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 (EDITOR'S NOTE: —On Jan. 12, 2023, we republished this criteria article to make nonmaterial changes, including those related to the archival of "Guidance: Alternative Investment Funds Methodology," published Jan. 13, 2020. See the "Revisions And Updates" section for details.)

OVERVIEW AND SCOPE 1. These criteria comprise S&P's Global Ratings' global framework for rating alternative investment funds, as well as the methodology for assessing their stand-alone creditworthiness. 2. The criteria apply to all global scale, foreign and local currency, long-term issuer credit ratings on alternative investment funds (AIFs). 3. AIFs in scope of the criteria have creditworthiness that is tied to the investments they make, trading strategies they employ, and funding structures they maintain. They are typically set up through a fund structure, such as private equity funds or hedge funds. 4. AIFs can also be entities with similarities to a fund. These entities may have characteristics similar to investment holding companies or securities firms. However, we view them as different typically due to their funding structures, which may consist of permanent or nonpermanent capital, and their investment objectives. Entities in scope may also have other varied characteristics that we can assess using the framework (see the "Alternative Investment Fund Structures" section in the Appendix). 5. The criteria also apply to ratings on these entities' financial obligations other than hybrid instruments. We typically do not have recovery ratings because the analysis is essentially already largely based on a liquidation or asset maturity analysis. The criteria do not apply to any entity with unsustainable financial commitments or that has obligations vulnerable to nonpayment. Instead, we use our 'CCC' rating criteria (see Related Criteria). METHODOLOGY 6. The criteria describe how we assess the stand-alone credit profile (SACP) of AIFs. The SACP, together with the support framework, determines the issuer credit rating (ICR). Determining The Rating: Key Steps 7. The SACP is forward-looking and is based on an assessment of the following rating factors (see chart): Stressed leverage, Risk position, Funding, Liquidity, Jurisdictional risk, Track record and investment performance, Risk management, and Transparency and complexity. 8. We determine the long-term ICR on an AIF as follows: The risk-adjusted leverage assessment is based on our analysis of an AIF's stressed leverage, modified by the risk position adjustment. The funding and liquidity assessment is based on our quantitative and qualitative analysis. We combine the risk-adjusted leverage and funding and liquidity assessments (see table 1) to derive the preliminary anchor. We adjust the preliminary anchor by our assessment of jurisdictional risk to determine the anchor. We then modify the anchor after an analysis of track record and investment performance, risk management, and transparency and complexity, as well as our comparable ratings analysis, to determine the SACP (see table 2). We combine the SACP and the support framework, which determines the extent of uplift, if any, for group or government support, or the risk of extraordinary negative intervention or sovereign-related risks (see Related Criteria), to determine the ICR. Table 1 Preliminary Anchor --FUNDING AND LIQUIDITY-- --RISK-ADJUSTED LEVERAGE-- VERY STRONG STRONG ADEQUATE MODERATE WEAK VERY WEAK Very strong aaa aa+/aa aa-/a+ a/a- bbb+/bbb bbb-/bb+ Strong aa aa-/a+ a/a- bbb+/bbb bbb-/bb+ bb/bb- Adequate a a/a- bbb+/bbb bbb-/bb+ bb bb- Moderate bbb+ bbb+/bbb bbb/bbb- bb+/bb bb/bb- b+/b Weak bbb- bb+/bb bb/bb- bb-/b+ b+/b b Very weak bb bb- bb-/b+ b+ b b- 9. Where table 1 indicates two possible outcomes, we determine the preliminary anchor as follows: For funding and liquidity assessments of adequate or stronger, we consider the relative strength of both the funding and liquidity and risk-adjusted leverage assessments within the cell. This is based on a holistic assessment of the relative strengths of the two rating factors. For funding and liquidity assessments of moderate or weaker, we typically place more weight on the relative strength of funding and liquidity. Table 2 Determining The SACP Anchor 'aaa' to 'b-'* -- TRACK RECORD AND INVESTMENT PERFORMANCE Positive +1 notch Neutral 0 notches Negative -1 notch -- RISK MANAGEMENT Neutral 0 notches Moderately negative -1 notch Negative -2 notch Substantial risk to the fund more than -2 notches -- TRANSPARENCY AND COMPLEXITY Neutral 0 notches Negative -1 notch -- Comparable ratings analysis +1, 0, -1 notch *The modifiers do not cumulatively lower the SACP below 'b-'. Risk-Adjusted Leverage 10. Risk-adjusted leverage measures the ability of a fund to cover outstanding financial obligations in adverse economic conditions or changing circumstances. We first assess a fund's stressed leverage on a scale from very strong to very weak (see table 3). We then modify our assessment of stressed leverage by our view of the fund's risk position relative to that assessment.

Table 3 Stressed Leverage ASSESSMENT DESCRIPTION Very strong Stressed leverage should allow it to withstand an extreme level of stress. Strong Stressed leverage should allow it to withstand a severe level of stress. Adequate Stressed leverage should allow it to withstand a substantial level of stress. Moderate Stressed leverage should allow it to withstand a moderate level of stress. Weak Stressed leverage should allow it to withstand a modest level of stress. Very weak Stressed leverage should allow it to withstand a mild level of stress. Note: See "S&P; Global Ratings Definitions" for additional details on levels of stress. 11. A fund's risk position relative to its stressed leverage could improve our view of the fund's risk-adjusted leverage by up to one category (e.g., from strong to very strong) or worsen our view by up to two categories (e.g., from strong to adequate or moderate). Stressed leverage assessment 12. We determine the stressed leverage assessment in one of two ways. For funds that use more transparent, traditional strategies and have asset profiles that do not change significantly over a short time horizon, we typically haircut the assets to reflect typical market movements in a 'BBB', or moderate, stress scenario and compare the ability of the stressed assets to cover total recourse liabilities. The haircuts typically vary depending on the nature of the assets. For funds that use more complex strategies or have a large position turnover, we typically consider portfolio-based risk measures to assess the sufficiency of a fund's equity under stress. 13. To the extent that a fund maintains and adheres to a formal liquidity management policy, and has a track record of doing so, we typically do not haircut cash where we perform asset-specific stresses. When we rely on a portfolio-based risk measure, we typically include cash in the risk calculation and reflect that assumption in risk position. 14. When determining stressed leverage, we use the hybrid capital methodology (see Related Criteria) to determine equity content for hybrids. Adjustment for risk position 15. The risk position adjustment refines our view of leverage and asset risk beyond the standard assumptions in the stressed leverage calculation. 16. To modify the stressed leverage assessment, we look at six factors: Risks not captured in stressed leverage, Concentration, Risk of the strategy, Volatility of past investment returns, Appropriateness of stresses, and Quality of capital. Table 4 Determining The Risk-Adjusted Leverage STRESSED LEVERAGE ASSESSMENT Very strong to very weak -- RISK POSITION ASSESSMENT Strong +1 category Adequate Neutral Moderate -1 category Weak -2 categories Funding And Liquidity 17. Our assessments of funding and liquidity are informed by quantitative and qualitative factors. Where appropriate, we may factor in the benefits of a strong sponsor, when we believe that support is ongoing, stable, and expected to continue. We assess funding and liquidity separately and then combine them to determine the overall funding and liquidity assessment (see table 5). Table 5 Combining Funding And Liquidity --FUNDING-- --LIQUIDITY-- VERY STRONG STRONG ADEQUATE MODERATE WEAK VERY WEAK Very strong Very strong Strong Strong Adequate Moderate Moderate Strong Strong Strong Adequate Adequate Moderate Moderate Adequate Strong Adequate Adequate Moderate Moderate Weak Moderate Adequate Adequate Moderate Moderate Weak Weak Weak Moderate Moderate Moderate Weak Weak Very weak Very weak Moderate Moderate Weak Weak Very weak Very weak 18. We consider the relative stability of an AIF's sources of funding and the extent to which stable funding is important given the investment strategy. We consider the ability to service debt and meet other obligations by looking at the sources and uses of cash. 19. Longer-term or permanent funding would typically be a positive, and would demand less liquidity to be considered a positive, particularly when a fund pursues a less liquid investment strategy. And strong liquidity resources may offset the liquidity risks stemming from a funding profile dependent on short-term funding. 20. We use a holistic approach based upon how funding, liquidity, and investment strategy suggest stronger or weaker ability to manage assets to liabilities. 21. While funding and liquidity are assessed separately, they are linked in many ways. While we have stress assumptions for assets, they, like all assumptions, are simply that--assumptions subject to what sometimes are referred to as "model risk." We are unlikely to view liquidity as accretive to the rating if the fund is exposed to swap termination payments, near-term redemptions, or covenants that could accelerate debt repayment unless significant available highly liquid assets or liquidity facilities support those exposures. 22. We evaluate funding based on four subfactors: Stability and diversity of investor capital base (equity-funding), Stability and diversity of funding sources (non-equity funding), Prime brokerage relationships (if relevant), and Funding flexibility. 23. For funds that use a more transparent, traditional strategy and have an asset profile that does not change significantly over a

short time horizon, we typically evaluate liquidity through the key quantitative indicator--sources divided by uses under a stress scenario. We typically haircut assets to reflect their potential loss in liquidation value in a 'BBB', or moderate, stress scenario. We also consider the ability to liquidate on a timely basis. 24. Sources include but are not limited to: On-balance-sheet cash and cash equivalents, Interest income, Dividend income, Available undrawn committed liquidity facilities, Proceeds from asset liquidations, Proceeds from asset maturities, Uncalled capital commitments, subject to limitations, and Other quantifiable resources. 25. Uses include but are not limited to: Debt maturities, Debt service payments, Margin payments, Operating expenses, including management and transaction fees, Loss of secured funding against illiquid assets, and Commitments and contingencies. 26. For funds that use more complex strategies or have a large position turnover, we typically evaluate liquidity through the key quantitative indicator--liquidity reserve to trading capital. 27. We evaluate each funding subfactor individually and use a holistic approach to determine the overall funding assessment. We assess liquidity through a quantitative assessment as well as qualitative additional considerations, including asset liquidity, cash flow from the portfolio, and covenant analysis. Jurisdictional Risk 28. The jurisdictional risk assessment addresses the risks that arise from operating in countries with varying legal standards and protections or levels of transparency that could adversely affect an AIF's creditworthiness. 29. To determine the jurisdictional risk, we assess the country's payment culture and rule of law, and apply the institutional framework assessment from our "Banking Industry Country Risk Assessment Methodology And Assumptions," Dec. 9, 2021 (see table 6). Although the institutional framework assessment applies specifically to the banking sector, we believe it helps to differentiate between AIFs operating in jurisdictions with weaker legal protections. When we believe the Banking Industry Country Risk Assessment (BICRA) institutional framework assessment does not align with our view of relevant jurisdictional risks for AIFs other than payment culture and rule of law, we may adjust the institutional framework assessment for AIFs. Table 6 Determining Jurisdictional Risk Preliminary anchor 'aaa' to 'b-'* -- PAYMENT CULTURE AND RULE OF LAW At least moderately strong 0 notches Weak -1 notch Very weak -2 notches -- INSTITUTIONAL FRAMEWORK Very low risk to high risk 0 notches Very high risk or extremely high risk -1 notch *Jurisdictional risk does not lower the SACP below 'b-'. Payment culture and rule of law 30. The assessment of payment culture and rule of law corresponds to one of three categories: at least moderately strong, weak, and very weak (see table 7). The assessment considers creditors' rights and predictability of the legal framework, including bankruptcy law and credit rights, the creditor's ability to recover collateral, and the resolution time for bankruptcy or foreclosure. 31. The analysis is informed by external indicators, such as the World Bank's governance indicators for the rule of law and control of corruption and Transparency International's Corruption Perceptions Index. For example, the averages of the World Bank's rule of law and control of corruption governance indicators are typically between 0 and 2.5 for at least moderately strong, between 0 and -0.5 for weak, and between -0.5 and -2.5 for very weak. Table 7 Payment Culture And Rule of Law CATEGORY DESCRIPTION IMPACT ON THE PRELIMINARY ANCHOR At least moderately strong At least moderately strong payment culture and adherence to rule of law 0 notches At least moderately strong legal framework. Legal claims over loan defaults and recoveries of collateral proceed at least with satisfactory speed and effectiveness. Weak Weak payment culture and adherence to rule of law -1 notch Ineffective legal framework and jurisdictional system. Often arbitrary and discretionary legal and judicial decisions. Very weak Very weak payment culture and adherence to rule of law 2 notches Highly ineffective legal framework and judicial system. Arbitrary and discretionary legal and judicial decisions. Other Modifiers Track record and investment performance 32. We assess track record and investment performance as positive, neutral, or negative to address potential investment return volatility and the level of profitability (both absolute and relative). These can have an impact on an AIF's overall stability since they may affect funding stability (for example, through limited partner investors' redemptions) and asset flows necessary to service debt and other obligations. 33. We assess track record and investment performance as positive when we identify material benefits in an organization's historical performance or track record, and we assess it as negative when we identify material shortcomings. Otherwise, it is neutral. Risk management 34. We assess risk management as neutral, moderately negative, or negative to address certain risks--that are not otherwise captured--relating to a fund's trading and credit risk management, operational risk management, and

management and governance risk. We assess risk management as neutral when we believe the practices are appropriate, given the nature of the fund. We assess risk management as moderately negative when we identify material shortcomings that we believe could have a moderate impact on the fund. And it is negative when we identify material shortcomings that we believe could have a significant impact on the fund. 35. We may consider risk management practices to be a substantial risk to a fund. Examples include but are not limited to: When formal systems to encourage the representation of creditors' rights are insufficient; When the fund is unable to generate periodic risk reports consistent with past behavior; and When we believe substantial operational deficiencies exist, given the complexities of the investment profile. Transparency and complexity 36. We assess transparency and complexity as neutral or negative to address risks relating to a fund's transparency and complexity. It is negative when an organization's complexity or the transparency of its disclosure leads to risks that are not otherwise captured. Otherwise, it is neutral. Comparable ratings analysis 37. We may apply an adjustment to determine the SACP of up to one notch in either direction based on our comparable ratings analysis to capture a more holistic view of creditworthiness. Our comparable ratings analysis allows for the consideration of additional credit factors, which the criteria do not separately identify, as well as existing credit factors not fully captured, which may be informed by peer analysis. Rating An AIF Above The Sovereign Rating 38. The application of these criteria may result in an SACP on a domestic unsupported AIF that is above the sovereign rating in a jurisdiction where the fund has material exposure. See the approach for moderate sensitivity industries in "Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions" for details on when an AIF would be assigned a rating above the sovereign rating. Issue Ratings Senior secured, junior secured, and senior unsecured debt 39. We often rate all secured debt and senior unsecured debt at the same level as the ICR. However, we may rate first-lien senior secured debt higher than the ICR by one notch when there is a meaningful quantity of high-quality collateral supporting the senior secured debt. 40. We rate senior unsecured obligations and junior secured debt lower than the ICR by one or two notches when the following conditions in paragraphs 41 and/or 42 are met. Otherwise, we would rate them at the same level as the ICR. 41. We rate debt instruments one notch below the ICR when either of the following conditions apply: Priority debt (see glossary) is greater than 15% of adjusted assets, and we expect unencumbered assets to be less than the rated unsecured or junior secured debt, or Priority debt is greater than 30% of adjusted assets, and we expect unencumbered assets to be greater than the rated unsecured or junior secured debt. 42. We rate debt instruments two notches below the ICR when both of the following conditions apply: Priority debt is greater than 30% of adjusted assets, and We expect unencumbered assets to be less than the rated unsecured or junior secured debt. 43. When applying paragraphs 41 and 42, we deduct nonrecourse secured debt from priority debt, and we deduct the assets pledged to that debt from adjusted assets. When making that adjustment, we also rate the most senior remaining debt instrument one notch lower than the ICR if we expect unencumbered assets to be less than the amount of the most senior debt. 44. When paragraphs 41-43 apply, we would take a prospective view when the calculation is close to the thresholds (15%, 30%). For example, if we believe a fund is likely to pledge unencumbered assets toward payment of its nonrecourse secured debt (likely to maintain its franchise or equity cash flows), and the calculation is close to a threshold, we would likely assume the relevant threshold is crossed when rating the issue. 45. We also may rate senior unsecured debt or junior secured debt a notch (or an additional notch) below the ICR (but no more than two notches in total) if the issuer has meaningful amounts of netted, contingent, or complex exposures on its balance sheet (such as securities repurchase and reverse repurchase agreements or open derivative positions). "Meaningful" means an amount sufficient to make the determination of available unencumbered assets uncertain. NDSD and hybrid capital instruments 46. To rate nondeferrable subordinated debt (NDSD) and hybrid capital instruments of AIFs, we apply our hybrid capital criteria (see Related Criteria). Subscription facilities 47. We rate subscription facilities at the same level as the ICR if the facility has timely recourse to the uncalled capital and the underlying assets of the fund. APPENDIX Glossary 48. We typically define the ratios as referenced in the Glossary, and may make analytical adjustments for nonrecurring items or to otherwise take into consideration issuer-specific reporting conventions. Adjusted assets 49. Reported value of assets, adjusted for any long-term diminishment of value, such as for derivative financial

instruments. Capital 50. For the purposes of considering the permissible amount of hybrid capital, capital is defined as debt plus equity (see "Hybrid Capital: Methodology And Assumptions," published July 1, 2019). Hybrid capital instrument 51. Hybrid capital generally refers to an instrument that has characteristics of both debt and equity, and therefore excludes common equity (see "Hybrid Capital: Methodology And Assumptions," published July 1, 2019). Level I, II, and III assets 52. Level I.As defined by the Financial Accounting Standards Board (FASB). Assets with readily observable, transparent prices. Includes listed stocks, bonds, funds or any asset that has a regular mark-to-market mechanism for determining fair market value. 53. Level II.As defined by FASB. Assets that do not have regular market pricing, though fair value can be determined based on other data or market prices. Level II asset values can be closely approximated using simple models, with observable prices as parameters. 54. Level III.As defined by FASB. The most illiquid and hardest to value assets. A fair value cannot be determined by using readily observable inputs or measures because these assets are not traded frequently. Prices are calculated using estimates or ranges. Liquidity reserves 55. Liquidity reserves comprise cash, money-market funds, sovereign bonds or agency debt rated 'AA' or above, 'A-1+' commercial paper, as well as very short-term reverse repo with highly rated counterparties. Priority debt 56. Debt that is more senior to the issue being considered (i.e., senior secured debt has a priority claim ahead of senior unsecured debt, as does first-lien debt versus second-lien debt). Proxy fund 57. Predecessor funds with a similar mandate that are managed by the same set of investment professionals and utilize similar risk controls. Subscription facility 58. Typically senior secured revolving credit facilities secured by the unfunded capital commitments of a fund's investors, with advance rates based on the credit quality of relevant investors. Subscription lines are used to provide liquidity for a fund to make investments on a faster basis than calling for capital contributions. Trading capital 59. Trading capital is the sum of the net asset value of the fund and long-term debt (more than one year). Alternative Investment Fund Structures 60. AIFs are often hedge funds, private equity funds, or fund of funds. However, entities in scope may not be formally organized as either. We typically consider the following to determine whether an entity is in scope of these criteria: If a fund invests primarily in a private equity structure, is primarily buy and hold with a focus on harvesting investments, and funds itself, for example, with an expected final maturity of seven to 12 years, this would typically be in scope and would be a private equity fund. If a fund executes a trading strategy such that the portfolio has meaningful turnover (and, hence, is not buy and hold) and funds itself with capital that varies in degree of permanence, this would typically be in scope and would be a hedge fund. If an entity is not organized as a fund but has characteristics similar to a hedge fund or private equity fund, and executes a strategy that includes elements of both private equity investment and hedge fund trading, this would typically be in scope. 61. Also, for entities in scope of the criteria: They differ from investment holding companies because AIFs typically have the expectation of a limited holding period. They differ from business development companies because AIFs typically are not primarily investing in leveraged loans and are not typically funded through registered securities subject to meaningful regulation. They may exert influence over the financial operations of invested companies (investees), and may even provide periodic financial support. But, typically, we view funds as investors and do not presume strategic importance such that group rating methodology applies. We do not view these as conglomerates, and we typically do not assume a manager of a fund will support a fund, although it may. They differ from securities firms and broker-dealers because they are typically funded primarily through fund shares. 62. Entities in scope may resemble entities we assess through other criteria. The nature of funding through a fund structure results in the application of these criteria, sometimes in conjunction with other criteria specific to the underlying business. The criteria typically would not apply to special purpose vehicle (SPV) structures that are part of an AIF. General 63. AIFs typically invest in more esoteric assets than traditional mutual funds. Assets can include but are not limited to commodities, global real estate, leveraged loans, start-up companies, unlisted securities, private equity debt, private debt, and derivatives, or other types of investments. AIFs may employ complex strategies or be organized in complex structures, which are typically tax efficient. 64. AIFs may employ short-term and wholesale funding while deploying proceeds in strategies, such as long-short trades, whose values may change rapidly. Private equity type-AIFs typically have relatively stable funding, such as debt or shares with a lock up of seven to 12 years. Hedge funds, on the other hand, typically employ less stable funding, with

monthly or quarterly withdrawal rights. 65. We typically do not expect AIFs to benefit from financial support from a management company, which may also be a general partner, or from different funds managed by the same general partner. If we do, we would analyze the relevant entities as we would any other group. 66. Many AIFs employ "master-feeder" structures. Sometimes multiple vehicles are organized, and funds flow through these entities. We typically consider a fund's obligation to repay financial obligations irrespective of the potentially circuitous path money may take. We often would not consider nonrecourse funding to be a fund's financial obligation. However, we would if we believe failure to repay would damage the reputation of the fund, the general partner, or any other related party whose creditworthiness, including reputation, could impair the creditworthiness of the fund, including any subsidiaries (for example, a trading vehicle owned by master funds). 67. Because of the nature of the typical fund we expect to rate using this methodology, we expect AIF ratings in the 'AA' or 'AAA' categories will be the exception rather than the rule. To achieve such a high rating, a fund would typically have, among other features: Very low leverage, Permanent capital, Robust liquidity, A diversified asset portfolio, Strong asset quality, Effective risk management practices with strong governance, Diversified funding, and A steady and strong track record of investment performance. 68. We would expect higher forms of oversight, possibly through an enhanced regulatory environment, enhanced market transparency, and clear qualitative strength that helps defend against market illiquidity to be associated with ratings in those categories. Furthermore, we would have to expect all of those features to remain in place over the long term. Risk-Adjusted Leverage Stressed leverage 69. Stressed asset approach. Our standard assumption is based on a 'BBB', or moderate, stress level. We compare the ability of the stressed assets to cover total recourse liabilities. See the "Asset Haircuts" section for details on how we determine the haircuts used to evaluate stressed assets. 70. Stressed assets typically do not include assets pledged as collateral for nonrecourse liabilities. 71. Total recourse liabilities include all debt obligations issued by a fund, repurchase liabilities, and prime brokerage financing, excluding the portion of hybrids that we view as equity. They also include other financial obligations guaranteed by a fund. 72. After applying the stresses, we compare the reduced level of assets to the outstanding liabilities. We score the initial assessment based on table 8. Table 8

Stressed Assets To Total Recourse Liabilities ASSESSMENT RANGE (X)	Very strong	Strong	Adequate	Moderate	Weak	Very weak
>3.5	2.5-3.5	1.75-2.5	1.0-1.75	0.5-1.0	<0.5	

73. Risk-based approach. When we believe a value at risk (VaR)-style metric is appropriate, such as when a fund's strategy makes it difficult or impossible to stress on a specific-asset base level (for example, significant use of derivatives, high portfolio turnover), we use portfolio-based risk measures to assess the capacity for net asset value (NAV) to absorb losses. We typically assess stressed leverage based on a measure of VaR using a one-year horizon and a 99.7% confidence level. We typically adjust with an additional stress to compensate for the fact that regulators typically do not validate VaR calculations for AIFs (see table 9). 74. We typically compute a one-year VaR at a 99.7% confidence level by scaling up (or down) risk metrics reported by a fund, following the adjustments described in the "Scaling Up VaR" section. Importantly, the starting point of our analysis is a risk metric used by a fund in daily risk-management and regularly back tested. Weak back-testing results result in a higher multiplier. Table 9

Portfolio-Based Risk Measures ASSESSMENT VAR/NAV RANGE (%)	Very strong	Strong	Adequate	Moderate	Weak	Very weak
<20	20-40	40-55	55-75	75-100	>100	

VaR--Value at risk. NAV--Net asset value. 75. We complement our analysis of portfolio-based risk measures in our initial assessment of stressed leverage by considering a fund's VaR/NAV relative to its risk measure targets. We also look at other leverage indicators (for example, gross leverage) and useful indicators of tail risk for the fund, such as a fund's internal stress test output, relative to peers. Adjustment for risk position 76. We assess the following risks to refine our assessment of stressed leverage. Table 10 Risk Position Assessment

Risks not captured in stressed leverage	N/A	Strong	Adequate	Moderate	Weak
We believe that the stressed leverage assessment adequately captures the market risk of the fund. The fund has a maturity gap between the repricing of its assets and liabilities, or it is inadequately hedged, resulting in exposure to currency risk that is not adequately captured by the stressed leverage assessment. We believe there are substantial risks not adequately captured by the stressed leverage assessment, such as currency risk, interest rate risk, credit spread risk, or intra-day risks not captured by end of day positions. Concentration	N/A				

We believe that the fund is adequately diversified. The fund exhibits

concentration beyond typical peers. The fund is very concentrated by portfolio, industry, or geography. For example, for portfolio concentration, the top obligor makes up more than 15% of equity, and the top five obligors make up more than 50% of equity. Risk of the strategy N/A We believe that the strategy of the fund does not add substantial risk to creditors. We believe that the strategy of the fund or certain elements of the structure (misaligned incentives) pose risks to creditors that are not fully captured in the initial stressed leverage assessment. We believe that the strategy of the fund or certain elements of the structure (misaligned incentives) pose significant risks to creditors that are not fully captured in the stressed leverage assessment. Volatility of investment returns The funds exhibit much lower volatility in returns than we would expect, given the asset classes and leverage used, or compared with peer funds that are invested in similar asset classes with similar levels of leverage. The returns exhibit volatility in line with what we would expect, given the asset classes and leveraged used, or compared with peer funds that invest in similar asset classes with similar levels of leverage. The returns exhibit somewhat greater volatility than we would expect, given the asset classes and leveraged used, or compared with peer funds that invest in similar asset classes with similar levels of leverage. The returns exhibit much greater volatility than we would expect, given the asset classes and leveraged used, or compared with peer funds that invest in similar asset classes with similar levels of leverage. Appropriateness of stresses The stresses that are used in the stressed leverage calculation overstate the risk of the investments in the fund. The stresses that are used in the stressed leverage calculation are appropriate. The stresses that are used in the stressed leverage calculation understate the risk of the investments in the fund. The stresses that are used substantially underestimate the risk of the investments in the fund. Quality of capital N/A Primarily funded through common equity. Significant funding through non-common equity or hybrids. Significant funding through junior debt and/or debt subordination mechanisms. N/A--Not applicable. 77. Risks not captured in stressed leverage.Credit spread risk: We analyze the degree to which changes in credit spreads could cause outsize losses in a portfolio. 78. Currency risk: The assessment may include an examination of projected earnings to changes in currency exchange rates based on a fund's stress testing. 79. Interest rate risk: We look at the nature of assets and interest rate risk that stems from funding choices (such as short maturity funding for long maturity assets). We analyze the sensitivity of a fund to changes in the yield curve, senior management's engagement in and awareness of managing interest rate risk, and the impact of repricing of assets and liabilities. 80. Concentration.We assess this factor negatively if the portfolio has concentrations in areas such as, but not limited to, portfolio, industry, and geography. 81. We assess this factor negatively when a portfolio, for example, is expected to be concentrated such that one obligor accounts for more than 15% of total equity or NAV, or the top five assets are more than 50% of NAV. We may also assess this factor as negative if substantial asset positions account for a significant share of the market capitalization of publicly traded assets or are large relative to the average daily trading volume. 82. Concentration often occurs because of an attempt to generate excess return (alpha relative to a diversified benchmark) or because a diverse set of investment options does not exist. Neither is accretive to creditworthiness. Concentration in industry exposes the fund to a sector-adverse outcome. Geographic concentration is less obvious and is considered a negative when in a region or country that is, in itself, not diversified. However, concentration in the U.S. is less of a negative, for example, because its economy, capital providers, and liquidity of capital markets are diverse and robust. 83. Risk of the strategy.We assess this factor negatively if we believe that elements of a fund's strategy could impair its credit quality. For instance, the structure of performance fees could incentivize outsize risk taking or significant use of derivatives that are not already reflected in stressed leverage. Also, an activist investor could be dependent on a long time horizon for an investment thesis to play out and be unwilling to sell in the short term to avoid losses. 84. Volatility of investment returns.We view this subfactor negatively if returns are more volatile than we would expect given the asset class and leverage used. 85. Appropriateness of stresses.We consider the equity market group classifications from table 11 of the risk-adjusted capital framework (see Related Criteria) when assessing the appropriateness of equity stresses. 86. We view this factor negatively if we believe the portfolio-based risk measure calculation does not appropriately reflect the inclusion of cash not dedicated to liquidity. 87. Quality of capital.We view this subfactor more positively when capital is provided primarily through common equity. 88. We view this subfactor more negatively when capital is provided primarily through

non-common equity, hybrids, junior debt, and/or debt subordination mechanism. 89. We consider these factors holistically and in the context of the initial stressed leverage calculation when determining a fund's risk position. Any one of these factors, if a significant strength or weakness, could have a material impact on our overall view of a fund's risk position. Funding And Liquidity Funding 90. Our assessment of funding is informed by the following subfactors and is based on our analytical judgment, or best fit relative to a fund's investment strategy (see table 11). Table 11 Assessing Funding VERY STRONG STRONG ADEQUATE MODERATE WEAK VERY WEAK

Stability and diversity of investor capital base (equity funding) Permanent capital A significant amount of insider capital, which we believe has a low likelihood of withdraw. The fund could also have features that allow it to pay-in-kind, thereby limiting the risk of forced asset sales. Top five investors are a minimal portion of the fund. A fund that could either have long-term equity funding (greater than three years) or could have some of the features of weak to moderate funds, but could have gating or suspension features that allow it greater flexibility. The fund's capital base is subject to withdraw, but over a longer time horizon (one to three years) that the manager can adequately plan for. There is some concentration of top five investors in the fund. The fund has short-term withdraw features, typically 90 days to one year, or has very little diversity of investors, such as when the top five investors make up a significant portion of the fund. The fund has short-term withdraw features, typically 90 days to one year, coupled with very little diversity of investors, such as when the top five investors make up a significant portion of fund. Stability and diversity of funding sources (non-equity funding) The fund has demonstrated access to the unsecured markets through a number of well-laddered issuances. There is minimal, if any, reliance on short-term wholesale financing. The fund has shown significant progress in diversifying its funding profile but still lacks the depth and breadth of some of the highest-rated peers. The fund relies significantly on secured terms of financing, but they typically are not short term (termed revolving credit facilities, etc.). We believe the fund has significant bank relationships (as evidenced by number of banks participating in revolving facilities). The fund shows characteristics of both adequate and weak. It may be in the process of adding bank relationships, adding facilities, terming out funding, etc. The fund relies significantly on secured forms of financing. While we believe the number of lender relationships is limited, the financing terms are typically closer to one year. The fund relies significantly on short-term wholesale financing via a limited number of counterparties. Prime brokerage relationships N/A N/A The fund maintains a significant number of prime brokerage relationships, its risk margin agreements have significant length, and it has demonstrated the ability to segregate its margins with risky counterparties. The fund maintains a few different counterparty relationships and manages these well. While risk margin agreements are not as long as those in the adequate category, we believe they are sufficient. The fund may maintain a few counterparty relationships but has extremely short-term risk agreements, or limited counterparty relationships but has negotiated favorable risk margin agreements. The fund relies solely on a limited number of counterparties (one or two). The risk margin agreements are short term, meaning the prime brokers can quickly change the method of calculating margin. Funding flexibility The fund is publicly traded, typically around or above NAV, and could issue equity in the public markets AND has significant banking relationships and the ability to issue debt. The fund is publicly traded and can issue in the public markets, or has a number of banking and counterparty relationships (independent from prime brokers) and the ability to issue debt. Has demonstrated outstanding ongoing fundraising ability if not publicly traded. We believe the fund could access sources of debt, especially forms of secured financing if necessary. We do not necessarily view the funding as a strength or weakness necessarily. We believe there are some signs of limited flexibility. This may be demonstrated by reliance on securing unencumbered assets, etc. We believe the fund has limited funding flexibility. If it were to issue debt or equity, it would likely be on extremely favorable terms to the investor. We believe that the company has extremely limited or no funding flexibility. It is near existing covenants and doesn't have bank relationships. 91. Stability and diversity of investor capital base. We typically assess stability and diversity of investor capital base as stronger when we expect capital to be readily available to absorb losses and weaker when capital may not be available or is able to be redeemed at the investor's option. For example: We view permanent common share capital without investor held redemption rights as most stable. We view common share capital with investor held redemption rights as weaker, although if gates exist with clear limits as less weak. We view the stability of investor capital

base (equity capital) to be driven by a combination of three aspects: permanence of capital, diversity of the investor base, and the nature of equity investors. We consider the stability of investor capital based on the investor type. For example, we typically view fund of fund investors as a less stable funding source, relative to pension fund and sovereign wealth fund investors. 92. Stability and diversity of funding sources. We may weaken our assessment of funding when there is less diversification of funding sources or weaker still when there is significant reliance on single sources of funding. For example: We view debt financing with maturity consistent with investment strategy (for example, seven- to 12-year maturity debt supporting a traditional private equity investment strategy) as stronger. We view preferred shares and subordinated debt as hybrid capital and weaker, although the degree of weakness is influenced by their terms. We view short-term and wholesale debt financing as weaker. We view margin financing and prime broker financing as weaker, although the degree of weakness is influenced by their terms and strategic importance to the provider. 93. Prime brokerage relationships. If prime brokerage funding is employed, we may weaken our assessment of funding when there is significant reliance on a few prime brokers, for example one or two relationships, and weaker still if the agreements have short-term risk margin agreements. 94. Funding flexibility. We may weaken our assessment of funding when funding flexibility is limited. We typically view funding as less flexible when we believe the fund is likely to have difficulty accessing additional funding if and when necessary. Liquidity 95. We also measure a fund's liquidity needs versus potential sources of liquidity. We maintain both qualitative and quantitative views. 96. We typically assess an entity's approach to liquidity management through extrapolation of liquidity levels maintained in previous periods. We adjust for any changes that we anticipate. Our key quantitative liquidity measure for funds that use more transparent, traditional strategies and have asset profiles that do not change significantly over a short time horizon generally focuses on liquidity sources and uses over the upcoming 12 months. 97. In our cash flow stress scenario, we assume: For the purposes of the liquidity assessment, we typically align the amount of available cash and cash equivalents with the amount used in the prior stressed leverage assessment. However, we may adjust for cash that is posted as collateral at counterparties. Funding for Level II and Level III assets does not roll over and, thus, we presume the asset must be liquidated. A concentrated source of funding will not roll over and, thus, additional asset liquidation is presumed. These assumptions presume funding is at risk of being terminated prior to asset maturity. We may assume stable funding for a Level I, Level II, or Level III asset when we have strong reason to believe that the asset's funding will remain in place over a one-year horizon. When assets mature in advance of funding, we may elect not to assess a market value stress, but we would apply a credit stress to fixed-income assets to reflect potential loss of principal amounts. Dividend income declines by 50%. This is based on a reduction observed in S&P 500 stocks during the financial crisis of more than 30%. Interest income is lower based on the credit profile of investments and the commensurate overall default rate associated with those investments. For example, if a portfolio is invested primarily in one-year maturity 'B' leveraged loans, we would assume the one-year corporate default rate for 'B' corporates observed in a 'BBB' scenario. 98. The key quantitative indicator of liquidity is sources divided by uses. 99. Sources include but are not limited to: Interest income (haircut in stress); Cash dividends that we consider to be reliable; Principal repayments of fixed-income investments (haircut in stress); Liquid asset sales (haircut in stress); On-balance-sheet cash and cash equivalents; Uncalled capital earmarked for liquidity purposes; and Remaining capacity of committed facilities from investment-grade providers (if subject to borrowing base, availability based on a decline in fair value, see the "Asset Haircuts" section). 100. When an asset class has a liquidity ranking of L1, L2, or L3 in market value securities criteria (see Related Criteria), we give liquidity credit and apply the haircut derived from the market value securities criteria--i.e., eligible sovereign debt, municipal securities, and corporate debt. For asset classes with a liquidity ranking of L4 in market value securities criteria, we typically ascribe no liquidity credit. We assume listed, publicly traded equity is liquid. 101. Uses include but are not limited to: The largest five days of margin calls over the past five years or percent margin increase (typically 50%-200%), whichever is greater; Necessary liquidity to be generated (and over what time horizon) if advance rates decline by 30%; The total amount redeemable within one year, considering gates and other limitations; Fixed expenses, including management fees and interest expense; Operating expenses; Loss of secured funding due within one year; Potential breaches of

covenants; Commitments and contingencies (for example, commitments provided by fund of funds to the underlying funds); Expected draws on commitments to provide additional funding, for example, direct lending entities; and Expected distributions. 102. We judge a fund's liquidity needs at call, as well as on a quarterly basis over the subsequent 12 months. 103. For a fund that uses a more complex strategy or has a large position turnover, we generally focus on liquidity reserve to trading capital for the quantitative cash flow test assessment, which considers the fund's liquidity relative to its equity and long-term debt. Our assessment is relative to observed historical liquidity as well as stated targets and considers the nature of the fund's investments. It also considers the AIF's potential future exposure to margin calls and investor redemptions. 104. We also qualitatively assess a fund manager's liquidity management. Funds will not receive an assessment of adequate or higher when potential liquidity management shortcomings could lead to intra-year liquidity weaknesses. 105. We assess liquidity using the matrix in table 12 on a holistic basis. Generally, we would expect a fund's liquidity characteristics to be broadly consistent with the characteristics of one of the categories in table 12, but a particular strength or weakness could drive our determination. Table 12 Assessing Liquidity

	VERY STRONG	STRONG	ADEQUATE	MODERATE	WEAK	VERY WEAK
Quantitative cash flow tests (traditional strategy)	We believe that sources would cover uses by 2.0x in a stress scenario.	We believe sources would cover uses by 1.5x in a stress scenario.	We believe sources would cover uses by 1.2x in a stress scenario.	We believe that sources cover uses by 1.0x in a stress scenario.	We believe that sources cover uses by between 1.0x and 0.5x in a stress scenario.	We believe that sources cover uses by less than 0.5x in a stress scenario.
Quantitative cash flow test (complex strategies or large position turnover)	Minimum liquidity reserve to trading capital is more than 80%.	Minimum liquidity reserve to trading capital is 70%-80%.	Minimum liquidity reserve to trading capital is 50%-70%.	Minimum liquidity reserve to trading capital is 30%-50%.	Minimum liquidity reserve to trading capital is 15%-30%.	Minimum liquidity reserve to trading capital is less than 15%.
Asset liquidity	Consists solely of Level I investments. The assets are publicly traded on major exchanges. Position size is limited in terms of average daily volume and we believe could be liquidated with minimal price disruption. The fund is generally made up of Level I investments but may have some exposure to Level II and Level III investments. Position sizes are limited, but block trades are likely to lead to (minimal) discounted sales. The portfolio generally has a mix of liquid and illiquid assets. Position sizes may be moderate to imply a discount in block trades, but we believe the fund could generate necessary liquidity during a market disruption. The portfolio is skewed toward Level II and Level III assets. We believe the company does keep a modicum of liquidity, but it is not a strength of the fund. The portfolio is skewed heavily toward Level II and Level III investments, but there is some evidence of asset sales during benign market conditions. We believe assets would need to be sold at deep discounts during a market disruption.	Consists solely of Level III investments. We believe that these investments will likely be sold at extremely deep discounts during a market disruption. Cash flow from the portfolio	Extremely predictable cash flow coming from the investments in the form of highly rated fixed-income instruments. The portfolio is predominately made up of yielding investments that are highly predictable. The company has an adequate level of recurring cash coming from the portfolio, but it is a mix of what we consider to be reliable and unreliable. For instance, it could be from speculative-grade loans or dividends that could be cut during a market disruption. There is some evidence of sustainable cash flow that is generated from the portfolio, but as a whole, the fund is still skewed toward non-yielding investments or those with little predictability. There is some cash flow that is generated from the portfolio, but it is unreliable or likely to be cut off during a market disruption. No recurring cash flows from the portfolio. If dividends come from holdings, they are likely non-cash. Covenant analysis	No covenants (debt, derivative, or performance covenants) that would generally affect the liquidity of the fund, or they are so loose that we believe they are highly unlikely to be breached (>50% cushion to respective thresholds). Covenants would be breached if assets declined by 30%. Covenants would be breached if metrics declined by 20%. Covenants would likely be breached if metrics declined by 15%. Covenants would be breached if the assets declined by 10%. Covenants are likely to be breached.	106. We are likely to assess liquidity as a negative (weak or very weak) to the rating unless the potential liquidity demands arising from covenants, swap termination agreements, credit rating downgrade provisions, and redemptions are covered by what we view as highly liquid assets (such as shorter	

maturity L1 assets) or potentially liquidity facilities. 107. Funds are often themselves funded by other funds, including pension funds, sovereign wealth funds, or similar entities. Often these entities are unrated. As such, their likelihood of performance when committed capital is called is unclear. 108. We may assess the creditworthiness of such a source of liquidity and give limited credit to it in our assessment. Typically, we would give credit of 50% of the uncalled capital commitments that are earmarked for liquidity purposes and are not available for investment when the rating (public, private, estimate, assessment, mapped, or other proxy) on the entity providing the commitment is 'BBB-' or higher. Funding and liquidity 109. External support. When considering whether to factor in the benefits of a strong parent or sponsor as part of the funding and liquidity assessments, we consider whether the following characteristics are met: The parent or sponsor is willing and has sufficient funding and liquidity to meet the firm's needs. The parent or sponsor has a demonstrated history of providing funding and supporting the liquidity of its subsidiary, or has made a strong commitment to do so. There are no material regulatory or other barriers to the parent or sponsor providing this support. Other Modifiers Track record and investment performance 110. We typically assess track record and investment performance as positive if a fund displays material benefits in the following areas: A long track record; Stability within the management team; Strong investment performance relative to peers, for example, as reflected in the Sharpe Ratio or other performance metrics; Total returns above stated targets to investors; Significant downside protection and a limited maximum drawdown that we believe limits the possibility of large losses; and Low market correlation. 111. We typically assess track record and investment performance as negative if a fund displays material shortcomings in any of the following areas: A short track record, particularly when the management team does not have a history working together with a similar fund or strategy; Significant turnover within the management team, or a management team with a limited history working together; Weak investment performance relative to peers, for example, as reflected in the Sharpe Ratio or other performance metrics; Total returns below stated targets to investors; Limited downside protection or a large maximum drawdown that we believe increases the possibility of large losses; or High market correlation. Risk management 112. Trading and credit risk management typically incorporates our assessment of an AIF's credit and market risk management as well as its risk appetite and tolerance for changes in risk exposure. 113. We assess a fund's risk oversight and control capabilities, as well as management's reporting on principal market, credit, and counterparty credit risks (i.e., how many counterparties does the fund interact with, how much do the top exposures represent, what are the ratings of the counterparties, etc.). We analyze a fund's risk management capabilities relative to the nature and complexity of its exposures and management's stated risk appetites. We view an AIF's credit and market risk management in the context of the trading profit and losses compared with stated limits, as well as risk managers' authority and oversight and ability to monitor and control limits in real time. 114. We also view comprehensive stress testing--for trading risk and liquidity risk--as a crucial risk management tool, especially for complex trading funds. Our view of an AIF's market risk and liquidity risk control capabilities is informed by a review of the stress-testing framework and stress-test results. 115. We expect highly rated funds to have comprehensive market risk stress tests, based on historical and hypothetical scenarios and reflective of the tail risks the funds incur beyond the reported VaR metrics. Likewise, we expect highly rated funds to develop sophisticated liquidity stress tests, comparing sources of liquidity and uses of liquidity in a stress scenario, factoring in historical draw-down on liquidity (for example, incremental margin calls) as well as the nature of prime broker and derivatives counterparties agreements. 116. An example of how we evaluate an AIF's risk appetite and tolerance for changes in risk exposure is when we think that growth and changes indicate that prospective risk could be higher than we are currently accounting for. Another example is whether we believe management is willing to reduce risk and lower profitability during periods of heightened market risk or challenging business conditions. We may consider it indicative of higher risk if we believe management is unwilling to accept lower returns. 117. Operational risk management is particularly important for AIFs that trade frequently and are very complex, such as those that rely on complex algorithms. For this reason, we typically consider a fund's operational ability relative to the risk level. For example, a fund with a simpler trading strategy may not need the same level of operational risk capability as one with a more complex trading strategy. 118. Our assessment of management and governance risk typically incorporates our view of an AIF's

management capabilities, as well as its governance practices, including board effectiveness or equivalent systems to encourage the representation of creditor' rights. 119. Examples of areas we may consider in evaluating a fund's management capabilities include: whether its strategy is consistent with management's capabilities and marketplace conditions; the management team's operational effectiveness; and management's expertise and experience, and its depth and breadth (i.e., key-man risk). 120. Our consideration of a fund's governance practices typically includes: Management culture (for example, whether we believe management's own interests are its primary concern); Whether there is a history of regulatory, tax, or legal infractions beyond isolated episode or outside industry norms; Whether messages are communicated consistently across constituencies; The strength of internal controls; and Financial reporting and transparency practices such as whether accounting choices are reflective of the economics of the business and whether financial statements are sufficient to allow typical users to understand intent and economic drivers. 121. We also consider whether the AIF has formal systems to encourage the representation of creditor' rights. For example, whether the fund has effective independent directors or receives regulatory oversight. Assessing transparency and complexity 122. We typically assess transparency and complexity as negative if a fund displays significant issues in any of the following areas: Complexity inherent to its investment strategy. For example, this could include when the fund invests in complex products such as derivatives, off-balance sheet activities, securitizations, put options on commercial real estate, mortgage servicing rights assets, or other exotic products. Additionally, this could include when we believe there is complex algorithmic trading risk; An overly complex legal or organizational structure; or Financial statements that we believe may not be representative of the fund's activities. The Support Framework Group support 123. While atypical, "Group Rating Methodology" (GRM) may apply. We clarify, however, that the role of asset manager to a fund is not, in and of itself, evidence of control--influence is not necessarily control in the way contemplated in GRM. Asset managers influence investment funds they manage. However, we would not typically assume that a fund would support the group to which the asset manager is affiliated. This is because typically the fiduciary duty of the asset manager is to the fund investors and not to the asset management company ownership. 124. In addition, for funds with concentrated investor bases, one or more non-affiliated investors may hold "right of refusal" over portfolio investments. 125. Finally, while many managers are supportive of the funds they manage, they make clear that they are under no obligation to provide additional capital or liquidity (in excess of general partner commitments). In a stress scenario, we do not anticipate fund managers will provide such support. 126. Here are examples of when we may apply GRM to a fund: When a guarantee of the fund is in place. When we view the fund as having an important relationship to its sponsor (i.e., asset manager) such that we expect the fund to support the asset management group in a stress scenario and/or the asset management group to support the fund in a stress scenario. Issue Ratings First-lien senior secured debt 127. We can rate first-lien senior secured debt one notch above the issuer credit rating if we believe collateral backing the debt is sufficient to repay secured creditors after applying our stressed leverage asset haircuts with 20% overcollateralization (i.e., 1.2x multiplier). Senior unsecured debt and junior secured debt 128. Our estimate of priority debt and adjusted assets is forward-looking and includes scheduled debt amortizations over the subsequent 12-month period. For example, with regard to revolver draws, when a draw results in a level of priority debt to adjusted assets exceeding the 15% or 30% levels, and we believe it would remain so, we rate the issue one or two notches lower than the issuer credit rating and maintain that for a minimum of four quarters, irrespective of short-term fluctuations in the priority debt level. Asset Haircuts 129. While AIFs often invest in esoteric assets whose fair value cannot be determined using observable inputs or measures, such as market prices or models, we use the closest available data, as informed by the following sources: We apply our market value securities criteria (see Related Criteria). In our stress case, assets are haircut to anticipate potential loss upon liquidation if forced to sell. We typically apply a moderate stress ('BBB' scenario) for haircuts. We apply our risk-adjusted capital framework (RACF) methodology, with adjustments to calibrate from 'A' to 'BBB' stress. We haircut publicly traded equity as described in our 'BBB' stress scenario. We adjust for other equity--for example, by increasing the haircut for private equity by 10%, in line with RACF. For asset classes whose haircuts we derive from assumptions in table 13, such as real estate equity investments, we multiply the historical price decline (as informed by the prior criteria

pieces) by the approximate leverage of the underlying investments. 130. For asset classes for which the market value securities criteria do not provide any haircuts (e.g., commercial real estate loans), we translate RACF credit risk losses into equivalent market value securities criteria haircuts as follows: First, we compute RACF total losses in an 'A' stress scenario over a three-year horizon and scale it down to a 'BBB' stress using table 2 (Rating Stress Factors Multiplied By Estimated Historical Worst Price Declines Determine Minimum Haircuts) in the market value securities criteria. Second, we infer an annual default rate for the asset class under a 'BBB' stress scenario using our best estimate of loss given default for the asset class. Third, we infer an implied rating for the asset class by looking at historical default rates under a 'BBB' stress scenario (using, for example, our latest corporate default and rating transition study). Last, we apply the haircuts in table 1 (Estimated Worst Historical Price Declines) of the market value securities criteria pertaining to the implied rating obtained at the previous step and the expected maturity. 131. For example, applying this methodology to construction and real estate development loans in the U.S., we would view the loans as comparable to 'B-' corporate bonds (from a stressed leverage standpoint). 132. For asset classes that are not currently listed in those criteria pieces, we stress the assets based upon the guidance laid out in Appendix IV of "Understanding S&P; Global Ratings' Rating Definitions," June 3, 2009. We typically use one of two approaches: We find the closest asset class that we have a stated haircut for and adjust using the risk position (if necessary) given our relative view of asset risk, or We haircut the asset by 25%, 50%, 75%, or 100% based on our view of the asset as low risk, medium risk, high risk, or very high risk. 133. Typically, we address concentration through risk position. However, for concentrated portfolios, such as when an AIF has effective positions of 20 or less (except for eligible sovereign debt), we could also incorporate this risk in stressed leverage--for example, by applying a 20% multiplier (i.e., 1.2x) to the stated haircuts.

Scaling Up VaR 134. We scale up a VaR at a lower time horizon into a one-year VaR by applying the usual "square root of time" adjustment. We scale up a VaR at a lower confidence level into a VaR at the desired 99.7% confidence level assuming the distribution is Gaussian and then incorporating a 50% add-on for a "fat tail" adjustment. 135. We increase the final multiplier by one-third if the number of back-testing exceptions of the reported VaR is higher than 150% of the theoretical number (given the confidence level chosen by the fund). We increase the final multiplier by 50% if the number of back-testing exceptions is higher than twice the theoretical number. A back-testing exception occurs when the trading loss is greater than the VaR (in absolute values). 136. For example, if a fund reports and monitors VaR at a one-day 95% confidence level, with 20 back-testing exceptions over the past year, we would scale it up to a one-year 99.7% VaR by doing the following: Multiplying by the square root of 260 to transform the one-day VaR into a one-year VaR, Multiplying again by 1.5×1.67 to transform the 95% VaR into a 99.7% VaR, and Multiplying again by 1.33 since the number of back-testing exceptions over the past year (20) is higher than 150% of the theoretical number at a 95% level (19).

Table 13 Stress Scenarios For Selected Asset Types

SCENARIO	BBB Scenario stress
Moderate Home price decline (from long-term trend) (%)	(20)
Commercial real estate price decline (from long-term trend) (%)	(18)
Publicly traded equity (listed stock prices) (%)	(50)
Private equity (unlisted stock prices) (%)	(60)
U.S. corporate lending (unrated) (%)	(42)

Funds With Short Or No Track Records 137. For funds with short or no track records, we evaluate available information including a comparable ("proxy") fund. We use fund portfolio guidelines to determine a hypothetical (i.e., model) portfolio. Existing holdings and manager performance gained with other funds may inform our quantitative and qualitative assessments. The following approaches typically apply, depending on availability, relevance, amount of historical information, the fund's portfolio guidelines, existing holdings, model portfolio, and the management's track record. 138. When we believe there is a comparable proxy fund (with similar credit, sector, and maturity as the fund) with at least four years of historical data, our assessment of the fund would typically be informed by our assessment of the proxy fund and of the new fund's guidelines to account for any differences from the proxy fund. 139. When we assign a rating to a fund with a designated investment period or similar ramp-up period with short or no track record, but we believe there is a comparable proxy fund, we take a prospective view. We assume the fund has reached the end of its investment period (typically after four years), is fully invested, and has reached its target capital structure and liquidity position. However, we also consider the current investment portfolio from a risk-adjusted leverage and a liquidity and funding standpoint, and we

incorporate potential liquidity and funding risks (such as debt maturities or recourse liabilities coming due prior to end of investment period) during the start-up phase. 140. For a fund that does not have a designated investment period or similar ramp-up period, with no or limited track record, we take a forward-looking view of the current portfolio. Because the fund does not have a designated timeline to reach a fully invested state, our assessments are informed by the risk-adjusted leverage, funding, and liquidity of a comparable proxy fund. 141. When we believe there is no comparable proxy fund (with similar credit, sector, and maturity) with at least four years of historical data, we would not typically assign an SACP. We cannot assign an SACP solely based on portfolio guidelines and management representation. Shareholder Loans 142. We generally treat shareholder loans as debt in the calculation of risk-adjusted leverage. However, we could consider a shareholder loan as equity if we expected it to absorb losses similar to other equity. To be treated as equity, the shareholder loan would have to be subordinated to and mature after all other recourse liabilities of the AIF. For example, if the shareholder loan is structured solely to allow investors in certain jurisdictions to invest equity in the AIFs (for regulatory purposes), we may treat the shareholder loan as equity. 143. For the shareholder loan to be treated as equity, we would typically need to have legal clarity that the loan would not be re-characterized as debt (for example if the fund were to be wound up), since this would mean it is not loss-absorbing. This may vary by jurisdiction. 144. We also would typically need to have clarity on how the loan would not benefit the shareholder making the loan relative to other equity investors. If shareholder loan providers retain special powers, such as additional voting rights in a windup, we would typically not treat the loan as equity.

REVISIONS AND UPDATES This article was originally published and became effective on Dec. 9, 2021. Changes introduced after original publication: On Jan. 12, 2023, we republished this criteria article to make nonmaterial changes. As announced in "Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports," published Oct. 1, 2021, S&P; Global Ratings is phasing out guidance documents over time. As part of that process, we have archived "Guidance: Alternative Investment Funds Methodology" and included its content, without any substantive changes, in the Glossary of the criteria, as well as in the other sections of the Appendix, which are new. In addition, we lowercased the preliminary anchors in table 1, clarified in paragraph 71 which portion of hybrids we exclude from total recourse liabilities, more clearly aligned paragraphs 99 and 108 with paragraph 24 of the "Funding And Liquidity" section, and clarified in paragraph 126 when we may apply GRM to a fund. We also deleted sections that were related to the initial publication of the criteria and are no longer relevant. Finally, we updated references in the "Related Publications" section and in paragraph 100.

RELATED PUBLICATIONS Fully Superseded Criteria Alternative Investment Funds Methodology, Jan. 13, 2020 Related Criteria Hybrid Capital: Methodology And Assumptions, March 2, 2022 Banking Industry Country Risk Assessment Methodology And Assumptions, Dec. 9, 2021 Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021 Group Rating Methodology, July 1, 2019 Risk-Adjusted Capital Framework Methodology, July 20, 2017 Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017 Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015 Issue Credit Rating Methodology For Nonbank Financial Institutions And Nonbank Financial Services Companies, Dec. 9, 2014 Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013 Methodology And Assumptions For Market Value Securities, Sept. 17, 2013 Criteria For Assigning 'CCC+', 'CCC', 'CCC-', And 'CC' Ratings, Oct. 1, 2012 Principles Of Credit Ratings, Feb. 16, 2011 Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010 Related Guidance ARCHIVE: Guidance: Alternative Investment Funds Methodology, Jan. 13, 2020 Related Research Evolution Of The Methodologies Framework: Introducing Sector And Industry Variables Reports, Oct. 1, 2021 S&P; Global Ratings Definitions, Nov. 10, 2021