MOODY'S INVESTORS SERVICE

OUTLOOK
16 December 2020

Rate this Research

TABLE OF CONTENTS

Contacts

Peter McNally +1.212.553.3610
VP-Senior Analyst
peter.mcnally@moodys.com

Jian Hu +1.212.553.7855
MD-Structured Finance
jian.hu@moodys.com

James Ahern +1.212.553.7139
MD-Global Structured Finance
jim.ahern@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Structured Finance – Global

2021 Outlook – Speed and extent of recovery will vary by asset class and region, with pandemic weighing on performance

Summary

The COVID-19 pandemic will continue to take its toll on economies and structured finance transactions globally. With vaccine distribution on the horizon, recovery will take hold in 2021 for many asset classes but will be more gradual for some of those hardest hit by the pandemic. Government aid to consumers and corporates, along with structural protections including subordination and cash flow diversion mechanisms, however, will continue to bolster transaction performance. Payment holidays will continue to assist some borrowers, although the pandemic's trajectory will dictate their ultimate usage.

» **Uneven recovery**: Despite the economic downturns across countries stemming from a common source, outlooks vary by both economy and sector. The economic recovery will progress over 2021, but the performance of consumer and corporate assets, along with that of commercial real estate (CRE) segments such as retail and hotels, will remain beset with heightened risks. Senior notes from most deals will continue to benefit from their sequential pay structures in which performance triggers and amortization result in some deleveraging.

» **Policy challenges**: The prospect of government support measures such as payment holidays ending, along with the continuation of US-China trade tensions, will be key challenges to the performance of assets in structured finance transactions.

» **Rising debt burdens**: High leverage, particularly among corporations, will strain some sectors' collateral credit quality. New transactions can benefit, however, from tight asset underwriting, higher credit enhancement, or other structural strengths. Tightened underwriting that limits borrowing for stressed consumers, for example, will strengthen new consumer asset-backed securities (ABS).

» **Digital transformation**: The acceleration of growth in online activity and remote working arrangements will have varying effects across sectors. For example, handset ABS and wireless tower ABS will perform strongly, but the performance of commercial mortgage-backed securities (CMBS) will depend greatly on property type.

- **Environmental impact**: Natural disasters will continue posing risks to transaction assets in sectors such as auto ABS, residential mortgage-backed securities (RMBS), and CMBS. Meanwhile, increased focus on environmental, social and governance (ESG)-related considerations will lead to increasing green bond[1] issuance and more comprehensive ESG investment criteria in new collateralized loan obligations (CLOs).
- **Social trends**: The trajectory of the pandemic will influence the levels of payment relief that remain available to borrowers under stress. However, efforts to address income inequality, affordable housing and other social challenges will also remain at the forefront.

Six themes will shape global credit in 2021

Policy challenges

Prospects of an unwinding of extraordinary fiscal support measures will create credit risks; geopolitical and trade tensions, especially between the US and China, will be a top policy focus

Digital transformation

Growth of digital service delivery, e-commerce and remote work will accelerate changes in sectors such as retail, healthcare, education, banking and commercial real estate

Social trends

Public health and safety issues stemming from the coronavirus, growing inequality, demographic trends and other social challenges will have substantial credit implications

Uneven recovery

Recovery from the unprecedented economic shock of the coronavirus will be tenuous and inconsistent across countries, regions and sectors

Rising debt burdens

Weak earnings and more solvency concerns will weigh on hard-hit companies and governments; higher debt levels and more relaxed underwriting will erode the positive effects of low interest rates on debt servicing capacity

Environmental impact

The consequences of climate change will require increased adaptation and mitigation efforts, with wide-ranging effects on governments and companies

Uneven recovery

AMERICAS

- Greater distress among lower income consumers will deepen weakness in non-prime and mixed **consumer ABS** pools
- COVID-19 fallout will increase delinquency and modification rates, increase default risk, and extend foreclosure timelines in **US RMBS**
- Spec-grade corporate defaults will peak during 2021 and decline thereafter
- The recovery will vary dramatically across **CMBS** collateral types

EMEA

- As unemployment rises in most European countries, collateral performance will weaken in almost all **ABS** and **RMBS** asset classes
- **Non-conforming** and **NPL** transactions will be most exposed to economic stress and weakened recoveries
- Several **CLO** credit quality metrics will deteriorate further, including Caa exposure and OC levels
- A prolonged recession will lower tenant demand and decrease values for properties in **CMBS**

ASIA/PACIFIC

- Asset performance will be stable in most **Japanese** asset classes because of the quality of underlying borrowers
- **China's** economic recovery will support stable performance for transactions with high-quality assets, but risks will be higher for those with lower-quality assets or exposures to companies hurt by coronavirus fallout
- **Australian** transactions' asset performance will worsen amid a tenuous and uneven economic recovery

Despite the economic downturns across countries stemming from a common source, outlooks vary by both economy and sector. The economic recovery will progress over 2021, as Exhibit 1 shows, but consumer and corporate asset performance, along with that of CRE segments such as retail and hotels, will remain beset with heightened risks. Below we highlight further asset class-specific trends related to the uneven recovery.[2]

Exhibit 1
Global macroeconomic outlooks for G-20 countries, 2021-22
As of November 2020

Economies	Real GDP Growth [1]				Inflation [2]				Unemployment		
G-20	19	20F	21F	22F	Target	20F	21F	22F	20F	21F	22F
Advanced	1.6	-5.1	4.2	3.3							
US	2.2	-3.6	4.2	3.9	2.0%	1.2	1.8	2.0	8.1	6.0	5.5
Euro area	1.2	-7.7	4.7	3.0	2.0%						
Japan	0.7	-5.5	3.2	1.6	2.0%	0.0	0.7	1.0	2.7	2.6	2.5
Germany	0.6	-5.0	3.8	2.0	2.0%	-0.3	1.4	1.5	4.0	3.8	3.5
UK	1.3	-10.7	5.2	3.6	2.0%	1.0	1.7	2.0	5.5	7.8	7.0
France	1.5	-10.2	5.3	3.5	2.0%	0.5	1.4	1.7	7.9	9.5	8.7
Italy	0.3	-9.0	5.6	3.5	2.0%	-0.7	1.0	1.2	9.5	10.5	9.5
Canada	1.7	-6.0	5.0	3.5	2.0% (+/-1.0%)	0.8	1.7	2.0	9.6	8.1	7.2
Australia	1.8	-4.0	3.5	2.8	2.0%- 3.0%	0.5	1.3	1.8	8.5	7.0	6.5
South Korea	2.0	-0.9	3.1	2.8	2.0%	0.5	1.0	1.2	4.1	3.8	3.6
Emerging	4.3	-1.6	6.1	4.7							
China	6.1	2.2	7.0	5.5	3.0%	2.5	2.5	2.3	--	--	--
India	4.8	-8.9	8.6	5.5	4.0% (+/-2.0%)	5.5	4.0	3.5	--	--	--
Brazil	1.1	-5.7	3.3	2.5	4.0% (+/-1.5%) [3]	2.5	3.0	3.5	--	--	--
Russia	1.3	-5.5	2.2	2.0	4.0%	3.8	4.0	4.0	--	--	--
Mexico	-0.3	-8.8	3.5	2.0	3.0% (+/-1.0%)	3.7	3.5	3.5	--	--	--
Indonesia	5.0	-2.0	4.7	4.8	3.0% (+/-1.0%)	1.0	2.5	3.0	--	--	--
Turkey	0.9	-5.0	3.5	4.0	5.0% (+/-2.0%)	11.5	12.0	12.0	--	--	--
Saudi Arabia	0.3	-5.0	3.2	3.7	USD Peg [4]	6.0	1.6	2.0	--	--	--
Argentina	-2.1	-12.0	5.2	2.0	monetary base [5]	45.0	40.0	40.0	--	--	--
South Africa	0.2	-6.5	4.5	1.1	3.0% - 6.0%	3.5	4.2	4.5	--	--	--
All	2.6	-3.8	4.9	3.8							

Growth forecast adjustment from September 11, 2020.
X.X An upward adjustment ≥ 0.3 pp X.X A downward adjustment ≥ 0.3 pp

1. See our previous Global Macro Outlook, Economic recovery remains tenuous as pandemic fears persist (August 2020); Germany and Mexico forecasts are not seasonally adjusted. 2. Dec-to-Dec, % change; Fiscal year ending March 31 for India; The ECB aims at inflation rates of below, but close to, 2% over the medium term; Federal Reserve aims for inflation of 2% over the longer run. 3. 2020 target. 4. Exchange rate arrangement is conventional peg to the US dollar. 5. Central Bank of Argentina relaxed money base target in 2019.
Source: Moody's Investors Service

US

We forecast real GDP growth rates in the US of 4.2% in 2021 and 3.9% in 2022, following a 3.6% contraction this year.

Consumer ABS and RMBS

» Pressures on low-income Americans will differentiate consumer ABS performance, with more distress in transactions with non-prime borrowers and others exposed to higher-risk consumers. Among non-prime loans in **auto ABS**, new payment extensions will remain more common than before the pandemic, reflecting the impact of the uneven recovery across asset classes. The negative credit effects of the weak employment market on less-seasoned **private student loan ABS** pools in particular will persist through at least next year, and potentially through borrowers' entire careers. **Credit card ABS** payment rates will decline in 2021 after recovering to near-record levels in 2020. The low payment priority of many unsecured personal loans will challenge performance for **personal loan ABS**.

» As COVID-19-tied payment holidays expire, mortgage defaults will rise, although additional stimulus, if enacted, would help some borrowers restart payments. For stronger borrowers, the recovering economy will further bolster their ability to service debt. Strong borrower creditworthiness will keep **prime jumbo RMBS** defaults relatively low, while creditworthiness for **government-sponsored enterprise credit risk transfer (GSE CRT)** borrowers is slightly lower than for prime jumbo, making those transactions more likely to incur modification losses and defaults as obligors roll off relief plans. Borrowers in **re-performing loan RMBS** pools will likely struggle more to make post-modification payments than those with a clean payment history. However, many of these transactions benefit from substantial seasoning, mitigating default risks. Meanwhile, as tenants move to suburban areas and away from cities, the demand shift will support occupancy rates and cash flow to **single-family rental securitization** sponsors, improving their ability to service debt.

Corporate ABS

» The performance of existing **aircraft lease ABS** transactions will continue to deteriorate because of depressed passenger demand. The eventual recovery in demand will vary by region and depend on the extent to which testing replaces quarantines for travelers, along with the availability and timing of a coronavirus vaccine.[3]

» Vulnerability to a potential economic slowdown will remain high for certain **equipment ABS** obligors, including those in construction, small trucking fleets and companies with low liquidity.

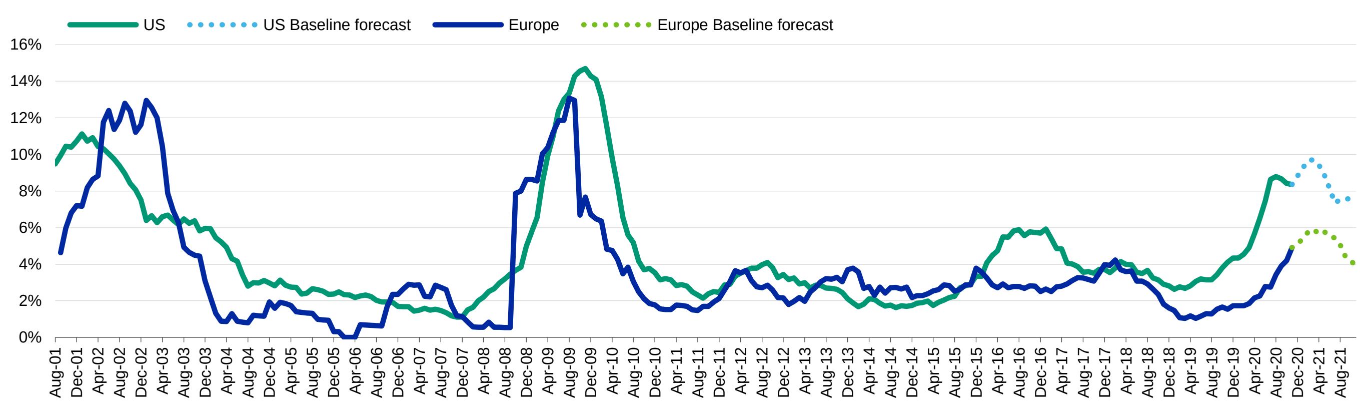
» A notable portion of the collateral pools backing **small business loan ABS** represent obligors in the industries most weakened by the pandemic, though pools are generally well diversified by industry overall. Hard-hit industries include nonfood retail, lodging, leisure, restaurants, transportation and transportation services, with exposures averaging at least 18% of unsecured small business loan ABS pools, with a range of roughly 6%-33%.

CLOs

» Under our baseline economic forecast, which assumes 4.2% US GDP growth in 2021 following a 3.6% contraction in 2020, the trailing 12-month US speculative-grade default rate will reach 9.7% in March 2021, up from 8.4% in November 2020, as Exhibit 2 shows.[4] Defaults will decline thereafter, settling in around 7.6% at the end of the third quarter of 2021. Although defaulted holdings in CLOs have increased since early in the year, the median holding was still only 1.2% in September. As defaults increase, CLO managers will continue to differentiate themselves as they maneuver the assets in their portfolios.

Exhibit 2

US and European speculative-grade default rates will peak in the first quarter of 2021



Source: Moody's Investors Service

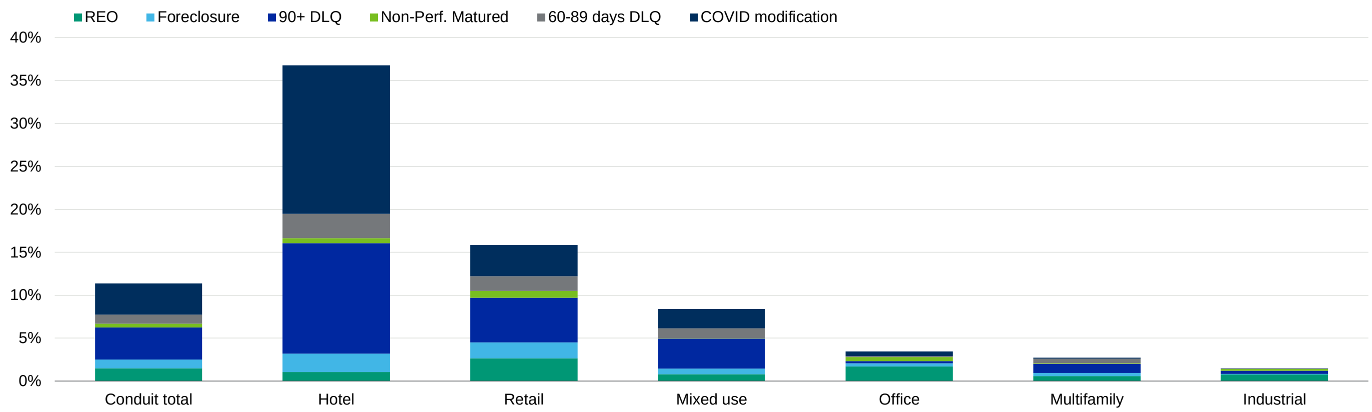
CMBS

» The negative economic impact of the pandemic has been, and will likely continue to be, hyper-focused on businesses reliant upon travel and congregation of large groups of people.[5] Some regional malls and most hotel assets will face extended extreme disruption, while other sectors like industrial will recover quickly from more typical cyclical stress. Hotels and retail properties account for most COVID-19-related modifications, as Exhibit 3 shows. In contrast, as e-commerce activity has ramped up during the pandemic, so has demand for industrial distribution centers.

Exhibit 3

Hotels account for most conduit COVID modifications

Conduit delinquent loans and COVID-related loan modifications by property type



"COVID-related loan modifications" only include performing loans. Data through October 2020. Includes conduit 1.0 and 2.0 loans.
Sources: Moody's Investors Service, Trepp LLC

Asset-backed commercial paper (ABCP)

» Despite weak economic conditions, the credit quality of most institutions that provide support to programs will stay strong with stable outlooks. By and large, most banks supporting ABCP have healthy balance sheets, high levels of capital, strong asset quality and robust funding and liquidity. Despite the pandemic, 77% of banks that support ABCP had long-term reference points of Aa3 or higher in 2020, an increase of seven percentage points from the prior year.[6]

Canada

» Canada's economy will grow in 2021, but the pandemic and potential shutdowns pose expansion risks, and the easing of government and lender support programs for individuals will further strain household finances. GDP will grow by 5% in 2021, compared with a contraction of 6% in 2020. However, unemployment will remain elevated at 8.1% at the end of 2021, compared with the pre-pandemic rate of 5.6% in February 2020.

Latin America

» **Mexico**, like other emerging countries, will exit the pandemic gradually.[7] **RMBS** backed by mortgage loans to public sector employees will remain less susceptible to further deterioration in the labor market than those backed by loans to private sector employees. The performance of **peso-denominated sofoles RMBS** will be stronger than that of **UDI-denominate** deals, while likely fully amortizing in the coming months. The performance of **UDI** transactions, issued mainly by non-bank financial institutions, had already deteriorated sharply before the pandemic with delinquencies in excess of 20% of original balances.

» **Brazil's** recovering economy will strengthen obligors' abilities to make payments as low base rates keep their debt service obligations manageable, supporting performance for existing transactions. The economic rebound will support **trade receivables** borrowers' credit quality, upholding performance. Credit quality will be stable for the majority obligors in **repack transactions** as the recovering economy supports cash flow for companies in a wide variety of sectors. Among employed **consumer loan** and **auto ABS** borrowers, higher savings and low interest rates will support their ability to service debt. However, early delinquencies will rise among unemployed borrowers, driven in part by the expiration of consumer relief measures, reversing improvements in recent years.

EMEA

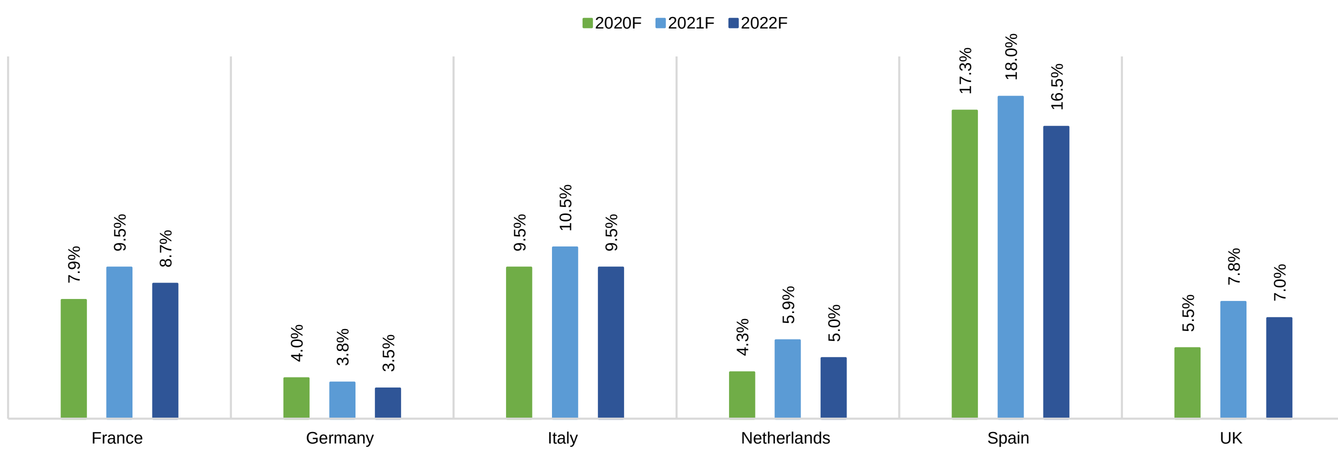
We forecast real GDP in the euro area to grow by 4.7% in 2021, followed by 3.0% in 2022, after a steep contraction of 7.7% this year. In the UK, we forecast 5.2% and 3.6% growth in 2021 and 2022, respectively, following a contraction of 10.7% in 2020.

Consumer ABS and RMBS

» As unemployment rises in most European countries (Exhibit 4), collateral performance will weaken for almost all asset classes. **Non-conforming** and **nonperforming loan (NPL)** transactions will be most exposed to economic stress and weakened recoveries. Almost two-thirds of **Italian**, **Portuguese** and **Spanish** NPL transactions have been underperforming servicers' projections.[8] Performance deterioration will remain limited for **German auto ABS** and **Dutch** and **French prime RMBS**, which are starting from a position of low arrears and low payment holiday takeups.

Exhibit 4

Unemployment rates will rise in 2021 in key structured finance markets



Source: Moody's Investors Service

Corporate ABS

» Debt moratoriums will expire in early 2021 for **Italian small and medium-sized enterprises (SMEs)** and during the first half of 2021 for **Spanish SMEs**. If governments do not extend support measures beyond those dates, companies with weak financial resources will be unable to service their debt.

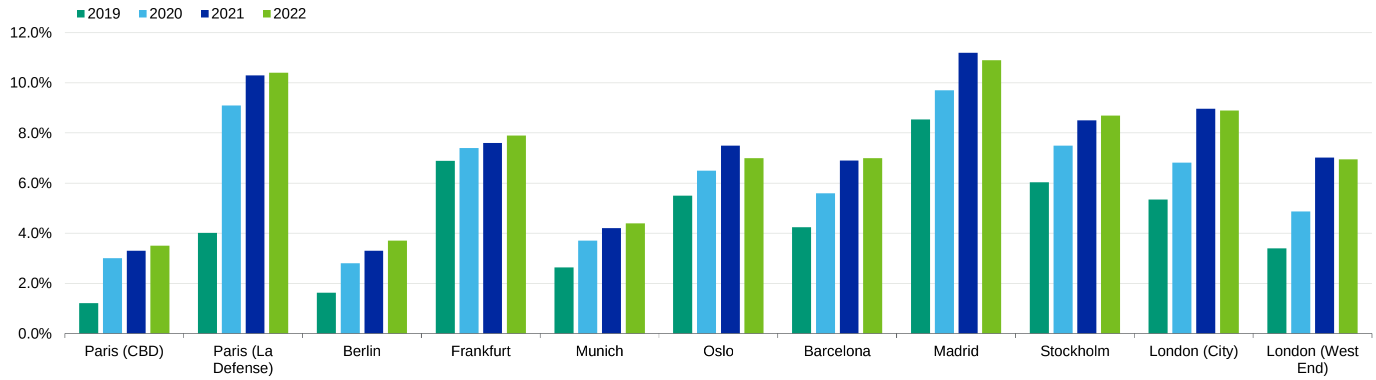
CLOs

» As in the US, European speculative-grade defaults will peak in the first quarter of 2021 (Exhibit 2 above). Speculative-grade default rates will peak at 5.9% in March before recovering to 4.3% by the end of the third quarter under our base case scenario. However, as pandemic-driven lockdowns resume, defaults become more likely to push past those levels, with the speculative-grade default rate rising to 10% by the end of 2021 under our pessimistic scenario.[9] Across industry sectors, we expect business services to have the largest number of defaults, followed by hotel, gaming & leisure, and oil & gas.

CMBS

» Over the next 12-18 months, term default risk will remain high for discretionary retail and leisure loans and will likely remain stable for office, logistics and residential loans. Rising unemployment will reduce demand for office space and increase office vacancy rates, as Exhibit 5 shows, with the reduction in demand partially offset by reductions in space density stemming from social distancing measures.

Exhibit 5
European office vacancy rates will remain above 2019 levels



Source: Cushman & Wakefield

ABCP

» The credit quality of multi-seller ABCP conduits in Europe will remain robust, given the stable credit quality of the supporting liquidity providers in spite of the pandemic. Even though our outlook for banks in Europe is negative, none are on watch for downgrade.[10] Sponsors will continue to fully support programs.

Asia/Pacific

» Because of its high credit quality, the performance of most **Japanese** structured finance collateral will be broadly stable in 2021 as the economy slowly recovers from the coronavirus-driven downturn. For **auto loan ABS**, asset default rates will be broadly stable because most underlying borrowers work in secure full-time jobs. For **credit card ABS**, asset performance risks will be higher than in other asset classes because pools comprise larger shares of loans to low-quality borrowers, such as part-time or low-income workers. For **installment sales loan ABS**, default rates will remain stable at low levels for loans on housing products because borrowers are relatively high credit quality individuals who can afford to own their homes. However, defaults will be higher for loans on other products because a high shares of such loans are to SMEs or sole proprietors whose finances are typically weaker than regular employee borrowers. For **owner-occupier loan RMBS**, delinquency and default rates will remain stable at low levels because of the high quality of underlying borrowers.

» **China's** economy and job market will gradually recover through 2021, which will support asset performance. Asset performance will be stable for **auto ABS** and **RMBS**, with the gradual economic recovery from the coronavirus-driven downturn, good loan quality and low interest rates helping to keep loan delinquency and default rates low. For **consumer loan ABS**, asset performance risks will be higher given lower quality borrowers, with delinquency and default rates staying above pre-coronavirus levels. For **CLOs**, default rates will increase somewhat in 2021 but will be low overall. The gradual economic recovery and low interest rates will support CLO asset performance, but not sufficiently enough for some companies with weak liquidity that have been hurt by the economic fallout from the coronavirus to avoid default.

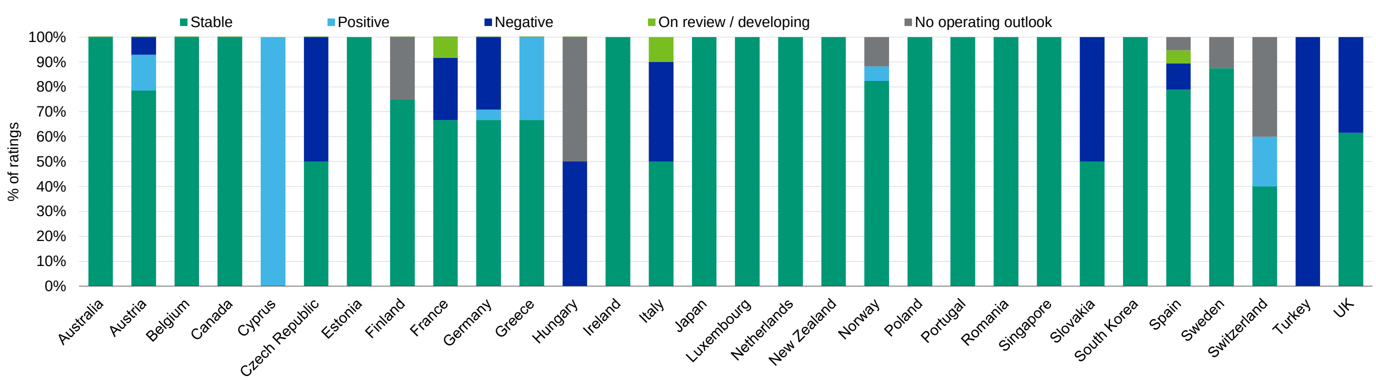
» The **Australian** economy will grow in 2021 after contracting in 2020, but recovery will be tenuous and uneven. For **RMBS**, delinquency and default rates will increase given high unemployment amid the uneven economic recovery and the end of government and lender support measures. For **SME loan ABS** or transactions with high shares of loans to self-employed borrowers, delinquency and default rates will increase by more than for other ABS, because the coronavirus has hurt the operating environment for small business particularly hard. For **auto loan ABS**, while delinquency and default rates will increase, recovery rates on defaulted loans will be strong, because of high used car prices.

Global covered bonds

» Cover pool collateral performance will worsen in 2021 because of the ongoing economic fallout from the coronavirus. For **residential mortgages**, arrears will increase when government support measures end. For **commercial mortgages**, retail and office property values will decline, given the shift to online shopping and remote working. For **public sector loans**, borrowers' costs will increase and revenues will decline. However, high over-collateralization (OC) levels and low loan-to-value (LTV) ratios will mitigate collateral risks for covered bonds.

» In most countries where we rate covered bonds, banks entered the coronavirus crisis with significantly higher capital and liquidity than at the time of the 2008 financial crisis. This strong starting position will help banks withstand the inevitable asset quality and profit deterioration as loan delinquencies increase because of the economic consequences of the pandemic. Our banking sector outlook is negative for three quarters of countries where we rate banks, including every G-20 country except Canada (Aaa stable). However, our individual rating outlooks for covered bond issuers are mostly stable, as Exhibit 6 shows.

Exhibit 6
Outlooks for most covered bond issuers are stable
Covered bond issuer outlook, by country



Source: Moody's Investors Service

Policy challenges

AMERICAS

- Most **US consumer ABS** sectors face exposure to important policy questions moving forward, with attention on student debt burdens, fintech lending, and evolving financial regulations and enforcement
- Efforts to expand home ownership and new QM rules may weaken the credit quality of some **US RMBS**
- Elevated unemployment in 2021, in the absence of further lender support programs, will weaken **Canadian consumer** credit performance

EMEA

- **SME** and **consumer ABS** performance will weaken less if governments extend policies to support unemployed and self-employed borrowers and SMEs
- Increased regulation that imposes restrictions on rents will negatively impact **BTL** markets
- In the event of a no-deal Brexit, dampening tenant demand and lower investment volumes are likely to occur in London office markets, a negative for **CMBS**

ASIA/PACIFIC

- Trade tensions with the US will remain an ongoing risk for China's economy and therefore **Chinese** structured finance asset performance
- Government income support measures and lender payment deferrals will end in 2021, a negative for **Australian** structured finance asset performance

The prospect of government support measures ending along with the continuation of US-China trade tensions will be key challenges to the performance of assets in structured finance transactions. Below we highlight further asset class-specific trends related to policy challenges.

US

- The extent of future direct and indirect government support for consumers remains a key credit driver for securitizations, with most **consumer ABS** sectors facing exposure to important policy questions such as the likelihood of student debt forgiveness and evolving financial regulations and enforcement. New developments around legal risks related to the origination of consumer loans under bank partnerships will likely emerge via regulatory steps, court decisions, or changes in business strategies.[11]

- The incoming presidential administration's potential efforts to expand homeownership and new qualified mortgage rules may weaken the credit quality of some **RMBS** transactions. The change in administration also lends uncertainty to the timing of the transition away from GSE conservatorship.

- Among corporate ABS we rate, **small business ABS** performance is highly dependent on the approval, timing and amount of additional federal fiscal stimulus, which, if enacted, would also benefit most **equipment ABS** obligors.

Canada

- The unprecedented level of government and lender support in 2020 mitigated the pandemic's economic effects on Canadian households. However, in the absence of further lender support programs, elevated unemployment in 2021 will weaken consumer credit performance.

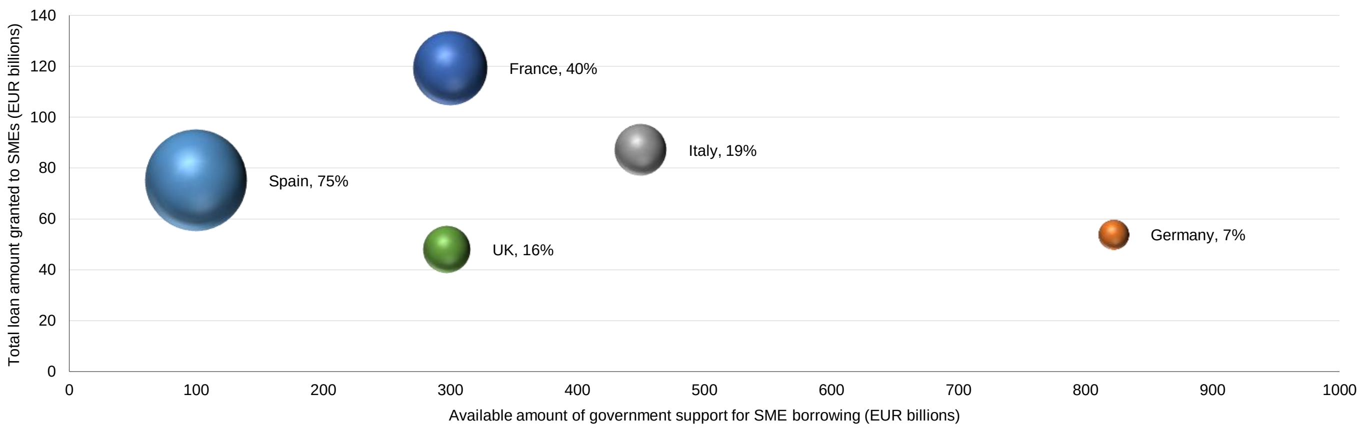
Latin America

- As **Brazilian** unemployment remains high, government income support for individuals through programs such as the Bolsa Familia and Renda Brasil will help avoid rising delinquencies and improve consumption. Meanwhile, if US-China trade relations remain tense, issuance of Brazil's agribusiness **trade receivables** and **repack securitizations** will increase.

EMEA

» Although set to expire in 2021, an extension of government policies to support unemployed and self-employed borrowers and SMEs would soften the blow of continued economic fallout from the pandemic on **consumer** and **SME ABS** we rate. Exhibit 7 shows the takeup rates for government relief funds, by country. Meanwhile, increased regulation that imposes restrictions on rents will weaken **buy-to-let (BTL) RMBS** credit quality and performance. Meanwhile, in the event of a no-deal Brexit, dampening tenant demand and lower investment volumes will likely decline in London office markets.

Exhibit 7
Takeup rates for coronavirus-tied government funds to support SME borrowing vary across countries
Government funds to support SME borrowing and borrowers' use of programs



Data covers 16 August 2020 to 7 September 2020. GBP converted at 1.11 EUR.
Source: Moody's Investors Service

Asia/Pacific

» External factors such as a worsening of the pandemic within key trading partners or an escalation of geopolitical tensions, particularly with the US, could also constrain **China**'s recovery and weaken structured finance transaction performance.

» The **Australian** government's income support measures and lender payment deferrals will end in 2021, a negative for structured finance transactions' asset performance.

Global covered bonds

» Accommodative monetary policies and measures to protect vulnerable members of society will support borrowers' abilities to service loans in covered bond pools in 2021.

Libor replacement will command increasing attention in 2021

Libor's administrator recently announced a proposal to consult on pushing the cessation of key USD Libor tenors to June 2023 from December 2021.[12] This proposal has the potential to give market participants more time to address the challenges of legacy USD Libor exposure, for replacements to become more established, and for tranches with legacy documentation to pay down. In 2021, transaction parties will continue to replace deals' problematic legacy language with fallback language that reduces the risk of their coupons becoming fixed once Libor ends.[13] If the proposed "synthetic" Libor is in place beyond 2021, it will offset many future risks for UK legacy transactions.

» The **US consumer ABS** market will join others in continuing to prepare for the proposed end of key US dollar Libor maturities, including through communication with key parties such as investors and issuers, industry and consumer groups, and regulatory officials. US regulators this month said banks should generally stop using Libor in new contracts after next year, so focus on transition issues will increasingly turn to new issuance.

» As the expiration of Libor approaches, **US RMBS** transactions with strong fallback language, such as most **post-crisis prime jumbo** and **GSE CRT** transactions, will be better insulated from basis mismatch and potential cash flow disruptions. However, most RMBS documentation, especially for legacy transactions, does not easily allow for such a transition.[14] Market participants will continue to pay increasing attention to potential risks from Libor transitioning.

» New **US CLOs** will likely continue to incorporate Libor-replacement fallback language based on the Fed's Alternative Reference Rates Committee's recommended language. Existing CLOs with legacy documentation, which represent a significant but declining share of outstanding CLOs, face more risk than new CLOs because of their lower flexibility for managers or other transaction parties to make benchmark adjustments. New leveraged loans will also begin incorporating such "hardwired" fallback language, although most loan fallback provisions to date have provided for benchmark transitions contingent only upon consensual amendments.[15]

» If the pandemic continues to distract market participants from Libor transitioning, the extended conversion period will prolong risk across **UK** markets. When Libor ceases to exist, the risk of interest rate mismatches in UK **RMBS** will rise, especially for legacy RMBS with multilevel exposure to the benchmark. If the proposed "synthetic" Libor is in place beyond 2021, it will offset many future risks for legacy transactions.

» Most of the **Japanese repackaged securities** we rate with Libor exposure will be vulnerable to cash flow risks in the transition from Libor, because of their multilevel Libor exposures and their lack of credit enhancement to mitigate risks. We expect only a small number of the repackaged securities we rate that are exposed to Libor will fully redeem before the end of 2021. For **apartment loan ABS** we rate, the transition from Libor could cause cash-flow risks mainly from fixed-floating rate mismatches. For **Japanese RMBS** we rate, the transition from Libor could cause cash-flow risks from payment disruptions or rate mismatches or both.[16]

Rising debt burdens

AMERICAS

- Tightened underwriting will limit borrowing for stressed consumers, strengthening **consumer ABS** issuance quality
- Historically low interest rates will support debt affordability and prepayments, resulting in lower default risk and increased credit enhancement for some **US RMBS**
- Leverage will remain high among **CLO** assets in 2021
- Conduit **CMBS** leverage has remained high but were countered by record-high DSCRs in 2020

EMEA

- Rising unemployment and more limited discretionary income will increase debt burdens, weakening **consumer ABS** and **RMBS** performance, though low interest rates will aid borrowers
- Tightened lending criteria will improve collateral quality across prime markets
- **CLO** asset quality will continue to deteriorate, reflecting ongoing weakening in the leveraged finance market, with few positive industry sector and corporate family outlooks and a growing list of companies rated B3 or lower

ASIA/PACIFIC

- Most originators will maintain sound underwriting standards and prudent risk appetites as **Japan's** economy slowly recovers
- **China's** rising household debt, combined with slowing disposable income growth, will increase asset performance risk, though low interest rates will support performance
- **Australian** lenders have tightened underwriting since the coronavirus outbreak, but proposed changes to lending rules will allow lenders to relax standards

High leverage, particularly among corporations, will strain some sectors' collateral credit quality. New transactions can benefit, however, from tight asset underwriting, higher credit enhancement, or other structural strengths. Tightened underwriting that limits borrowing for stressed consumers, for example, will strengthen new consumer ABS. Below we highlight further asset class-specific trends related to debt burdens.

US

Tightened underwriting that limits borrowing for stressed consumers will strengthen new consumer ABS, and low interest rates will lessen ABS and RMBS obligors' debt loads. Consumers have been prudent, repaying debt led by credit card balances and pausing decisions such as on new auto loans amid stimulus checks and fewer spending opportunities, but high debt levels will strain obligors across corporate segments.

Consumer ABS and RMBS

- Tightened underwriting will limit borrowing for stressed consumers, strengthening new **consumer ABS** credit quality. Continued low interest rates will also improve the credit quality of new originations by lowering the carrying costs of consumers' debt loads. But cheap credit has the potential to boost leverage among pockets of consumers, especially if government aid and the ability to put off payments further lapse.
- Low interest rates will help **RMBS** performance by keeping borrowers' adjustable debt payments affordable. Low rates will also drive borrowers to refinance, bolstering prepayments. Such prepayments accrue the largest benefit in sequential structures, resulting in deleveraging and faster buildup of credit enhancement.

Corporate ABS

- Airline credit quality will remain weak, resulting in lower **aircraft lease ABS** cash flow, because of relatively high debt balances, financial leverage and interest burden through at least 2023.[17]

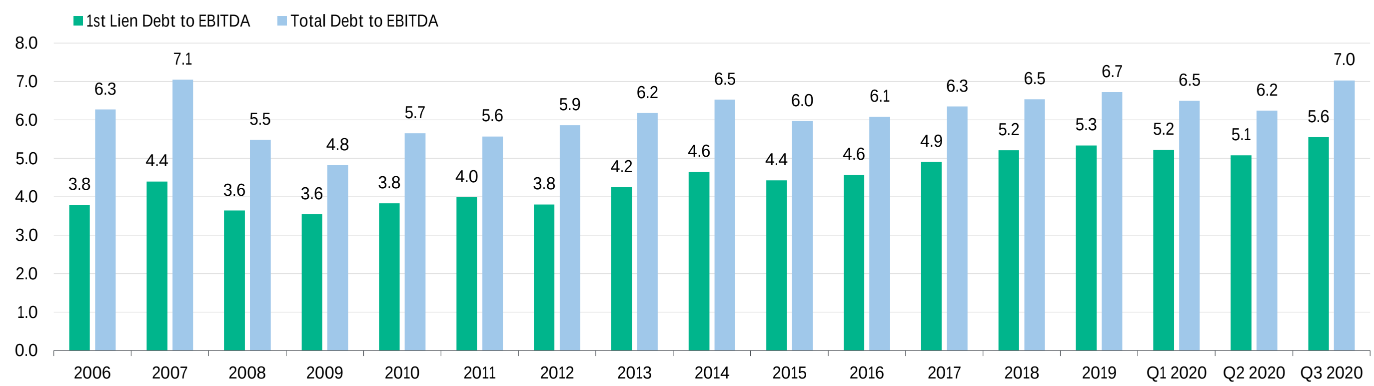
- The financial condition of **rental car ABS** issuers deteriorated in 2020, reflecting their heavy reliance on the capital markets for funding and pricing pressure when industry fleet size outpaces demand. The sudden onset of the pandemic in 2020 triggered an unprecedented and sudden change in the operating environment for rental companies, including a severe drop in rental car demand, fleet utilization and used vehicle sales and prices.
- Heightened leverage will continue to strain obligor credit quality in **small business loan ABS** until revenue rises or costs fall.

CLOs

- As the institutional loan market regained some steam in the third quarter of 2020, borrowers regained their tolerance for leverage. Third quarter total and first-lien debt-to-EBITDA exceeded 2019 levels (Exhibit 8) and borrower leverage will remain high in 2021, a trend that indicates greater propensity to default among assets in CLOs if it extends to the loans selected by managers to be held by transactions.

Exhibit 8

Leverage for large corporate LBOs rose above the 2019 average in Q3 2020



Source: Refinitiv LPC

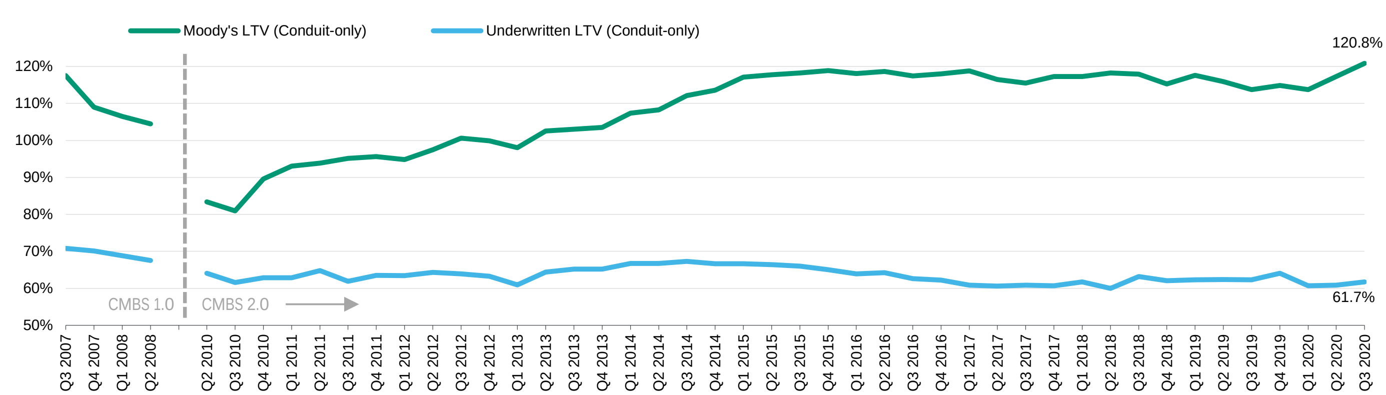
CMBS

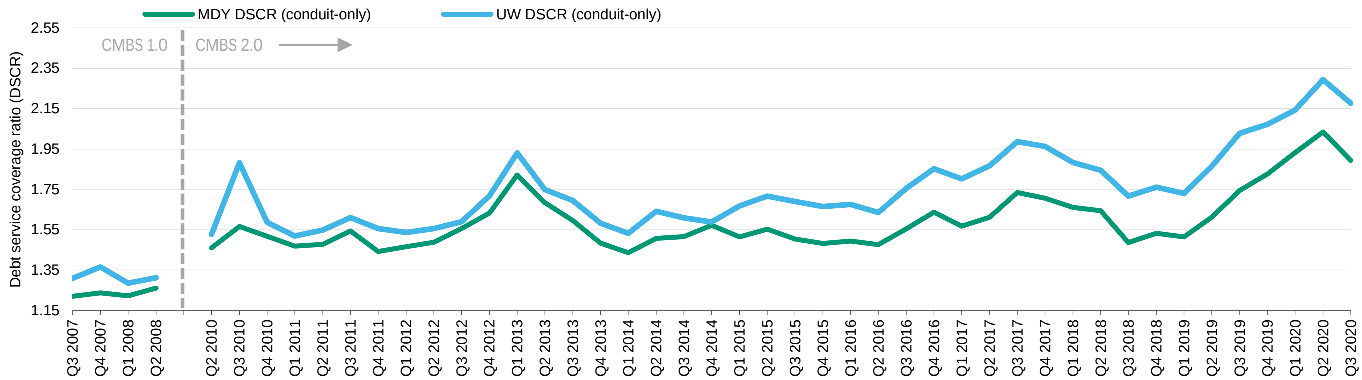
- In general, leverage in conduit CMBS has remained high on a Moody's credit-adjusted basis, but record-high debt service coverage ratios in 2020 have countered the rise in leverage (Exhibit 9), reducing term risk significantly. And given the low-rate environment and the prevalence of interest-only terms, those trends will likely continue in 2021.

Exhibit 9

Still-high DSCRs countered a spike in MLTVs in 2020

Conduit CMBS MLTVs and DSCRs





Note: Includes Moody's rated conduit deals only. Excludes structured credit assessed (sca.pd) loans.
Source: Moody's Investors Service

Latin America

» As the **Mexican** economy recovers, lenders will maintain tight underwriting standards with only low-leverage borrowers receiving loans, thus bolstering the collateral quality of **RMBS** and **ABS backed by cable TV contracts**.

EMEA

Consumer ABS and RMBS

» Rising unemployment and less discretionary income will increase debt burdens for borrowers whose debt backs **consumer ABS** and **RMBS** transactions. The continuation of low interest rates will be credit positive for RMBS performance, though a decline in house prices will increase losses in outstanding transactions, with heightened risks for portfolios with significant shares of interest-only loans that do not deleverage.[18]

CLOs

» Despite weakened earnings, many corporate issuers obtained additional liquidity from the market, increasing leverage from already-high levels. Meanwhile, free cash flow remains depressed in some sectors, particularly in those most affected by lockdowns and social distancing, such as transportation, retail, automotive and services. Many new B3 rated issuers have high leverage levels, a trend set to continue in 2021.

CMBS

» New deals in 2021 will continue to have LTV ratios in the 55%-65% range as the macroeconomic uncertainty from the pandemic persists. This is helping to restrain underwriting standards and valuations.

Asia/Pacific

» Most **Japanese** originators will maintain sound underwriting standards and prudent risk appetites as the economy slowly recovers.

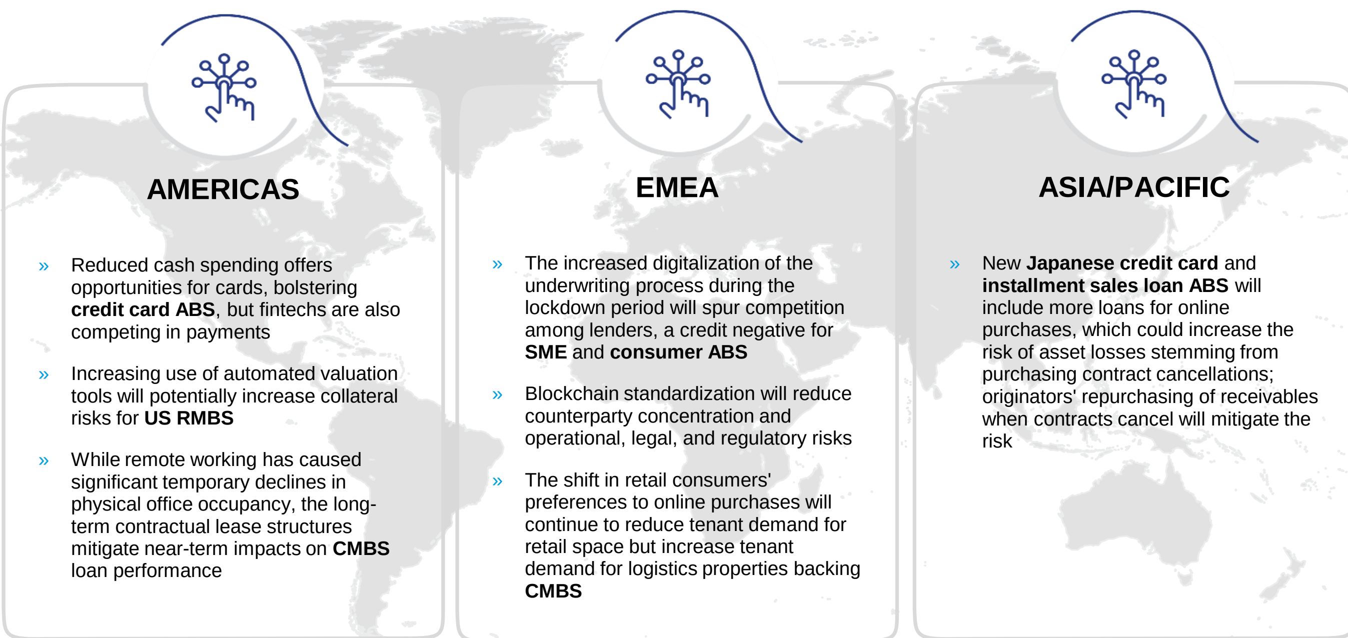
» **China's** household debt as a proportion of GDP is low compared with many other countries, but is rising. Rising household debt, combined with slowing disposable income growth, increases asset performance risk for structured finance transactions, though low interest rates will support asset performance even as debt burdens increase.

» **Australian** lenders have tightened underwriting policies since the coronavirus outbreak, but proposed changes to lending rules, if implemented, will allow lenders to relax standards to boost credit flow and expand debt levels.

Global covered bonds

» Record-low interest rates will continue in 2021, which will support residential property prices and borrowers' ability to service cover pool loans. However, low interest rates will also lift demand for fixed-rate mortgages, which is negative for covered bonds and will overshadow the positive effects of better debt serviceability over the long term. If a cover pool needs refinancing in a rising interest rate environment, a large share of fixed-rate assets will be negative for the sale value.

Digital transformation



The acceleration of growth in online activity and remote working arrangements will have varying impacts across sectors. For example, handset ABS and wireless tower ABS will perform strongly, but the performance of CMBS will depend greatly on property type. Below we highlight further asset class-specific trends related to digital transformation.

US

Several US asset classes will benefit from accelerated digitization, while the long tenors of office leases mitigate the near-term impact of decreased office demand on CMBS loan performance.

Consumer ABS

» Reduced cash spending amid a more digital world offers opportunities for credit card utilization among strong borrowers, bolstering **credit card ABS quality**, although credit card issuers also face competition from fintechs in the digital payment space. **ABS backed by mobile phone financing** benefit from the increasingly high utility and associated monthly payment priority consumers place on their phones.

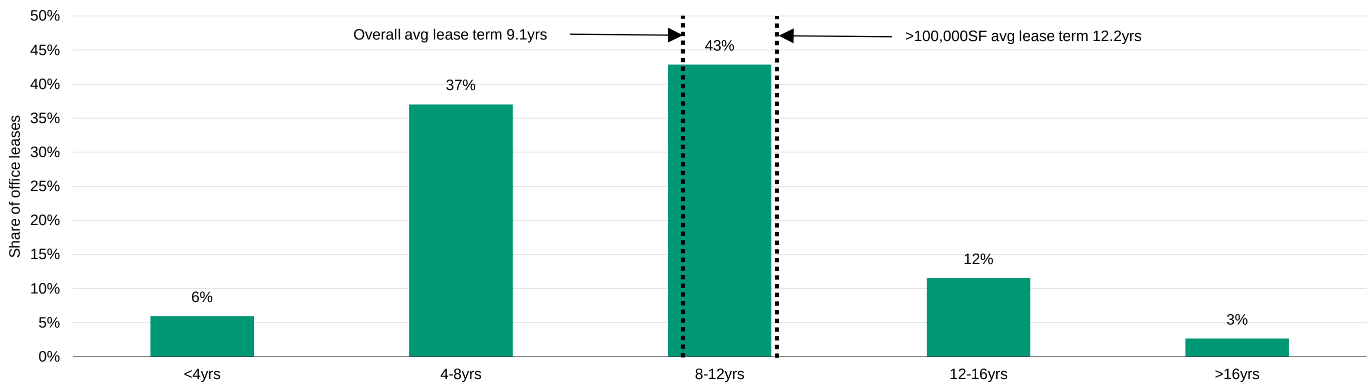
RMBS

» Increasing use of automated valuation tools will weaken underwriting standards and increase collateral valuation risk. However, these tools' capacity to analyze very large data sets also strengthen quality control and third-party reviews.[19]

CMBS

» While remote working has caused significant temporary declines in physical office occupancy, the long-term contractual lease structures mitigate near-term impacts on loan performance. Leases on spaces larger than 10,000 square feet (SF) average 9.1 years, while leases on spaces greater than 100,000 SF average 12.2 years, as Exhibit 10 shows. The coming year will likely be benign for the office sector, with controlled supply growth, steady levels of office-using employment and long-term leases to office tenants. Although near-term lease rollover caused rents to dip in 2020, rents will begin recovering in mid-to-late 2021 and ultimately register a shallow cyclical downturn.[20] Long-term impacts of the pandemic on the office sector will start to come into focus in 2021 as office tenants move to implement social distancing requirements in their spaces in conjunction with remote work arrangements. Full recovery of office rents, estimated to come in mid-2023, is contingent on the nature of office usage and demand post-pandemic, although we expect broad disintermediation of office to be unlikely.

Exhibit 10
Most office lease terms are greater than eight years
Distribution lease terms for US offices of 10,000 SF or more



Sources: Moody's Investor Service, Moody's Analytics, Compstak

EMEA

» The increased digitalization of the underwriting process during lockdowns will spur competition among lenders, likely promoting looser underwriting across **SME** and **consumer ABS** originators. Furthermore, banking digitalization will accelerate decision times on borrower credit applications and continue the disintermediation trend, lowering origination costs. This acceleration plus the growing presence of low cost-base fintech originators is also competition, especially for the most creditworthy prime borrowers.[21] Meanwhile, blockchain standardization will reduce counterparty concentration and operational, legal, and regulatory risks for **securitizations**. Among **CMBS** collateral, the shift in retail consumers' preferences to online purchases will continue to reduce tenant demand for retail space but increase tenant demand for logistics.

Asia/Pacific

» New **Japanese credit card** and **installment sales loan ABS** will include more loans for online purchases, which could increase the risk of asset losses stemming from purchasing contract cancellations. Originators' repurchasing of receivables when contracts cancel will mitigate the risk.

Global covered bonds

» The coronavirus has accelerated shifts toward online shopping and remote working, a negative for covered bonds' retail and office building CRE loan collateral.

Environmental impact

AMERICAS

- Demand for battery electric vehicles will be supported by environmental consciousness and policies
- Natural disasters will continue posing risks to **auto ABS** and **RMBS**, mitigated by pool diversity and structural features
- **CLO** asset selection will increasingly take ESG considerations into account
- Governments will continue to address buildings' environmental impacts, which could impact revenues for **CMBS** properties

EMEA

- Mortgage volume for energy-efficient housing will slowly increase, supporting prices for such properties in **RMBS**
- **CLO** ESG criteria will become more comprehensive, with more active selection to complement today's negative screening
- **CMBS** property owners will expend more capital retrofitting older offices to meet higher environmental standards

ASIA/PACIFIC

- **Chinese** auto makers' production of electric vehicles and government policies will continue to promote electric vehicle sales; their share growth in **auto ABS** will depend on auto makers' roll out of electric models
- **Australian** green bond issuance will increase in 2021, given strong consumer demand for household solar panels and batteries

Natural disasters will continue posing risks to transaction assets in sectors such as auto ABS, RMBS and CMBS. Meanwhile, increased focus on ESG-related considerations will lead to increasing green bond issuance and more comprehensive ESG investment criteria in new CLOs. Below we highlight further asset class-specific trends related to environmental impacts.

US

Rising risks from natural disasters highlight environmental concerns across asset classes, including auto ABS, RMBS and CMBS.

Consumer ABS and RMBS

- Environmental concerns will continue to support demand for battery electric vehicles, which still carry greater residual value uncertainty than gas-powered vehicles in **auto lease ABS**.[22]
- Natural disasters are becoming more common, increasing the likelihood of **auto ABS** and **RMBS** delinquencies. Disaster-related risks are mitigated by pool diversity and structural features such as strong interest repayment mechanisms and natural disaster exceptions in GSE CRT transactions.

CLOs

- CLOs will continue to gradually incorporate ESG-related restrictions in their investment criteria. Asset selection will increasingly include ESG considerations, with some managers changing from negative screening to proactive selecting.

CMBS

- The predominant environmental risk for CRE assets is the various potential costs related to climate-related weather hazards. Several aspects of CMBS will reflect the anticipation of these hazards becoming more common, including CRE property insurance costs and availability, and eventually capital expenditures and valuation. Insurance costs will likely rise further in areas most exposed to hurricanes, flooding and wildfires, and in some cases become unavailable without government support. Cities and governmental entities will continue to take various counteractive measures to limit buildings' contribution to environmental impact, which could impact CRE property revenues.

ABCP

» Reflecting demand from ESG money market funds, the portion of deals in multi-seller bank-sponsored conduits with a focus on ESG concerns will rise but remain minimal.

EMEA

Increasing stakeholder awareness of environmental concerns has implications for transactions across European asset classes.

ABS and RMBS

» Driven by initiatives such as the Energy efficient Mortgages Action Plan (EeMAP), green mortgage origination will continue to grow, but only at a slow pace, across Europe. In addition, contained energy costs will increase demand for properties with high energy efficiency ratings, supporting prices for such assets in **prime RMBS**.

CLOs

» CLO investors with dedicated ESG mandates will likely demand a more comprehensive and selective ESG approach as a result of the pandemic and other developments that brought ESG-related issues to the forefront over the past year, with more active selection to complement today's negative screening.

CMBS

» Investors and office occupiers will likely be increasingly aware of issues around the sustainability of underlying real estate. Landlords will spend more retrofitting older offices to meet higher environmental and energy-efficient standards, ensuring they comply with regulations while attracting the widest possible tenant base.

ABCP

» ABCP sponsors will likely issue notes backed by assets that have ESG characteristics in 2021, given the strong investor interest in this field and the keen interest among sponsors in issuing such paper. However, transactions that are ESG compliant will likely remain a small proportion of ABCP issuance, as the amount of receivables generated in the financing of this activity is a small section of the overall market.

Asia/Pacific

» **Chinese** automakers' production of electric vehicles and government policies will continue to promote electric vehicle sales. Their share growth in auto ABS will depend on automakers' roll out of electric models.

» **Australian** green bond issuance will increase in 2021, given strong consumer demand for household solar panels and batteries.

Global covered bonds

» Green covered bond issuance will continue to grow, supported by regulatory and industry-driven developments promoting transparency of environmental, social and governance activities.

Social trends

AMERICAS

- Payment relief demands can depress **consumer ABS** cash flows or free up funds for borrowers to keep paying
- Concern about record high student loan debt increases risks and uncertainties for **student loan ABS**
- For as long as they continue, payment holiday plans will provide meaningful support to mortgage borrowers, but also disrupt **RMBS** payments

EMEA

- Servicers, concerned with reputational risk, will rely less on repossessions and more on forbearance, which can extend recovery timelines for **ABS** and **RMBS** and delay business plan completion for **NPLs**
- Any extension of borrower-friendly policies, such as payment holidays, will depend on coronavirus infection trends

ASIA/PACIFIC

- The **Australian** government's proposed changes to consumer credit regulations would remove banks' responsible lending obligations, allowing them to relax some aspects of their underwriting policies

The trajectory of the pandemic will influence the levels of payment relief that remain available to borrowers under stress. However, efforts to address income inequality, affordable housing and other social challenges will also remain at the forefront. Below we highlight further asset class-specific trends related to social trends.

US

Pandemic-related relief efforts will remain at the forefront in 2021, while student debt forgiveness gains more attention.

Consumer ABS

» Social issues typically expose **student loan ABS** credit quality directly or indirectly to regulatory, litigation, operational and reputational risks. Vulnerability is greatest for Federal Family Education Loan Program transactions, reflecting the high use of payment plans among borrowers.[23] Student loans' dischargeability in bankruptcy, the generosity of income-based repayment plans, and debt forgiveness are among potential areas of reform.

RMBS

» For as long as they continue, payment holiday plans will provide meaningful support to mortgage borrowers. However, such holidays will also reduce payments to **RMBS** bonds.[24]

Corporate ABS

» In benefit to **rental car ABS,** rental demand will increase, reflecting pent-up demand for leisure travel, a shift in consumer preference toward off-airport locations and continued consumer apprehension toward public transportation. **Small business ABS** will weaken as a result of rising costs stemming from small businesses' investments in employee health, safety and technology. And **wireless tower ABS** will benefit from data demand accelerating as a result of shifts toward mobile-centric living and the "Internet of Things."

EMEA

» Policymakers will increasingly focus on social risk and housing issues, leading **SME ABS, consumer ABS**, and **RMBS** servicers concerned with reputational risk to rely more on forbearance and less on repossessions. Meanwhile, social mortgages such as help-to-buy[25] and shared ownership will rise. These programs were expanded to counteract the impact of the pandemic and support ownership access for first-time homebuyers and more vulnerable borrowers. The UK Financial Conduct Authority proposals to aid mortgage prisoners, borrowers who are unable to remortgage, will likely gain momentum in 2021.

Global covered bonds

» The coronavirus will strengthen lawmakers' resolve to protect financially vulnerable people. Policies that protect jobs and assist borrowers will help people meet loan payments, but any policies that go beyond temporary debtor relief and weaken creditors' rights will be negative for covered bonds.

Moody's related publications

Outlooks

Global

» Covered Bonds – Global: 2021 Outlook – Policy measures will support credit quality next year but pose long-term risks, 3 December 2020

» Global Macro Outlook 2021-22: Nascent economic rebound takes hold globally but recovery will remain fragile, 12 November 2020

Americas

» ABCP - US: 2021 Outlook - Credit quality will stay strong, economic expansion will support stable issuance, 11 December 2020

» CLOs – US: 2021 Outlook – With collateral still weakened, CLOs will incorporate flexibility for managing assets under stress, 1 December 2020

» CMBS and CRE CLOs – US: 2021 Outlook — Starkly bifurcated recovery ahead for commercial real estate, 10 December 2020

» Consumer ABS – US: 2021 Outlook – Weaker asset performance will weigh on deals as underwriting slowly normalizes from 2020 tightening, 10 December 2020

» Corporate ABS – US: 2021 Outlook - Market prudence amid COVID-19 will aid new deal credit quality; strains on deal performance will persist, 8 December 2020

» RMBS – US: 2021 Outlook – COVID-19 fallout will drive originators to uphold high standards, but weaken existing deals' performance, 7 December 2020

» Structured Finance – Brazil: 2021 Outlook – Strong obligors, structures will uphold new deal credit quality; economic recovery will aid performance, 9 December 2020

» Structured Finance - Canada: 2021 Outlook - Quality will remain high for new assets, but elevated unemployment will erode deal performance, 8 December 2020

» Structured Finance – Mexico: 2021 Outlook – New deal collateral will remain strong; economic recovery will benefit performance to varying degrees, 9 December 2020

EMEA

» ABCP — EMEA: 2021 Outlook - Conduit credit quality and performance will remain robust amid the pandemic, 9 December 2020

» CLOs – Europe: 2021 Outlook – Collateral quality will continue to decline while structures adapt to downturn, 1 December 2020

» CMBS – Europe: 2021 Outlook — Coronavirus will amplify existing trends in the commercial real estate market, 26 November 2020

» RMBS and ABS – EMEA: 2021 Outlook — Tight underwriting will aid new deal asset quality as coronavirus fallout spurs performance risks, 30 November 2020

» Structured Finance - Europe: 2021 Outlook, 10 December 2020

Asia/Pacific

» Structured Finance – Australia: 2021 Outlook - Asset quality will be sound, but uneven recovery will hurt performance, 17 November 2020

» Structured Finance – China: 2021 Outlook - Economic recovery will support asset quality and performance, 2 December 2020

» Structured Finance – Japan: 2021 Outlook – Performance will be mostly stable but risks remain amid slow economic recovery, 17 December 2020

Endnotes

1 Green bonds are defined as securities that raise capital for use in financing or refinancing projects and activities with specific climate or environmental sustainability purposes.

2 See Global Macro Outlook 2021-22: Nascent economic rebound takes hold globally but recovery will remain fragile, 12 November 2020.

3 See Passenger Airlines – Global: 2021 Outlook, 18 November 2020.

4 See Default Trends – Global: November 2020 Default Report, 8 December 2020.

5 See Coronavirus – Global: Consumer comfort vital for travel, tourism dependent sectors' eventual recovery, 25 August 2020.

6 See Banks - Cross Region: New pandemic restrictions heighten downside risk, with growing regional differences, 12 November 2020.

7 See Credit Conditions – Mexico: Steep job losses and slow recovery prospects will deepen economic malaise, 10 September 2020.

8 See Nonperforming Loans – Europe: Sector update – H1 2020: Collections slow further following coronavirus outbreak, 30 September 2020.

9 See Default Trends – Global: November 2020 Default Report, 8 December 2020.

10 See Banks – Europe: 2021 Outlook, 2 December 2020.

11 E.g., Lending Club, SoFi and other lenders pushing toward bank status.

12 See ICE Benchmark Administration to Consult on Its Intention to Cease the Publication of One Week and Two Month USD LIBOR Settings at End-December 2021, and the Remaining USD LIBOR Settings at End-June 2023, Intercontinental Exchange, 30 November 2020.

13 See Structured finance – Global: Libor risk would loom larger for certain securitization sectors in adverse scenario, 19 September 2019.

14 See RMBS – US: Most US RMBS have weak Libor documentation, structures lessen Libor phaseout risk, 17 September 2020. On the asset side, we anticipate servicers will update systems and outreach to customers, including education about adjustable-rate mortgages.

15 See Leveraged loan covenants — US: Libor clock is ticking, but for existing loans, alternative benchmark remains elusive, 17 September 2020.

16 See Structured Finance – Japan: Libor transition risk is highest for deals with multi-level exposure, 9 September 2020.

17 See Passenger Airlines – Global: 2021 Outlook, 18 November 2020.

18 See Housing – Europe: COVID-19 accelerates housing market trends, exacerbating wealth inequalities, 23 November 2020.

19 See Structured Finance – Global: Fast-growing technologies often improve underwriting and create efficiencies, but also heighten risk, 20 February 2020.

20 See Structured Finance — CMBS – US: The future of office will be an odyssey not exodus, with uneven credit implications, 9 July 2020.

21 See Banks – Emerging Markets: Technology is deepening financial inclusion, 8 October 2020.

22 See Auto ABS - US: Residual value risk is amplified for battery electric vehicles, 15 December 2017.

23 See Student Loan ABS – US: Student loan burdens drive high social risk, 12 October 2020.

24 See US Consumer: RMBS and ABS rating activity resulting from COVID-19, 20 November 2020.

25 A new two-year equity loan program that will be available for first-time homebuyers starting from April 2021.

REPORT NUMBER 1249099

Contacts

Navneet Agarwal, CFA +1.212.553.3674
MD-Americas Structured Fin
navneet.agarwal@moodys.com

Jonathan Polansky +1.212.553.1657
MD-US Structured Fin Surveil
jonathan.polansky@moodys.com

Kei Kitayama +81.3.5408.4161
MD-Asia Pac Structured Fin
kei.kitayama@moodys.com

Neal Shah +44.20.7772.5440
MD-EMEA Structured Fin
neal.shah@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S
INVESTORS SERVICE