Article Title: ARCHIVE | Criteria | Insurance | General: Key Credit Factors For The Mortgage Insurance Industry Data: (EDITOR'S NOTE: —This criteria article is no longer current. It has been superseded by "Insurers Rating Methodology," published July 1, 2019.) 1. S&P; Global Ratings assesses the credit quality of mortgage insurers by applying its insurance framework criteria, "Insurers: Rating Methodology," published May 7, 2013, except for the differences discussed in this Key Credit Factors (KCF) article. This KCF should be read in conjunction with "Methodology: Mortgage Insurer Capital Adequacy" (the "MI capital model"), published March 2, 2015, and "Principles Of Credit Ratings," published Feb. 16, 2011. 2. These criteria partly amend "Insurers: Rating Methodology" by expanding its scope as described below. For insurers already in scope of the insurance framework with no significant mortgage (re)insurance business, there is no change. The criteria constitute specific methodologies and assumptions under "Principles of Credit Ratings," published Feb. 16, 2011. SCOPE OF THE CRITERIA 3. The criteria apply to all global-scale foreign and local currency, long-term issuer credit, financial strength, and financial enhancement ratings on mortgage insurers and insurers or insurance groups for which mortgage insurance is a material part of the business. SUMMARY OF THE CRITERIA 4. We rate mortgage insurers by applying S&P; Global Ratings' insurance ratings framework (as well as the criteria in the Related Criteria section). We assess MI in the same way as other insurers in the scope of the framework except for the following factors which, in our view, warrant specific methodologies for this sector: Insurance industry and country risk assessment (IICRA), reflecting the structural aspects of the mortgage and housing markets, the regulatory environment, the products provided, and the state of relevant macroeconomic factors; Competitive position, to take into account the monoline nature of the industry as well as the limited number of writers; Capital and earnings, which incorporates the factors discussed in the MI capital model criteria; and Liquidity. 5. This paragraph has been deleted. See the "Revisions And Updates" section. METHODOLOGY Insurance Industry And Country Risk Assessment 6. The IICRA addresses the risks typically faced by insurers operating in specific industries and countries, and is generally determined at a country or regional level. The IICRA provides the context for our analysis of an insurer's business risk profile because industry and country risks are closely linked with the analysis of competitive position, as is the case for most corporate sectors. We assess nine IICRA subfactors in the analysis of insurance companies. 7. For mortgage insurers, we apply the IICRA criteria from the framework (see section VI.B2 of "Insurers: Rating Methodology") with three specific differences for MI: paragraph 31, discussing the stage of market development; Table 4: Alternative Metrics For Assessing Return on Equity [ROE], the fifth IICRA subfactor; and paragraphs 47-52, Product risk [the sixth IICRA subfactor] in the framework. 8. Each MI sector in countries where we rate mortgage insurers receives an IICRA assessment unless there is insufficient information. In this case, we will default to the property/casualty (P/C) IICRA assessment for that country. Paragraphs 9-11 below address the specific methodologies where MI IICRA will be assessed differently than for other insurance sectors in the scope of the framework. MI-specific application of IICRA criteria 9. In the framework, we may assess a life, health, or P/C insurance market as less developed if premiums are less than 1.5% of GDP (see paragraph 31 of the framework). Less-developed markets have IICRA scores capped at "moderate." To assess an MI market as less developed, we substitute premiums of less than 1.5% of GDP with the percentage of insured mortgages in the mortgage origination market, which is more reflective of the development of this particular market. This figure includes both private- and public-sector mortgage insurance. We expect markets where mortgage insurance is written on under 10% of the total originations to constitute a less-developed market, where the MI IICRA assessment is limited to "moderate." ROE: Alternative metrics 10. The framework assesses the fifth subfactor, ROE, based on the ROE of at least 60% of industry participants by premiums (including all rated participants) if available, or else of all rated participants. This may be based on individual insurer data or aggregated data produced by regulators or industry associations. For MI, while we retain ROE as the primary metric, when ROE is not available we use alternative metrics to inform our view of the sector's earnings (see table 1, which for MI would substitute table 4 of the framework). Table 1 Alternative Metrics For Assessing Return On Equity 1 (POSITIVE)* 3 (NEUTRAL)* 6 (NEGATIVE)* Return on revenue and combined ratio We expect the average return on revenue to exceed approximately 60% and the average combined ratio to be approximately 60% or lower. The assessment is neither positive nor negative. We expect an average

return on revenue of approximately 20% or lower or an average combined ratio that exceeds approximately 100%. *Unless there is insufficient evidence to form an opinion or the available evidence suggests excessive risk-taking is taking place, in which case the assessment is "negative" (see paragraphs 44 and 45 of the framework). Product risk 11. Some product-specific elements can cause ROE, or the metrics in Table 1, to be more volatile over time (see paragraph 47 of the framework for more detail). We may identify and assess further industry- or country-specific sources of volatility stemming from product risk. For mortgage insurers, these product risks are different from the product risks affecting P/C, life, and health insurers. Examples of product risks affecting MI include: Structural aspects of the mortgage market, including the structure of lending and funding mechanisms, legal regime, lender accountability, borrower recourse, and the tax deductibility of mortgage interest payments; Portfolio risks, including the type of loans, credit risk characteristics, and the quality of underwriting; and Macroeconomic risks relevant to MI, including employment levels, house prices, and consumer debt levels. Competitive Position 12. Under the framework, we assess the level of an insurer's competitive position under six subfactors as "positive," "neutral," or "negative" (see table 5 of the framework): Operating performance, Differentiation of brand or reputation, Market position, The level of controlled distribution channels, Geographic diversification, and Other diversification. 13. For competitive position, to take into account the differences between the mortgage insurance sector and the broader insurance sector, we use a specific application to MI regarding market position, geographic diversification, and other diversification. The remaining subfactors remain unchanged from the framework. Market position 14. Market position is assessed primarily by an insurer's share of gross premiums for the market where it participates. When assessing market share, we use new insurance written (NIW) or the international equivalent instead of gross premiums. Our assessment of NIW and market position is guided by our view of whether the insurer is achieving NIW due to inappropriate pricing relative to the risk it is insuring, which could ultimately affect the longer-term profitability of the company. In addition, in Table 7 of the framework, we add mortgage insurance as an additional P/C line of business. Geographic diversification 15. Diversification, particularly geographic, is fundamental to the insurance business. The subfactor is assessed as "positive," "neutral," or "negative" based on: The insurer's geographic presence, i.e., the insurer's footprint in the context of the surface area and size of markets where it writes business; and The level of insurance penetration, defined as the ratio of life and P/C premiums to GDP, in that geographic area. 16. We define insurance penetration for MI as the percentage of insured mortgages in the mortgage origination market. We expect markets where mortgage insurance is written on greater than 10% of the total originations to constitute high penetration and all others to be low penetration. Other diversification 17. As mortgage insurers are typically monoline companies, we typically assess other diversification as "negative." Capital And Earnings 18. Capital and earnings measures an insurer's ability to absorb losses by assessing capital adequacy prospectively, using quantitative and qualitative measures. Under the framework, an insurer's capital and earnings are assessed according to three subfactors: Regulatory capital adequacy, Capital adequacy, and Representativeness of modeling. Capital adequacy 19. The capital adequacy subfactor considers capital prospectively by evaluating the amount of capital available relative to capital requirements that an insurer is likely to hold over the current and next two years to cover, over the expected life of its portfolio, losses from the various risks it carries. To assess capital adequacy for mortgage insurers (paragraph 97 of the framework), we apply the framework except that an MI-specific capital model would assess the sources (rather than total adjusted capital [TAC]) and uses (rather than risk-based-capital [RBC] requirements) of capital (as detailed in the MI capital model criteria). Also, for MI, Table 2 replaces Table 9 of the framework. Table 2 Capital Adequacy Assessment For Mortgage Insurers SCORE ASSESSMENT GUIDANCE 1 Extremely strong Prospective sources of capital exceed prospective uses at the 'AAA' stress level. 2 Very strong Prospective sources of capital are below the prospective uses at the 'AAA' stress level but above, or only slightly below, the prospective uses at the 'AA' stress level. 3 Strong Prospective sources of capital are slightly above the prospective uses at the 'A' stress level, but significantly below the prospective uses at the 'AA' stress level. 4 Moderately strong Prospective sources of capital are significantly above the prospective uses at the 'BBB' stress level, but slightly below the prospective uses at the 'A' stress level. 5 Upper adequate Prospective sources of capital are slightly above the prospective uses at the

'BBB' stress level, but significantly below the prospective uses at the 'A' stress level. 6 Lower adequate Prospective sources of capital are at or near the prospective uses at the 'BBB' stress level. 7 Less than adequate Prospective sources of capital are at or near prospective uses at the 'BB' stress level. 8 Weak Prospective sources of capital are significantly below the prospective uses of capital at the ‘BB’ stress level. Note: Rating symbols in this table refer to "stress levels" according to the MI capital model. 20. Our approach is different from the present value RBC approach, which addresses the multiline insurers we rate. For multiline insurers, forecasting sources and uses is extremely complex. Although the RBC model measures the impact of the stressed risk variables over the expected lives of the assets and liabilities, the volatility used to create the stressed scenarios is based on potential movements expected over one year. In other words, we are seeking to capture the present value of expected economic losses (change in shareholder equity/policyholder surplus) experienced over a year, to a degree of confidence that is commensurate with the rating. In addition, the RBC output of the multiline insurance model allows for an implicit line of business diversification credit--a feature not applicable to mortgage insurers. 21. Some of the scoring benchmarks in Table 2 differ from those in the insurance framework, because of differences between the MI capital model and the insurance capital model. The MI capital model is based on a 10-year projection of capital sources and uses at various stress levels, where "sources" are primarily initial capital and premium and investment income, and uses are primarily insured losses (net of reinsurance recoveries) and general and administrative expenses. This differs from the insurance model, which is a point-in-time capital model that compares current capital with risk charges at the various stress levels, and projects capital and risk charges forward. Also, the MI model is calibrated to include stresses at the 'AAA', 'AA', 'A', 'BBB', 'BB', and 'B' levels, whereas the insurance model does not calibrate below the 'BBB' stress level, using the magnitude of the deficiency to the 'BBB' stress as a benchmark for the "less than adequate" and "weak" scores. 22. The output of the RBC adequacy model for the multiline insurers is expressed as present value risk-adjusted capital being either redundant or deficient across targeted levels of risk-adjusted capitalization, consistent with the stress level. For MI, we analyze future values of sources and uses of funds rather than present values, thereby avoiding market perception of any weakness in the RBC, such as which discount rate to apply, while retaining a view of the ultimate capital needs of the entity under different stress levels as its insured portfolio runs off. Representativeness of modeling 23. The representativeness of modeling subfactor determines whether the analysis of prospective capital adequacy has overstated or understated capital and earnings. With respect to paragraphs 117 and 118 of the framework, we do not apply to MI the "moderately negative" cap for companies below $1 billion TAC and the "negative" cap for companies below $250 million TAC. These are not relevant for MI, as the MI capital model is consistent with RMBS criteria, which addresses much smaller and less diversified pools of assets. 24. The assumption underlying the loan portfolio credit risk is that the exposure is geographically diversified in line with the historical origination trends or population distribution. As the geographic concentration of properties securing the underlying mortgages increases, the overall default risk generally increases because a localized economic downturn would have a greater impact on a concentrated pool than it would on a diversified pool of loans. Our view of capitalization can be weighed down by significant geographic concentration in the portfolio, making the MI more susceptible to regional housing market downturns; thus, we may assess representativeness of modeling as either 'moderately negative' or, if concentration is particularly pronounced, 'negative' and we may score the financial risk profile as 'very weak' or 'extremely weak.' Liquidity 25. Under our framework, the liquidity analysis centers on an insurer's ability to cover its liquidity needs, both on an ongoing basis and in moderately stressful market and economic conditions. The analysis is absolute, rather than relative to peers. An insurer's liquidity assessment results from that of four subfactors: Coverage of the insurer's confidence-sensitive liabilities; The possibility that the insurer would need to post collateral; The implications of covenants and ratings triggers in the insurer's financial arrangements; and The insurer's liquidity ratio. 26. In assessing the liquidity ratio for mortgage insurers, we also consider in the numerator premiums collected and investment income expected over the next 12 months. The denominator includes no net reserve charge, net catastrophe charge, or net premium charge. The net reserve charge contemplates circumstances wherein adverse deviation could result in an immediate claim payment, circumstances which we have not found to have had a significant impact on short-term liquidity needs within this

sector. As well, MI is not subject to catastrophic events that would cause a need for more immediate claim payments, obviating the need for a catastrophe charge. With regards to the net premium charge, in an environment of heightened claims, new business is assumed to decline significantly (a substantial portion of the premiums written and received would be from the book currently in force at the beginning of the stress period). Instead, we use the following liquidity ratio for MI: 27. The risk charges for the stressed liquid assets in the numerator are as per paragraph 197 of the framework. GLOSSARY House price index An index measuring the price changes of residential housing from period to period. Loan-to-value (LTV/LVR) ratio The ratio of the mortgage loan amount to the lesser of the property's appraised value or sale price. Loan type Loan types refer to the specification of a loan, including the loan term, requirements, and amortization. Mortgage insurance Mortgage insurance is an insurance policy that protects mortgage lenders from borrower defaults. The MI policy coverage can be purchased for a percentage of the loan value and covered costs or for the full amount. In the U.S., MI policy coverage on a loan is typically provided within a range of 20%-35% while in Canada and Australia MI covers 100% of the eligible claims. New insurance written (NIW) Original loan amounts on policies written during the current reporting period. Unemployment rate Percentage of labor force that is unemployed. REVISIONS AND UPDATES This article was originally published on March 2, 2015. The criteria became effective as of the publishing date. Changes introduced after original publication: Following our periodic review completed on March 15, 2016, we updated the contact information, updated criteria references, and deleted paragraph 5, which was related to the initial publication of these criteria and no longer relevant. Following our periodic review completed on March 6, 2017, we updated the contact information and criteria references. Following our periodic review completed on March 6, 2018, we deleted text related to the initial publication of the criteria, which had previously been moved to the "Revisions And Updates" section and was no longer relevant. RELATED CRITERIA AND RESEARCH Related Criteria Methodology: Mortgage Insurer Capital Adequacy, March 2, 2015 Enterprise Risk Management, May 7, 2013 Insurers: Rating Methodology, May 7, 2013 Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012 Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings, Oct. 1, 2012 Principles Of Credit Ratings, Feb. 16, 2011 Refined Methodology And Assumptions For Analyzing Insurer Capital Adequacy Using The Risk-Based Insurance Capital Model, June 7, 2010