

# Covered Bonds follow-up Rating

Intesa Sanpaolo S.p.A.

Mortgage Covered Bond Program

Rating Object	Rating Information	
<b>Intesa Sanpaolo S.p.A., Mortgage Covered Bond Program guaranteed by ISP OBG S.r.l.</b>	Rating / Outlook : <b>A+ / Stable</b>	Type: Rating Update (unsolicited)
Type of Issuance : Mortgage Covered Bond under Italian law Issuer: Intesa Sanpaolo S.p.A.	Rating Date : 03.12.2020 Rating Renewal until : Withdrawal of the rating Maximum Validity: 01.01.2050 Rating Methodology : CRA „Covered Bond Ratings“	
LT Issuer Rating : BBB- (Intesa Sanpaolo S.p.A.) ST Issuer Rating : L3 Outlook Issuer : Stable		

Program Overview			
Nominal value	EUR 46,097 m.	WAL maturity covered bonds	8.55 Years
Cover pool value	EUR 53,590 m.	WAL maturity cover pool	9.23 Years
Cover pool asset class	Mortgages	Overcollateralization (nominal/committed)	16.25%/ 5.82%
Repayment method	Soft Bullet	Min. overcollateralization	0%
Legal framework	Italian legal framework for OBG	Covered bonds coupon type	Fix (0.00%), Floating (100.00%)

Cut-off date Cover Pool information: 30.09.2020.

## Rating Action

### Content

Rating Action .....	1
Issuer Risk .....	2
Structural Risk .....	2
Liquidity- and Refinancing Risk .....	
ESG Criteria .....	3
Credit and Portfolio Risk .....	4
Cash-Flow Analysis .....	8
Counterparty Risk .....	9
Appendix .....	11

This follow-up report covers our analysis of the mortgages covered bond (*Obbligazioni Bancarie Garantite* or OBG) program issued under the Italian law by Intesa Sanpaolo S.p.A. („Intesa Sanpaolo“). The total covered bond issuance at the cut-off date (30.09.2020) had a nominal value of EUR 46,097.00 m, backed by a cover pool with a current value of EUR 53,589.99 m. This corresponds to a nominal overcollateralization of 16.25%. The cover assets include Italian mortgages obligations in Italy.

Taking into consideration the issuer rating, our analysis of the regulatory framework, liquidity- and refinancing risks, as well as our cover pool assessment and results of the cash flow analysis, Creditreform Rating AG (“Creditreform Rating” or “CRA”) lowers the rating of the covered bond program to A+ from AA-. The A+ rating represents a high level of credit quality and low investment risk.

### Analysts

AFM Kamruzzaman  
Analyst  
a.kamruzzaman@creditreform-rating.de  
+49 2131 109 1948

Qinghang Lin  
Analyst  
Q.Lin@creditreform-rating.de  
+49 2131 109 1938

Neuss, Germany

## Key Rating Findings

- + Covered bond holders have full recourse to the issuer.
- + Covered bonds are backed by the appropriate cover asset class
- +/- Covid-19 can lead to sustained impact on the cover pool and the issuer rating
- Legal framework does not stipulate a special cover pool monitor independent from the issuer

Table1: Overview results

Risk Factor	Result
Issuer rating	BBB- (rating as of 15.09.2020)
+ Legal and regulatory framework	+4 Notches

+ Liquidity and refinancing risk	+1 Notch
= Rating after 1 <sup>st</sup> uplift	A+
Cover pool & cash flow analysis	BBB
+ 2 <sup>nd</sup> rating uplift	+/-0 Notch
= Rating covered bond program	<b>A+</b>

## Issuer Risk

### Issuer

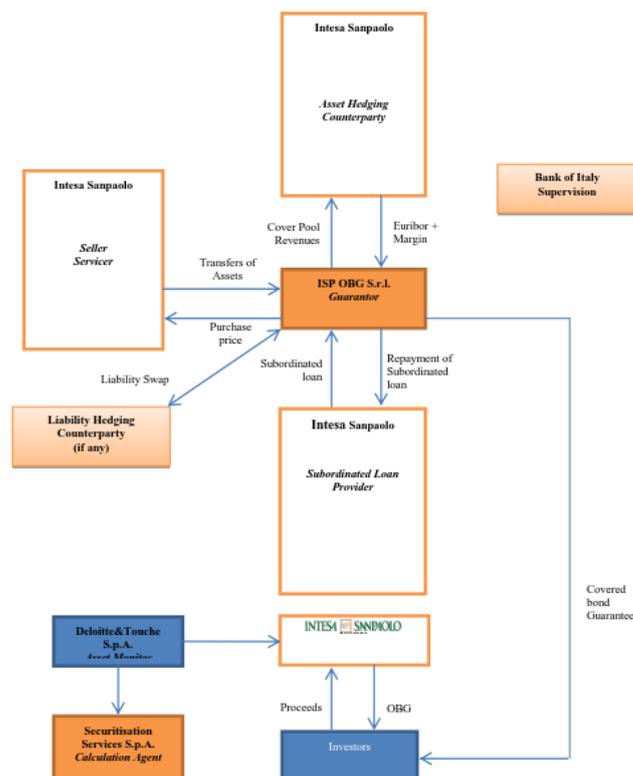
Our rating of Intesa Sanpaolo covered bond program is reflected by our issuer rating opinion of Intesa Sanpaolo S.p.A. (group) due to its group structure. CRA has downgraded the Long-term issuer rating of Intesa Sanpaolo to BBB- from BBB in a Rating Update dated 15.09.2020. Responsible for this decision, among other factors, were sound earnings figures despite low asset quality, below-average capital ratios and relatively high NPL ratios. In addition, the impact of the Corona pandemic bears a high risk for the Group next to the still challenging low interest rate environment. For a more detailed overview of the issuer rating, please refer to the webpage of Creditreform Rating AG.

## Structural Risk

### Transaction structure

Figure1: Overview of Covered Bond emission | Source: Intesa Sanpaolo

#### Structure Diagram



## Legal and Regulatory Framework

In Italy, no distinct and independent legal framework exists which specifies the regulation of covered bonds by law. Italy has firstly incorporated covered bonds in the legal set-up in 2005 by amending the existing Italian securitization law (Law no. 130/1999) on the basis of two additional articles (Law no. 80/2005) dealing with the administration and issuance of Italian covered bonds ('Obbligazioni Bancarie Garantite' (OBG)).

While Italian banks do not need a special license to issue covered bonds, a credit institution delegates eligible cover assets to a special purpose vehicle (SPV), which grants a guarantee for the issued covered bonds in favour of the covered bond holders.

The covered bondholders have direct recourse to the issuer and a preferential claim to the cover pool assets secured primarily by residential mortgages, commercial mortgages, public sector loans and senior mortgage-backed securities, while issuers decide on the structure of cover pools on their own.

All assets transferred to the SPV are part of the cover pool. The geographical scope of legitimate mortgage assets and public sector assets is confined to EEA countries and to Switzerland, while regulatory arrangements are present to ensure that the cover assets are enforceable in the corresponding jurisdiction.

The Italian legal framework stipulates that an external asset monitor have to be nominated by the issuer and he or she has to supervise the accuracy of the transactions, the soundness of the cover assets as well as the reliability of the covered bond guarantee in favour of the covered bond holders.

In case of issuer default, the legal framework has set out duties and powers regarding the special administrative function - i.e. the ongoing management of the covered bonds - which is governed in an independent way and on behalf of the covered bond holders' preferential interests.

In general, we considered the structural framework in Italy as positive as the legal framework for OBG defines clear rules to mitigate risks in particular regarding insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. Due to those reasons we have set a rating uplift of four (+4) notches for the structural framework for covered bonds in Italy under OBG.

## Liquidity- and Refinancing Risk

According to the legal framework and the Italian Ministry of Economy, assets have to be at least the same amount as the covered bonds outstanding on a nominal and a NPV basis. Thus, Italy requires issuing banks to stick to an overcollateralization (OC) level of at least 0% on a nominal and a NPV basis.

No requirements with respect to liquidity risks, i.e. a mandatory liquidity buffer, are specified within the legal framework. However, nominal and present value coverage tests have to be undertaken every six months.

While coverage tests have to be conducted, the legal framework does not stipulate any prescription to do stress tests. However, derivative instruments can be an additional measure to hedge market risks, like interest rate and currency risks.

In the event of the issuer's insolvency, the framework stipulates that the special administrator can sell assets of the cover pool or use them as a guarantee for liquidity operations if liquidity shortfalls are foreseeable.

The European Commission on November 2019 has also adopted the legislative package to provide for enhanced harmonisation of the EU covered bond market. Each of the Member States shall implement the Covered Bond Directive by 8 July 2021 and the national measures shall be applied at the latest from 8 July 2022. Once fully implemented, the directive might have a potential impact on legal and regulatory framework on the issuer and the covered bonds of each EU member states.

In general, sufficient structural safeguards are not established due to the absence of compulsory liquidity buffers and no obligation to conduct stress tests for interest rate and currency risks. In addition, Refinancing risks may not be structurally reduced under the hard bullet repayment structure, which can only be cushioned by sufficiently high OC or by other liquid funds. Nevertheless, we assess the overall legal provisions on liquidity management for covered bonds (OBG) programs issued in Italy and set a rating uplift of only one (+1) notch.

For a more comprehensive overview of the regulatory framework for Italian covered bond program, please refer to our initial rating reports of Intesa Sanpaolo mortgage covered bond program published on 2019.

## ESG Criteria

CRA generally takes ESG-relevant factors (environmental, social and governance) into account when assessing Covered Bond ratings. Overall, ESG factors have a significant impact on the current rating of this Covered Bond program. CRA identifies governance factors, in particular, to have a highly significant impact on Covered Bond ratings. Since Covered Bonds are subject to strict legal requirements, regulatory risk plays an important role in assessing the credit rating.

CRA considered the structural framework in Italy as positive as the legal framework for OBG defines clear rules to mitigate risks in particular regarding insolvency remoteness, asset segregation, investor's special claim vis-à-vis other creditors, the roll and appointment of a special administrator, among other provisions. However, the legal framework does not specify a mandatory liquidity buffer with respect to liquidity risks. Additionally, Risk management and internal controls as well as the macroeconomic factors such as hedging strategies, interest rates and yield curve are considered to have a highly significant impact on the assessment of the credit rating. Other individual factors with a potential key rating influence were not identified, and therefore did not affect the final rating.

## Credit and Portfolio Risk

### Cover pool analysis

The analysis of the cover pool is based on public information which has been made available by the Issuer, in particular the Harmonised Transparency Template („HTT“) as per regulatory requirements. This information was sufficient according to CRA´s rating methodology “Covered Bond Ratings”.

At the cut-off-date 30.09.2020, the pool of cover assets consisted of 575,201 debt receivables, of which 100% are domiciled in Italy. The total cover pool volume amounted to EUR 53,589.99 m in residential (91.68%), commercial (8.32%) and others (0.00%) loans.

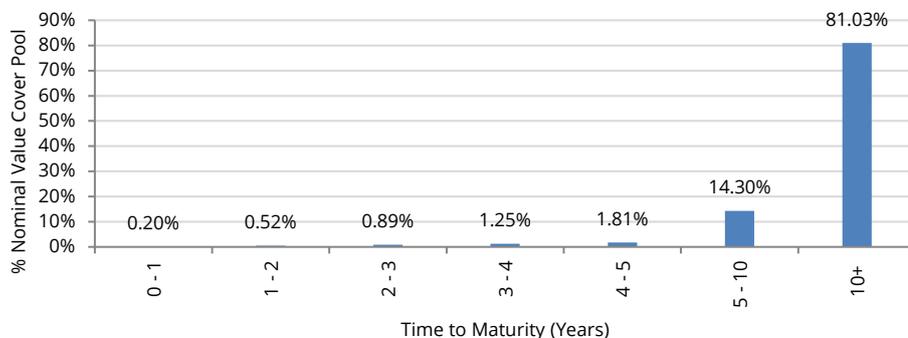
The residential cover pool consists of 538,861 mortgage loans having an unindexed and indexed weighted average LTVs of 63.19% and 52.25%, respectively. The non-residential cover pool consists of 36,340 mortgage loans having an unindexed and indexed weighted average LTVs of 50.30% and 35.37%, respectively. The ten largest debtors of the portfolio total to 0.28%. Table 2 displays additional characteristics of the cover pool:

Table 2: Cover pool characteristics | Source: Intesa Sanpaolo

Characteristics	Value
Cover assets	EUR 53,590 m.
Covered bonds outstanding	EUR 46,097 m.
Substitute assets	EUR 7,622.76 m.
Cover pool composition	
<i>Mortgages</i>	85.78%
<i>Substitute assets</i>	14.22%
<i>Other / Derivative</i>	0.00%
Number of debtors	Not relevant
Mortgages Composition	
<i>Residential</i>	91.68%
<i>Commercial</i>	8.32%
<i>Other</i>	0.00%
Average asset value (Residential)	EUR 78.21 k.
Average asset value (Commercial)	EUR 105.21 k.
Non-performing loans	0.0%
10 biggest debtors	0.28%
WA seasoning	208.23 months
WA maturity cover pool (WAL)	9.23 Years
WA maturity covered bonds (WAL)	8.55 Years

We have listed an extended view of the composition of the cover pool in the appendix section “Cover pool details”. The following chart displays the maturity profile of the cover assets at the cut-off date 30.09.2020 (see figure 2):

Figure 2: Distribution by remaining time to maturity | Source: Intesa Sanpaolo



## Maturity profile

The following charts present the cash flow profile of the Issuer (see figure 3 and figure 4):

Figure 3: Cover asset congruence | Source: Intesa Sanpaolo

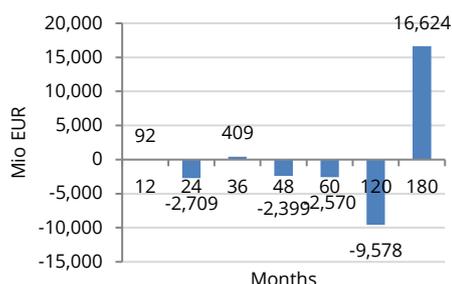
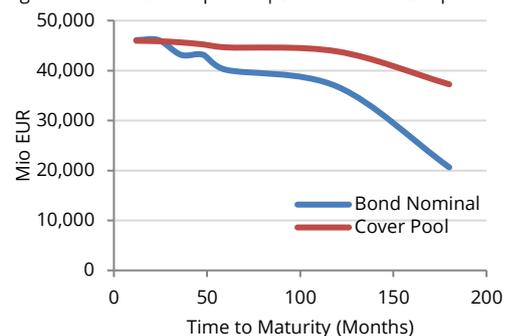


Figure 4: Amortization profile | Source: Intesa Sanpaolo



During its cash flow modelling, CRA has taken into consideration the maturity structure of cover assets and liabilities. This structure was an integral part of the cash flow analysis.

## Interest rate and currency risk

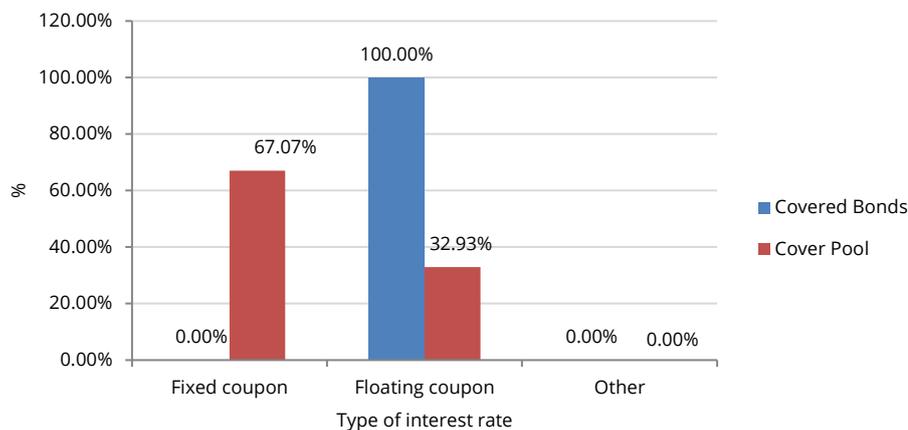
The legal framework does not stipulate any obligatory stress tests to anticipate interest rate and currency discrepancies. However, all the cover pool assets and covered bonds are denominated in euros. This program also uses derivatives to hedge interest rate risks. In our cash flow analysis we assume that the interest rate mismatches are fully hedged in the form of swap agreements. Therefore, CRA did not apply interest rate and foreign exchange stresses for the cash flows.

Table 3: Program distribution by currency | Source: Intesa Sanpaolo

Currency	Volume	Share (%)
<i>Cover Pool</i>		
EUR	45,967 m	100.00%
<i>Covered Bond</i>		
EUR	46,097 m	100.00%

Figure 5 shows the types of interest rate used in this program

Figure 5: Type of interest rate | Source: Intesa Sanpaolo



## Credit Risk

The credit risk assessment for Mortgage Covered Bond have been determined in accordance with CRA rating methodology for Covered Bonds by means of historical data and particular parameters from the Covered Bonds.

Due to the high granularity of mortgage pools we have characterized these portfolios as big enough and with a homogeneous composition i.e. ("Large Homogeneous Portfolio", LHP). Furthermore, under that premise we have assumed that it is possible to derive a loss distribution. CRA has used the issuer's historical NPL ratios to derivate a conservative default rate proxy for the approximation through the LHP distribution. For the Intesa Sanpaolo it has been assumed an expected default rate of 1.45% for the LHP. Furthermore, CRA has considered a 15,00% correlation to define the LHP distribution. Table 4 disclosed the expected default rate for each relevant rating level.

In order to derive recovery and loss-severity base case assumption, CRA has used historical data from mortgage price indexes. To determine loan-level recovery assumptions the resulting stressed recoveries assumptions were compared with the portfolio's existing loan-to-value ratios (LTVs).

Based on the default rates and taking into account the recovery assumptions, the following loss assumptions were determined for the current cover pool (see Table 4)

Table 4: Cover Pool Base case assumptions | Source: CRA

Rating	Default Rate (%)	Recoveries (%)	Expected Loss (%)
A	29.57%	53.45%	13.76%
A-	28.82%	54.78%	13.03%
BBB+	27.90%	56.48%	12.14%
<b>BBB</b>	<b>26.90%</b>	<b>58.38%</b>	<b>11.20%</b>
BBB-	25.59%	61.01%	9.98%
BB+	23.56%	65.14%	8.21%
BB	21.40%	69.54%	6.52%

## Cash-Flow Analysis

### Model Assumptions

Based on public information and using the base case loss assumptions, we implement a scenario-based cash flow model. This model aims to test the ability of the structure to service all covered bonds according to their payment profile in diverse stress scenarios. The CRA cash flow analysis assumes that the Issuer has defaulted, i.e. all obligations will be met using cash flows from the cover pool assets only. We also assume that no additional assets will be added to the cover pool during the wind-down phase.

The cash-flow analysis considers, among other factors, asset value haircuts (“asset-sale discount”), and the possible positive yield spread between covered assets and covered bonds (“yield spreads”). To derive the asset-sale discount, CRA assumes, based on secondary market data, a rating level haircut on the asset value. Furthermore, CRA, using available public information (i.e. issuer’s annual accounts), has derived estimations for yield spreads (see table 5):

Table 5: Cash-Flow Model assumptions | Source: CRA

Rating level	Asset-Sale Discount	Yield Spread
A	56.27%	0.64%
A-	53.34%	0.69%
BBB+	50.24%	0.74%
<b>BBB</b>	<b>47.22%</b>	<b>0.79%</b>
BBB-	44.06%	0.84%
BB+	40.64%	0.89%
BB	36.86%	0.95%

### Rating Scenarios

In our cash flow model rating scenarios have been tested considering several central input parameters, such as:

- Portfolio composition (diversification, concentration, granularity)
- Probability of default of cover assets
- Correlations of cover assets and systematic risk factors
- Recoveries
- Maturity profile of covered bonds and cover assets (ALM)

Within a BBB rating scenario, the cash flow model showed that obligations can be paid fully and in a timely manner. Overall, the cash flow analysis revealed that the portfolio, given all used information as of 30.09.2020, may ensure the repayment of bonds’ nominal capital notwithstanding the occurrence of the presented stressed scenarios.

### Overcollateralization Break-Even Analysis

CRA also performed a break-even OC analysis taking into considerations the following drivers: ALM, Loss level, Interest rate spreads, foreign currency mismatches and Recoveries. Performing the break-even OC analysis, we took rating-level specific stressed outcomes into account. Based on these analyses, the maximum OC required for each relevant rating level during the whole period has been presented in table 6.

Table 6: Breakeven Analysis | Source: CRA

Rating Level	Break-Even OC
BBB	<b>15.18%</b>
BBB-	12.68%
BB+	9.57%
BB	6.52%
BB-	3.49%
B+	1.10%
B	0.00%

## Sensitivity Analysis

CRA also evaluates the sensitivity of the structure and program with respect to important input parameters. In particular, the following factors have been varied:

- Credit quality of cover assets
- Recoveries

The following table presents the rating impact of a decline in recoveries and an increase in the credit risk of single debtors. Starting from the best-case, which is represented by our base case assumptions, the analysis reveals the sensitivity of the rating with respect to recovery rates and credit risk. The worst-case scenario, in which we reduce recoveries by 50% and increase credit risk by 50%, the impact can be seen by a reduction of the base case rating by 5 notches to B+ (see Table 7):

Table 7: Covered Bond Program Sensitivity: Credit Quality und Recovery Rates | Source: CRA

Defaults \ Recovery	Base Case	-25%	-50%
Base Case	<b>BBB</b>	BB+	BB
+25%	BBB-	BB	BB-
+50%	BB+	BB-	B+

In general, based on the presented cash flow analysis results, the rating of the cover pool within our covered bond program rating has been set at BBB. This, however, did not ensure any secondary rating uplift which has been set at zero (0) notch.

However, it is worth mentioning that, the ongoing Covid-19 crisis could have a potential impact on the cover pool. It remains to be seen how serious the effects of the lockdown, among other things, will be. Should there be any changes to the cover pool and the issuer rating in the future, we will include them during our monitoring process.

## Counterparty Risk

### Derivatives

It is our understanding that this program uses intra-group Interest rate swaps to hedge interest rate mismatches.

## Commingling

Incoming cash flows generated from the cover pool will normally be transferred to the Issuer / Guarantor and will be forwarded to the covered bond holders according to the payment terms and conditions. Should the Servicers become insolvent, the covered bond Guarantor is subject to the risk (“commingling risk”) that funds may not be returned and commingled with the insolvency estate of the servicers. In order to avoid such risk, the Servicing Agreement includes provisions that, the Servicers must pay all Collections into the account of Covered Bond Guarantor within the second business day following the relevant collection.

## Appendix

### Rating History

Event	Rating Date	Publication Date	Result
Initial Rating	30.01.2019	04.02.2019	AA- / stable
Rating Update	05.02.2020	10.02.2020	AA- / stable
Monitoring	24.03.2020	28.03.2020	AA- / watch negative
Rating Update	03.12.2020	09.12.2020	A+ / stable

### Details Cover Pool

Table 8: Characteristics of Cover Pool | Source: Intesa Sanpaolo

Characteristics	Value
Cover Pool Volume	EUR 53,590 m
Covered Bonds Outstanding	EUR 46,097 m
Substitute Assets	EUR 7,623 m
Share Derivatives	0.00%
Share Other	100.00%
Substitute Assets breakdown by asset type	
Cash	100.00%
Guaranteed by Supranational/Sovereign agency	0.00%
Central bank	0.00%
Credit institutions	0.00%
Other	0.00%
Substitute Assets breakdown by country	
Issuer country	100.00%
Eurozone	0.00%
Rest European Union	0.00%
European Economic Area	0.00%
Switzerland	0.00%
Australia	0.00%
Brazil	0.00%
Canada	0.00%
Japan	0.00%
Korea	0.00%
New Zealand	0.00%
Singapore	0.00%
US	0.00%
Other	0.00%
Cover Pool Composition	
Mortgages	85.78%
Total Substitute Assets	14.22%
Other / Derivatives	0.00%
Number of Debtors	Not relevant

Distribution by property use	
Residential	91.68%
Commercial	8.32%
Other	0.00%
Distribution by Residential type	
Occupied (main home)	93.36%
Second home	5.59%
Non-owner occupied	0.26%
Agricultural	0.00%
Multi family	0.00%
Other	0.79%
Distribution by Commercial type	
Retail	Not relevant
Office	Not relevant
Hotel	Not relevant
Shopping center	Not relevant
Industry	Not relevant
Land	Not relevant
Other	100.00%
Average asset value (Residential)	EUR 78.2 k
Average asset value (Commercial)	EUR 105.2 k
Share Non-Performing Loans	0.31%
Share of 10 biggest debtors	0.28%
WA Maturity (months)	172.41
WAL (months)	110.75
Distribution by Country (%)	
Italy	100
Distribution by Region (%)	
Lombardia	20.40
Piemonte	6.81
Veneto	14.40
Liguria	2.86
Emilia Romagna	4.89
Friuli Venezia Giulia	1.63
Trentino Alto Adige	0.51
Valle d'Aosta	0.26
Lazio	9.11
Toscana	8.61
Umbria	1.58
Abruzzo	1.75
Marche	2.29
Puglia	9.36
Sardegna	1.64
Sicilia	3.13
Calabria	1.46

Campania	8.42
Basilicata	0.59
Molise	0.29

Table 9: Participant counterparties | Source: Intesa Sanpaolo

Role	Name	Legal Entity Identifier
Issuer	Intesa Sanpaolo	2W8N8UU78PMDQKZENC08
Servicer	Intesa Sanpaolo S.p.A.	2W8N8UU78PMDQKZENC08
Account Bank	Intesa Sanpaolo S.p.A.	2W8N8UU78PMDQKZENC08
Cash manager	Intesa Sanpaolo S.p.A.	2W8N8UU78PMDQKZENC08
Cover Pool Monitor	Deloitte & Touche S.p.A	8156002B8705502CBA51

Table 10: Interest rate and Swap counterparties | Source: Intesa Sanpaolo

Name	Legal Entity Identifier	Agreement Type
Intesa Sanpaolo S.p.A	2W8N8UU78PMDQKZENC08	Interest rate swap

Figure 6: Arrears Distribution | Source: Intesa Sanpaolo

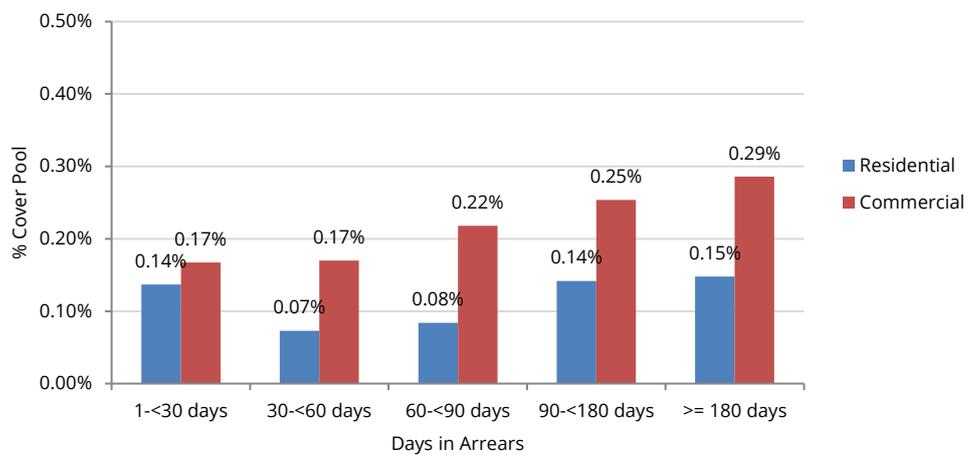


Figure 7: Program currency mismatches | Source: Intesa Sanpaolo

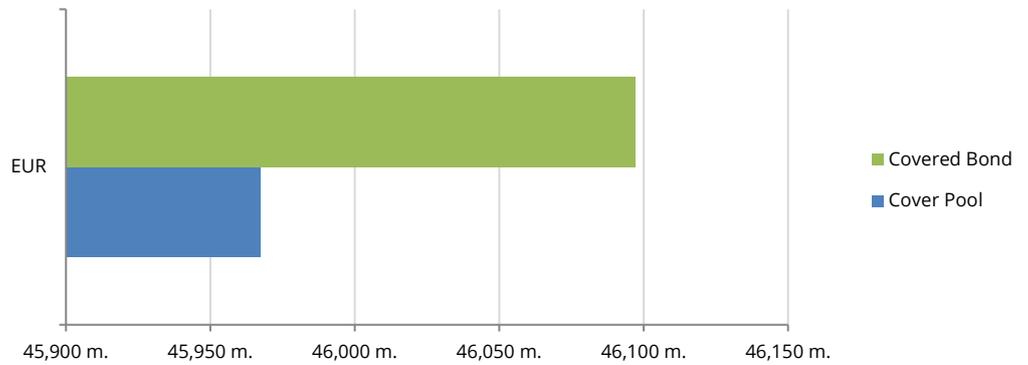


Figure 8: Unindexed LTV breakdown - residential pool | Source: Intesa Sanpaolo

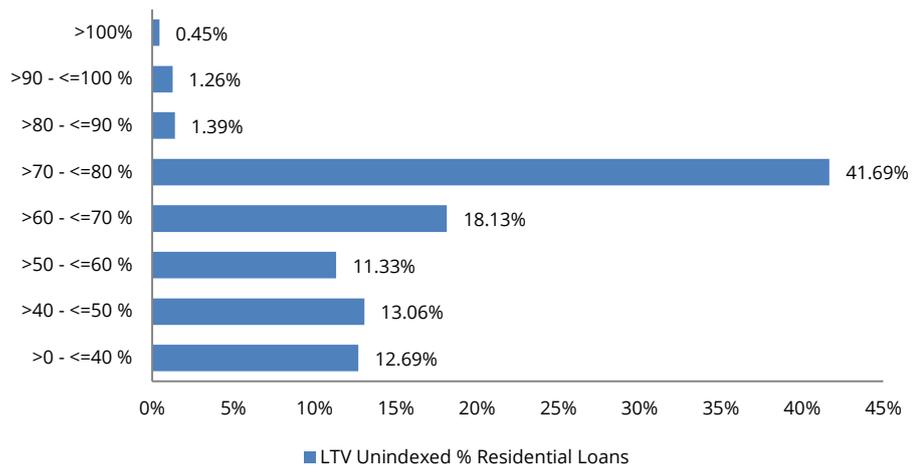
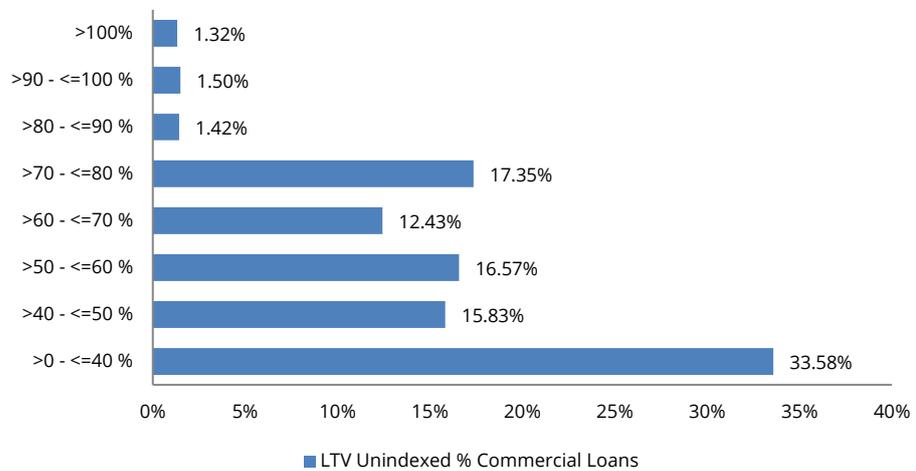


Figure 9: Unindexed LTV breakdown - commercial pool | Source: Intesa Sanpaolo



## Key Source of Information

### Documents (Date: 30.09.2020)

#### Issuer

- Audited consolidated annual reports of Intesa Sanpaolo SpA (group) 2016-2019
- Final Rating update as of 15.09.2020
- Miscellaneous Investor Relations Information and Press releases
- Peergroup-Data and other data from CRA eValueRate databank

#### Covered Bond and Cover Pool

- HTT Reporting from Intesa Sanpaolo as of 30.09.2020
- Market data Mortgage Covered Bond Program

## Regulatory and Legal Disclosures

Creditreform Rating AG was neither commissioned by the rating object nor by any other third parties for the rating. The analysis took place on a voluntary basis by Creditreform Rating AG and is to be described in the regulatory sense as an unsolicited rating. The rating was conducted on the basis of Creditreform Rating's "["Covered Bond Ratings" methodology \(v1.0, July 2017\)](#)" and "["Technical Documentation Portfolio Loss Distributions" \(v.1.0, July 2018\)](#)" in conjunction with Creditreform's basic document "["Rating Criteria and Definitions" \(v1.3, January 2018\)](#)". On the subject of ESG (environment, social and governance), Creditreform Rating AG has published the basic document "["The Impact of ESG Factors on Credit Ratings" \(March 2020\)](#)".

### Unsolicited Credit Rating

With Rated Entity or Related Third Party Participation	NO
With Access to Internal Documents	NO
With Access to Management	NO

The rating is based on publicly available information and internal evaluation methods for the rated bank and program. The issuer's quantitative analysis is based mainly on the latest annual accounts, interim reports, other information of the bank pertaining to investor relations, and key figures calculated by CRA/ eValueRate subject to a peer group analysis of 24 competing institutes. The cover pool's quantitative analysis for the rated Covered Bond Program was based on the "Harmonised Transparency Template" (HTT) published by the Intesa Sanpaolo

A complete description of Creditreform Rating's rating methodologies and Creditreform's basic document "Rating Criteria and Definitions" is published on the following internet page:

[www.creditreform-rating.de/en/regulatory-requirements/](http://www.creditreform-rating.de/en/regulatory-requirements/)

This rating was carried out by analysts AFM Kamruzzaman (Analyst) and Qinghang Lin (Analyst) both based in Neuss/Germany. On 03.12.2020, the rating was presented to the rating committee by the analysts and adopted in a resolution. The function of Person Approving Credit Ratings (PAC) was performed by Stephan Giebler (Senior Analyst).

On 03.12.2020, the rating result was communicated to Intesa Sanpaolo, and the preliminary rating report was made available. The Issuer and all relevant parties examined the rating report prior to publication and were given at least one full working day to appeal the rating committee decision and provide additional information. The rating decision was not amended following this examination.

The rating is subject to one-year monitoring from the creation date (see cover sheet). Within this period, the rating can be updated. After one year at the latest, a follow-up is required to maintain the validity of the rating.

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG (CRA) is permitted to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

## **Endorsement**

Creditreform Rating did not endorse the rating according Article 4 (3), CRA-Regulation.

## **Conflict of Interests**

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks.

In the event of provision of ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report.

## **Rules on the Presentation of Credit Ratings and Rating Outlooks**

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our policy "Rating Committee," all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

1. Transaction structure and participants
2. Transaction documents
3. Issuing documents
4. Other rating relevant documentation

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore, CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The rating report and/or Press release indicate the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology, or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies and other

aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery, and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings, are explained.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks, is indicated clearly and prominently in the rating report and/or Press Release as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the rating report and/or Press Release.

In accordance to Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>.

An explanatory statement of the meaning of Creditreform`s default rates are available in the credit rating methodologies disclosed on the website.

## Disclaimer

Any rating performed by Creditreform Rating AG is subject to the Creditreform Rating AG Code of Conduct which has been published on the web pages of Creditreform Rating AG. In this Code of Conduct, Creditreform Rating AG commits itself – systematically and with due diligence – to establish its independent and objective opinion as to the sustainability, risks and opportunities concerning the enterprise or the issue under review.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

This report is protected by copyright. Any commercial use is prohibited without prior written permission from Creditreform Rating AG. Only the full report may be published in order to prevent distortion of the report's overall assessment. Excerpts may only be used with the express consent of Creditreform Rating AG. Publication of the report without the consent of Creditreform Rating AG is prohibited. Only ratings published on the Creditreform Rating AG web pages remain valid.

Creditreform Rating AG

## Contacts

### Creditreform Rating AG

Europadamm 2-6  
D - 41460 Neuss

Fon +49 (0) 2131 / 109-626  
Fax +49 (0) 2131 / 109-627  
E-Mail [info@creditreform-rating.de](mailto:info@creditreform-rating.de)  
Internet [www.creditreform-rating.de](http://www.creditreform-rating.de)

CEO:  
Dr. Michael Munsch  
Chairman of the board:  
Dr. Hartmut Bechtold

HRB 10522, Amtsgericht Neuss