

Financial stability

COVID-19 and credit ratings

Contact: damien.fennell@esma.europa.eu¹⁵⁵

Summary

This article investigates how credit ratings evolved during the exceptional circumstances of early 2020, exploiting ESMA's extensive RADAR database of credit rating actions, which covers not only EU ratings but also a large number of non-EU ratings. It shows that corporate and sovereign ratings were downgraded rapidly following the onset of the pandemic, with non-financial corporates particularly affected. Underlying this were strong impacts on businesses in sectors particularly vulnerable to declining economic activity, such as the energy, and consumer cyclicals sectors. Sovereign ratings experienced downgrades in bursts, with many of these occurring with the first and second waves of the pandemic, though the extent of downgrades varied greatly by jurisdiction. In structured finance products, commercial mortgage-backed securities appear by far the most affected, with persistent downgrades reflecting the ongoing challenges to the performance of commercial mortgages. Collateralised loan obligations, a concern before the pandemic, also experienced a wave of downgrades during summer 2020, but otherwise appear to have been relatively resilient, with senior tranches largely unaffected.

Introduction

This article investigates how credit ratings responded to the COVID-19 pandemic in 2020. It analyses which ratings were most impacted and how rating changes were correlated with developments related to those of the pandemic and other major events of 2020. Given its broad coverage and space limitations, the aim is primarily to present some of the key rating patterns in 2020 rather than to investigate specific drivers of these rating changes.

To do this, the article uses ESMA's extensive RADAR database of ratings issued in the EU or endorsed for use there.¹⁵⁶ As a result, in addition to including ratings of EU-issued debt, it includes a large number of ratings of debt from outside the EU. Thus, RADAR provides an opportunity to explore credit risk, not just in the EU, but more globally. We exploit this in the paper by looking at some high-level geographical patterns in the EU, United States and United Kingdom. We focus on these jurisdictions because RADAR includes a large number of ratings for debt instruments from

issuers located in these jurisdictions. However, as ratings from non-EU countries are partial, results should be taken as indicative rather than definitive.

COVID-19 pandemic and credit risk

The COVID-19 pandemic and responses

The COVID-19 pandemic started in early 2020, with a rapid growth in cases in most continents. Since it began, the pandemic has led to over one 100mn infections and in excess of 3mn deaths globally.¹⁵⁷ It continues to present very significant health risks and challenges worldwide.

The pandemic has proceeded in waves. A first wave began in Europe and North America in March 2020. Countries responded to the pandemic with a range of measures to limit the spread of the disease, strongly limiting permitted activities. These actions restricted consumption

¹⁵⁵ This article was written by Sylvain Canto, Damien Fennell, and Ana-Maria Rivera-Serrano.

¹⁵⁶ RADAR stands for ESMA's credit RATings DATa Reporting tool. Throughout this paper, RADAR is used to describe the dataset of rating actions reported to ESMA by credit rating agencies (CRAs) under Article 11a(1) of the CRA Regulation: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R0462&from=EN#d1e1688-1-1>

¹⁵⁷ <https://ourworldindata.org/coronavirus>.

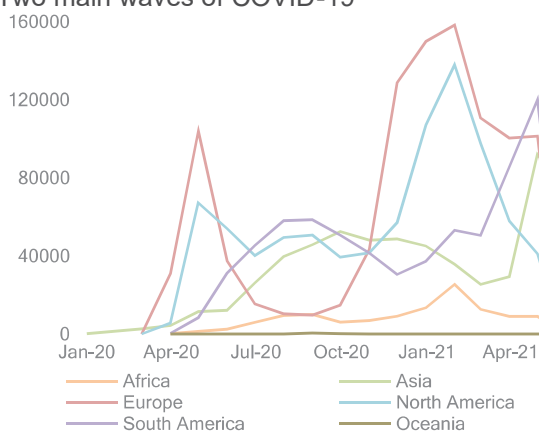
and the ability to work, thus severely reducing economic activity, which led to significant falls in GDP worldwide.

The first wave receded over the summer in the EU27, the UK and the US, as a result of the government interventions to limit movement. A second wave emerged in the US and Europe in the autumn, following the relaxation of policy measures over the summer in response to the earlier decline in cases, and with the emergence of new, more contagious variants. Other continents also faced waves, though to a different extent and at different times, depending on geography, patterns of social interaction, global travel and policy measures taken regionally. Asia and South America, for example, experienced waves a few months later than those experienced in Europe and in the US (RA.7).

RA.7

Numbers of COVID-19 deaths

Two main waves of COVID-19



Note: Monthly number of new covid deaths in the world by continents.
Sources: Our World in Data (<https://ourworldindata.org/>)

More recently, in 2021, growing vaccinations and new lockdown measures have reduced case and mortality numbers in Europe and the US. Although there have been resurgences from more virulent strains in some other regions, particularly in Asia and in South America.

Credit risk deterioration in March 2020

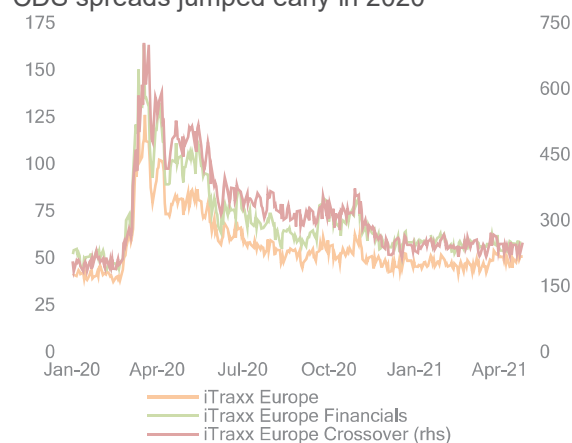
The rapid spread of the COVID-19 pandemic in March 2020, led to a sudden rise in uncertainty about the pandemic's progression, severity, and economic impacts. Strong government measures to limit the spread of the disease, limiting travel and personal interactions, directly and dramatically reduced the activity of certain businesses, leading to potential viability concerns. The more general drop in economic activity also weakened sustainability of debt for businesses and governments more broadly.

Creditors thus faced a radically changed environment, with a large scale increase in short-term solvency risks for the most-affected corporates and greatly increased uncertainty in the medium term. This increase in credit risk was priced into credit default swaps (CDSs) in early March (RA.8).

RA.8

Credit risk jump

CDS spreads jumped early in 2020



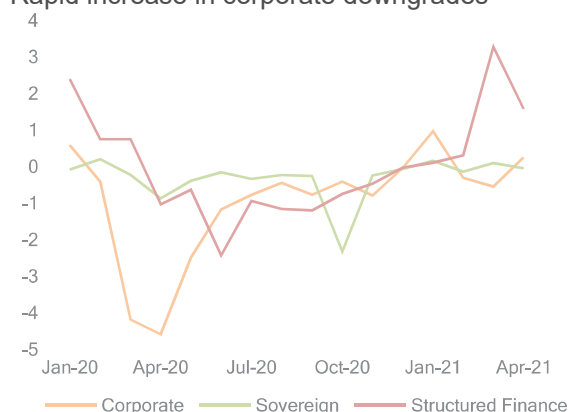
Note: CDS spreads on European IG corporates (iTraxx Europe), European HY corporates (iTraxx Europe Crossover) and European Financials, in bps.
Sources: Refinitiv EIKON, ESMA.

Governments and central banks took unprecedented fiscal and monetary action worldwide to support affected businesses and households and to provide liquidity to financial institutions. This helped to calm financial markets, limit the jump in credit-risk aversion and in associated risk premia, as is visible above from the sudden and then gradual decline in CDS spreads from April.

In the US, the UK and Europe, the economic outlook has also recently become more positive as the proportion of the population vaccinated grows (see the [Market Environment](#) section for more detail).

Credit ratings quickly adjusted in response to the changing situation, with corporate ratings in particular showing rapid change, reflecting the deteriorating economic outlook for many businesses. Corporate instruments experienced a sharp wave in downgrades in March and April 2020 (RA.9). Sovereigns and structured finance also experienced a more moderate drift downwards at that time.

RA.9
Ratings drift globally
Rapid increase in corporate downgrades



Note: Ratings drift in percent over 2020 for corporate, sovereign and structured finance ratings. Ratings include EU27 and rest of world in RADAR.. Sources: ESMA, RADAR.

RA.10
Corporate ratings drift
Non-financials most affected among corporates



Note: Corporate ratings drift in percent over 2020 for non-financials, insurance and financial ratings. Sources: ESMA, RADAR.

Also clear from the chart are subsequent waves of downgrades, visible first for structured finance in the early summer and later for sovereigns in the autumn. These reflect longer-term impacts on the credit quality of these products, for example the underlying credit of some structured finance instruments being particularly affected by the downturn, such as CLOs. Sovereigns were also affected by deteriorating tax revenues and the increase in borrowing to fund regular activities, and their responses to the pandemic and its impacts.

In the sub-sections below, we look in more depth at how ratings for corporates, sovereigns and structured finance products evolved through 2020.

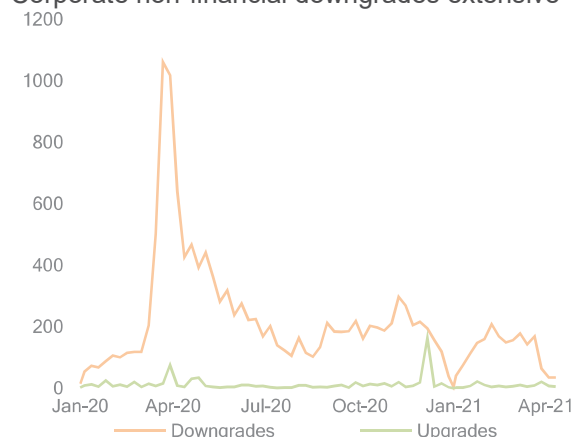
Corporates

Non-financials ratings bear the brunt

As mentioned, corporate ratings were particularly impacted by downgrades at the start of the pandemic: financials, insurance, and non-corporate firms all experienced a wave of downgrades that started in March. Non-financial corporate ratings were by far the most affected, reflecting the dramatic direct effects of the pandemic on many businesses (RA.10).

The impact on non-financials was particularly rapid and extreme with, at its peak in late March and April, over a thousand issuers being downgraded, or having an instrument downgraded, per week (RA.11).

RA.11
Corporate non-financial downgrades and upgrades
Corporate non-financial downgrades extensive

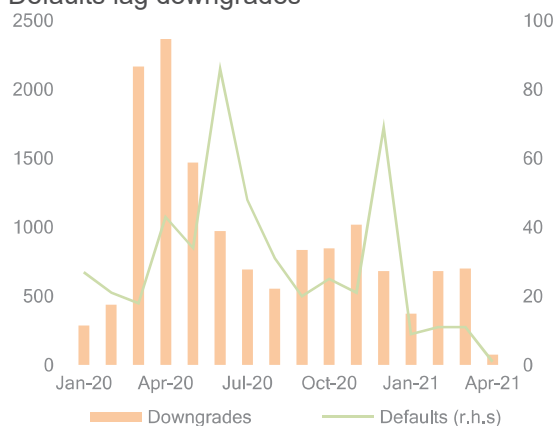


Note: Weekly number of non-financial issuers downgraded or having an instrument downgraded. Sources: ESMA, RADAR.

The sharp and significant increase in the number of non-financial corporate downgrades in 2Q20 was then followed by a gradual decrease in the number of downgrades until 3Q20 when a small increase was again observed, at approximately the same time that the second wave of COVID-19 infections began to affect Europe and the US.

Shortly after the jump in downgrades, there was also a marked increase in defaults among corporates, observed after each of the two waves (RA.12).

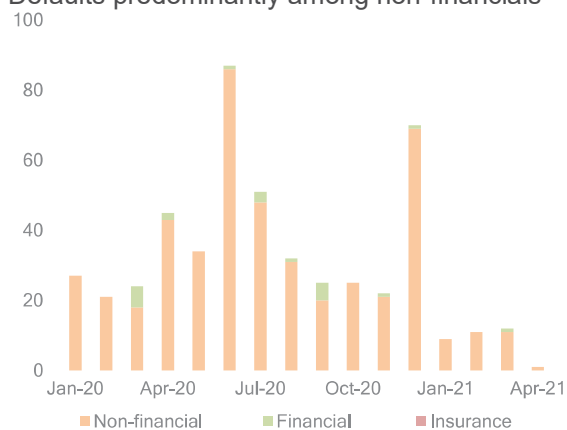
RA.12
Corporate non-financial downgrades and defaults
Defaults lag downgrades



Note: Number of corporate non-financial issuers with debt or instrument downgraded per month, and numbers reporting a default per month.
Sources: ESMA, RADAR.

As with downgrades, defaults predominantly affected non-financials, though some defaults were also seen among financial firms. In contrast, no defaults were reported among insurance issuers in our dataset (RA.13).

RA.13
Corporate defaults
Defaults predominantly among non-financials

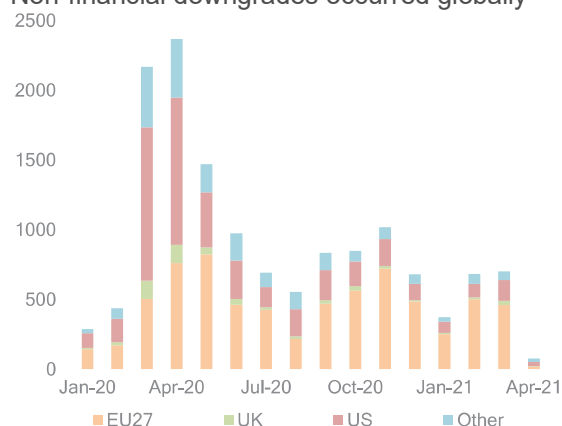


Note: Issuers reporting a default, split by industry.
Sources: ESMA, RADAR.

Impacts felt globally

Looking at how downgrades of non-financials vary geographically, there are significant numbers of downgrades in the EU27, UK and the US and in other countries. Peaks in numbers of downgrades occur in March and April, at the time of the first wave of the COVID-19 pandemic, and again in September, October and November during the second wave (RA.14).

RA.14
Corporate non-financial downgrades by jurisdiction
Non-financial downgrades occurred globally

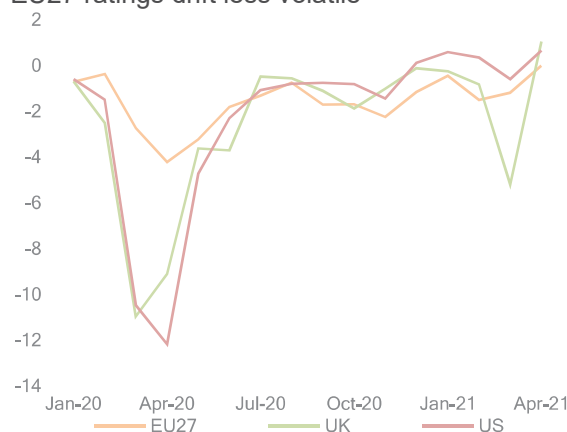


Note: Corporate non-financial issuers experiencing at least one downgrade per month by jurisdiction.
Sources: ESMA, RADAR.

Downgrades were less pronounced during the second wave in the UK and the US, likely due to the increasingly positive economic outlook, vaccination advances and renewed government interventions to support businesses.

The rating drift patterns reveal another difference in the EU27, compared to the UK and US (RA.15).

RA.15
Corporate rating impacts by region
EU27 ratings drift less volatile



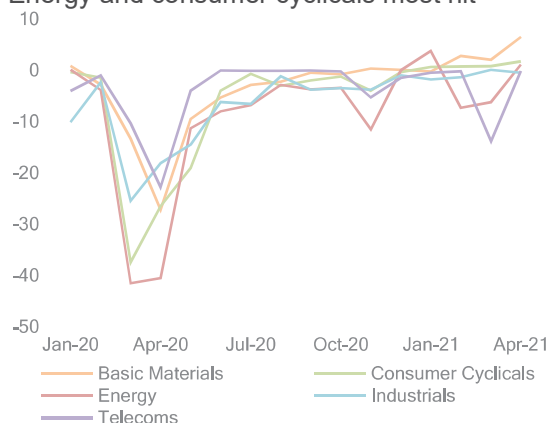
Note: Ratings drift in percent over 2020 for corporate non-financial ratings for EU27, UK and US
Sources: ESMA, RADAR.

They show that non-financials in the EU27 experienced a more limited initial burst of downgrades in the first wave. However, the lower subsequent drift shows that EU27 downgrades then extended for a longer period afterwards. The ratings drift and downgrade charts by jurisdiction also show the gradual reduction in downgrades and the move to positive drift in each of the US, UK and the EU27 by 2021.

Energy and consumer cyclicals most hit

The pandemic has had very different impacts on different businesses. Here we use a categorisation of into ten sectors to investigate at a high level how different sectors' corporate ratings were affected. This shows that the most affected corporates were those in energy, consumer cyclicals, basic materials, industrials and telecommunications sectors (RA.16).

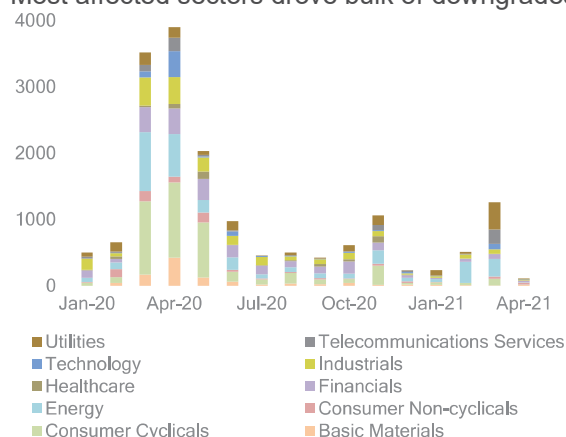
RA.16
Ratings drift in five most affected sectors
Energy and consumer cyclicals most hit



Note: Ratings drift for corporate non-financial instruments in percent by sector, for the five sectors with most negative drift over 2020.
Sources: ESMA, RADAR, Refinitiv EIKON.

Sectoral impacts were also broadly similar across the EU27, UK and the US. The chart above shows that the most affected sectors were those where demand is particularly sensitive to fluctuations in economic activity. Energy and consumer cyclicals, are the two most affected, followed by basic materials and industrials. Also notable is the extent of the ratings drift shift, with the dips being experienced at levels well beyond what is normal, showing just how extensive downgrades were in the most highly affected sectors. In addition, downgrades in the most affected sectors also accounted for bulk of non-financial corporate downgrades overall (RA.17).

RA.17
Downgrades of non-financial instruments by sector
Most affected sectors drove bulk of downgrades



Note: Unique corporate non-financials ISINs downgraded by month, split by sector, rating actions from all jurisdictions.
Sources: ESMA, RADAR, Eikon Refinitiv.

At the other end of the spectrum, the healthcare and financials sectors, emerge as the least affected. Both experienced relatively fewer downgrades earlier in the pandemic followed by positive ratings drift in late 2020 and early 2021. These likely reflect the increased demand for healthcare during the pandemic, and the effects of governments' and central banks' strong support measures for capital markets.

Sovereigns

Strong variation between countries

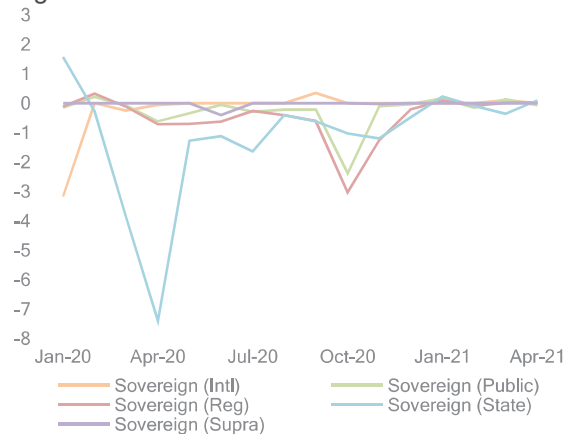
Like corporates, we have observed a sharp increase in downgrades in sovereigns with the pandemic, though impacts vary by jurisdiction.¹⁵⁸

Looking at the ratings drift by sub-types, a burst of downgrades was observed in spring 2020 for state ratings, following the sharp increase in COVID-19 cases earlier in the year, reflecting the sudden and significant funding challenges faced by governments from lockdown measures dampening economic activity and reducing tax revenue, and from increased government spending to combat the pandemic and to support businesses and households. With the advent of the second wave of COVID-19, we also see a further downward adjustment in credit risk outlook with downgrades increasing, particularly

¹⁵⁸ Note that we analyse not only state-level sovereign ratings but also others, such as ratings for public and regional institutions.

for regional and public ratings, but also state ratings (RA.18).

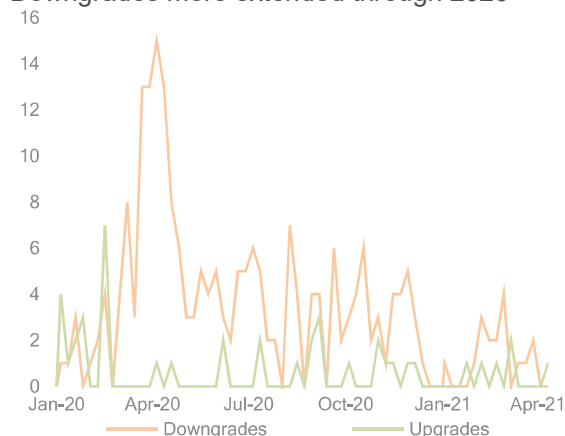
RA.18
Sovereign ratings drift
State downgrades, later falls in public and regional



Note: Sovereign ratings drift in percent over 2020 by sector. Intl - international, Supra - supranational, Reg - regional.
Sources: ESMA, RADAR.

There have been far more downgrades (165) than upgrades (32) of state issuers since January 2020 (RA.19). While upgrades are rather evenly distributed over time, downgrades are concentrated in the period between the first and second wave of COVID-19, with a peak in spring 2020 at the beginning of the pandemic, showing a broadly similar pattern to corporates.

RA.19
Sovereign downgrades and upgrades
Downgrades more extended through 2020

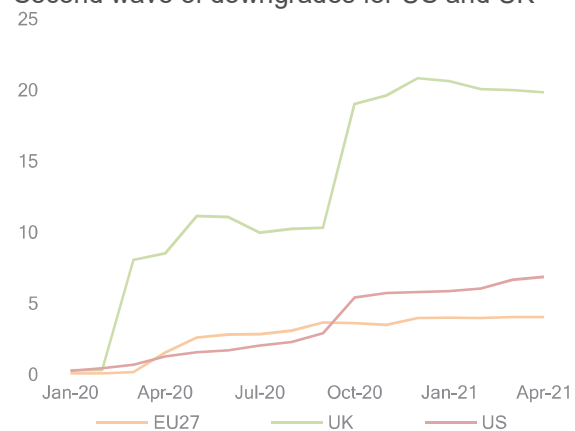


Note: Weekly number of state issuers downgraded or having an instrument downgraded.
Sources: ESMA, RADAR.

Downgrade shocks are distributed heterogeneously across jurisdictions. For

example, the UK experienced two clear waves of sovereign downgrades in spring and autumn 2020, which clearly align with the two waves of the pandemic. This included state-level downgrades in both the spring (Fitch in March) and the autumn (Moody's in October).¹⁵⁹ The US also experienced a jump in sovereign downgrades in the autumn, though less pronounced than the UK. Thus, the EU27 experienced less dramatic rating shifts on average for sovereigns (RA.20). However, impacts across different member states were not uniform.

RA.20
Cumulative sovereign downgrades from January 2020
Second wave of downgrades for US and UK



Note: Cumulative sovereign downgrades since 1 January 2020 as a percent of outstanding ratings.
Sources: ESMA, RADAR.

Looking more closely at the EU27 we can see significant differences in how sovereign ratings were affected across member states (RA.21). IT, SK and ES, for example, experienced significant downgrades to their sovereign ratings in the spring.

In contrast, other states were more affected by downgrades around the second wave, such as BE. These large scale downgrades in sovereigns for some of these states are associated with state downgrades (Fitch downgraded IT in April, SK in May).¹⁶⁰

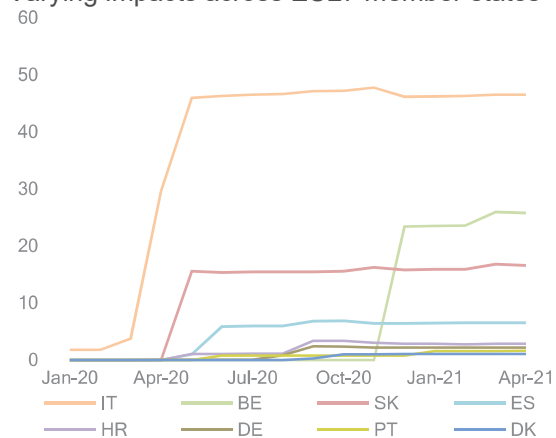
Also, though not very visible in chart RA.21, a large number of member states experienced some downgrades in the autumn – though much fewer than the most affected countries – coinciding with the downgrades for the UK and the US. The timing of downgrades across jurisdictions again appears linked to the waves of

¹⁵⁹ See Fitch Ratings (2020a) and Moody's Investor Service (2020).

¹⁶⁰ See Fitch Ratings (2020b) and Fitch Ratings (2020c).

the pandemic, but with the extent of downgrades varying by country, with some EU27 member states minimally impacted by sovereign downgrades so far during the pandemic.

RA.21
Cumulative sovereign downgrades from January 2020
Varying impacts across EU27 member states



Note: Cumulative sovereign downgrades as a percent of outstanding ratings, for 8 most affected EU27 member states.
Sources: ESMA, RADAR.

Structured finance

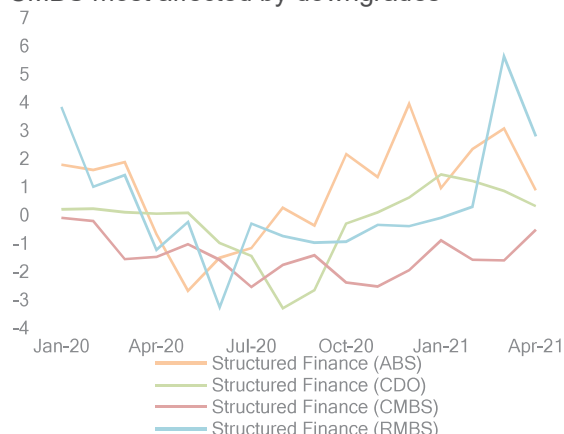
CMBS most affected

Structured finance product ratings were also strongly affected by the pandemic. The chart below presents ratings drift for the four largest structured finance asset classes, as reported in RADAR (RA.22).

The chart shows a common pattern, a ‘U-shaped’ fall in rating drift, indicative of a gradual increase in downgrades relative to upgrades for each of these types of products, compared with the sharper jump in downgrades in corporates and sovereigns presented above. This is as expected, since the construction of structured finance instruments means that they pool the risks of their underlying portfolios and use waterfall payments to protect more senior tranches, so the effects of the deterioration in credit quality in the underlying debt portfolios are mitigated.

Among structured finance products, CMBS were most affected, with a persistently negative rating drift throughout 2020 and into 2021 (RA.22). In contrast, other instrument types (RMBS, ABS and CDOs) had much shorter periods of negative ratings drift, in the spring and summer, when they experienced a surge of downgrades, and before upgrades began to recover.

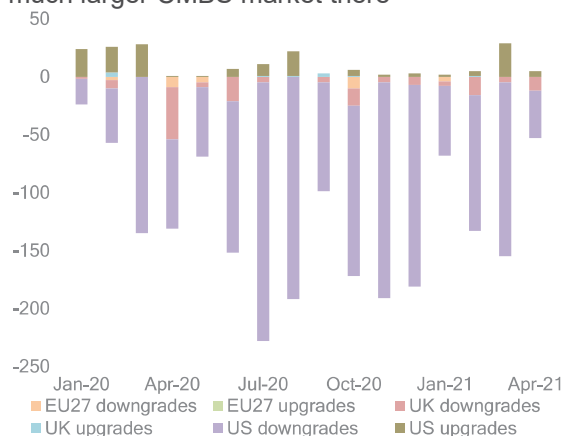
RA.22
Structured finance ratings drift
CMBS most affected by downgrades



Note: Structured finance ratings drift in percent over 2020 by sector (ABCP omitted due to a lack of ratings).
Sources: ESMA, RADAR.

In particular, ABS and RMBS appear to have been on average much less affected by the pandemic. Looking at CMBS in more detail we see that the bulk of the downgrades were in the US (RA.23).

RA.23
CMBS downgrades and upgrades
CMBS downgrades mainly in US, reflecting much larger CMBS market there



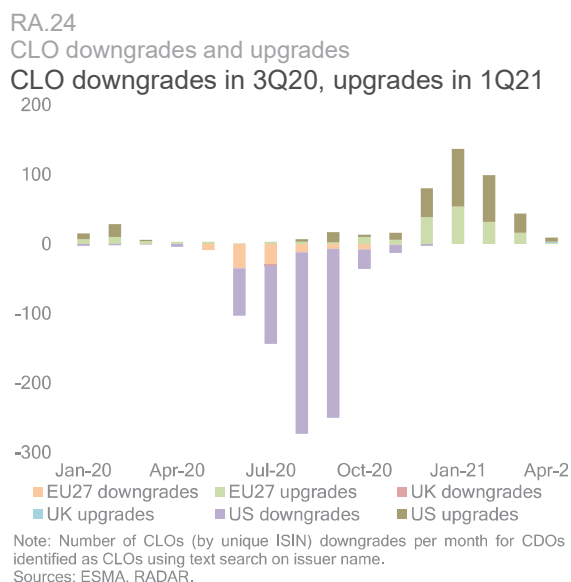
Note: Structured finance CMBS upgrades and downgrades by unique ISIN, split by EU27, UK and US.
Sources: ESMA, RADAR.

The downgrade patterns for the EU27 and UK, though less visible in the chart, are qualitatively similar with bursts of downgrades at points in 2020 and relatively few upgrades. The strong impacts on CMBS reflect the severe effects of the pandemic on the commercial mortgage performance of businesses such as hotel and retail, whose businesses were severely curtailed. The much larger number of US downgrades compared to those in the EU27 and UK is reflective of the relative size of the CMBS markets in the different jurisdictions rather than a

difference in downgrade pattern (in our data CMBS ratings outstanding for US issuers vastly outnumber those for EU27 or UK issuers).

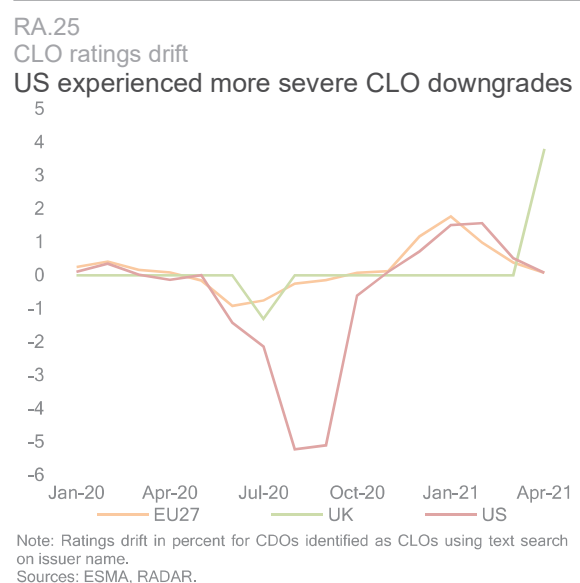
Among other structured finance products, CLOs are of particular interest, because they were already a concern before the pandemic.¹⁶¹ This was due to their rapid growth in preceding years, increasing levels of leverage in the underlying loans and weakening loan covenants ('covenant-lite' loans) raising concerns that they may not prove resilient in a crisis and that recoveries might be reduced in the case of defaults.¹⁶²

As CLOs are not explicitly reported in RADAR, here we identify CLOs among CDOs using search terms in issuer names indicative of CLOs.¹⁶³ In this way, we estimate roughly how many CLO tranches were downgraded over time (RA.24).



The chart shows downgrades occurring in both the EU27 and US in the summer, followed by upgrades in later in the year and into 2021. The downgrades in CLOs took some time to materialise following the first wave of the pandemic, which is likely due to some of their particular characteristics. In particular, CLOs are generally dynamic, meaning they have managers who have some discretion to adjust portfolios in response to a credit deterioration in the underlying loans.

Unlike CMBS, with CLOs the larger number of downgrades in the US than in the EU27 appears to indicate that the pandemic had a greater impact on CLOs issued there. The CLO market, though smaller in the EU than the US, is nonetheless sizeable. Rating drift by issuer jurisdiction shows more extreme shifts in rating drift for US issuers, with a greater, downward shift in the summer (RA.25). Although some caution is needed here, as our dataset may not capture all EU27 and US CLOs both because of the limitations of our method of identifying CLOs among CDOs and because, unlike ratings for EU27 issuers, it is possible that not all US CLO ratings are included in our dataset.



To finish, we look briefly at transition matrices to shed light on which tranches experienced downgrades and to what extent. The CLO transition matrix below presents the rating transitions from 31 January 2020 to 31 October 2020, a period which was chosen because it was the one in which CLOs had experienced downgrades, but upgrades had not yet started (RA.26).

¹⁶¹ For example, see FSB (2019).

¹⁶² For a detailed discussion of the vulnerabilities of CLOs in crises see Bouveret, A. et al. (2019) and Bouveret, A. et al. (2020).

¹⁶³ CDOs with any of the following terms in the issuer name (in upper or lower case) were treated as CLOs: "CLO ", "CLO,", "CLO:", "CLO-", "C.L.O. ", "collateralised loan", "collateralized loan", "levered", "leveraged loan", "leverage loan", "PYME ", "SME ".

RA.26

Transition matrix Jan to Oct 2020

CLOs: More senior tranches resilient

	AAA	AA	A	BBB	BB	B	CCC	CC	D
AAA	100								
AA	0.9	99.0		0.1					
A		0.7	98.6	0.8					
BBB			0.4	92.0	7.3	0.3			
BB				0.1	78.4	19.6	1.9		
B						79.6	20.2	0.3	
CCC							69.2	30.8	
C									100

Note: Percent of Big5 CLO ratings starting in left column rating on 31/1/2020 finish with rating in top row on 31/10/2020. CLOs identified using a term search on issuer names.

Source: ESMA, RADAR.

The matrix shows that the more senior CLO tranches, for example those rated AAA and AA, experienced no or minimal downgrades. Downgrades instead occurred in the lowest rated junior tranches and to a lesser extent, in the mezzanine tranches. Tranches rated BB or lower were particularly impacted, with about a fifth being downgraded.¹⁶⁴

By way of contrast, the transition matrix for CMBS over the same period shows downgrades across tranches (RA.27).

RA.27

Transition matrix

Transition matrix for CMBS: Jan to Oct 2020

	AAA	AA	A	BBB	BB	B	CCC	CC	C	D
AAA	99.4	0.4	0.2							
AA	0.5	96.6	2.3	0.4	0.1		0.0			
A	0.1	0.7	93.6	4.0	1.2	0.4	0.1			
BBB	0.1		0.2	91.3	4.3	3.6	0.5			0.1
BB	0.1			0.1	79.5	15.2	4.7		0.2	0.3
B				0.1	0.5	77.7	20.4	0.2	0.3	0.7
CCC						1.2	77.6	5.2	6.8	9.2
CC						1.2	1.2	76.2	8.3	13.1
C				0.2					94.6	5.2

Note: Percent of Big5 CLO ratings starting in left column rating on 31/1/2020 finish with rating in top row on 31/10/2020. CLOs identified using a term search on issuer names.

Source: ESMA, RADAR.

With CMBS, which experienced many more downgrades than CLOs, downgrades occurred in all tranches. As might have been expected, downgrades were, as for CLOs, more prevalent in tranches with a lower initial rating. While some AAA, AA, A and BBB-rated tranches were downgraded, as with CLOs, tranches rated BB or lower were much more impacted, with again about a fifth experiencing downgrades. Perhaps reassuringly, data show that tranches rated IG (BBB or higher) performed better than HY (BB or

lower), with IG tranches being much less likely to be downgraded for both CLOs and CMBS.

Also, noteworthy is that for CMBS some tranches migrated downwards by several rating categories, unlike CLOs where most downgrades were to the next rating category. This highlights the extent to which CMBS have been affected by the pandemic and how CLOs, in particular more senior tranches, have so far proven resilient.

Conclusion

This article analysed ratings patterns over 2020 to assess which were affected most by the COVID-19 pandemic. It finds that corporates, sovereigns and structured finance were all impacted by downgrades, which came in waves that broadly coincided with the waves of the pandemic.

It also found differences: among corporates, non-financial ratings in particular were impacted more than financial and insurance ratings. In addition, non-financial debt issued in energy and consumer cyclicals was particularly hit, across jurisdictions, reflecting the severe underlying impact of the pandemic on these sectors. For sovereigns, there were differences between jurisdictions, the UK was more impacted by sovereign downgrades than the US and the EU27, but within the EU27 some member states were also strongly affected, such as Italy, Slovakia and Belgium. For structured finance products, CMBS were the most affected, experiencing a persistent flow of downgrades. CLOs were also affected, but more in one wave in the summer, which was later followed by a recovery at the end of 2020. Overall, CLOs have so far performed better than might have been expected, with senior tranches minimally affected by downgrades.

References

Bouveret A., Canto, S. and E. Colesnic E., "Leveraged loans, CLOs – trends and risks" in ESMA [Reports on Trends, Risks and Vulnerabilities](#), no2 2019, 50-165-1883, December 2019.

Bouveret A., Fennell D. and R. Horri R., "Model Risk in CLOs", in ESMA [Reports on Trends,](#)

¹⁶⁴ The transition matrix also shows that all C rated CLOs defaulted. This is due to the one and only C-rated CLO in our sample defaulting.

[Risks and Vulnerabilities](#), no2 2020, 50-165-1287, December 2020.

Fitch Ratings (2020a), "[Fitch downgrades UK to 'AA-'; negative outlook](#)", March 2020.

Fitch Ratings (2020b), "[Fitch downgrades Italy to 'BBB-'; outlook stable](#)", April 2020.

Fitch Ratings (2020c), "[Fitch downgrades Slovakia to 'A'; outlook stable](#)", May 2020.

FSB (2019), "[Vulnerabilities associated with leveraged loans and collateralised loan obligations](#)", December 2019.

Moody's Investor Service, "[Rating action: Moody's downgrades the UKs ratings to Aa3 outlook stable](#)", October 2020.

Ritchie H., E. Ortiz-Ospina, D. Beltekian, E. Mathieu, J. Hasell, B. Macdonald, C. Giattino, C. Appel, L. Rodés-Guirao and M. Roser (2020): "Coronavirus Pandemic (COVID-19)". Published online at [OurWorldInData.org](https://ourworldindata.org).