Article Title: Criteria | Structured Finance | General: Global Framework For Assessing Operational Risk In Structured Finance Transactions Data: (EDITOR'S NOTE: —On Oct. 10, 2022, we republished this criteria article to remove U.S. public finance mortgage revenue bond programs from its scope, following the publication of "Methodology For Rating U.S. Public Finance Mortgage Revenue Bond Programs." We also made nonmaterial changes. See the "Revisions And Updates" section for details.) 1. This article describes S&P; Global Ratings' methodology and assumptions for assessing operational risk associated with transaction parties that provide an essential service to a structured finance issuer. Where we believe operational risk could lead to credit instability and a ratings impact, these criteria call for rating caps that limit the securitization's maximum potential rating. This article relates to our criteria article "Principles Of Credit Ratings," published Feb. 16, 2011, and "S&P; Global Ratings Definitions," published Nov. 10, 2021. 2. The framework for analyzing operational risk focuses on "key transaction parties" (KTPs). A KTP is a party whose failure to perform as contracted poses a risk to the expected performance of a securitization, such as to adversely affect the securitization's ratings. If a transaction includes a party that provides oversight of, and is legally responsible for, a KTP's performance obligations, then the operational risk assessment may be based on that party instead of the KTP. For example, the operational risk assessment could be based on a master servicer instead of a primary or sub-servicer, if it is legally responsible for seeing that the servicing standard in a pooling and servicing agreement is met. 3. The framework distinguishes between a KTP that performs a role, which, in substance, affects the collateral's performance ("performance KTPs")--for example, servicers and CDO asset managers--and a KTP that fulfills a role that is, while essential, generally administrative in nature ("administrative KTPs")--for example, trustees, paying agents, and calculation agents. We believe that administrative KTPs pose less event risk. Accordingly, an administrative KTP does not constrain a transaction's maximum potential rating, and an assessment of the likelihood that its services could be disrupted is not necessary, unless we have reason to believe that the administrative KTP's track record is not satisfactory and has not been remedied, and that its future performance could have an adverse ratings impact (see paragraph 59). For the avoidance of doubt, where we believe that, in substance, an administrative KTP's responsibilities are equivalent to those of a performance KTP, we treat the administrative KTP as a performance KTP, regardless of its title and ostensible role. 4. The operational risk framework generally considers the possibility that a performance KTP may become unable or unwilling to perform its duties during the life of a transaction. With this view, the framework calls for the assessment of, for each performance KTP in a transaction, the potential impact of a disruption in the KTP's services on the issuer's cash flows and the ease with which the KTP could be replaced if needed. Depending on the outcomes of these assessments, the framework also may call for assessing the likelihood of the performance KTP's service disruption and any provisions for a back-up KTP. 5. With regard to the cash flow and ratings impact that could result from a KTP's performance disruption, the analysis considers differences in asset types and structures, as well as country- and market-specific risk factors. The more a securitization's cash flow performance depends on the activities of a KTP, and the lower the likelihood that the KTP can be replaced, the more significant the KTP's disruption risk likelihood is in determining the securitization's maximum potential rating. 6. To be clear, we will not issue or maintain any ratings if, for any reason--including the reputation of any transaction party--we believe that any of the following applies to a securitization: A KTP has insufficient experience; The information on which a rating is based is insufficient (according to the application of sector-specific criteria), unreliable, or not timely; The transaction parties' roles, responsibilities, and rights are not sufficiently clear (in our view, documents lacking clarity can lead to performance gaps, thereby materially increasing operational risk, particularly when a securitization is under stress); or A KTP's resignation can be effective without a successor in place and the KTP's resignation would materially and adversely affect the securitization's performance. 7. The criteria unify under a common global framework our existing approaches for assessing operational and administrative risk in structured finance transactions. Accordingly, the data that inform the assessments continue to be based on our existing approaches for gathering relevant information--specifically, servicer evaluations, business reviews, third-party due diligence reviews, and transaction document reviews. We do not intend for the criteria to increase the information gathering that S&P; Global Ratings already conducts within each sector during the typical course of the rating process. 8. The criteria cannot envision or

capture facts and circumstances for all transactions, as they apply to a broad spectrum of securitizations that encompass varying degrees of operational risk--from high-quality, fully amortizing, commoditized assets to future flows. Therefore, a specific transaction's maximum potential rating could be lower than indicated by application of the framework based on sector-specific criteria, the facts specific to a transaction, and/or analytical judgment. SCOPE OF THE CRITERIA 9. The criteria apply globally to structured finance transactions, excluding covered bond transactions where the ratings on the covered bonds are linked to the covered bond issuer, and excluding asset-backed commercial paper (ABCP) transactions where operational risk in the ABCP portfolio is generally mitigated by the terms and conditions of the liquidity facility and the creditworthiness of the liquidity support provider. The criteria also apply to tender option bonds and to stand-alone single- and multi-family public finance housing bonds, but do not apply to public finance managed mortgage revenue bond programs. 10. The criteria do not apply to financial exposures to KTPs. Financial exposures to transaction parties, or counterparty risks, are specifically addressed in our counterparty risk criteria (see "Counterparty Risk Framework: Methodology and Assumptions," March 8, 2019). The counterparty risk criteria also address commingling risk (also see "Methodology For Servicer Risk Assessment," published May 28, 2009, which calls for rating caps where servicers fail to meet minimum criteria and, in our opinion, misappropriation risk is not mitigated). SUMMARY OF THE CRITERIA 11. The criteria generally comprise a four-step process to determine the maximum potential rating that can be assigned to a specific structured finance transaction, based on our assessment of operational risk related to a performance KTP. However, as explained in paragraph 19, the necessity of performing the third and fourth steps usually depends on the assessment outcomes of the first and second steps: The first step is to assess the potential impact of the KTP service disruption on the securitization's cash flows ("severity risk"). The severity risk assessment is based on the securitized asset's performance sensitivity to a KTP disruption, as the criteria qualitatively assess how the assets would perform in the event that the KTP's services are disrupted. The primary factors are the credit quality of the assets being securitized and the asset class, because these factors usually are indicative of the importance of the KTP's services to the assets' performance. The second step is to assess the likelihood that the KTP could be replaced following the service disruption ("portability risk"). The portability risk assessment involves reviewing the market for the KTP's role in the securitization given the region, the asset type, and the KTP's responsibilities. The assessment also considers the compatibility of the KTP's systems with potential replacement KTPs, the degree to which the securitization agreement is consistent with market standards, the issuer's contractual and legal rights to terminate the KTP, whether the transaction includes a control party that can appoint a replacement KTP, and the transaction's capacity to pay fees that incentivize a replacement KTP to succeed the initial KTP. The third step is to assess the likelihood of a material disruption in KTP services ("disruption risk"), which we distinguish from the likelihood that the KTP would become insolvent. The disruption risk assessment is based on the KTP's capacity and willingness to perform--specifically, factors including the KTP's credit quality, portfolio growth rate, experience and track record, and whether the KTP has franchise value. The fourth and last step is to assess any provisions for a back-up KTP. 12. The assessment at each of the first three steps results in a risk ranking. The rankings for each of those steps combine to determine the securitization's maximum potential rating--from 'AAA' to 'B'--prior to giving consideration to any provisions for a back-up KTP. If the securitization rating is capped based on assessments for the first three steps, but the securitization provides for a back-up KTP, then the capped rating (i.e., the maximum potential rating) could be higher by up to six rating notches, depending on our view of the back-up KTP's experience (in view of the asset class and role) and readiness to assume the performance KTP's responsibilities. 13. Maximum potential ratings that are lower than 'AAA' (i.e., rating caps) reflect event risk due to KTP, asset, and/or market-specific risk factors. The rating caps also indicate that the increased event risk could result in ratings volatility that at higher ratings would be inconsistent with our credit stability. However, the criteria generally do not limit maximum potential ratings where, in our view, securitizations have low severity and portability risk, and feature experienced KTPs. Therefore, when severity and portability risk both are low for each KTP and a securitization features experienced KTPs, a disruption risk assessment is not required as part of the operational risk review. Such an assessment may nevertheless be undertaken if there are unique circumstances associated with a transaction such that

we believe that a disruption in KTP services may affect a securitization's rating despite low severity and portability risk assessments. 14. The maximum potential rating for a securitization with more than one KTP is the lowest maximum potential rating determined, based on the analysis of each KTP in a given transaction. It could change over time, considering that operational risk is reviewed as frequently as we deem appropriate, which includes our periodic securitization reviews. In any event, if a KTP's services are disrupted and there are cash flow implications to an outstanding transaction, then such a disruption would likely lead to an analysis of the KTP's track record for purposes of assessing operational risk in other securitizations involving that KTP. The analysis for deciding whether to extend the operational risk assessment to other transactions, asset classes, and regions involving the KTP will consider whether the cause for the KTP disruption was localized or systemic. 15. This paragraph has been deleted. 16. This paragraph has been deleted. METHODOLOGY 17. The framework considers factors that, in our view, contribute to or mitigate operational risk, such as the securitized asset type, the nature and intensity of the KTP's role, whether or not the KTP is difficult to replace, and, in some cases, the KTP's capacity and willingness to perform. 18. With regard to performance KTPs, the criteria generally comprise a four-step process to determine the maximum potential rating that can be assigned to a specific structured finance transaction based on our assessment of operational risk. As explained in paragraph 19, the necessity of performing the third and fourth steps usually depends on the assessment outcomes of the first and second steps: Step 1: Assess the potential impact of the disruption in KTP services to the securitization's cash flows (severity risk--paragraphs 30-34). Step 2: Assess the likelihood that the KTP could be replaced following the disruption in KTP services (portability risk--paragraphs 35-41). Step 3: Assess the likelihood of a material disruption in KTP services (disruption risk--paragraphs 42-50). Step 4: Assess any applicable back-up KTP provisions (paragraph 51-56). 19. If the severity and portability risk are each assessed as being low for a performance KTP (which is typically the case for fully amortizing prime consumer receivables in well-established securitization markets), then the maximum potential rating typically would not be constrained by application of the criteria. In such a case, a disruption risk assessment is not necessary, unless there are unique circumstances (e.g., a poor KTP track record or concerns over a KTP's preparedness for or management of a cyber attack) such that we believe that the securitization's rating could be affected by the KTP's performance, despite low severity and portability risk assessments. 20. The assessment at each of the first three steps--severity risk, portability risk, and, where required or deemed necessary, disruption risk--results in a risk ranking. For each of severity risk and portability risk, there are three possible rankings: "high," "moderate," or "low." For disruption risk, there are four possible rankings: "very high," "high," "moderate," or "low." The rankings for each of the three risks determine the maximum potential rating that can be assigned to a structured finance security for a given KTP prior to giving consideration to any provisions for a back-up KTP. 21. Table 1 shows the maximum potential ratings that could be assigned in view of the different potential combinations of risk rankings for the first three steps without regard to any back-up KTP provisions. For example, if the cash flow performance of a lease-backed securitization depends on a performance KTP to continually remarket short-term leases (i.e., high severity risk), but we deem the performance KTP's operating condition to be "vulnerable" (i.e., high disruption risk), then we would apply a ratings cap of 'BB' to the extent we believe that the transfer of the KTP's duties following its performance failure would be difficult to achieve (i.e., high portability risk). 22. On the other hand, if a high-quality commoditized asset class (such as prime auto loans) is being securitized in a region where there are a large number of potential replacement KTPs that are experienced with securitization structures (i.e., low severity risk and low portability risk), then the securitization's maximum potential rating usually would not be constrained by application of the criteria. In such a case, a disruption risk assessment usually would not be necessary (see table 1). 23. The framework recognizes a back-up KTP as a potential mitigant to a disruption in KTP services. Accordingly, the maximum potential rating could be higher than indicated in table 1 to the extent back-up KTP provisions exist and we believe the capabilities and contractual responsibilities of the back-up KTP would mitigate the impact of a KTP's disruption (see paragraphs 51-56 and table 8 for more details). 24. An administrative KTP usually does not constrain a transaction's maximum potential rating, and an assessment of the likelihood that its services could be disrupted is not necessary, unless we have reason to believe that the administrative KTP's track record is not satisfactory and has not

been remedied, and that its future performance could have an adverse ratings impact. 25. As illustrated in table 1, maximum potential ratings are lower than 'AAA' when the assessed levels of operational risk are higher. The rating caps reflect event risk related to KTP-, asset-, and/or market-specific risk factors. The rating caps also indicate that the increased event risk could result in ratings volatility that, at higher ratings, would be inconsistent with our approach to credit stability (see "S&P; Global Ratings Definitions," published Nov. 10, 2021). For these reasons, and because operational risk assessments are primarily qualitative in nature, the maximum potential rating indicated by application of the criteria would likely apply even if additional credit or liquidity support is available to partially, rather than fully, mitigate operational risk. In order to consider event risk fully mitigated by credit or liquidity support, we would need to conclude that, following a disruption in KTP services, the rated securities would continue to receive timely payments and would not otherwise experience any ratings impact (see paragraph 34). This liquidity risk analysis is of particular importance for short-term securities, being that short-term securities have comparatively less time to recover from a disruption. 26. The maximum potential rating for a securitization with more than one KTP is the lowest maximum potential rating determined based on the analysis of each KTP, and it could change over time considering that operational risk is reviewed as frequently as we deem appropriate, which includes our periodic securitization reviews. 27. In any event, if a KTP's services are disrupted and there are cash flow implications to an outstanding transaction, then the maximum potential ratings on the affected securitization(s) may be lowered by application of other criteria and "S&P; Global Ratings Definitions," published Nov. 10, 2021. Furthermore, such a disruption would likely lead to an analysis of the KTP's track record for purposes of assessing operational risk in other securitizations involving that KTP. The analysis would consider whether the cause for the disruption was localized or systemic. Assessing Maximum Potential Ratings: Performance KTPs 28. For a performance KTP, the criteria generally call for reviewing the following types of information when assessing operational risk and determining the maximum potential rating: For the severity risk assessment, asset characteristics, including the securitized asset's performance sensitivity to a KTP disruption are evaluated (because the criteria qualitatively assess how the assets would perform in the event the KTP's services are disrupted). The primary factors are the credit quality of the assets being securitized and the asset class, as these factors usually are indicative of the importance of the KTP's services to the assets' performance. (See paragraphs 30-34 for a discussion of severity risk.) For the portability risk assessment, the ease of replacing the KTP (which would call for reviewing the market for the KTP's role in the securitization given the region), the asset class, the KTP's responsibilities, the compatibility of the KTP's systems with those of potential replacement KTPs, and the degree to which the securitization agreement is consistent with market standards are weighed. Transaction features that mitigate or contribute to portability risk also are considered, including the transaction's capacity to pay fees that incentivize a replacement KTP to succeed the initial KTP, the issuer's right to terminate the KTP, and whether the transaction includes a control party. The portability risk assessment also considers the governing jurisdiction's insolvency laws, because they may limit the securitization issuer's right to terminate an insolvent KTP. (See paragraphs 35-41 for a discussion of portability risk, as well as tables 3 and 4.) For the disruption risk assessment, the KTP's capacity and willingness to perform are evaluated. The factors considered include our assessment of the KTP's franchise value, credit quality, track record, experience, portfolio growth rate, etc. However, if severity and portability risk are each assessed as being low for a KTP, then a disruption risk assessment is not necessary, unless, in our opinion, the KTP lacks sufficient experience, or its future performance could have an adverse ratings impact, based on track record. (See paragraphs 42-50 for a discussion of disruption risk and tables 5, 6, and 7 for a complete list of factors, as well as negative attributes.) 29. The next sections discuss in more detail each of the three risk types highlighted above and explains how assessments of those risks determine the maximum potential rating for each performance KTP. Other features within a securitization, such as a securitization's structure or liquidity support, may be considered in our assessment of operational risk to the extent we believe that, following a disruption in KTP services, the rated securities would continue to receive timely interest payments and would not otherwise experience any ratings impact. Severity risk 30. The first step in the analysis of operational risk is the assessment of the potential impact of a disruption in KTP services on the issuer's cash flows ("severity risk"). 31. A determining factor for assessing severity risk is the sensitivity of an asset's

performance to a KTP disruption. For example, lower-credit-quality assets, such as subprime consumer loans, are generally more servicing-intensive (i.e., they require, on a relative basis, more resources to pursue collections and to foreclose on and liquidate collateral) than higher-quality assets, such as prime consumer loans. As a consequence, we would expect the performance of the lower-credit-quality loans to deteriorate more severely than the performance of the higher-credit-quality loans if servicing activities for all of the loans were discontinued or neglected for a period of time. Table 2 shows the severity risk rankings for a number of asset classes. As shown, the servicing of higher-quality loans generally are ranked as lower severity risk, while the servicing of lower-quality loans are ranked as higher severity risk. We expect that these assessments will usually apply to the asset classes indicated, and for table 2 and paragraphs 31-34 to be used as guidance for those asset classes that are not specifically addressed. Where a portfolio has seasoned past its peak loss period and portability risk for the asset class (see paragraphs 35-41) is "low", we may qualitatively consider that the transaction's operational risk is comparatively lower, resulting in a maximum potential rating that could be one notch higher than otherwise. For example, the seasoning analysis would consider the transaction's structure, such as whether there is any refinancing risk. Table 2 Indicative Severity Risk Ranking ASSET CLASS SEVERITY RISK RANKING* Auto loans (prime) Low Cash flow and synthetic CDOs/CLOs Low Commercial mortgages--credit tenant lease (CTL) Low Consumer unsecured loans (prime) Low Credit cards (prime) Low Fleet leases (large corporate) Low Residential mortgage loans (prime) Low USPF: Affordable multi-family housing loans (unenhanced) Low USPF: Multi-family mortgage loan pools Low USPF: Section 8 subsidized housing loans Low Auto leases Moderate Auto loans (subprime) Moderate Commercial mortgages (non-CTL) Moderate Consumer unsecured loans (subprime) Moderate Dealer floor plan loans Moderate Equipment loans and leases+ Moderate FFELP student loans Moderate Fleet leases (small corporate) Moderate Market value CDOs Moderate Private student loans Moderate Residential mortgage loans (subprime) Moderate Small and midsize enterprise loans Moderate USPF: FHA-insured multi-family mortgage loans Moderate Trade receivables High Aircraft leases High Container leases High Railcar leases High Rental car loans High *Assumes market standard structures and practices. +Assumes assets are fully amortizing with minimal residual risk and that borrowers are responsible for maintenance. FFELP--Federal Family Education Loan Program. FHA--Federal Housing Administration. USPF--U.S. Public Finance. 32. Similarly, securitizations of esoteric assets--operating assets and leases, contrasted with fully amortizing receivables, such as residential mortgage or auto loans--engender more operational risk. The asset cash flows in these transactions (including shipping containers, railcars, and aircraft) depend heavily on active KTPs with highly specialized skills, such as re-leasing, repossession, maintenance and/or remarketing services. Accordingly, the criteria assume a material KTP disruption has a significant impact on the performance of these assets. Table 2 also shows that more esoteric assets are generally assessed as having high severity risk. 33. The criteria also consider that idiosyncratic business practices could exacerbate the expected sensitivity of an asset to a KTP disruption. For example, a highly decentralized collection practice in the U.S., known as "buy-here-pay-here," involves borrowers (usually subprime) making loan payments in the same store where the loan was originated to finance the purchase of goods. We believe this collection practice compounds the severity of the deterioration in asset performance--especially in view of the borrowers' credit quality--because it highly correlates asset performance to the relative number of KTP store closures. Accordingly, the criteria consider the severity risk of any asset class with predominantly buy-here-pay-here characteristics to be high. (Buy-here-pay-here collection practices also affect our portability risk assessment; see the discussion of systems compatibility and business practices in paragraph 38.) For other idiosyncratic business practices, we increase the expected severity risk ranking for an asset class if, in our opinion, the KTP's idiosyncratic business practices could exacerbate the expected deterioration in asset performance. 34. Other features within a securitization may improve the expected severity risk ranking (e.g., structural or third-party liquidity support). This is particularly so when portability risk is low (see paragraphs 35-41 for a discussion of portability risk), to the extent we believe that following a disruption in KTP services, the rated securities would continue to receive timely interest payments and would not otherwise experience any ratings impact. Portability risk 35. The second step in the analysis of operational risk is an assessment of portability risk, or the likelihood that the KTP could be replaced if needed. Portability risk is based on a review of each of the following five

primary risk factors: The market depth of qualified replacement KTPs, given the asset class and region; The fee incentive for a replacement KTP; The degree to which the KTP's systems and business practices would be compatible with those of a potential replacement; The issuer's right to terminate a KTP when its performance is materially disrupted; and Whether a control party (e.g., the trustee or a master servicer) is responsible for appointing a replacement KTP in the event the initial KTP needs to be replaced. 36. Market depth of qualified replacement KTPs. The market depth of qualified replacement KTPs is generally a function of both the securitization region and asset class. Securitization regions with well-established secondary markets for a specific KTP role engender less portability risk than less mature markets. However, the assessment of market depth also considers the asset class because, even in comparatively mature markets, there may be limited histories of successful role transfers or portfolio sales for specific asset classes (e.g., those asset classes that are more servicing-intensive and which require more specialized skills--see paragraphs 31-32). Consequently, the portability risk assessment for a securitization reflects the degree to which, given the asset class, there is an established secondary market for KTP services and a history of successful role transfers or portfolio sales. The assessment also may reflect elevated risk based on the degree to which, in view of the securitization region and asset class, we believe the KTP agreement includes nonstandard or bespoke provisions that effectively diminish prospects for attracting qualified replacement KTPs. Table 3 shows the portability risk rankings for a number of asset classes. The rankings are based only on the market depth of qualified KTPs in specific regions (our opinion of the market depth of qualified KTPs in other regions may differ; for regions, as well as asset classes, that are not listed in table 3, we would apply the principles in this paragraph and the subfactors in table 4). Other factors may increase the portability risk rankings (see paragraphs 37-41 and table 4). Table 3 Indicative Portability Risk Ranking* BASED ON MARKET DEPTH OF QUALIFIED KTPS^ ASSET CLASS AUSTRALIA/NEW ZEALAND EUROPE JAPAN U.S. Aircraft leases N/A N/A N/A Moderate# Auto leases Low Low Low Low Auto loans (prime) Low Low Low Low Auto loans (subprime) Moderate Moderate N/A Moderate Cash flow and synthetic CDO/CLOs Low Low Low Low Commercial mortgages--credit tenant lease (CTL) Low Low N/A Low Commercial mortgages (non-CTL) Low Low Low Low Consumer unsecured loans (prime) Low Low Low Low Consumer unsecured loans (subprime) N/A N/A Moderate Moderate Trade receivables N/A Low N/A Low Container leases N/A N/A N/A Moderate# Credit card loans (prime) Low Low Low Low Dealer floorplan loans Moderate Moderate N/A Moderate Equipment loans and leases+ Low Low Low Low FFELP student loans N/A N/A N/A Low Fleet leases (large corporates) N/A N/A N/A Low Fleet leases (small corporates) N/A N/A N/A Moderate Market value CDOs N/A Low N/A Low Private student loans N/A N/A N/A Moderate Railcar leases N/A N/A N/A Moderate# Rental cars loans High High N/A High Residential mortgage loans (prime) Low Low Low Low Residential mortgage loans (subprime) Low Low N/A Low Small and midsize enterprise loans N/A Low N/A N/A USPF: Affordable multi-family housing loans (unenhanced) N/A N/A N/A Low USPF: FHA-insured multi-family mortgage loans N/A N/A N/A Low USPF: Multi-family mortgage loan pools N/A N/A N/A Low USPF: Section 8 subsidized housing loans N/A N/A N/A Low *Assumes market-standard structures and practices. Other factors may increase the portability risk assessment (see paragraphs 37-41 and table 4). ^Our opinion of the market-depth of qualified KTPs in other regions may differ. +Assumes assets are fully amortizing with minimal residual risk and that borrowers are responsible for maintenance. #Assumes relatively long-term leases, requiring less KTP activity to re-lease, and that lessees are responsible for maintenance. CDO--Collateralized debt obligation. CLO--Collateralized loan obligation. CTL--Credit tenant lease. FHA--Federal Housing Administration. FFELP--Federal Family Education Loan Program. USPF: U.S. public finance. N/A--Not applicable, because securities backed by the specific asset class are not currently rated by Standard & Poor’s in the specified region. 37. Fee incentive for replacement KTPs. The portability risk assessment reflects the risk that a replacement KTP is less likely to assume the initial KTP's role and responsibilities, unless the cash flows available for the replacement are at or above the market standard for fees and among the senior-most obligations in the issuer's priority of payments. As a result, the portability risk indication based only on this factor is "high" when the cash flows available for a replacement KTP are materially below market-standard fees or subordinated. On the other hand, the portability risk indication based on this factor is "low" if the cash flows available for a replacement KTP are at or above market-standard

fees and among the senior-most obligations in the issuer's priority of payments. 38. Systems compatibility and business practices. The compatibility of the initial KTP's systems with those of potential replacement KTPs could affect a securitization's performance in the event the KTP has to be replaced. Proprietary systems requiring actions, such as extensive mapping during the transition process, could lead to significant expenses (thereby diminishing prospects for attracting a replacement KTP) and/or delays in the transition (thereby exacerbating the severity of any deterioration in asset performance following a KTP disruption). Therefore, a transaction's portability risk assessment reflects the degree to which the initial KTP's systems are incompatible with market standards. The framework also considers idiosyncratic KTP business practices that, in our view, could materially and adversely affect the transition to a potential replacement KTP, in which case we assess portability risk as being higher than otherwise. For example, if a securitization's servicer predominantly relies on buy-here-pay-here collection practices, then portability risk would be assessed as "high" because the transfer of the collection function would be extremely difficult when obligors are making payments at various locations of a disrupted KTP. 39. Issuer termination rights. The issuer's ability to replace the initial KTP depends, in part, on whether the issuer has the right to terminate it. For this reason, the portability risk assessment includes a review of contractual provisions that grant the issuer the right to terminate the KTP before or after a KTP disruption occurs, as well as a review of governing laws that may restrict those rights. The assessment of portability risk reflects elevated risk to the degree that we believe the issuer may be incapable of terminating a KTP when its services have been disrupted, or that the outcome of the KTP's insolvency is highly uncertain due to governing laws. For example, in the U.S., a typical securitization issuer has the contractual right to terminate its servicer if the servicer becomes insolvent. However, U.S. bankruptcy laws prevent the issuer from exercising those rights unless the servicer is unable to perform and, even in those circumstances, there may be delays in obtaining court approval for the termination (see "What if a Servicer in a Securitized Transaction Becomes Insolvent?," April 22, 2002). Still, U.S. bankruptcy laws usually would not adversely affect our assessment of portability risk because, depending on the circumstances, the framework assumes either that the bankruptcy court would allow the issuer to terminate the KTP if it is unable to perform or that the court would prevent the issuer from terminating the KTP if it is capable of continuing to perform. In other words, the criteria assume that a U.S. bankruptcy court would allow the issuer to terminate a KTP as long as the issuer showed that the KTP was incapable of performing as substantively contracted. Similar laws apply in some other jurisdictions--for example, specific regions within Europe. 40. Control party. The framework assumes that a replacement of the initial KTP would occur only if a securitization included a control party that was capable of appointing a replacement. Accordingly, the portability risk assessment is "high" when a securitization does not include such a party. If all of the other factors in our portability risk analysis indicated low risk, then our portability risk assessment is "low," as long as the securitization includes a control party, such as a bond insurer, master servicer, or trustee, that is independent of the KTP and has both the incentive and capability to act quickly to appoint a replacement KTP. (A control party that is committed as the "KTP of last resort" may also increase a capped rating by up to one notch--see paragraphs 51-56 for a discussion of back-up KTPs.) 41. Table 4 summarizes the considerations for assessing portability risk and, for each consideration, it includes negative and positive attributes on relatively extreme ends of a spectrum. Portability risk is assessed as "low" when our assessment of all of the subfactors in table 4 are consistent with the positive attributes, and "high" when any of those subfactors are consistent with the negative attributes. Portability risk is assessed as "moderate" when the assessment of any risk subfactor falls in between the described negative and positive attributes, and none of the other subfactors indicate high risk. Portability risk could be fully mitigated by a "hot" back-up KTP, since a hot backup is capable of stepping into the KTP's role almost immediately following termination of a KTP's services. For example, if a securitization includes a hot back-up KTP and otherwise meets the conditions for increasing a capped rating, the criteria add up to six notches to the maximum potential rating indicated in table 1, depending on the KTP's skills and experience in transitioning existing portfolios acquired from other parties onto its own operational platform (see paragraphs 51-56). Table 4 Considerations In Assessing Portability Risk RISK FACTOR* NEGATIVE ATTRIBUTES (INDICATIVE OF HIGH RISK) POSITIVE ATTRIBUTES (INDICATIVE OF LOW RISK) MARKET DEPTH OF QUALIFIED KTPS Availability of

potential replacements given the asset class and region Low level of market development with very limited number of potential replacement KTPs, or specialized servicing is required in an established sector with declining viability. Highly developed market with large number of active KTPs that are experienced with securitization structures. History of KTP responsibility transfers There is a very limited history of KTP responsibility transfers and portfolio transfers. There is a history of completed KTP responsibility transfers without material cash flow disruptions, or a history of portfolios that have been sold and bought. Standardization of agreements KTP agreements include nonstandard or bespoke provisions and, as a result, we believe that transferring the KTP's responsibilities may be difficult. KTP agreements are market standard. FEE INCENTIVES Economic incentive for a replacement performance KTP The cash flows available to pay fees to a potential replacement KTP are below market standard, or the fees are not among the issuer's senior-most obligations. The cash flows available to pay fees are projected to be sufficient to attract a replacement KTP, if needed, and are among the senior-most issuer obligations. SYSTEMS COMPATIBILITY AND BUSINESS PRACTICES Systems compatibility The KTP's systems have a low level of compatibility with the systems of potential replacement KTPs and, as a result, we believe that a transfer of the KTP's responsibilities could be materially delayed and/or error prone. The KTP's systems are highly compatible with potential replacement KTPs' systems. Business practices KTP operations that are relevant to the securitization include idiosyncratic business practices; as a result, we believe the transition to a replacement KTP could be materially delayed. The KTP's relevant business practices are consistent with market standards. ISSUER TERMINATION RIGHTS Contractual rights The issuer's contractual right to terminate the KTP is substantially limited, even for material covenant breaches. The issuer has clear contractual rights to terminate the KTP in the event it defaults, typically including termination rights for material covenant breaches. Legal rights The issuer's contractual right to terminate a KTP that has defaulted on its performance obligations is legally unenforceable or uncertain. The issuer's right to terminate a KTP that has defaulted on its performance obligations is reinforced or established in the law, or is supported by legal opinions that, in our view, are reliable. CONTROL PARTY Control party There is no control party to appoint a replacement KTP, or the control party has limited ability or incentive to monitor the KTP and/or act quickly if securitization performance deteriorates. The control party has an incentive to provide oversight and resolve problems, including finding a replacement KTP. *If we assess a specific portability risk subfactor as falling in between the described positive attribute (indicative of low risk) or negative attribute (indicative of high risk), then we would consider the subfactor as neutral and indicative of moderate risk. Disruption risk 42. Disruption risk is an assessment of the likelihood of a material disruption in a KTP's services. In general, the criteria do not limit the maximum potential rating, and a disruption risk assessment is not necessary, where, in our view, securitizations have low severity risk and low portability risk, and feature experienced KTPs (but see paragraphs 8 and 19). However, in other cases, where a disruption risk analysis is necessary, or deemed necessary based on the facts specific to a transaction, the analysis considers factors that may affect the KTP's capacity and willingness to perform its contractual obligations in a complete and timely manner. 43. The assessment of the KTP's capacity and willingness to perform is based, in part, on the KTP's operating condition (usually, based on KTP operations in the country where the service is performed) because, in our opinion, companies under severe financial stress have an incentive to engage in self-preservation activities that prolong their existence and role as a KTP, but may be detrimental to investor interests (e.g., staff reductions, deferred systems maintenance and upgrades, and aggressive accounting practices that conceal deteriorating performance). 44. However, even when severity risk and portability risk are high, the criteria do not necessarily limit a transaction's maximum potential rating to the credit quality of its KTPs because the insolvency of a KTP, unlike the insolvency of a party to which a transaction is financially exposed, would not necessarily result in a disruption of performance (see "What if a Servicer in a Securitized Transaction Becomes Insolvent?," April 22, 2002). The criteria reflect our view that the risk of a KTP performance disruption is generally lower than the risk that the KTP becomes insolvent, particularly when we assess the KTP's key performance attributes (discussed in paragraph 46) as satisfactory. Furthermore, the criteria also reflect the view that the risk of a KTP's liquidation and, therefore, the risk of a service disruption, are much less likely for those KTPs with significant franchise value (i.e., KTPs that are seen as potential acquisition targets or

capable of attracting debtor-in-possession financing). Therefore, notwithstanding their financial condition, KTPs that we believe possess significant franchise value--usually, among the leading service providers in the industry--are seen as much less likely to experience a disruption of operations. 45. Table 5 lists and defines three possible rankings for a KTP's operating condition: "stable," "transitional," and "vulnerable." The ranking that applies to a specific performance KTP usually considers whether the KTP has significant franchise value and, if not, the KTP's financial condition. Table 5 Operating Condition OPERATING CONDITION CHARACTERISTICS Stable We believe the KTP meets the characteristics described for either I, II, III, or IV: I) The KTP has significant franchise value, in that the KTP's business is valuable as a potential acquisition target, or it would be capable of attracting debtor-in-possession financing. A KTP with significant franchise value enjoys a strong value proposition in the market in which it competes, such that, in the event it becomes insolvent, liquidation would be very unlikely, in our view. II) The KTP has a credit rating of 'BB' or higher from Standard & Poor's or an equivalent credit estimate. III) A KTP generally exhibits the following characteristics: --The KTP is generally profitable and has a positive net worth. --The KTP has operated through an economic downturn. --With regard to KTPs that are not banks, the KTP has well-established banking relationships (e.g., the KTP has four years of banking relationships with two or more banks, and they support the KTP's business by providing and renewing multiple, multiyear lines of credit). --KTP management is primarily focused on competing in its respective markets and growing its business in a controlled manner. --Staffing is consistent with the volume of business the company is conducting. --The senior management team is strong and there is ample second-line management in place. IV) The KTP is a government agency, or the primary asset being securitized is guaranteed by a government agency and, in either case, the agency is closely related to a government that is rated 'BB' or higher. Transitional We believe that the KTP does not meet the definition of "stable" or "vulnerable." Vulnerable We believe that the KTP meets the standards for either I or II: I) The KTP has a credit rating that is lower than 'CCC+' from Standard & Poor's, or an equivalent credit estimate, and, in our view, the KTP does not have significant franchise value. II) The KTP meets two or more of the following characteristics: --The KTP is consistently unprofitable and is rapidly depleting its net worth. --The KTP's creditors have curtailed, or are in the process of exiting, their credit relationship with the company, such that management is primarily focused on repairing its existing relationships with creditors and/or seeking to replace expiring lines of credit. --The company is rapidly losing market share and customers. --Staffing is rapidly declining because of downsizing and/or departures, raising doubts as to whether staffing levels are consistent with the company's volume of business. --Senior management has recently experienced key departures that coincide with disappointing financial results and dwindling credit support, and the key departures have not be been replaced with appropriately seasoned staff. --The future stability of the KTP's operations is uncertain due to negative trends affecting the future viability of the sector. 46. The assessment of a KTP's capacity and willingness to perform also reflects key performance attributes, including the KTP's experience, track record, and portfolio growth rate in the relevant asset class. Table 6 lists each of the factors that we consider and, for each factor, it describes negative attributes that are indicative of higher risk. For purposes of the framework, the key performance attributes assessment of a KTP is: "Satisfactory," if there are no negative attributes; "Fair," if there are up to three negative attributes; or "Poor," if there are more than three negative attributes. Table 6 Key Performance Attributes KEY PERFORMANCE ATTRIBUTES NEGATIVE ATTRIBUTES Track record in asset class and role The KTP has experienced material performance failures in the past, and we believe there is a risk of an adverse ratings impact due to future nonperformance Experience The KTP has a low level of experience in view of the asset class and the complexity of the KTP's role. For example, we would typically expect the KTP servicing auto loan ABS to have at least three to five years of operating history, but would look for the key employees of a KTP managing a CDO to have, on average, at least three to five years of relevant industry experience Portfolio growth rate We believe the KTP's service performance could likely be affected by systems capacity or other operational issues brought on by portfolio runoff or rapid growth Quality of internal controls We believe the KTP's ability to perform could be adversely affected because of weak internal controls (e.g., with regard to segregation of duties, review and approval authorizations, accountability of assets, preventing/detecting errors or fraud, or planning for contingent risks such as cyber risk), because

relevant KTP policies and procedures are not adequately documented, or because training on policies or regulations is deficient Transparency and disclosure The KTP has failed to provide in a timely manner reasonably requested information beyond the minimum information needed to assign or maintain a rating (also see paragraph 60) Regulatory or legal issues The KTP’s ability to fulfill its performance obligations could likely be materially and adversely affected by ongoing regulatory, government, or legal action 47. The combined assessments of a KTP's operating condition and key performance attributes results in a disruption risk ranking of "low," "moderate," "high," or "very high." As shown in table 7, KTPs with comparatively stronger operating conditions achieve lower disruption risk assessments for a given key performance attributes assessment than KTPs with weaker operating conditions. Similarly, KTPs with comparatively stronger key performance attributes assessments achieve lower disruption risk assessments for a given operating condition than KTPs with weaker key performance attributes assessments. (Also see "Methodology For Servicer Risk Assessment," May 28, 2009.) Table 7 Disruption Risk Assessment ASSESSMENT OF KEY PERFORMANCE ATTRIBUTES Operating condition Satisfactory Fair Poor Stable Low Moderate High Transitional Moderate High Very high Vulnerable High Very high Very high 48. Our assessment of the KTP's disruption risk ranking may be higher than the previous paragraph indicates if, based on the facts and circumstances specific to a KTP, our forward-looking view indicates higher risk (e.g., we believe the future stability of the KTP's business operations is highly uncertain because of a recent or expected change in strategic direction, management, or ownership). In such instances, we may place some or all of the related securitization ratings on CreditWatch, pending additional information (see "S&P; Global Ratings Definitions," published Nov. 10, 2021). 49. Furthermore, notwithstanding paragraph 47, the disruption risk ranking is deemed as "very high" and, even in that case, the maximum potential rating could be lower than the framework suggests (see paragraph 8), if, for example, in our view: Any key performance attribute of a KTP is severely negative (see table 6); The KTP has failed to obtain or deliver market-standard reports, or has been cited by regulatory authorities for failing to meet jurisdictional reporting or auditing standards that we consider to be material, and such failure has not been remedied; The securitization structure would likely incentivize behavior by the KTP that conflicts with investor interests; or The KTP has previously acted to the detriment of investors in a securitization, such as to unreasonably interpret market-standard provisions, and we believe there is a high likelihood of recurrence. 50. For outstanding securitizations where information about the current KTP is not available, but portability risk for the asset class is low, we consider the collateral's performance relative to similar transactions, as well as the collateral's seasoning. Where, in our view, the collateral has performed comparatively well for several years, we assume a "high" disruption risk ranking for the KTP, unless we have reason to believe that the KTP's responsibilities are likely to be transferred to a KTP meeting the characteristics for a "very high" disruption risk ranking (e.g., poor track record, low level of experience, and vulnerability to insolvency). Back-up KTP provisions 51. Where a securitization rating is capped by the first three steps in the operational risk analysis, but the securitization provides for a back-up KTP, the criteria call for increasing the capped rating by up to six rating notches. Any such increase would depend on our opinion of the back-up KTP's experience (in view of the asset class and role) and readiness to assume the KTP's responsibilities, if needed (see table 8). However, the capped rating is increased only if all of the following conditions are met: The securitization issuer has the right to terminate the KTP (see paragraph 39); The backup is contractually committed to replace the KTP and assume its contractual obligations, if needed; A control party that is independent of the KTP has both the incentive and capability to quickly replace the KTP; We believe the insolvency risk of the KTP and the back-up KTP are not highly correlated; The backup has sufficient capacity to take on the KTP's obligations; and The backup has a disruption risk assessment of "moderate" or "low." Table 8 Maximum Adjustment To A Capped Rating Based On A Qualified Back-Up KTP BACK-UP KTP READINESS ADJUSTMENT TO MAXIMUM POTENTIAL RATING IN TABLE 1 Hot back-up 4 to 6 notches Warm back-up 3 to 4 notches Cold back-up 1 to 3 notches Trustee (or other control party) as KTP of last resort Up to 1 notch 52. Our assessment of the back-up KTP as "hot," "warm," or "cold" is based on our assessment of the terms and conditions in the back-up KTP agreement and how quickly we expect that a transfer of KTP responsibilities can be completed (e.g., one week for a hot back-up KTP, versus two months for a cold back-up KTP; see paragraphs 53-55). Once we have assessed a back-up KTP arrangement as "hot,"

"warm," or "cold," the specific adjustment to the maximum potential rating considers the back-up KTP's skills and experience in transitioning portfolios acquired from other parties onto its own operational platform ("onboarding"). We believe the back-up KTP's onboarding experience and capability is particularly important when the severity risk ranking for the asset class is "moderate" or "high." Therefore, the maximum potential rating indicated in table 1 for a specific transaction would likely be adjusted higher by four (rather than three) notches if we assess the back-up KTP as "warm," and highly skilled and experienced in onboarding. To be considered "highly-skilled," the back-up KTP must be among the most capable in the industry of onboarding the securitized assets. 53. To be considered a "hot" back-up servicer, the back-up servicing agreement must include provisions calling for parallel systems and real-time data reporting with all of the following characteristics: Initial and ongoing periodic onsite operational reviews; Upfront data mapping and testing on the back-up KTP's system; Transition planning; Daily or weekly data file receipt and storage; Reviews and verification of KTP report calculations; Resource allocation; and Portfolio monitoring and reviews. 54. A "warm" back-up servicing agreement consistent with the criteria usually include provisions calling for parallel systems with all of the following characteristics: An initial onsite operational review; Upfront data mapping and annual testing on the back-up KTP's system; Transition planning; Monthly data file receipt and storage; and Periodic reviews and verification of KTP report calculations. 55. A "cold" back-up servicing arrangement consistent with the criteria typically is characterized by all of the following: An initial onsite operational review; Upfront data mapping and reservation of space on the back-up KTP's systems (i.e., adequate systems capacity); and Transition planning. 56. The criteria consider that the transition time to the KTP role would likely be longer for a trustee that is the KTP of last resort than it would be for a cold back-up KTP (see table 8). This is because, among other things, the trustee typically does not conduct upfront data mapping, it may search for a suitable successor before stepping into the KTP role, and it is generally not required to become the successor until the original KTP ceases to act in that capacity. Assessing Maximum Potential Ratings: Administrative KTPs 57. Administrative KTPs usually include the trustee, calculation agent, and paying agent. Because of the administrative roles played by these KTPs and the relative ease with which they can be replaced, an administrative KTP usually would not constrain a transaction's maximum potential rating, and a disruption risk assessment usually would not be necessary. 58. For example, the primary function of a trustee in the U.S. is generally limited to monitoring other transaction parties' compliance with agreements, providing monthly distribution reports to investors, and reporting tax-related information. In addition, the trustee usually would be required to find a replacement for a transaction party that is known to have breached a major covenant. When the issuer has termination rights (see paragraph 39), the criteria consider the severity risk and portability risk related to administrative KTPs to be low, because the administrative KTP's responsibilities are usually limited to executing instructions from the performance KTPs, the securitization documents, and/or investors--and the skills required to perform the responsibilities are commoditized. Furthermore, the criteria consider that disruptions in administrative services can be remedied without material delay, including by a replacement. 59. However, if we have reason to believe, based on the KTP's track record, that its future performance could have an adverse ratings impact, then the administrative KTP would likely constrain the maximum potential rating. In these cases, the maximum potential rating considers transaction-specific facts, such as the risk that the administrative KTP actually poses to the performance of the rated securities in view of its specific role and any risk-mitigating factors (e.g., a different KTP is capable of curing errors by the administrative KTP). 60. This paragraph has been deleted. REVISIONS AND UPDATES This article was originally published on Oct. 9, 2014. These criteria became effective on Nov. 3, 2014, except in markets that required prior notification to, and/or registration by, the local regulator. In these markets, the criteria became effective when so notified by S&P; Global Ratings and/or registered by the regulator. Changes introduced after original publication: Following our periodic review completed on Oct. 7, 2016, we updated the contact information and criteria references and deleted outdated sections that appeared in paragraphs 15 and 16, which were related to the initial publication of our criteria. Following our periodic review completed on Sept. 25, 2017, we made no changes. On Nov. 21, 2018, we republished this criteria article to make nonmaterial changes. We updated the contact information and merged the information in paragraphs 6 and 60. On Nov. 6, 2019, we republished this criteria article to make nonmaterial changes. We updated criteria

references and removed references to the Request for Comment. On Nov. 16, 2020, we republished this criteria article to make nonmaterial changes. We updated criteria references and contact details. On June 29, 2021, we republished this criteria article to make nonmaterial changes. We updated tables 2 and 3 to provide more transparency as to how the criteria are applied to trade receivables. We also updated criteria references. On Oct. 10, 2022, we republished this criteria article to make changes resulting from the publication of the criteria article "Methodology For Rating U.S. Public Finance Mortgage Revenue Bond Programs." We updated the scope of the criteria in paragraph 9 to exclude U.S. public finance mortgage revenue bond programs, because we will analyze the operational risk for these programs under their specific criteria. As part of that process, we made nonmaterial changes to update tables 2 and 3 to remove the examples of USPF single-family mortgage loans, which are only present in mortgage revenue bond programs for which these criteria no longer apply. In addition, we made nonmaterial changes to update paragraph 19 and table 6 to include cyber risk as an example of our disruption risk assessment. We also updated related criteria and research references and contact information. RELATED CRITERIA AND RESEARCH Related Criteria Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021 Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020 Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019 Principles Of Credit Ratings, Feb. 16, 2011 Methodology For Servicer Risk Assessment, May 28, 2009 Related Research The Behavior Of Key Transaction Participants May Affect The Ratings Of U.S. RMBS, Oct. 8, 2012 Standard & Poor’s Global Approach to ABCP Conduit Administration, July 7, 2008 What If A Servicer In A Securitized Transaction Becomes Insolvent?, April 22, 2002