

Global Credit Perspectives

2Q 2020

Overview

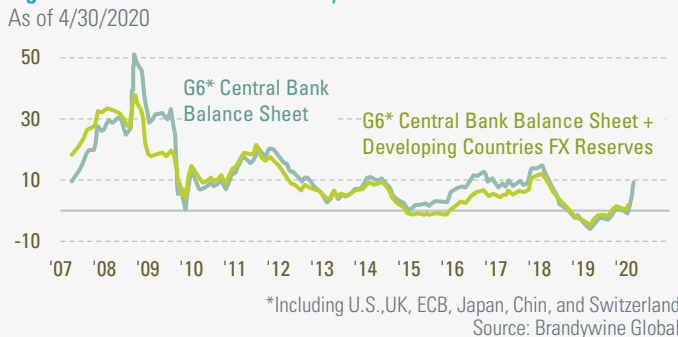
Markets have traversed uncharted territories this past quarter and continue into unknown waters as we enter the second half of 2020. Policy responses from the global central banks and legislators around the globe (Figure 1) have been swift and decisive thus putting a floor under spread assets (specifically investment grade corporate credit) and easing liquidity conditions globally. These actions, exemplified by the quantity of supportive programs (Figure 2) should provide support for credit assets through the balance of the year subject to the discussion further below.

Figure 1 Current Fiscal Support Staggering 50% of GDP: Italy, Germany, Japan



Source: HSBC Global Research, National Governments. Note: Based on latest available breakdowns where publicly available.

Figure 2 Unconventional Monetary Stimulus



PMCCF and SMCCF: \$750 billion toward purchase of investment grade bonds and loans, fallen angels if they were Ig March 22 and U.S. listed corporate bond ETFs

TALF: \$100 billion, non-recourse lending in form of ABS to entities and individuals backed by student, car, credit card loans, and loans guaranteed by SBA. April 9 this GFC facility expanded to included CMBS and newly issued CLOs.

MSNLF and MSELF: \$600 billion in loans for companies in good standing employing up to 10,000 workers with revenues less than \$2.5 billion.

MLF: \$500 billion for purchase of notes of less than 2 years directly from states, counties with population of at least 2 million and cities with population of 1 million.

PPP: \$350 billion in credit extended to institutions that originate small business loans under the Congress' PPP program. The program designed to keep people on payroll.

Primary Deal Credit Facility: Fed lends ON and 90-day term funding directly to its 24 primary dealers secured by Treasury, agency and agency MBS

Dollar Swap Lines: Swap dollars for FX up to \$450 billion for Aust, Brazil, Skorea, Mex, Sing, Sweden, Denmark, Norway, and NZ. In addition to permanent swap lines with Canada, England, Japan, Europe, and Switzerland.

FIMA Repo Facility: Allow FIMA account holders to enter into repurchase agreements in order to temporarily exchange holdings of Treasury securities held with the Federal Reserve for U.S. dollars. NY Fed has roughly 200 account holders, mostly CB's and monetary authorities. Could be roughly \$5 trillion in collateral.

Massive Global Fiscal Stimulus: Current estimate at roughly 5%-6% of global GDP.

Overview.....1
 Index Summary.....3
 Investment Grade.....5
 Structured Credit.....7
 Global High Yield & Leveraged Loans.....9
 Emerging Markets.....10

Brian Kloss, JD, CPA
 Tracy Chen, CFA, CAIA

Michael Arno, CFA
 Andrew Bogle
 Sean Brooks, CFA, FRM
 Renato Latini, CFA
 Kevin O'Neil
 William Vaughan*

Darren Clipston, CFA
 Joffre Wells



Brandywine Global Investment Management, LLC
 1735 Market Street, Suite 1800 / Philadelphia, PA 19103

North America: 215 609 3500 (U.S.)
 416 860 0616 (Canada)
 Europe: +44 20 7786 6360
 Asia: +65 6536 6213

brandywineglobal.com

* Employee of Brandywine Global Investment Management (Europe) Limited. In rendering portfolio management services, Brandywine Global Investment Management, LLC may use the portfolio management services, research, and other resources of its affiliates.

For Institutional Investors Only

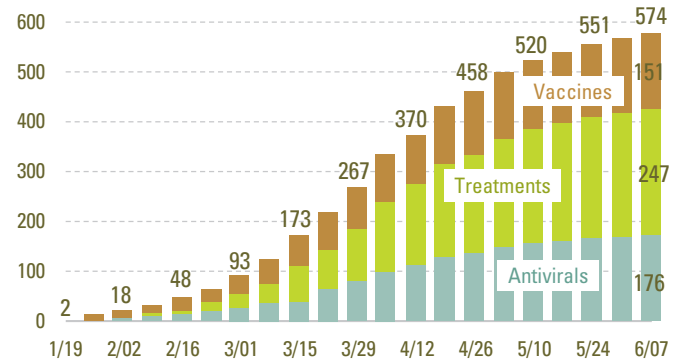
Challenging further spread tightening across credit spreads is the pace and strength of the opening of the global economy. The pandemic has posed risks to global growth with immediate concerns in sectors such as energy, hospitality, travel, and leisure. Investors should expect an uneven reopening of the economy as the virus may flare up from time to time in different locations thus stunting the economic recovery. Until a vaccine is created/discovered (Figure 3), focus should be around managing and living with the virus to minimize risks to the population and the economy.

Risks abound... investors must assess the impact on business models going forward and assign probabilities to the various outcomes. Similar to how the virus moved from east to west, we have seen the economic rebound start in the east and move west as the economies reopen (Figure 4). Some industry sectors will benefit while others will struggle and need to adapt. Technology should benefit significantly as companies look to enhance margins and productivity through the deployment of more automated and efficient technology. Airlines and hotels may struggle as business and leisure travelers are slower to return to pre-COVID-19 levels. Similarly, management teams will reassess their need for office space as work from home may become a more attractive option given the successes some have had to date. To that extent, investors must assess this new environment to determine the viability and wherewithal of the companies to operate and survive. Liquidity will be paramount as we traverse the second half of 2020 and move into 2021.

We continue to favor spread assets with strong business models and focused management teams. Depending on risk tolerances, extending duration may be an option for certain investors. Bearing in mind, the next risk on the horizon is the U.S. presidential election... to be continued.

Figure 3 Number of Therapies (Cumulative)

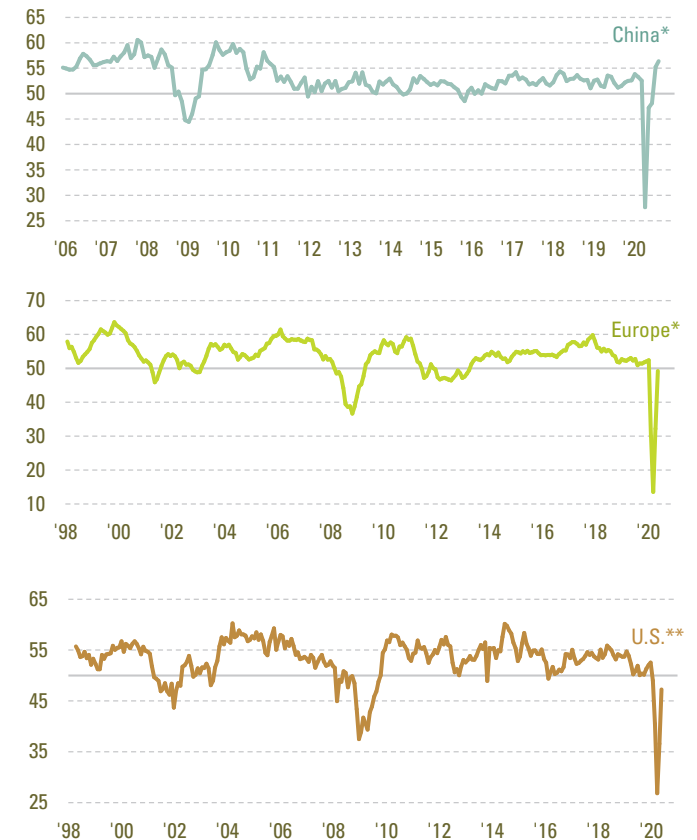
As of 4/30/2020



Source: Biotechnology Innovation Organization

Figure 4 Composite PMI

As of 6/30/2020



*Seasonally adjusted
 **Prior to Oct 2009: using ISM Composite PMI, after Oct 2009 using Markit Composite PMI
 Source: Markit Economics

Index Summary

AS OF JUNE 30, 2020

INVESTMENT GRADE

- After record spread widening and losses during the first quarter, investment grade credit benefited significantly from central bank and government action, and the second quarter provided some of the best returns on record.
- IG spreads tightened during the quarter to 152 basis points (bps) from 289 bps.. Yields fell to an all-time low of 1.78% at the end of the quarter.
- Credit Rating Agency downgrade volume was high due to recent events but muted compared to historical periods of stress, largely because of the agencies' tendency to look through recent economic weakness to stimulus levels and signs of easing of capital markets access.
- Global Credit had its largest-ever quarter for issuance, over \$1.2 billion, dominated by U.S. based corporates in the industrials and consumer discretionary sectors.

SPREAD/YIELD SUMMARY (bps/%)	6/30/2019		4/30/2020		5/31/2020		6/30/2020	
	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD
ICE BAML Global Corporate Index	122	2.47	209	2.36	184	2.14	159	1.87
ICE BAML AA Global Corporate Index	67	1.80	121	1.38	98	1.19	88	1.06
ICE BAML A Global Corporate Index	96	2.19	164	1.93	143	1.74	123	1.53
ICE BAML BBB Global Corporate Index	155	2.83	267	2.94	237	2.67	205	2.32
ICE BAML U.S. Corporate Index	122	3.22	217	2.79	187	2.49	160	2.22

PERFORMANCE SUMMARY (%)	QTD	YTD	1 YEAR	3 YEAR	5 YEAR	10 YEAR
ICE BAML Global Corporate Index	8.68	2.65	5.73	4.64	4.47	4.45
ICE BAML AA Global Corporate Index	6.33	3.64	5.56	4.16	3.79	3.43
ICE BAML A Global Corporate Index	7.44	3.67	6.24	4.66	4.37	4.15
ICE BAML BBB Global Corporate Index	10.28	1.47	5.18	4.66	4.68	5.12
ICE BAML U.S. Corporate Index	9.27	4.84	9.30	6.27	5.69	5.47

STRUCTURED CREDIT

- Reductions in the rate of COVID-19 infections and hospitalizations and the subsequent reopening of local economies put investors in a positive mindset, which allowed markets to rebound sharply in the second quarter. While near-term technicals appear positive, considerable risks remain on the horizon, including a recent spike in new COVID-19 infections and the impending expiration of current government support programs.
- Government support and forbearance from servicers helped to keep initial delinquencies in the residential space lower than feared, encouraging investors. Residential housing market fundamentals have held up well due to historically low mortgage rates and the lack of housing supply. Retail, lodging, and potential office sectors in commercial mortgage-backed securities (CMBS) are still facing challenges as a result of social distancing.
- After initially lagging the recovery seen in equities and corporate credits, liquidity returned to structured credit markets as buyers stepped in to take advantage of historically wide spreads. The rebound in performance over the quarter has brought spreads of some structured credit products close to comparable corporates, although some sectors remain distressed.
- We believe that good relative value abides in some sectors and that spreads could compress further so long as credit concerns stay in check. However, we remain cautious due to uncertainty from the recent rise of COVID-19 infections as well political unknowns relating to the upcoming presidential election.

SPREAD/YIELD SUMMARY (bps/%)	6/30/2019		4/30/2020		5/31/2020		6/30/2020	
	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD
ICE BAML U.S. Mortgage-Backed Securities Index	55	2.75	85	1.35	83	1.39	85	1.45
ICE BAML U.S. Fixed Rate CMBS Index	85	2.69	242	2.81	223	2.58	190	2.25

PERFORMANCE SUMMARY (%)	QTD	YTD	1 YEAR	3 YEAR	5 YEAR	10 YEAR
ICE BAML U.S. Mortgage-Backed Securities Index	0.81	3.62	5.80	4.05	3.29	3.08
ICE BAML U.S. Fixed Rate CMBS Index	4.50	3.26	4.90	4.54	3.88	4.64

GLOBAL HIGH YIELD & LEVERAGED LOANS

- Global High Yield outperformed U.S. HY
- Lower rated bonds outperformed the higher-quality segment of the index
- GHY index generated strongest return since 3Q09
- Energy, leisure, and autos posted strong returns after a very weak first quarter
- Default rate continues to increase, dominated by energy and retail sectors

SPREAD/YIELD SUMMARY (bps/%)	6/30/2019		4/30/2020		5/31/2020		6/30/2020	
	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD
ICE BAML Global High Yield Index	418	5.70	783	8.08	676	7.00	643	6.67
ICE BAML BB Global High Yield Index	270	4.11	569	5.95	495	5.20	478	5.04
ICE BAML B Global High Yield Index	488	6.56	891	9.15	753	7.75	717	7.38
ICE BAML CCC & Lower Global High Yield Index	1059	12.15	1848	18.65	1581	16.02	1455	14.75
ICE BAML U.S. High Yield Index	407	6.06	763	8.06	654	6.93	644	6.85
ICE BAML European High Yield Index	371	3.12	634	5.73	557	5.07	521	4.65
Credit Suisse Leveraged Loan Index	460	6.32	847	8.86	734	7.63	700	7.25

PERFORMANCE SUMMARY (%)	QTD	YTD	1 YEAR	3 YEAR	5 YEAR	10 YEAR
ICE BAML Global High Yield Index	11.50	-4.22	-0.58	2.96	4.63	6.48
ICE BAML BB Global High Yield Index	11.08	-1.92	2.09	4.02	5.06	6.82
ICE BAML B Global High Yield Index	11.68	-5.70	-2.38	2.44	4.10	6.08
ICE BAML CCC & Lower Global High Yield Index	13.04	-13.18	-10.50	-1.82	3.37	5.78
ICE BAML U.S. High Yield Index	9.61	-4.78	-1.10	2.94	4.58	6.48
ICE BAML European High Yield Index	13.87	-4.97	-3.24	0.95	3.42	5.54
Credit Suisse Leveraged Loan Index	9.71	-4.76	-2.27	2.13	2.94	4.34

EMERGING MARKETS (EM)

- Massive balance sheet expansion from the Federal Reserve (Fed), the easing of coronavirus restrictions, and sizable fiscal and monetary stimulus packages around the world, including emerging markets, created a potent cocktail to help ease investor concerns.
- The rally in emerging market local-and-hard currency markets helped re-open primary markets for EM sovereign and corporate issuers with strong demand for higher-quality segments of the markets initially and eventually for EM high yield market in May.
- With the decline in U.S. yields relative to the G-9, coupled with continued Fed liquidity and a global recovery, we believe emerging market currencies could be a driver for EM local markets going forward.

SPREAD/YIELD SUMMARY (bps/%)	6/30/2019		4/30/2020		5/31/2020		6/30/2020	
	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD	SPREAD	YIELD
JP Morgan (JPM) CEMBI Broad	274	5.07	504	5.67	433	5.09	386	4.71
JPM EM Bond Index Global Diversified	364	5.74	557	6.29	463	5.43	432	5.13
JPM GBI-EM Broad Diversified	-	5.90	-	4.96	-	4.57	-	4.54

PERFORMANCE SUMMARY (%)	QTD	YTD	1 YEAR	3 YEAR	5 YEAR	10 YEAR
JPM CEMBI Broad	11.47	0.30	4.35	4.73	5.39	6.12
JPM EM Bond Index Global Diversified	11.21	-1.87	1.52	3.31	5.12	5.82
JPM GBI-EM Broad Diversified	7.63	-7.01	-3.18	-0.04	1.79	1.83

Investment Grade

The ICE BAML Global Corporate Index returned 7.88% in the first quarter while its yield tightened to 1.87% and spreads closed at quarter end at 159 bps. For the trailing 12 months, the index returned 6.41%. Lower-quality investment grade bonds (BBB) returned 9.50% for the quarter and 5.81% for the trailing 12 months, better than AA and A-rated corporate bonds, which returned -5.11% and 6.69% for the quarter and 6.35% and 6.93% for the trailing 12 months, respectively.

After world-wide synchronized pandemic lockdowns led in March to one of the worst months on record for corporate credit performance, the second quarter was one of the best on record. This recovery was driven by coordinated global central bank programs of liquidity injections, swap lines, lending programs, and bond purchases. G4 Central Bank balance sheets as a percentage of gross domestic product (GDP) rose from roughly 35% of GDP at the start of the year to nearly 50% at the end of the quarter (Figure 5).

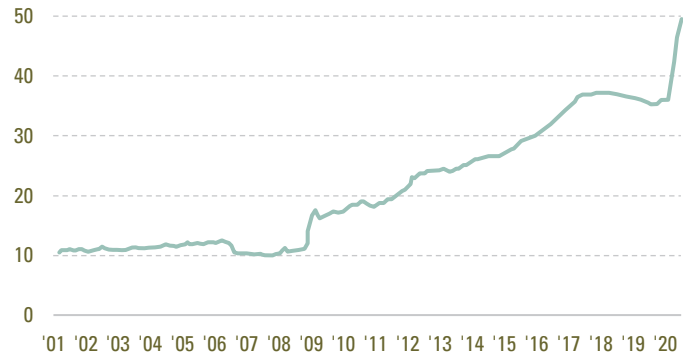
Although timely and unparalleled central bank intervention and fiscal stimulus from governments around the world caused unprecedented spread widening in the first quarter, central banks were able to ensure that spreads did not widen to 2008/2009 levels (Figure 6). The cap in spreads allowed high-quality corporate issuers to come to market to raise cash, push out maturities, and refinance emergency revolver facilities. This, combined with a healthy new issue premium, led to a surge in investor interest and spreads tightening in Q2.

As a result of the supportive environment and investors' eagerness to put cash to work, corporate bond issuance reached record levels in Q2 both in terms of dollar amount and number of issuers coming to the market. Globally, over \$1.2 billion of corporate bonds were issued this quarter, including nearly 3,500 separate issues (Figure 7), with some corporates coming to the market on multiple occasions. This increased leverage across the board and enabled companies to raise record amounts of cash to weather the economic shutdown and prepare to rebound as economies re-open.

Issuance has been concentrated across higher-rated industrials, consumer discretionary, and energy sectors, which, combined, made up over 50% of Q2 issuance (Figure 8). The U.S. made up near 50% of this global issuance in corporates.

Figure 5 G4 Central Bank Balance Sheet

% of GDP, As of 6/30/2020



Source: Bloomberg (© 2020, Bloomberg Finance LP)

Figure 6 Historical Credit Spreads

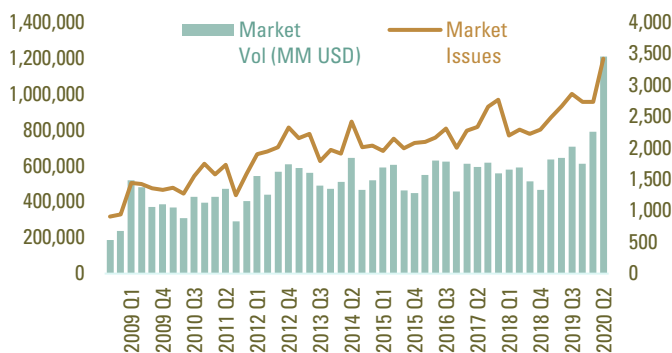
As of 6/30/2020



Source: ICE BAML

Figure 7 Historical Quarterly Issuance

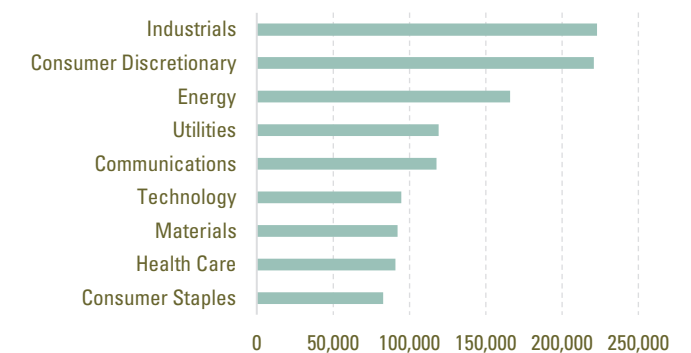
As of 6/30/2020



Source: Bloomberg (© 2020, Bloomberg Finance LP)

Figure 8 Q2 Issuance by Sector

As of 6/30/2020



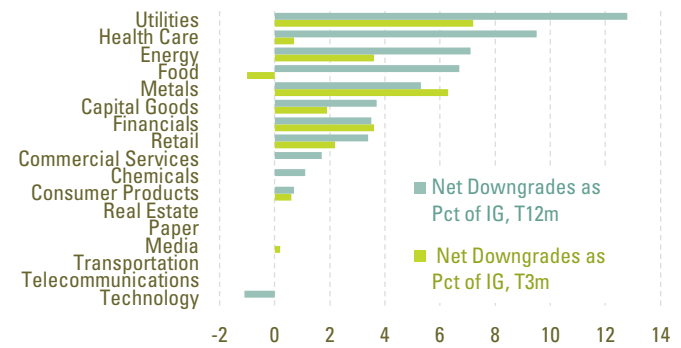
Source: Bloomberg (© 2020, Bloomberg Finance LP)

The global economic shutdown combined with the rapid fall in energy prices resulting from OPEC actions lead to material rating downgrades from the credit-rating agencies (CRAs). There were significant downgrades in the energy sector as well as in utilities, metals, and retail (Figure 9). Nearly \$134 billion bonds moved from the IG index to the HY index (Occidental, Ford, etc.); \$56 billion of these fallen angels were in the commodity sector; and \$78 billion in ex commodities (Figures 10 and 11). Weaker names dropping out of the index and massive issuance of higher-quality IG names had the perverse effect of actually improving the quality of the investment grade index.

Although widespread, the CRA downgrade action has been contained to certain sectors, and many of the agencies are expecting a strong rebound in the third and fourth quarter. Given this containment as well as the supportive monetary and fiscal responses from central banks and governments, there is a chance, barring a prolonged continuation of current economic conditions, that we may have seen the worst of the rating action for the time being.

Figure 9 Net Downgrades

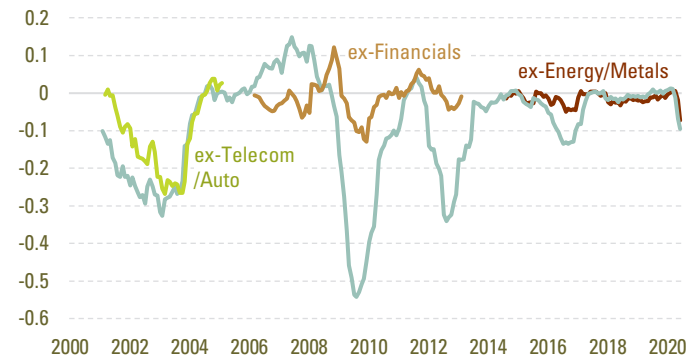
As % of Investment Grade, As of 6/30/2020



Note: Total face value of downgraded bonds less face value of upgraded bonds, as a percent of sector face value, over 3m and 12m horizons. Source: Deutsche Bank

Figure 10 Rating Notches

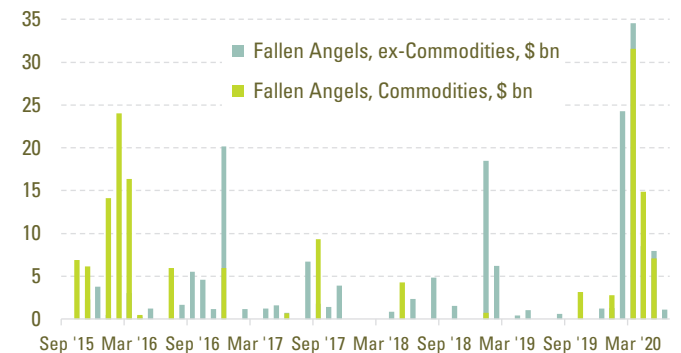
Issuer Weighted, Trailing 12 Months, As of 6/30/2020



Note: One-year trailing sum of all IG issuers' monthly changes in aggregate issuer ratings, calculated in number rating notches. A negative number indicates IG issuers were net downgraded. Source: Deutsche Bank

Figure 11 Fallen Angels

\$Billions, As of 6/30/2020



Source: Deutsche Bank

Structured Credit

OVERVIEW

Responding to the economic damage caused by the outbreak of COVID-19 in the U.S., the Fed stepped in to offer significant monetary support to capital markets. However, as this support was largely focused on corporates, structured products initially lagged in the performance rebound that began at the start of the quarter amid a slow recovery of liquidity. Investor sentiment continued to improve throughout the quarter as the federal government followed with support to both small businesses and laid off workers, and local stay-at-home orders issued by state governments saw initial success in flattening the infection curve. Structured markets eventually rebounded across sectors and credit levels in May and June, recovering a meaningful portion of the losses from 1Q. Spreads of many structured product types are now trading close to equivalent corporates, though some relative value remains in certain segments.

Near-term technicals appear supportive of further spread tightening based on increased investor interest and tight supply due to high levels of mortgage prepayments and slowdown in new issuance. Continued support from the Fed, stable residential housing prices, and low mortgage rates also contribute to a favorable investing environment for structured products. However, these positive factors are offset by significant risks that threaten continued recovery. A recent spike in new COVID-19 infections has caused many states to slow or reverse their reopening plans. Uncertainty exists about the speed and level of renewed government support as current programs are due to expire in July, and delinquencies continue to increase, particularly in the commercial mortgages. Renewed global tensions and the potential Democratic sweep bring added political risks.

As a result, we remain cautiously optimistic and generally maintain our current positioning. We will continue to seek further relative value opportunities and realize recent gains where we see the risk-reward as less positive going forward.

U.S. RESIDENTIAL MORTGAGE-BACKED SECURITIES (RMBS)

New issuance of agency mortgaged-back securities (MBS) totaled \$742 billion in 2Q 2020 compared to \$330 billion over the same period in 2019, bolstered by support from the Fed. Non-agency MBS, which received no such support, saw new issuance reach only \$8 billion in the quarter versus \$31 billion in 2Q 2019. Performance was resoundingly positive in the second quarter, with nearly all segments rebounding from lows reached in the prior quarter. Down-in-credit classes generally outperformed investment-grade products over the quarter, but the majority remain at lower valuations year to date whereas most investment grade classes ended the first half of the year in net positive territory.

While the rebound in performance and investor interest is encouraging, uncertainty still exists in fundamental factors such as the future pace of delinquencies, levels and application of loan forbearance, and the ability of servicers to continue advances on non-performing loans. Agency MBS continues to benefit from the Fed's lending and asset purchase programs, but non-agency, credit risk transfer (CRT), and legacy MBS are still not covered by any such support measure, and these segments remain vulnerable to further declines. However, non-agency and CRT MBS notes continue to provide attractive carry and offer potential value even after the recent spread tightening seen this past quarter.

CMBS

Issuance, mainly agency, reached \$46 billion in 2Q 2020 vs. \$63 billion in 2Q 2019. Significant challenges remain in the retail and hotel sectors as seen by high levels of delinquencies and requests for loan modifications. The recent pullback in reopening plans among states seeing new increases in COVID-19 infections raises the risk of further deterioration in these segments. The Fed's lending and asset purchase programs continue to support the agency CMBS market, and the initiation of a new TALF 2.0 lending program indirectly supports asset-backed securities (ABS) and non-agency CMBS secondary markets, though participation in the program will likely be limited. CMBS conduits from AAA to single-A credit continue to offer relative value at current levels.

ABS

Total issuance came to nearly \$35 billion in 2Q 2020 compared to \$69 billion in 2Q 2019. We see attractive value in BBB subprime auto bonds issued by tier 1 issuers as they provide enough credit support to withstand potential losses while offering attractive spreads. Both auto sales and used car prices are recovering, providing good fundamental support. Certain sectors, such as private student loans and car rental, remain exposed to further challenges.

COLLATERALIZED LOAN OBLIGATION (CLO)

U.S. CLO supply summed to \$16 billion in 2Q 2020, slowing down from \$33 billion for 2Q 2019. Despite some positive performance, corporate loan borrowers continue to show signs of deteriorating fundamentals, and the environment is further challenged by tightness in liquidity and weak investor sentiment. Defaults and rating agency downgrades continue to creep higher, bringing some deals near their collateral quality limits.

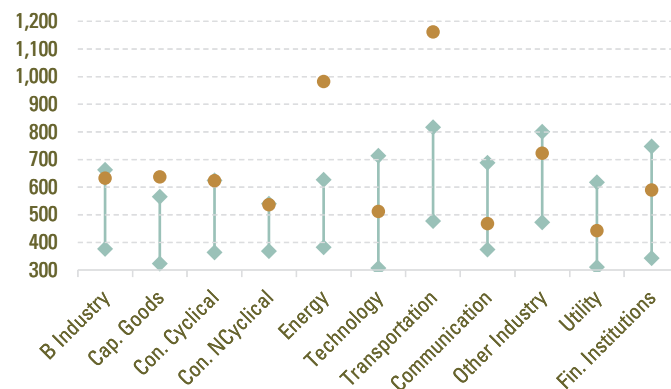
INTERNATIONAL RMBS

U.K. and European RMBS issuance virtually shut down in the second quarter, with distributed volume at a total of EUR 13.5 billion year to date. European countries' containment of COVID-19 seems to be relatively more effective. Due in part to the European Central Bank's (ECB) balance sheet expansion and stimulus, we are starting to see stronger recoveries in some European countries. Credit performance of U.K. and peripheral European RMBS bonds have been relatively stable, albeit lingering questions about regulation and Brexit continue to weigh on the market.

Global High Yield & Leveraged Loans

For the second quarter of 2020, the BAML Ice U.S. High Yield Index returned 9.6% while the CS Leveraged Loan Index returned 9.7%, a stark contrast to the negative returns experienced in 1Q20. While 1Q20 performance was the weakest since 4Q08, the second quarter's rebound was the third strongest quarter since the Great Financial Crisis (GFC) rally. Performance was fairly uniform across the quality spectrum with the BB-segment outperforming relative to the lower-rated component of the HY index. The exogenous shock of COVID-19 caused a sudden stop to the global economy and resulted in a significant repricing of credit risk in both high yield bond and leveraged loan markets. This was swiftly countered by the Fed with not only GFC policies but also additional corporate purchase facilities that helped to backstop credit risk in the IG and crossover markets as well as high yield markets. In addition, the U.S. Treasury countered the downturn with massive fiscal stimulus and acted quickly in response to the crisis. Globally, ministries of finance and treasuries are supporting economies while central banks, including the ECB, are responding with asset purchases and easy money in order to avoid a large-scale global default cycle. The BAML/ICE European High Yield Index (HE00) followed up the first quarter downturn with the strongest quarter since the GFC, including the rebound after the sovereign debt crisis, returning over 11% in the second quarter. Opportunities in energy and basic industries are likely the next source of spread tightening going forward, but this would require a cyclical recovery and a sustainable COVID-19 bounce. We continue to monitor valuations and confirmation from our macro research that we are on a sustainable path to spread normalization. Defaults remain dominated by the energy and retail sectors (Figure 12).

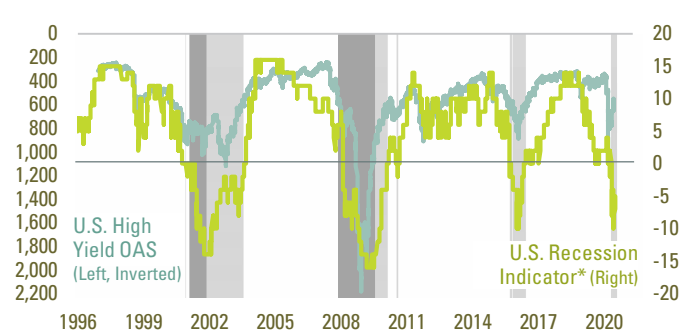
Figure 12 OAS: 25th %tile – 75th %tile – Current
 As of 6/30/2020



Source: Bank of America Merrill Lynch

After one of the worst quarters for the high yield and leverage loan asset classes, the Fed and U.S. Treasury responded with substantial programs to provide what amounts to bridge financing during the COVID-19 economic crisis. In addition to utilizing programs such as the commercial paper funding facility, the Fed has announced both primary and secondary corporate bond purchase facilities. We favor a nuanced approach to high yield and leveraged loan investing during this highly uncertain time—global central banks and treasuries have responded in unprecedented size and measure, but not all sectors will be spared the upcoming default cycle. Recent events will have a massive pro forma impact on all sectors, and we are working tirelessly to determine which issuers are best positioned to weather the substantial uncertainties facing the global economy for the years to come. The political, economic, and social implications of the current crisis will shape the world for many years. What has not changed is the importance of liquidity—a pillar of our investment process that has served us well throughout this difficult time as we considered access to funding and the covenants that may prohibit this access. Our focus on valuations and the economic cycle has helped us to avoid those sectors most impacted by COVID-19, and this same framework should guide us well as we approach a new normal and balance valuations against the impending recession (Figure 13).

Figure 13 U.S. High Yield OAS & Recession Indicator
 As of 6/30/2020



*Based on 16 components, including interest rates, high yield spreads, business confidence and activity, corporate profits, equity, and lumber price. Shaded light gray: indicator is negative. Shaded dark gray: U.S. recessions.

Source: Bank of America Merrill Lynch, Macrobond

The portfolios are positioned with highest exposure to telecommunications and technology sectors as companies prepare for a 5G roll-out. COVID-19 also punctuates the need for remote communication and technological advancement in all areas of the economy, particularly healthcare. When it comes to cyclical sectors, particularly commodities, we favor metals and mining over oil and gas, but we are reassessing the global cycle in light of fiscal and monetary support and the implications for basic industries and energy. Metals and mining may benefit from government imposed mine closures leading to a countercyclical supply response as operations enter care and maintenance mode. Copper, in particular, will be in high demand to meet upcoming technological advancements, electrification of the auto sector, and continued grid buildouts throughout the world. The sector does face substantial headwinds, but global fiscal programs should also provide a tailwind to historically wide spreads.

Emerging Markets

While the first quarter collapse in risk assets was blindingly fast, the subsequent recovery during the second quarter was equally swift. Massive balance sheet expansion from the Fed, the easing of coronavirus restrictions and sizable fiscal and monetary stimulus packages around the world including emerging markets created a potent cocktail to help ease investor concerns. The rally in emerging market local- and hard-currency markets helped reopen primary markets for EM sovereign and corporate issuers with strong demand for higher-quality segments of the markets eventually resulting in diminished new issue concessions and an opening of EM high yield market. On the macro front, economic data continues to show signs of improvement while increased demand and the return of some manufacturing is helping oil and raw materials to recover, providing a needed lift to the developing world.

CORPORATE

The JP Morgan CEMBI Broad Diversified Index returned 11.15% for the quarter and -0.16% year-to-date. On a quality basis, investment grade and high yield returned 8.50% and 15.06% during the quarter, respectively. Through the first six months of the year, investment grade is up 1.93% while the high yield index is still down at -3.07%. The yield to worst on the index rallied over 180 bps during the quarter to finish at 4.71% while spreads also tightened about 180 bps to 416 bps. After being shuttered for several weeks in March and April, primary markets reopened with investment pricing \$95.8 billion and high yield finally coming back in May to print \$18.5 billion. Asia remains the dominant region in corporate market representing \$79.3 billion of total issuance for the quarter. Last quarter we highlighted the widening in airlines and this quarter we saw three Latam-based airlines defaulting, helping bring the trailing 12-month default rate to 3.6% from 1% at the start of the year. With the recovery in performance, distressed rates have fallen from a peak of 50% to just under 20%.

SOVEREIGN

JPM GBI-EM Global Diversified Index and the hard-currency JP Morgan EMBI Global Diversified Index returned 9.82% and 12.26% during the quarter reversing much of the drawdown during the first quarter. The GBI-EM index yield rallied 100 bps to 4.5%, pushing the yield past prior historical lows made in November. Monetary policy should remain accommodative given wide negative output gaps and easing stance of large developed market central banks, which means local rates remain attractive on a real yield and carry basis. EMBI investment grade drove the rally in hard-currency sovereign markets, returning 9.06% for the quarter, and are up 3.13% year to date. The challenged EMBI high yield market returned a solid 16.57% return but remained down 9.59% year to date given rising default risks. However, rising commodity prices and debt service relief under the G-20 initiative should help some countries avoid default. With the decline in U.S. yields relative to G-9 (Figure 14), coupled with continued Fed liquidity and a global recovery, we believe emerging market currencies could be a driver for EM local markets going forward; the starting point on EMFX real effective exchange rates (Figure 15) and elevated EMFX volatility is also attractive.

Figure 14 Dollar Has Lost Yield Support
 As of 6/30/2020

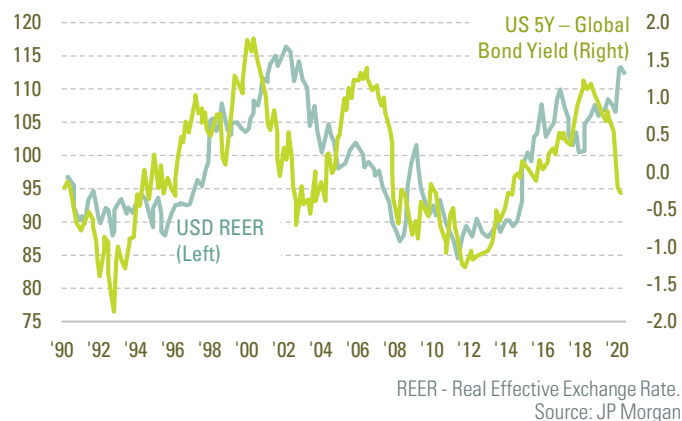
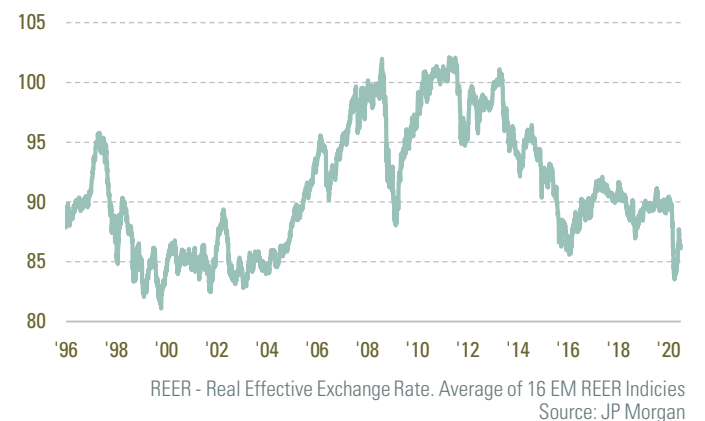


Figure 15 Average EMFX REER
 As of 6/30/2020



The views expressed represent the opinions of Brandywine Global Investment Management, LLC (Brandywine Global), and are not intended as a forecast or guarantee of future results. All information obtained from sources believed to be accurate and reliable. Fixed income securities are subject to credit risk and interest-rate risk. High yield, lower-rated, fixed income securities involve greater risk than investment-grade fixed income securities. There may be additional risks associated with international investments. International securities may be subject to market/currency fluctuations, investment risks, and other risks involving foreign economic, political, monetary, taxation, auditing, and/or legal factors. These risks may be magnified in emerging markets. International investing may not be suitable for everyone. Brandywine Global believes that transactions in any option, future, commodity, or other derivative product are not suitable for all persons, and that accordingly, investors should be aware of the risks involved in trading such instruments. There may be significant risks that should be considered prior to investing. Derivatives transactions may increase liquidity risk and introduce other significant risk factors of a complex character. All securities trading, whether in stocks, options, or other investment vehicles, is speculative in nature and involves substantial risk of loss. Characteristics, holdings, and sector weightings are subject to change and should not be considered as investment recommendations. The ICE BAML Global Corporate Index tracks the performance of investment grade corporate debt publicly issued in the major domestic and eurobond markets. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P, and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, and a fixed coupon schedule. The ICE BAML AA Global Corporate Index is a subset of the ICE BAML Global Corporate Index, including all securities rated AA1 through AA3, inclusive. The ICE BAML Single-A Global Corporate Index is a subset of the ICE BAML Global Corporate Index, including all securities rated A1 through A3, inclusive. The ICE BAML BBB Global Corporate Index is a subset of The ICE BAML Global Corporate Index, including all securities rated BBB1 through BBB3, inclusive. The ICE BAML U.S. Corporate Index tracks the performance of U.S. dollar-denominated investment grade corporate debt publicly issued in the U.S. domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P, and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule, and a minimum amount outstanding of \$250 million. The ICE BAML Global High Yield Index tracks the performance of USD-, CAD-, GBP-, and EUR-denominated below investment grade corporate debt publicly issued in the major domestic or eurobond markets. The ICE BAML BB Global High Yield Index is a subset of the ICE BAML Global High Yield Index, including all securities rated BB1 through BB3, inclusive. The ICE BAML Single-B Global High Yield Index is a subset of The ICE BAML Global High Yield Index, including all securities rated B1 through B3, inclusive. The ICE BAML CCC & Lower Global High Yield Index is a subset of The ICE BAML Global High Yield Index, including all securities rated CCC1 or lower. The ICE BAML U.S. High Yield Index tracks the performance of USD-denominated below investment grade corporate debt publicly issued in the major U.S. markets. The ICE BAML European High Yield index tracks the performance of below-investment grade corporate bonds publicly issued in Europe. The Credit Suisse Leveraged Loan Index tracks the investable market of the U.S. dollar-denominated leveraged loan market. It consists of issues rated "5B" or lower, meaning that the highest-rated issues included in this index are Moody's/S&P ratings of Baa1/BB+ or Ba1/BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries. The ICE BAML U.S. Mortgage-Backed Securities Index tracks the performance of U.S. dollar-denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by U.S. agencies in the U.S. domestic market. The ICE BAML U.S. Fixed Rate CMBS Index tracks the performance of U.S. dollar-denominated investment grade fixed rate commercial mortgage-backed securities publicly issued in the U.S. domestic market. The JP Morgan Corporate Emerging Market Bond Index (CEMBI) Broad is a global, liquid corporate emerging markets benchmark that tracks U.S. denominated corporate bonds issued by emerging markets entities. The JPM EM Bond Index Global Diversified is composed of U.S. dollar-denominated Brady bonds, eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities. The JPM Government Bond Index-Emerging Markets (GBI-EM) Broad Diversified is a comprehensive emerging market debt benchmark that tracks local currency bonds issued by emerging market governments. The unique diversification scheme ensures that weights among the index countries are more evenly distributed by reducing the weight of large countries and redistributing the excess to the smaller-weighted countries with a maximum weight per country of 10%. All data current as of the date at the top of the page unless otherwise noted. This information should not be considered a solicitation or an offer to provide any Brandywine Global service in any jurisdiction where it would be unlawful to do so under the laws of that jurisdiction. **Past performance is no guarantee of future results.**