

ABC of Covered Bonds and why they can be higher rated than the sovereign

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The Covered Bond Report

Overall Bank of the Year 2013



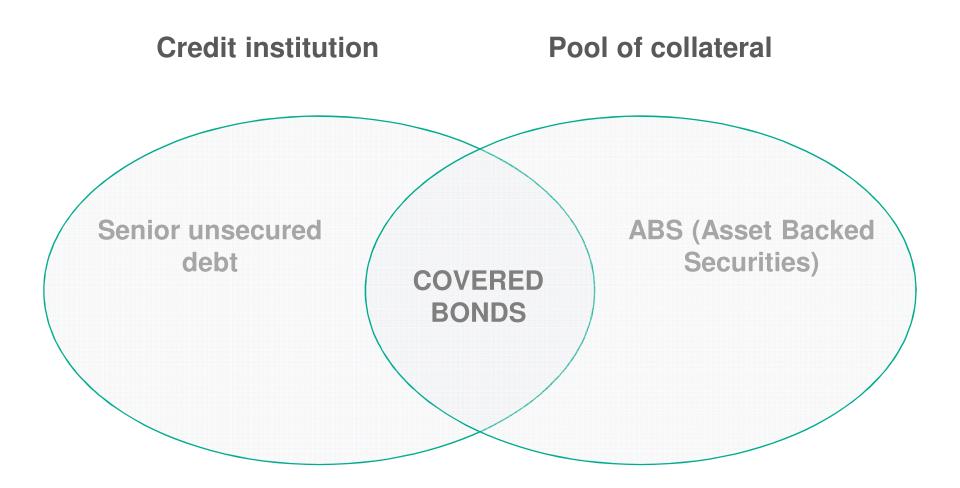
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Covered Bonds & ABS: Synergies and Differences



Covered Bonds & ABS: Comparison (1)

	Covered Bonds	ABS
Issuer	 The issuer is mostly a bank (or a licensed specialized mortgage bank like in Poland) 	Issuer is an SPV
Supervision	 Mostly specific supervision of covered bond issuers 	 SPV generally not specifically supervised
Claim	Investor has dual claim to issuer & collateral	 Investor has a claim on collateral and its cash-flows depending on seniority (senior)
Balance sheet treatment of originator	 Assets mostly remain on issuer's balance sheet and credit risk fully retained 	 Assets (and/or associated risks) are transferred to an SPV
Homogeneity	 High degree of standardization within a legal framework 	 Limited degree of standardization given contractual basis
Cover pool	 Dynamic & actively managed - new assets replacing assets maturing or in arrears 	Mostly static - remain in SPV
Issue structure/ prepayment risk	 (soft/hard) Bullet format therefore no prepayment risk assumed by investor 	 Pass-through Amortisation is common, prepayment risk assumed by investor

Source: ECBC, BNP Paribas



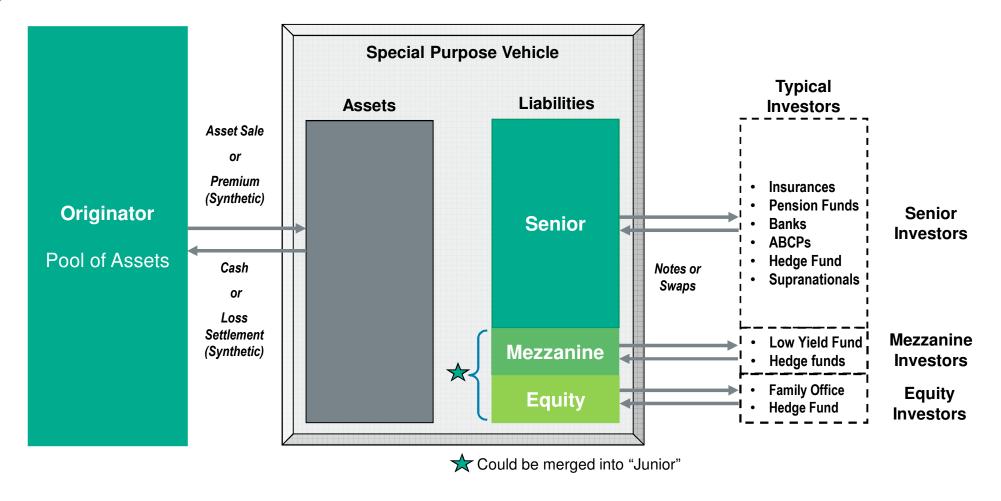
Covered Bonds & ABS: Comparison (2)

	Covered Bonds	ABS
Liquidity	Active secondary trading	Limited secondary trading
Capital weighting	Low, especially for CRR compliant CBs	Higher, level depends on rating
Credit risk	Assumed by issuers	 Assumed by investors (in junior tranches)
Basel III	LCR eligible (level 1, 2a or 2b)	 RMBS and ABS senior notes LCR eligible (level 2b)
Valuation of loans and LTV's	Legal requirements on evaluation and conservative LTV (below 80%)	Market values and no LTV requirements
Disclosure rules	 Partly stipulated by law (national templates and CB label) 	Depends on individual transaction. (PCS-label)
Rating methodologies	 Partly "fundamental", i.e. dependent on issuer credit, partly structured finance 	Structured finance approach
Liquidation	Insolvency remoteness of cover pools	Insolvency remoteness of SPV

Source: ECBC, BNP Paribas



ABS Structure

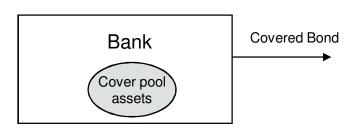


- Transfer of assets / exposures from banks to SPV can be realised in two ways:
 - Cash, where the bank receives cash proceeds of the sale directly from the SPV, or
 - **Synthetic**, where the bank buys protection from the SPV on a reference portfolio of assets
- Choice of True Sale (funding) vs. Synthetic (risk transfer/capital relief) as well as different levels of capital structure placed to third party investors achieve different results for originating banks



Possible CB Structures (1): Direct on Balance Sheet Issuance

Used in (for example) Germany, Spain, Cyprus, Belgium



Key characteristics

- Issuer has a specific licence
- Specific register for cover pool assets
- Assets segregated in case of insolvency via register
- Investors have preferential claim over Cover pool

Implications

Bank issuing covered bonds directly and separating assets on-balance

Advantages

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- Simple structure, easy to understand
- No need to transfer assets to a different entity
- Direct double recourse

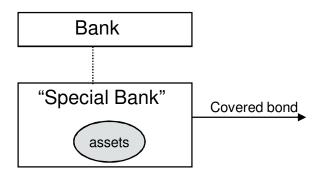
Potential Disadvantages

- Often requires substantial changes to bankruptcy, security law in order to avoid challenges from other creditors and conflict with existing negative pledges
- Mortgage borrowers keep rights of set-off
- Upon insolvency, investors have recourse to a pool of assets so limited options to refinance pool
- Segregation of assets and swaps on-balance: Register to be monitored



Alternative Structures (2): Specialist Bank/Issuer

Used in (for example) Poland, France, Ireland, Norway and dominating in Sweden and Finland



- Special bank has a license as a credit institution
- It is capitalised and supervised as a bank but often has limited activities
- Benefits from ownership and (liquidity) support by parent bank, whilst avoiding insolvency consolidation

Implications

Separate legal entity owning assets and issuing Covered Bonds

Advantages

- Separate legal entity with own supervision and regulation
- Licensed as credit institution with limited activities so easy to transfer

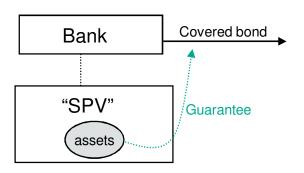
Potential disadvantages

- Dependency of Parent: a lot of activities outsourced to parent
- No automatic double recourse: guarantee or specific support from parent to investors needed
- Legal transfer of assets to Special Bank required



Alternative Structures (3): On-balance Issuance with Separate Guarantor

Used in (for example), UK, Italy, Netherlands, Canada, NZ, Australia



- Used in various countries where CB-structures were developed before CB-law existed
- Used when existing law allows transfer of assets using securitisation technologies effectively
- Often imbedded in CB-laws when laws were set up

Implications

Issuance by bank itself while assets are transferred to separate legal entity that guarantees the bonds issued

Advantages

- Most commonly used where there was initially no covered bond law (UK, NL) but active RMBS market
- Assets transferred to legally separate entity

Disadvantages

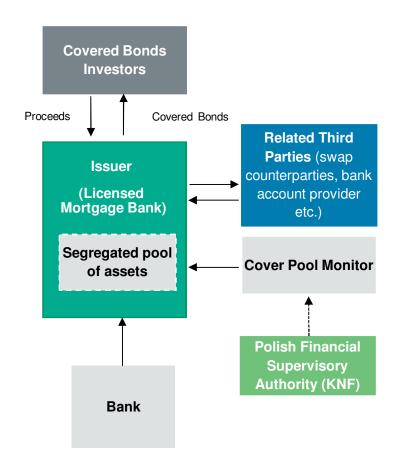
- Separate entity mostly no credit institution status and very limited activities like an SPV as most activities remain at Bank level
- Regulatory limits on intra-company exposure typically need to be addressed



Polish CB Architecture (including proposed changes to Polish CB law)

Issuer	 The right to issue covered bonds will remain by law limited to mortgage banks (specialised mortgage bank principle) A mortgage bank (bank hipoteczny) is licensed and supervised by the Polish Regulator (Komisja Nadzoru Finansowego)
Eligible assets	 Mortgage covered bonds : residential and commercial mortgage loans Public sectors covered bonds: exposures to public sector entities
LTV limits	 LTV for residential mortgage loans at 80% LTV ratio for commercial mortgage loans eligible to cover pools at 60% LTV limit of a single mortgage loan that can be included in the cover pool can not exceed 100% at its origination or acquisition by mortgage bank
Minimum OC	 Mandatory OC will be set at 10% of the nominal value of covered bonds issued In addition, a liquidity buffer will be set-up to secure payment of interests to bondholders for a period of 6 months
Bankruptcy law	 The key features proposed are implementation of soft-bullet repayment and conditional pass-through repayment In the event of an issuer bankruptcy, the maturity date of all mortgage bonds would be automatically extended for 12 months
Withholding tax	 The proposed reform would exempt covered bond interests from withholding tax for both non-resident investors
Cover pool register	 For each asset type a separate cover register has to be opened. A mix of asset types beyond an addition of substitute assets is not allowed

Polish Covered Bonds Structure





How to Maximise the Rating of Polish Covered Bonds

	Risk	Mitigant
Sovereign Risk	The risk of the sovereign effectively caps the ratings that can be achieved to the sovereign ceiling	 Transferability and convertibility ("T&C") risk mitigants can be incorporated. AA- rating possible for CBs allowing LCR eligibility
Issuer risk	 The covered bonds are issued directly from the balance sheet of the issuer and issuer insolvency might disrupt payments or create losses Liquidity risk is directly linked to strength and rating of the issuer 	 Cover pool collateral is intended to be sufficient to repay investors upon insolvency of the issuer Explicit Parent support to mortgage bank via ownership and liquidity commitment important
Credit risk	The pool of assets that serves as security for the cover pool is subject to credit risk of defaulting borrowers	 The asset tests ensure sufficient over-collateralisation to repay investors Rating agency require tests to be run frequently to ensure the pool remains compliant with the rating level
Replenishment risk	The cover pool is revolving, and the credit risk of future products is unknown	Replenishment criteria and collateral tests can be introduced to protect the strength of the collateral over time
Market risk	 Interest and FX-rate variations could create a mismatch between the value of the collateral and covered bonds 	 Derivatives can be used to ensure this mismatch is further mitigated and to allow issuance in Euros and CHF
Liquidity risk	 The bullet nature of the covered bonds creates a liquidity risk as the assets may not create sufficient principal cash flow to repay a maturing covered bond 	 Liquidity risk mitigated to some extent by the recourse to the originator It is also reduced thanks to the draft amendments to the CB law in Poland introducing soft bullet maturity of bond (12 months) and a conditional pass-through structure upon issuer's default

Maximum Achievable Ratings for Polish Mortgage CBs

Covered Bond Rating *

Poland's Country Ceiling

Poland's Sovereign Rating

Fitch

AA-

AA-

A-/F2 (Stable)

- Covered bond ratings are linked to the credit risk of the issuer
- The risk that a covered bond could default in case of an insolvency of the issuer is evaluated via the so-called Discontinuity Cap:
- The D-cap determines the maximum rating notch uplift from the IDR (adjusted by any IDR uplift) to the covered bond on a PD-basis
- Fitch will need a loan-by-loan model to establish the WAFF and WALS for the Cover Pool
- Fitch will calculate the recovery uplift to obtain the expected loss rating (maximum 2 to 3 notches)

Moody's

Aa3

Aa3

A2/P-1 (Stable)

- Moody's uses a joint-probability of default approach when rating covered bonds
- The unsecured rating of the issuer will be the starting point of the analysis
- The credit strength of the cover pool will provide the second input
- Moody's Timely Payment Indicator ("TPI") for covered bonds which in practice caps the rating that an issuer can achieve
- Pass trough structure could help to obtain a much higher TPI (in theory TPI would be unlimited and not cap the maximum rating achievable for covered bonds)

S&P

A+

A+

A-/A-2 (Stable)

- A minimum requirement to receive any uplift is a statutory provision to isolate cover pool assets for the benefit of the covered bond holder
- The maximum rating obtainable is based on two key factors:
 - Jurisdictional Support Analysis
 - Analysis of Collateral Support
- The Jurisdictional Support Analysis assesses the likelihood that covered bonds facing stress would receive support of a 'jurisdiction' (regulator, central bank, government related bodies) than a 'government'
- Conditional pass-through covered bonds may benefit from up to 2 notches more uplift above the country ceiling so in theory a AA rating could be feasible

^{*} Taking into account proposed changes to Polish Covered Bond

Appendix 1: Regulatory Update – LCR

Regulatory Update – LCR (Delegated Act Adopted 10th October 2014)

Classifying Covered Bonds

- Currently, covered bonds are categorized as L2 eligible assets
- This means that, together with all other L2 assets, they cannot count for more than 40% of HQLA, after a 15% haircut
- The new proposal (as discussed by EC in June) will be advantageous to covered bonds in that it introduces the category "Extremely High Covered Bonds" to L1 assets, at a 7% haircut
- The following rules apply on the composition of the liquidity buffer:
 - A minimum of 60% must be composed of L1 assets
 - A minimum of 30% must be composed of L1 assets excluding high quality covered bonds (so up to 70% can be CBs)
 - A maximum of 15% of the liquidity buffer may be held in level 2B assets

High Quality Securitisations

- According to the finalised LCR published on 10th October, SME and consumer loan ABS will become eligible for LCR level 2b (in addition to RMBS which is already eligible), subject to certain criteria:
 - €100mln minimum size, down from €250mln
 - Only senior tranche (minimum AA- rated)
 - Revolving transactions will now be allowed (previously only static deals) subject to certain requirements)
 - 1st lien security over collateral
 - Only prime borrowers
 - Servicing retained by originators
 - Sequential amortisation
 - Maximum WAL of 5 years

Changes in the Classification of Assets for LCR

	Original LCR Levels							
Level	Level Eligible Assets							
1	 Cash Central bank reserve balances Marketable governmental obligations Must have a 0% risk weight under Basel II Extremely High Quality Covered Bonds (7% HC) 	1 0% (exc Cove Bon	ept ered					
2	 20% risk weighted public sector entity marketable securities "Plain vanilla" non-financial corporate debt securities Covered bonds rated at least A- for European countries, or AA- for third countries (15% HC) 							
Debt of Certain High Qu	2B							

Haircut Levels for High Quality Securitisations

- 25% for first lien secured or guaranteed residential loans and Auto loans/leases
- 35% for commercial loans/leases/credit facilities to undertakings in a Member State (plus an additional requirement that 75% of the portfolio is made up of SMEs
- 35% for consumer loans and credit facilities provided to individuals in a Member State

Final LRC update as of 10th October

- Covered Bonds rated below A- or that are not rated, have been added as Level 2B eligible assets
 - Minimum OC required: 10%
 - Minimum issuance size: Eur 250mm

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Appendix 2: Rating Agency Methodologies

Moody's Covered Bond Methodology

Moody's caps the ratings of covered bonds using a TPI factor

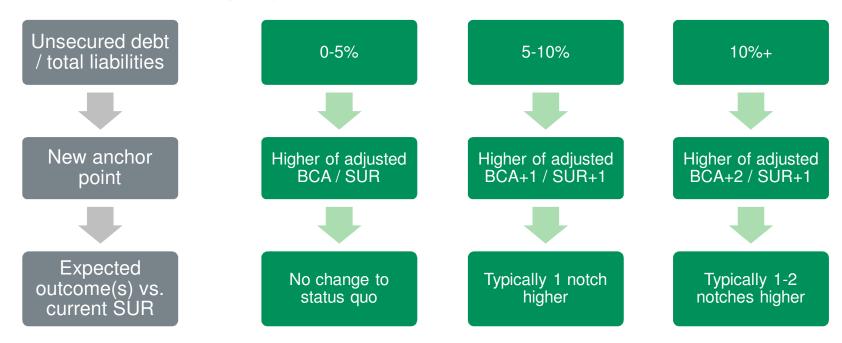
- In June 2005 Moody's published its current covered bond rating methodology
 - Moody's uses a joint-probability of default approach when rating covered bonds
 - The unsecured rating of the issuer will be the starting point of the analysis
 - The credit strength of the cover pool will provide the second input
 - Moody's determines the quality of the collateral using stratification tables to determine a loss distribution for the assets applying a simplified 'MILAN' model with similar penalties as for RMBS
 - This loss distribution is used in a cash-flow model to ensure the covered bonds can be repaid from the collateral to a certain rating level (usually triple-A to minimise rating volatility) under various scenarios including issuer default
- In March 2008, Moody's published a Timely Payment Indicator ("TPI") for covered bonds which in practice caps the rating that an issuer can achieve
 - A TPI is an assessment of the timeliness of payment of interest and principal on a covered bond following issuer default
 - The TPI is driven by the jurisdiction (country rating mainly) and specific covered bond features
 - A TPI of "High" or "Very High" could be possible for a CPTCB structure
- Pass trough structuring could help to obtain a much higher TPI, in theory even mean that the TPI would be unlimited and not cap the
 maximum rating for lower rated banks but this will require further discussions with Moody's

Maximum Achievable Moody's rating for issuers with various TPI

Isssuer rating	Very improbable	Improbable	Probable	Probable/high	high	Very high
A1	Aaa	Aaa	Aaa	Aaa	Aaa	Aaa
A2	Aa1	Aa1	Aaa	Aaa	Aaa	Aaa
A3	Aa2	Aa2	Aaa	Aaa	Aaa	Aaa
Baa1	Aa3	Aa3	Aa1	Aa1	Aaa	Aaa
Baa2	A1	A1	Aa2	Aa2	Aa1	Aaa
Baa3	A3	A2	A1	Aa3	Aa2	Aa1
Ba1	Baa3	Baa2	Baa1	A3	A2	A1
Ba2	Baa3	Baa2	Baa1	A3	A2	A1
Ba3	Baa3	Baa2	Baa1	A3	A2	A1

Moody's – Changes to the Anchor Point

- In October 2013, Moody's published a request for comment (RFC) on proposals to change the "anchor point" by up to two notches above the current anchor point based on Issuer Default
 - The reason for this is to take account of recent European Directives which provide that while senior unsecured debt of issuers is subject to bail-in, Covered Bonds are not subject to bail-in and therefore benefit proportionally from the amount of unsecured debt of the Issuer
- Following the RFC Moody's updated its methodology on 12 March 2014 resulting in the upgrade by one notch of 15 European programmes together with placing 9 programmes on review for upgrade and confirming 3 programmes that were previously on review for downgrade
- The rating buffer on 58 Covered Bond programmes were increased
- Programmes already Aaa or at their country ceiling benefit from increased rating robustness and a lower minimum collateral level
- The new anchor point for covered bond ratings in the European Union and Norway will be the higher of:
 - the issuer's adjusted Baseline Credit Assessment (BCA) + 0-2 notches; or
 - the issuer's Senior Unsecured Rating (SUR) + 1 notch
- with the number of notches depending on the level of unsecured debt / total liabilities



■ Exception: SUR+0 where very material government support already incorporated

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Fitch Covered Bond Rating Methodology

Fitch rates covered bonds on an expected loss basis

- Fitch factors in the impact of an issuer default on the continuity of covered bond payments but also incorporates an element of recovery given default. Covered bond ratings are linked to the credit risk of the issuer.
- The risk that a covered bond could default in case of an insolvency of the issuer is evaluated via the so-called Discontinuity Cap:
 - The D-cap determines the maximum rating notch uplift from the IDR (adjusted by any IDR uplift) to the covered bond on a PD-basis
 - The drivers of the D-cap are:
 - asset segregation
 - liquidity gap and systemic risk,
 - alternative management (systemic and pool-specific)
 - privileged derivatives
 - Fitch will need a loan-by-loan model to establish the WAFF and WALS for the Cover Pool. These are then used in a cash flow model

- Fitch rating process can be described as follows
 - Determine the maximum rating achievable on a probability of default (PD) basis
 - Bail-in Exemption: in bank resolution frameworks where covered bonds are favourably treated, Fitch's analysis starts with an uplift over the IDR (up to two notches for programmes of issuers rated in the 'BB' category and above)
 - The D-Cap assessment
 - Calculate the recovery uplift to obtain the expected loss rating (maximum 2 to 3 notches)
 - Stress test the overcollateralisation to set the covered bond PD rating
- The D-cap goes from 0 to 8 notches. 8 notches only possible for pass-through programmes. Most programmes got D-cap of moderate ie max 6 notches uplift with recovery so A- rating required to reach AAA (used to be BBB+)
- Stress testing of OC determines the breakeven OC for a given covered bonds rating.
 Fitch splits the break-even OC for the rating into three components: cash flow valuation, credit loss and asset disposal loss
- Public Sector Pools there is more direct link to sovereign ratings for public sector CB programmes
- Polish Covered bonds expected to be capped by sovereign ceiling

Maximum Achievable Fitch rating (PD: Probability of Default rating and EL: expected loss rating)

D-cap	Mini	mal 8	Very	low 6	Lov	w 5	Mode	rate 4	Moderat	e-high 3	Hig	h 2	Very	high 1	Full disc	ontinuity
IDR	PD	EL	PD	EL	PD	EL	PD	EL	PD	EL	PD	EL	PD	EL	PD	EL
AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA+	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AAA
AA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AAA	AA	AAA
AA-	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AAA	AA	AAA	AA-	AA+
A+	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AAA	AA	AAA	AA-	AA+	A+	AA
A	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AAA	AA	AAA	AA-	AA+	A+	AA	А	AA-
A-	AAA	AAA	AAA	AAA	AA+	AAA	AA	AAA	AA-	AA+	A+	AA	Α	AA-	A-	A+
BBB+	AAA	AAA	AA+	AAA	AA	AAA	AA-	AA+	A+	AA	Α	AA-	A-	A+	BBB+	Α
BBB	AA+	AAA	AA	AAA	AA-	AA+	A+	AA	Α	AA-	A-	A+	BBB+	Α	BBB	A-
BBB-	AA	AAA	AA-	AA+	A+	AA	А	AA-	A-	A+	BBB+	А	BBB	A-	BBB-	BBB+
BB+	AA-	AA+	A+	AA	Α	AA-	A-	A+	BBB+	А	BBB	A-	BBB-	BBB+	BB+	BBB

S&P's Covered Bond Methodology (Request for Comment)

Maximum rating based on Jurisdictional, and Collateral Support

- S&P have amended their methodology to determine a starting point and a maximum achievable ratings of covered bonds to accommodate market development as well as legal and regulatory changes (including bail-in regulations)
- It is proposed to place less reliance on collateral-based market-driven refinancing options for Asset-Liability Mismatch (ALMM) and to focus on committed overcollateralisation beyond the minimum legal requirement
- The starting point is now determined by the Reference Rating Level (RRL), which is the greater of either Issuer Credit Rating or the Adjusted Issuer Credit Rating plus one notch if the program falls under the EU Bank Recovery Resolution Directive (BRRD) or equivalent regulation
- A minimum requirement to receive any uplift is a statutory provision to isolate cover pool assets for the benefit of the covered bond holder
- The maximum rating obtainable is based on two key factors:
 - Jurisdictional Support Analysis
 - Analysis of Collateral Support

Jurisdictional Support Analysis

- The Jurisdictional Support Analysis assesses the likelihood that covered bonds facing stress would receive support of a 'jurisdiction' (regulator, central bank, government related bodies) than a 'government'
- The assessment focuses on three factors: strength of legal framework, systemic importance of covered bonds and sovereign's credit capacity
- Each parameter is independently scored and the weakest of all 3 determines the overall Jurisdictional Support category resulting in Jurisdictional Rating Level (JRL)

Adjustments	Legal Framework	Systemic importance	Sovereign Credit Capacity	Jurisdictional Support Assessment	Countries in Category
Very Strong	Robust legal framework Eligibility criteria allowing only high quality assets in cover pool part of legislation	Covered bond market >= 20% of GDP	Sovereign has sufficient resources to support covered bonds, rating BBB- or above	Very Strong: RRL + 3 notches	Austria, Denmark, Finland, France, Germany, Ireland(mortgages), Netherlands, Norway, Spain, Sweden
Strong	Robust legal framework Eligibility criteria allowing only high quality assets in cover pool part of legislation	Covered bond market >= 10% of GDP	Sovereign has sufficient resources to support covered bonds, rating BBB- or above	Strong: RRL + 2 notches	Ireland(public sector), Italy(mortgages), Luxembourg, UK (regulated/ non-regulated mortgages)
Moderate	Same as strong	Covered bond market >= 5% of GDP	Sovereign has sufficient resources to support covered bonds, rating BB- or above	Moderate: RRL + 1 notch	Australia, Belgium, Canada, Portugal, UK(public sector)
Weak	Does not meet the characteristics of moderate support	Covered bond market < 5% of GDP	Insufficient financial resources to support covered bonds	Weak: RRL + 0	US(mortgages), Singapore(mortgages)

S&P's Covered Bond Methodology (Request for Comment)

Maximum rating based on Jurisdictional, and Collateral Support

Collateral Support Analysis - Required Credit Enhancement for Uplift Above RRL

		Notches Uplift Above the Reference Rating Level									
Jurisdictiona Assigne		1	2	3	4	5		5		6	7
No Jurisdiction	nal Uplift	Credit risk at JRL +1 rating category	Credit risk at JRL +2 rating categories	Credit risk at 'AAA' and 75% of refinancing costs	Credit risk at 'AAA' and 100% of refinancing costs	N/A					
1 Notch Jurisd Uplift		Legal minimum	Credit risk at JRL +2 rating categories	Credit risk at 'AAA' and 50% of refinancing costs	Credit risk at 'AAA' and 75% of refinancing costs	Credit risk at 'AAA' N/A and 100% of refinancing costs					
2 Notches Juris Uplift		Legal minimum	Legal minimum	Credit risk at 'AAA' and 25% of refinancing costs	Credit risk at 'AAA' and 50% of refinancing costs	and	risk at 'AAA' I 75% of ncing costs	Credit risk at 'AAA' and 100% of refinancing costs	N/A		
3 Notches Juris Uplift		Legal minimum	Legal minimum	Legal minimum	Credit risk at 'AAA' and 25% of refinancing costs	Credit risk at 'AAA' and 50% of refinancing costs		Credit risk at 'AAA' and 75% of refinancing costs	Credit risk at 'AAA' and 100% of refinancing costs		
Colour Coding	,						'AAA' credit risk AND				

- Besides, the structure might be penalised by 1 notch if no liquidity facility covering at least 6 month payments is in place (no additional benefit from liquidity)
- The program is penalised by 1 notch for uncommitted overcollateralisation, and in case of weak/moderate JRL it is penalised by 1 notch if commitment is only in form of public statement

	Type of Commitment								
Jurisdictional Support Assessment	Voluntary	Public Statement	Legal or Contractual						
Weak	-1	-1	0						
Moderate	-1	-1	0						
Strong	-1	0	0						
Very Strong	-1	0	0						

 The resulting maximum achievable covered bond rating can be further constrained by the analysis of additional risk factors, such as counterparty risk and country risk

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