

## CREDIT OPINION

23 November 2020

New Issue

✓ Rate this Research

### Closing date

20 November 2020

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# CAIXABANK PYMES 12, FONDO DE TITULIZACIÓN

## New Issue Report

### Capital structure

Exhibit 1

#### Capital structure

Series	Original rating	Amount (€ million)	% of notes	Legal final maturity	Coupon	Subordination*	Reserve fund*	Total credit enhancement**
Series	Aa1(sf)	2,193.0	86.00%	Sep-62	0.30%	14.00%	5.00%	19.00%
Series	B2(sf)	357.0	14.00%	Sep-62	0.50%	0.00%	5.00%	5.00%
<b>Total</b>		<b>2,550.0</b>	<b>100.00%</b>					

\*As a percentage of the initial pool of assets.

\*\*As a percentage of the initial pool of assets. No benefit attributed to excess spread for this calculation.

Source: Moody's Investors Service

### Summary

The subject transaction is a cash securitisation of a €2.55 billion static pool comprising loans originated by [CaixaBank, S.A.](#) (CaixaBank, long-term deposit rating: A3 not on watch/short-term deposit rating: P-2 not on watch) and extended to corporates, small and medium-sized enterprises (SMEs) and self-employed individuals located in Spain. The portfolio consists of standard loans, some of which are secured by real estate and some are unsecured. Our quantitative, structural and legal analysis of this transaction supports the ratings assigned to the notes.

## Credit strengths

### » Portfolio characteristics:

- *Very granular portfolio, low obligor concentration:* The effective number of obligors is close to 1,000 and the top 10 obligors represents only 5.52% of the pool balance.
- *Absence of refinanced and restructured assets:* Refinanced and restructured loans/credit lines (as defined by the Bank of Spain) have been excluded from the pool. (See "Appendix 2")
- Around 23% of the debtors are corporates (See "Asset description")

### » Transaction structure:

- *Simple structure:* The transaction structure includes a single waterfall and a relatively simple reserve fund mechanism, among other features. (See "Securitisation structure description - Detailed description of the structure")

### » Other features:

- *Good performance of the originator's previous transactions:* The performance of CaixaBank-originated transactions has been better than the Spanish market average. (See "Asset analysis - Primary asset analysis")

## Credit challenges

### » Portfolio characteristics:

- Potential risk of future Moratoria in the pool (current levels very low, below 0.55%), both legal and sectorial, which will not be repurchased
- *Region concentrations:* 26.8% of the pool is concentrated in Catalonia. (See "Asset analysis - Primary asset analysis")

### » Transaction structure:

- *High degree of links to the originator:* Besides acting as the servicer, the originator holds the accounts receiving the pool collections and the account holding the reserve fund (commingling risk). This feature has been taken into account in our analysis (See "Securitisation structure analysis - Additional structural analysis").

- » **Interest rate risk:** Of the pool balance, 50% consists of floating-rate loans and 50% consists of fixed-rate loans, whereas the notes are fixed liabilities. The transaction is exposed to interest-rate risk because it is not protected by an interest-rate swap. This feature has been taken into account in our analysis. (See "Securitisation structure analysis - Additional structural analysis")

- » **COVID-19 outbreak has a negative impact on the underlying portfolio:** The coronavirus outbreak, the government measures put in place to contain it, and the weak global economic outlook continue to disrupt economies and credit markets across sectors and regions. Our analysis has considered the effect on the performance of corporate assets/small businesses from the current weak Spanish economic activity and a gradual recovery for the coming months. Although an economic recovery is underway, it is tenuous and its continuation will be closely tied to containment of the virus. As a result, the degree of uncertainty around our forecasts is unusually high. We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. 30% of the pool has an initial principal grace period (influenced by covid and low pool seasoning) and the potential future payment shock constitutes a major risk on a large portion of the pool. (See Additional asset analysis).

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Environmental, social and governance (ESG) considerations

We consider the coronavirus pandemic a key social risk as described above (See "Credit challenges"). In general, we consider ESG risks "low" for securitisations backed by loans granted to small and medium-sized enterprises (SMEs) or large companies in EMEA. Our credit analysis of the securitised portfolio, which considers ESG risks, as well as the level of borrower, regional and industry diversification within such portfolios, mitigate environmental and social risks. In addition, governance risk is mitigated by the structure of the transaction and our consideration of the transaction parties. Please see our [Cross-Sector Rating Methodology: General Principles for Assessing Environmental, Social and Governance Risks](#), which explains the general principles for assessing ESG risks in our credit analysis globally.

**Environmental:** The rated notes of this ABS SME transaction has a low to modest exposure to environmental risks because the granularity and diversification of the portfolio, and the credit enhancement provided limit the transaction's overall exposure in case any environmental risk factor materialises. (See "Asset description - ESG - Environmental considerations").

**Social:** Social risk exposure in SME ABS is likely to be limited because SME securitizations benefit from diversification in their constituent industries and are structured to provide credit enhancement to the rated notes. SMEs are significant employers (in the EU, they account for around two thirds of total employment in the nonfinancial business sector) and are consequently exposed to social trends and risk factors that are broadly in line with their country of operation. Small firms typically have fewer financial resources to respond to changing regulatory requirements in areas such as health and safety or minimum wages. The labor-intensive aspect of work in these main sectors reduces SMEs' ability to benefit from automation or artificial intelligence.

Exposure to these identified social risks is broadly manageable, or could be material to the credit quality the bonds in the medium to long term (five or more years). However, it may be less certain that the identified risks will develop in a way that is material to bond ratings. These identified risks have been taken into account in the analysis of the ABS.

The rated notes of this ABS SME transaction have a moderate exposure to social risks because of the SMEs' role as employers and related health and safety aspects for the workforce; the SME's supply-chain partners and/or their production processes; and certain labour-intense activities that limit the SME's ability to benefit from automation and/or artificial intelligence. However, industry diversification within the portfolio mitigates these social risks. (See "Asset description - ESG - Social considerations").

**Governance:** Transaction governance risk that could be embedded in structured finance transactions includes:

- a) Financial Strategy & Risk Management: Examples: The sponsor/manager/servicer could lack operational and financial oversight and controls. Securitization might not be important to the sponsor's financing strategy. Hedging strategy or transaction liquidity is not adequate and exposes the transaction to significant risk. Transaction covenants, reps & warranties, duties or indemnities might be weak and not meaningful. Issuer may have broad ability to issue additional debt and refinance capital structure.
- b) Management Credibility & Track Record: Examples: The sponsor/manager/servicer's management team might not have adequate quality and experience, to carry out its duties specified in the transaction documents. Key person risk could be present and the ownership structure might not be transparent. There might not be a stable servicer/manager with a platform that is strategically important to management. Management's interest might not be aligned with the noteholders.
- c) Organizational Structure: Examples: The structure might not meet Moody's bankruptcy remoteness criteria. Complicated organizational structure might result in lack of separation of entities or duties. Duties and rights of transaction parties might not be clearly defined. Trustee's and/or noteholders' rights and control might be limited.
- d) Compliance & Reporting: Examples: The sponsor and servicer might not be in compliance with all regulations and might not meet minimum industry servicing standards. The quality of the information provided by the sponsor/manager/servicer or its agents might be lacking. Regular compliance reports might not be delivered to Moody's. The sponsor/manager/servicer might not conduct periodic financial and compliance audits or have well established enforcement mechanisms, internal controls and channels of escalation. Lack of third party oversight or verification of the reported information.

e) Board Structure, Policies & Procedure: Examples: The issuer's board structure might not have at least one independent director. There might be a lack of independent shareholder oversight. Ownership and control of the issuer may result in misalignment of interests. The sponsor might not have clearly established and documented origination and credit underwriting policies.

This transaction's governance risk is low and is comparable with that of other securitisations in EMEA.

## Key characteristics

Exhibit 2

### Asset characteristics (provisional pool as of October 2020)

Asset characteristics	
Receivables	Loans to corporate, small and medium-sized enterprises (SMEs) and self-employed individuals located in Spain
Total amount (EUR)	2,700 million
Number of borrowers	28,838
Number of borrower groups	28,623
Number of assets	31,024
Effective number	Over 1000
WA remaining term (in years)	5.6
WA seasoning (in years)	1.1
WAL of the portfolio (in years)	3.20 (with 0% CPR)
Interest basis	49.6% fixed rate assets, 50.4% floating rate assets
WA interest rate (total pool)	1.57%
% collateralised by first lien mortgage	9.2% (11.3% of the portfolio is secured by real estate mortgages)
WALTV	51.4%*
Delinquency status	0.33% of pool balance relates to contracts that are delinquent for less than 60 days (the definitive portfolio may only contain 1% of contracts that are delinquent between 30 and 90 days, according to eligibility criteria)
Historical portfolio performance data	
Default rate:	Based on extrapolated historical vintage analysis, 2.1% over a time horizon of around 2.8 years (90+ definition of defaults)
Recovery rate:	Based on extrapolated historical vintage analysis, 57.4% (90+ definition of defaults)
Transaction parties	
Seller/Originator:	Caixabank S.A. (Long Term Deposit Rating: A3 Not on Watch / Short Term Deposit Rating: P-2 Not on Watch; Long Term Counterparty Risk Assessment: A3(cr) Not on Watch /Short Term Counterparty Risk Assessment: P-2(cr) Not on Watch; Outlook: Stable)
Servicer	Caixabank S.A.
Back-up servicer	N/A
Back-up servicer facilitator	CaixaBank Titulización, S.G.F.T.,S.A.U.(Not rated) plays this role (as well as other roles) as part of its functions as management company

Source: Moody's Investors Service

Exhibit 3

**Securitisation structure characteristics****Structural characteristics**

Excess spread at closing:	The transaction has no hedging mechanism. At closing the difference between WA spread on the pool and WA fixed interest on the notes is 1.24%
Credit enhancement/Reserves:	Subordination of the notes and excess spread Reserve fund: 5.0% (as percentage of the initial pool of assets)
Form of liquidity:	Reserve fund, principal to pay interest and excess spread
Number of interest payments covered by liquidity:	As per the amount funded at closing, the reserve fund would cover more than six years of quarterly payments of interest and senior fees, even considering 0.5% of stressed senior fees
Interest payments:	Quarterly in arrears on each payment date
Principal payments:	Pass-through on each payment date
Payment dates:	16 March 2021, thereafter 16 of June, September and December
Hedging arrangements:	None

**Transaction parties**

Issuer:	Caixabank Pymes 12
Computational agent:	Caixabank Titulización S.G.F.T., S.A.U.
Back-up calculation/Computational agent:	N/A
Swap counterparty:	N/A
Issuer account bank:	Caixabank S.A.
Collection account bank:	Caixabank S.A.
Paying agent:	Caixabank S.A.
Corporate service provider:	N/A
Representative of the noteholders:	Caixabank Titulización S.G.F.T., S.A.U.
Arranger/Lead manager:	Caixabank Titulización S.G.F.T., S.A.U./ Caixabank S.A.
Cash manager:	Caixabank Titulización S.G.F.T., S.A.U.
Back-up cash manager:	N/A

Source: Moody's Investors Service

## Asset description

As of October 2020, the audited provisional portfolio was composed of 31,024 contracts amounting to EUR 2,700 million. The top industry sector in the pool, in terms of Moody's industry classification, is the Beverage, Food & Tobacco sector (24.7%). The top borrower group represents 1.19% of the portfolio and the effective number of obligors is over 1,000. The assets were originated mainly between 2019 and 2020 and have a weighted average seasoning of 1.14 years and a weighted average remaining term of 5.58 years. Only 0.55% of the portfolio has an active payment moratorium due to coronavirus. The interest rate is floating for 50.39% of the pool while the remaining part of the pool bears a fixed interest rate. The weighted average interest rate of the pool is 1.57%. Geographically, the pool is concentrated mostly in the regions of Catalonia (27%) and Madrid (12%). At closing, assets in arrears up to 30 days will not exceed 5% of the pool balance, while assets in arrears between 30 and 90 days will be limited to up to 1% of the pool balance and assets in arrears for more than 90 days will be excluded from the final pool.

Around 11% of the portfolio is secured by mortgages over different types of properties.

## Pool characteristics

The exhibit below shows some basic characteristics of the pool of assets.

Exhibit 4

### Pool details

Pool details	
Type of assets	Secured and unsecured loan contracts and secured drawdowns under lines of credit
Total amount (EUR)	2,700 million
Average asset balance (EUR)	87,032
Number of assets	31,024
Number of borrowers	28,838
Number of borrower groups	28,623
Effective number	Over 1000
WA seasoning (in years)	1.1
WA remaining term (in years)	5.6
WAL of the portfolio (in years)	3.20 (with 0% CPR)
Minimum maturity	January 2021
Maximum maturity	March 2059
Interest basis	49.6% fixed rate assets, 50.4% floating rate assets
WA interest rate (total pool)	1.57%
WA spread (floating rate subpool)	1.34%
Contract amortisation type	Most of the contracts have french or linear (97.73%) amortization
% Bullet loans	2.27%
% Large corporates	22.68%
% Real estate developers*	6.58%
WA Moody's equivalent rating**	Ba3
% collateralised by first lien mortgage	9.2% (11.3% of the portfolio is secured by real estate mortgages)
WALTV	51.4%*
Delinquency status	0.33% of pool balance relates to contracts that are delinquent for less than 60 days (the definitive portfolio may only contain 1% of contracts that are delinquent between 30 and 90 days, according to eligibility criteria)

\*Real estate developers include NACE codes 41.10, 68.10 and 68.20.

\*\*Moody's equivalent ratings are based on internal probabilities of default ("PDs") provided by the originator.

Sources: The originator and Moody's Investors Service

The following exhibits show portfolio concentrations according to obligor size, industry and region.

Exhibit 5

**Pool concentration levels**

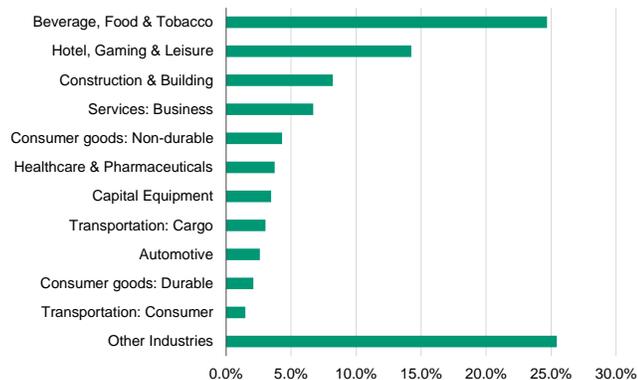
**Pool details**

Top debtor concentration	1.19%
Top 10 debtors	5.52%
Top 20 debtors	8.25%
Effective number	Over 1000
Name 1st largest industry	Beverage, Food & Tobacco
Size % 1st largest industry	24.70%
Name 1st largest region	Catalonia
Size % 1st largest region	26.8%

Sources: The originator and Moody's Investors Service

Exhibit 6

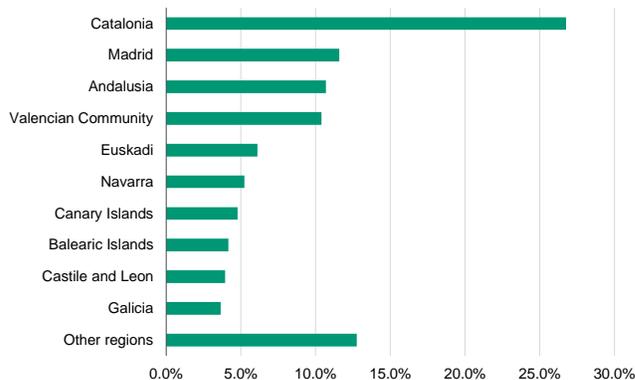
**Industry concentrations**



Sources: The originator and Moody's Investors Service

Exhibit 7

**Region concentrations**

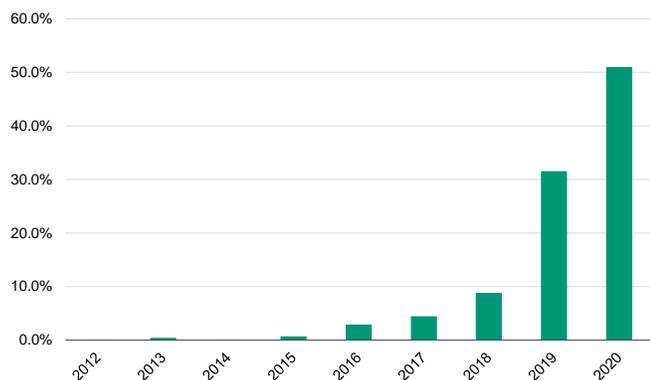


Sources: The originator and Moody's Investors Service

The charts below show the portfolio concentrations by year of origination and maturity date.

Exhibit 8

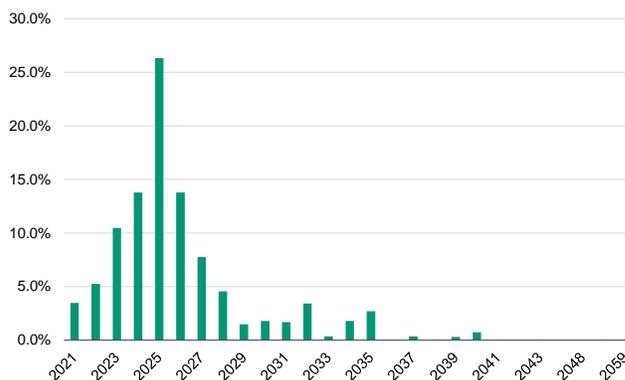
**Year of origination**



Sources: The originator and Moody's Investors Service

Exhibit 9

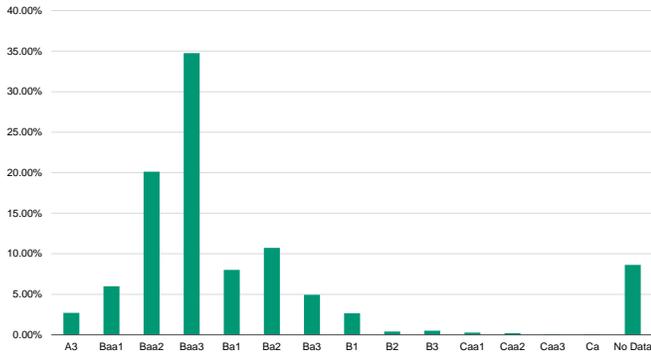
**Year of maturity**



Sources: The originator and Moody's Investors Service

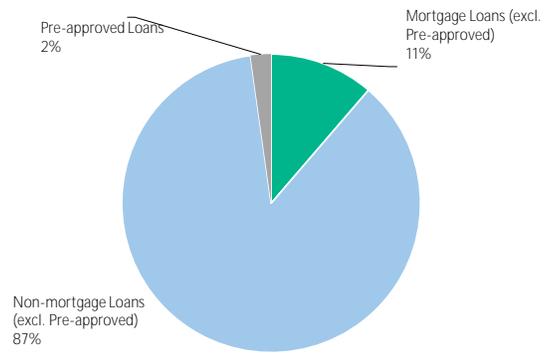
The charts below show portfolio concentration by rating and collateral type.

Exhibit 10  
Borrower credit quality by Moody's-equivalent rating\*



\*Moody's-equivalent ratings are based on internal PDs provided by the originator.  
Source: The originator and Moody's Investors Service

Exhibit 11  
Type of contract and collateral



Sources: The originator and Moody's Investors Service

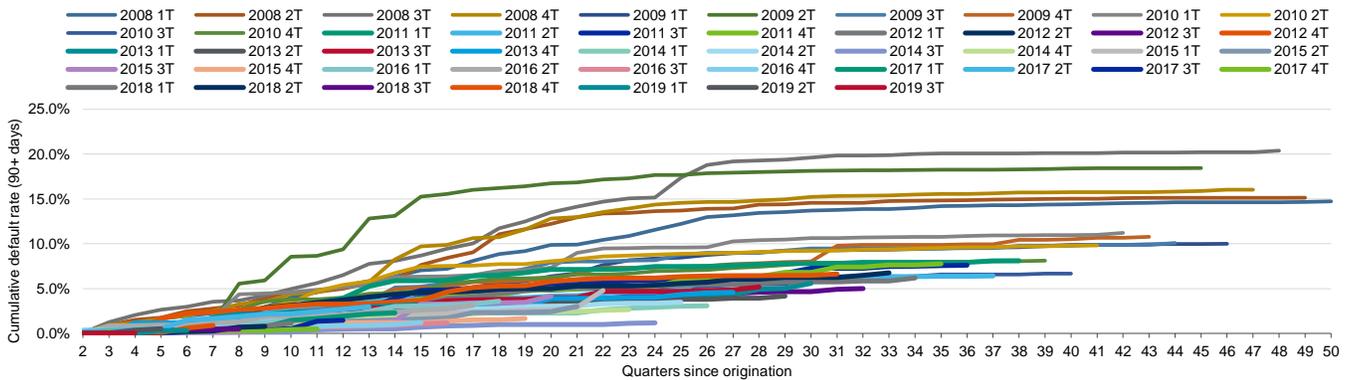
**Originator and servicer**

CaixaBank is the transaction's originator and servicer. For more information on the originator and servicer, please see "Appendix 1".

The exhibits below show the historical performance data of CaixaBank originations.

- » We received static default (more than 90 days in arrears) and recovery data on a pool similar to the pool securitised in this transaction, broken down into subpools depending on the type of collateral of the loans (mortgage subpool and non-mortgage subpool).
- » The information provided covers the last full economic cycle.

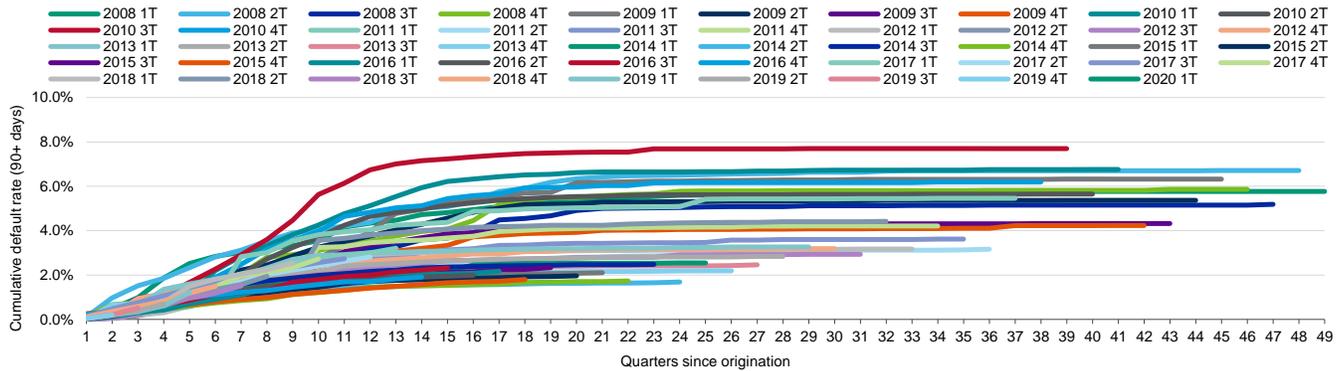
Exhibit 12  
Cumulative default rate (90+) - Secured mortgage backed without pre-approved subpool



Sources: The originator and Moody's Investors Service

Exhibit 13

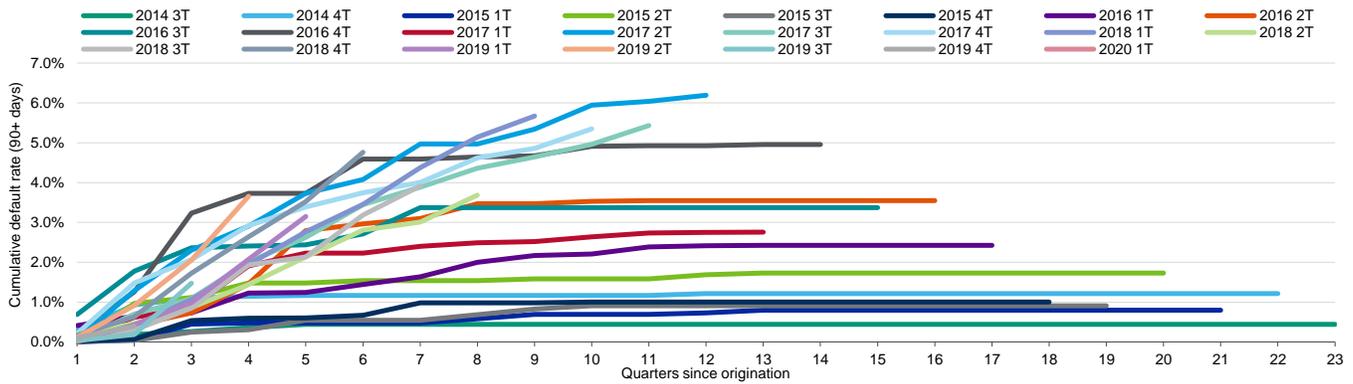
Cumulative default rate (90+) - Secured non-mortgage backed without pre-approved subpool



Sources: The originator and Moody's Investors Service

Exhibit 14

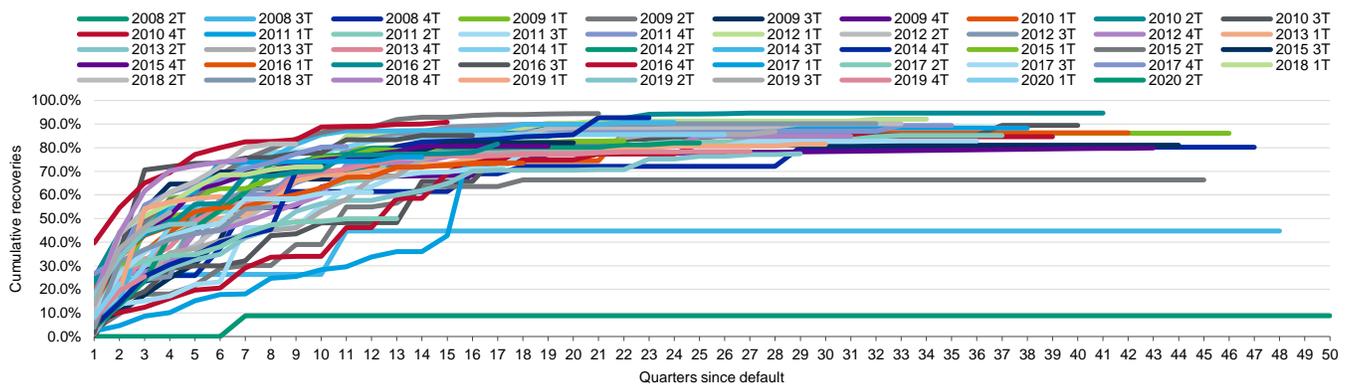
Cumulative default rate (90+) - Pre-approved subpool



Sources: The originator and Moody's Investors Service

Exhibit 15

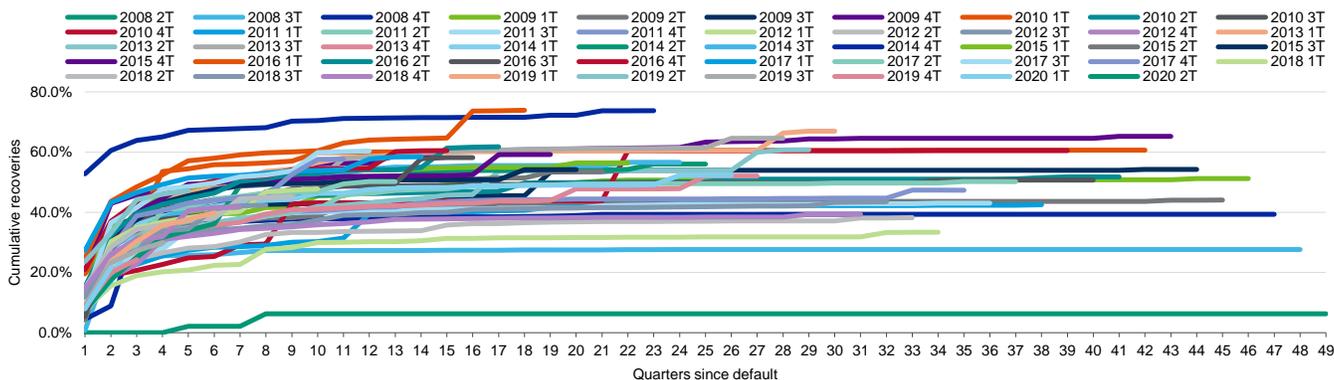
Cumulative recoveries - Secured mortgage backed without pre-approved subpool



Sources: The originator and Moody's Investors Service

Exhibit 16

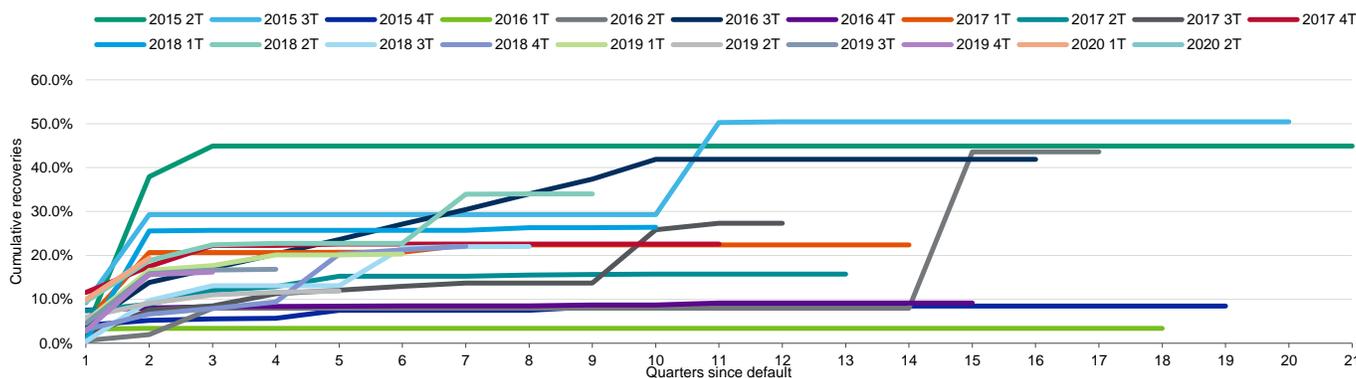
**Cumulative recoveries - Secured non-mortgage backed without pre-approved subpool**



Sources: The originator and Moody's Investors Service

Exhibit 17

**Cumulative recoveries - Pre-approved subpool**



Sources: The originator and Moody's Investors Service

**Eligibility criteria**

While the transaction does not establish any eligibility criteria per se, the originator's representations and warranties regarding the assets define which asset the special-purpose vehicle (SPV) can purchase. See "Appendix 2" for a list of the transaction's key eligibility criteria.

**Asset acquisition after closing date**

**Absence of revolving period**

The securitisation does not include a revolving period during which the SPV could purchase additional loans. This limits the volatility in portfolio performance caused by additional loan purchases.

**ESG - Environmental considerations**

The impact of environmental risks on the rated notes of this securitisation backed by loans to SMEs and larger corporates is low.

The rated notes are neither exposed to significant industry specific environmental risks, such as air/soil/water pollution, land use restrictions, carbon emissions, water shortages, and/or natural and human-made disasters<sup>1</sup>, nor to material environmental issues of a single obligor because of high portfolio granularity and geographic distribution (see "Asset Description" above)

The available credit enhancement limits the transaction's overall exposure if any environmental risk factor materialises.

Consequently, exposure of the rated notes to environmental risk is adequately mitigated.

### ESG - Social considerations

The portfolio of SME loans represents broadly the economic activities of the regions in which Caixabank is active within Spain; hence, the portfolio is broadly exposed to the demographic and social trends and related risk factors of Spain.

Overall, the impact of social risks on the credit analysis of the rated notes of this securitisation of loans to SMEs is moderate.

More specifically, the industry diversification in the portfolio, which protects the transaction from any large-scale impact of social risks arising from any one single industry sector; the relatively short tenor of the transaction; and the credit enhancement available to support the rated notes mitigate the potential negative impact from following social risk aspects<sup>219</sup>:

- » Demographic trends in the demand for goods and services shift over time, and waxes and wanes with the business cycle, which could increase obligor default risk. Small business obligors are particularly vulnerable because of their lean cash buffers. Industry diversification mitigates the risk of a downturn in any one industry stemming from changing demographic trends.
- » SME borrowers included in the portfolio represent a significant portion of employers in Spain and, as such, they are exposed to changing regulations or incidences related to health and safety issues of the employees and/or contactors at the workplace. SME borrowers included in this transaction (compared with larger corporates) have typically limited financial and personnel resources to respond to changing regulatory requirements or minimum wages. Social and financial costs of workplace safety can be significant at single-company level, but are mitigated at portfolio level.
- » SME obligors of the portfolio might be exposed to risks resulting from their supply-chain partners and/or their own production processes, including reputational risks from product failures, recalls or health and safety issues affecting the community in which the borrower operates. In case product quality issues materialise, this can be credit negative for single borrowers across a broad range of manufacturing and consumer-orientated sectors (such as automotive, capital equipment, beverage, food and tobacco, chemicals, plastics & rubber and consumer goods: durable and consumer goods: non-durable). The borrower and industry diversification of this portfolio mitigates these risks for the rated notes.
- » The labour-intensive aspect of work for certain industry segments (including the services segment) reduces the ability to benefit from automation or artificial intelligence as a means of increasing productivity, especially for SME borrowers as opposed to larger entities.
- » National or regional health pandemics could weaken the credit profiles of small business obligors in the deals, particularly for those that generate sales from foot traffic. Pandemics may also result in lenders offering temporary payment deferrals to the obligors, reducing the cash flow to the transactions and potentially mitigating loan defaults.

## Asset analysis

### Primary asset analysis

We based our analysis of the transaction assets on factors including historical performance data, originator and servicer quality, and pool characteristics.

### Probability of default

We use the originator's historical performance data to determine the mean probability of default of the securitised pool.

*Derivation of default rate assumption:* We analysed the available historical performance data the originator had provided and the performance of previous transactions originated by CaixaBank. We extrapolated the default vintage data to define the cumulative default curve for each of the origination vintages.

We complemented the historical data analysis with a top-down approach, which we typically apply when rating SME loan transactions, and as described in more detail in our methodology report, [Moody's Global Approach to Rating SME Balance Sheet Securitizations](#), May 2020. Starting from a base rating proxy of Ba2 for a SME based in [Spain](#) (Baa1/(P)P-2), we evaluate the portfolio based on several features, including:

1. The size of the companies: We assume a one-notch penalty for micro-SMEs and self-employed individuals (around 32% of the pool balance) and a one-notch benefit for corporates (around 23%).
2. The borrowers' sector of activity: For example, we applied a one-notch penalty to assets whose underlying borrower was active in the construction sector (8% of the pool balance, excluding real estate developers) and a two-notch penalty for borrowers classified as real estate developers (6.6%). Additional penalties were applied to certain industries due to the pandemic expected impact (see details below)
3. The payment holidays: We applied a penalty on the default probability of the assets for which future principal or interest and principal payment holidays are allowed, considering the number of payment holidays allowed.

We adjusted our assumption to take into account (i) the current economic environment and its potential impact on the portfolio's future performance (0.5 notch penalty), as well as (ii) industry outlooks or historically observed cyclicity of industry sectors by analysing sector-specific delinquency and default rates. We also evaluated and benchmarked the originator's underwriting capabilities against other Spanish originators (half-notch benefit).

As a result, we expect an average portfolio credit quality equivalent to a probability of default corresponding to a Ba3 proxy rating for an average life of around 3.2 years for the portfolio. This translates into a gross cumulative default rate of 8.7%.

### Default distribution

Because of the high granularity of the pool, we used a normal inverse default distribution. The two basic parameters needed to be assessed as main inputs to generate the default distribution are:

- » the mean default probability for the portfolio (8.7% over the average life of around 3.2 years, as explained above), and
- » the standard deviation of the normal inverse distribution.

*Standard deviation:* To define the standard deviation for the normal inverse default distribution, we ran a Monte Carlo simulation (using Moody's CDOROM™ tool) based on the securitised portfolio's actual loan-by-loan information to capture the pool concentrations in terms of single obligors and industry segments. We used, inter alia, the loan-by-loan default probabilities (that is, outcome of the analysis carried out in "Primary asset analysis"), the borrower industry sectors, the weighted-average life and a probabilistic correlation framework. Finally, we performed a benchmark analysis against other recent Spanish SME deals and took into account the Aa1 country local-currency country risk ceiling to calibrate the curve.

As a result, we assume a normal inverse default distribution with a coefficient of variation (ratio of standard deviation and mean default rate) of 44.2%, resulting in a portfolio credit enhancement of 19%, which takes into account sovereign risk as well.

*Timing of default:* We assumed a flat default timing curve as the base case, spread over the portfolio's weighted average life ("WAL"), rounded to 3.25 years and starting after the default definition.

**Severity**

We analysed the historical recovery data provided by the originator.

*Derivation of recovery rate assumption:* Assumptions for recoveries were made on the basis of (1) historical recovery information provided specifically for this deal and data available from previous deals of the originator; (2) statistical information on the Spanish SME market; and (3) collateral-specific loan-by-loan portfolio information. With regard to the credit lines, given that subsequent redraws rank pari passu with the securitised drawdowns in case of execution, we have stressed the recovery rate by assuming that the current undrawn amounts under the credit line contracts are fully redrawn by the borrowers (until the credit limit is reached).

Based on this analysis, we assumed a stochastic mean recovery rate of 38% and a standard deviation of 20%. We assumed the base case recovery timing as follows: 50% in the second year after default and 50% in the third year.

**Portfolio credit enhancement (PCE)**

To sum up and for comparison purposes, the aforementioned assumptions of 8.7% on cumulative mean default for the initial portfolio, 44.2% of coefficient of variation together with 38% of stochastic recoveries correspond to a portfolio credit enhancement of 19%.

**Prepayments**

Based on the performance of the previous deals originated by CaixaBank and the benchmark analysis against recent similar transactions, we assumed an annual prepayment rate of 5% per annum.

**Data quality**

The quantity and quality of the originator's historical default data we received is in line with other transactions that have achieved investment-grade ratings in this sector.

### Comparables

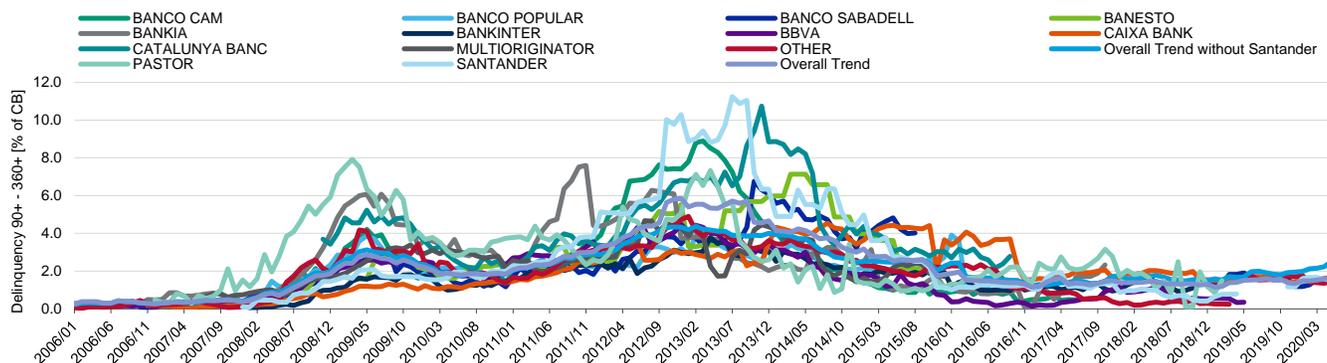
#### Prior transactions of the sponsor

The performance of the originator's previous transactions have been slightly better than that of the remaining Spanish originators in the SME segment (see details in the exhibits below).

Exhibit 18

#### 90-360 days delinquency

##### Spanish SME 90-360 days delinquency - trend by originator

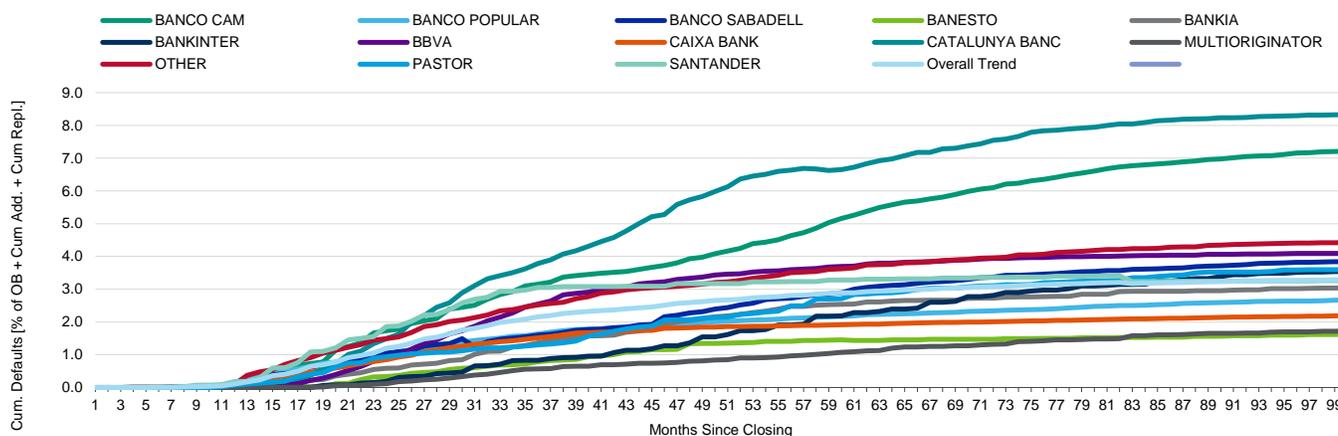


Sources: Moody's Investors Service, Moody's Performance Data Service and periodic investor/servicer reports

Exhibit 19

#### Cumulative defaults

##### Spanish SME cumulative defaults - seasoning by originator



Sources: Moody's Investors Service, Moody's Performance Data Service and periodic investor/servicer reports

## Previous transactions from the sponsors

Exhibit 20

## Benchmark table

Deal name	CaixaBank Pymes 12, Fondo De Titulizacion	CaixaBank Pymes 11, Fondo De Titulizacion	CaixaBank Pymes 10, Fondo De Titulizacion	CaixaBank Pymes 9, Fondo De Titulizacion
Country	Spain	Spain	Spain	Spain
Closing date	Nov-20	Nov-19	Nov-18	Nov-17
Currency of rated issuance	Euro	Euro	Euro	Euro
Rated notes volume (excluding NR and equity) - EUR	2,700,096,715	2,450,000,000	3,466,025,645	1,850,000,000
Originator	CaixaBank	CaixaBank	CaixaBank	CaixaBank
Long-term rating (*)	A3 / A3(cr)	A3 / A3(cr)	Baa1 / A3(cr)	Baa2 / Baa1(cr)
Short-term rating (*)	P-2	P-2	P-2	P-2
Servicer (*)	CaixaBank	CaixaBank	CaixaBank	CaixaBank
Long-term rating (*)	A3 / A3(cr)	A3 / A3(cr)	Baa1 / A3(cr)	Baa2 / Baa1(cr)
Short-term rating (*)	P-2	P-2	P-2	P-2
<b>Contract information (as % total pool)</b>				
(Fully) amortising contracts %	97.73%	96.45%	96.71%	96.80%
Bullet / balloon contracts %	2.27	3.55%	3.29%	3.2% bullet contracts
Method of payment - Direct debit (minimum payment)	100%	100%	100%	100%
Floating rate contracts %	50.4%	55.7%	65.60%	58.7%
Fixed rate contracts %	49.6%	44.3%	34.40%	41.3%
WA initial yield (Total pool)	1.57%	2.0%	2.3%	2.4%
WAL of Total pool (in years)	3.20 (with 0% CPR)	3.80 (with 0% CPR)	3.82 (with 0% CPR)	3.7 (with 0% CPR)
WA seasoning (in years)	1.1	1.2	2.6	0.9
WA remaining term (in years)	5.6	6.7	6.7	7.6
Portfolio share in arrears > 30 days %	0%	0%	0%	0%
No. of contracts	31,024	36,146	65,807	36,785
<b>Obligor information (as % Total pool)</b>				
No. of obligors	28,838	36,146	57,930	32,901
Name 1st largest industry	Beverage, Food & Tobacco	Construction & Building	Construction & Building	Beverage, Food & Tobacco
2nd largest industry	Hotel, Gaming & Leisure	Beverage, Food & Tobacco	Beverage, Food & Tobacco	Construction & Building
3rd largest industry	Construction & Building	Hotel, Gaming & Leisure	Hotel, Gaming & Leisure	Hotel, Gaming & Leisure
Size % 1st largest industry	24.70%	22.46%	23.23%	25.00%
2nd largest industry	14.25%	19.63%	18.35%	17.20%
3rd largest industry	8.21%	15.99%	13.20%	10.60%
Effective number	Over 1000	Over 1,000	Over 2,000	1,147
Single obligor concentration %	1.19%	0.63%	0.65%	1.7%
Top 10 obligor concentration %	5.52%	5.03%	4.43%	5.50%
<b>Collateral information (as % Total pool)</b>				
WA LTV	51.4%*	49.30%	48.30%	60.10%
Collateralised by first lien mortgage	11.3%	17.9%	16.6%	11.2%
<b>Geographical stratification (as % Total pool)</b>				
Name 1st largest region	Catalonia	Catalonia	Catalonia	Catalonia
2nd largest region	Madrid	Madrid	Madrid	Valencia
Size % 1st largest region	26.76%	27.09%	30.40%	26.20%
2nd largest region	11.58%	12.09%	15.80%	13.70%

Deal name	CaixaBank Pymes 12, Fondo De Titulizacion	CaixaBank Pymes 11, Fondo De Titulizacion	CaixaBank Pymes 10, Fondo De Titulizacion	CaixaBank Pymes 9, Fondo De Titulizacion
<b>Asset assumptions</b>				
Gross default / Net loss definition in this deal	12 months	12 months	12 months	12 months
Type of default / loss distribution	Inverse normal	Inverse normal	Inverse normal	Inverse normal
Mean gross default rate - initial pool	8.70%	9.50%	10.00%	9.40%
Stdev.	3.85%	4.52%	4.32%	4.25%
CoV	44.20%	47.60%	43.20%	45.30%
Stochastic recoveries modelled?	Yes	Yes	Yes	Yes
Mean recovery rate	38.00%	38.00%	42.00%	38.00%
Stdev. recovery rate (if any)	20.00%	20.00%	20.00%	20.00%
Correlation severity / default	10.00%	10.00%	10.00%	10.00%
Correlation severity	10.00%	10.00%	10.00%	10.00%
Prepayment rate(s)	5.00%	5.00%	5.00%	5.00%
PCE	19.00%	20.00%	20.00%	18.70%
<b>Capital structure (as % Total pool)</b>				
Size of	Aaa-rated class			
	Aa-rated class	86%(Aa1)	87%(Aa2)	84% (Aa2)
	A-rated class			88% (A1)
	Baa-rated class			
	Ba-rated class			
	B-rated class or below	14%(B2)	13%(Caa1)	16% (Caa2)
				12% (Caa3)
<b>Equity</b>				
Reserve fund	5.00%	4.70%	4.75%	4.55%

\*As of the date of assigning the rating to the transaction.

Source: Moody's Investors Service

### COVID-19 analysis

The coronavirus outbreak, the government measures put in place to contain it, and the weak global economic outlook continue to disrupt economies and credit markets across sectors and regions. Our analysis has considered the effect on the performance of small businesses from the current weak Spanish economic activity and a gradual recovery for the coming months. Although an economic recovery is underway, it is tenuous and its continuation will be closely tied to containment of the virus. As a result, the degree of uncertainty around our forecasts is unusually high. We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety.

Moody's has categorized the industry sectors according to their perceived exposure to the COVID-19 outbreak. Industries with moderate or high exposure have been stressed with a 0.5 and 1.0 notch extra penalties, respectively.

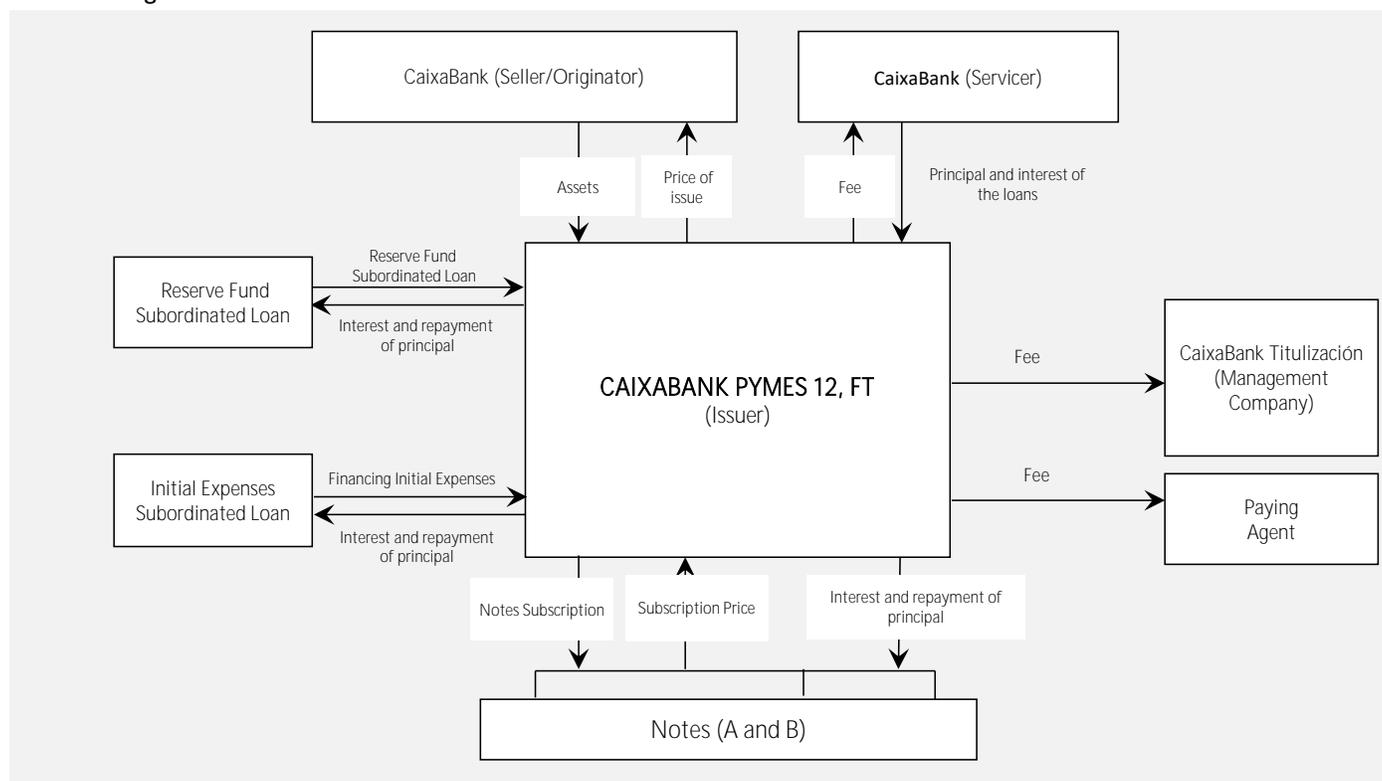
### Securitisation structure description

The proceeds of the notes will be used to finance the acquisition of the portfolio, the original amount of which equals €2,550 million (as of closing). The interest and principal priorities of payment are combined in a single waterfall. The amortisation period will start on the first interest payment date.

### Structural diagram

Exhibit 21

#### Structural diagram



Source: Moody's Investors Service, based on transaction documents

### Detailed description of the structure

#### Credit enhancement

The main sources of credit enhancement are the subordination (14.00% in the case of Class A notes, as a percentage of the initial pool of assets), the reserve fund and the excess spread.

*Reserve fund:* At closing, the transaction will have a reserve fund equivalent to 5.00% of the principal outstanding amount of Series A and B notes, that is, €127.5 million. The reserve fund will be used on an ongoing basis to cover potential shortfalls on interest or principal on the Series A notes, for as long as these are outstanding. Only after the Series A notes have been fully redeemed, the reserve fund will be available to cover any interest or principal shortfalls on the Series B notes.

### Liquidity

The single waterfall means that principal is also available to make interest payments. The reserve fund is a further source of liquidity; at closing it covers more than six years of interest payments on the notes after stressed servicing fees.

### Priority of payments

On each quarterly payment date, the issuer's available funds (that is, interest and principal amounts received from the portfolio, the reserve fund and interest earned on the issuer's account) will be applied in the simplified order of priority shown in Appendix 2.

### Principal deficiency ledger (PDL) mechanism

A PDL is defined as the negative difference between the principal available funds and a target principal amount. A target principal amount is the difference between the notes' outstanding principal and the performing assets. In this transaction, a nonperforming asset is defined as (1) one in arrears for a period equal to or exceeding 12 months for amounts due; (2) one classified as nonperforming by the management company because there is reasonable doubt that it will be repaid in full; or (3) one in which the debtor has been declared insolvent.

### Triggers

Exhibit 22

#### Originator, servicer, cash manager and counterparty triggers

Originator, servicer, cash manager and counterparty triggers	
Key servicer termination events:	» Insolvency; » Breach of service obligation resulting in being substituted as servicer; or » At the request of the management company (acting in the best interest of the noteholders)
Appointment of back-up servicer upon:	N/A
Key cash manager termination events:	Insolvency
Notification of obligors of True Sale:	Following the termination of the appointment of the servicer
Conversion to daily sweep (if original sweep is not daily):	Not applicable (daily sweeping since closing).
Notification of redirection of payments to SPVs account:	Following the termination of the appointment of the servicer
Accumulation of set off reserve:	N/A
Accumulation of liquidity reserve :	N/A
Set up liquidity facility:	N/A
Issuer account bank/Paying agent replacement:	If CaixaBank's long- term rating falls below Ba2 it will have to find a suitably rated guarantor or substitute

Source: Moody's Investors Service, based on transaction documents

Exhibit 23

#### Performance triggers

Performance triggers		
Trigger	Conditions	Remedies / Cure
Termination of reserve fund amortisation	The reserve fund is not funded at its required level on the previous payment date Less than one year has elapsed since closing	The target amount of the reserve fund will not be reduced on any payment date on which these occur.

Source: Moody's Investors Service, based on transaction documents

### Management company

CaixaBank Titulización, S.G.F.T., S.A.U. is the transaction's management company, which, according to Spanish law and the transaction legal documentation, is responsible for the organisation, management and legal representation of the SPV and is also responsible for the representation and defence of the interests of the noteholders.

The management company's main responsibilities are described in Appendix 3.

## Securitisation structure analysis

We modelled the bond structure and cash flow waterfall to assess the amount of credit enhancement supporting the rated securities. We also analysed the allocation of payment, bankruptcy remoteness and other structural issues.

### Primary structural analysis

#### Expected loss

We determine expected losses for each tranche based on a number of assumptions, which are listed in the exhibit below.

Exhibit 24

#### Expected loss assumptions

Expected loss assumptions	
Default distribution	Inverse normal
Default rate	8.7% over a WAL (equivalent to the DP of a Ba3 rating)
Default definition	12 months
CoV (Standard deviation/Mean)	44.20%
Portfolio credit enhancement (PCE)	19.00%
Timing of default	Flat over portfolio WAL (rounded to 3.20 years)
Recovery mean	38.00%
Recovery CoV	20.00%
Recovery lag	50% in second year after default and 50% in third year
Correlation defaults/Recoveries	10.0%
Conditional prepayment rate (CPR)	5.0%
Amortisation profile	Vector provided by the originator
Portfolio yield vector	Calculated from the loan-by-loan information
Fees (as modeled)	0.50%

Source: Moody's Investors Service

#### Tranching of the notes

To derive the level of losses on the notes, we applied the default distribution and the stochastic recovery distribution explained in "Primary asset analysis" to numerous default scenarios on the asset side.

We have considered how the cash flow generated by the collateral are allocated to the parties within the transaction and the extent to which various structural features of the transaction might themselves provide additional protection to investors, or act as a source of risk.

To determine the rating assigned to the notes, we used an expected loss methodology that reflects the probability of default for each series of notes times the severity of the loss expected for the notes. To allocate losses to the notes in accordance with their priority of payment and relative size, we used a cash flow model (ABSROM) that reproduces many deal-specific characteristics such as the main input parameters of the model described above. Weighting each default scenario's severity result on the notes with its probability of occurrence, we calculated the expected loss level for each series of notes as well as the expected average life. We then compared the quantitative values to the Moody's Idealised Expected Loss table to determine the ratings assigned to each series of notes.

#### Cash commingling risk and account bank risk

Commingling risk generally arises when cash belonging to the SPV is deposited in an account held in the name of a third party, specifically the servicer. The servicer collects all of the payments under the loans in its portfolio under a direct debit scheme into its account and transfers them daily to a treasury account in the name of the SPV.

As a result, in the event of insolvency of the servicer, and until notification is delivered to the relevant debtors to redirect their payments, payments by the underlying debtors will continue to be collected by the servicer and may be commingled with other funds belonging to the servicer.

The issuer account bank trigger is set at the loss of A3 (deposit rating); the remedy is to replace the issuer account bank or find a guarantor.

Given the fact that the servicer is rated above Baa2 and the limited commingling exposure, we view the risk as immaterial.

**Set-off risk**

All the obligors have accounts with the originator. According to Spanish law, set-off is very limited because only unpaid installments before the declaration of insolvency might be offset against the deposits held by the debtors (considered as fully due and payable before the insolvency).

**Renegotiations**

Although the servicer can renegotiate the terms of the loans, its ability to do so is limited. For example:

- » The weighted-average interest rate of the assets after any renegotiation should not fall below 1%.
- » The maturity date on a loan may be extended (limited to 5% of the initial portfolio), provided that the new amortization date does not fall later than on March 1, 2059. The loans that qualify for any moratoriums to alleviate the effects of the Covid-19 outbreak are excluded from this calculation.

**Additional structural analysis****True sale and bankruptcy remoteness**

*True sale:* According to the legal opinion received, the sale of credit rights has been carried out in compliance with the Spanish securitisation law.

*Bankruptcy remoteness:* Under the Spanish securitisation law, a Spanish SPV (Fondo de Titulización) is not subject to the Spanish Insolvency Act. Only the management company, acting in the best interest of the noteholders, can decide to liquidate the SPV.

**Claw-back risk**

As per the Spanish legal framework, in the case of the transfer of credit rights, claw-back risk is limited to those activities performed during a period of two years before the declaration of the bankruptcy state and only in the event of fraud.

## Methodology and monitoring

### Methodology

- » [Moody's Global Approach to Rating SME Balance Sheet securitisations, May 2020](#)

To access the reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

### Monitoring

We will monitor the transaction on an ongoing basis to ensure that it continues to perform in the manner expected, including checking all supporting ratings and reviewing periodic servicing reports. Any subsequent changes in the rating will be publicly announced and disseminated through Moody's Client Service Desk.

The following factors may have a significant impact on the subject transaction's rating: the performance of the underlying assets, the counterparty risk and Spain's country risk.

#### Monitoring report:

Data quality:

- » The investor report includes all necessary information for us to monitor the transaction.
- » The servicer undertakes to provide us with the updated pool cut on a periodical basis.

#### Data availability:

- » The frequency of the publication of the investor report is quarterly.
- » Investor reports are publicly available on the management company's website.
- » The management company will provide us with periodic information on the status of the SPV and the performance of the loans.

## Appendix 1: Originator and servicer detail

Exhibit 25

### Originator and servicer detail

#### Originator ability:

Originator overview	CaixaBank is Spain's third-largest banking group by total assets, and is expected to become the largest domestic player after closing the merger with Bankia in Q1 2021. Despite its nationwide presence, the group is particularly strong in Catalonia and Navarra, where it is the market leader. As of September 2020, CaixaBank held around 16% of nation's deposits and 16% of loans, and had the largest branch network, with leading (and growing) market shares in select retail products. CaixaBank's 13.5 million customers at end of June 2020 (13.6 million in Spain and 1.9 million in Portugal) are serviced by a highly segmented business model based on specialisation.
Sales and marketing practices:	<ul style="list-style-type: none"> <li>» Number of employees: Group: 35,617; excluding BPI: 30,851 (as of September 2020)</li> <li>» Number of branches in Spain: 3,886 branches (as of September 2020)</li> </ul>
Underwriting policies and procedures:	<ul style="list-style-type: none"> <li>» CaixaBank's analytical approach is primarily based on the borrower's repayment capacity rather than the nature of the securities pledged</li> <li>» Internal rating and credit scoring: The several internal rating and credit scoring systems in place play a key role in CaixaBank's underwriting process. The entity has several different models, among these: three for SMEs depending on the obligor's size, one for real estate developers and one for large corporates. The scoring system for self-employed individuals is a very efficient tool, with scores updated monthly. The same efficiency is detected in the internal rating system for corporates, where the internal ratings are updated annually (when the financial statements are published) but also operational alerts are periodically shown. For SMEs, ratings are updated on a monthly basis. Both systems have already been certified by the Bank of Spain (so the size of regulatory capital needed is estimated with them)</li> <li>» Approval mechanisms to cover specific segments, distinguishing between retail banking, business centres, real estate business centres, institutional banking centres, international offices and corporate banking centre</li> <li>» System of authorisation limits based on expected loss or nominal amount.</li> <li>» Electronic file as a procedure for managing applications</li> <li>» Individual customer segment: risk-adjusted price control systems for mortgage applications through differentiated authorisation limits</li> <li>» Business segment: Risk metrics in the approval process: (a) Ratings: essential element in the analysis. Controls are set up to ensure that the ratings are used in analysing the risk of each loan. If the rating has not been updated the system rejects the operation; (b) System of risk adjusted prices. This complements the assessment of risk adjusted return at customer level, calculated monthly as benchmark spread (risk cost) versus margin on risk (customer level margin)</li> <li>» Employees have authority to grant small loans to borrowers with high exposure, therefore streamlining processes</li> </ul>
Collateral valuation policies and procedures:	CaixaBank has an authorization system for approving risks based on the level assigned to the various approving bodies. Loan approval is generally performed at the branch level.
Closing policies and procedures:	» Valuation process: In line with standard practise in the market (valuators certified by the Bank of Spain)
Credit risk management:	<ul style="list-style-type: none"> <li>» In line with the market standards</li> <li>» The Board of Directors determines the group's risk policies and delegates the creation of risk management committees</li> <li>» Global risk committee: In charge of a comprehensive management of the Group's risks, among them credit risk. It establishes a series of triggers whose breach prompts, depending on the type of risk, different alerts, communications, and courses of action at different levels of the organisation</li> <li>» Credit committee: Analyses and, if appropriate, approves operations within its level of responsibility, referring those outside the bounds of its authority to the Board of Directors.</li> <li>» Risk measurement models: Tools and techniques based on specific needs of each type of risk, including ratings, scorings, probability of default (PD), loss given default (LGD) and exposure at default (EAD). The models are integrated into management and monitoring</li> <li>» Banking Business Management model implemented throughout the organisation down to the branch level</li> <li>» The branches have innovative tools on hand to assist them with global management of all the business they generate</li> <li>» The internal models for measuring credit risk have received approval from the Bank of Spain</li> </ul>

**Originator stability:**

Originator rating:	Caixabank S.A. (Long Term Deposit Rating: A3 Not on Watch / Short Term Deposit Rating: P-2 Not on Watch; Long Term Counterparty Risk Assessment: A3(cr) Not on Watch /Short Term Counterparty Risk Assessment: P-2(cr) Not on Watch; Outlook: Stable)
Regulated by:	» BCE / Bank of Spain
Management strength and staff	» Staff have access to policies via the intranet » Employees are trained on a continuous basis to meet area and market needs
Quality controls and audits:	» Internal audit division: continuously monitors internal control systems and checks the accuracy of the risk measurement and control methods employed by the various divisions involved in risk monitoring » CaixaBank carries out annual external audits

**Arrears management:**

Staff description:	» CaixaBank has a staff of around 342 supervising the recovery process, which is carried out at different levels of the organisation, starting at the branch level. The document preparation tasks (before the judicial process) are outsourced to <u>Caixabank Operational Services, a company fully owned by CaixaBank</u>
Early stage arrears practices:	» CaixaBank checks daily the debtors' accounts in case of unpaid positions in order to collect any amount in such accounts » Early stage arrears includes communication with the borrower through different channels (telephone calls, letters)
Late stage arrears practices:	» Pre-litigation process (where legal file for litigation is prepared) can generally begin after 45 days in arrears. For loans backed by a mortgage pre-litigation starts at day 61. For unsecured loans legal proceedings starts at around day 110. In cases where legal procedures have weaker chances (overdrafts, credit cards) the "friendly" recovery phase is exhausted, and legal proceedings starts at around 270-365 » CaixaBank works with a group of external lawyers for litigation matters » CaixaBank can repossess properties in case of void auctions » Even after default (formal write-off) of the loan, branches remain responsible of further recovery actions, with the help of external specialised companies
Loan modifications:	» Not made available

Source: Moody's Investors Service, based on the data received from the Originator

## Appendix 2: Eligibility criteria and waterfall

### Eligibility criteria

The key eligibility criteria are as follows:

- » All the loans have been either formalised under a public deed or through a private contract
- » The loans have been granted to companies and self-employed individuals located in Spain
- » The pool does not include lease contracts or syndicated loans
- » Euro-denominated contracts pay by direct debit
- » All contracts have been originated by CaixaBank following its underwriting standards
- » 5% of the definitive portfolio may be composed of contracts that are delinquent no more than 30 days. 1% of the definitive portfolio may be composed of contracts that are delinquent between 30 and 90 days
- » No active holiday payments except the Legal Moratoria
- » All contracts are regulated by Spanish law
- » The principal of all securitised loans has been 100% disbursed
- » There are no refinanced/restructured contracts (as currently defined by the Bank of Spain)

### Waterfall

Allocation of payments/pre-accelerated waterfall: On each quarterly payment date, the issuer's available funds will be applied in the following simplified order of priority:

1. Senior fees and expenses
2. Interest on Class A notes
3. Principal on Class A notes
4. Fill-up of the cash reserve account up to the required level (for as long as Class A bonds are still outstanding)
5. Interest on Class B notes
6. Principal on Class B notes
7. Fill-up of the cash reserve account up to the required level (once Class A bonds have fully amortised)
8. Junior fees and expenses

Allocation of payments/post accelerated waterfall:

1. Senior fees and expenses
2. Interest on Class A notes
3. Principal on Class A notes
4. Interest on Class B notes
5. Principal on Class B notes
6. Junior fees and expenses

### Appendix 3: The management company's main responsibilities

The main responsibilities of the management company are the following:

- » Handling the accounting of the SPV with due separation from that of the Management Company
- » Complying with its formal, documentary and reporting duties to the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores or CNMV), the rating agencies and any other supervisory bodies
- » Appointing and, if necessary, replacing and dismissing the auditor responsible for reviewing and audit the SPV's annual accounts
- » Validating and controlling the information it receives from the servicer regarding the loans
- » Complying with the calculation duties provided for and taking the actions laid down in the Deed of Constitution and in the Prospectus
- » Checking that the amounts actually paid to the SPV match the amounts that must be received by the SPV
- » Calculating and determining on each determination date the principal to be amortised and repaid on each bond series on the relevant payment date
- » Verifying that the amounts credited to the treasury account return the yield set in the agreement
- » Instructing the transfer of funds between the various borrowing and lending accounts, and issuing all relevant payment instructions, including those allocated to servicing the bonds
- » Calculating the available funds, the available funds for the notes amortisation, the liquidation available funds and the payment or withholding obligations to be complied with, and applying the same in the priority of payments or, as the case may be, in the liquidation priority of payments
- » The management company may extend or amend the agreements entered into on behalf of the SPV, and substitute, as necessary, each of the SPV's service providers on the terms provided for in each agreement

### Endnotes

- 1 For more details, please see [Moody's Global Environmental Risk "Heat map: 11 sectors with \\$2.2 trillion debt have elevated environmental risk exposure"](#).
- 2 For more details on the aspects exposing issuers to social risks, please see [Social issues can be material to private issuers' credit quality but are not typically the primary driver](#), published on 20 February 20

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