative oasis from default risk compared with B and CCC credit. Regardless of circumstance, a six-month period with double-digit returns in HY should experience lower-rated tiers of credit delivering significant outperformance. While the nuances of individual credit stories are more pronounced further down the credit spectrum, the aggregate performance of the market is telling. We interpret the persistence, and notably the recent strength, of BB returns as a signal of the market's lack of conviction in the durability of the credit rally. Given the late stage of the credit cycle, investors should heed credit fundamentals when making allocation decisions, and realize that the differentiated performance in HY likely signals greater potential for distress in individual credits.

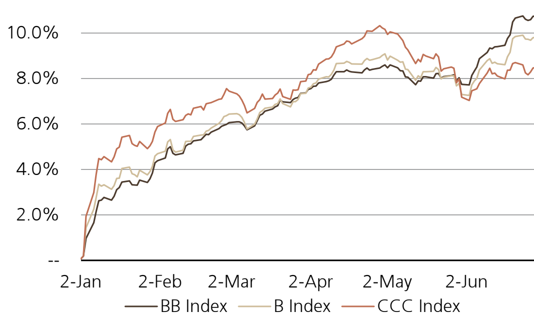
What about rate expectations?
As Leslie Falconio cited in the lead article, although the Fed is likely to reduce rates in 2H19, the bond market's expecation of 75bps of interest rate cuts has a lower probability of materializing. However, the recent strength in HY spreads has likely already accounted for much of the expected Fed rates cuts, creating the potential for disappointment.

The backdrop of elevated year-to-date returns and a potentially incorrect view of rates suggest limited potential for returns beyond coupons in the balance of the year. The potential path of least resistance for returns may be toward underperformance. On the basis of our assessment of rate expectations and the signals generated by the performance of lower-rated credit, we favor relative safety in HY allocations. Investors should favor up in credit quality in HY and manage duration as a means of protecting returns from rate fluctuations.

What are implications for leveraged loans?
We continue to like the structural positioning of leveraged loans, but do need to remind readers about the floating-rate nature of the asset class which is priced based on LIBOR. Although there are different inputs, if rate cuts materialize, LIBOR is likely to demonstrate a positive correlation that will erode future income. As focus has shifted toward potential rate cuts, leveraged loan funds have experienced persistent outflows since 4Q18. This has reduced some of the pricing power of borrowers in the asset class, but demand-side technicals may create a drag on total returns.

BB credit has outperformed other tiers of HY credit

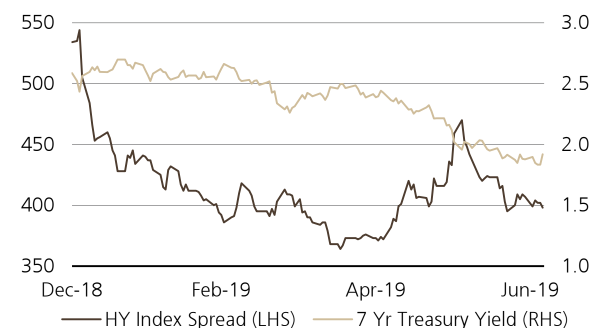
Daily HY year-to-date returns by rating category, in %



Source: BAML, UBS, as of 8 July 2019

7-year Treasury yields vs HY index spreads

HY spreads in bps (lhs), daily yields in % (rhs)



Source: BAML, UBS, as of 8 July 2019

Preferred securities

Will preferred investors stay cool this summer?
At the midway point of 2019, the preferred securities sector has generated impressive year-to-date gains of more than 11%, driven largely by declining interest rates. And it appears that rate risk may have diminished further with the Federal Reserve's latest signalling. Following its 19 June meeting, the Fed alluded to an increase in market uncertainties, and Fed projections for the federal funds rate now show that eight of 17 members forecast at least one rate cut in 2019. At CIO we expect the Fed to cut rates by 50 basis points on 31 July unless we see unusually strong economic data. And while we still expect rates to rise over the next year, we lowered our 12-month forecast for the 10-year Treasury yield to 2.4% from 2.8%.

A more benign rate environment should help support preferred stocks into the summer months. However, in summers past, preferred stock valuations have had a tendency to move toward the "tight side" during the third quarter. Yield premiums can help the sector absorb credit or rate volatility. However, over the past three years, preferred sector yield premiums hit the lows for the year in July through September. And in each of the past three years, fourth-quarter performance was the year's worst. Specifically, the USD 25 par preferred sector saw yield spreads reach 52-week lows in September 2018 followed by a loss of 4.4% in the fourth quarter. There was a similar pattern two years earlier, when yield premiums troughed in September 2016 and then a 4.2% loss followed in the fourth quarter. In 2017, yield spreads hit the lows in July, which preceded marginal monthly gains of 0.5% or less for the remainder of the year (and a fourth-quarter gain of just 0.4%).

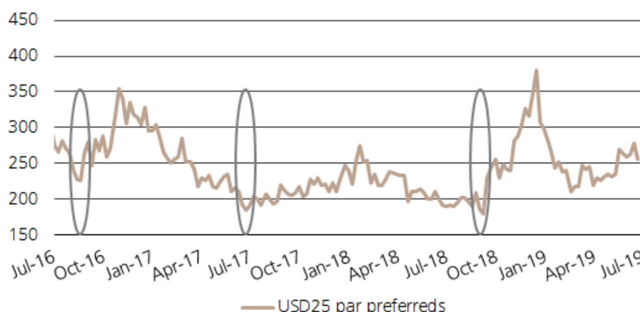
So far, however, overall valuation seems fair. Price appreciation has been tempered and not excessive. ETF inflows, which can occasionally amplify performance, have picked up but not to extremes. Therefore, against a backdrop of plunging Treasury yields, we have actually seen some widening in yield spreads. This may buffer near-term volatility.

In the months ahead, if yield premiums tighten toward historically lower levels, preferreds may see a pullback if yields then suddenly and rapidly rise to meaningfully higher levels due to higher interest rates or rising credit spreads (i.e., risk aversion). But so far preferred sector valuation is beginning the third quarter at reasonable levels.

We continue to favor fixed-rate preferreds with above-average coupons and F2Fs with longer-term call dates. Specifically, our preference is for those F2Fs with at least four years of call protection, high reset spreads, and strong prospectus language.

Preferred valuations are reasonable

yield spread over Treasuries in basis points

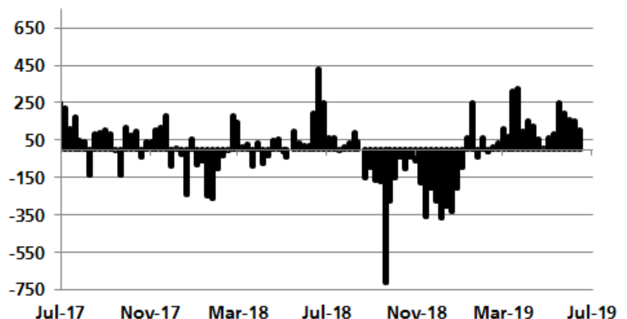


Source: Bloomberg, ICE BAML, UBS, as of 5 July 2019

Based on adjusted-yield of Core Plus Fixed Rate Preferred Index

Positive, steady ETF flows have been supportive

flows in USD mn



Source: Bloomberg, ICE BAML, UBS, as of 9 July 2019

Taxable municipal bonds

Taxable munis lag stronger rally seen in corporate securities

Over the past month, taxable munis continued to rally but lagged the sharper gains seen in the investment grade corporate debt market. As a point of reference, in June, taxable munis gained almost 1%. At the same time, corporate debt posted stronger results (+2.3%).

Reflecting these recent gains, corporate debt (+9.6%) has now outperformed taxable munis by a modest amount (+8.5%) on a year-to-date basis through 9 July 2019 as shown in the chart below.

Taxable muni issuance remains light

In June, only USD 1.3bn of taxable municipal bonds was issued. By comparison, the pace of taxable muni bond sales was higher (USD 1.8bn) one year earlier. That said, on a year-to-date basis, taxable muni issuance is up by a modest amount (+3.3%) from last year's levels (to USD 14.4bn from USD 13.9bn). At the same time, muni new issue supply as a whole (USD 168.8bn) is now closely aligned (+1.9%) with the volume seen for the first six months of 2018 (USD 165.7bn).

New municipal bond sales subject to the alternative minimum tax (AMT) increased over the past month (to USD 3.2bn from USD 2.3bn in June 2018). Year-to-date, AMT issuance is up by 14.3% from last year's levels (to USD 9.9bn from USD 8.7bn). Following the Tax Cuts and Jobs Act of 2017, fewer individuals are now subject to the AMT. As a result, the potential buyer base for these bonds has broadened.

Deal recap

Since our last monthly update, **New York City Housing Development Corporation** (Aa2) issued USD 175mn in taxable sustainable neighborhood revenue bonds as part of a larger issuance. The taxable portion of the loan included bonds with maturity dates ranging from one year through 30 years and an additional longer-dated bond maturing in 35 years. The bonds due in 2044 were priced with a 3.77% coupon at par (115bps over the 30-year US Treasury benchmark).

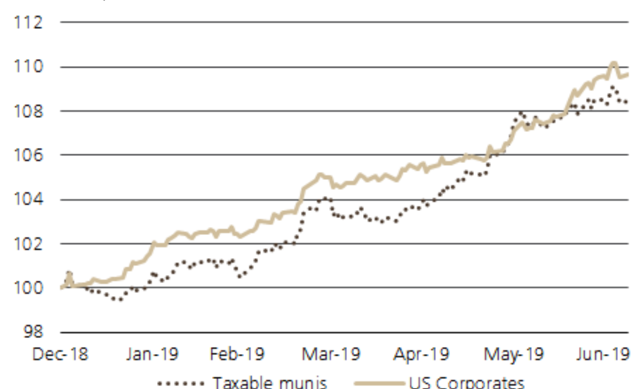
In mid-May, the **City of Austin, Texas Electric Utility System** (Aa3/AA/AA) brought to market USD 464.5mn in taxable revenue bonds. The taxable muni deal included bonds with maturity dates ranging from six months through 12 years. The bonds due in five years were priced with a 2.524% coupon at a price of par, representing a spread at issuance of 34bps over the 5-year US Treasury benchmark. The longest-dated bonds due in 12 years were priced with a 3.087% coupon at par (70bps over the relevant US Treasury benchmark).

In the early part of April, **Oregon State University** (Aa3) brought to market USD 140mn in taxable general revenue bonds. The taxable bonds were all long-dated bonds with maturity terms in 2043 and 2052. The bonds due in 2052 were priced with a 4.052% coupon and priced at par (112bps over the 30-year US Treasury benchmark).

Taxable munis account for about 9% of total muni new issue supply. As a point of reference, we provide a list of the top 10 taxable muni issuers in the Bloomberg Barclays taxable municipal bond index in the table below.

Taxable munis, Treasuries and Corporates total returns, YTD

Total return, in index value



Source: ICE BAML, UBS, as of 8 July 2019

Top 10 taxable municipal issuers

Issuer	Ratings Moody's	S&P	Fitch
State of California	Aa3	AA-	AA-
State of Illinois	Baa3	BBB-	BBB
Port Authority of NY & NJ	Aa3	AA-	AA-
NJ State Tpke Auth.	A2	A+	A
Bay Area Toll Auth.	Aa3/A1	AA/AA-	AA
University of California	Aa2/Aa3	AA/AA-	AA/AA-
NJ Econ. Dev. Auth.	A2/A3	A+/A	A-
Los Angeles Unified School District	Aa2	A+	NR
NYC Municipal Wtr. Auth.	Aa1	AA+	AA+
Municipal Elect. Auth Georgia	Baa1/Baa2	A/A-	BBB+

Source: Bloomberg Barclays Indices, UBS, as of 30 June 2019

Credit chartbook and key metrics

Fig A1: Investment grade financial and non-financial credit recommendations

Non-financial issues

Issuer	CUSIP	Ticker	Coupon	Maturity	Issue Date	YTW %	Spread bps	Duration yrs	Price	S&P	Amt Out	Sector
1-3 year (short-end)												
AT&T INC	00206RCR1	T	2.800	2/17/2021	2/9/2016	2.80	52	2.17	102.3	BBB	1,172	Communications
CITIGROUP INC	172967KK6	C	2.700	3/30/2021	3/30/2016	2.90	64	2.48	100.0	BBB+	2,550	US banks
CVS HEALTH CORP	126650CT5	CVS	2.125	6/1/2021	5/25/2016	2.56	27	2.01	99.1	BBB	1,750	Consumer, Non-cyclical
ENERGY TRANSFER OPERATNG	29273RAN9	ETP	4.650	6/1/2021	5/12/2011	3.20	71	1.72	102.9	BBB-	800	Energy
FORD MOTOR CREDIT CO LLC	345397XQ1	F	3.200	1/15/2021	11/9/2015	3.61	134	2.33	100.5	BBB	1,150	Consumer, Cyclical
GOLDMAN SACHS GROUP INC	38143U8F1	GS	2.875	2/25/2021	2/25/2016	2.70	43	2.43	99.2	BBB+	2,250	US banks
KINDER MORGAN ENER PART	494550BC9	KMI	5.800	3/1/2021	9/16/2009	3.23	76	2.05	104.0	BBB	500	Energy
VERIZON COMMUNICATIONS	92343VCC6	VZ	3.450	3/15/2021	3/17/2014	2.72	46	2.74	101.1	BBB+	1,343	Communications
Intermediate maturities												
APPLE INC	037833DF4	AAPL	2.750	1/13/2025	11/13/2017	2.85	56	5.25	99.5	AA+	1,500	Technology
ALTRIA GROUP INC	02209SAS2	MO	4.000	1/31/2024	10/31/2013	3.22	96	4.32	103.4	BBB	1,400	Consumer, Non-cyclical
AT&T INC	00206RDC3	T	4.450	4/1/2024	3/17/2016	3.15	83	4.24	105.9	BBB	1,208	Communications
BOARDWALK PIPELINES LP	096630AD0	BWP	4.950	12/15/2024	11/26/2014	3.92	160	4.69	105.1	BBB-	600	Energy
BOEING CO	097023BR5	BA	2.250	6/15/2026	5/18/2016	3.11	74	6.52	94.6	A	400	Industrial
CBS CORP	124857AP8	CBS	3.500	1/15/2025	1/12/2015	3.35	105	4.94	100.8	BBB	600	Communications
COMCAST CORP	20030NBX8	CMCSA	3.000	2/1/2024	1/10/2017	2.86	60	4.34	100.6	A-	1,250	Communications
CVS HEALTH CORP	126650CC2	CVS	4.000	12/5/2023	12/5/2013	3.36	107	3.95	102.7	BBB	1,250	Consumer, Non-cyclical
DOW CHEMICAL CO/THE	260543CJ0	DOW	3.500	10/1/2024	9/16/2014	3.14	85	4.74	101.8	BBB	900	Basic Materials
DUKE ENERGY CORP	26441CAW5	DUK	2.400	8/15/2022	8/10/2017	2.77	52	3.14	98.8	BBB+	500	Utilities
EBAY INC	278642AL7	EBAY	3.450	8/1/2024	7/28/2014	3.29	102	4.58	100.7	BBB+	750	Communications
EXELON CORP	30161NAU5	EXC	3.400	4/15/2026	4/7/2016	3.33	98	6.02	100.4	BBB	750	Utilities
FORD MOTOR CREDIT CO LLC	345397WW9	F	3.664	9/8/2024	9/8/2014	4.54	226	4.85	95.9	BBB	750	Consumer, Cyclical
GENERAL ELECTRIC CO	369604BG7	GE	3.375	3/11/2024	3/11/2014	3.26	99	4.48	100.5	BBB+	750	Industrial
GENERAL MOTORS FINL CO	37045XCD6	GM	3.500	11/7/2024	11/7/2017	3.84	155	5.04	98.3	BBB	750	Consumer, Cyclical
HOME DEPOT INC	437076BC5	HD	3.750	2/15/2024	9/10/2013	2.74	43	4.17	104.5	A	1,100	Consumer, Cyclical
KINDER MORGAN ENER PART	494550BS4	KMI	4.150	2/1/2024	8/5/2013	3.25	94	4.10	103.9	BBB	650	Energy
MCDONALD'S CORP	58013MFE9	MCD	3.350	4/1/2023	3/16/2018	2.84	58	3.60	101.8	BBB+	1,000	Consumer, Cyclical
MICROSOFT CORP	594918BB9	MSFT	2.700	2/12/2025	2/12/2015	2.76	46	5.34	99.7	AAA	2,250	Technology
MONDELEZ INTERNATIONAL	609207AB1	MDLZ	4.000	2/1/2024	1/16/2014	3.18	88	4.11	103.6	BBB	696	Consumer, Non-cyclical
MPLX LP	55336VAG5	MPLX	4.875	12/1/2024	9/27/2016	3.58	124	4.67	106.5	BBB	1,149	Energy
ORACLE CORP	68389XBS3	ORCL	2.950	11/15/2024	11/9/2017	2.95	66	5.06	100.0	AA-	2,000	Technology
PEPSICO INC	713448CT3	PEP	2.750	4/30/2025	4/30/2015	2.71	41	5.33	100.2	A+	1,000	Consumer, Non-cyclical
PHILIP MORRIS INTL INC	718172BM0	PM	3.250	11/10/2024	11/10/2014	2.98	69	5.01	101.4	A	750	Consumer, Non-cyclical
PLAINS ALL AMER PIPELINE	72650RBF8	PAA	3.600	11/1/2024	9/9/2014	3.59	130	5.02	100.0	BBB-	750	Energy
SOUTHERN CO	842587CU9	SO	2.950	7/1/2023	5/24/2016	3.03	77	3.89	99.7	BBB+	1,250	Utilities
VERIZON COMMUNICATIONS	92343VCR3	VZ	3.500	11/1/2024	10/29/2014	3.01	72	4.82	102.4	BBB+	1,742	Communications
WESTERN MIDSTREAM OPERAT	958254AB0	WES	4.000	7/1/2022	6/28/2012	3.34	104	2.73	102.0	BBB-	670	Energy

Financial issues

Issuer	CUSIP	Ticker	Coupon	Maturity	Issue Date	YTW %	Spread bps	Duration yrs	Price	S&P	Amt Out	Sector
Senior Notes						3.20	88	5.55	103.8	A-	1,793	
BANK OF AMERICA CORP	06051GFS3	BAC	3.875	8/1/2025	7/30/2015	3.20	89	5.46	100.6	BBB+	1,500	US banks
CITIGROUP INC	172967JP7	C	3.300	4/27/2025	4/27/2015	3.52	121	5.17	101.3	BBB+	2,250	US banks
GOLDMAN SACHS GROUP INC	38148LAE6	GS	3.750	5/22/2025	5/22/2015	3.17	83	5.31	104.1	A-	2,500	US banks
JPMORGAN CHASE & CO	46625HMN7	JPM	3.900	7/15/2025	7/21/2015	3.27	95	5.51	104.1	BBB+	3,000	US banks
MORGAN STANLEY	6174468C6	MS	4.000	7/23/2025	7/23/2015	3.20	86	5.76	102.0	A-	2,500	US banks
WELLS FARGO & COMPANY	94974BGP9	WFC	3.550	9/29/2025	9/28/2015							US banks
Subordinated Notes						3.50	119	5.36	102.4	BBB+	2,500	
BANK OF AMERICA CORP	06051GFP9	BAC	3.950	4/21/2025	4/21/2015	3.43	110	5.46	111.7	BBB	1,420	US banks
CITIGROUP INC	172967HB0	C	5.500	9/13/2025	9/13/2013	3.69	136	5.71	103.2	BBB-	2,000	US banks
GOLDMAN SACHS GROUP INC	38141GVR2	GS	4.250	10/21/2025	10/21/2015	3.38	110	4.85	102.4	BBB+	3,000	US banks
JPMORGAN CHASE & CO	46625HJY7	JPM	3.875	9/10/2024	9/10/2014	3.63	129	5.58	107.9	BBB	2,000	US banks
MORGAN STANLEY	6174467X1	MS	5.000	11/24/2025	11/22/2013	3.14	78	6.31	99.8	A-	1,000	US banks
US BANCORP	91159HHM5	USB	3.100	4/27/2026	4/26/2016	3.67	131	6.11	102.7	BBB+	2,437	US banks
WELLS FARGO & COMPANY	94974BFY1	WFC	4.100	6/3/2026	6/3/2014	3.20	88	5.55	103.8	A-	1,793	US banks

Source: UBS, Bloomberg, as of 7 May 2019

Fig A2: Select preferred securities

Security Name	Symbol/ CUSIP	Last Price	Next Call Date	YTW (%)[1]	YTM / CY (%)[2]	YTC (%)	Eff Dur[3]
Attractive $1000 par fixed-to-floating coupon (pays qualified dividend)							
Citigroup 6.125% fixed to call date; then 3m LIBOR+447.8bps	172967KD2	$102.70	11/15/2020	3.90%	6.40%	3.90%	1.3
Bank of America 6.10% fixed to call date then 3m LIBOR+389.8bps	060505EN0	$108.60	3/17/2025	4.40%	5.60%	4.40%	5.0
Wells Fargo & Co. 5.875% fixed to call date; then 3mo LIBOR+399bps	949746RN3	$108.90	6/15/2025	4.10%	5.60%	4.10%	5.2
Citigroup 6.25% fixed to call; then 3m LIBOR+451.7bps	172967KM2	$110.10	8/15/2026	4.50%	6.00%	4.50%	5.9

Source: UBS, Bloomberg, as of 8 September 2016

[1]YTW = "yield to worst" is the lowest estimated yield among possible redemption date scenarios.

[2] YTM calculations for F2Fs uses assumed LIBOR rates based on the forward curve through Bloomberg analytics.

[3]Duration is calculated using Bloomberg analytics

Mortgage securitized product metrics

Fig A3: Spreads for various securitized products (2019 YTD min/max)

Non agency spreads	Current level	YTD min	YTD max
Legacy spreads			
Jumbo fixed	100	100	115
Alt A floater	110	110	125
Option ARM	110	110	125
Current pay subprime	75	75	90
LCF subprime	120	120	135
New issue spreads			
Jumbo 2.0	130	90	135
NPL A1	145	130	170
NPL A2	390	325	390
CMBS spreads	Current level	YTD min	YTD max
New issue on the run spreads			
3yr AAA	43	33	50
5yr AAA	60	53	70
7yr AAA	71	68	85
10yr AAA	83	79	102
AA	135	120	165
A	175	165	225
BBB-	300	295	400
CLO spreads	Current level	YTD min	YTD max
CLO 2.0			
AAA	115	112	132
AA	175	170	210
A	250	235	300
BBB	375	330	400
BB	680	630	775
B	1025	950	1000

Source: BAML, UBS, as of 5 July 2019

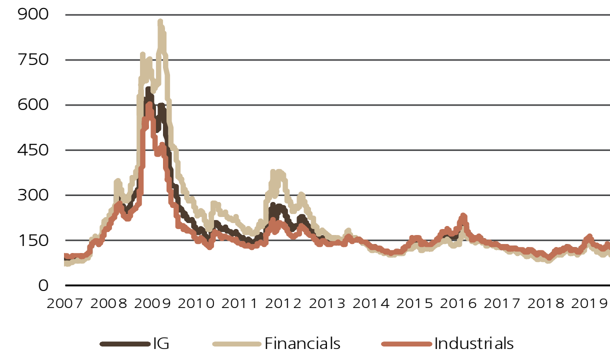
Fig A4: Year to date total return

Non agency	Duration	2019
Prime fixed	3-5yr	4.5
Alt-A ARM	0-1yr	4.3
Option ARM	0-1yr	4.1
Subprime ARM	0-1yr	3.7
CMBS	4.8	6.3
AAA	5.1	6.1
AA-BBB	5.0	7.3
BBB	5.0	8.6
Agency	5.1	5.9
ABS fixed	1.9	2.9
Auto	1.4	2.6
Cards	2.0	2.7
HEL	3.2	5.5
MH	3.0	4.2
ABS floating	0.1	1.4
Cards	0.1	1.7
HEL	0.1	1.7
Student loans	0.1	1.2

Source: BAML, UBS, as of 1 July 2019

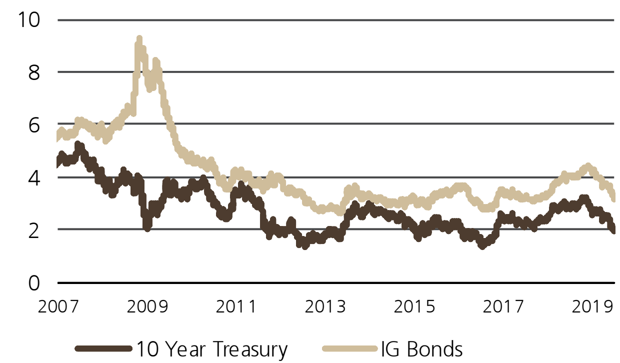
Credit chartbook and key metrics

Fig. A5: IG Financials versus IG Industrials spreads
Spreads in basis points



Source: ICE BofAML, UBS CIO WMR as of 5 July 2019

Fig. A6: IG Corporate and Treasury yields
yield to maturity, in %



Source: Bloomberg, ICE BofAML, UBS WMR as of 5 July 2019

Fig A7: IG corporate total return by maturity
In %

Maturity	YTD	3-month	6-month	12-month
1-3 yrs	3.34	1.51	3.33	4.93
3-5 yrs	6.20	2.70	6.18	7.82
5-7 yrs	8.79	3.90	8.69	10.37
7-10 yrs	10.89	5.02	10.86	11.95
10+ yrs	15.63	7.74	15.25	14.38

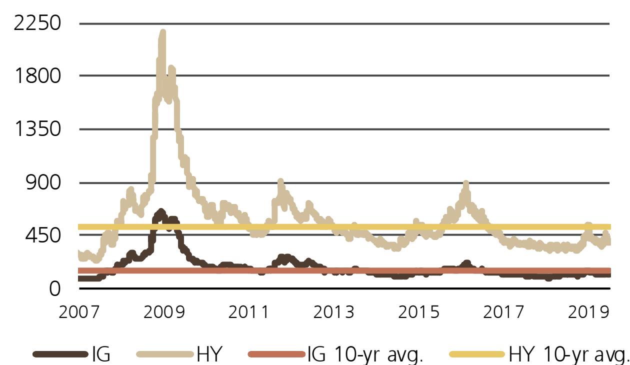
Source: ICE BofAML, UBS CIO WMR as of 5 July 2019

Fig A8: IG corporate yield table by sector and rating
Fixed income yield table (%)

Sector	AAA	AA	A	BBB
All corporates	2.80	2.71	2.97	3.59
Industrials	2.83	2.74	2.93	3.62
Utilities	N/A	N/A	3.36	N/A
Financials	2.49	2.58	2.90	3.51

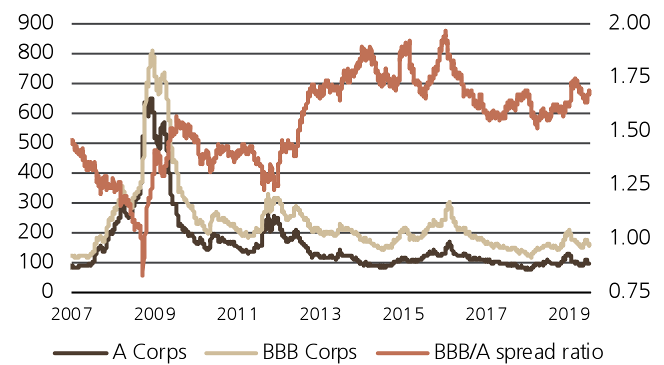
Source: ICE BofAML, UBS CIO WMR as of 5 July 2019

Fig. A9: IG versus HY corporate bond spreads
Spreads in basis points



Source: ICE BofAML, UBS CIO WMR as of 5 July 2019

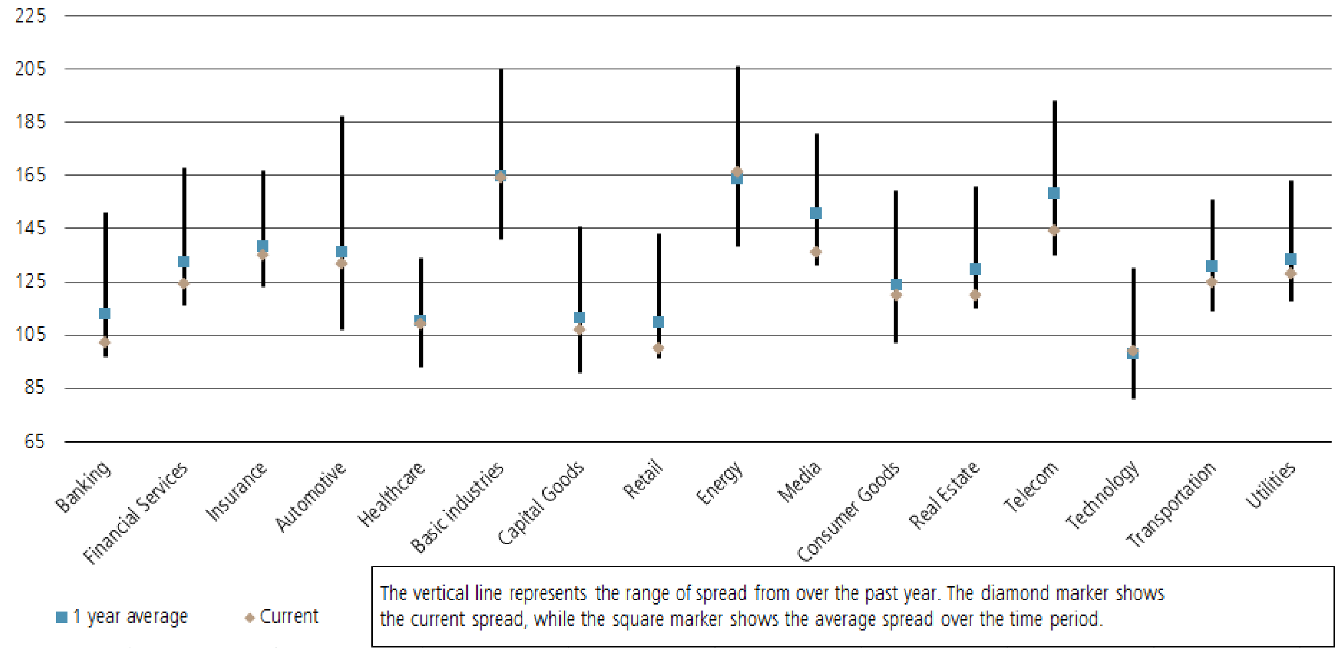
Fig. A10: A-rated & BBB-rated spreads and spread ratios
Spreads in basis points (left hand axis), Ratio in % (right hand axis)



Source: ICE BofAML, UBS CIO WMR as of 5 July 2019

Credit chartbook and key metrics

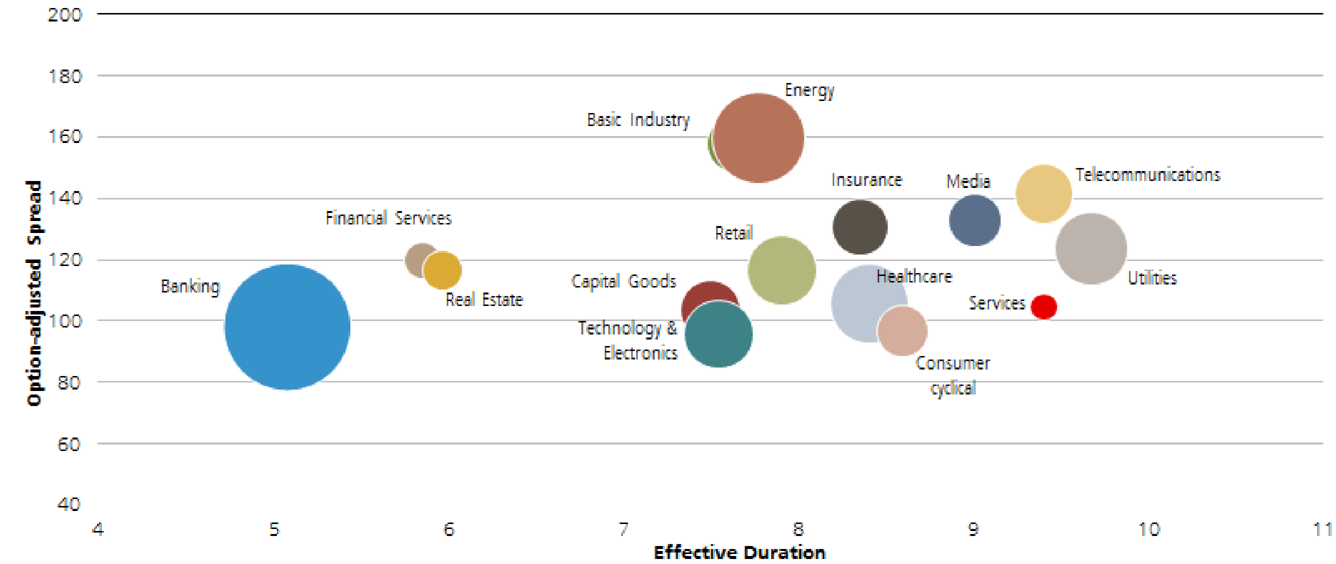
Fig. A12: Individual sector spread changes over the past year



Source: BofAML, UBS, as of 5 July 2019

Fig. A13: IG corporate sector spreads vs. duration

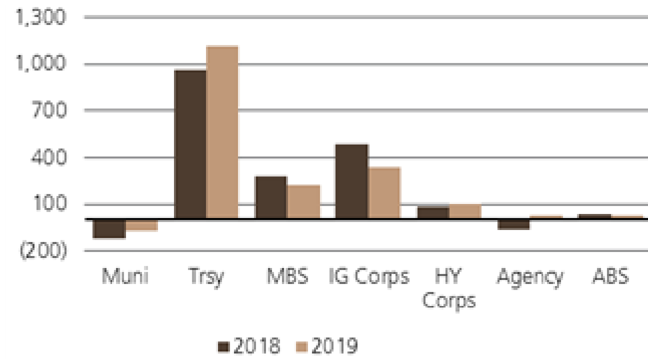
Bubble size is indicative of market value weighting within the IG Master



Source: BofAML, UBS, as of 5 July 2019

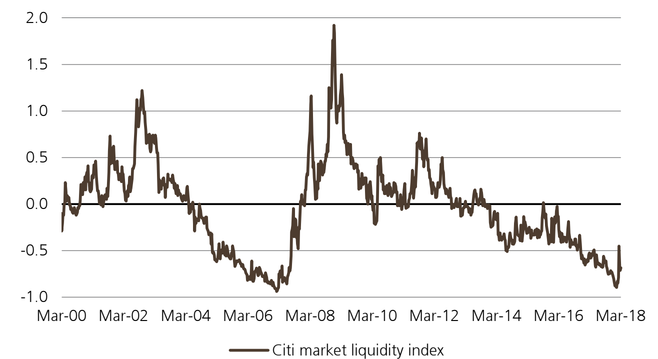
Liquidity chartbook and key metrics

Fig. B1: Bond market supply projections for 2018 and 2019
Historical and projected gross supply, in USD bn



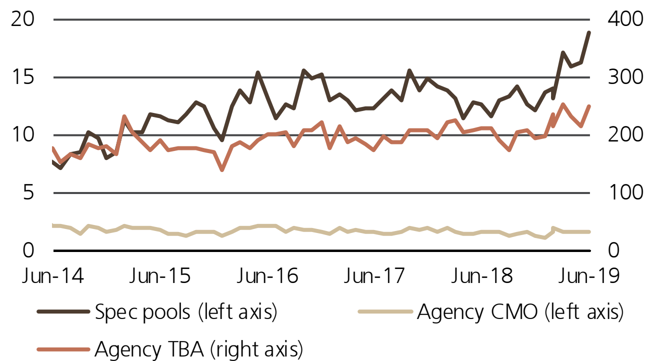
Source: JPM, UBS CIO WMR, as of 1 March 2018

Fig. B2: Bond market liquidity
Citigroup index value



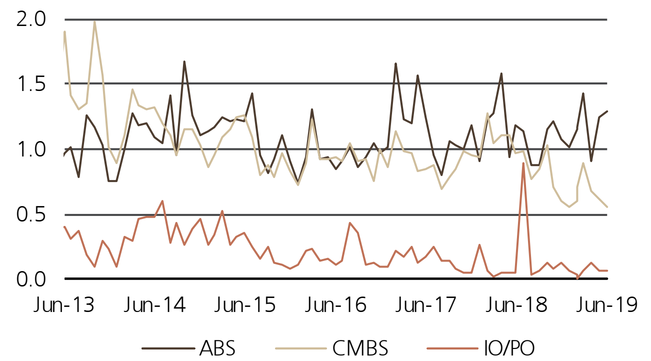
Source: Bloomberg, UBS CIO WMR, as of 1 March 2019

Fig. B3: Trading volume – mortgages
Trading volume in USD bn



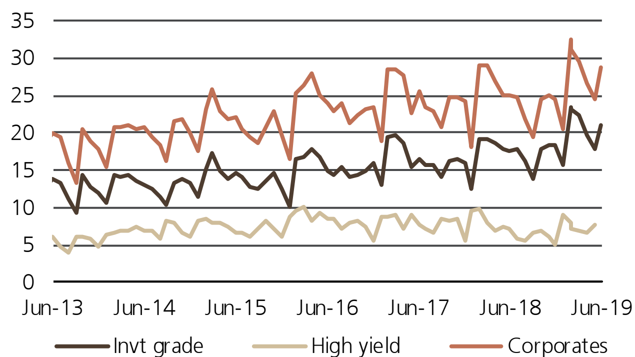
Source: SIFMA, UBS CIO WMR, as of 5 July 2019

Fig. B4: Trading volume – securitized products
Trading volume, in USD bn



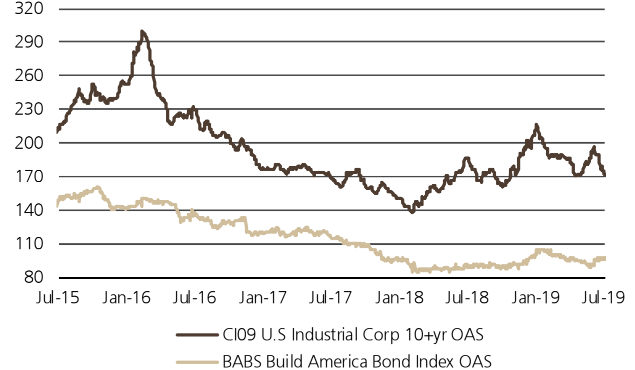
Source: SIFMA, UBS CIO WMR, as of 5 July 2019

Fig. B5: Trading volume – corporates
Trading volume, in USD bn



Source: SIFMA, UBS CIO WMR, as of 5 July 2019

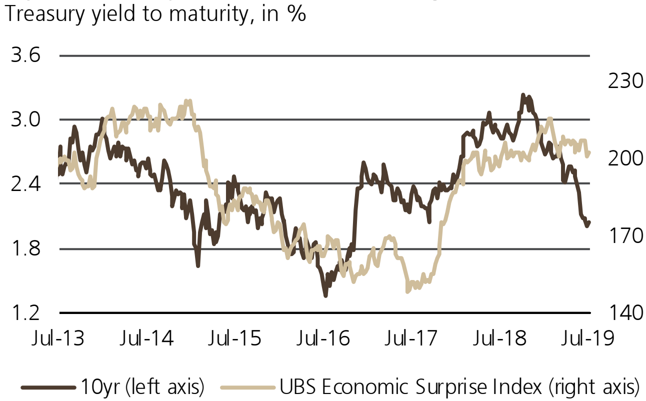
Fig. B6: Industrial corporate and BABs spreads
Option adjusted spreads, in bps



Source: ICE BofAML, UBS CIO WMR, as of 5 July 2019

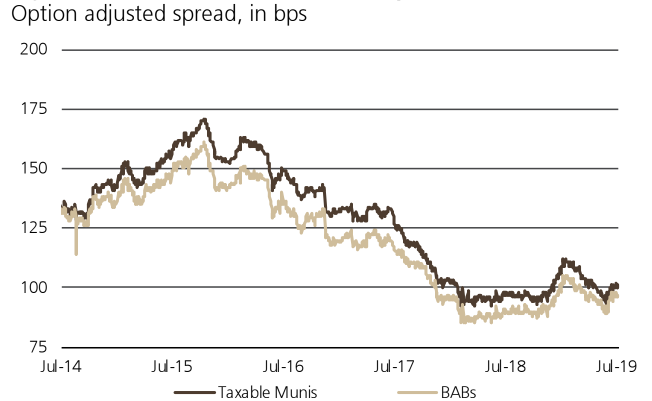
Rates chartbook and key metrics

Fig. C1: Treasury rates and economic surprises
Treasury yield to maturity, in %



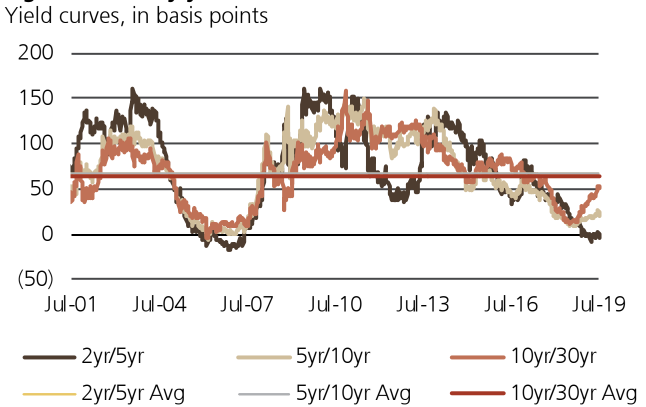
Source: Bloomberg, UBS CIO WMR, as of 5 July 2019

Fig. C2: BABs versus taxable munis spreads
Option adjusted spread, in bps



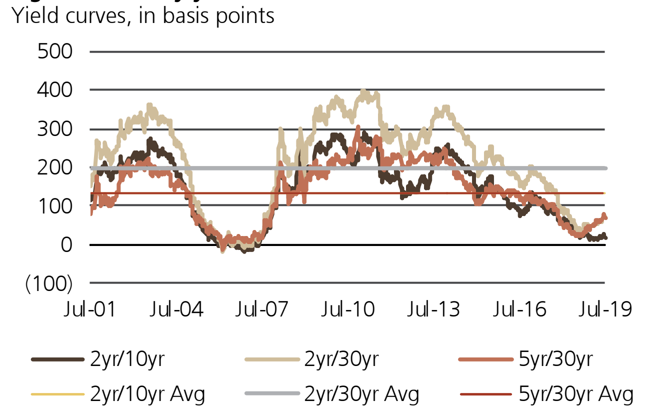
Source: ICE BofAML, UBS CIO WMR, as of 5 July 2019

Fig. C3: Treasury yield curves
Yield curves, in basis points



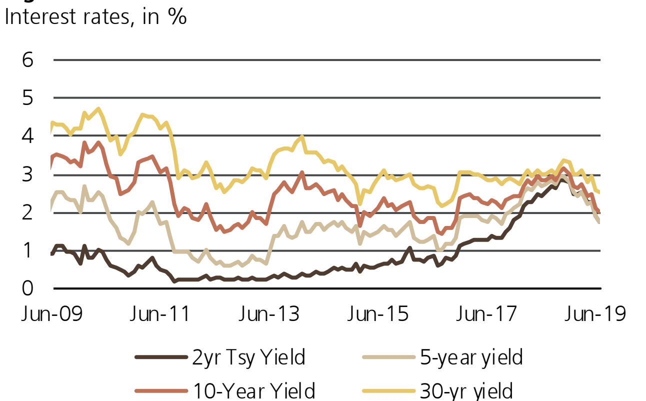
Source: Bloomberg, UBS CIO WMR, as of 5 July 2019

Fig. C4: Treasury yield curves
Yield curves, in basis points



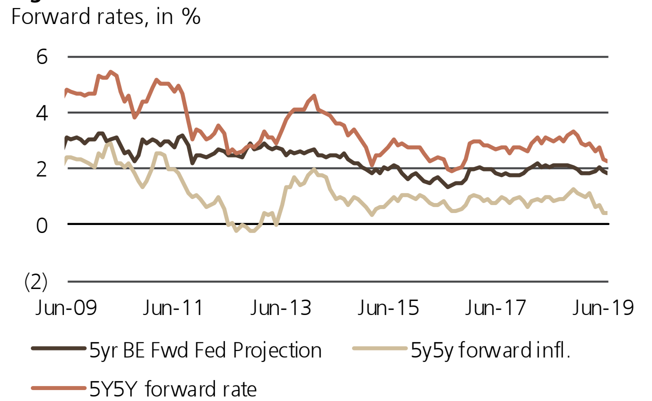
Source: Bloomberg, UBS CIO WMR, as of 5 July 2019

Fig. C5: TIPS nominal rates
Interest rates, in %



Source: Bloomberg, UBS CIO WMR, as of 28 June 2019

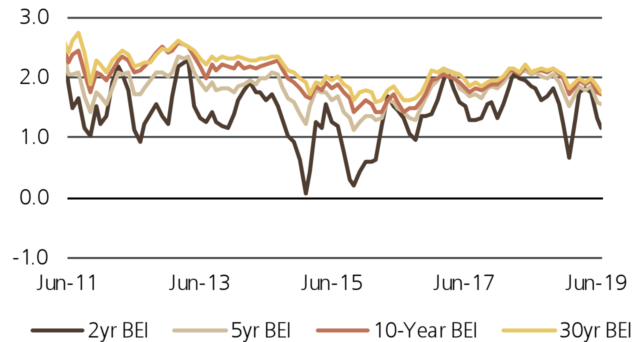
Fig. C6: TIPS forward rates
Forward rates, in %



Source: Bloomberg, UBS CIO WMR, as of 28 June 2019

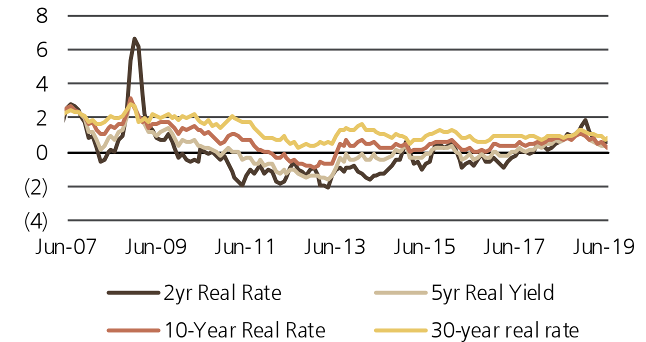
Rates chartbook and key metrics

Fig. C7: TIPS breakeven rates
Breakeven rates, in %



Source: Bloomberg, UBS CIO WMR, as of 28 June 2019

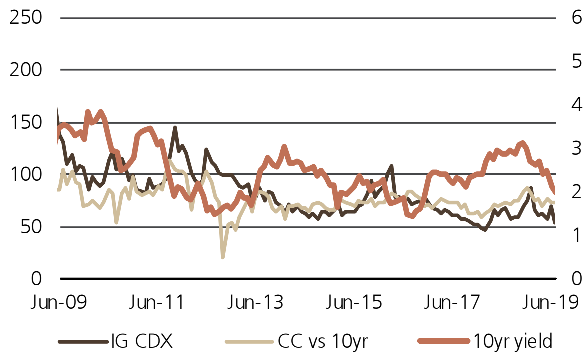
Fig. C8: TIPS real rates
Real rates, in %



Source: Bloomberg, UBS CIO WMR, as of 28 June 2019

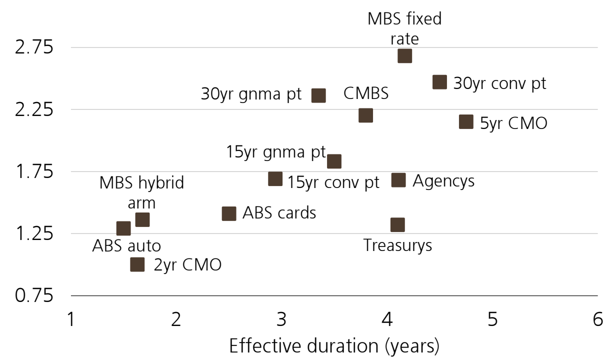
MBS chartbook and key metrics

Fig. D1: Mortgage Basis is rich but maintain a neutral weighting
Spreads, in basis points



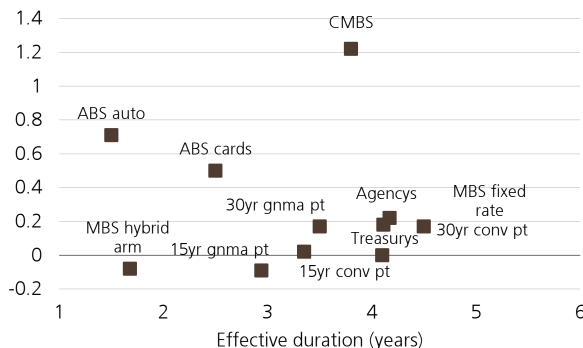
Source: Bloomberg, CDX, UBS CIO WMR, as of 28 June 2019

Fig. D2: Structured product yields
Yield to worst, in %



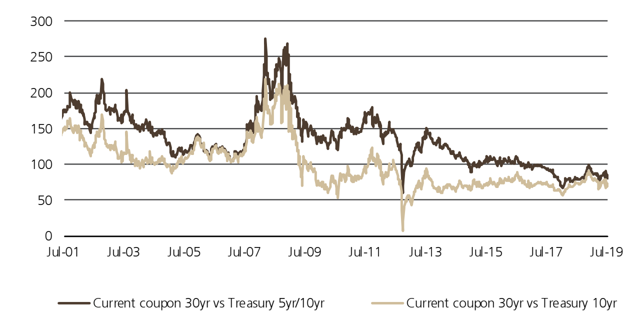
Source: BofAML, Yieldbook, UBS CIO WMR, as of 6 September 2015

Fig. D3: Structured product option adjusted spreads
OAS, in %



Source: BofAML, Yieldbook, UBS CIO WMR, as of 5 July 2019

Fig. D4: Mortgage basis versus Treasury rates
Mortgage spread, in basis points



Source: Bloomberg, UBS CIO WMR, as of 5 July 2019

Detailed asset allocation

Investor risk profile	Conservative			Moderate			Aggressive		
All figures in %	Strategic asset allocation	WMR tactical deviation	Current allocation[1]	Strategic asset allocation	WMR tactical deviation	Current allocation[1]	Strategic asset allocation	WMR tactical deviation	Current allocation[1]
Treasuries	**33.2**	**32.5**	**-0.7**	**18.0**	**16.0**	**-2.0**	**16.9**	**5.5**	**-11.4**
Short	*18.0*	*17.6*	*-0.4*	*9.2*	*7.1*	*-2.1*	*0.0*	*0.0*	*0.0*
Intermediate	*7.6*	*7.5*	*-0.2*	*3.9*	*4.7*	*0.8*	*0.0*	*0.0*	*0.0*
Long	*7.6*	*7.4*	*-0.2*	*3.9*	*4.2*	*0.4*	*16.9*	*5.5*	*-11.4*
TIPS	**9.2**	**9.4**	**0.2**	**8.5**	**10.5**	**2.0**	**4.2**	**4.2**	**0.0**
Short	*3.6*	*2.9*	*-0.7*	*3.3*	*3.3*	*0.0*	*1.6*	*0.7*	*-1.0*
Intermediate	*3.7*	*5.3*	*1.6*	*3.4*	*5.7*	*2.3*	*1.7*	*2.2*	*0.5*
Long	*1.9*	*1.3*	*-0.7*	*1.8*	*1.5*	*-0.3*	*0.9*	*1.4*	*0.5*
Agency debt	**9.2**	**9.2**	**0.0**	**8.5**	**6.4**	**-2.0**	**0.0**	**0.0**	**0.0**
Short	*6.7*	*1.5*	*-5.2*	*6.1*	*3.7*	*-2.5*	*0.0*	*0.0*	*0.0*
Intermediate	*1.5*	*1.1*	*-0.4*	*1.4*	*2.0*	*0.7*	*0.0*	*0.0*	*0.0*
Long	*1.1*	*9.4*	*8.3*	*1.0*	*0.7*	*-0.2*	*0.0*	*0.0*	*0.0*
Mortgage backed securities	**18.5**	**3.9**	**-14.6**	**22.6**	**23.0**	**0.4**	**12.1**	**12.1**	**0.0**
Short	*8.1*	*1.7*	*-6.4*	*9.9*	*10.3*	*0.5*	*5.3*	*3.0*	*-2.3*
Intermediate	*8.4*	*1.8*	*-6.6*	*10.2*	*12.4*	*2.2*	*5.5*	*6.7*	*1.2*
Long	*2.0*	*0.4*	*-1.6*	*2.5*	*0.2*	*-2.3*	*1.3*	*2.4*	*1.1*
MBS/Securitized products	**8.0**	**8.8**	**0.8**	**10.0**	**10.0**	**0.0**	**13.0**	**12.0**	**-1.0**
Short	*3.5*	*3.8*	*0.3*	*4.4*	*5.0*	*0.6*	*5.7*	*3.2*	*-2.4*
Intermediate	*3.6*	*4.0*	*0.4*	*4.5*	*4.9*	*0.4*	*5.9*	*8.9*	*3.0*
Long	*0.9*	*1.0*	*0.1*	*1.1*	*0.1*	*-1.0*	*1.4*	*-0.2*	*-1.6*
Investment grade corporates	**9.7**	**10.2**	**0.5**	**12.5**	**12.0**	**-0.5**	**10.6**	**8.8**	**-1.7**
Short	*3.7*	*3.9*	*0.2*	*4.8*	*5.6*	*0.8*	*4.0*	*2.4*	*-1.7*
Intermediate	*3.0*	*3.1*	*0.2*	*3.9*	*3.2*	*-0.7*	*3.3*	*3.2*	*0.0*
Long	*3.0*	*3.2*	*0.2*	*3.9*	*3.2*	*-0.7*	*3.3*	*3.3*	*0.0*
High yield corporates	**3.9**	**3.9**	**0.0**	**10.5**	**10.9**	**0.4**	**25.2**	**34.0**	**8.8**
BB-rated	*3.9*	*3.9*	*0.0*	*5.7*	*5.8*	*0.0*	*8.6*	*5.4*	*-3.2*
B-rated	*0.0*	*0.0*	*0.0*	*5.7*	*5.7*	*0.0*	*16.6*	*28.6*	*12.0*
Taxable municipals	**4.9**	**4.6**	**-0.3**	**3.5**	**1.9**	**-1.6**	**2.6**	**1.5**	**-1.1**
Preferred securities	**2.0**	**1.5**	**-0.5**	**3.0**	**2.7**	**-0.2**	**7.8**	**10.2**	**2.4**
Bank loans	**1.3**	**1.6**	**0.3**	**3.0**	**6.1**	**3.1**	**7.6**	**11.6**	**4.0**

1The current allocation column is the sum of the strategic asset allocation and the tactical deviation column.

Note: See Appendix for information regarding sources of strategic asset allocations and their suitability, investor risk profiles, and the interpretation of the suggested tactical deviations from the strategic asset allocations.

Source: UBS and WMA AAC, 5 July 2019

Appendix

Explanations about asset allocations

Sources of strategic asset allocations and investor risk profiles
Strategic asset allocations represent the longer-term allocation of assets that is deemed suitable for a particular investor. The strategic asset allocation models discussed in this publication, and the capital market assumptions used for the strategic asset allocations, are based on those developed and approved by the Wealth Management Americas Asset Allocation Committee (WMA AAC).

The strategic asset allocations are provided for illustrative purposes only and are based on those designed by the WMA AAC for hypothetical US investors with a total return objective under three different Investor Risk Profiles ranging from conservative to aggressive. In general, strategic asset allocations will differ among investors according to their individual circumstances, risk tolerance, return objectives and time horizon. Therefore, the strategic asset allocations in this publication may not be suitable for all investors or investment goals and should not be used as the sole basis of any investment decision. Minimum net worth requirements may apply to allocations to non-traditional assets. As always, please consult your UBS Financial Advisor to see how these weightings should be applied or modified according to your individual profile and investment goals.

The process by which the strategic asset allocations were derived is described in detail in the publication entitled *The tilts of FIS - A primer on fixed income asset allocation,* published on 9 April 2015. Your Financial Advisor can provide you with a copy.

Deviations from strategic asset allocation or benchmark allocation
The recommended tactical deviations from the strategic asset allocation or benchmark allocation are provided by the Global Investment Committee and the Investment Strategy Group within CIO Wealth Management Research Americas. They reflect the short- to medium-term assessment of market opportunities and risks in the respective market segments. Positive/zero/negative tactical deviations correspond to an overweight / neutral / underweight stance for each respective market segment relative to their strategic allocation. The current allocation is the sum of the strategic asset allocation and the tactical deviation.

Appendix

Investment Committee

Global Investment Process and Committee Description
The UBS investment process is designed to achieve replicable, high quality results through applying intellectual rigor, strong process governance, clear responsibility and a culture of challenge.

Based on the analyses and assessments conducted and vetted throughout the investment process, the Chief Investment Officer (CIO) formulates the UBS Wealth Management Investment House View (e.g., overweight, neutral, underweight stance for asset classes and market segments relative to their benchmark allocation) at the Global Investment Committee (GIC). Senior investment professionals from across UBS, complemented by selected external experts, debate and rigorously challenge the investment strategy to ensure consistency and risk control.

Global Investment Committee Composition
The GIC is comprised of fourteen members, representing top market and investment expertise from across all divisions of UBS:

Mark Haefele (Chair)	Jorge Mariscal	Mike Ryan
Simon Smiles	Tan Min Lan	Themis Themistocleous
Paul Donovan	Bruno Marxer (*)	Andreas Koester

(*) *Business areas distinct from Chief Investment Office/Wealth Management Research*

WMA Asset Allocation Committee Description
We recognize that a globally derived house view is most effective when complemented by local perspective and application. As such, UBS has formed a Wealth Management Americas Asset Allocation Committee (WMA AAC). WMA AAC is responsible for the development and monitoring of UBS WMA's strategic asset allocation models and capital market assumptions. The WMA AAC sets parameters for the CIO Wealth Management Research Americas Investment Strategy Group to follow during the translation process of the GIC's House Views and the incorporation of US-specific asset class views WMR-A into the US-specific tactical asset allocation models.

WMA Asset Allocation Committee Composition
The WMA Asset Allocation Committee is comprised of six members:

Mike Ryan	Michael Crook	Jason Draho
Leslie Falconio	Laura Kane	David Lefkowitz
Tom McLoughlin	Brian Rose	Jeremy Zirin

(*) *Business areas distinct from Chief Investment Office/Wealth Management Research*

Appendix

Agency credit ratings

S&P	Moody's	Fitch/IBCA	Definitions
Investment grade			
AAA	Aaa	AAA	Issuers have exceptionally strong credit quality. AAA is the best credit quality.
AA+ AA AA-	Aa1 Aa2 Aa3	AA+ AA AA-	Issuers have very strong credit quality.
A+ A A-	A1 A2 A3	A+ A A-	Issuers have high credit quality.
BBB+ BBB BBB-	Baa1 Baa2 Baa3	BBB+ BBB BBB-	Issuers have adequate credit quality, This is the lowest Investment Grade category.
Non-investment grade			
BB+ BB BB-	Ba1 Ba2 Ba3	BB+ BB BB-	Issuers have weak credit quality. This is the highest Speculative Grade category.
B+ B B-	B1 B2 B3	B+ B B-	Issuers have very weak credit quality.
CCC+ CCC CCC-	Caa1 Caa2 Caa3	CCC+ CCC CCC-	Issuers have extremely weak credit quality.
CC	Ca	CC+ CC CC-	Issuers have very high risk of default.
D	C	DDD	Obligor failed to make payment on one or more of its financial commitments. This is the lowest quality of the Speculative Grade category.

Appendix

Statement of Risk

Municipal bonds - Although historical default rates are very low, all municipal bonds carry credit risk, with the degree of risk largely following the particular bond's sector. Additionally, all municipal bonds feature valuation, return, and liquidity risk. Valuation tends to follow internal and external factors, including the level of interest rates, bond ratings, supply factors, and media reporting. These can be difficult or impossible to project accurately. Also, most municipal bonds are callable and/or subject to earlier than expected redemption, which can reduce an investor's total return. Because of the large number of municipal issuers and credit structures, not all bonds can be easily or quickly sold on the open market.
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Fixed income - Bond market returns are difficult to forecast because of fluctuations in the economy, investor psychology, geopolitical conditions and other important variables. Corporate bonds are subject to a number of risks, including credit risk, interest rate risk, liquidity risk, and event risk. Though historical default rates are low on investment grade corporate bonds, perceived adverse changes in the credit quality of an issuer may negatively affect the market value of securities. As interest rates rise, the value of a fixed coupon security will likely decline. Bonds are subject to market value fluctuations, given changes in the level of risk-free interest rates. Not all bonds can be sold quickly or easily on the open market. Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning any securities referenced in this report.

Preferred securities - Prospective investors should consult their tax advisors concerning the federal, state, local, and non-U.S. tax consequences of owning preferred stocks. Preferred stocks are subject to market value fluctuations, given changes in the level of interest rates. For example, if interest rates rise, the value of these securities could decline. If preferred stocks are sold prior to maturity, price and yield may vary. Adverse changes in the credit quality of the issuer may negatively affect the market value of the securities. Most preferred securities may be redeemed at par after five years. If this occurs, holders of the securities may be faced with a reinvestment decision at lower future rates. Preferred stocks are also subject to other risks, including illiquidity and certain special redemption provisions.

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Issuer credit risk rating definitions

Appendix

The UBS CIO issuer credit risk rating reflects the opinion of the relevant UBS CIO analyst regarding an issuer's risk of a near- to intermediate-term dividend deferral on preferred securities, and/or issuer payment default on debt obligations.
Low Risk: The issuer is considered to be in solid financial condition with strong credit fundamentals and low likelihood of a near- to intermediate-term dividend deferral, and/or issuer payment default. The issuer's securities are of generally high quality.
Medium Risk: The issuer is considered to be in adequate financial condition with satisfactory credit fundamentals relative to the near- to intermediate-term dividend deferral, and / or issuer payment default. The issuer's securities are of medium to weaker credit quality and may have higher volatility than those of Low Risk issuers. These instruments should therefore only be held by risk tolerant investors.
High Risk: The issuer is considered to be in weak financial condition with deteriorating credit fundamentals or the state of the issuer's financial condition and credit fundamentals may be uncertain due to volatile market conditions. Sector considerations may be a dominating factor. There is a high likelihood of a near- to intermediate-term dividend deferral, and / or issuer payment default. The issuer's securities are speculative.
Note: Distinctions in the credit quality of individual security instruments may vary based on the maturity of the instrument, as well as the relative priority within an issuer's capital structure. These distinctions will be discussed in our future credit reports, as applicable. In regions outside the United States, the UBS CIO office will map these distinctions to security-level risk flags.

Issuer credit outlook definitions
The UBS CIO issuer credit outlook reflects the opinion of the relevant CIO analyst regarding an issuer's credit quality outlook over the succeeding 12 months. For rated securities, this may include the likelihood of a change in the published rating by a nationally recognized credit rating agency/statistical rating organization.
Improving: We expect the credit profile of the issuer to improve, to an extent that may justify upgrades by rating agencies.
Stable: We do not expect the credit profile of the issuer to change meaningfully.
Deteriorating: We expect the credit profile of the issuer to deteriorate, to an extent that may result in single-notch or even multi-notch credit rating downgrades by rating agencies.

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Appendix

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Rating	Definition
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