MOODY'S

WEEKLY MARKET OUTLOOK

Moody's Analytics Research

Weekly Market Outlook Contributors:

Moody's Analytics/New York:

John Lonski Chief Economist 1.212.553.7144 john.lonski@moodys.com

Yukyung Choi Quantitative Research

Moody's Analytics/Asia-Pacific:

Shahana Mukherjee Economist

Moody's Analytics/Europe:

Barbara Teixeira Araujo Economist

Ross Cioffi Economist

Moody's Analytics/U.S.:

Sarah Crane Economist

Michael Ferlez Economist

Editor Reid Kanaley

Contact: help@economy.com

Ultra-Low Bond Yields Buoy Corporate Borrowing

Credit Markets Review and Outlook by John Lonski

Ultra-Low Bond Yields Buoy Corporate Borrowing

The Week Ahead

We preview economic reports and forecasts from the US, UK/Europe, and Asia/Pacific regions.

FULL STORY PAGE 8

FULL STORY PAGE 2

The Long View

Full updated stories and key credit market metrics: July's investment-grade bond issuance will be well under its year earlier pace.

Credit Spreads	Investment Grade: We see the year-end 2020's average investment grade bond spread above its recent 131 basis points. <u>High Yield:</u> Compared with a recent 582 bp, the high- yield spread may approximate 610 bp by year-end 2020.
Defaults	<u>US HY default rate</u> : According to Moody's Investors Service, the U.S.' trailing 12-month high-yield default rate jumped from June 2019's 3.3% to June 2020's 7.3% and may average 11.9% during 2020's final quarter.
lssuance	For 2019's offerings of US\$-denominated corporate bonds, IG bond issuance rose by 2.6% to \$1.309 trillion, while high- yield bond issuance surged by 55.8% to \$432 billion. In 2020, US\$-denominated corporate bond issuance is expected to soar higher by 40.8% for IG to \$1.843 trillion, while high-yield supply may rise by 6.5% to \$461 billion.

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2020

FULL STORY PAGE 12

Ratings Round-Up

U.S. Downgrades Increase But Affect Small Percentage of Debt

FULL STORY PAGE 16

<u>Market Data</u>

Credit spreads, CDS movers, issuance.

FULL STORY PAGE 19

Moody's Capital Markets Research recent publications

Links to commentaries on: Record savings rates, demographic change, high tech, complacency, Fed intervention, speculation, default risk, credit stress, rate cuts, optimism, coronavirus, corporate credit, spreads, leverage, rate sensitivity, sentiment, VIX, fundamentals.

» FULL STORY PAGE 24

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Credit Markets Review and Outlook

By John Lonski, Chief Economist, Moody's Capital Markets Research, Inc.

Ultra-Low Bond Yields Buoy Corporate Borrowing

The incredible rally in corporate credit continues. On Wednesday, the Bloomberg/Barclays corporate bond yields fell to a record low of 1.90% for investment-grade and a non-recessionary 5.55% for high yield. It's hard to believe that as recently as March 23, this speculative-grade bond yield peaked at 11.69%.

Moreover, Moody's Analytics' long-term Baa industrial company bond yield average fell to a 65-year low of 3.41% on Wednesday. The latest long-term Baa industrial yield is less than each of its prior month-long averages going back to February 1955's 3.40%.

Though Wednesday's 212 basis points yield spread over Treasuries for the long-term Baa industrial average was wider than its 190 bp average of the 12 months ended February, what mattered more to the corporate bond market was that Wednesday's Baa yield was well under its 4.33% average of the 12 months ended February. A thinner spread is of little use to a bond holder if it is accompanied by a higher yield. In addition, the prospective cost of debt for a potential corporate borrower is the bond yield and not the bond yield spread.

U.S. Corporates Powered First-Half 2020's Worldwide Issuance of Investment-Grade Bonds

Second-quarter 2020 was home to a 199% year-over-year surge by the issuance of Baa-grade bonds from U.S. corporate borrowers to \$320 billion. By ratings notch, Baa1-grade issuance increased by 102% annually to \$76 billion, Baa2-rated offerings advanced by 163% to \$132 billion, and Baa3-grade supply soared higher by 493% to \$111 billion.

The worldwide issuance of investment-grade corporate bonds grew by 69% annually in 2020's second quarter and by 40% annually in the first half. Second-half 2020's offerings of IG corporate bonds were dominated by an 89% annual surge in the supply of US\$-denominated bonds to \$1.316 trillion. The dollar's share of world IG bond issuance rose from the 51.7% of 2019's first half to the 69.5% of 2020's first half. In turn, first-half 2020's offerings of IG bonds denominated in currencies other than the dollar fell by 11.5% annually.

First-half 2020's issuance of IG bonds from U.S. corporate borrowers skyrocketed by 92.5% annually to \$1.036 trillion. The rest of the world lagged far behind. For example, after the \$528 billion of IG bonds offered by West European companies nearly matched the \$538 billion from their U.S. counterparts during 2019's first half, the \$577 billion of IG bonds issued by Western European companies during 2020's first half was but a fraction of the \$1.036 trillion from U.S. companies. As a result, American companies' share of the worldwide issuance of IG bonds jumped up from the 40% of 2019's first half to the 55% of 2020's first half. Nevertheless, as inferred from June's 45% share, U.S. companies may become less prominent issuers of IG bonds going forward.

Figure 1: Worldwide Investment-Grade Corporate Bond Issuance by Region and by Issuer's Location of Operations Sources: Dealogic, Moody's Analytics

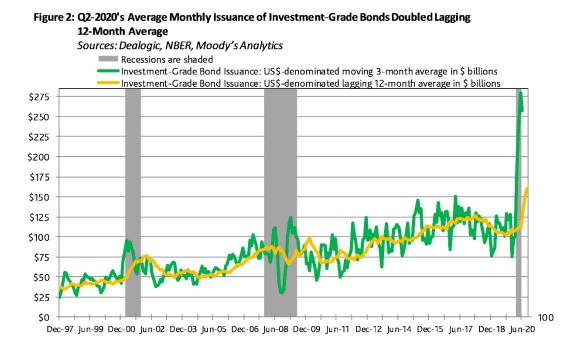
						lssuance: by region of issuer, \$ billions						
	Co Bond	estment- Grade orporate d Issuance: billions	In	nominated vestment- Grade corporate id Issuance:	Denominated Bonds as % of Worldwide Investment- Grade		U.S.		estern urope		st of the World	U.S. Companies as % of Total World IG Issuance
		1		2	3		4		5		6	7
Calendar-y	ear:											
2017	\$	2,501	\$	1,509	60.3%	\$	1,098	\$	857	\$	546	44%
2018	\$	2,322	\$	1,276	55.0%	\$	851	\$	922	\$	548	37%
2019	\$	2,449	\$	1,309	53.5%	\$	975	\$	910	\$	564	40%
Month:												
Jan-20	\$	305	\$	156	51.2%	\$	93	\$	130	\$	82	30%
Feb-20	\$	179	\$	122	68.1%	\$	87	\$	54	\$	38	49%
Mar-20	\$	345	\$	268	77.6%	\$	258	\$	69	\$	18	75%
Apr-20	\$	411	\$	304	74.0%	\$	246	\$	122	\$	43	60%
May-20	\$	362	\$	266	73.6%	\$	221	\$	101	\$	40	61%
Jun-20	\$	292	\$	200	68.5%	\$	131	\$	101	\$	59	45%
Year-to-dat	te:											
Jan-Jun-19	\$	1,348	\$	696	51.7%	\$	538	\$	528	\$	281	40%
Jan-Jun-20	\$	1,893	\$	1,316	69.5%	\$	1,036	\$	577	\$	280	55%
yy % change		40.4%		89.0%			92.5%		9.2%		-0.5%	

Record Quarter for US\$-Denominated Investment-Grade Bond Issuance

The US\$-denominated issuance of IG corporate bonds soared higher in a manner not remotely experienced before. The moving three-month average for US\$-priced IG corporate bonds peaked at May's record-high \$279 billion. Prior to COVID-19, the former zenith was the \$151 billion of the three months ended March 2017. As of June, the moving three-month average eased to still historically elevated \$257 billion, which was a staggering 109% above its lagging 12-month average of \$123 billion.

However, an extraordinarily wide gap between IG bond issuance's moving three- and lagging 12-month averages does not assure a forthcoming drop by such offerings during the ensuing 12-month span. Yes, the US\$-denominated IG corporate bond supply of 2021's second quarter is likely to shrink yearly, but the record falls short of convincingly favoring an outright annual contraction by such bond issuance during the 12 months ended June 2021. In fact, the simple correlation between the percent difference between the IG bond issuance's three- and lagging 12-month averages and the percent change by such issuance during the next 12 months is a statistically meaningless 0.14.

For example, prior to 2020, the largest percent difference between IG bond issuance's moving threemonth average and its lagging 12-month average was the 96% of 2001's first quarter. Nevertheless, the US\$-denominated IG corporate bond offerings of the 12 months ended March 2002 grew by an ample 18% year over year.



U.S. Companies' Share of World High-Yield Bond Issuance Is Likely to Fade

The U.S. dollar's share of the worldwide issuance of high-yield corporate bonds hardly moved from yearlong 2019's 77% to the 81% of 2020's second half. First-half 2020's 30.0% annual advance by the global issuance of high-yield corporate bonds to \$352 billion included a 24.7% increase by dollar-denominated HY bonds to \$285 billion.

However, U.S. companies' share of the world's HY bond issuance rose from 2019's 45% to the 59% of 2020's first half. First-half 2020's 78.6% annual advance by the supply of new HY bonds from U.S. companies differed radically from the accompanying 2.8% rise by issuance from Western European companies and the 13.6% drop by HY bond offerings from the rest of the world.

Figure 3: Worldwide High-Yield Corporate Bond Issuance by Region and by Issuer's Location of Operations Sources: Dealogic, Moody's Analytics

					н		orate Bond f issuer, \$ b			
	Yield Bond	wide High Corporate Issuance: iillions <i>1</i>	US\$- enominated High-Yield Corporate nd Issuance: \$ billions 2	US\$- Denominated Bonds as % of Worldwide High Yield Corporate Bond Issuance 3		U.S. 4	Western Europe 5	F	Rest of the World 6	U.S. Companies as % of Total World HY Issuance 7
Calendar-year:										
2017	\$	603	\$ 453	75.2%	\$	267	\$ 142	\$	193	44%
2018	\$	376	\$ 278	73.8%	\$	177	\$ 102	\$	97	47%
2019	\$	561	\$ 432	77.0%	\$	253	\$ 148	\$	160	45%
Month:										
Jan-20	\$	100	\$ 77	77%	\$	40	\$ 22	\$	38	40%
Feb-20	\$	62	\$ 46	75%	\$	33	\$ 14	\$	15	53%
Mar-20	\$	8	\$ 6	78%	\$	6	\$ -	\$	2	76%
Apr-20	\$	44	\$ 41	95%	\$	41	\$ 2	\$	1	94%
May-20	\$	54	\$ 47	88%	\$	40	\$ 8	\$	6	74%
Jun-20	\$	85	\$ 67	80%	\$	48	\$ 24	\$	13	57%
Jan-Jun-19	\$	271	\$ 216	80%	\$	116	\$ 68	\$	86	43%
Jan-Jun-19	\$	352	\$ 285	81%	\$	207	\$ 70	\$	75	59%
yy % change		30.0%	24.7%			78.6%	2.8%		-13.6%	

Figure 4 compares the lagging three-month average of US\$-denominated high-yield bond issuance with its average of the contiguous 12 months. The chart shows the \$52 billion average monthly issuance of 2020's second quarter topping the \$38 billion monthly average of the 12 months ended March by 38%. The latter is far from extraordinary. As recently as January, this gap was at 75%. Moreover, for 14 of the moving three-month averages since 1997, the gap was greater than 100%.

Though the negative sign of the correlation between the gap and the annual percent change by HY bond issuance over the next 12 months conformed to expectations, the correlation's -0.22 reading was less than convincing. Indeed, a close inspection of Figure 4 shows many instances where a wide positive gap between the moving three-month average and the lagging 12-month average were followed by an increase for the 12-month average of HY bond issuance. Thus, if COVID-19 risks are resolved by late 2020, high-yield bond offerings might eke out a year-over-year gain for the 12 months ended June 2021.

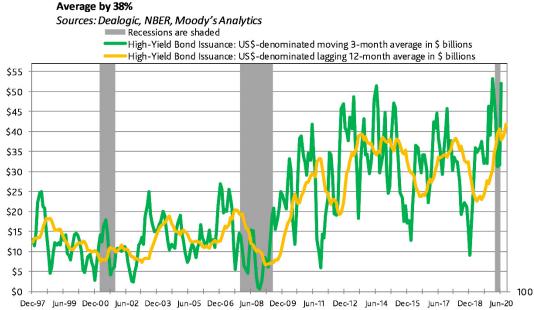


Figure 4: Q2-2020's Average Monthly Issuance of High-Yield Bonds Topped Lagging 12-Month

Outstandings Offer Insight Regarding Future Corporate Borrowings

For U.S. nonfinancial companies, Figure 5 exhibits the tendency of rated corporate borrowing to trend higher with outstanding corporate debt. To a considerable degree, the mere refinancing of outstanding corporate debt fuels gross corporate borrowing. Thus, it is impossible to conceive of a long-lived decline by corporate borrowing if outstanding corporate debt avoids a prolonged contraction.

The moving yearlong sum of rated U.S. corporate borrowing found in Figure 5 includes the rated bonds and loans of U.S. corporations.

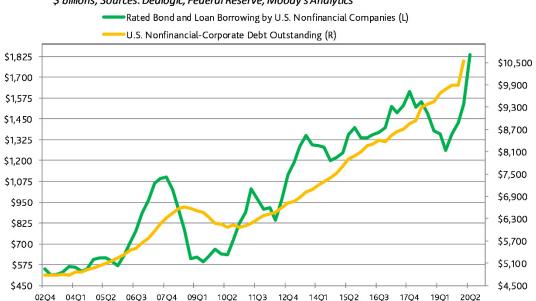


Figure 5: Gross Corporate Borrowing Follows the Trend Taken by Corporate Debt Outstanding \$ billions; Sources: Dealogic, Federal Reserve, Moody's Analytics

Now High Ratio of Corporate Borrowing to Debt Warns of Less Borrowing

The historical record reveals that the annual percent change for corporate borrowing over the next 12 months tends to be livelier the lower is the ratio of gross corporate borrowing to the outstanding

corporate debt of a year earlier. When the ratio of the yearlong sum of rated corporate borrowing to outstanding corporate debt is in its top quintile, only 23.1% of the observed quarters showed an annual increase by such corporate borrowing over the next 12 months.

At the other extreme, when the ratio was in its bottom quintile, or when rated corporate borrowing was atypically low vis-a-vis outstanding corporate debt, each of the quarters belonging to the bottom quintile was followed by a year-over-year increase in corporate borrowing during the next 12 months.

For the year ended June, the \$1.836 trillion of rated borrowing by U.S. nonfinancial corporations approximated 18.8% of the \$9.783 trillion of outstanding U.S. nonfinancial-corporate debt as of 2019's second quarter. The 18.8% ratio is well within the ratio's top quintile. In turn, the latest 18.8% ratio suggests that the broadest measure of rated borrowing by U.S. nonfinancial companies will shrink by between 3% and 6% annually during the year ended June 2021.

Figure 6: As Rated Corporate Borrowing Grows Vis-a-vis Corporate Debt, Rated Corporate Borrowing Slows Sources: Federal Reserve, Dealogic, Moody's Analytics

	Yearlong Sum of Rated U.S. Corporate Borrowing as % of Corporate Debt of Year Earlier 1	Percent of Observations Showing an Annual Increase by Rated Corporate Borrowing over the Next 12 Months 2	Average Year-over-year % Change of Rated Corporate Borrowing for Next 12 Months 3	Median Year-over-year % Change of Rated Corporate Borrowing for Next 12 Months 4
Top Quintile Second Quintile Middle Quintile Fourth Quintile Bottom Quintile	19.2 17.6 15.8 12.7 10.4	23.1 69.2 71.4 84.6 100.0	10.3 19.4	-3.4 6.8 11.5 10.4 11.9

JULY 23, 2020

The Week Ahead – U.S., Europe, Asia-Pacific

THE U.S.

By Sarah Crane of Moody's Analytics

Mask Mandates Are a Safety Net

Several regions of the U.S. appear to be backtracking in terms of COVID-19 containment and labor market performance. After months of steady declines, jobless claims remain stuck at over 2 million filings per week. More states reported increases in initial claims for unemployment insurance in the week ended July 11 compared with the previous week. In fact, two out of three states reported that new filings were no lower than four weeks earlier.

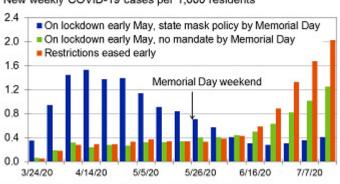
The number of new filings rose in California, where weekly initial claims have trended higher since early May. The Sun Belt looks worse in general, with Florida, Georgia and Nevada claims all heading in the wrong direction. The most recent claims data do not suggest that states gained much of an edge from reopening prematurely. Nor did a cautious approach hold states back. Encouragingly, initial claims dropped to fourmonth lows last week in Maryland, Massachusetts and North Carolina. All three responded relatively aggressively to the pandemic with lockdowns extending through or beyond mid-May.

The relative public health advantage associated with states that opened cautiously is diminishing. As initial state closures and reopenings get further in the rear-view mirror, it will be important to take other policy developments into consideration when evaluating regional economic performance.

Mask on virus spread and jobless claims

Most areas of the country had reopened by Memorial Day weekend, ushering in the return to restaurants, retail and recreation venues in late May. Two weeks after the holiday, the number of new cases in states that eased restrictions early surpassed that in those with longer lockdown periods. In the weeks since, places that remained closed for longer have experienced increases of their own. It is clear that reopenings lead to disease spread in lenient and deliberate states alike.

However, that trend was far less pronounced in states that had comprehensive mask requirements in place upon reopening. About half of U.S. states were closed in early May, and about half of those states had mandated face coverings in public by Memorial Day. Only one state that reopened early—Maine—enacted a mask mandate by that time. The outcome was that the state mask mandates acted as a safety net for states when they reopened, leading to far milder increases in new COVID-19 cases compared with other states.

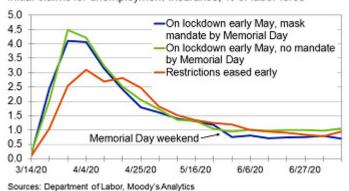


Out of the Frying Pan, Into the Fire

New weekly COVID-19 cases per 1,000 residents

Sources: Census Bureau, Johns Hopkins University, Moody's Analytics

Outbreaks that remained relatively contained resulted in more consumer mobility and spending and thus fewer layoffs by businesses. Policy certainty and consistency also support consumer and business confidence and promote longer-term planning.



Fewer Claims in Mask-Mandating States

Initial claims for unemployment insurance, % of labor force

Still, the worsening pandemic coupled with policy whiplash in many parts of the country jeopardizes the labor market's tenuous progress. A growing number of states are reimposing restrictions as COVID-19 cases spike while others continue to resist measures to restrict the virus' spread. As of July 15, nine states have reversed reopenings and 13 states have paused reopenings, according to The New York Times. Statewide mask mandates have taken effect in nine states since mid-June.

There is a risk that the return to stricter social distancing guidelines could cause unemployment insurance claims to increase as business and consumer confidence erodes, demand declines, and employers are forced to make cuts. Time will tell if the latest state responses can improve the situation in those states or whether they amount to closing the barn door after the horse has bolted.

Next week

The key data next week will be GDP, durable goods orders, initial claims, consumer confidence, personal income/spending, employment cost index, and consumer sentiment.

EUROPE

By Barbara Teixeira Araujo of Moody's Analytics

A Record Plunge Likely for the Euro Zone

Preliminary estimates of second quarter GDP will be in the spotlight in next week's busy European data front. We expect them to be horrid; activity is set to have plunged at its worst pace on record across all euro zone countries and in the currency area itself. But this will come as no surprise, as COVID-19 containment measures put in place by euro zone governments from mid-March led many sectors of the economy to fully shut down. The restrictions' schedule was different across countries, but most European nations remained in full lockdown through the end of April, leading activity in sectors such as nonessential retail, restaurants and cafes, leisure activities, and travel and tourism to have collapsed as people were stuck at home and had to practice social distancing.

While some countries started to reopen their economies from the beginning of May, they did so only gradually. At the same time, other countries kept part of their consumer-faced sectors shut until June or even July. There are two conclusions to take from this: The hit to activity will vary wildly from country to country, depending on how strict the lockdown was and how long it lasted, and the second quarter is expected to have marked the worst of the crisis, with some rebound warranted from July as the economies reopened. Risks remain tilted to the downside. There is the possibility of a second wave of the virus in Europe, which could lead governments to reintroduce countrywide lockdowns. But this is not our base case; even if new cases pick up across the European countries—which we are currently

The Week Ahead

observing—we think that most governments will try to contain the outbreaks through localized shutdowns, which is not as harmful for the national economy as countrywide lockdowns. In any case, we don't expect that the rebound in activity will be sharp enough to bring GDP close to its precrisis levels. We think that it will still take a couple of years before what was lost during the COVID-19 crisis is recouped.

We expect the euro zone's GDP plunged by a record 14.5% q/q in the second quarter, building on a 3.8% decline in the previous stanza. Most of the damage likely was done in Italy, Spain and France, as the lockdowns in those countries were the strictest. Italy and Spain closed all nonessential businesses (not just consumer-faced businesses) during part of April, while several industries and construction sites shut down in France for several weeks. The high-frequency data indicate that those three countries were the ones that suffered the most when the lockdowns were fully in place, with initial estimates suggesting that they lost as much as 30% of their output during that period. We forecast that GDP in Italy fell by 18.2% q/q, while it was down by 17.8% in Spain and by 15.8% in France. The risks surrounding our French forecasts are higher than usual, with several leading indicators suggesting that activity in the country could have plunged at as sharp a rate as in Italy and in Spain. In any case, most of these preliminary GDP results will be based on an unusual share of imputed data. Several sectors were fully or partially closed, which means that data collection was impaired, and this means that they are prone to sharp revisions in the future.

Other countries, such as Germany and the Netherlands, are expected to have suffered much less from the lockdowns. While we do not get the preliminary estimate of German GDP next week, the high-frequency data already suggest that activity in the country was much less disrupted then elsewhere, as the restrictions there were not so strict. Construction activity in the country actually expanded during the lockdown months—this compares with the severe declines in Italy, Spain and France. And that's despite the heightened uncertainty, which is expected to have weighed on investment decisions. Our view is that several building firms took advantage of the lockdown to bring forward major infrastructure or homebuilding projects, though this would nonetheless warrant some revision in the third quarter.

All in, the main story from next week will be that the euro zone entered its worst recession in modern times during the second quarter due to COVID-19. At least the unemployment numbers won't be as bad; we expect them to show that joblessness rose only slightly in the currency area in June, owing to the successful short-term work schemes put in place by the governments to prevent massive layoffs.

	Key indicators	Units	Moody's Analytics	Last
Mon @ 11:00 a.m.	France: Job Seekers for May	mil, SA	4.11	4.17
Tues @ 8:00 a.m.	Spain: Unemployment for Q2	%	15.8	14.4
Wed @ 9:00 a.m.	Spain: Retail Sales for June	% change	1.2	19.3
Thur @ 8:55 a.m.	Germany: Unemployment for July	%	6.6	6.4
Thur @ 9:00 a.m.	Italy: Unemployment for June	%	8.7	7.8
Thur @ 10:00 a.m.	Euro Zone: Business and Consumer Sentiment for July	index	80.1	75.7
Thur @ 10:00 a.m.	Euro Zone: Unemployment for June	%	7.6	7.4
Fri @6:30 a.m.	France: GDP for Q2	% change	-15.8	-5.3
Fri @ 7:00 a.m.	Germany: Retail Sales for June	% change	1.1	13.9
Fri @ 7:45 a.m.	France: Household Consumption Survey for June	% change	3.7	36.6
Fri @ 8:00 a.m.	Spain: GDP for Q2	% change	-17.8	-5.2
Fri @ 9:00 p.m.	Italy: GDP for Q2	% change	-18.2	-5.3
Fri @ 10:00 a.m.	Euro Zone: GDP for Q2	% change	-14.5	-3.8
Fri @ 10:00 a.m.	Euro Zone: Preliminary Consumer Price Index for July	% change	0.3	0.3
Fri @ 11:00 a.m.	Italy: Retail Sales for June	% change	2.5	24.3

ASIA-PACIFIC

By Shahana Mukherjee of Moody's Analytics

Hong Kong's Q2 GDP to Show Severity of COVID-19's Impact

We expect Hong Kong's GDP to have contracted by 11.9% in yearly terms during the June quarter, following an 8.9% decline in the March quarter. Hong Kong's economy was already in a weakened position following the hard-fought U.S.-China trade war and the political unrest through 2019, which caused the economy to slip into recession.

While Hong Kong started 2020 on a weaker note, the COVID-19 outbreak dealt a severe blow to its external position as a result of the large-scale factory closures in China as well as weak internal demand as the economy battled its own localized outbreak. As a result, nearly all components of national income had sharp declines in the range of 9% to 13% in yearly terms over the March quarter. Even though Hong Kong had subsequently contained the localized spread, the sharp decline in overseas demand is expected to weigh unfavourably on the economy's output. Moreover, domestic spending has also struggled to recover, as retail sales stayed 33.9% below levels seen last year. Significant weakness in domestic demand, coupled with the sustained drag from weak overseas demand, is expected to have pushed the economy into a deeper recession over the June quarter.

Japan's unemployment rate is expected to rise to 3.1% in June from 2.9% in May. Labour market conditions in Japan have weakened considerably since the onset of the pandemic. Even though the aggregate increase in unemployment appears lower compared with most other economies, the deterioration was reflected by a 0.6-percentage point decline in the participation rate to 61.8%, and a staggering 20.9% yearly increase in the number of unemployed people in May. Moreover, several workers in Japan are increasingly being furloughed, which masks the extent of real loss in job prospects. With a severely impacted external sector that continues to show strong double-digit declines in exports, and persistent softness in domestic consumer sentiment, employment prospects are fading and the labour market is expected to remain under pressure in the months ahead.

	Key indicators	Units	Moody's Analytics	Confidence Risk	Last
Wed @ 7:00 a.m.	South Korea Consumer Sentiment for July	Index	80	2 🖊	81.8
Wed @ 11:30 a.m.	Australia CPI for Q2	% change	-0.3	2 🖊	0.3
Wed @ 6:30 p.m.	Hong Kong GDP for Q2	% change yr ago	-11.9	3 🖊	-8.9
Thur @ 9:50 a.m.	Japan Retail Sales for June	% change yr ago	-5.5	3 🕇	-12.3
Fri @ 9:00 a.m.	South Korea Retail Sales for June	% change	1.2	2 🖊	4.6
Fri @ 9:30 a.m.	Japan Unemployment Rate for June	%	3.1	2 🕇	2.9
Fri @ 9:50 a.m.	Japan Industrial Production for July	% change	6.5	3 👎	-8.9
Thur @ 6:00 p.m.	Taiwan GDP for Q2	% change yr ago	-0.89	3 🕇	1.59

The Long View

July's investment-grade bond issuance will be well under its year-earlier pace.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group July 23, 2020

CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 131 basis points far exceeded its 122-point mean of the two previous economic recoveries. This spread may be no wider than 135 bp by year-end 2020.

The recent high-yield bond spread of 582 bp is thinner than what is suggested by the accompanying long-term Baa industrial company bond yield spread of 212 bp and the recent VIX of 26.3 points. The latter has been statistically associated with a 715-bp midpoint for the high-yield bond spread.

DEFAULTS

June 2020's U.S. high-yield default rate of 7.3% was up from June 2019's 3.3% and may approximate 12.3%, on average, by 2021's first quarter.

US CORPORATE BOND ISSUANCE

First-quarter 2019's worldwide offerings of corporate bonds revealed annual setbacks of 0.5% for IG and 3.6% for high-yield, wherein US\$-denominated offerings fell by 3.0% for IG and grew by 7.1% for high yield.

Second-quarter 2019's worldwide offerings of corporate bonds revealed an annual setback of 2.5% for IG and an annual advance of 17.6% for high-yield, wherein US\$-denominated offerings sank by 12.4% for IG and surged by 30.3% for high yield.

Third-quarter 2019's worldwide offerings of corporate bonds revealed annual advances of 15.2% for IG and 56.8% for high-yield, wherein US\$-denominated offerings soared higher by 36.8% for IG and 81.3% for high yield.

Fourth-quarter 2019's worldwide offerings of corporate bonds revealed annual advances of 15.3% for IG and 329% for high-yield, wherein US\$-denominated offerings dipped by 0.8% for IG and surged higher by 330% for high yield.

First-quarter 2020's worldwide offerings of corporate bonds revealed annual advances of 17.7% for IG and 26.5% for high-yield, wherein US\$-denominated offerings increased by 43.7% for IG and grew by 21.4% for high yield.

For 2019, worldwide corporate bond offerings grew by 5.4% annually (to \$2.447 trillion) for IG and advanced by 49.2% for high yield (to \$561 billion). The projected annual percent changes for 2020's worldwide corporate bond offerings are a 6.4% rise for IG and a 0.5% dip for high yield.

US ECONOMIC OUTLOOK

An unfolding global recession will rein in Treasury bond yields. As long as the global economy operates below trend, 1.25% will serve as the upper bound for the 10-year Treasury yield. Until COVID-19 risks fade, substantially wider credit spreads are possible.

EUROPE

By Ross Cioffi of Moody's Analytics July 23, 2020

EU

The EU agreed this week on the new Multi-Annual Financial Framework for 2021-2027. The framework is the budget through which the EU will channel its joint 'Next Generation EU' stimulus effort. The agreement required some hard compromise. Although concessions limited the scope of the original proposal, the member states were able to agree on the most contentious point, namely that the European Commission will borrow money in the markets to finance transfers to member states.

The total size of the Next Generation EU plan remained at €750 billion. The keystone instrument, the Recovery and Resilience Fund, has been expanded from the original proposal, while the share of loans to grants has been increased. The Recovery and Resilience Fund will total €672.5 billion, up from €560 billion; there will be €312.5 billion in grants, up from €310 billion; and €360 billion in loans, up from €250 billion.

We aren't too worried about the EU's ability to pay back the debts incurred. However, the question of what new revenue streams would be created was left for another time. For now, members have agreed only on a new levy on plastic waste. The most likely scenario is that members will drag their feet on creating new revenue streams for the EU. The result will be that the cost gets amortized by decreasing the size of future financial frameworks.

The EU members compromised by cutting other spending programs, which lowered the total share of grants to €390 billion from €500 billion. The total amount of grants was reduced by trimming allocations to long-term investment in greening and digitizing, research and development, and health. This was the price to pay for a speedier agreement. Given the importance of a timely agreement for maintaining financial stability this winter, when national loan guarantees and wage-subsidy programs start winding down, the trade-off isn't in vain. The European Central Bank's July Bank Lending Survey reported that banks are expecting credit standards to tighten this fall, when loan guarantee programs approach their upper limits.

Funds from the Recovery and Resilience Fund won't be disbursed until the start of 2021, but together with the EU policies already in place, member states have the backing to taper off stimulus more slowly. This should mitigate the tightening of credit standards or other hits to liquidity. Although the final deal was pared back, it is still a historic event and markets were right to rejoice. European shares jumped immediately after the news.

There is still some downside risk that the plan gets sent back to the drawing board. The European Parliament will now vote on the program, and it may want stronger conditionality on the respect of rule of law in recipient countries. The Multi-Annual Financial Framework will also have to be ratified by national legislatures. The likelihood the plan is rejected is minimal, but grandstanding by politicians may unsettle nerves now and again in the coming months.

EURO ZONE

European countries have spent big to counteract the economic hit from the pandemic. The mix of short-term work schemes, loan guarantees, and transfers—on top of pre-existing automatic stabilizers—has prevented Europe from getting trapped in a spiral of bankruptcies and unemployment. But fiscal space, or the amount states can increase spending before impairing debt sustainability, differs widely across Europe. Some member states could therefore act faster or spend more. Now the important question is whether those that need to top off spending will have the ability to do so.

Of the four major euro zone economies, Italy has put up the most money for stimulus. We estimate that nearly 49.4% of Italian GDP has been allocated to stimulus measures, though only about 4.5% of GDP is in direct spending; the rest is in liquidity measures and loan guarantee programs. Thanks to the agreement Tuesday on the new Multi-Annual Financial Framework, the EU's new stimulus instrument, the Recovery and Resilience Facility could transfer up to an extra 3.5% of GDP to the country over the next three years. Germany has put up 40.6% of GDP in stimulus—given its fiscal space, it was able to dedicate 9% to direct measures—and can receive up to 0.7% of its GDP in grants. France has so far promised 18.1% of GDP and could receive transfers equivalent to 1.3% of its GDP through the Recovery and Resilience Facility, while Spain put up 12.9% and could get up to 4.9% of its GDP in grants.

Member states' stimulus plans have supported the early signs of recovery, such as rebounding retail sales and slowing unemployment growth. But if the recovery stalls or if there is a major second wave of COVID-19 infections, more will be needed. Italy would be slammed in such a situation, as it has minimal space to increase spending; already, it depends on the European Central Bank's Pandemic Emergency Purchase Program to keep borrowing costs from soaring. France and Spain also have limited space to act; only Germany could marshal another substantial stimulus. This is why it was so important for the EU to agree on a joint recovery fund. If Italy could promise an additional 3.5% of GDP in spending, it would not only continue important countercyclical policies but would also pacify markets. In a second-wave scenario, however, Europe would be able to muster much less firepower, leaving it in a more precarious situation.

SENTIMENT

Business and consumer sentiment has been improving in France and Germany since lockdowns were lifted. In Germany, the GfK index of consumer sentiment jumped to -0.3 for August from -9.4 for July. Significant improvements in income expectations and propensity to buy drove the increase in the composite index, while the government's massive stimulus policies boosted morale. The temporary cut in the value-added tax, in particular, supported propensity to buy. The VAT cut will prompt unplanned spending, but it will also shift future spending into the present, so we expect propensity to buy to deflate once the cut expires in January.

In France, the INSEE registered a 7-point increase in the business climate index, to 85 in July. Although the reading remains below the long-term average (100), it has steadily rebounded from its low in April. In the manufacturing sector, the index rose 4 points to 82, driven mostly by a better view of past activity. One reason for the current optimism is the continued increase in capacity utilization across all industrial subsectors. The quarterly business survey estimates that by July, capacity utilization had risen to 74% from an unprecedented trough of 61% in April. Most concerns over supply have eased now that lockdowns are over, but worries about demand have only intensified since April. The climate in the services sector improved more than in manufacturing, up by 11 points to 89 in July. The balance of opinion on expected activity reached just above the long-term average, but the balance on expected demand remained just below it.

Across the Channel, the U.K. the CBI quarterly business optimism index surged to -1 from its all-time low of -87 in April. Manufacturers were considerably more optimistic about the third quarter thanks to the end of the national lockdown. After a disastrous second quarter, firms expect domestic demand to rebound but expect export orders to stay weak. Likewise, firms still expect employment and gross fixed capital formation to decline over the year, but each will occur at a much softer pace than before.

ASIA PACIFIC

By Shahana Mukherjee of Moody's Analytics July 23, 2020

JAPAN

The economic costs of the COVID-19 pandemic will be deep and protracted for Japan. Japan's external position weakened further in June, as exports declined for the fourth consecutive month, falling by 26.2% in yearly terms after a deeper 28.3% decline in May. Shipments were weighed down by a persistent shortfall in overseas demand for transport equipment, and general purpose and electrical machinery.

Following the trend in recent months, the underlying drivers of weakness remained relatively unchanged. The slowdown in June's exports is similar in magnitude to what was seen in May, which is surprising, considering that May's performance reflected the effects of simultaneous lockdowns imposed or extended in the U.S., Europe, and parts of Asia, in addition to the internal supply-side effects from the local nationwide shutdown.

But an important factor that was prevalent even in June was the steady weakness in U.S.-bound shipments, which nearly halved in June, falling by 46.6%, compared with levels a year ago. This is significant for Japan, considering that the U.S. is one its main export destinations. The steady rise in U.S. COVID-19 cases in recent weeks is thus a severe risk that is likely to drive the decline in Japan's exports, which now appears likely to extend beyond June. That said, Japan's China-bound shipments continue to improve and partially neutralize the sharp contraction.

Little cushion

Another important factor that weighs unfavourably for Japan is its strong dependence on durables and investor goods in its export basket, which provides little cushion to counter the cyclical downside forces. Demand for durable goods such as cars and other vehicles continues to weaken, affecting demand for Japan's transport

equipment exports, which make up 17% of its total merchandise exports. Meanwhile a bleak business outlook has dented demand for production goods, affecting demand for general purpose and electrical machinery, which cumulatively makes up nearly 41% of Japan's total exports. As a result, the three commodity groups continue to contribute the most to the net decline, accounting for 9.5, 5 and 3.1 percentage points, respectively, of the 26.2% decline in June.

The downside risks facing Japan's exporters largely remain in place. While a recovering China bodes well, conditions elsewhere appear to be weakening further. Coronavirus cases in the U.S., India, and parts of Latin America and Africa are on the rise, and the emergence of a second wave in Hong Kong and Australia poses new risks from another setback.

Adding to Japan's worries is a sharp increase in domestic COVID-19 cases in recent days; Japan reported 795 new cases on Tuesday, the highest daily increase since April, as the local spread widens across prefectures. This raises the possibility of additional restrictions to bring the localised spread under control. Moreover, rising geopolitical tensions between the U.S. and China, and China and the U.K., are likely to stoke uncertainty and weigh on already weakened investor sentiment and global trade volumes in the near term. Japan is already in recession, but with the downside risks dominating the current economic setting, the road to recovery in the post-COVID environment is likely be a protracted one.

Ratings Round-Up

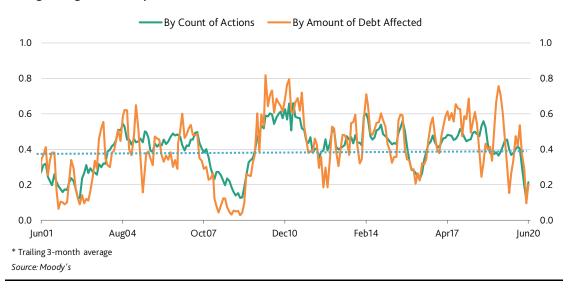
U.S. Downgrades Increase But Affect Small Percentage of Debt

By Michael Ferlez

FIGURE 1

U.S. rating change activity worsened last week, with downgrades outnumbering upgrades nine to four. However, despite being outnumbered, upgrades accounted for 90% of affected debt. Downgrades were spread across several industries, though changes were largely limited to small, speculative-grade companies. Business services and exploration production firms continue to be the most negatively impacted by the recession, with each industry suffering two additional downgrades last week. On the upgrade side, the most notable change was made to The Dun & Bradstreet Corporation. Moody's Investors Service upgraded the IT firm's corporate family rating and senior secured credit rating to B2 and B1, respectively. A key factor behind the upgrade was the reduction in Dun & Bradstreet Corporation's trailing debt/EBIDTA ratio following the repayment of its outstanding preferred stock and part of its unsecured notes. The upgrade affected \$1.5 billion in debt.

European rating volume increased in the past week, though corporate credit quality remained weak. For the week ended July 21, downgrades accounted for two-thirds of European rating change activity. The United Kingdom lead the way with four rating changes (three downgrades), followed by Spain and the Netherlands with one rating action each. The week's most notable change was to Hammerson PLC. The U.K.-based REIT saw its issuer rating and senior unsecured credit rating downgraded to Baa3 from Baa2. The downgrade was in response to market weakness caused by the global pandemic as well as Moody's Investors Service's expectation of a prolonged weakness in rents and values.



Rating Changes - US Corporate & Financial Institutions: Favorable as % of Total Actions

FIGURE 2 Rating Ke	у		
BCF	Bank Credit Facility Rating	MM	Money-Market
CFR	Corporate Family Rating	MTN	MTN Program Rating
СР	Commercial Paper Rating	Notes	Notes
FSR	Bank Financial Strength Rating	PDR	Probability of Default Rating
IFS	Insurance Financial Strength Rating	PS	Preferred Stock Rating
IR	Issuer Rating	SGLR	Speculative-Grade Liquidity Rating
JrSub	Junior Subordinated Rating	SLTD	Short- and Long-Term Deposit Rating
LGD	Loss Given Default Rating	SrSec	Senior Secured Rating
LTCF	Long-Term Corporate Family Rating	SrUnsec	Senior Unsecured Rating
LTD	Long-Term Deposit Rating	SrSub	Senior Subordinated
LTIR	Long-Term Issuer Rating	STD	Short-Term Deposit Rating

FIGURE 3

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	Old STD Rating		IG/SG
7/15/20	SEMINOLE TRIBE OF FLORIDA- SEMINOLE HARD ROCK ENTERTAINMENT, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	Ba3	B1	P-3	NP	SG
7/16/20	MATADOR RESOURCES COMPANY	Industrial	SrUnsec/LTCFR/PDR	1,050	U	Caa1	B3			SG
7/16/20	GLOBAL EAGLE ENTERTAINMENT, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2			SG
7/16/20	ALCAMI CORPORATION	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1			SG
7/16/20	DUN & BRADSTREET CORPORATION (THE)	Industrial	SrSec/SrUnsec /BCF/LTCFR/PDR	1,450	U	B2	B1			
7/17/20	CALIFORNIA RESOURCES CORP.	Industrial	PDR		D	Ca	D			SG
7/17/20	KC CULINARTE INTERMEDIATE, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B1	B2			SG
7/20/20	BRIGGS & STRATTON CORPORATION	Industrial	SrUnsec/LTCFR/PDR	390	D	Ca	С			SG
7/20/20	FRESH MARKET, INC. (THE)	Industrial	SrSec/LTCFR/PDR	800	U	Caa2	Caa1			SG
7/20/20	CFS BRANDS, LLC	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3			SG
7/20/20	BRUIN E&P PARTNERS, LLC	Industrial	PDR		D	Ca	D			SG
7/21/20	PATRICK INDUSTRIES, INC.	Industrial	SrUnsec	300	U	Caa1	B3			SG
7/21/20	ADVANCED INTEGRATION TECHNOLOGY LP	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	Caa1			SG

Ratings Round-Up

FIGURE 4

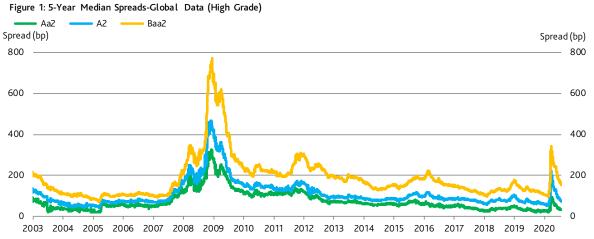
Rating Changes: Corporate & Financial Institutions – Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating		IG/SG	Country
7/16/20	HAMMERSON PLC	Industrial	SrUnsec/LTIR	2,208	D	Baa2	Baa3	IG	UNITED KINGDOM
7/17/20	GRUPO CASER S.ACASER S.A.	Financial	IFSR		U	Baa2	Baa1	IG	SPAIN
7/17/20	PAYSAFE GROUP HOLDINGS II LIMITED	Industrial	SrSec/BCF /LTCFR/PDR		D	B2	B3	SG	UNITED KINGDOM
7/17/20	INSPIRED ENTERTAINMENT, INC.	Industrial	SrSec/BCF /LTCFR/PDR		U	Caa2	Caa1	SG	UNITED KINGDOM
7/20/20	COMET BIDCO LIMITED	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa1	SG	UNITED KINGDOM
7/21/20	SELECTA GROUP B.V.	Industrial	SrSec/BCF /LTCFR/PDR	1,682	D	Caa1	Caa3	SG	NETHERLANDS
Source: Moo	dy's								

Market Data

Market Data

Spreads



Source: Moody's

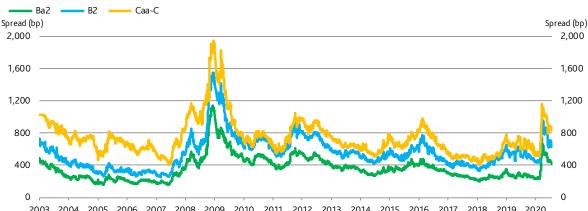


Figure 2: 5-Year Median Spreads-Global Data (High Yield)

^{2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020} Source: Moody's

CDS Movers

Figure 3. CDS Movers - US (July 15, 2020 – July 22, 2020)

CDS Implied Rating Rises	CDS Impli	ed Ratings	
lssuer	Jul. 22	Jul. 15	Senior Ratings
Noble Energy, Inc.	Baa2	Ba1	Baa3
Caterpillar Financial Services Corporation	Aa2	Aa3	A3
Occidental Petroleum Corporation	B3	Caa1	Ba2
Honeywell International Inc.	Aaa	Aa1	A2
Tenet Healthcare Corporation	B3	Caa1	Caa1
Kinder Morgan Energy Partners, L.P.	Aa3	A1	Baa2
Carnival Corporation	Caa2	Caa3	Ba2
DTE Energy Company	A2	A3	Baa2
Boston Properties Limited Partnership	Baa2	Baa3	Baa1
Royal Caribbean Cruises Ltd.	Ca	С	Ba2

CDS Implied Rating Declines	CDS Impli		
Issuer	Jul. 22	Jul. 15	Senior Ratings
FirstEnergy Corp.	Baa2	Aaa	Baa3
JetBlue Airways Corp.	Caa2	Ba1	Ba3
Citigroup Inc.	Baa2	Baa1	A3
Bank of America Corporation	A3	A2	A2
Apple Inc.	Aa2	Aa1	Aa1
Citibank, N.A.	Baa3	Baa2	Aa3
Oracle Corporation	A2	A1	A3
Boeing Company (The)	Ba3	Ba2	Baa2
Intel Corporation	Baa1	A3	A1
Merck & Co., Inc.	Aa2	Aa1	A1

CDS Spread Increases			CDS Spreads	
Issuer	Senior Ratings	Jul. 22	Jul. 15	Spread Diff
Pride International, Inc.	Ca	22,413	18,840	3,573
JetBlue Airways Corp.	Ba3	714	151	563
Nabors Industries, Inc.	B3	3,256	2,963	293
Dillard's, Inc.	Baa3	396	343	54
FirstEnergy Corp.	Baa3	66	20	46
ONEOK Partners, L.P.	Baa3	164	154	10
Talen Energy Supply, LLC	B3	1,424	1,415	9
ONEOK, Inc.	Baa3	171	164	7
Merck & Co., Inc.	A1	33	28	5
Darden Restaurants, Inc.	Baa3	84	78	5

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Jul. 22	Jul. 15	Spread Diff
K. Hovnanian Enterprises, Inc.	Caa3	2,561	2,921	-361
American Airlines Group Inc.	Caa1	3,108	3,310	-202
Pitney Bowes Inc.	B1	1,274	1,459	-185
Staples, Inc.	B3	1,900	2,051	-150
Noble Energy, Inc.	Baa3	63	207	-145
Royal Caribbean Cruises Ltd.	Ba2	1,204	1,335	-131
Carnival Corporation	Ba2	849	962	-113
SLM Corporation	Ba1	482	580	-98
Tenet Healthcare Corporation	Caa1	497	590	-93
L Brands, Inc.	B2	501	583	-82

Source: Moody's, CMA

B3

Baa3

Market Data

Figure 4. CDS Movers - Europe (July 15, 2020 – July 22, 2020)

CDS Implied Rating Rises	CDS Impli	ed Ratings	
lssuer	Jul. 22	Jul. 15	Senior Ratings
Bayer AG	A2	Baa1	Baa1
Banco Santander S.A. (Spain)	Aa3	A1	A2
HSBC Holdings plc	A3	Baa1	A2
Electricite de France	Aa3	A1	A3
Vodafone Group Plc	A2	A3	Baa2
Total SE	A1	A2	Aa3
Nationwide Building Society	A1	A2	A1
Bayerische Motoren Werke Aktiengesellschaft	A2	A3	A2
Daimler AG	Baa2	Baa3	A3
Deutsche Telekom AG	Aa1	Aa2	Baa1
CDS Implied Rating Declines	CDS Implied Ratings		
Issuer	Jul. 22	Jul. 15	Senior Ratings
VERBUND AG	Baa1	A2	A3
Commerzbank AG	Baa2	Baa1	A1
UniCredit Bank AG	Baa2	Baa1	A2
Norddeutsche Landesbank GZ	Baa3	Baa2	A3
Bayerische Landesbank	A3	A2	Aa3
Banco Comercial Portugues, S.A.	Ba1	Baa3	Ba1
Bank of Ireland	A3	A2	A2

Eni S.p.A.	Baa3	Baa2	Baa1	_
CDS Spread Increases	-		CDS Spreads	
Issuer	Senior Ratings	Jul. 22	Jul. 15	Spread Diff
PizzaExpress Financing 1 plc	С	29,177	17,587	11,591
Valaris plc	Ca	24,658	21,104	3,553
Casino Guichard-Perrachon SA	B3	780	659	121
Selecta Group B.V.	Caa3	5,402	5,283	119
VERBUND AG	A3	59	51	7
Greece, Government of	B1	150	146	5
Bankia, S.A.	Baa3	107	103	4
CaixaBank, S.A.	Baa1	97	95	3
Banco Comercial Portugues, S.A.	Ba1	136	134	2
Vue International Bidco plc	Caa2	846	843	2

Caa2

Ba1

Caa1

Baa3

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Jul. 22	Jul. 15	Spread Diff
Vedanta Resources Limited	B3	1,434	1,578	-144
CMA CGM S.A.	Caa1	844	968	-124
TUI AG	Caa1	1,034	1,117	-82
Boparan Finance plc	Caa1	589	649	-60
Fiat Chrysler Automobiles N.V.	Ba2	237	283	-46
Elisa Corporation	Baa2	63	103	-41
Piraeus Bank S.A.	Caa2	819	859	-40
Stena AB	Caa1	665	695	-30
RCI Banque	Baa2	217	244	-27
Renault S.A.	Ba2	210	236	-26

Source: Moody's, CMA

Casino Guichard-Perrachon SA

Banco BPI S.A.

Market Data

Issuance

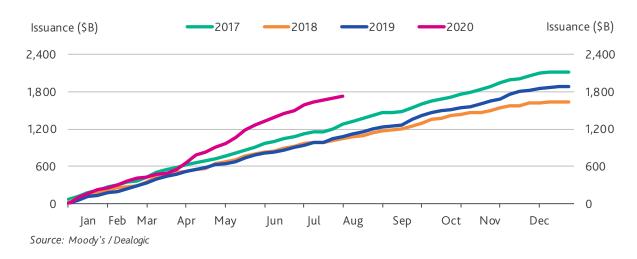
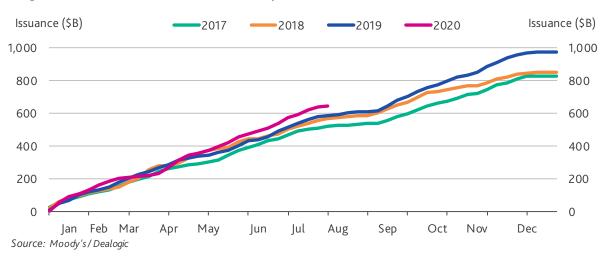


Figure 5. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated





646.768

Market Data

		USD Denominated	
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	15.209	6.870	24.100
Year-to-Date	1,355.135	308.739	1,720.405
		Euro Denominated	
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	7.804	1.433	9.237

68.814

Figure 7. Issuance: Corporate & Financial Institutions

* Difference represents issuance with pending ratings.

555.798

Source: Moody's/ Dealogic

Year-to-Date

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Report Number: 1239249	Contact Us Americas:	1.212.553.4399
Editor	Europe:	+44 (0) 20.7772.5588
Reid Kanaley help@economy.com	Asia:	813.5408.4131

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