



Rating-change drivers

The covered bond ratings may be downgraded if: i) the covered bond programme's risk profile changes materially and risks are not adequately mitigated by the rating-supporting overcollateralisation; ii) the issuer is downgraded by more than one notch; or iii) the legal framework and resolution regime becomes materially less supportive of Norwegian mortgage-covered bonds.

Rating drivers and mitigants (summary)

Positive rating drivers

The issuer. Management's commitment to returning the bank's business model to its savings bank roots. Significant progress made in de-risking the bank.

Covered bond legal framework in Norway (+2 notches). Norway's mortgage bank act provides a very strong framework, ensuring that the covered bond structure can fully support and enforce recourse to the cover pool.

Resolution regime assessment (up to +3 notches). Norwegian covered bonds are excluded from bail-in; SSB is deemed resolvable; and a cohesive stakeholder group supports the market's ongoing development.

Cover pool support (up to +3 notches). Asset quality is sound, supported by the stable performance of Norwegian residential mortgage loans; and available overcollateralisation is robust.

Positive rating-change drivers

Issuer/group. The current senior management team has been in place since 2017 and has been implementing measures to improve the sustainability and predictability of earnings. Demonstrating earnings stability over time would be viewed positively.

Covered bond legal framework. An upgrade is not possible as the highest uplift has already been achieved.

Resolution regime assessment. Higher visibility as a covered bond issuer could be positive for the rating.

Cover pool support. Full potential cover pool uplift is not utilised and could stabilise the rating upon an issuer downgrade

Negative rating drivers and mitigants

The issuer. The bank's operating environment is exposed to the cyclical oil and gas industry. Material reliance on market funding.

Covered bond legal framework. Principles-based mitigants to market risks are less defined in an international context.

Resolution regime assessment. Should the bank cease operations, a transfer or orderly wind down of the programme is more likely than its continuation given its size and low contagion risk. Limited visibility as a covered bond issuer.

Cover pool support. Asset-liability mismatch risk driven by the long remaining legal maturities of the assets exceeding that of the liabilities.

Negative rating-change drivers

Issuer/group. A decline in the operating environment which substantially impacts profitability and/or a change in strategic direction which increases the bank's risk profile.

Legal covered bond framework. No deterioration is expected; EU harmonisation is not expected to negatively impact the existing legal framework if translated into national law.

Resolution regime assessment. No deterioration is expected.

Cover pool support. A further increase in asset-liability mismatch or a material change in the interest rate and foreign exchange risks profile, not mitigated by overcollateralisation, could reduce cover pool support and result in a downgrade.

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1. The issuer

The ratings of SSBB reflect those of its parent bank, Sandnes Sparebank.

Founded in 1875, Sandnes Sparebank is considered the bank of the city of Sandnes in south-west Norway. Serving about 42,000 retail customers and about 5,000 corporate customers, the bank's main office and branch is in the city-center. In addition, the bank has two other small branches – in Stavanger (five employees) and Oslo (two employees). Well established in Sandnes, the bank also operates in the broader region of Rogaland, competing against Sparebank 1 SR-Bank, DNB, Danske and other smaller players.

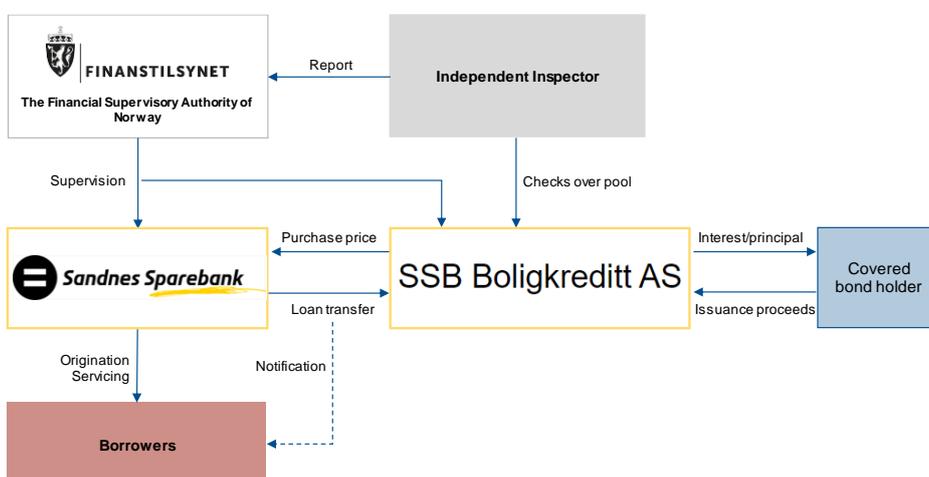
Since October 2015, the bank has been part of the Eika Alliance which enables Sandnes to meet customer needs with a broader range of products and services, including asset management, insurance, credit cards and car loans. Being a member of the alliance further supports cost efficiency – in particular, in banking operations and IT development and infrastructure. As the largest bank in the alliance, Sandnes' CEO is also the vice-chairman of the alliance's board.

Under previous management, Sandnes had become focused on corporate lending and real estate development. With the onset of the financial crisis in 2008, this led to elevated loan losses and poor profitability. In the ensuing years, the subsequent management team worked on reducing the bank's risk profile.

For further details of our bank credit analysis see the full bank rating report available on www.scooperatings.com.

2. Covered bond structure

Figure 1: On-balance sheet issuance structure



Source: SSB and Scope

The Norwegian legal covered bond framework is mainly based on the relevant section on covered bonds in the Financial Institutions Act together with a related regulation on mortgage credit institutions, both introduced in 2007. Under this framework, issuance is permitted only through specialist covered bond issuers. Like SSBB, most issuers of covered bonds (called Boligkreditt, or specialised residential mortgage institutions) are subsidiaries that rely on loans originated by their respective parent banks. The parent banks generally also provide most of the services for these subsidiaries, allowing the latter to keep staff numbers low.

A Boligkreditt issues covered bonds whose proceeds are used to purchase mortgage assets from its parent bank, thereby financing the latter's lending business.

The Boligkreditt's status as a non-deposit-taking institution protects the covered bonds from set-off risk.

3. Fundamental credit support

Fundamental credit support factors enhance the covered bond rating by five notches above SSBB's issuer rating. This is based on our view of: i) Norway's covered bond legal framework (two notches); and ii) the resolution regime and systemic importance of SSBB's covered bonds (three notches).

Fundamental credit support provides a rating floor for the covered bonds of five notches above the issuer rating. This mitigates any impact from potential adverse management of the cover pool.

3.1. Legal framework analysis

We view the Norwegian covered bond framework as one of Europe's strongest, meeting our criteria for protecting investors. We therefore assign the highest credit differentiation of two notches.

Norway is not a member of the EU but participates in the EU's internal market under the European Economic Area Agreement. According to this agreement Norway is obliged to implement all EU directives and regulations that relate to financial institutions and markets, such as the CRR/CRD IV, MiFID, Prospectus Directive and Solvency II. This gives financial institutions in Norway the same rights and obligations as those in the EU.

We do not expect the upcoming transposition of the European covered bond harmonisation directive to introduce credit-negative factors into the Norwegian legal covered bond framework, nor are the changes expected to be material.

Segregation of cover pool upon insolvency

The act gives bondholders a preferential claim over the cover pool if the issuer is placed under public administration. Norway's term for covered bonds, obligasjoner med fortrinnsrett, or 'OMF' is protected by law. While the assets in the pool remain with the estate if the issuer is placed under public administration, bondholders and derivative counterparties have an exclusive, equal, proportionate and preferential claim over the cover pool, and the administrator is obliged to ensure timely payment provided the pool gives full cover to the respective claims.

Ability to continue payments after issuer insolvency

Under the act, covered bond issuers cannot be declared bankrupt, but must be placed under public administration if facing solvency or liquidity problems. This gives authorities more flexibility to deal with covered bond companies while maintaining the rights of covered bond holders. The liquidator ensures that the cover pool is properly managed and that covered bond holders and derivative counterparties receive agreed and timely payments. Public administration or insolvency does not in itself give covered bond holders and derivative counterparties the right to accelerate their claims. If contractual payments cannot be made when claims fall due, and an imminent change is unlikely, the liquidator halts payments.

Programme enhancements remain available

OMF have a mandatory minimum overcollateralisation requirement of 2% (nominal). All voluntary overcollateralisation is part of the cover pool.

Norwegian covered bond framework supports maximum credit uplift...

...reflecting strong investor protection and alignment with European best practice

Key eligibility criteria

The definition of eligible assets follows European standards. There is a maximum loan-to-value (LTV) ratio of 75% for the main collateral type (residential mortgages) and 60% for commercial, holiday and leisure properties. The share of commercial or residential mortgage loans is not restricted. Further, the act permits the inclusion of substitute assets (maximum 20% of the cover pool). Generally, cover assets can be domiciled in the European Economic Area or certain OECD countries. The regulation adds rating requirements for the national government of the country in which the mortgaged property or borrower is located.

By law, non-performing loans remain in the cover pool. However, the act specifies that non-performing loans are only partly accounted for in cover pool tests, with the share dependent on the LTV of the respective collateral. This requirement would still apply upon the borrower's non-performance as covered bond investors remain entitled to foreclosure proceeds.

Liquidity and other risk management guidelines

The covered bond programme's risks are generally managed as part of the group's liquidity and risk management and the act does not stipulate specific market and liquidity risk constraints. At the same time, covered bond issuers must implement strict internal regulations to reduce the impact of stresses on capital. Issuers are allowed to use derivatives to mitigate market risks. Further, most Norwegian covered bonds are issued as soft bullet with a one-year extension. This mitigates liquidity risk and provides buffers to facilitate redemption at the due date.

Overcollateralisation generally remains available in the event of a parent bank default and the latter does not trigger a cross default for the issuer.

Covered bond oversight

SSBB is supervised by both an independent inspector and the Financial Supervisory Authority of Norway (Finanstilsynet). Upon solvency or liquidity problems for the issuer, a public administrator would ensure timely payment to the covered bond holders. There is also ongoing regulatory oversight for Norwegian covered bonds which complies with UCITS and the CRR.

Other legal framework considerations

We do not expect a credit-negative impact from the upcoming European covered bond harmonisation as Norwegian legislation already covers the rating-relevant aspects.

3.2. Resolution regime and systemic importance

SSBB's covered bonds benefit from an additional three-notch uplift reflecting a bail-in exemption and support from a strong stakeholder community. The uplift reflects a combination of: i) a moderate to high likelihood that the covered bond issuer will be maintained in a resolution scenario; and ii) the high systemic importance of covered bonds in Norway. However, we recognise the low visibility and importance of SSBB as a covered bond issuer. In general, Norwegian covered bonds of resolvable and very visible issuers can benefit from four additional notches of support.

Exclusion from bail-in

Norwegian covered bonds will benefit from a bail-in exemption. Norway is in the European Economic Area, and the EU's Bank Recovery and Resolution Directive (2014/58/EU – BRRD) only takes effect on 1 January 2019. We understand that the 23 March 2018 translation of the BRRD into Norwegian law (LOV-2018-03-23-2; section 20-20) exempts

Soft bullet with one-year extension protects against maturity mismatches

March 2018 BRRD translation confirms 'non-bail-in' for covered bonds

covered bonds and related derivatives from write-downs affecting an issuer's other debt instruments.

We believe that the bank's current sound capital structure would allow regulators to restructure it using available resolution tools. However, given the high number of retail banks, even in the more rural areas such as the south-west region in which SSB is active, retail banking could appear to be a non-critical business which would either be subject to an orderly wind-down or transferred to another bank in a resolution scenario. As a result, the current covered bond issuer structure might not be maintained as a going concern.

Systemic relevance of covered bonds in Norway

We generally classify Norwegian covered bonds as a systemic refinancing product, particularly for residential mortgages. The combined outstanding volume of covered bonds has averaged more than 25% of GDP since 2011 and stood at 32% at the end of 2017. Annual issuance hovers at around EUR 20bn, reaching EUR 21.7bn in 2017. In Norway, 25 institutions currently issue covered bonds, with collateral including residential, commercial and public-sector assets.

Globally, Norway was the sixth largest issuer in 2017 and the seventh largest by total outstanding size. This is remarkable given that the market has only existed for 10 years.

Relevance of covered bond funding for SSB Boligkreditt

In our point of view, SSBB's covered bond issuing activities and market share only result in a low to moderate systemic importance. The bank only issues into the domestic market which should reduce negative repercussions on other issuers in the event of a failure. However, SSBB's low to moderate systemic importance also reflects the fact that most of the 25 covered bond issuers are similarly subsidiaries of small to midsize banks. Even a failure of a covered bond issuer with the size and setup of SSBB could thus result in contagion, effectively creating systemic problems for other issuers reliant on this refinancing channel for their core product, residential mortgage lending.

Proactive stakeholder community

The country's covered bond issuers actively cooperate under the umbrella of the Norwegian Covered Bond Council to promote their product and initiate any changes to the framework. An example is the March 2017 increase in minimum overcollateralisation to 2%, aimed at avoiding potential challenges for cover pool derivatives arising from the European Market Infrastructure Regulation. Norway's covered bond investors, which include banks and insurers, actively use covered bonds not only as a substitute for long-dated, NOK-denominated government debt, but also to manage liquidity. Moreover, Norway's central bank has demonstrated its support for covered bonds by using them in its repo operations and running a covered bond to government debt 'swap programme' in 2008-14. Norway's financial supervisory authority also has an active interest given the bonds' widespread use to refinance residential mortgage lending.

4. Cover pool analysis

SSBB's cover pool provides a seven-notch uplift to the issuer rating. Cover pool support warrants two notches of credit uplift on top of fundamental credit support factors. With a maximum three-notch uplift, the cover pool also provides rating stability as it can support the covered bonds' credit quality upon an issuer downgrade of one notch.

As of 30 September 2018, the cover pool has provided the covered bonds with an overcollateralisation of 16.0%. Based on our analysis, 8.5% can support the current two-notch cover pool uplift.

Norwegian covered bonds are a systemically important refinancing instrument

Although SSBB's systemic importance is low to moderate...

... a cohesive and supportive stakeholder group supports the product

Cover pool provides additional rating uplift to protect the highest achievable rating...

...but also affords additional rating stability

The overcollateralisation reflects the cover pool's sound credit quality as well as the current and planned issuance structure. Based on discussions with the issuer, we expect sufficient overcollateralisation to remain available to support the maximum cover pool rating uplift.

Figure 2: Key cover pool characteristics

Reporting date	30.09.2018
Total cover pool (NOK m)	7,488
Covered bonds outstanding (NOK m)	6,453
Current overcollateralisation	16.0%
Minimum regulatory overcollateralisation	2.0%
Duration/WAM (cover pool) (years)	7.9/ 11.6
Duration/WAM (covered bonds) (years) ¹	3.6/ 4.9
Duration/WAM mismatch (years)	4.3/ 6.8
Overcollateralisation to support current rating	8.5%
Overcollateralisation to support current rating upon a one-notch issuer downgrade	9.0%
Main cover pool asset type	Residential mortgage loans
Number of obligors ²	4,342
Average loan size (NOK '000s)	1,484
Average loan-to-value	54.9%
Top 10 exposure share	1.2%
Top 20 exposure share	2.1%

¹ including the 12-month extension

² Multiple borrowers with reference to the same loan/property were grouped as one borrower

Source: SSBB and Scope

Granular residential mortgage cover pool...

4.1. Cover pool composition

The cover pool is predominantly secured by Norwegian residential mortgage loans denominated in Norwegian kroner. The cover pool also comprises substitute assets which can be split into NOK 100m in bank deposits and NOK 289m in highly rated bonds.

The cover pool is very granular. As of September 2018, the cover pool comprised 4,342 obligors with an average loan size of NOK 1,484,300 (around EUR 153,000). The largest obligor only accounts for 0.15%. Together, 70% of the obligors have loan amounts below NOK 3m with an average market value of collateral per obligor of NOK 4.3m.

Figure 3: Cover pool by loan size (NOK m)

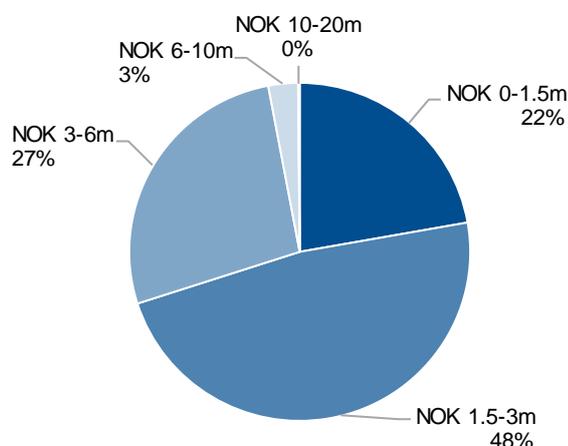
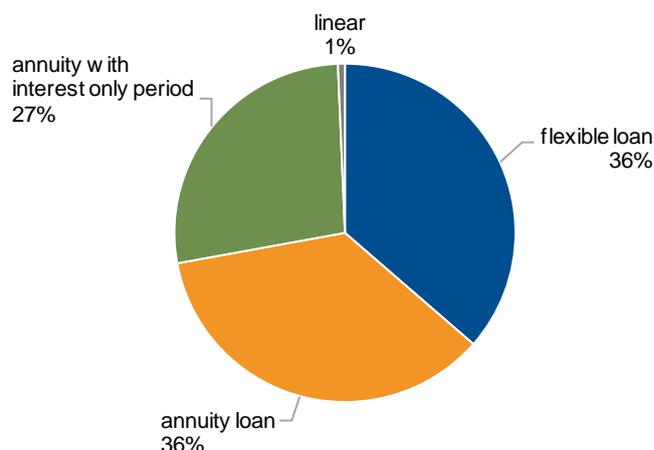


Figure 4: Loan type (by max. drawable balance)



Source: SSBB and Scope

36% (by maximum drawable amount) of the loans are flexible loans that allow borrowers to redraw the loan up to a certain maximum amount. New flexible loans will only be granted for loans not exceeding an LTV of 60%. This is a consequence of the macroprudential measures introduced in Norway that require amortisation for loans exceeding this limit (see Table 1). The remaining 64% of the loans are amortising loans. 27% of these are interest-only loans which start to amortise once the 'out-of-cover' loan part which stays with the parent is fully amortised.

...characterised by regulations limiting risky credit growth and leverage

Macroprudential measures have started to have a positive impact on the credit quality of the cover pool. In addition to the LTV limits on interest-only (flexible) loans, Norwegian regulators have introduced further measures to prevent credit risk from increased borrower leverage. The measures address elevated house prices in Norway and the affordability of mortgage debt.

Table 1 – Macroprudential measures in Norway

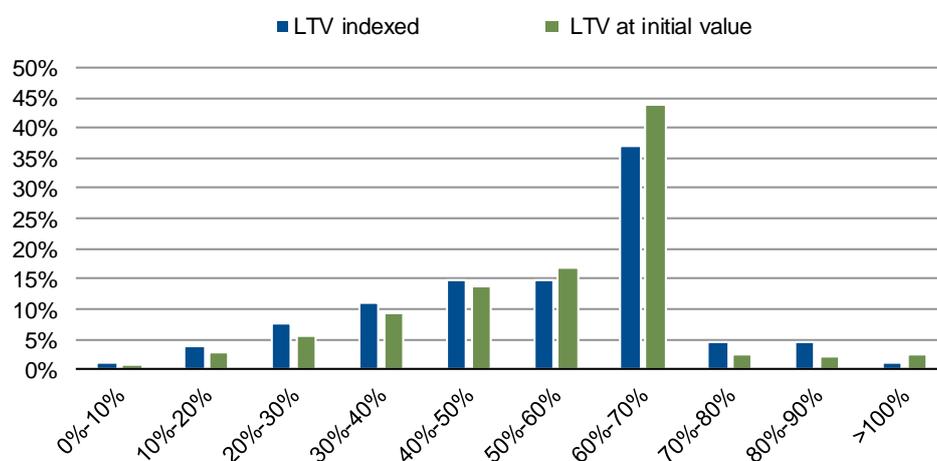
Effective since	Measure	Authority
Dec 2011	Amortisation requirement for residential mortgage loans exceeding an LTV of 70%	Finanstilsynet
	Affordability test assuming 5 pp increase in interest rates at origination	Finanstilsynet
Jan 2014	CRR implementation effectively leading to higher loss given default for residential real estate and higher risk weights for commercial real estate	Finansdepartementet, Finanstilsynet
Jan 2015	CRR and CRD implementation effectively tightening requirements for residential mortgage lending models; liquidity coverage ratio of at least 100%	Finansdepartementet, Finanstilsynet
Jul 2018	Amortisation requirement of at least 2.5% p.a. or equivalent to 30-year term for residential mortgage loans exceeding an LTV of 60%	Norges Bank
	Affordability test assuming 5 pp increase in interest rate with exception for 10% (8% in Oslo) of mortgage volume which fails the test	Norges Bank
	Total debt may not exceed five times gross annual income – same exception as affordability test	Norges Bank
	LTV capped at 85% for residential mortgage loans, and 60% for secondary homes in Oslo – same exception as affordability test	Norges Bank

Source: European Systemic Risk Board (ESRB); national measures of macroprudential interest in the EU/EEA

LTV of 55% reflecting moderate price increase since loan origination

As of September 2018, the cover pool has a low average LTV of 55%. This conservatively calculated LTV assumes that all flexible loans are drawn to their maximum amount. At the same time, the low LTV also reflects the increase in property prices in Norway since origination. The collateral is generally valued (initial and monitoring) using an automated valuation system, 'Eiendomsverdi', which is used throughout Norway and by most banks. The automated valuation is compared against the purchase price and assessed during the underwriting process. In individual cases the bank may request independent and full appraisals, including an inside inspection. The indexed LTV compares to the LTV at initial value of 57%. The difference reflects a moderate increase in values since the loans were granted.

Figure 5: Cover pool by LTV



Source: SSBB and Scope

The LTV of 55% considers common housing association debt to constitute a loan which ranks equally to a mortgage loan. As of September 2018, around 8% of the borrowers have common debt and the average LTV on common debt is 13%. Such debt is shared pari passu amongst the shareholders within a housing association but would generally not become due if an individual borrower defaults on its housing loan. The common debt would be sold together with the shareholder's respective share in the housing association. At the same time, a potential housing association default would be likely to prompt refinancing. Stressed refinancing costs for this debt are included in the underwriting assessment. Affordability tests ensure that borrowers can sustain a 5% increase in interest rates and that the debt-to-income ratio (including common debt) does not exceed 5x.

We incorporate this additional debt in our credit analysis but do not apply additional penalties because, in our view, no significant additional risks have been introduced. If common debt is disregarded, the average LTV would only decrease by 60 bps.

SSBB's cover pool is regionally concentrated in the Norwegian oil region. Exposures in Rogaland, Hordaland and Vest-Adger account for 91% of the cover pool. Exposures outside the core region are driven by the bank's provision of financing to local customers. These are exceptions and are only granted to borrowers with above-average credit quality.

Figure 6: Regional distribution by county

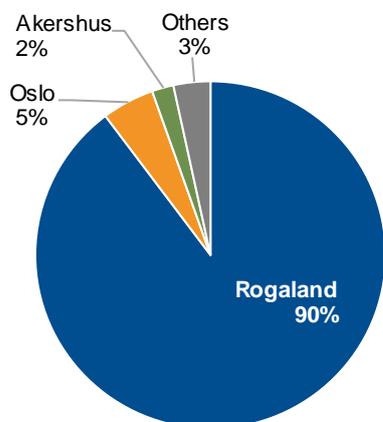
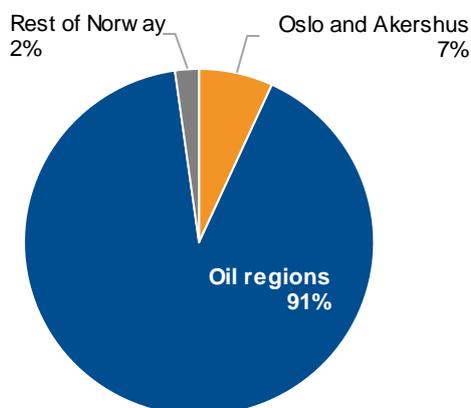


Figure 7: Regional distribution by risk type

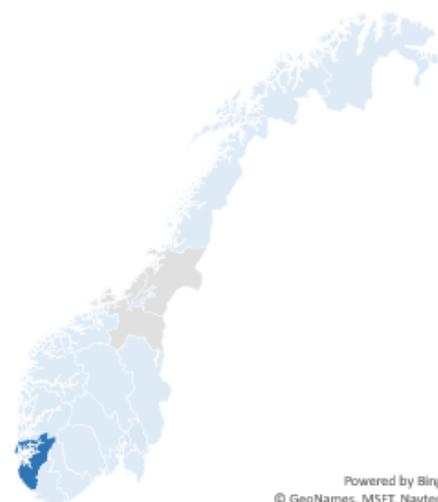


Source: SSBB and Scope

Regional focus on southwestern Norway – the Norwegian oil region

The Stavanger region comprises several small to medium-sized cities of which the largest is Stavanger. It is the third-largest urban area in Norway, located in central Rogaland. In addition to Stavanger, it includes the neighbouring municipalities of Sandnes, Randaberg, and Sola. Stavanger is a leading industrial area in western Norway. Western Norway generates around 70% of the country’s total gross national product. The bank’s home market covers a total of 300,000 people and 26,000 businesses with a current customer base of approximately 42,000 retail customers and 5,000 businesses.

Figure 8: Regional distribution map



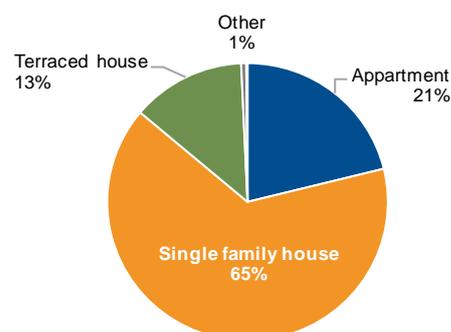
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78% of cover pool composed of single-family or terraced houses

Most of SSBB’s cover pool is backed by mortgage loans secured by single-family or terraced houses (78%). 21% of property types in the pool are apartments.

Around 8% of the mortgage loans have an exposure to common debt from housing associations

Figure 9: Property type



Source: SSBB and Scope

Currently no NPLs as these are typically transferred back to the parent

Low credit risk...

...with mean loss at 3.0% in a stressed scenario...

...and loss in a base case scenario below 10 bps supported by low LTV

Only 0.6% account for exposures to other properties and 0.1% to holiday homes (against which no bonds will be issued).

As of September 2018, there are no non-performing loans (over 90 days past due) in the cover pool. The level of write downs on the portfolio (collective write downs) does not exceed 8 bps. Loans that do not meet SSBB's criteria (e.g. no arrears or non-performing loans) are repurchased by the parent bank.

4.2. Credit risk assessment

We assess the credit risk of SSBB's residential cover pool as low. However, the oil region around Norway's western counties is economically volatile which also impacts unemployment rates. The 2014-15 plunge in oil prices, which affected Norway's economy more than the global financial crisis of 2008, lifted the unemployment rate in Rogaland higher than in the rest of Norway. It has nevertheless remained at a low level of 5%. While past defaults on the bank's residential mortgage loan portfolio remained limited they were higher than for other domestic peers.

Our projections of mortgage loan default use an inverse Gaussian distribution. Based on credit performance data provided by the bank (historical delinquency vintages and loan-level probabilities of default) and benchmarking, we derived an effective, weighted average lifetime mean default rate of 11.5% and a volatility of default (weighted average coefficient of variation) of 60%. The latter factors in the higher sensitivity to economic shocks in the western regions of Norway.

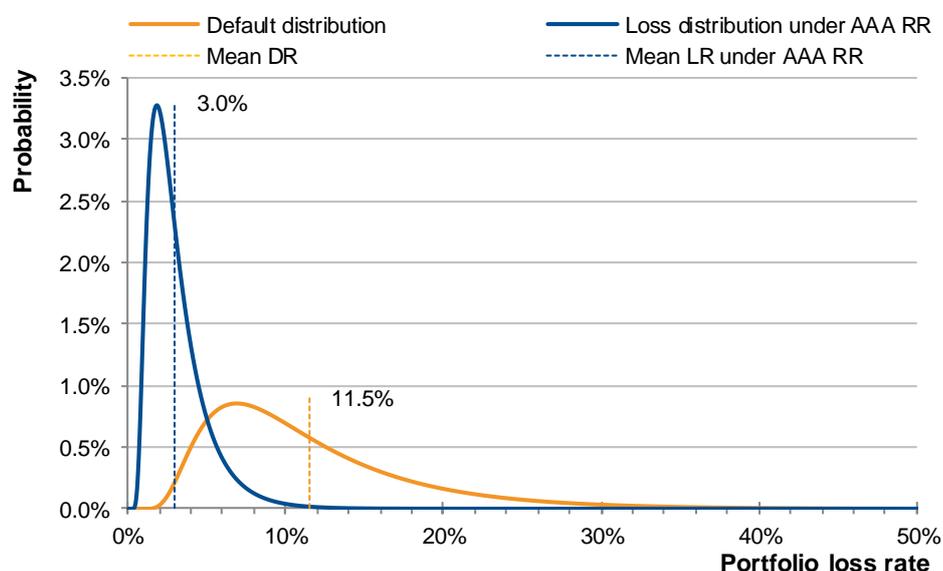
For the mortgage loans in the cover pool we estimate a weighted average recovery rate of 99% under a base case scenario (D0) and 73.8% under the most stressful scenario (D8). The high base case recovery rate is supported by the portfolio's relatively low average LTV. The stressed rate is driven by the haircuts applicable to the region.

The mean default rate together with the stressed recovery rate translates into a mean loss rate of 3.0% for the mortgage loans, compared with a 7 bps mean loss rate under our base case recovery assumptions.

For more details see Appendix I:

Appendix: Quantitative covered bond analysis

Figure 10: Default and loss distribution



Source: Scope

As of September 2018, the cover pool also includes 5.2% of substitute assets. They mainly comprise domestic covered bonds (NOK 289m) and bank deposits (NOK 100m) with a highly rated bank.

We estimated the sub-portfolio's default characteristics using a portfolio analysis framework. The respective non-parametric distributions can be described with a mean default rate of 0.1% and a coefficient of variation of 1,136%. The low default rate and high coefficient of variation reflect the high individual credit quality but also the high obligor concentration in the respective sub-portfolio. We applied a stressed recovery of 40% and a base case recovery of 100% for the substitute assets.

4.3. Market risks

We consider SSBB's market risks, in particular asset-liability mismatches, to be the main driver of supporting overcollateralisation. Interest rate and foreign currency risks are immaterial as assets and liabilities are both floating rate and fully denominated in Norwegian kroner.

4.3.1. Asset-liability mismatch risk

The asset-liability mismatch is moderate and low compared to Norwegian peers. It is driven by the weighted average maturity gap (weighted average life) of 6.8 years between the legal maturity of the mortgage loans (11.6 years) and outstanding covered bonds (4.9 years). Measured by duration, the gap is 4.3 years.

As of 30 September 2018, SSBB had seven covered bonds outstanding totalling NOK 85m-2bn. The bonds are issued as public placements with initial maturities of 6-10 years. The weighted average life for the outstanding covered bonds is 4.9 years¹.

Figure 11: Cash flow characteristics

Currency	Total assets	Net present value	WAM (principal)	Duration	Floating-rate assets	Fixed-rate assets
	NOK	NOK	Years	Years	%	%
NOK	7,488.4	8,424.8	11.6	7.9	100.00	0.00

Currency	Total liabilities	Net present value	WAM (principal)	Duration	Floating-rate assets	Fixed-rate assets
	NOK	NOK	Years	Years	%	%
NOK	6,453.0	6,578.0	4.9	3.6	100.00	0.00

Nominal OC	16.0%	WAM gap	6.8
NPV OC	28.1%	Duration gap	4.3

Source: SSBB and Scope

NOK 1,368m in covered bonds are issued at a fixed rate, with SSBB hedging the fixed coupon into floating until the bonds' scheduled maturity date. During the extension period the bonds pay a floating coupon according to the respective terms and conditions.

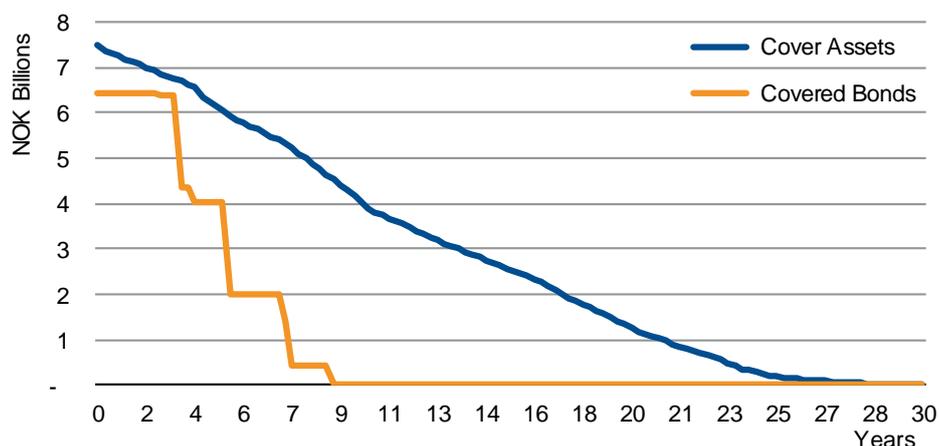
SSBB's mortgage assets have a relatively long redemption profile which is common for Norwegian residential mortgage loans. Amortisation is driven by the 36% of flexible loans which we have assumed are fully drawn and pay interest only until their maturity. Further, another 27% of the mortgage loans have an interest-only period. These loans are split into a cover- and out-of-cover portion. The out-of-cover portion amortises first. The cover portion starts amortising once the 'out-of-cover' loan has been repaid in full.

We also tested the impact of high prepayment rates. This is to reflect the fact that the economic life of the loans is generally much lower than the scheduled maturities. Norwegian borrowers tend to prepay a loan opportunistically before its legal maturity to

¹ Our cash flow analysis reflects the final scheduled maturity of the covered bonds plus the one-year extension (legal maturity).

improve financing conditions, generally by entering into a new contract with a lower interest rate with either the same or a different mortgage bank. Unlike fixed-rate markets there are generally no prepayment fees in Norway which would discourage borrowers from repaying a loan prior to its scheduled maturity.

Figure 12: Cash flow characteristics



Source: SSBB and Scope

In a stand-alone and run-down scenario, current overcollateralisation does not provide sufficient scheduled inflows for the bonds' full repayment at the scheduled or legal final maturity date. This implies the need to sell assets to ensure the full and timely payment of maturing covered bonds and interest due, exposing the programme to risks driven by the assets' disposal.

Stressed disposal proceeds were calculated by discounting the cover pool's remaining cash flows with a liquidity premium.

The balance of the current outstanding covered bonds was used to determine the rating-supporting overcollateralisation.

4.3.2. Interest rate risk

Interest rate risk is limited because after hedges, assets and liabilities are floating rate. The programme is exposed to limited basis risk as borrowers must be notified six weeks in advance of a change in interest rates.

The programme benefits from excess spread. The mortgage assets have a weighted average spread of 129 bps and compare to short-dated covered bonds with a weighted average spread of 42 bps (post hedge and including extension) over the term of the transaction.

4.3.3. Foreign exchange risk

There is no foreign exchange risk as assets and liabilities are denominated in Norwegian kroner. We do not expect any foreign currency-denominated issuances at this stage.

4.3.4. Overcollateralisation

SSBB's covered bond ratings are supported by the cover pool and therefore hinge on the issuer's ability and willingness to provide overcollateralisation above the legal minimum.

Our credit view on SSBB allows us to consider the full available overcollateralisation in our analysis. Applying all credit and market risk stresses, we established that an overcollateralisation of 8.5% can mitigate identified stresses and support the uplift under our rating methodology, giving the programme the highest rating.

Negligible interest rate risks

No foreign exchange risk

Low overcollateralisation sensitivity upon issuer downgrade

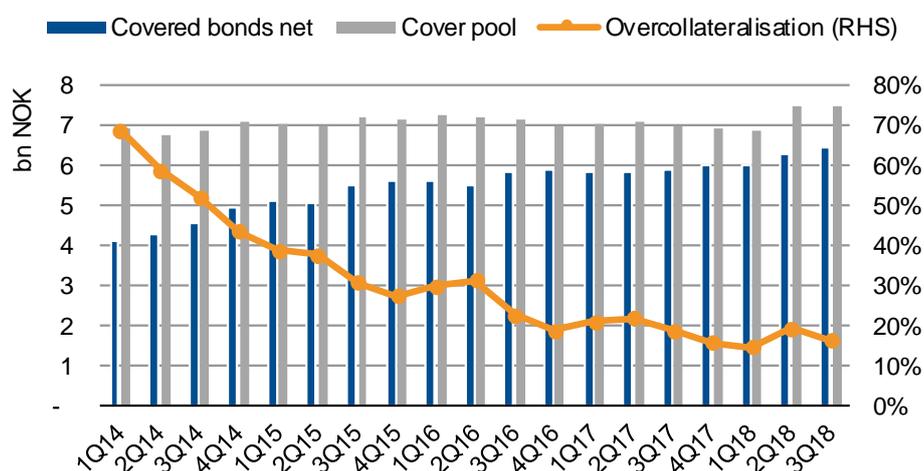
If the issuer rating would be downgraded by one notch, the covered bond rating would not be downgraded and the rating-supporting overcollateralisation would likely be increased to 9%, provided the covered bond programme's credit and cash flow profiles remain the same.

We are not aware of plans involving a significant change to the risk profile or available overcollateralisation that could negatively impact the current rating uplift.

Overcollateralisation is at 16.0% as of September 2018 and has remained above the level of 8.5% (the level supporting the rating) for the last 12 months.

The issuer frequently buys back upcoming maturities in order to replace them with new, longer dated maturities. The bonds which are bought back and retained are registered in the cover pool and accordingly become an asset for the benefit of other covered bond investors. As a consequence, we calculated overcollateralisation based on outstanding issued covered bonds net of retained bonds.

Figure 13: Overcollateralisation levels



Source: SSBB and Scope

4.4. Counterparty risk

The rated covered bonds have counterparty exposure to the issuer and to the issuer's parent as loan originator, servicer, bank account and liquidity facility provider as well as paying agent. There are no documented replacement mechanisms that would, for example, automatically shield the covered bonds from a credit deterioration of counterparties providing bank accounts. However, we believe the strong alignment of interests between the bank and covered bond holders would prevent any negative impact from such risks before regulatory intervention became necessary. The bank's risk management process regularly monitors accounts to ensure that remedial action can be taken early on. We also take a positive view of the use of direct debit for most collections, allowing for a relatively swift redirection of payments if needed.

We do not expect the active management and servicing of the cover pool to be severely impacted in a resolution scenario. At the same time, we assume that the liquidity facility provided by SSB would not be replaced or continued. This liquidity line currently covers all bond maturities for the upcoming 12 months that are not covered by the reserves of SSBB itself.

SSBB issues both fixed and floating covered bonds, while the latter are swapped into floating coupons until the bonds' maturity. The hedges are contracted with SSBB and



accordingly registered for the benefit of the bondholders. As of September 2018, this includes four counterparties, all of which have entered into standard ISDA master agreements with replacement language and collateral postings defined in the corresponding schedule. Although the rating triggers do not reference Scope's counterparty ratings, we view all of the counterparties positively. Firstly, because of the strong ratings of all the counterparties involved, and secondly, because of our view that regulatory intervention would involve available resolution tools with the aim of maintaining operations.

5. Rating stability

We check rating stability based on the current overcollateralisation, the issuer's credit migration and planned issuances.

5.1. Changes to the issuer assessment

SSBB's AAA covered bond ratings are resilient to a one-notch issuer downgrade. Currently, the programme benefits from a two-notch cover pool uplift above fundamental support. Under our methodology, the covered bonds would still have the potential for a further one-notch uplift upon an issuer downgrade. The rating methodology limits the cover pool-specific uplift to three notches, provided overcollateralisation can mitigate identified risks.

5.2. Changes to overcollateralisation

A downgrade of the issuer by one notch would not lead to a downgrade of the covered bond rating. In addition, we would— *ceteris paribus* — likely increase the supporting overcollateralisation to 9% from 8.5%.

6. Sovereign risk

Sovereign risks (particularly macroeconomic risks) do not limit the mortgage-covered bond ratings. We believe the risks of an institutional framework meltdown or legal insecurity problems are currently very remote in Norway (rated AAA, Stable Outlook by Scope²).

7. Data adequacy

We consider the quality of the data provided to be good, considering the cover pool's granularity.

Scope analysts visited SSBB and interviewed key personnel to gain a deeper understanding of the bank's origination, monitoring and workout processes. We also discussed key trends relevant for the development of the cash flow profile, including issuance plans.

SSBB provided both public and confidential information on pool composition, including asset performance data. We reconciled the aggregated cash flow profiles provided by the bank based on detailed asset and liability composition information. This includes detailed loan-level data with relevant credit characteristics of the mortgage segment.

If detailed information on some credit aspects was unavailable, we benchmarked the bank's information with market data and made conservative assumptions. We have ensured as far as possible that sources were reliable before drawing upon them but did not verify each item of information independently.

Changes in our assessment of the bank will not directly impact the covered bond ratings

We consider the detailed cover pool and performance data provided by the bank to be good quality

² The sovereign report on Norway can be found [here](#).



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8. Monitoring

We will monitor this transaction using information provided regularly by the issuer. The ratings will be monitored and reviewed at least once a year, or earlier if warranted by events.

9. Applied methodology

We applied our [Covered Bond Rating Methodology](#) for the analysis of the covered bonds and our [General Structured Finance Rating Methodology](#) for the asset and cash flow analysis. All rating methodologies are available on our website, www.scoperatings.com



I. Appendix: Quantitative covered bond analysis

Credit risk analysis

SSBB's cover pool is granular enough to apply an inverse Gaussian distribution in order to assess the likelihood of defaults. In order to derive the expected loss, we analysed the covered bond programme's cash flows using the default distribution coupled with different market scenarios.

We analysed the substitute asset defaults with a non-parametric distribution performing a Monte Carlo analysis. We assumed a correlation factor of 25% on the covered bonds and 100% on the sovereign/municipal exposure as well as other single exposures within the substitute assets. Conservatively, the issuer rating was used for all exposures to derive a default expectation.

For the analysis of the mortgage collateral, we applied distance-conditional recovery rates as a function of the seven-notch distance between the covered bond rating of AAA and the issuer rating of BBB+.

The applicable seven-notch stress is the difference between the resulting overcollateralisation (floored at zero), applying the highest stress scenario of D8 (anchored at the highest achievable rating of AAA) and D1 stresses anchored at the issuer rating. The stress levels are divided into eight levels because fundamental support provides a five-notch uplift and the cover pool support can provide a maximum three-notch uplift – hence eight stress levels, D0 (base case) to D8.

To establish lifetime default rate assumptions, we analysed the bank's static performance data (delinquency vintages) and considered the one-year probabilities of default (through the cycle) assigned by the bank to each loan. We also analysed the migration matrix provided. We compared default rates and coefficients of variation observed for granular pools of mortgage loans in Norway and other jurisdictions including Denmark, Germany and Austria.

Different default timings were considered. Back-loaded default scenarios are not as severe for OMF because of their relatively short lives.

Rating-conditional security-value haircuts

We calculated the recovery rate on the mortgages by analysing movements in the collateral's market value³. The recovery analysis considers the distance to a long-run or sustainable price for the underlying asset, as well as fire-sale discounts, for instance during a property's foreclosure.

We relied on fundamental recovery analysis because the security represents first-lien claims on the underlying real estate properties. Our legal analysis established that the security cannot be challenged from a legal standpoint.

³ We applied our covered bond analysis framework but also used our General Structured Finance Methodology to establish market value haircuts and rating-distance conditional recovery assumptions.

Norwegian residential total security value haircuts

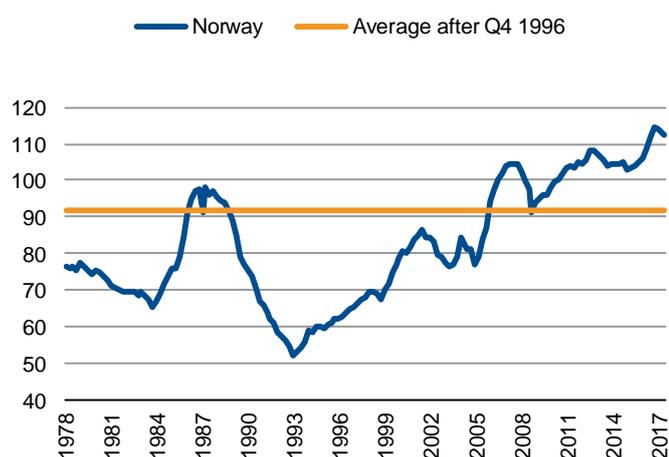
We analysed the current Norwegian property market to derive total security value haircut assumptions specific to the three regions which exhibit different trends and risk characteristics: i) Oslo and Akershus; ii) the oil regions (Rogaland, Hordaland, Vest-Agder); and iii) the rest of Norway.

We analysed the house price indices provided by Statistics Norway to derive market value declines. Using the nominal house price index, indices were reduced with region-specific, sustainable deflation factors. We then used these to measure current over/undervaluation from the sustainable average in the different regions.

At the D8 stress level we tend to capture long-term observed volatility levels in addition to current over/undervaluation. Regional differences could be captured by using the affordability index for Norway. We therefore also analysed the affordability index provided by the OECD, along with house price indices, to capture long-term observed volatility.

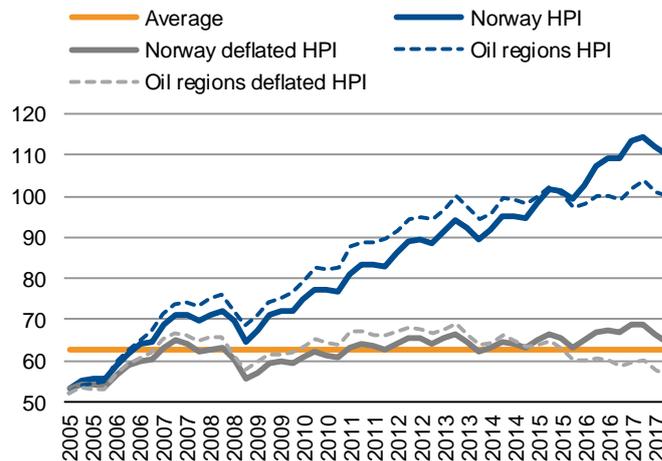
We derived a D8-level of observed volatility stress from the OECD's house price affordability index for Norway, assuming a volatility of 45% for the scenario with the highest credit differentiation, based on the average affordability index minus two standard deviations.

Figure 14: Affordability index



Source: OECD and Scope

Figure 15: House price index (HPI) – Norway/oil regions



Source: Statistics Norway and Scope

This gives us market value declines for D8 and D0 levels as follows:

$$\text{Market value decline (D8)} = 1 - (1 - \text{D8 volatility adjustments}) * (\text{regional over/undervaluation})$$

$$\text{Market value decline (D0)} = \text{regional over/undervaluation}$$

The next step in our analytical approach was to derive fire-sale discount assumptions. Fire-sale discounts reflect our view that the properties are expected to be sold under non-standard market or distressed conditions due to several factors such as asset deterioration or insufficient competition in the auction process. We assumed a fire-sale discount of 20% for Norway, which was supported by the issuer's data.

Total security value haircut assumptions were derived based on the following equation:

$$\text{Total security value haircut} = 1 - (1 - \text{market value decline}) * (1 - \text{fire-sale discount})$$

We derived intermediate rating stresses through a linear interpolation between the D0 and the D8 scenarios.

The lower total security haircut applicable to most of Sandnes' mortgage properties (oil regions) is driven by the moderate house price increase in recent years for this area. In the western counties, sharp house price increases after the financial crisis in 2006 were already corrected during the last oil crisis (2014-2016). Accordingly, we expect any additional decline in house prices following an economic shock to be low compared to the rest of Norway – where a considerable correction of accelerating house prices has not yet taken place.



In addition to the total security value haircut, we also applied illiquidity adjustments for large properties. Generally, the market for larger properties is less fungible than for 'standard' properties. Therefore, a swiftly realised freehand sale may only be possible if additional price concessions are made.

For the most stressful scenario we applied an additional stress of 5% for properties valued above NOK 5m, 13% for properties above NOK 10m, and 20% for properties above NOK 20m. Under D0 or base case scenarios no stresses were applied. We linearly interpolated the stress levels between D0 and D8.

Figure 16: Total security value haircuts for Norway

Regions	D8	D7	D6	D5	D4	D3	D2	D1	D0
Oslo and Akershus	60.0%	55.6%	51.3%	46.9%	42.5%	38.1%	33.8%	29.4%	25.0%
Oil regions	52.5%	48.4%	44.4%	40.3%	36.3%	32.2%	28.1%	24.1%	20.0%
Rest of Norway	57.5%	53.4%	49.4%	45.3%	41.3%	37.2%	33.1%	29.1%	25.0%

Source: Scope

Figure 17: Illiquidity adjustments

Property value, NOK m	D8	D7	D6	D5	D4	D3	D2	D1	D0
< 5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5 - 10	5.0%	4.4%	3.8%	3.1%	2.5%	1.9%	1.3%	0.6%	0.0%
10 - 20	13.0%	11.4%	9.8%	8.1%	6.5%	4.9%	3.3%	1.6%	0.0%
>20	20.0%	17.5%	15.0%	12.5%	10.0%	7.5%	5.0%	2.5%	0.0%

Other parameters

The highest stress assumptions only apply in the scenarios which, if passed, allow our maximum credit differentiation between the issuer and its covered bonds.⁴

Liquidity premium. We applied 150 bps as an additional and most stressful liquidity premium to discount Norwegian residential mortgage loans and 150 bps for the substitute assets (mostly Norwegian covered bonds). The liquidity premium was determined by analysing the historical trading spreads of Norwegian mortgage-covered bonds and by benchmarking against other core covered bond countries' trading spreads.

Market risk stresses. In our cash flow analysis, we assumed deterministic interest rate stresses, applying a common framework to establish the stresses. This allowed us to establish stresses that equate to the maximum achievable rating uplift.

Interest rate analysis. We tested the rated OMF against several scenarios with rising and falling interest rates. The programme is most sensitive to a scenario in which interest rates rise after two years and plateau at 10%. For further details see our Covered Bond Rating Methodology.

Recovery timing. We assumed a recovery lag of 24 months for residential loans originated by SSBB and 48 months for the substitute assets (bonds). Recovery timing for the mortgage loans was based on an analysis of Norwegian enforcement processes and the potentially less fungible mortgage market in the south-west region.

Prepayment rate assumptions. We tested constant prepayment rate assumptions of 0% and 15% for all cover assets. Sensitivities towards 25% were also tested. The high maturity gap in combination with a low (0%) constant prepayment rate results in the most stressful scenario, primarily due to the additional liquidity discount applied to Norwegian residential mortgage loans. We assumed that the cash account pays interest equal to the respective reference rate (no spread). This limits the programme's sensitivity to negative carry in a high prepayment scenario.

Servicing fee. We applied country- and asset-type-specific servicing fees to be paid by the cover pool annually. We assumed a servicing fee of 25 bps for the residential mortgage loans, and 10 bps for the substitute assets.

⁴ The maximum credit differentiation between the rating of the issuer and its covered bonds is typically determined by our fundamental assessment of the legal and resolution framework. Our methodology states that the maximum credit differentiation can only be three notches higher than this fundamental uplift. We determined fundamental support of five notches for the issuing bank. According to our methodology, the maximum uplift is eight notches (5+3).



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II. Appendix: Summary of covered bond characteristics

Reporting date	30.09.2018
Issuer name	SSB Boligkreditt AS
Country	Norway
Covered bond name	Obligasjoner med fortrinnsrett Norwegian mortgage-covered bonds
Covered bond legal framework	Norwegian legal covered bond framework
Cover pool type	Residential mortgages loans
Issuer rating	BBB+ / Positive
Covered bond rating	AAA / Stable
Covered bond maturity type	Soft bullets (one-year extension)
Cover pool currency	NOK (100%)
Covered bonds currency	NOK (100%)
Fundamental cover pool support (notches)	5
Max. achievable covered bond uplift (notches)	8
Potential covered bond rating buffer	2
Cover pool assets (NOK m)	7,488
Covered bonds (NOK m)	6,453
Substitute assets (NOK m)	389
Current overcollateralisation/ legal minimum overcollateralisation	16.0% / 2.0%
Overcollateralisation to support current uplift	8.5%
Overcollateralisation to support rating upon a one-notch issuer downgrade	9.0%
Weighted average seasoning of mortgage loans (years)	4.8
Duration/weighted average maturity of assets (years)	7.9 / 11.6
Duration/weighted average maturity of liabilities (years) ¹	3.6 / 4.9
Duration gap/weighted average maturity gap (years)	4.3 / 6.8
Number of obligors ³	4,342
Average loan size (NOK '000s)	1,484
Top 10 exposures	1.2%
Top 20 exposures	2.1%
Interest rate type – cover pool	100% floating
Interest rate type – covered bonds	100% floating
Weighted average loan-to-value	54.9%
Geographic split (top 3)	Rogaland (90%); Oslo (5%); Akershus (3%)
Default measure	Inverse Gaussian
Weighted average default rate	11.5%
Coefficient of variation	60%
Weighted average recovery assumption (D0/D8) ²	99.4% / 73.8%
Current share of loans > 3 month in arrears	0%
Interest rate stresses (min./max.; currency-dependent)	-1% / 20%; no
Foreign exchange stresses (min./max.; currency-dependent)	n/a
D8 liquidity premium ² (mortgage loans/substitute assets)	150 bps / 150 bps
Servicing fee (mortgage loans/substitute assets)	25 bps / 10 bps

¹Including the 12-month extension

²D0 and D8 denote the stresses commensurate with the rating distance between the issuer rating and the covered bond ratings

³Multiple borrowers with reference to the same loan/property were grouped as one borrower



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