

Article Title: Criteria | Corporates | Utilities: Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property Data: (EDITOR'S NOTE: —On March 3, 2020, we republished this criteria article to make nonmaterial changes. See the "Revisions And Updates" section for details.) 1. S&P; Global Ratings is publishing its criteria for rating utility first mortgage bonds. These criteria supersede "Criteria: Changes To Collateral Coverage Requirements For '1+' Recovery Ratings On U.S. Utility First Mortgage Bonds." 2. This article is related to "Principles Of Credit Ratings." I. SUMMARY 3. This article describes S&P; Global Ratings' methodology for assigning recovery ratings for corporate utility debt secured by a pledge of real property, called by various terms such as a first mortgage bond (English law), hypothec (Scots law), and hypothèque (French law). Such debt is generically called a secured utility bond (SUB) herein. 4. The criteria represent a change to our approach to assigning recovery ratings to utility SUBs (see "S&P; Global Ratings Definitions"). 5. This criteria for recovery ratings and issue rating notching for SUBs clarifies several areas: Specifying the scope of the criteria as global and applicable when the utility operates in the most creditor-friendly type of insolvency regime, listed as a "Group A" regime under our jurisdiction-specific adjustment criteria, (see "Methodology: Jurisdiction Ranking Assessments") and when we determine that the utility's regulator has a mandate to set rates or tariffs high enough for the utility to recover prudently incurred costs, including all debt costs and a fair return of and on its capital, after default; Clearly defining "utility," "SUB," and "regulated capital value" (RCV), which is our calculation of the value of the collateral pledged to SUB holders; and, Changing the amount of SUBs outstanding at default used in our calculation of nominal recovery expectations. We previously assumed that the maximum amount permitted under the mortgage indenture would be outstanding upon default. We now use the amount outstanding at the time of the recovery analysis. II. SCOPE OF THE CRITERIA 6. The criteria apply to ratings on SUBs issued by investor-owned or privatized utilities in countries where we have classified the insolvency regime in "Group A" (see "Methodology: Jurisdiction Ranking Assessments"). 7. For the purposes of these criteria, a "utility" is a company that offers an essential or near-essential product or service with little or no practical substitute, a stable business model that is legally shielded from competition, and is subject to comprehensive regulation of its rates, service quality, terms of service, and financial condition by an independent regulator with an established history of protecting asset values through various economic and political environments. 8. For the purposes of these criteria, a "SUB" is defined as senior secured debt with a priority right to payment upon default, a first lien on substantially all real property, and restrictions on additional issuances, which in combination with the stable value of utility real property offer a very strong degree of security to bondholders if a default occurs. 9. This paragraph has been deleted. 10. This paragraph has been deleted. III. RECOVERY METHODOLOGY 11. Based on the limited number of utility defaults, we expect a utility default to likely stem from a lack of liquidity connected to a sudden and unpredictable weather, cost, or market event outside the utility's control that is not resolvable through regulatory or legislative processes. We believe a default precipitated by such an event, which develops over a short time horizon, would be strategic in nature, aimed at resolving a regulatory impasse while anticipating the need to preserve some liquid resources to maintain operating capabilities for its essential services. Accordingly, our standardized path to default assumes that the bankruptcy would be resolved through reorganization and not liquidation. 12. We think the value of the utility's assets is likely to be preserved because the default is not tied to a failure of its business model, and because the bankruptcy would be likely resolved through a reorganization that would leave the assets, and their long-term value, intact. In addition, the rapidity of the events in the default scenario suggests that the urgent need for liquidity would be largely met through unsecured bank borrowings and other unsecured short-term sources of liquidity and not through additional SUB issuances. A. Evaluating a regime's creditor-friendliness 13. To apply these criteria, the utility must operate in a creditor-friendly regime identified by two necessary conditions. First, the utility must operate in a "Group A" insolvency regime, using our jurisdiction-specific adjustment criteria (see "Methodology: Jurisdiction Ranking Assessments"). The classification indicates that the regime offers a strong level of security interest for creditors, sufficient opportunity for creditor participation and influence in insolvency proceedings, a distribution of values in insolvency that generally provides for the certainty of creditor priorities, and timely resolution of insolvency proceedings. The second condition is that the utility operates in a

jurisdiction where the regulator has a mandate to set rates high enough for the utility to recover prudently incurred costs, including all debt costs and a fair return of and on its capital. B. Determining valuation 14. We gauge the recovery prospects by using RCV (formerly called "net utility assets") when it emerges from bankruptcy. Where regulators have a mandate to set rates high enough for the utility to recover prudently incurred costs, including the opportunity to earn a return of and on its invested capital, we expect the post-bankruptcy value of a reorganized utility's real assets to remain largely intact. 15. We use RCV as an estimate of the value of the collateral available to SUB holders to satisfy claims in a bankruptcy proceeding. In most cases, we define RCV as net property plant and equipment. If the utility is regulated based on a different basis than original cost (e.g., fair value or replacement cost), we may use a different figure if appropriate. We may also reduce the RCV if we have evidence that full recoverability through rates is problematic and therefore the value of RCV is likely to be impaired. For instance, if construction cost overruns at a power plant have attracted attention from regulators and could result in a disallowance, we would conservatively use the original cost estimate of the plant in our calculation of the RCV. C. Identifying and estimating secured debt 16. We project no additional SUBs beyond the currently outstanding amount, because we believe a typical utility bankruptcy will be preceded by an abrupt and urgent need for liquidity that the utility will likely meet through unsecured short-term bank borrowings with no additional SUB issuance. With a standard path to default now recognized, we no longer base our estimate of the outstanding SUBs at default on a calculation of the maximum amount permitted under the mortgage indenture. D. Assigning recovery ratings and issue ratings Recovery Rating Scale And Issue Rating Criteria-Utility SUBs RECOVERY RATING RECOVERY DESCRIPTION NOMINAL RECOVERY EXPECTATIONS AA CATEGORY AND ABOVE ICR A CATEGORY ICR BBB CATEGORY ICR SPECULATIVE-GRADE ICR§ 1+ Highest expectation, full recovery 100%* 0 notches +1 notch +2 notches +3 notches 1 Very high recovery 90%-100%¶ 0 notches 0 notches +1 notches +2 notches *Highest expectation of full recovery resulting from significant overcollateralization (at least 150%) and strong structural features. ¶For investment-grade utilities, very high confidence of full recovery resulting from at least full collateralization (100%-less than 150%) and strong structural features (compared with greater than 90%, but less than 150%, for speculative grade utilities). §The calculation of nominal recovery rates for speculative-grade issuers is after accounting for the impact of priority claims such as administrative bankruptcy expenses and includes an estimate of six months of accrued interest at default. Given the regulatory limits on debt in the sector and the resiliency of the value of regulated utility assets even in a default scenario, we do not expect recovery expectations to fall below 90%. ICR--Issuer credit rating. 17. We estimate recovery by dividing the RCV by the current outstanding amount of SUBs. We then map the recovery to the utility-specific recovery rating chart (see table above) to determine the issue and recovery ratings 18. We apply graduated notching enhancement on the SUBs of investment-grade ('BBB-' and above) issuers. We do this because as default risk decreases, the concern over what can be recovered takes on lesser relevance and therefore lesser rating significance. Accordingly, the loss-given-default aspect of ratings is given less weight as one moves up the rating spectrum. Conversely, we apply more notching uplift on the SUBs of speculative-grade ('BB+' and below) issuers, as the likelihood of an actual default is higher and recovery is a more meaningful consideration. 19. For SUBs we require significant overcollateralization and strong structural features to justify a '1+' recovery rating ("highest expectation, full recovery"). We assign a '1+' recovery rating to utility SUBs only when our analysis indicates that collateralization meets or exceeds 150%. We set a level of overcollateralization for SUBs because there is less certainty about collateral values when default is a more remote possibility. The necessary strong structural feature is a limitation on the issuance of additional SUBs. 20. We assign a recovery rating of '1' ("very high recovery") when collateralization is between 100% and less than 150% and the security has a limitation on the issuance of additional SUBs. IV. REVISIONS AND UPDATES This article was originally published on Feb. 14, 2013. These criteria superseded "Changes To Collateral Coverage Requirements For '1+' Recovery Ratings On U.S. Utility First Mortgage Bonds," published on Sept. 6, 2007. Changes introduced after original publication: On Jan. 22, 2016, we updated references to our new criteria for assigning jurisdiction ranking assessments, updated the authors, and removed two outdated sections. Following our periodic review completed on Jan. 26, 2017, we updated criteria references. Following our periodic review

completed on Jan. 26, 2018, we updated criteria references. On March 18, 2019, we republished this criteria article to make nonmaterial changes to the contact information and outdated criteria references. On March 3, 2020, we republished this criteria article to make nonmaterial changes to criteria references. V. RELATED CRITERIA AND RESEARCH Related Criteria Reflecting Subordination Risk In Corporate Issue Ratings, March 18, 2018 Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016 Methodology: Jurisdiction Ranking Assessments, Jan. 20, 2016 These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.