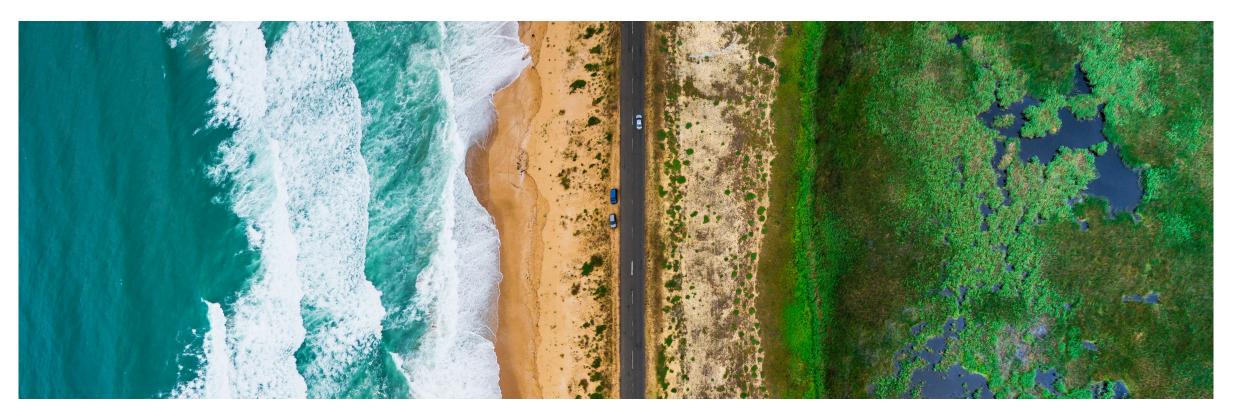
Covered Bonds Outlook 2022: Performance Stable As Support Schemes Wind Down

Antonio Farina Casper Andersen Marta Escutia Andrew South

Dec. 9, 2021





This report does not constitute a rating action

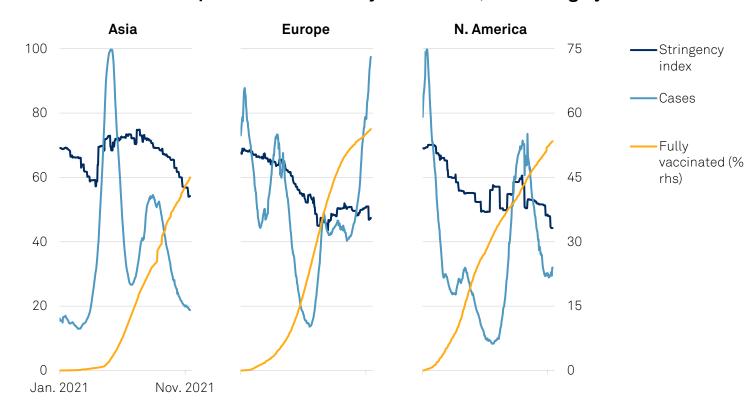
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Key Takeaways

- Europe is in its fourth COVID-19 wave, but the pandemic's economic impact has weakened and we still expect that eurozone economic activity should exceed pre-pandemic levels by the end of 2021.
- Inflation in the eurozone should ease to about 2% next year, as temporary drivers linked to the reopening of economies and the mismatch between supply and demand start to fade. In our view, the European Central Bank (ECB) will wait until early 2024 to start raising rates.
- Issuance volumes are set to bounce back in 2022, due to the expected gradual tightening of the terms of the ECB's liquidity scheme and rise in scheduled covered bond maturities. The degree of central bank tapering will determine the extent of the recovery.
- We expect only a limited credit impact on prime residential mortgage loans from the wind-down of borrower support schemes, because this is happening against the background of a healthy job market recovery.
- While we believe that commercial real estate asset performance may deteriorate in certain sectors, we do not anticipate this significantly impairing the credit quality of the covered bonds that we rate, due to the availability of credit enhancement and the limited exposure to the sectors that we consider to be most at risk.
- Our outlook remains stable, because the credit enhancement available to most of the programs that we rate significantly exceeds the level required to maintain the current ratings. The presence of unused notches reduces the risk of covered bond downgrades even if there are limited downgrades of issuing banks.

Economic Conditions | COVID-19 Likely To Become Endemic, But The Economic Impact Is Fading



43% Of The World Population Is Now Fully Vaccinated, Increasing By 5% Per Month

Data as of Nov. 20, 2021. Sources: Our World in Data; Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford, S&P Global Ratings. <u>Global Credit Outlook 2022</u>, Dec. 1, 2021.

Europe is in the middle of its fourth COVID-19 wave, with incidence skewed toward those countries and regions where effective vaccination is lightest.

- Lockdowns have been re-imposed, but the economic impact of the pandemic has weakened for two main reasons. First, for a given level of infections, measures restricting mobility have eased. Second, for a given level of mobility restrictions, the impact on consumption has declined.
- We expect COVID-19 to become endemic over time, as vaccines protect against severe illness but do not prevent transmission.
 Societies will have to adapt. In our view, the two main risks are a vaccine escape variant and erosion of public trust in vaccines.

Economic Conditions | Despite Rising COVID-19 Cases, Eurozone Economic Activity Should Exceed Pre-Pandemic Levels In Q4 2021

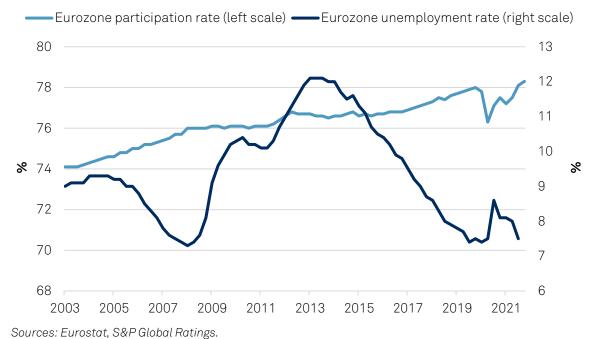
- The reopening this summer benefited services-oriented economies like France much more than manufacturing-oriented economies such as Germany or tourist destinations such as Spain.
- Furloughs helped to preserve pre-pandemic jobs. European workers have not left the labor market and labor shortages are mostly concentrated where furlough schemes were less efficient, such as in the accommodation and food industries or the retail trade sector.

	Germany	France	Italy	Spain Net	herlands:	Eurozone	U.K.
GDP							
2019	1.1	1.8	0.4	2.1	1.9	1.6	1.7
2020	(4.9)	(8.0)	(9.0)	(10.8)	(3.8)	(6.5)	(9.7)
2021	2.7	6.7	6.4	4.5	4.6	5.1	6.9
2022	4.3	3.8	4.7	7.0	3.9	4.4	4.6
2023	2.5	2.2	1.8	4.4	2.0	2.4	2.2
2024	1.5	1.6	1.0	2.4	1.8	1.6	1.9
Unemploy	ment rate						
2019	3.2	8.4	10.0	14.1	3.4	7.6	3.8
2020	3.9	8.0	9.3	15.5	3.8	7.9	4.5
2021	3.6	8.0	9.6	15.1	3.3	7.9	4.6
2022	3.4	7.8	9.1	14.4	3.5	7.5	4.5
2023	3.3	7.7	8.9	14.0	3.4	7.3	4.3
2024	3.2	7.4	8.7	13.8	3.3	7.1	4.0

S&P Global Ratings' European Economic Forecasts

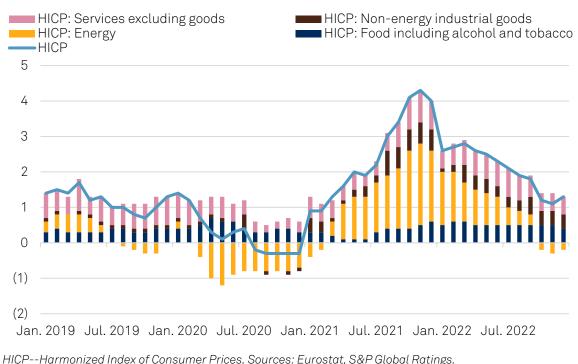
Source: S&P Global Ratings. <u>Eurozone Economic Outlook 2022: A Look Inside The Recovery</u>, Nov. 30, 2021.

Employment Has Recovered To Pre-Pandemic Levels, And Few Workers Have Dropped Out Of The Labor Force



Economic Conditions | Inflation Should Slow In 2022 And The ECB Will Likely Wait Until 2024 Before Hiking Rates

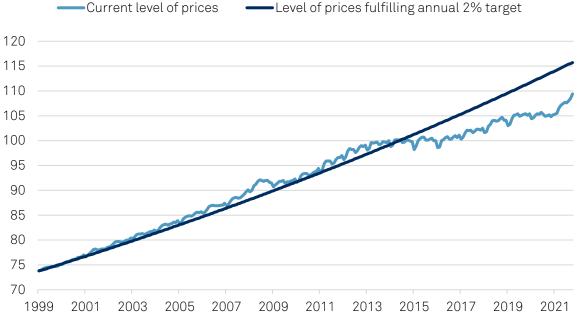
- We expect inflation to slow next year, as temporary drivers linked to the reopening of economies (for example, the end of tax cuts) and the mismatch between supply and demand globally--which sent energy prices higher and created supply chain bottlenecks--start to fade.
- In our view, the ECB will wait until early 2024 to start raising rates, after tapering net asset purchases from the end of 2023.



Temporary Drivers Will Drop Out Of Inflation Next Year

S&P Global

Ratings

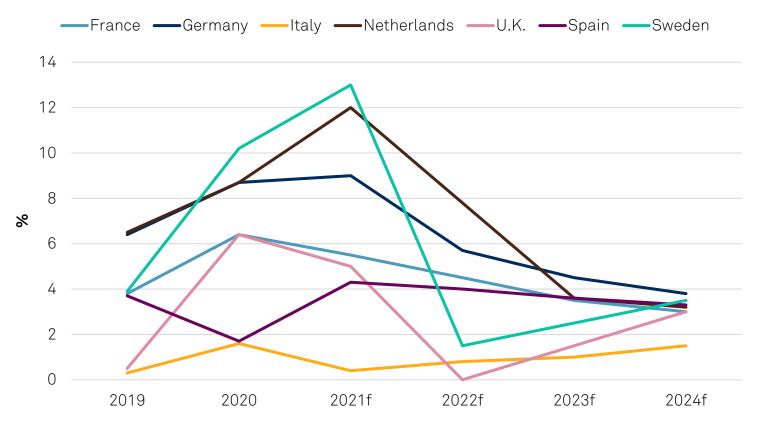


The ECB Price Gap: Not Yet Back To Target

Note: Current level of consumer prices in the eurozone compared with level if ECB had delivered 2% inflation each year. Sources: Refinitiv, S&P Global Ratings.

Economic Conditions | The Pandemic Has Driven Housing Demand And Prices To New Highs

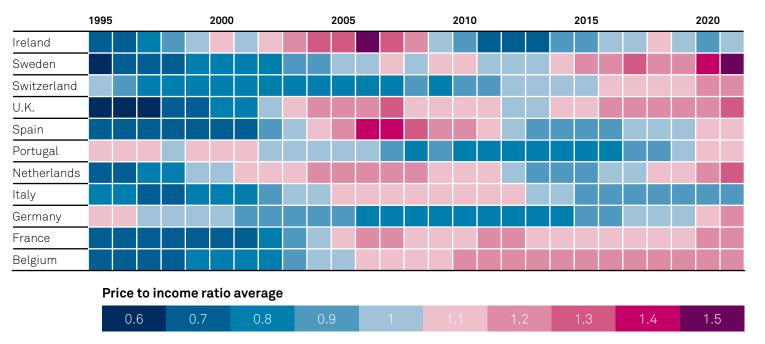
Our Forecasts Show That House Price Inflation Is Here To Stay



f--Forecast. Year on year annual growth in the fourth quarter. Sources: OECD, S&P Global Ratings. <u>European Housing Market Inflation Is</u> <u>Here To Stay</u>, Nov. 2, 2021.

- European housing prices have recently been increasing at their fastest pace since 2006, by 6.9% annually in the second quarter of 2021.
- A large pool of household savings, a shortage of housing supply, and low borrowing costs are all contributing to dynamic property markets across Europe.
- As supply of new housing is not keeping pace with structurally high demand, we expect the rise in housing costs to continue over the next four years.
- Despite this, as savings are absorbed and central banks start tightening their policy stance, housing price inflation is likely to start moderating to different degrees, depending on country-specific factors.

Economic Conditions | Strong Increase In Housing Prices Has Led To Stretched Price-To-Income And Price-To-Rent Affordability Ratios



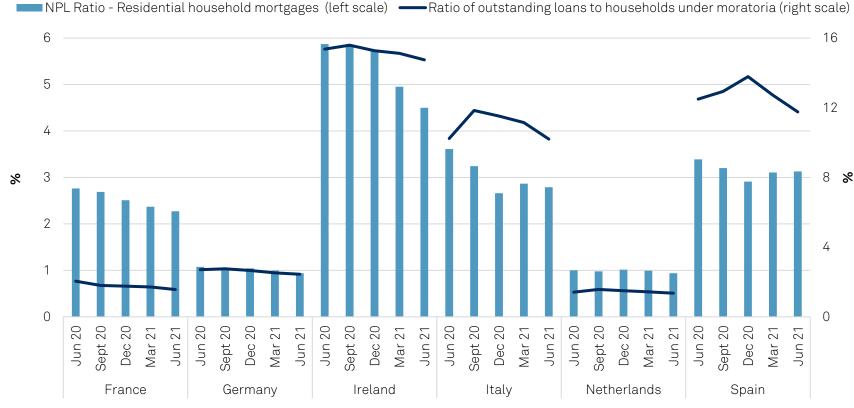
Rising Housing Price-To-Income Ratio Points To Worsening Affordability

Note: For 2021 all countries are updated with Q2 2021 data. Prior to 2021, data for all countries includes only Q4 data. For Portugal price to income average is divided from 1995-2021. Data is not seasonally adjusted. Source: OE CD and S&P Global Ratings Economics.

- Most European markets have reached priceto-income levels not seen since 2007.
- As a result, more lower income households are being priced out of property ownership, putting greater pressure on governments to expand social housing developments, a trend that has been increasing as a result of worsening affordability.
- So far, higher prices have been accompanied by only a relatively modest rise in household debt, suggesting that housing price inflation is mostly not credit-driven.
- We expect a gradual tightening of monetary policy to limit affordability further, even if income growth starts to rise as employment recovers.

Credit Performance | Healthy Job Market Recovery Supports Residential Mortgage Credit Performance

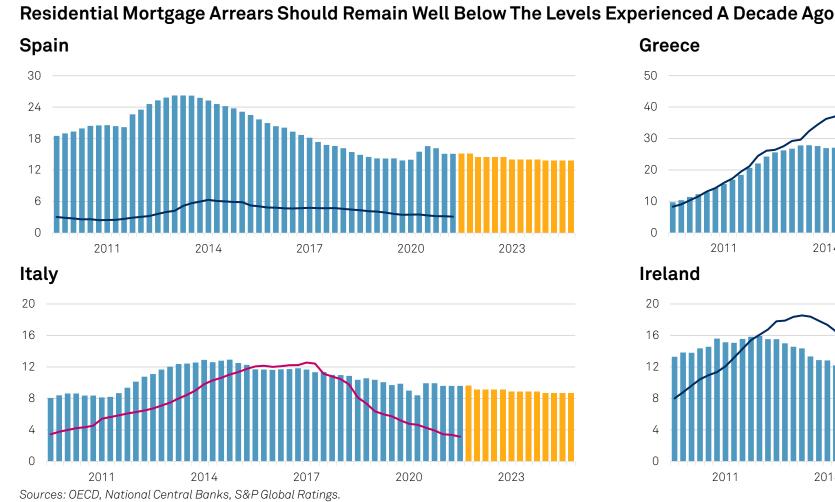
Performance Of Residential Mortgages Stable, Despite Waning Government Support

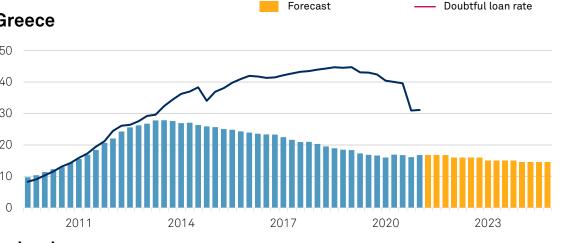


- The wind-down of borrower support schemes appears wellsynchronized with counteracting improvements in labor markets.
- So far, there is no evidence of any cliff effects in the labor market from the phaseout of short-term work schemes, even though less than 1% of European workers are still on furlough.
- Payment moratoria have already expired in several European countries, without a meaningful rise in delinquencies.

NPL--Nonperforming loan. Sources: European Banking Authority, S&P Global Ratings.

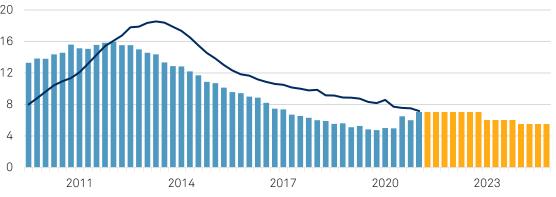
Credit Performance | Nonperforming Loan Ratios Have Been Stable Or Declining Outside Core European Markets



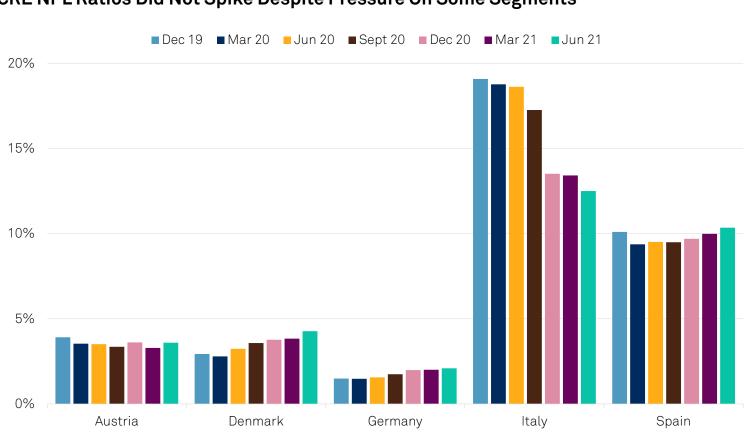


Unemployment rate

Doubtful mortgage rate



Credit Performance | Commercial Real Estate Assets More At Risk, But Performance Has Been Broadly Stable So Far



CRE NPL Ratios Did Not Spike Despite Pressure On Some Segments

CRE--Commercial real estate. NPL--Nonperforming loan. Sources: European Banking Authority, S&P Global Ratings.

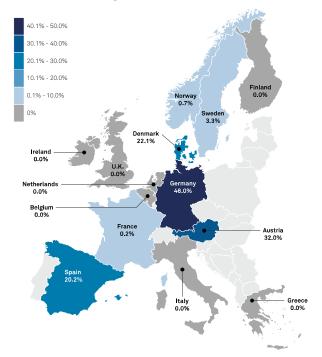
S&P Global

Ratings

- The landscape for commercial real estate is generally stabilizing, although some segments remain under pressure.
- Lodging will take longer to recover given travel restrictions and uncertainty over the return of business and group travel.
- Societal changes will continue to depress demand for retail and will shift office demand toward higher quality space. They will also lead to industrial and residential assets outperforming other commercial real estate assets.
- Office demand will decline only gradually and predominantly in secondary locations and for older stock. It is uncertain to what extent the return to the workplace will take place. The pandemic will continue to weigh on rental growth and on vacancy rates in some markets.

Credit Performance | Cover Pool Exposure To The Commercial Real Estate Sector Is Limited In Rated Programs

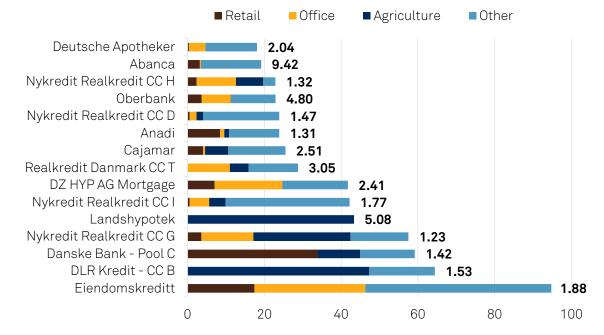
While we believe that commercial real estate asset performance may deteriorate in certain sectors, we do not anticipate this significantly impairing the credit quality of the covered bonds that we rate. This is due to the availability of credit enhancement to absorb losses and the limited exposure to the sectors that we consider to be most at risk.



Commercial Real Estate Exposure (% Of Total Assets)

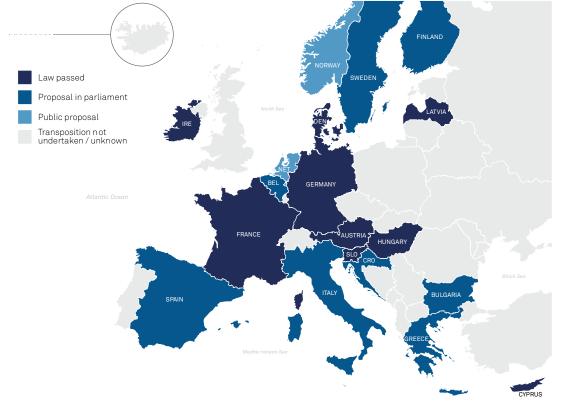
Note: Based on issuer HTT reports / France, Sweden, Norway: S&P Global Ratings estimates. Source: S&P Global Ratings. <u>Commercial Real Estate In Covered Bonds: Is It Worth The Risk?</u>, July 8, 2021.

Rated Programs With Highest Exposure To CRE Assets



Note: Data labels show the average ratio of available credit enhancement to credit enhancement required for current ratings. Source: S&P Global Ratings.

Harmonization | Still A Work In Progress But No Negative Rating Impact If Transposition Process Is Delayed



Current State Of Covered Bond Harmonization Transpositions

Source: S&P Global Ratings.<u>Covered Bond Harmonization In The EU Remains A Work in Progress</u>, July 13, 2021

- The legislative package for the harmonization of EU covered bond frameworks entered into force in January 2020. Member states had until July 2021 to transpose it into national laws, and the new measures will apply by July 2022.
- The COVID-19 crisis delayed the transposition process in most countries. To date, few of them have enacted the law.
- The European Commission has activated infringement procedures against 22 member states that missed the transposition deadline in July 2021. While this may lead to the loss of regulatory advantages, we still think that member states with large covered bond markets will be able to meet the July 2022 target date.
- We consider that the transposition of the directive is credit positive for covered bonds in a few jurisdictions, and we don't expect any negative rating impact due to delays in the transposition process.

Sustainable Covered Bonds | A Supportive Regulatory Framework Will Facilitate Issuance

- The EU has recently approved or amended several regulations that follow the full investment cycle, including the regulation on sustainability-related disclosures, the Taxonomy regulation for climate change, and the benchmark regulation.
- The Taxonomy regulation, which came into force in July 2020, defines sustainable economic activities according to the EU. The European Commission published the first delegated act in June 2021, providing clarity on climate change mitigation and climate change adaptation objectives.
- The proposed EU Green Bond Standard intends to set a common framework of rules for the designation of European Green Bonds: those that pursue environmentally sustainable goals as defined by the Taxonomy regulation. It also sets up a system for the registration and supervision of external review providers.
- While these regulatory initiatives may increase the burden on issuers and investors in terms of transparency requirements, they also provide greater clarity for banks planning green or social issuance.

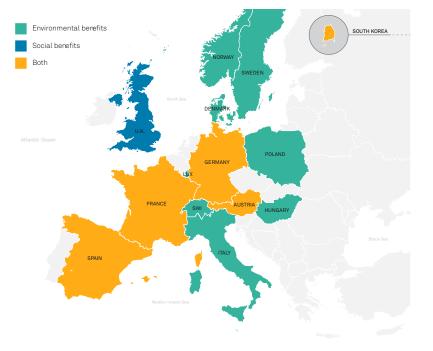
Regulatory Developments In Sustainable Finance

P	December 2015 Paris Agreement
þ	March 2018 EU Commission publishes Action Plan: Financing Sustainable Growth
þ	May 2018 EU Commission adopts measures implementing key actions
þ	December 2019 European Green Deal
þ	June 2020 EU Taxonomy Regulation published
þ	September 2020 EU Commission presented its 2030 climate target plan
þ	March 2021 EU Sustainable Finance Disclosure Regulation
þ	April 2021 EU Corporate Sustainability Reporting Directive
9	July 2021 EU Green Bond Regulation Proposal

Source: S&P Global Ratings. <u>Sustainable Covered Bonds: A Primer</u>, Nov. 17, 2021.

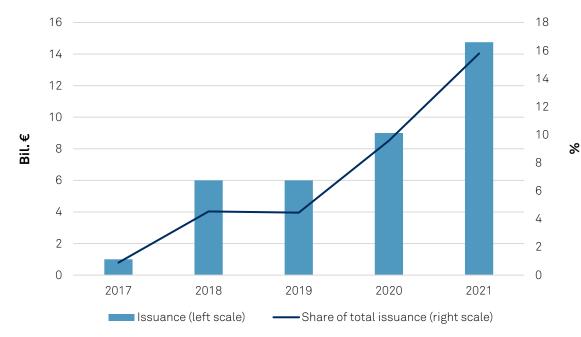
Sustainable Covered Bonds | Issuance Is Diversifying In Terms Of Issuers And Countries

- The number of sustainable covered bond issuers increased from 13 in 2018 to 47 in 2021.
- Sustainable issuance accounted for more than 15% of the global euro-denominated covered bond issuance in 2021. We believe that this should grow further in the coming years, supported by strong investor appetite.



Geographical Distribution Of Sustainable Covered Bond Issuance

A Growing Supply Of Sustainable Covered Bonds



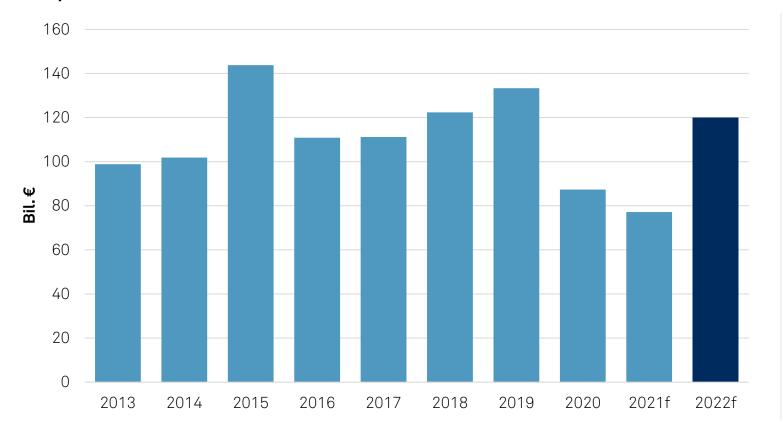
Based on global, euro-denominated, benchmark issuance. Source: S&P Global Ratings.

Source: S&P Global Ratings.

S&P Global

Ratings

Issuance | European Volumes Set To Bounce Back In 2022; Degree Of Central Bank Tapering Will Determine The Extent

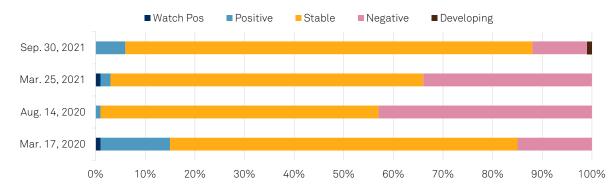


European Investor-Placed Benchmark Covered Bond Issuance

- Issuers' continued access to cheap central bank funding kept covered bond volumes subdued in 2021.
- However, the ECB looks set to gradually tighten the terms of its liquidity scheme, raising banks' incentives to tap debt markets.
- Central bank asset purchases will still prop up demand as they aim to cover redemptions.
- Scheduled covered bond maturities are also set to rise in 2022, which typically supports gross issuance volumes.
- The key risk for 2022 will be that more negative COVID-19 developments emerge, sufficient to derail central bank tapering.

f--Forecast. Source: S&P Global Ratings.

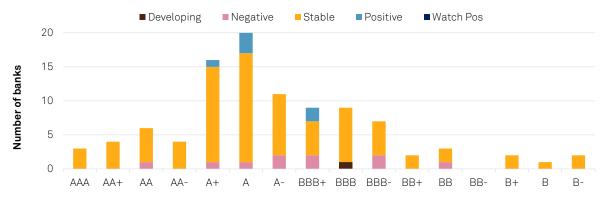
Banks Outlook | Ratings Bias Now More Neutral



Outlook Bias Now Only Slightly Negative

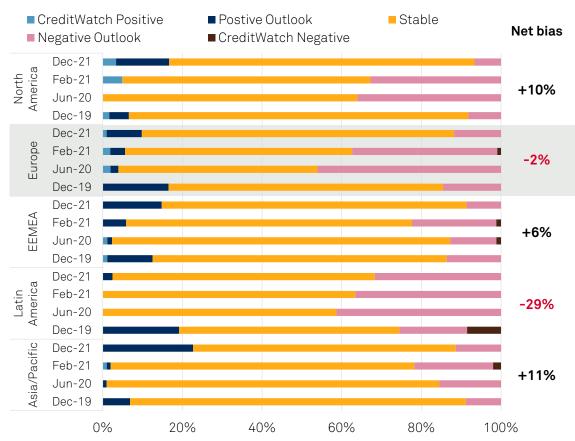
Covers Top 100 European banks only. Data as of Sept. 30, 2021. Data reflect outlooks at the level of the lead operating company. Source: S&P Global Ratings.

Non-Stable Outlooks Spread Across The Spectrum



Covers Top 100 European banks only. Data as of Sept. 30, 2021. Data reflect outlooks at the level of the lead operating company. Source: S&P Global Ratings.

Ratings Bias Now Middling, Relative To Other Regions



Data as of Dec. 6, 2021. Reflects rating bias of all rated banks in each region. EEMEA--Eastern Europe, Middle East & Africa. Net bias calculated as sum of positive outlooks and CreditWatches, less sum of negative outlooks and CreditWatches. Source: S&P Global Ratings.

Banks Outlook | Overview EMEA

Key Expectations

- Credit provisioning will remain contained, even if some asset quality problems from the pandemic start to emerge.
- Bottom-line profitability will improve only modestly, remaining structurally weak in many markets amid persistently low rates, suboptimal efficiency, and overcapacity.
- Capitalization may decline moderately as shareholder distributions rebound and large banks feel less pressure from the implementation of Basel III reforms, which have been delayed (to January 2025) and softened.

Key Assumptions

- Despite the resurgence of COVID-19, economies will continue expanding, with GDP growing by 4.4% in the EU and 4.6% in the U.K.
- Supply bottle necks and rising energy and transportation costs will gradually ease.
- The ECB will maintain an accommodative stance: it will not raise rates until 2024 and will manage a smooth exit from its pandemic quantitative easing program.
 The Bank of England, however, is expected to moderately raise rates twice in 2022.

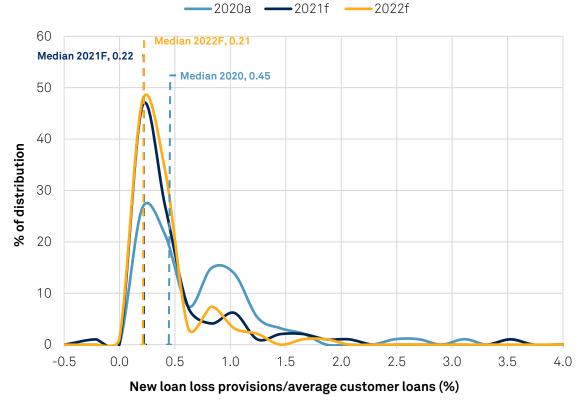
Key Risks

- Interruption of the ongoing recovery, most likely due to higher COVID-19 infections, concerns arising from the new virus variant, or a decline in vaccine efficacy.
- Persistence of inflation, which would force monetary authorities to act earlier, leading to tighter financing conditions and financial turbulence.
- Banks' limited success in revamping their business models, adapting quickly to an increasingly digitalized world, and improving their profitability.
- Distortion of risk-adjusted pricing and a buildup of asset bubbles, particularly in the property market.

Banks Outlook | Manageable Provisioning Ahead, But Lending Growth Only Marginally Higher Than Pre-Pandemic

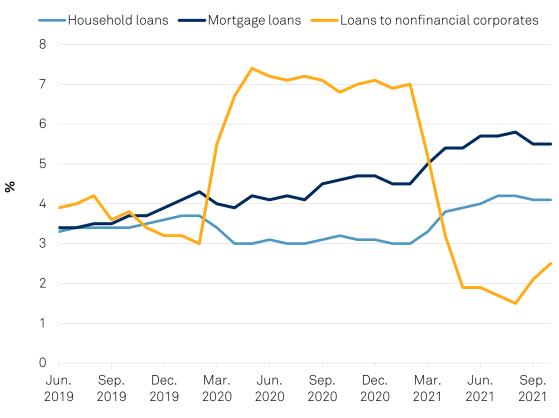
Credit Costs Will Remain Fairly Flat in 2022

Distribution of risk charges Top 100 European Banks



a--Actual. f--Forecast. Source: S&P Global Ratings.

Only Mortgage Lending Shows Dynamism Annual domestic lending growth rate by European Banks

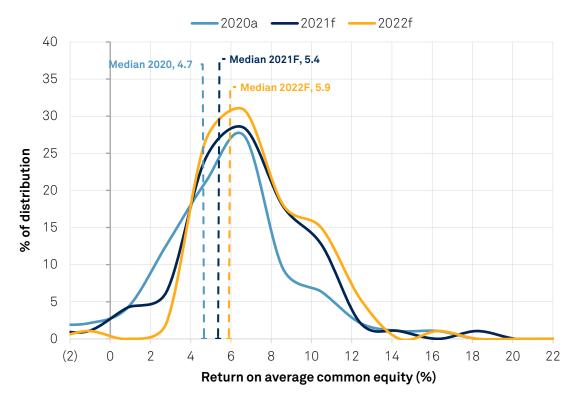


Source: European Central Bank.

Banks Outlook | Profits Will Rise A Bit, But Will Remain Structurally Low

Low Rates Will Continue Pressuring Earnings Generation

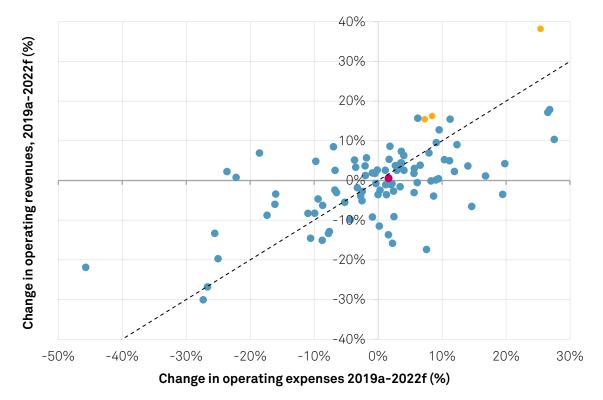
Distribution of return on average common equity of European top 100 banks



a--Actual. f--Forecast. Data as of Sep. 30, 2021. Source: S&P Global Ratings.

And Efficiency Will Barely Improve

Cost growth will exceed revenue growth for 57% of the top 100 European banks

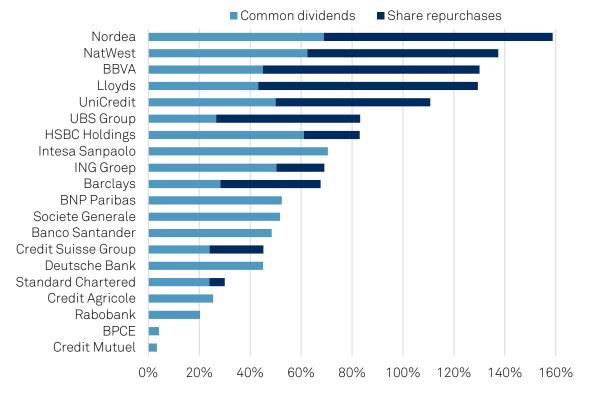


Data as of Oct. 1, 2021. Dashed line indicates proportionate change in both metrics. Pink dot is the median, 1.6% rise in costs, 0.6% fall in revenues. Yellow dots are banks that undertook material M&A. Source: S&P Global Ratings.

Banks Outlook | Shareholders' Remuneration Has Returned, But Capital Will Remain Solid

Banks Are Increasing Payouts And Returning Excess Capital To Shareholders

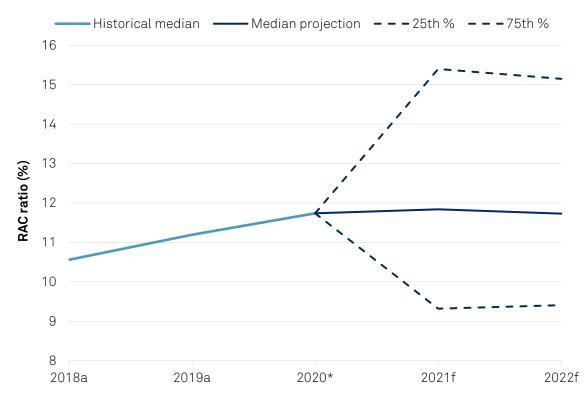
Expected dividend distributions in 2022 for Europe's largest banks



Source: S&P Global Ratings. Note: Some of the buy-back program started already in 2021 and may be extended longer than 2022.

Capital Will Hold Up Well

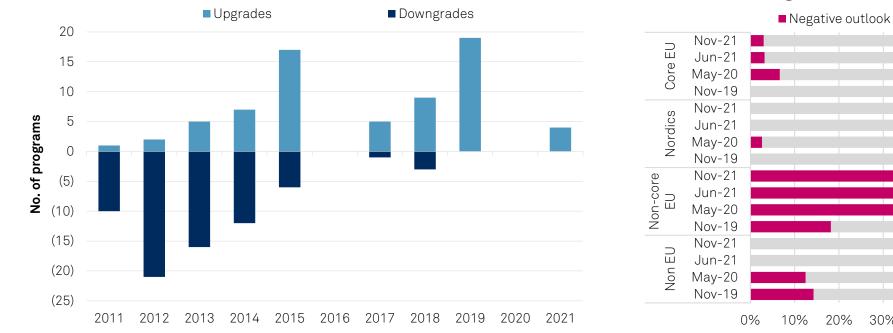
European top 100 banks: median and middle 50% of distribution



F--Forecast. Source: S&P Global Ratings. Data as of Oct 01, 2021. *2020 data is actual as far as available, for a few entities we used estimates.

Ratings Outlook | Covered Bond Ratings Stable Despite Pandemic

- Since the beginning of the COVID-19 pandemic, we have not downgraded any of the covered bond programs that we rate. We revised _ outlooks to negative on less than 15% of them and revised one to positive. We also upgraded four programs due to rating actions on the issuing banks or the related sovereigns.
- Most programs that we rate still have stable outlooks, with the remaining negative outlooks concentrated in Spain. —



Negative Rating Bias Highest In Non-Core Eurozone, Due To Spanish Sovereign Outlook

30%

Stable outlook

Positive outlook

Note: Core EU: Austria, Belgium, France, Germany, and The Netherlands. Nordics: Denmark, Finland, Iceland, Norway, and Sweden. Non-core EU: Hungary, Ireland, Italy, and Spain. Non EU: Singapore, South Korea, and U.K. Source: S&P Global Ratings.

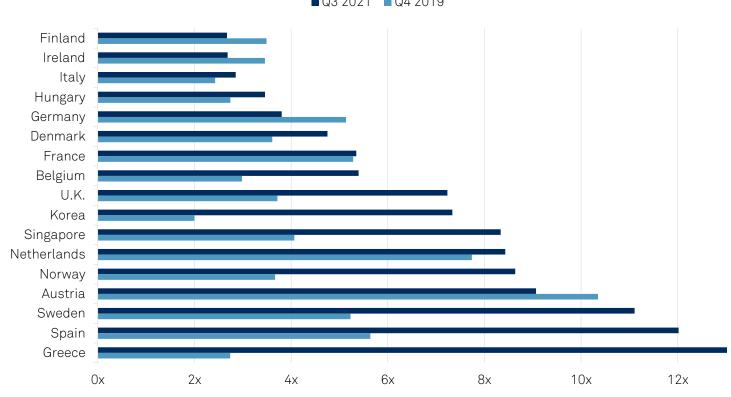
S&P Global Ratings

No Downgrades So Far Due To The Pandemic

100%

Ratings Outlook | Overcollateralization Sufficient To Withstand **Expected Collateral Performance Deterioration**

Available CE Is On Average More Than Eight Times What's Required For The Ratings



■ Q3 2021 ■ Q4 2019

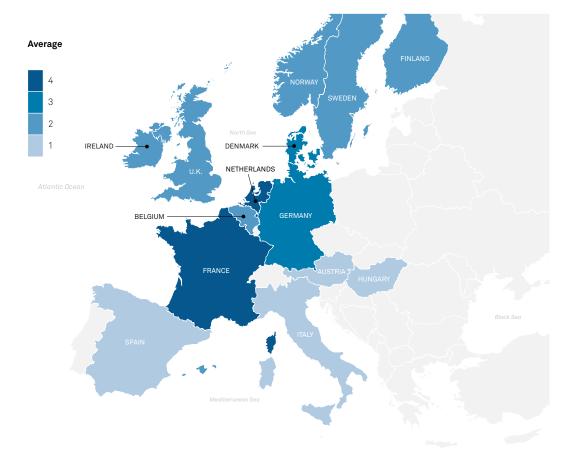
CE--Credit enhancement. Q--Quarter. Average ratio in Greece is 37. Source: S&P Global Ratings.

- The credit enhancement (CE) available to most of the rated programs represents, on average, more than eight times the level required to maintain their current ratings.
- We have not observed any material deterioration in available CE, even when banks used their programs extensively for retained issuance. The CE required for the ratings has also remained stable.
- The available CE should cushion any deterioration in residential collateral performance due to the removal of government support. We expect a more severe effect on the performance of commercial real estate assets, but they generally constitute a relatively small part of the cover pools backing programs that we rate.

Ratings Outlook | Unused Notches Mitigate Bank Downgrade Risk

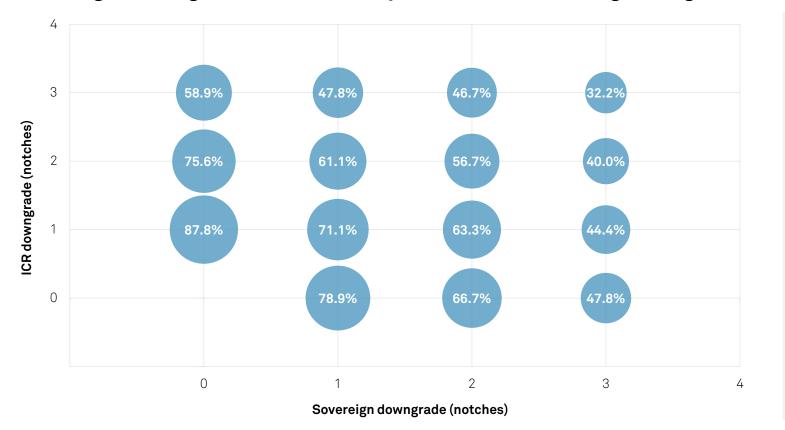
- Potential changes in sovereign or issuer credit ratings are the most likely triggers for changes to our covered bond ratings.
- Currently, rated programs benefit on average from 2.2 unused notches--the number of notches the issuer rating can be lowered without resulting in a downgrade of the covered bonds.
- Dutch, French, and Danish programs are more protected from the risk of bank downgrades.
- Spanish and Italian programs have less of a buffer to mitigate the effect of bank downgrades and could be immediately affected by a sovereign downgrade.

Unused Notches By Country



Note: Conditional pass-through programs are excluded because their ratings are de-linked from the issuer credit rating and they do not benefit from unused notches. Source: S&P Global Ratings.

Ratings Outlook | Non-Core European And Public Sector Programs More Exposed To Sovereign Risk



Most Program Ratings Will Be Unaffected By A Limited ICR Or Sovereign Downgrade

- Given our current sovereign ratings, covered bond ratings in most jurisdictions would not change due to a one-notch downgrade of the sovereign, with some exceptions.
- We would expect mortgage-backed programs in Ireland, Greece, Italy, and Spain, as well as programs backed by public sector assets in Belgium, France, and the U.K., to be most sensitive to changes in the respective sovereign ratings.
- The ratings on more than 70% of the programs we rate would be unaffected by a one-notch downgrade of both the sovereign and the issuer credit rating.

Note: Percentage of covered bond program ratings unaffected by an ICR or sovereign downgrade. Unused notches are the number of notches the ICR can be lowered by, without resulting in a downgrade of the covered bonds, all else being equal. ICR--Issuer credit rating. Source: S&P Global Ratings.

Appendix

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Germany | Resilient Covered Bond Issuance

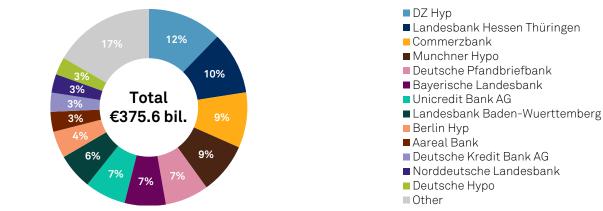
- A recent issuance surge has brought issuance levels comparable to 2020 despite high deposit levels, low interest rates, and competitive central bank funding. We expect 2022 issuance to rebound further.
- Germany was first to complete the implementation of the EU's Covered Bonds Directive. Certain parts of the directive implementation remain a work in progress.
- Government support, low property supply, and increasing immigration helped the German housing market sustain its momentum despite the COVID-19 pandemic. House prices have increased more in Germany's urban centers than in the rest of the country.

250 35 European total (left scale) 30 200 25 150 20 Germany (right scale) 15 100 10 50 5 0 2011 2012 2013 2014 2021 2015 2016 2017 2018 2019 2020 YTD

2021 year-to-date figures as of Nov. 23, 2021. Source: S&P Global Ratings.

Benchmark Covered Bond Issuance (Bil. €)

German Covered Bond Market 2021



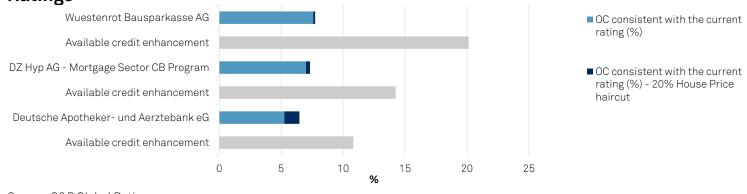
Sources: Issuers Paragraph 28 reports as per June 30, 2021 and the Association of German Pfandbrief banks (VDP).

Germany | House Prices Are Rising

- House prices increased by 8.7% in 2020 and 9% (forecast) in 2021. Low interest rates and low housing supply will continue to generate demand in large cities.
- Germany's housing market is weathering the COVID-19 pandemic. Work and furlough schemes helped to avoid a wide economic downturn. Germany has extended such measures until year-end 2021.
- We tested the impact of house price drops of up to 20%. Conservative valuations and high overcollateralization are likely to continue to support our covered bond ratings.

84 14 German natives 82 12 (left scale) 80 10 8 Mil. Total population Mil. 76 6 (left scale) 74 - Foreigners (right 72 scale) 70 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019 Source: Statistisches Bundesamt.

Available Credit Enhancement Exceeds The Level Commensurate With Our Current Ratings



Source: S&P Global Ratings

S&P Global Ratings

Population Growth Pushes Up House Prices...

Germany | Harmonization Achieved But Work Remains

- Two labels of European covered bonds apply to German covered bonds--"premium" or "normal". Pfandbrief is associated with premium.
- Minimum overcollateralization requirements will now apply to both nominal and net present value overcollateralization, and remain at 2%.

Main Changes To The German Covered Bond Framework



The German law requires issuers to cover 180 days of liquidity. The new soft bullet structure will not be considered in the liquidity calculation.



The amended law introduces an option for the cover pool administrator to extend the covered bonds' maturities of an insolvent issuer by up to one year, while maintaining the current payment sequence of outstanding covered bonds.



The law clarifies the responsibilities of the administrator and requires disclosure maturity extension triggers--with a shorter timeframe than previously required.



Germany | Sustainable Covered Bonds Gain Ground

Sustainable Covered Bonds In Germany

S&P Global

Ratings

lssuer	# of Issuances	Volume	Maturity
Deutsche Kredit Bank	Single	€500 million	0 years
Deutsche Hypoteken Bank (Now NordLB)	Three	€1.5 billion	5-6 years
Muenchner Hypoteken Bank eG	Single	€500 million	5 years
Unicredit AG	Single	€1 billion	5 years
LBBW	Two	\$750 million €500 million	3-7 years
Berlin Hyp	Six	€3 billion	6-10 years
ING DIBA	Single	€1.25 billion	7 years

- Green covered bonds play an increasingly important role in financing energy efficient commercial real estate, green buildings, or refurbishments.
- Most issuances are based on the minimum standards for Green Pfandbriefe and social Pfandbriefe maintained by The Association of German Pfandbrief banks (vdp).
- **Environmental** and social credit factors are typically credit neutral in our analysis of German mortgage covered bonds.
- **Socia**l factors may be a credit positive in the assessments of the public sector cover pools.
- Governance is negative as, although the law requires the coverage of 180 days of liquidity, issuers are not committed to maintain a minimum overcollateralization level, which reduces the number of unused notches.
- Sustainable covered bonds comprised 15% of 2021 euro benchmark issuance. We expect 2022 issuance to remain strong as issuers finalize their environmental, social, and governance program documentation. Total sustainable issuance is likely to exceed 2021's level.

30

Nordics | Lower Activity But Much Higher House Prices

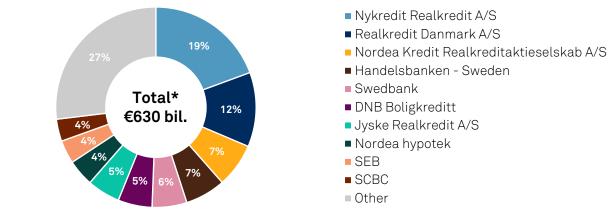
- Swedish covered bond issuance may experience its first year of negative supply. Strong mortgage market activity meant Denmark and Norway maintained comparably high issuance volumes.
- Denmark transposed the EU harmonization directive into law ahead of the deadline. Both Norway and Sweden published draft proposals and a Finnish proposal is making its way through parliament. We expect all the countries to implement the directive by July 8, 2022.
- Despite the COVID-19 headwinds, government employment support, interestonly mortgages, and high demand meant house price growth has been significant. We expect house prices to grow more moderately in 2022.

Benchmark Covered Bond Issuance (Bil.€)



2021 year-to-date figures as of Nov. 23, 2021. Source: S&P Global Ratings.

Nordic Top 10 Covered Bond Issuers 2021

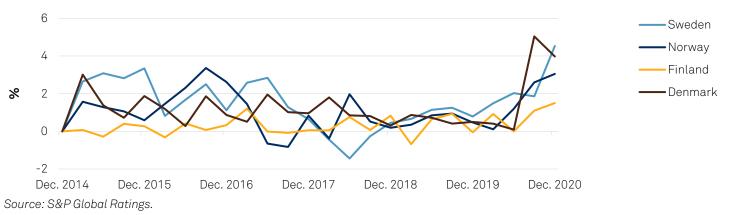


*Approximate based on issuance volumes from S&P Global Ratings' covered bond insight articles, converted from local currencies. Source: S&P Global Ratings

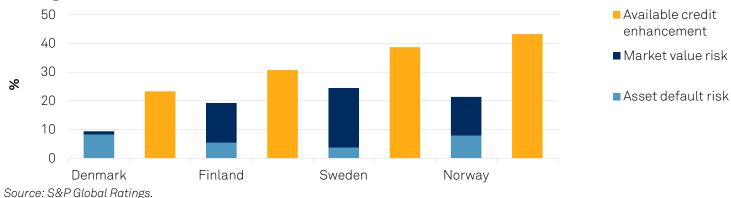
Nordics | House Prices Rise Again

House Price Growth Despite Covid-19

- House prices grew significantly across the region in 2020 and 2021. In our view, sustained economic and employment recovery will support the housing market beyond 2021. Low interest rates, low supply, and growing populations (especially in urban areas), will continue to increase house prices.
- The housing markets continue to weather the COVID-19 pandemic, partly due to policy measures that aimed to protect workers' jobs and income, interest-only loans, and furlough schemes. These factors helped to avoid a wide economic downturn. Most of the measures will have ended by the end of 2021.
- We believe issuers can withstand the impact of house price drops of more than 20% (similar to the level seen in the 1990s Nordic financial crisis). We expect a combination of low loan-to-value (LTV) ratios and high overcollateralization to continue to support our covered bond ratings.



Available Credit Enhancement Exceeds The Level Commensurate With Our Current Ratings



Nordics | Different Stages Of Harmonization

Main Changes To The Nordic Covered Bond Frameworks

Denmark

New formal requirement to cover 180-day liquidity period

Extensions may be considered for 180 days of liquidity coverage

New formal 2% nominal overcollateralization requirement

Norway

Proposal: Formal extension rules and 180 days liquidity requirement -- extensions not considered

Proposal: Overcolalteralization at 5% -- currently 2%

Proposal: Increase maximum LTV ratio for residential properties to 80% from 75%

Sweden

Proposal: Introduce soft bullet extensions and formal 180 days liquidity requirement

Proposal: Overcollateralization at 5% -- currently 2%

Proposal: Increase maximum LTV ratio for residential properties to 80% from 75%

Finland

Proposal: Formal extension rules and 180 days liquidity requirement -- extensions not considered

Proposal: Overcolalteralization at 5% -- currently 2%

Proposal: Increase maximum LTV ratio for residential properties to 80% from 75%

Nordics | Issuers Prefer Green Covered Bonds

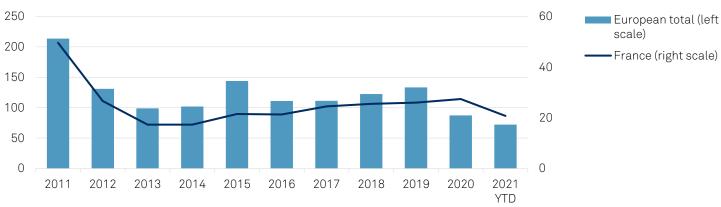
Country	lssuer	# of Issuances	Volume	Maturity	S&P Rating
Norway	DNB Boligkreditt AS	Four	€3 billion/SEK15 billion	5-10 years	ААА
Finland	OP Mortgage Bank	Two	€2 billion	10 years	ААА
Denmark	Nykredit Realkredit	Six	DKK/SEK	3-5 years	AAA
Denmark	Realkredit Danmark	Two	DKK/SEK	5-6 years	AAA
Denmark	Nordea Realkredit	Single	DKK	3 years	ААА
Denmark	Jyske Realkredit	Single	DKK	4 years	AAA
Norway	Sparebank 1 Boligkreditt	Three	€2 billion/SEK8.5 billion	5-7 years	-
Sweden	Landshypotek Bank AB	Two	SEK10.75 billion	5 years	AAA
Sweden	SCBC	Single	SEK6 billion	5 years	-
Norway	EIKA Boligkreditt	Single	€500 million	10 years	-
Norway	Sparebanken Sor	Single	€500 million	7 years	-
Norway	Sparebanken Vest	Two	€1.25 billion	5-7 years	-
Norway	SR Boligkreditt	Single	€500 million	7 years	-

- Green covered bonds play an increasingly important role for low carbon buildings in Scandinavia. There is currently no common green covered bond standard but ICMA standards are commonly referenced.
- Environmental and social credit factors are typically credit neutral in Nordic covered bonds.
- Social factors may be credit positive in our assessments of Danish subsidized housing.
- **Governance**: We consider coverage of 180 days of liquidity in Denmark, Finland, and Norway but, currently not in Sweden. Issuers are generally not committed to maintain a minimum level of overcollateralization, which reduces the number of unused notches.
- Green covered bonds comprised 25% of total Nordic euro benchmark issuance in 2021. We expect similar strong issuance of green covered bonds in 2022, although issuance in domestic currencies may continue to limit supply from Denmark and Sweden.

France | Issuance Remains Resilient

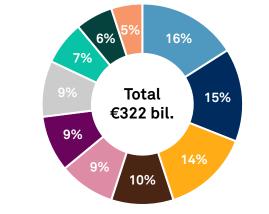
Benchmark Covered Bond Issuance (Bil.€)

- France is currently the number one covered bond jurisdiction in terms of global issuance volumes. We expect issuance for 2022 to remain high as French issuers continue to rely on covered bonds as a primary funding tool and redemptions will need to be replaced by new issuances.
- The transposition of the EU's Harmonization Directive in France occurred before the deadline, bringing limited changes to the domestic covered bond legal framework.
- COVID-19 had a limited effect on the performance of French mortgage loans.
 Following significant growth in 2020 and 2021, house price growth is likely to cool off in 2022 and 2023.



2021 year-to-date figures as of Nov. 23, 2021. Source: S&P Global Ratings.

The French Covered Bond Market In 2021



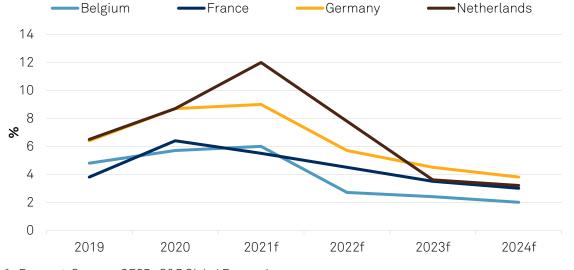
CFIF SCF

- CAFFIL SCF
- Société Générale (SCF and SFH)
- Crédit Agricole (SCF and SFH)
- BNP Paribas SFH
- BPCE SFH
- Other
- CRH
- Credit Mutuel SFH
- LBP Home Loan SFH

Source: S&P Global Ratings.

France | House Prices Are Rising

- House prices rose by 6.4% in 2020 and by 5.5% (forecast) in 2021. In our view, economic and employment recovery will support the housing market in 2022--with house prices expected to grow by 4.5% in 2022 and by 3.5% in 2023.
- Three major factors underpin the significant house price growth since mid-2020: (i) a large accumulation of savings and reassessment of housing space needs during lockdowns, (ii) lower borrowing costs as central banks loosened monetary policy to respond to the pandemic; and (iii) more acute supply constraints after construction activity was put on hold at the onset of the pandemic.
- Interest in house purchases has mainly occurred outside the capital, while sales in Paris have not yet recovered to pre-pandemic levels. Price increases have therefore been stronger in the surrounding suburbs or in second-tier cities such as Lille or Lyon.



The Unexpected Impact Of The Pandemic On House Prices Year on year annual growth in the fourth quarter

Ample Headroom For Overcollateralization In French Mortgage Programs



f--Forecast. Sources: OECD, S&P Global Economics.

S&P Global

Ratings

Source: S&P Global Ratings.

France | No Game Changers From Transposition

- French covered bonds will be issued under two commercial labels: obligation garantie européenne de qualité supérieure ("premium") or obligation garantie européenne ("normal").
- The new law will require issuers to cover 180 days of liquidity requirements as is the case currently. However, liquidity needs will have to met by posting liquidity coverage ratio (LCR) eligible assets.

Main Changes To The French Covered Bond Framework



The legislation specifies the objective conditions for the maturity extension of soft bullet bonds upon the issuer's insolvency.



Existing outstanding covered bonds will be grandfathered but active programs are expected to be updated to the new law to maintain to be able to reach a "premium" designation.



Premium covered bonds will require an enhanced monitoring activity by the asset monitor.



France | Opportunistic Sustainable Covered Bonds Issuance

Few Active Sustainable Covered Bond Issuers

lssuer	# of issuances	Value	Maturity
Societe Generale	Three	€1 billion €1.5 billion	10 years / 5 year
Credit Agricole SFH	Two	€1 billion €1.25 billion	7 years 10 years
CAFFIL	Four (one green)	€1 billion €750 million	5-10 years
BPCE SFH	Two	€1.5 billion €1.25 billion	9 years 10 years

- Several French issuers have enacted green or social financing frameworks in accordance with the ICMA Green Bond Principles and Social Bond Principles.
- Once the EU Taxonomy and related regulations have been implemented, issuers will consider how to adapt to this framework.
- **Environmental** and social credit factors are typically credit neutral in our analysis of French mortgage covered bonds.
- **Social** factors are credit positive in certain public sector programs focusing on the financing of local and regional governments.
- Governance factors are neutral as French issuers cover 180 days of liquidity and commit to maintain a minimum overcollateralization level in the program.
- We expect French issuers to continue to develop their environmental, social or governance (ESG) frameworks, utilize public sector assets, and be opportunistic on sustainable covered bond issuances.

Spain | Issuance Hits Historical Lows

n the path to rmance will until 2022 as re withdrawn. Nov. 2, 2021

Benchmark Covered Bond Issuance (Bil.€)

- Although the economy was on the path to recovery in 2021, asset performance will remain constrained at least until 2022 as various support measures are withdrawn.
- The Spanish Royal Decree of Nov. 2, 2021 introduced major changes in Spanish covered bond legislation -- a major one being the creation of a separate cover pool.
- The outlook for covered bond ratings remains broadly stable due to available overcollateralization that should compensate for asset deterioration, but risks are skewed to the downside, given the sensitivity to a sovereign downgrade.
- 2022 expected covered bond issuance remains very low, as issuers have ample liquidity and are focused on minimum requirements for eligible liabilities (MREL) issuances.



2014

2015

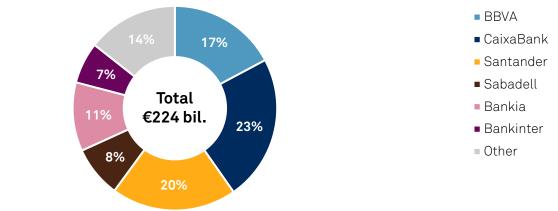
2016

Spain Covered Bond Market 2021

2013

2011

2012



2018

2017

2019

2020

30

20

10

 \cap

2021

YTD

European total (left

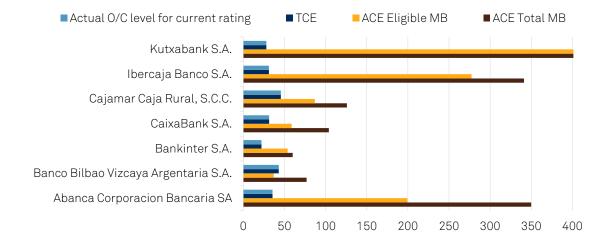
-Spain (right scale)

scale)

Data as of Dec. 31, 2020. Source: S&P Global Ratings.

Spain | Credit Quality Deterioration Is Manageable

- We believe that the full impact of the pandemic on Spanish banks' asset quality is yet to materialize. But with the economic recovery
 underway and banks having strengthened provisions in 2020, the impact should be manageable. We expect the deterioration to stem
 mostly from corporate exposures, particularly from sectors most affected by the pandemic, with problem assets likely peaking in 2022.
- High overcollateralization generally exceeds the required credit enhancement for covered bond ratings--even considering only the eligible mortgage book, and could eventually absorb a deterioration in Spanish banks' mortgage books' credit quality.
- Rating changes to covered bond programs could be more related to sovereign rating movements than worsening credit quality because most of our program ratings are capped by the rating on Spain.

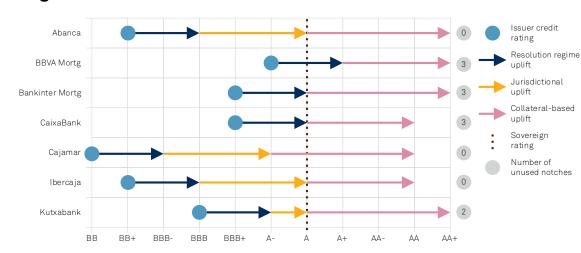


The Sovereign Cap Continues To Affect Covered Bond Ratings

Note: ACE for Kutxabank is 1,706% and ACE Eligible is 1,514%. Data as of Nov 02, 2021. Source: S&P Global Ratings.

S&P Global

Ratings



Ample Headroom For Overcollateralization In Spanish Mortgage Programs

Source: S&P Global Ratings

40

Spain | Royal Decree Targets Quick Transposition

- Spanish covered bonds will be issued under two commercial labels: Bono garantizado europeo ("premium") or ("normal").
- The introduction of a liquidity buffer for 180 days will be included in the covered pool. The requirement may be covered by the required LCR eligible assets.

Main Changes To The Spanish Covered Bond Framework



Establishment of a covered bond register, isolating the assets at all times. Derivatives may be part of the cover pool, and must remain in the cover pool if the issuer defaults. Introduction of updated valuations requirements to be updated every 12 months.



Overcollateralization requirement at 5% nominal value, down from 25% and 43% for mortgage and public sector covered bonds, respectively. Voluntary overcollateralization is at the issuer's discretion.



Introduction of soft-bullet maturities. The extension may only occur if there is a high risk of default or if the issuer has liquidity problems, when the issuer is not complying with the 180 days' liquidity requirement.



Spain | Sustainable Covered Bonds Remain Niche

Two Sustainable Covered Bond Issuances

	# of issuances	Value	Maturity
Caja Rural	Dual, 2016 and 2018	€500 million €600 million	7 years
Eurocaja Rural	One	€700 million	10 years, sustainable covered bond

- All Spanish issuers have adopted ESG frameworks, but currently prefer to issue unsecured sustainable bonds rather than sustainable covered bonds.
- **Environmental** and social credit factors are typically credit neutral in Spanish covered bonds.
- Governance: Spanish issuers do not cover 180 days of liquidity but this is only negative for ratings not capped by the sovereign rating. Other Issuers are not committed to maintain a minimum overcollateralization level, which may reduce the number of unused notches or ratings on the bonds.
- We expect low issuance to continue in 2022 as harmonization efforts and the targeted longer-term refinancing operations (TLTRO) will continue to dominate, and limit covered bond issuance. However, we expect green covered bond issuance to accelerate as issuers return to the market.

Related Research

- <u>Global Credit Outlook 2022</u>, Dec. 1, 2021
- Eurozone Economic Outlook 2022: A Look Inside The Recovery, Nov. 30, 2021
- Sustainable Covered Bonds: A Primer, Nov. 17, 2021
- <u>European Housing Market Inflation Is Here To Stay</u>, Nov. 2, 2021
- <u>Global Covered Bond Insights Q3 2021</u>, Sept. 9, 2021
- <u>Covered Bond Harmonization In The EU Remains A Work in Progress</u>, July 13, 2021
- <u>Commercial Real Estate In Covered Bonds: Is It Worth The Risk?</u>, July 8, 2021
- <u>Covered Bonds Must Adjust To A New Reality After COVID-19</u>, June 30, 2021
- <u>Covered Bonds In New Markets: Expect Only A Gradual Recovery</u>, March 8, 2021
- ESG Industry Report Card: Covered Bonds, Nov. 9, 2020



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