

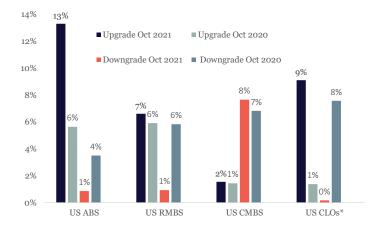
WHAT WE'RE WATCHING



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Credit ratings activity has been overwhelmingly positive for the U.S. securitization market in 2021. Upgrades across ABS, RMBS, CMBS and CLOs have easily exceeded the downgrades, as measured by Moody's Investors Service while reviewing its 17,355 ratings across global structured finance. Structured finance ratings have shown to be more stable than ratings in the corporate bond market, historically, as the sector has experienced far fewer downgrades but a similar volume of upgrades.

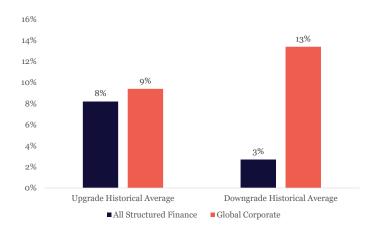
Upgrades Handily Exceed Downgrades in 2021 Across ABS, RMBS, CMBS and CLOs



12-month rating transition trends summary for horizon ending Oct 31, 2021. Historical Average is based on the period between January 2009 and June 30, 2021.

Source: <u>Moody's</u> Investors Service

US Securitization Across the Years: Far Fewer Downgrades than Corporate Bonds

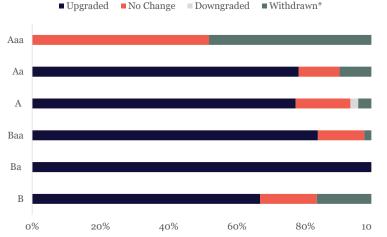


For the period between January 2009 and June 30, 2021. Source: Moody's Investors Service

Auto ABS was by far the best performer as 81% of the tranches in this sector, on average, were upgraded, according to Moody's. While all rating categories performed well, 100% of auto ABS tranches that were rated Ba in July 2020 had been upgraded to investment grade (either Baa or A) by July 2021. Moody's considers bonds rated Ba as having "speculative elements" and subject to "substantial credit risk," while bonds rated Baa as having "moderate credit risk", and bonds rated A as subject to "low credit risk." No auto ABS bonds rated Aaa, the highest rating category with "minimal risk," were downgraded during this period. In comparison, CMBS experienced meaningful downgrades. For example, 27% of CMBS bonds that had been rated Ba were downgraded further and only 4% were upgraded. In the high-quality rating categories, 9% of Aa rated bonds were downgrade, while 1% of Aaa bonds fell.

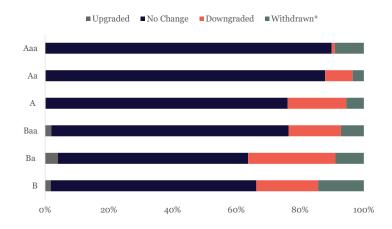






*Ratings are typically withdrawn when bonds mature, a program is terminate or size of asset pool has fallen below a level specified in Credit Rating Methodology. Source: Moody's Investors Service Structured Finance Quick Check

CMBS Rating Transitions Share of Rating Actions By Rating Level July 2020 Versus July 2021



Ratings are typically withdrawn when bonds mature, a program is terminate or size of asset pool has fallen below a level specified in Credit Rating Methodology.

Source: Moody's Investors Service Structured Finance Quick Check

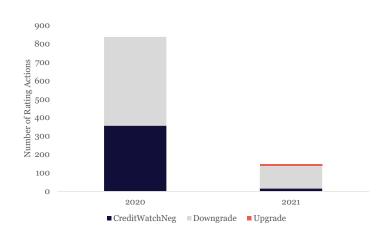
Credit rating actions related to ESG factors continued in 2021, albeit at a slower pace than in 2020. S&P Global has taken 137 negative ESG-related credit rating actions in 2021, as reported by the rating agency in its December newsletter, ESG in Credit Ratings. This level of activity compares favorably to 2020 when S&P took 837 negative ESG-related rating actions, representing roughly 25% of the rating agency's structured finance rating actions in that year. Matthew Mitchell, Director in S&P's Structured Finance group and a primary analyst of the December newsletter, notes that "CMBS continues to be the sector with the most ESG-related rating actions, particularly for transactions with exposure to retail, leisure, and lodging, which have been more severely impacted by COVID-19."

Like 2020, the lion's share of 2021 actions (131 actions or 89%) is related to health and safety concerns around COVID-19, categorized by S&P as a Social (S) factor. In analyzing the impact of this S factor to structured finance, S&P explains that "[s]ocial distancing restrictions implemented to control a pandemic could result in cash flow declines that affect required credit enhancement levels and increase liquidity risks, which we would incorporate in the credit quality of the securitized assets and payment structure and cash flow mechanics analysis."

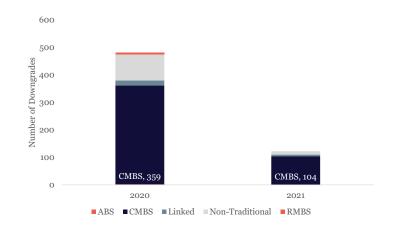
The demand for ESG has risen sharply in recent years. According to <u>Bloomberg</u>, using Morningstar data, \$56 billion flowed into ESG mutual and exchange-traded funds through September 2021. ESG funds took in \$51 billion in 2020 and \$48 billion combined through years 2008-2019.







ESG-Related Downgrades By Asset Class (2020 Versus 2021)

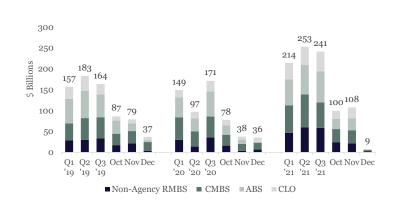


Source: <u>S&P Global Ratings</u>
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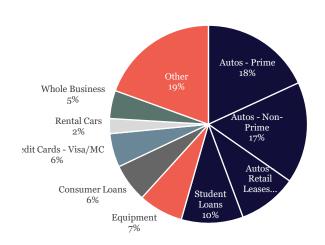
MARKET SUMMARY

Issuance for Non-Agency RMBS, CMBS, ABS, and CLO 2021 (\$925 Billion) Versus 2019, 2020



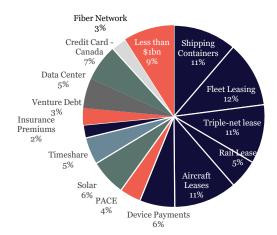
Source: Deutsche Bank, Market Compilation

ABS Only 2021 YTD: \$254 billion



Source: Deutsche Bank, Market Compilation

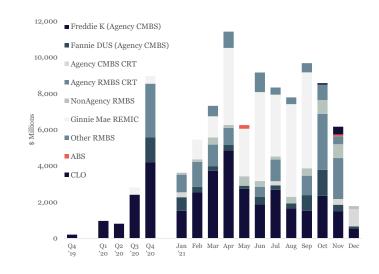
Other ABS Only 2021 YTD: \$50 billion



ABS with YTD volume less than \$1 bn YTD include ABS backed by venture debt, data centers loans, auto dealer floorplan loans, small business loans, tax liens, commercial loans, secured fund fee, oil contracts, UK credit cards, litigation funding, retail credit cards, and rate reduction bonds.

Source: Deutsche Bank, Market Compilation

SOFR (30 Day Average) Securitizations 2019 to 2021 YTD: \$99 billion



Other RMBS includes mortgage insurance-linked securities. Data begins Q3 2019. Ginnie Mae data as of September 2021. Source: Market Compilation 60

40

20





▲ AAA NonQM RMBS

Personal Installment Loans (Sr)

5 yr AAA cash CMBS

-AAA CLOs

Source: Market Compilation

Secondary Market Bid-Ask Spreads		
(bps)	3-Dec	19-Nov
3yr AAA Card	21	17
2yr AAA Prime Autos	18	14
2yr AAA Subprime Autos	28	24
5yr AAA Cash CMBS	68	62
AAA CLOs	125	120

Source: Market Compilation