

Presale:

Benchmark 2021-B29 Mortgage Trust

September 14, 2021

Preliminary Ratings

Class(i)	Preliminary rating	Preliminary amount (\$)	Credit Enhancement (%)
A-1	AAA (sf)	20,710,000	30.000
A-2	AAA (sf)	78,526,000	30.000
A-3	AAA (sf)	177,306,000	30.000
A-4	AAA (sf)	TBD(ii)	30.000
A-5	AAA (sf)	TBD(ii)	30.000
A-SB	AAA (sf)	24,171,000	30.000
X-A	AA+ (sf)	819,937,000(iii)	N/A
X-B	NR	105,154,000(iii)	N/A
A-S	AA+ (sf)	74,540,000	23.000
B	NR	51,912,000	18.125
C	NR	53,242,000	13.125
X-D(iv)	NR	61,230,000(iii)	N/A
X-F(iv)	NR	26,621,000(iii)	N/A
X-G(iv)	NR	10,648,000(iii)	N/A
X-H(iv)	NR	41,263,977(iii)	N/A
D(iv)	NR	33,277,000	10.000
E(iv)	NR	27,953,000	7.375
F(iv)	NR	26,621,000	4.875
G(iv)	NR	10,648,000	3.875
H(iv)	NR	41,263,977	0.000
RR interest(iv)(v)	NR	26,145,545	N/A

PRIMARY CREDIT ANALYST

Cathy Saint Louis
New York
+ 1 (212) 438 4642
cathy.saintlouis
@spglobal.com

SECONDARY CONTACT

Natalka H Chevance
New York
+ 1 (212) 438 1236
natalka.chevance
@spglobal.com

Preliminary Ratings (cont.)

Class(i)	Preliminary rating	Preliminary amount (\$)	Credit Enhancement (%)
RR(iv)(v)	NR	29,899,402	N/A

Note: This presale report is based on information as of Sept. 14, 2021. The ratings shown are preliminary. This report does not constitute a recommendation to buy, hold, or sell securities. Subsequent information may result in the assignment of final ratings that differ from the preliminary ratings. (i)The certificates will be issued to qualified institutional buyers according to Rule 144A of the Securities Act of 1933. (ii)The final balances of the class A-4 and A-5 certificates will be determined at final pricing. The certificates in aggregate will have a total balance of \$444.684 million. The class A-4 certificates are expected to have a balance between \$0.000 million and \$149.000 million, and the A-5 certificates are expected to have a balance between \$295.684 million and \$444.684 million. (iii)Notional balance. The notional amount of the class X-A certificates will be equal to the aggregate certificate balance of the class A-1, A-2, A-3, A-4, A-5, A-SB, and A-S certificates. The notional amount of the class X-B certificates will be equal to the aggregate certificate balance of the class B and C certificates. The notional amount of the class X-D certificates will be equal to the aggregate certificate balance of the class D and E certificates. The notional amount of the class X-F certificates will be equal to the aggregate certificate balance of the class F certificates. The notional amount of the class X-G certificates will be equal to the aggregate certificate balance of the class G certificates. The notional amount of the class X-H certificates will be equal to the aggregate certificate balance of the class H certificates. (iv)Non-offered certificates. (v)Non-offered eligible vertical interest (VRR). NR--Not rated. TBD--To be determined. N/A--Not applicable.

Profile

Expected closing date	Sept. 30, 2021.
Collateral	Forty-seven commercial mortgage loans with an aggregate principal balance of \$1.121 billion (\$925.091 million of offered certificates), secured by the fee and leasehold interests in 90 properties across 31 states.
S&P Global Ratings pooled trust LTV	99.9% (based on S&P Global Ratings' NCF and weighted average capitalization rate of 7.68%).
S&P Global Ratings pooled trust DSC	2.22x (based on S&P Global Ratings' NCF and the actual debt service payable on the mortgage loans).
S&P Global Ratings pooled trust debt yield	8.03% (based on S&P Global Ratings' NCF and the loan balances for the mortgage loans).
Payment structure	The transaction is structured to comply with risk retention requirements by way of an eligible vertical residual interest, which includes the RR interest and RR certificates. The VRR interest provides credit support only to the limited extent that it is allocated a portion of any losses incurred on the underlying mortgage loans. These losses are allocated between the VRR interest and the certificates, pro rata, according to their respective percentage allocation entitlements. The total required credit risk retention percentage for this transaction is 5.0%. On each distribution date, interest accrued for each class of certificates at the applicable pass-through rate will be distributed in the following priority, if funds are available: to the class A-1, A-2, A-3, A-4, A-5, A-SB, X-A, X-B, X-D, X-F, X-G, and X-H certificates, pro rata, based on their respective entitlements to interest for that distribution date, and then to the class A-S, then B, then C, then D, then E, then F, then G, and then H certificates until interest payable to each class is paid in full. Principal payments on the certificates will be distributed to the class A-SB certificates until the balance is reduced to the planned principal balance for that distribution date, and then sequentially to the class A-1, A-2, A-3, A-4, A-5, A-SB, A-S, B, C, D, E, F, G, and H certificates until each class' balance is reduced to zero. If the class A-S through H certificates' total balance has been reduced to zero, principal payments on the certificates will be distributed to the class A-1, A-2, A-3, A-4, A-5, and A-SB certificates, pro rata, based on each class' certificate balance. Losses will be allocated to each class of certificates in reverse alphabetical order starting with the class H certificates through and including the class A-S certificates, and then to the class A-1, A-2, A-3, A-4, A-5, and A-SB certificates, pro rata, based on each class' certificate balance.
Depositor	GS Mortgage Securities Corp. II.
Mortgage loan sellers and sponsors	Goldman Sachs Mortgage Co., German American Capital Corp., JPMorgan Chase Bank N.A., and Citi Real Estate Funding Inc.
Master servicer	Midland Loan Services, a Division of PNC Bank N.A.
Special servicer	LNR Partners LLC.

Profile (cont.)

Trustee and certificate administrator Wells Fargo Bank N.A.

LTV--Loan-to-value ratio, which is based on S&P Global Ratings' values. DSC--Debt service coverage. NCF--Net cash flow.

Rationale

The preliminary ratings assigned to Benchmark 2021-B29 Mortgage Trust's commercial mortgage pass-through certificates reflect the credit support provided by the transaction's structure, our view of the underlying collateral's economics, the trustee-provided liquidity, the collateral pool's relative diversity, and our overall qualitative assessment of the transaction. S&P Global Ratings determined that the collateral pool has, on a weighted average basis, debt service coverage (DSC) of 2.22x and beginning and ending loan-to-value (LTV) ratios of 99.9% and 95.7%, respectively, based on our values.

Environmental, Social, And Governance (ESG) Factors

Our rating analysis considers a transaction's potential exposure to ESG credit factors. For CMBS, we view the exposure to environmental credit factors as above average, social credit factors as average, and governance credit factors as average (see "ESG Industry Report Card: Commercial Mortgage-Backed Securities," published March 31, 2021). The sector's above average exposure to environmental credit factors reflect environmental risks, such as physical climate and pollution. These risks can have serious and material effects on the value of the underlying commercial real estate backing the rated certificates--especially since CMBS pools are generally more concentrated than other highly diversified asset classes in structured finance.

The transaction's exposure to environmental credit factors is in line with our sector benchmark, in our view. Our analysis of the underlying real estate we examined in the loan pool included a review of third-party appraisal(s), environmental site, property condition, and seismic risk assessments (when located in a high hazard earthquake zone). We also reviewed the underlying loan documentation or a sample of the largest loans in the loan pool in conduit transactions. In particular, we looked at the property insurance requirements, the loan covenants requiring borrower(s) to maintain the real estate in good condition and appropriately address any exposure to environmental conditions, and any other available loan features we deemed relevant (e.g., environmental indemnity, third-party environmental guarantee, and specific cash reserve). We also reviewed the disclosed exceptions to the seller's representations and warranties to identify any other significant unmitigated environmental credit factors present in the smaller loans, if applicable.

Our review concluded that environmental credit factors are not key rating drivers in this transaction because these risks were adequately addressed. While the progressive decarbonization of the real estate sector by 2050 is expected to influence market values over time, we believe our current approach to evaluating stressed long-term recovery values indirectly accounts for the potential materialization of that pricing differentiation over the expected life of the transaction. In addition, our analysis does not give credit to any future actions that landlords and tenants may take to reduce their carbon footprint to support a healthier environment and preserve property value. As a result, we have not separately identified this as a material ESG credit

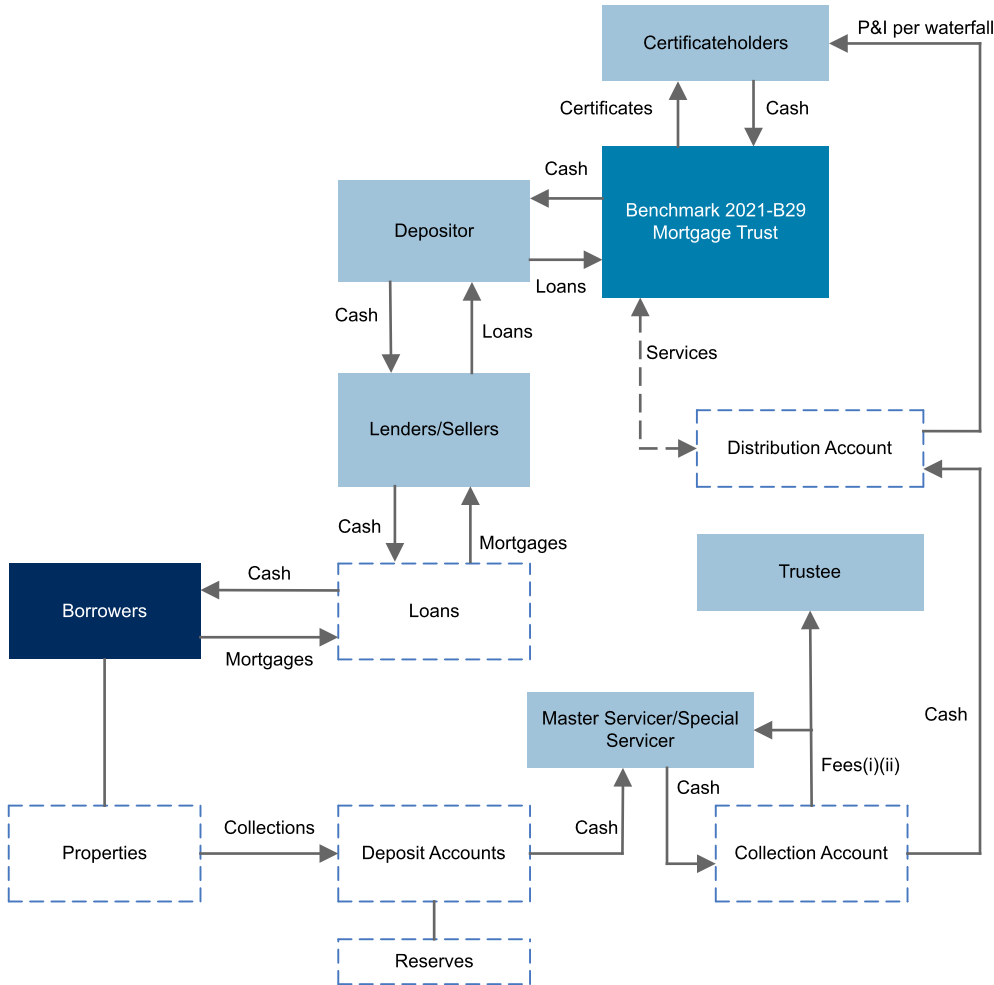
factor in our analysis.

The transaction's exposure to social and governance credit factors is in line with our sector benchmark, in our view.

Transaction Overview

The chart shows an overview of the transaction's structure, cash flows, and other considerations.

Transaction Structure



(i)Special servicing, liquidation, and workout fees. (ii)Includes reimbursements. P&I--Principal and interest. Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Strengths

The transaction exhibits the following strengths:

- The transaction has a high weighted average S&P Global Ratings' DSC of 2.22x based on actual

Presale: Benchmark 2021-B29 Mortgage Trust

debt service and, for the partial-term interest-only loans, the debt service due when the interest-only period expires. Nevertheless, the prevailing low interest rate environment influences this DSC, and any increase in interest rates could affect the loans' ability to refinance at maturity. Our DSCs for the pool range from 1.02x-3.64x.

- The pool is geographically diverse, with 90 properties spread across 31 states. The largest concentration is in New York (10 properties, 28.6% of the pooled trust balance), followed by Texas (five properties, 15.8%) and California (six properties, 13.4%). No other state accounts for more than 9.6% of the pooled trust balance.
- The transaction has a strong concentration of properties in primary markets, specifically within relatively strong metropolitan statistical areas (MSAs), including New York, Phoenix, and San Jose, Calif. Of the pooled trust balance, 57.1% is located in primary markets (as defined by S&P Global Ratings) and 27.5% in secondary markets. The remaining properties (15.5%) are located in tertiary markets.
- The loan pool has a diverse mix of property types. Of the pooled trust balance, 30.2% is backed by retail properties (as calculated by S&P Global Ratings), 22.6% by office properties, 17.2% by multifamily properties, 13.5% by mixed-use properties, 9.7% by industrial properties, 2.8% by self-storage properties, 2.2% by a ground lease property, and 1.7% by lodging properties.
- All of the 47 loans (100% of the pooled trust balance) have borrowers that are structured as special-purpose entities (SPEs). Nineteen loans (74.2%) provided lenders with nonconsolidation opinions, including all of the top 10 loans. Twenty-four loans (81.1%) have borrowers that are structured with at least one independent director.
- Forty-six of the loans (98.9% of the pooled trust balance) have some form of lockbox, as determined by the lenders: 24 loans (62.9%) are structured with a hard lockbox, 20 loans (26.4%) have springing lockboxes, one loan (7.1%) has a soft lockbox, and one loan (2.6%) has a hard in-place lockbox for commercial tenants and a soft in-place lockbox for residential tenants. One loan (7.1%) has in-place cash management while 45 loans (91.8%) are structured with springing cash management. One loan (1.1%) has no cash management and no lockbox provisions.
- Eighteen loans (33.2% of the pooled trust balance) represent acquisition or acquisition/recapitalization financing. Although some of these loans have limited operating data due to their recent acquisition, the loans benefit from the recent equity contribution by their sponsors. The weighted average LTV ratio for these loans, based on the appraiser's as-is value, is 55.7%, reflecting average equity contribution of 44.3% for these loans.
- Eight loans (14.1% of the pooled trust balance) are secured by multiple properties, ranging from two to 21 properties, which may lessen their net cash flow (NCF) volatility. However, some of these portfolio loans include properties located within the same city or state, which limits their geographic diversification. Additionally, four of the loans (8.2%) allow for property releases, subject to various conditions, which may reduce their diversity benefit.

Risk Considerations

We considered these risks when analyzing this transaction:

- While still elevated, U.S. CMBS delinquencies have declined in recent months after increasing in 2020 due to the economic slowdown resulting from the COVID-19 pandemic and the associated containment efforts, including social distancing, restrictions on travel, and

Presale: Benchmark 2021-B29 Mortgage Trust

government-mandated closures of certain businesses. Many lodging assets were closed or operating at low occupancy levels, and certain tenants within retail assets stopped paying rent or requested rent relief due to closure or demand reductions. The COVID-19 pandemic and the responses to it have led to an increase in unemployment levels and a reduction in consumer spending, which may also adversely impact multifamily, office, self-storage, and industrial properties. Multifamily and self-storage properties may be negatively impacted if unemployment rates rise and disposable income levels fall, or if there is a moratorium on evictions. Office properties may experience fluctuations in occupancy as businesses adjust their plans in response to government actions or if employers permit enhanced flexible work arrangements. The trust's exposure to retail is through 15 loans accounting for 30.2% of the pooled trust balance, which we discuss further below. According to the issuer, all of the loans in the transaction whose first payment date has already occurred are current on their debt service obligations. In some cases, borrowers may be in discussions with tenants that have requested lease modifications or rent relief. We selectively increased our vacancy rate and/or capitalization rate assumptions on certain properties that we deemed to have a higher risk for cash flow disruption.

- Depending on the duration and severity of the current pandemic, it is possible that some borrowers may seek forbearance arrangements due to financial hardship. The pooling and servicing agreement (PSA) permits the special servicer to enter into COVID-19 modification agreements with borrowers experiencing financial hardship due directly or indirectly to the COVID-19 pandemic. Modification agreements can provide for temporary forbearance or temporary alternative use of reserve or escrow funds for purposes other than those set forth in the loan agreement, or other modifications as reasonably determined by the servicers. We believe the transaction's servicer advancing mechanism will provide short-term liquidity support in the event that there are loan-level debt service shortfalls. In addition, five loans (7.4% of the pooled trust balance) are structured with an up-front cash debt service reserve covering debt service payments ranging from three to 12 months. Loans with a debt service reserve include: one loan (2.6%) secured by a multifamily property in Philadelphia, one loan (2.5%) secured by an anchored retail property in North Carolina, two loans (1.7%) secured by lodging properties in Kentucky and Georgia, and the remaining loan is (0.6%) secured by a mixed-use property in North Dakota.
- The transaction is only moderately diversified by loan balance, with an effective loan count (as measured by the Herfindahl-Hirschman Index) of 22.5. The 10 largest loans represent 54.8% of the pooled trust balance. More diversified transactions can be less susceptible to volatility in default and loss rates due to their reduced exposure to loan-related event risk, such as lease rollover, tenant bankruptcy, or changes in local market conditions. The effective loan count was one of the key factors in our derivation of credit enhancement for this transaction.
- The transaction has high leverage, with a weighted average LTV ratio of 99.9% based on S&P Global Ratings' values. While the top 10 loans have a weighted average S&P Global Ratings LTV ratio of 99.5%, loans 11-20 are slightly more highly leveraged, with a weighted S&P Global Ratings LTV ratio of 102.2%. The LTV ratio was one of the primary factors in S&P Global Ratings' derivation of credit enhancement levels for this transaction.
- Thirty-one loans (75.1% of the pooled trust balance) are interest-only for their entire loan terms, including seven of the top 10 loans (45.9%). The interest-only loans have a high weighted average S&P Global Ratings LTV ratio of 98.8%, and 17 of these loans (33.6% of the pooled trust balance) have LTV ratios over 100%. Seven loans (11.3%) have a partial interest-only period, including one of the top 10 loans, and nine loans in the pool (13.6%) are structured as amortizing balloon loans. The transaction is scheduled to amortize 4.4% through maturity. S&P Global Ratings considered loan amortization characteristics when assigning credit

enhancement levels to the individual loans and the transaction.

- The trust has high exposure to retail collateral (15 loans; 30.2% of the pooled trust balance, as calculated by S&P Global Ratings). The U.S. retail sector has been facing numerous challenges over the past several years given the continued growth of e-commerce, increasing consumer price sensitivity due to stagnating wage growth, and changing consumer tastes. These trends have resulted in declining sales, store closures, and smaller average store sizes for many national retailers. However, brick-and-mortar retail stores in well-situated class-A malls and within shopping centers, as well as freestanding properties, that are located in infill locations near major transportation nodes and in areas with strong demographic profiles, continue to prosper. Low supply growth in recent years may help keep vacancy levels at their currently low levels and boost rent growth. Six of the 15 retail loans (9.5% of the pooled trust balance) are secured by a property located in a tertiary location and three of the loans are considered unanchored retail loans (5.9%). We visited The Domain (5.7%; an open-air regional mall in Austin, Texas) and College Point (2.7%; an anchored retail center in College Point, N.Y.).
- The trust has a relatively high exposure to office collateral (six loans, 22.6% of the pooled trust balance). Of the pooled trust balance, four loans (21.1% of the pooled trust balance) are secured by central business district (CBD) office properties, while the remaining two loans (1.5%) are backed by suburban office properties in Bristol, Pa., and Westlake Village, Calif., which generally exhibit higher default and loss rates relative to CBD office properties. However, the two suburban office properties in this transaction are well-located in suburbs of secondary markets. The weighted average LTV ratio of the two suburban office properties is 97.4%.
- Fifty properties within 13 loans (26.9% of the pooled trust balance) are leased to a single tenant. However, five of the loans are secured by multiple single-tenant properties. The largest of these is HQ @ First (8.8%), a San Jose, Calif., office property, which is 100% leased to Micron Technology Inc. ('BBB-/Positive') through Dec. 31, 2034. The other 49 properties account for 18.1% of the pooled trust balance and, like the largest loan, 35 properties (23.3%) have lease terms that do not expire during the loan's respective loan terms.
- Two loans (1.7% of the pooled trust balance) are secured by lodging assets. S&P Global Ratings considers lodging properties among the riskiest property types because their pricing structure changes daily, they have a significant underlying operating business, and they have a higher expense ratio relative to other property types. Additionally, the lodging properties in this transaction have a high S&P Global Ratings weighted average LTV ratio of 109.3%.
- Eleven loans (39.6% of the pooled trust balance) do not have warm body carve-out guarantors. In our view, this limitation generally lessens the disincentive provided by a typical nonrecourse carve-out related to "bad boy" acts or voluntary bankruptcy.
- Seven loans in the pool (44.0% of the pooled trust balance) have a pari passu component; two loans, One SoHo Square (10.0%) and HQ @ First (8.8%) have a subordinated first-mortgage loan component in addition to their senior trust and pari passu loan components (which were securitized in separate stand-alone transactions). One loan (10.0%) has mezzanine debt (see table 5). In addition, three loans (13.0%) permit the borrower to incur future mezzanine debt based on predetermined LTV thresholds, and one loan (5.7%) permits the borrower to incur a future Property-Assessed Clean Energy (PACE) loan up to \$5.0 million. Our S&P Global Ratings loan-level recovery thresholds account for the presence of additional subordinate debt related to mezzanine debt, PACE loans, B-notes, and preferred equity.
- The transaction documents include provisions for the transaction parties to seek rating agency confirmation (RAC) that certain actions will not result in a downgrade or withdrawal of the then-current ratings on the securities. The definition of RAC in the transaction documents

Presale: Benchmark 2021-B29 Mortgage Trust

includes an option for the transaction parties to deem their RAC request satisfied if, after having delivered a RAC request, the transaction parties have not received a response to the request within a certain period of time. We believe it is possible for a situation to arise where an action subject to a RAC request would cause us to downgrade the securities according to our ratings methodology, even though a RAC request is deemed to be satisfied pursuant to this option.

Pool Characteristics

Collateral description

The pool contains 47 loans that are secured by first-mortgage liens on the fee interest (87 properties, 88.5% of the pooled trust balance), leasehold interest (one property, 7.9%), and fee/leasehold interest (two properties, 3.6%) in 90 properties. The top five and 10 loan concentrations represent 39.5% and 54.8% of the pooled trust balance, respectively (see table 10 for a detailed description of the 10 largest loans in the pool).

Property type distribution

The top two property types in the pool are retail, which accounts for 30.2% of the pooled trust balance, as calculated by S&P Global Ratings, and office, which accounts for 22.6% (see table 1).

Table 1

Property Type Composition

Type(i)	No. of loans	Pooled trust balance (mil. \$)	% of pooled trust balance	Weighted average S&P Global Ratings LTV (%)(ii)	Weighted average S&P Global Ratings DSC (x)(ii)
Retail anchored	11	269.2	24.0	93.2	2.34
Office	6	253.8	22.6	89.5	2.82
Multifamily	9	193.1	17.2	101.7	1.73
Mixed-use	5	151.2	13.5	120.5	2.11
Industrial	6	108.2	9.7	106.5	1.86
Retail unanchored	3	65.6	5.9	102.2	1.81
Self-storage	3	31.9	2.8	95.7	2.49
Ground lease	1	25.0	2.2	--	--
Lodging	2	18.8	1.7	109.3	1.72
Single-tenant retail (investment grade)	1	4.1	0.4	111.0	1.95
Total	47	1,120.9	100.0	99.9	2.22

(i)Based on S&P Global Ratings' classification. (ii)Excludes 175 East 62nd Street Leased Fee. LTV--Loan to value. DSC--Debt service coverage.

Geographic distribution

The pool consists of properties that are located in 31 states. Of these properties, 57.8% (by pooled trust balance) are located in three states: New York, Texas, and California. The top five states represent 72.9% of the pooled trust balance.

As part of our property analysis, we classify the MSA in which each property is located as primary, secondary, or tertiary. Generally, primary markets have higher barriers to entry than secondary and tertiary markets. The nature of each market type affects capitalization rates and valuation dynamics, and can influence the timing and amount of liquidation proceeds if a mortgage loan is foreclosed. (See table 2 for the pool's distribution by state and market type.)

Table 2

Geographic Concentrations

State	Pooled trust balance (mil. \$)	No. of properties	Market type (%)		
			Primary	Secondary	Tertiary
New York	320.1	10	99.1	--	0.9
Texas	177.5	5	64.0	36.0	--
California	150.5	6	71.9	28.1	--
Arizona	108.1	5	--	96.2	3.8
Pennsylvania	61.2	4	47.4	37.8	14.9
North Carolina	43.8	4	--	65.1	34.9
Tennessee	30.0	1	--	--	100.0
Illinois	26.9	10	76.3	14.2	9.5
Rhode Island	21.5	1	100.0	--	--
New Jersey	19.2	3	100.0	--	--
Other states - 21	162.1	41	6.4	26.1	67.6
Total	1,120.9	90	57.1	27.5	15.5

Borrower concentration

The largest borrower sponsors in the pool are The Gluck Family Trust (one loan; One SoHo Square; 10.0% of the pooled trust balance) and Kohlberg, Kravis, Roberts (one loan; HQ @ First; 8.8%).

Four groups of loans have related borrower-sponsors:

- Weber & Co. is the sponsor for Epic West Towne Crossing and Midlothian Towne Crossing, which account for 5.6% of the pooled trust balance combined;
- New Mountain Net Lease Corp. is the sponsor for Paragon Films Sale-Leaseback and 360 George Patterson Boulevard, which account for 2.8% of the pooled trust balance combined;
- Lawrence Charles Kaplan is the sponsor for Veit Self Storage Portfolio and Peak & Perry Storage Portfolio, which account for 2.5% of the pooled trust balance combined; and
- Erik C. Gould and Jonathan G. Harrison are the sponsors for the Chenal Woods Apartments and Bay Oaks Apartments, which account for 1.1% of the pooled trust balance combined.

Single-tenant properties

There are 50 properties across 13 loans (26.9% of the pooled trust balance) that are backed by properties that are leased to a single tenant. However, five of the loans are secured by multiple single-tenant properties. Thirty-five of the single-tenant properties (23.3%) have lease terms that exceed the loan maturity date, while the remainder (15; 3.6%) expire before the loan maturity (see table 3).

Table 3

Single-Tenant Properties

Property	Tenant	Tenant S&P Global Ratings credit rating	Pooled trust balance (mil. \$)	% of pooled trust balance	Lease expiration date
HQ @ First	Micron Technology Inc.	BBB-/Positive	98.7	8.8	12/31/2034
Novonix	PUREgraphite(i)	NR	30.0	2.7	11/30/2036
Celeros Houston	Celeros	NR	23.9	2.1	6/30/2046
11171 Cherry Avenue	Tutor Perini Corp.(i)	B+/Stable	16.0	1.4	7/31/2038
BlueCross BlueShield Building	Blue Cross Blue Shield	NR	13.3	1.2	5/31/2030
800 Corporate Drive	Nobel Biocare USA Inc.	NR	10.6	0.9	3/31/2027
360 George Patterson Boulevard	Abzena	NR	9.2	0.8	5/31/2032
255W. Baab Industrial Park Drive	Paragon Films	NR	8.2	0.7	6/30/2041
Kohl's Shelby	Kohl's	BBB-/Stable	7.5	0.7	1/31/2032
915 Rose Street	Paragon Films	NR	6.8	0.6	6/30/2041
3500 West Tacoma Street	Paragon Films	NR	6.7	0.6	6/30/2041
Pick N' Save Eagle River	Pick N' Save	NR	5.2	0.5	12/31/2031
5807 W. 20th St.	Top Shelf Custom Embroidery	NR	4.9	0.4	5/31/2034
Walgreens Chicopee	Walgreens	BBB/Negative	4.6	0.4	12/31/2033
Walgreens Maricopa	Walgreens	BBB/Negative	4.1	0.4	7/31/2036
Walgreens Oakland	Walgreens	BBB/Negative	3.7	0.3	9/30/2033
15901 Olden Street	Tutor Perini Corp.(i)	B+/Stable	3.5	0.3	7/31/2038
Walgreens Siler City	Walgreens	BBB/Negative	3.5	0.3	11/30/2033
Fresenius Chicago	Fresenius Medical Care	BBB/Stable	3.1	0.3	2/28/2030
Walgreens Potsdam	Walgreens	BBB/Negative	2.8	0.2	11/30/2031
Outback Mesa	Cerca Trova Southwest	NR	2.5	0.2	8/31/2044
Outback Tucson	Cerca Trova Southwest	NR	2.3	0.2	8/31/2044

Presale: Benchmark 2021-B29 Mortgage Trust

Table 3

Single-Tenant Properties (cont.)

Property	Tenant	Tenant S&P Global Ratings credit rating	Pooled trust balance (mil. \$)	% of pooled trust balance	Lease expiration date
Food4Less - Chicago Heights	Food 4 Less	NR	2.2	0.2	3/31/2031
BMO Harris Watertown	BMO Harris Bank N.A.	A+/Stable	2.0	0.2	4/30/2032
Walgreens - Bridgeview	Walgreens	BBB/Negative	2.0	0.2	11/30/2031
Rite Aid - Wellington	Rite Aid	B-/Stable	1.6	0.1	7/31/2029
Walgreens - Alton	Walgreens	BBB/Negative	1.6	0.1	6/30/2033
Walgreens - Alexandria	Walgreens	BBB/Negative	1.5	0.1	4/30/2033
Pick N' Save Columbus	Pick N' Save	NR	1.5	0.1	12/31/2030
BMO Harris Merrill	BMO Harris Bank N.A.	A+/Stable	1.4	0.1	4/30/2032
Tractor Supply Eagle River	Tractor Supply Company	BBB/Stable	1.4	0.1	6/30/2027
Dollar Tree - Monument	Dollar Tree	BBB/Stable	1.4	0.1	7/31/2027
First Midwest Bank - DeKalb	First Midwest Bank	BBB/Positive	1.2	0.1	9/30/2030
First Midwest Bank - Schaumburg	First Midwest Bank	BBB/Positive	1.1	0.1	9/30/2030
Walgreens - Oklahoma City	Walgreens	BBB/Negative	1.0	0.1	5/31/2032
CVS - Zanesville	CVS Pharmacy	BBB/Positive	1.0	0.1	12/31/2039
Walgreens - Sylvania	Walgreens	BBB/Negative	1.0	0.1	7/31/2033
CVS Pharmacy - Hagerstown	CVS Pharmacy	BBB/Positive	1.0	0.1	1/31/2040
First Midwest Bank - Joliet	First Midwest Bank	BBB/Positive	0.9	0.1	9/30/2030
Fresenius Medical Care - Lawrenceville	Fresenius Medical Care	BBB/Stable	0.9	0.1	1/31/2031
Memorial Health System - Decatur	Memorial Health System	NR	0.9	0.1	10/31/2031
CVS - Decatur	CVS Pharmacy	BBB/Positive	0.9	0.1	1/31/2037
Verizon - Beloit	Verizon Wireless	NR	0.7	0.1	2/28/2031
Dollar Tree - Grimes	Dollar Tree	BBB/Stable	0.5	0.0	3/31/2031
Dollar General - Belle Chasse	Dollar General	BBB/Stable	0.4	0.0	11/30/2035
Dollar General - Camden	Sherwin Williams	BBB/Stable	0.4	0.0	1/31/2031
Sherwin Williams - Urbana	Dollar General	BBB/Stable	0.4	0.0	2/28/2031

Table 3

Single-Tenant Properties (cont.)

Property	Tenant	Tenant S&P Global Ratings credit rating	Pooled trust balance (mil. \$)	% of pooled trust balance	Lease expiration date
Dollar General - Thibodaux	Dollar General	BBB/Stable	0.4	0.0	8/31/2032
Dollar General - Houma	Dollar General	BBB/Stable	0.4	0.0	10/31/2031
Dollar General - South Bend	Dollar General	BBB/Stable	0.4	0.0	2/28/2033
Total – 50 properties	--	--	301.6	26.9	--

(i) Sponsor affiliated tenant. NR--Not rated.

Loan Characteristics

Loan type, origination date, term, and amortization

All of the loans in the pool pay a fixed interest rate and were originated between February 2020 and September 2021. The weighted average loan interest rate is 3.35%.

The original loan terms range from 60 to 121 months, with a weighted average original loan term of 109.4 months. The weighted average remaining loan term is 108.7 months.

Thirty-one loans (75.1% of the pooled trust balance) are interest-only for the entire term and, of these, two loans (11.0%) are interest-only followed by an anticipated repayment date (ARD). Seven loans (11.3% of pooled trust balance) are structured with partial interest-only periods followed by a 360-month amortization schedule. The partial interest-only loans have initial interest-only periods ranging from 12 to 60 months. Nine loans (13.6%) have no interest-only period, and seven (10.3%) of them amortize on a 360-month schedule while two (3.3%) of them amortize on a 300-month schedule. S&P Global Ratings adjusted its analysis to reflect the various amortization terms and loan structures (see table 4).

Table 4

Loan Amortization

Loan type	No. of loans	% of pool balance	S&P Global Ratings' DSC (x)(i)	S&P Global Ratings' weighted average LTV ratio (x)(i)
Interest-only	31	75.1	2.49	98.8
Partial interest-only	7	11.3	1.53	101.3
Amortizing balloon	9	13.6	1.36	104.7
Fully amortizing	--	--	--	--

(i) Excludes 175 East 62nd Street Leased Fee. DSC--Debt service coverage. LTV--Loan to value.

Subordinated debt

Seven loans in the pool (44.0% of the pooled trust balance) have a pari passu component (see table 5); two loans, One SoHo Square (10.0%) and HQ @ First (8.8%) have a subordinated first-mortgage loan component in addition to their senior trust and pari passu loan components (which were securitized in separate stand-alone transactions). One loan (10.0%) has mezzanine debt, three loans (13.0%) permit the borrower to incur future mezzanine debt at predetermined LTV thresholds, and one loan (5.7%), The Domain, permits the borrower to incur a future PACE loan up to \$5.0 million. Our S&P Global Ratings loan-level recovery thresholds account for the presence of additional subordinate debt related to mezzanine debt, PACE loans, B-notes, and preferred equity.

Table 5

Loans With Existing Additional Debt

Property	Pooled trust balance (mil. \$)	% of pooled trust balance	Pari passu debt (mil. \$)	Junior	B-note balance (mil. \$)	Mezzanine balance (mil. \$)	Future mezzanine permitted LTV threshold (%)	Total debt (mil. \$)
				trust note (mil. \$(i))				
One SoHo Square	112.0	10.0	358.0	315.0	--	120.0	67.0	905.0
HQ @ First	98.7	8.8	131.3	178.0	--	--	--	408.0
Watermark Tempe	88.5	7.9	32.5	--	--	--	--	121.0
2 Washington	80.0	7.1	51.5	--	--	--	--	131.5
The Domain	64.0	5.7	146.0	--	--	--	5.0(ii)	215.0
College Point	30.0	2.7	40.0	--	--	--	--	70.0
Celeros Houston	23.9	2.1	--	--	--	--	63.2	23.9
ExchangeRight Net Leased Portfolio #48	20.0	1.8	27.0	--	--	--	--	47.0
Staybridge Suites Bowling Green	10.3	0.9	--	--	--	--	65.3	10.3

(i)Securitized in separate stand-alone transactions held outside of the trust.

(ii)Represents up to \$5.0 million PACE loan.
LTV--Loan to value.

Cross-collateralized and portfolio loans

Eight loans (14.1% of the pooled trust balance) are secured by portfolios with multiple properties. They include InCommercial Net Lease Portfolio #4 (3.7%; 12 unanchored retail properties and one medical office property), Greene Plaza and Chippewa Center (2.1%; two anchored retail properties), Paragon Films Sale-Leaseback (1.9%; three single-tenant industrial properties), ExchangeRight Net Leased Portfolio #48 (1.8%; 19 unanchored retail properties and two medical office properties), Veit Self-Storage Portfolio (1.8%; five self-storage properties), Tutor Perini Portfolio (1.7%; one storage yard/industrial/warehouse property and one office/flex property), Peak & Perry Storage Portfolio (0.8%; two self-storage properties), and NNN Portfolio (0.4%; three

unanchored retail properties). There are no cross-collateralized and cross-defaulted loans in the pool.

Third-Party Review

We reviewed appraisal, environmental, engineering, and seismic reports on the properties we analyzed, where applicable. All of these reports were completed within the past 12 months (see table 6).

Seven properties (14.0% of the pooled trust balance) are located in seismic zones 3 or 4. The loan with the highest overall probable maximum loss (PML) of 35% is 1822 Sunset Boulevard (0.5%) and is required to carry earthquake insurance. The remaining properties in seismic zones 3 or 4 had PMLs of 17% or lower.

Table 6

Third-Party Review

Third-party reports	No. of properties	% of pooled trust balance
Appraisal review within the past 12 months	90	100.0
Environmental review within the past 12 months(i)	89	99.5
Engineering review within the past 12 months(ii)	89	97.8
Seismic review for properties in zones 3 or 4	7	14.0

(i)1822 Sunset Boulevard environmental report is as of Oct. 29, 2019. (ii)The lender on 175 East 62nd Street Leased Fee did not order an engineering report.

Structural Review

We reviewed structural matters that we believe are relevant to our analysis, as well as the major transaction documents, including the prospectus, pooling and servicing agreement, and other relevant documents and opinions, to understand the transaction's mechanics and its consistency with applicable criteria. We also conducted a focused structural review of the 10 largest loans in the pool, as well as all loans with a non-trust pari passu balance over \$20.0 million. We note the structural matters, if any, that we factored into our analyses of these loans in the Top 10 Loans section below.

S&P Global Ratings' Credit Evaluation

Our analysis of the pool included the following:

- We derived an S&P Global Ratings NCF for 26 of the 47 loans in the pool (82.6% of the pooled trust balance). For the remaining loans, we extrapolated NCF haircuts according to property type and selected capitalization rates for each property. We excluded certain outlier loans from our extrapolation calculation. (See Appendix I for S&P Global Ratings' NCF variance applied to each loan in the transaction.)
- We conducted site inspections for six properties across six loans (42.2% of the pooled trust balance).
- We analysed the property-level operating statements, rent rolls, third-party appraisal,

Presale: Benchmark 2021-B29 Mortgage Trust

environmental, engineering, and, if applicable, seismic reports, for each loan that we reviewed in the pool.

- We reviewed structural matters that we considered relevant to the analysis of the loans and the transaction, and we performed a loan-level structural analysis for the 10 largest loans in the pool, as well as for loans with a non-trust pari passu balance over \$20.0 million.

S&P Global Ratings' NCF variance

S&P Global Ratings' property-level cash flow analysis derives what it believes to be a property's long-term sustainable NCF. In our analysis, we considered issuer-provided projections, historical and projected operating statements, third-party appraisal reports, relevant market data, and assessments of the various properties' competitive positions. On a pool-wide basis, our weighted average NCF was 20.5% lower than the issuer's underwritten NCF. (See Appendix I for S&P Global Ratings' NCF variance for each loan.)

S&P Global Ratings' DSC

We calculated the pool's 2.22x DSC using the respective loans' contract interest rate and the S&P Global Ratings NCF (see table 7).

Table 7

S&P Global Ratings' DSC Range(i)

DSC range (x)	No. of loans	Loan balance (mil. \$)	% of pooled trust balance
Less than 1.00	--	--	--
1.00-1.10	1	30.0	2.7
1.10-1.20	--	--	--
1.20-1.30	2	56.0	5.0
1.30-1.40	3	45.7	4.1
1.40-1.50	3	24.8	2.2
1.50-1.60	2	45.6	4.1
1.60-1.70	3	44.1	3.9
1.70-1.80	7	125.9	11.2
1.80-1.90	2	24.4	2.2
1.90-2.00	4	94.5	8.4
Greater than 2.00	19	604.9	54.0

(i) Excludes 175 East 62nd Street Leased Fee. DSC--Debt service coverage.

S&P Global Ratings' LTV

Based on our analysis, S&P Global Ratings' weighted average beginning LTV ratio is 99.9% and its ending LTV ratio is 95.7%, which reflects the 7.68% weighted average S&P Global Ratings capitalization rate (see table 8).

Table 8

S&P Global Ratings' LTV Ratios(i)

LTV ratio range (%)	No. of loans	Loan balance (mil. \$)	% of pooled trust balance
Less than 50	--	--	--
50-55	--	--	--
55-60	--	--	--
60-65	--	--	--
65-70	1	19.5	1.7
70-75	1	64.0	5.7
75-80	--	--	--
80-85	2	119.8	10.7
85-90	4	83.7	7.5
90-95	5	162.0	14.4
95-100	8	136.4	12.2
100-105	8	164.8	14.7
105-110	4	54.5	4.9
Greater than 110	13	291.3	26.0

(i)Excludes 175 East 62nd Street Leased Fee. LTV--Loan to value.

S&P Global Ratings' credit assessment by property type

Table 9 summarizes S&P Global Ratings' NCF and valuation assessment by property type.

Table 9

Cash Flow Analysis And Valuation

Property type	% of pooled trust balance	S&P Global Ratings' DSC (x)(i)	% NCF diff.(ii)	S&P Global Ratings' cap rate (%)	S&P Global Ratings' weighted average LTV ratio (%)	S&P Global Ratings' value per unit/sq. ft. (\$)
Retail anchored	24.0	2.34	(13.3)	8.00	93.2	193
Office	22.6	2.82	(32.6)	7.05	89.5	510
Multifamily	17.2	1.73	(21.0)	6.93	101.7	261,176
Mixed-use	13.5	2.11	(20.5)	8.15	120.5	319
Industrial	9.7	1.86	(16.5)	8.24	106.5	57
Retail unanchored	5.9	1.81	(14.7)	8.01	102.2	143
Self-storage	2.8	2.49	(10.4)	8.41	95.7	79
Ground lease	2.2	--	--	--	--	--
Lodging	1.7	1.72	(15.1)	9.75	109.3	84,733
Single-tenant retail (investment grade)	0.4	1.95	(12.3)	8.00	111.0	251

Table 9

Cash Flow Analysis And Valuation (cont.)

Property type	% of pooled trust balance	S&P Global Ratings' DSC (x)(i)	% NCF diff.(ii)	S&P Global Ratings' cap rate (%)	S&P Global Ratings' weighted average LTV ratio (%)	S&P Global Ratings' value per unit/sq. ft. (\$)
Total	100.0	2.22	(20.5)	7.68	99.9	--

(i) Calculated based on S&P Global Ratings' NCF and the fixed loan interest rate. (ii) The difference between S&P Global Ratings' estimated NCF and the underwriter's estimated NCF as a percentage of the underwriter's estimated NCF. DSC--Debt service coverage. NCF--Net cash flow. LTV--Loan to value.

S&P Global Ratings' credit assessment of the top 10 loans

Table 10 summarizes S&P Global Ratings' NCF and valuation assessment of the top 10 loans. We provide individual analyses of these loans in the Top 10 Loans section below.

Table 10

Top 10 Loans

Property	Property type	% of pooled trust balance	S&P Global Ratings' trust DSC (x)(i)	% NCF diff.(ii)	S&P Global Ratings' cap rate (%)	S&P Global Ratings' LTV (%)	S&P Global Ratings' value per unit/sq. ft. (\$)
One SoHo Square	Office	10.0	3.18	(34.7)	6.50	83.1	718
HQ @ First	Office	8.8	2.57	(37.6)	7.25	93.8	406
Watermark Tempe	Mixed-use	7.9	2.37	(27.8)	8.25	130.0	301
2 Washington	Multifamily	7.1	1.91	(32.1)	6.83	102.0	373,510
The Domain	Retail anchored	5.7	3.20	(23.4)	7.50	74.8	317
InCommercial Net Lease Portfolio #4	Retail unanchored	3.7	1.56	(16.6)	7.93	99.4	137
Epic West Towne Crossing	Retail anchored	3.6	2.76	(6.5)	8.25	90.8	163
Novonix	Industrial	2.7	1.02	(18.9)	8.00	122.8	61
College Point	Retail anchored	2.7	1.63	(9.8)	7.50	127.0	166
Independence Lofts	Multifamily	2.6	1.24	(15.5)	6.37	96.0	317,898
Total/weighted average	--	54.8	2.39	(26.7)	7.35	99.5	--

(i) Calculated based on S&P Global Ratings' NCF and the fixed loan interest rate. (ii) The difference between S&P Global Ratings' estimated NCF and the underwriter's estimated NCF as a percentage of the underwriter's estimated NCF only. For pari passu loans, S&P Global Ratings' DSC and LTV ratios are based on the trust and pari passu balance. DSC--Debt service coverage. NCF--Net cash flow. LTV--Loan to value.

Table 11 summarizes S&P Global Ratings' NCF and valuation assessment of loans 11-20. For these loans, our weighted average NCF is 12.5% lower than the issuer's underwritten NCF. S&P Global Ratings' weighted average beginning LTV ratio is 102.2% for these loans, and we calculated a 1.83x DSC using the respective loans' contract interest rates and S&P Global Ratings' NCF. Factors that contributed to NCF variances over 7.0%, positive NCF variances, or high S&P Global Ratings LTV ratios over 90.0% are outlined in table 11. (See Appendix I for S&P Global Ratings' NCF

Presale: Benchmark 2021-B29 Mortgage Trust

variance, LTV ratio, and DSC ratio for all the loans in the transaction.)

Table 11

Loans 11-20

Property	Property type	% of pooled trust balance	S&P Global Ratings'		S&P Global cap rate (%)	S&P Global Ratings' LTV (%)	S&P Global Ratings' value per unit/sq. ft. (\$)	NCF variance/high S&P Global Ratings' LTV drivers
			trust DSC (x)(i)	% NCF diff.(ii)				
McCullough Commons	Retail anchored	2.5	1.71	(13.2)	8.00	85.5	165	Vacancy
524 Courtlandt	Mixed-use	2.5	1.77	(9.2)	8.12	110.1	545	Vacancy, 30% operating expense ratio
Falls of Deer Park Apartments	Multifamily	2.4	1.26	(10.2)	7.25	104.0	58,858	GPR, vacancy
175 East 62nd Street Leased Fee	Ground lease	2.2	-	-	-	-	-	N/A
Celeros Houston	Industrial	2.1	1.31	(15.4)	8.00	112.6	66	Vacancy, TI/LC
Greene Plaza and Chippewa Center	Retail anchored	2.1	1.77	(6.7)	9.50	98.3	79	TI/LC, CapEx
Midlothian Towne Crossing	Retail anchored	1.9	2.79	(11.2)	8.50	86.0	172	Vacancy, real estate taxes, G&A expenses, TI/LC, CapEx
Paragon Films Sale-Leaseback	Industrial	1.9	2.06	(18.1)	8.00	111.0	43	Vacancy, operating expenses, TI/LC, CapEx
The Village Lofts	Multifamily	1.9	1.73	(18.3)	7.25	106.4	135,630	Concessions, real estate taxes, CapEx
ExchangeRight Net Leased Portfolio #48	Retail unanchored	1.8	2.36	(11.3)	8.09	108.3	162	Vacancy, 30% operating expense ratio, TI/LC
Total/weighted average	--	21.4	1.83	(12.5)	8.07	102.2	--	

(i) Calculated based on S&P Global Ratings' NCF and the fixed loan interest rate. (ii) The difference between S&P Global Ratings' estimated NCF and the underwriter's estimated NCF as a percentage of the underwriter's estimated NCF only. For pari passu loans, S&P Global Ratings' DSC and LTV ratio are based on the trust and pari passu balance. DSC--Debt service coverage. NCF--Net cash flow. LTV--Loan to value. CapEx--Capital expenditure. TI/LC--Tenant improvements and leasing commissions. G&A --General and administrative. GPR--Gross potential rent. N/A--Not applicable.

Loan-level credit enhancement

We used each loan's S&P Global Ratings DSC and LTV to calculate its respective stand-alone credit enhancement (SCE) and diversified credit enhancement (DCE) at the various rating categories. These calculations included adjustments to reflect the various loans' amortization terms and the presence of any subordinated additional debt (See Appendix II for a list of each loan's SCE and DCE).

Pool diversity

Overall transaction credit enhancement levels at each rating category are directly affected by the loan pool's diversity, a function of the transaction's effective loan count. The effective loan count, which is measured by the Herfindahl-Hirschman Index, accounts for the relative size of the loans in the pool by normalizing a transaction's loan count to account for unevenly sized loans. This transaction has an effective loan count of 22.5, which we consider not to be only moderately diversified, resulting in a concentration coefficient of 56.4%.

We also considered the loan pool's geographic makeup in our overall transaction-level analysis. This loan pool is geographically diverse and is located primarily within primary markets (57.1%) and secondary markets (27.5%).

Transaction-level credit enhancement

We establish transaction-level credit enhancement levels using the concentration coefficient (a function of a pool's effective loan count) to interpolate between the weighted average SCE and DCE at each rating category, subject to applicable floors and any adjustment for overall transaction-level considerations.

We believe this transaction's high percentage of full-term, interest-only loans warranted an additional negative qualitative adjustment beyond that produced from our loan-level analysis and model results.

Scenario Analysis

We performed several 'AAA' stress scenario analyses to determine how sensitive the certificates are to a downgrade over the loan term.

Effect of declining NCF

A decline in NCF may constrain cash flows available for debt service. A decline in cash flows may occur due to falling rental rates and occupancy levels, changes to operating expenses, or other factors that may decrease a property's net income. To analyze the effect of a decline in cash flows on our ratings, we have developed scenarios whereby the NCF from the portfolio decreases by 10%-40% from our current cash flow, which is 20.5% lower than the issuer's underwritten NCF. (See table 12 for the potential effect on S&P Global Ratings' 'AAA' rating under these scenarios, holding constant S&P Global Ratings' overall capitalization rate of 7.68%.)

Table 12

Effect Of Declining NCF On S&P Global Ratings

Decline in S&P Global Ratings' NCF (%)	0	(10)	(20)	(30)	(40)
Potential 'AAA' rating migration	AAA	A+	B	CCC-	CCC-

NCF--Net cash flow.

Top 10 Loans

1. One SoHo Square

Table 13

Credit Profile

Loan no.	1	Property type	Office
Loan name	One SoHo Square	Subproperty type	CBD
Pooled trust loan balance (\$)	112,000,000	Property sq. ft.	786,891
% of total pooled trust balance (%)	10.0	Year built/renovated	1904-1926/2016
City	New York	Sponsor	The Gluck Family Trust
State	N.Y.	S&P Global Ratings' amortization category	Interest-only
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	9,850,000(i)	S&P Global Ratings' subordinate debt category	Unsecured Debt (S&P Global Ratings' LTV >= 90.0%)
S&P Global Ratings' NCF variance (%)	(34.74)	S&P Global Ratings' subordinate debt adjustment	(2.50)
S&P Global Ratings' cap rate (%)	6.50	S&P Global Ratings' LTV (%)	83.1(ii)
S&P Global Ratings' value (mil. \$)	134.7(i)	S&P Global Ratings' DSC (x)	3.18(ii)
S&P Global Ratings' value variance (%)	(58.1)	'AAA' SCE (%)	49.2
S&P Global Ratings' value per sq. ft./unit (\$)	718	'AAA' DCE (%)	10.8

(i)Pari passu adjusted. (ii)The loan is pari passu; the LTV ratio and DSC are calculated based on the \$470.0 million senior loan component (\$112.0 million trust loan and the \$358.0 million pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. CBD--Central business district.

Strengths and concerns

The loan exhibits the following strengths:

- The \$112.0 million trust loan, along with the \$358.0 million pari passu companion loan held outside the trust, represent a total \$470.0 million senior loan component of a \$785.0 million whole loan. The senior loan component has moderate leverage, with an S&P Global Ratings' LTV ratio of 83.1% based on our valuation. The LTV ratio based on the appraiser's as-is valuation is 58.2%. Our estimate of the long-term sustainable value is 58.1% lower than appraiser's as-is valuation. This is primarily driven by our higher vacancy assumption of 10.7%, real estate tax treatment, tenant improvements and leasing commissions (TI/LCs), and capitalization rate of 6.50% compared to the appraiser's 4.32% implied going-in capitalization rate.

Presale: Benchmark 2021-B29 Mortgage Trust

- The senior loan component has a strong DSC of 3.18x and the whole loan DSC is 1.91x., calculated using the fixed interest rate and our NCF for the property, which is 34.7% lower than the issuer's NCF.
- The loan is secured by the borrower's fee-simple interest in two recently redeveloped class A office towers, One SoHo Square West and One SoHo Square East, totaling 786,891 sq. ft. and located at the northwest corner of Sixth Avenue and Spring Street in the Hudson Square/Meatpacking District submarket in the Manhattan borough of New York City. Notable tenants in the vicinity of the property include Google, Facebook, and Amazon. The property amenities include roof decks with panoramic views, a building management system, destination dispatch elevators, a lobby attended 24/7 with exclusive key card access, a bike room, a message center, and an online tenant service request system.
- As of the June 1, 2021, rent roll, the property is 92.5% leased to various institutional tenants and benefits from investment-grade-rated tenants such as Flatiron Health, a subsidiary of Roche Group ('AA/Stable'; 29.0% of net rentable area [NRA]; 28.7% of in-place gross rental income, as calculated by S&P Global Ratings; February 2031 lease expiration), Aetna ('BBB/Positive'; 13.5%; 14.5%, July 2029 expiration), MAC ('A+/Stable'; 11.3%; 13.2%; March 2024 expiration), and Aveda Institute ('A+/Stable'; 2.6%; 3.1%; May 2025 expiration) at the office space, and CVS ('BBB/Positive'; 1.7%; 2.9%; January 2034 expiration) at the retail space. The property serves as the corporate headquarters for Flatiron Health, MAC, Warby Parker, Glossier, and Double Verify (through November 2023, at which time Flatiron Health will take this space until February 2031); together they occupy 59.2% of the NRA and account for 61.1% of the in-place gross rental income, as calculated by S&P Global Ratings.
- Since the sponsor acquired the property in 2012, the property went through a \$268 million (\$341 per sq. ft.) re-development plan that resulted in a new common lobby between One SoHo Square West and One SoHo Square East, nine new destination dispatch elevators, a 24/7 concierge, a 10 ft. by 30 ft. digital media wall, a new public roof deck, and 11 private terraces with panoramic views. The property condition assessment report noted the property to be in overall good condition with no immediate/required repairs.
- The property faces limited tenant rollover risk during the seven-year loan term, with 21.7% of the total NRA and 21.3% of in-place gross rent, as calculated by S&P Global Ratings, expiring during the loan term.
- The \$785.0 million whole loan is a cash-neutral refinance of the existing debt. There was no equity repatriation returned to the sponsor as a result of the refinancing. Based on the sponsor's cost basis of \$907.3 million, \$2.3 million of cash equity will remain in the property at closing.
- The loan is structured with a hard in-place lockbox and springing cash management, as determined by S&P Global Ratings, which allows the borrower to control funds until an event of default has occurred, a mezzanine loan event of default has occurred, a debt yield ratio of 5.0% is breached for two consecutive quarters, or the required financial reports are not delivered. At that point, the borrower will be required to maintain monthly tax and insurance escrows, replacement reserves, and TI/LC deposits. During a cash sweep event, all excess cash flow will be deposited into a lender-controlled account.
- The loan benefits from the sponsorship of Stellar Management. Founded in 1985, Stellar Management built its track record on ownership, management, and repositioning of under-managed multifamily and office buildings in New York City. Stellar Management currently owns and manages over 12,000 apartments, over two million sq. ft. of office space and 1.3 million sq. ft. of retail space.

Presale: Benchmark 2021-B29 Mortgage Trust

- We visited the subject property on Friday morning, Aug. 20, 2021. During the visit, the building was only partially utilized across all tenant spaces. While this may have been partially related to the time of the visit, the building manager also noted that the building was currently only 20% utilized during the week. We began the tour by viewing the spaces located in One Soho Square West, comprising the MAC (floors 10-13), Juul Labs (seven through nine), and Frontier Health spaces (three, five, and six), among others. The MAC space contains a private balcony that can be leased out for private events and yields impressive views of the Midtown skyline as well as the Hudson River. The space itself is in exceptional condition. The Juul Labs space was in as-is condition with no improvements made to the space. It's worth noting that Juul Labs has sole access to a separate lobby entrance located at 233 Spring Street. Additionally, there are several entrances to deck space that are not yet built out. The Flatiron Health space in this portion of the building is currently set aside as employees return to the office and fill in the space in the East wing. Nevertheless, the space also presented exceptionally well and featured modern décor and amenities befitting a class A space. Flatiron Health initially placed all three of their floors on the sublease market, but has since taken them off after subleasing the third floor and attempting to parcel out half of their rentable space on the fifth floor. Next, we toured One Soho Square East including the Aetna (floors 12-15), Managed by Q (11), Warby Parker (six through eight), and Flatiron (two through five) spaces. All spaces presented well and included a generous meeting area and conference space for anyone transacting with the corporate tenants. The visit concluded with a walk around the periphery of the building where we examined the street frontage as well as the loading area on Vandam Street.
- As of Sept. 6, 2021, the property was open and operating, and all tenants are paying their full contractual rent and are current on their rental obligations. Only one tenant, Torch & Crown (0.8% of in-place gross rental income, as calculated by S&P Global Ratings) received temporary rent deferral until June 2021 due to the COVID-19 pandemic.

The loan exhibits the following concerns and mitigating factors:

- The \$112.0 million trust loan, along with the \$358.0 million pari passu companion loan held outside the trust, represent a total \$470.0 million senior loan component of a \$785.0 million whole loan. The remaining \$315.0 million junior non-trust note, along with \$1.0 million of the senior loan component held outside the trust, are the controlling pieces of the whole loan, and increase our LTV to 138.9% from 83.1%.
- In addition to the mortgage loan, there is a \$120.0 million mezzanine loan. The mortgage and mezzanine loans have a combined S&P Global Ratings' LTV ratio of 160.1%. We reduced our LTV recovery thresholds across the capital structure to account for this risk.
- In addition to the mortgage loan, the borrower can obtain additional subordinate mezzanine debt of not more than \$90.5 million. The mezzanine loan can be made in an amount resulting in a maximum LTV ratio of 67.0%, a minimum debt yield of 6.8%, and a minimum DSC of 2.22x. The borrower's ability to incur additional subordinated debt exposes the trust loan to a higher default risk. We reduced our LTV recovery thresholds across the capital structure to account for this risk.
- The loan is interest-only for its entire seven-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- Juul Labs (54,068 sq. ft.; 6.9% of NRA), whose lease commenced in May 2019, has yet to take occupancy of its space, and all of its space is currently on the market for sublease. Flatiron Health (228,257 sq. ft.; 29.0% of NRA) currently has approximately 40,890 sq. ft. of its leased space for sublease, of which 30,668 sq. ft. has been subleased to Petal for three years at

Presale: Benchmark 2021-B29 Mortgage Trust

approximately 35.0% of Flatiron Health's contractual rent. To account for these risks, we considered Juul Labs vacant, which equates to a 10.7% vacancy rate.

- Although the property is located in Manhattan, which we consider a primary market, the in-place gross rents at the subject property are 21.5% above the submarket gross rent of \$73.33. According to CoStar, the property is within the Hudson Square office submarket. As of second-quarter 2021, the 3- to 5-star submarket vacancy rate, availability rate, and gross asking rents were 11.7%, 12.2%, and \$73.33 per sq. ft., respectively. The submarket's historical five-year and 10-year average vacancy rates were 9.4% and 10.0%, respectively, with a 10.0% five-year forecasted vacancy rate. As of the June 1, 2021, rent roll, the subject property is 92.5% leased with a weighted average gross rent of \$89.09 per sq. ft., as calculated by S&P Global Ratings. We are capturing the risk by grossing up the vacant office space at the lower submarket rent and assuming a vacancy rate of 10.7% after considering Juul Labs vacant.
- The property currently benefits from a 10-year Industrial and Commercial Abatement Program (ICAP) abatement with New York City. The ICAP abatement commenced in the 2017/18 tax year and will expire at the end of the 2028/29 tax year. We assumed the fully assessed unabated real estate taxes at the end of the 2026/2027 tax year in our derivation of long-term NCF and added back the net present value of the savings over the ICAP abatement's remaining term to our value. However, the tax savings are considered a wasting asset and the present value will decline with each passing year. If rental income does not increase, or if other expenses increase or capitalization rates increase in such a way as to offset the loss of yearly tax savings, our overall value will continue to decline.
- The sponsor is not reserving unfunded obligations at closing, and instead provided a guaranty for outstanding tenant improvements. To account for this risk, we deducted \$13.3 million of outstanding free rents and tenant improvements from our value.
- During alterations to the property, the loan agreement does not require that all collateral posted by the borrower be rated by S&P Global Ratings. Additionally, in our opinion, the threshold above which collateral must be posted is higher than a de minimis amount. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- There is no warm body carve-out guarantor and the carve-out guaranty is capped at only 10.0% of the loan amount for full recourse obligations. In our view, these limitations generally lessen the disincentive provided by a full non-recourse carve-out related to "bad acts" or voluntary bankruptcy.
- The borrowers are structured as two tenants-in-common (TIC). If multiple TIC borrowers for a loan declare bankruptcy, it may delay the liquidation and recovery timeframe and result in higher losses to the loan. However, the TIC agreement is subordinate to the loan agreement and the TIC have waived their rights to partition, which decreases the risk of serial bankruptcy filings or litigation among these borrowers.
- Following a casualty or condemnation, the loan documents require the lender to disburse to the borrower, without supervision of such funds, insurance proceeds in an amount that exceeds the threshold, which we view as de minimis. In our view, this structure gives the borrower atypically high levels of discretion over the restoration process.

2. HQ @ First

Table 14

Credit Profile

Loan no.	2	Property type	Office
Loan name	HQ @ First	Subproperty type	CBD
Pooled trust loan balance (\$)	98,700,000	Property sq. ft.	603,666
% of total pooled trust balance (%)	8.8	Year built	2010
City	San Jose	Sponsor	Kohlberg, Kravis, Roberts
State	Calif.	S&P Global Ratings' amortization category	Interest-only
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	7,620,000(i)	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(37.58)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	7.25	S&P Global Ratings' LTV (%)	93.8(ii)
S&P Global Ratings' value (mil. \$)	105.2(i)	S&P Global Ratings' DSC (x)	2.57(ii)
S&P Global Ratings' value variance (%)	(54.4)	'AAA' SCE (%)	52.1
S&P Global Ratings' value per sq. ft./unit (\$)	406	'AAA' DCE (%)	13.0

(i) Pari passu adjusted. (ii) The loan is pari passu; the LTV ratio and DSC are calculated based on the \$230.0 million senior loan component (\$98.7 million trust loan and the \$131.3 million pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. CBD--Central business district. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The senior loan component has a strong DSC of 2.57x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 37.6% lower than the issuer's NCF. However, when including the entire \$408.0 million first mortgage balance, the DSC for the whole loan decreases to 1.45x.
- The mortgage loan is secured by the borrower's fee-simple interest in a 603,666-sq.-ft., class A, LEED gold-certified office campus with 1,863 parking spaces, built in 2010, in San Jose, Calif. The property is adjacent to State Route 237, with access to Interstates 880, 680, and 101, and is within walking distance of the VTA Light Rail, which provides access to the rest of the San Francisco Bay Area. The property is 100% leased to Micron Technology Inc. (Micron; 'BBB-/Positive') through December 2034.
- The collateral consists of two, seven-story buildings and one, four-story building, which are bifurcated between 543,000 sq. ft. of office space (90.1% of NRA) and 60,000 sq. ft. of data

Presale: Benchmark 2021-B29 Mortgage Trust

center and research/lab space (9.9% of NRA). The properties include 13.5- to 15.0-ft. ceiling heights, an on-site solar farm, and panoramic windows providing natural light and views of the San Francisco Bay and Silicon Valley hill. Additional property amenities include a 110-seat theater, a 300-plus seat cafeteria, conference rooms, a 2,000 server rack data center, a fitness center with locker rooms, and a basketball court.

- Founded in 1978, Micron focuses on innovative memory solutions and is the fourth-largest semiconductor company in the world. Micron's memory and semiconductor technology business enables businesses and individuals to store their information in a secure and safe environment. Micron currently has over 40,000 employees across 17 countries with 13 manufacturing sites globally. As of June 2021 (Micron's fiscal third-quarter 2021), Micron had revenues of \$7.4 billion. For the trailing 12 months (TTM) ending third-quarter 2021 (Micron's fiscal year), the company had operating income of \$3.6 billion, an increase of 19% compared with the same period in 2020. Micron has a market capitalization of approximately \$85.9 billion as of July 2021. In 2018, Micron executed a long-term, 16-year triple-net (NNN) lease at \$39.00 per sq. ft., with 3.0% annual rent escalations, for 100% of the property, and utilizes the property as its Silicon Valley headquarters. The property houses critical engineering functions and serves as Micron's meeting place between customers and engineers in and around Silicon Valley.
- The loan proceeds financed KKR's (the loan sponsor) \$535.0 million (\$886 per sq. ft.) acquisition of the property. KKR contributed approximately \$136.3 million of equity toward the \$544.0 million all-in acquisition cost (25.0% of the total acquisition cost), including \$9.3 million in closing costs. Founded in 1976, KKR is a leading global investment firm that manages multiple alternative asset classes and, as of March 2021, had over \$367 billion in assets under management (AUM). As of March 31, 2021, KKR's real estate platform has more than \$29.0 billion in AUM. The property will be included within KREST, KKR's newest private real estate investment trust (REIT) for individual investors. KKR committed \$150 million to KREST, which to date has an additional \$100 million raised from investors, and a target raise of \$350 million by year-end 2021. The property will be managed by Drawbridge, a San Francisco-based operator that manages 49 properties (i.e., 5.5 million sq. ft. in 11 markets).
- The mortgage loan is structured with a hard lockbox and springing cash management, as determined by S&P Global Ratings, which allows the borrower to control funds until an event of default, borrower bankruptcy, a debt yield ratio of 5.25% is breached for two consecutive quarters, or Micron has terminated or elected to terminate its lease, declared bankruptcy, or reduced its square footage beyond certain minimum thresholds (50.0% of the NRA). At that point, the borrower will be required to maintain monthly tax and insurance escrows. During a cash sweep event, all excess cash flow will be deposited into a lender-controlled account.
- We toured the exterior of the property on Aug. 12, 2021, and found the seven-story office buildings to have an attractive exterior and prominent presence as they are taller than most of the neighboring buildings. The modern, glass-clad office buildings were well-maintained and there were ample security personnel on site. Both the surface parking and parking garage were mostly empty due to COVID-19 mitigation efforts of the tenants, Micron and Zscaler. The property is well-located as it is in close proximity to the State Route 37 highway with further connection to Interstates 101 and 880. Additionally, the property is adjacent to the At First shopping center that offers 10 dining options as well as shopping within walking distance, which is a somewhat scarce feature in the Silicon Valley suburbs. Further, the property is across the street from a Target store as well as a Courtyard by Marriott hotel. In general, given the quality of the improvements and desirable location, we determined the property is deserving of its class A designation.

Presale: Benchmark 2021-B29 Mortgage Trust

The loan exhibits the following concerns and mitigating factors:

- The senior loan component has high leverage, with an S&P Global Ratings' LTV ratio of 93.8% based on our valuation. The LTV ratio based on the appraiser's valuation is 42.8%. Our estimate of long-term sustainable value is 54.4% lower than the appraiser's valuation, a variance primarily driven by our 15.0% vacancy rate assumption, excluding Micron's rent steps and TI/LCs.
- The \$98.7 million trust loan, along with the \$131.3 million pari passu companion loan held outside the trust, represents a total \$230.0 million senior loan component of a \$408.0 million whole loan. The remaining \$178 million junior non-trust note, along with \$89.0 million of the senior loan component, held outside the trust are the controlling pieces of the whole loan, and increases our LTV ratio to 166.5% from 93.8%.
- The mortgage loan has an initial 10-year term with an ARD of August 2031 and a final maturity date of November 2034. The loan is interest-only for its entire 10-year anticipated repayment term, and there will be no scheduled amortization during this time. However, after the ARD, any excess cash flow will be applied first to the outstanding principal balance until reduced to \$0, and then to accrued interest. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- According to the appraiser, there are 19 office buildings (4.3 million sq. ft.) under construction, and 91 office buildings (25.3 million sq. ft.) planned in the Silicon Valley office market. Of that, three of the properties under construction and 23 of the planned properties will be delivered within a four-mile radius of the property. This increase in supply could adversely impact vacancy and rental rates as the office sector continues to be impacted by the COVID-19 pandemic.
- Although the property is in San Jose, which we consider a primary market, the submarket has historically exhibited high vacancy rates. According to CoStar, the property is in the North San Jose overall office submarket. As of second-quarter 2021, the North San Jose submarket vacancy rate, availability rate, and gross asking rent were 15.1%, 17.3%, and \$50.63 per sq. ft., respectively. The submarket's historical five-year and 10-year average vacancy rates were 18.9% and 17.3%, respectively, with a 12.5% five-year forecasted vacancy rate. Currently, the property is 100% leased, with in-place gross rents of \$57.30 per sq. ft. Given the elevated submarket vacancy and future supply, we assumed a vacancy rate of 15.0% in our derivation of long-term sustainable NCF and applied a 7.25% capitalization rate in our valuation of the property.
- The property is exposed to single-tenant risk; however, it is partially mitigated by the long-term lease in place with Micron, which expires on Dec. 31, 2034, three years after the ARD and approximately 60 days after the final maturity date. In addition, Micron does not have any termination or contraction options and has two, five-year extension options available. Further, there is a cash flow sweep should Micron terminate its lease, declare bankruptcy, or reduce its square footage by 50%. To account for the single-tenant risk, we assumed a vacancy rate of 15.0% in our analysis.
- Micron leased the entire property with a plan to fully utilize the leased space over time. Micron currently subleases 103,443 sq. ft. (floors 5-7; 17.1% of NRA) to Zscaler with contractual expansion options on the fourth floor in October 2022 (34,481 sq. ft.) and the third floor in October 2025 (34,481 sq. ft.) for a total footprint of 172,405 sq. ft. Zscaler, a cloud-based information security company with a \$30 billion market capitalization as of June 2021, is on a sublease through September 2026 at \$42.00 per sq. ft., 4.6% above Micron's base rent. If Zscaler vacate its space at the end of its sublease, and if Micron fails to expand into the

Presale: Benchmark 2021-B29 Mortgage Trust

subleased space, as much as 172,405 sq. ft. (28.6% of the NRA) could be dark. However, Micron does not have any termination options and is contractually required to pay rent until December 2034.

- A portion of the property is part of a condominium structure in which the borrower does not hold a majority interest. While the day-to-day management and operation of the condominium is generally controlled by a representative of the borrower, major decisions are subject to the consent of the non-borrower unit owner and limited by the terms of the related condominium rules or bylaws. Since the borrower does not have full control over property decisions, this structure could adversely affect the management and operation of the property.
- During alterations to the property, the loan agreement does not require that all collateral posted by the borrower be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- There is no warm body carve-out guarantor and the carve-out guaranty is capped at only 15.0% of the loan amount in the event of a voluntary bankruptcy on the part of the borrower. In our view, these limitations generally lessen the disincentive provided by a full non-recourse carve-out related to "bad acts" or voluntary bankruptcy.
- Additionally, there is no recourse carve-out for a borrower that fails to maintain their status as a special-purpose bankruptcy remote entity. In our view, this omission lessens the incentive to adhere to these covenants, weakening the asset isolation and substantive consolidation assumptions underpinning our analysis.

3. Watermark Tempe

Table 15

Credit Profile

Loan no.	3	Property type	Mixed-use
Loan name	Watermark Tempe	Subproperty type	Office/retail
Pooled trust loan balance (\$)	88,500,000	Property sq. ft.	309,176
% of total pooled trust balance (%)	7.9	Year built	2020
City	Tempe	Sponsor	David Norouzi, Niloufar Norouzi, and Mansoureh Nowroozi
State	Ariz.	S&P Global Ratings' amortization category	Interest-only
S&P Global Ratings' market type	Secondary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	6,030,000(i)	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(27.78)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	8.25	S&P Global Ratings' LTV (%)	130.0(ii)

Table 15

Credit Profile (cont.)

S&P Global Ratings' value (mil. \$)	68.1(i)	S&P Global Ratings' DSC (x)	2.37(ii)
S&P Global Ratings' value variance (%)	(50.0)	'AAA' SCE (%)	65.4
S&P Global Ratings' value per sq. ft./unit (\$)	301	'AAA' DCE (%)	28.8

(i)Pari passu adjusted. (ii)The loan is pari passu; the LTV ratio and DSC are calculated based on the \$121.0 million whole loan (\$88.5 million trust loan and the \$32.5 pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The whole loan has a strong DSC of 2.37x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 27.8% lower than the issuer's NCF.
- The loan is secured by the borrower's leasehold interest in a newly constructed class A mixed-use, office/retail complex, consisting of two buildings totaling 309,176 sq. ft. with 1,311 parking spaces, located in Tempe, Ariz., approximately two miles from downtown Tempe. The property is situated on 3.5 acres along the north shore of Tempe Town Lake and is part of a larger mixed-use master-planned community. The sponsor acquired the property along with adjacent land during the last recession, master planned the assemblage, and entitled the larger development, which includes an adjacent 360-unit luxury apartment complex. The sponsor constructed the office and retail buildings for a total development cost of \$133.1 million (\$430.34 per sq. ft.).
- The property was built in 2020 and comprises two buildings: Building 410 (south building), a 16-story building that includes two levels of subterranean executive level parking, seven floors of above-grade parking, ground-floor retail space, and eight levels of premium office space; and Building 430 (north building), an eight-story building that includes ground-floor retail space and seven levels of structured parking above the retail space. Amenities at the property include a fitness center/cycle room, lounge/conference center, game room, Sky Lobby and Sky Terrace area, and a private balcony on the top floor.
- Although the construction of the property was completed in early 2020, the sponsor leased up the property quickly. The property was 92.8% leased as of July 2021, of which the office component is 100% leased, to 17 tenants in a variety of industries including technology, real estate, medical, and retail/restaurant. The four largest tenants at the property are OpenDoor (32.6% of NRA; 35.5% of in-place gross rent, as calculated by S&P Global Ratings), WeWork (22.4%; 24.0%), Robinhood (17.4%; 18.3%), and Align (11.1%; 12.3%). The retail portion (13.4% of the total NRA) is 49.4% leased to 11 tenants and accounts for 6.5% of in-place gross rent, and includes tenants such as F45 Training, Monroe's Hot Chicken, Dog Haus, Restore, and Sweet Republic, among others.
- The mortgage loan is structured with a hard in-place lockbox and in-place cash management, as determined by S&P Global Ratings. A cash sweep event occurs upon an event of default, a mezzanine loan event of default, if the DSC falls below 1.20x (or 1.40x after August 2030), bankruptcy of the manager if the manager is an affiliate of the borrower or guarantor, or if one

Presale: Benchmark 2021-B29 Mortgage Trust

of the major tenants (OpenDoor and WeWork) has terminated or elected to terminate its space, declared bankruptcy, or reduced its square footage beyond certain minimum thresholds. There are also ongoing reserves for taxes, insurance, capital expenditures, and leasing expenses.

- We visited the subject property on Aug. 18, 2021, accompanied by the sponsor. The property showed very well and is favorably located near Arizona State University. However, there were other similar sized office buildings being constructed nearby. The sponsor noted that these new buildings have asking rents of around \$45.00 per sq. ft., which is in line with the rent for the subject property. We toured the WeWork, OpenDoor, Robinhood, and Align office spaces. The WeWork space was well utilized at the time, with people utilizing the meeting rooms, lunchroom, and individual office spaces during our visit. Robinhood and OpenDoor were currently at about 20% and 30% utilization respectively, according to the sponsor. The Align space on the 13th floor is still going through its buildout and is on track to be completed by October 2021 per the sponsor. All the occupied retail spaces were open and operating during our visit.

The loan exhibits the following concerns and mitigating factors:

- The whole loan has high leverage with an S&P Global Ratings' LTV ratio of 130.0% based on our valuation and whole loan balance. The LTV ratio based on the appraiser's as-is valuation is 65.0%. Our estimate of long-term sustainable value is 50.0% lower than the appraiser's as-is valuation, a variance primarily driven by our 20.0% vacancy rate, real estate tax treatment, TI/LC expenses, and our 8.25% capitalization rate compared to the appraiser's 6.25% going-in capitalization rate.
- The loan is interest-only for its entire 10-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- The property is within the Phoenix MSA, which we consider a secondary market. According to CoStar, the property is in the Tempe 4- to 5-star office submarket. As of second-quarter 2021, the submarket vacancy rate, availability rate, and gross asking rent, were 9.6%, 15.5%, and \$36.09 per sq. ft., respectively. The office submarket's historical five-year and 10-year average vacancy rates were 7.2% and 8.4%, respectively, with an 8.6% five-year forecasted vacancy rate. As of second-quarter 2021, the submarket retail vacancy rate, availability rate, and asking rent were 6.6%, 7.0%, and \$19.26 per sq. ft., respectively. As of the July 15, 2021, rent roll, the property was 92.8% leased to 17 tenants with in-place gross rent of \$45.68 per sq. ft., as calculated by S&P Global Ratings. We assumed a 20.0% vacancy rate in our derivation of long-term sustainable NCF to account for the exposure to the WeWork tenant at the property. To account for the above-market rents at the property, we are also grossing up the vacant spaces at CoStar submarket rents, which are lower than the in-place rents.
- The property faces considerable tenant rollover risk, with 70.0% of the NRA and 75.5% of in-place gross rent, as calculated by S&P Global Ratings, expiring during the loan term. The rollover is elevated in 2026 (four leases expiring, 19.8% of NRA; 20.9% of in-place gross rent), 2027 (one lease expiring, 11.1% of NRA; 12.3% of in-place gross rent), and 2030 (12 leases expiring, 37.8% of NRA; 41.0% of in-place gross rent). However, the loan is structured with an ongoing reserve of \$1.00 per sq. ft. annually. In addition, the loan is structured with a major tenant lease cash flow sweep, which commences when a major tenant gives notice to vacate, files for bankruptcy, or goes dark, or upon an event of default by the major tenant, or 12 months prior to lease expiration.
- The property exhibits tenant concentration risk as the largest two tenants, OpenDoor and WeWork, account for 55.0% of the NRA and contribute 59.5% of in-place gross rent, with their

Presale: Benchmark 2021-B29 Mortgage Trust

leases expiring in December 2030 and November 2032, respectively. However, the loan is structured with a major tenant lease sweep that triggers 12 months prior to OpenDoor's or WeWork's lease expiration. OpenDoor and WeWork have one, five-year and two, five-year extension options, respectively.

- Five tenants, accounting for 20.8% of the NRA and 22.2% of in-place gross rent have rent commencement dates after the loan's closing date. Also, Align (34,186 sq. ft.; 11.1% of NRA; 12.3% of in-place gross rent) is expected to complete its buildout on the 13th floor by October 2021, and is currently occupying approximately 5,000 sq. ft. on the ninth floor. Drybar (1,421 sq. ft.; 0.5% of NRA; 0.5% of in-place gross rent) is currently building out its space and is anticipated to open in September 2021. The loan is structured with an upfront reserve of \$6.7 million for outstanding tenant obligations and will be released monthly until no free or gap rent, TI/LCs, or beneficial rent and reimbursements remain outstanding under the leases.
- The second largest tenant at the property is WeWork (69,115 sq. ft.; 22.4% of NRA; 24.0% of in-place gross rent). WeWork leases two floors (10th and 11th) of Building 410 through November 2032 and has two, five-year extension options and no termination options. WeWork currently pays in-place base rent of \$42.10 per sq. ft., with annual increases for the remainder of the lease term. WeWork subleases the 11th floor to Amazon through an enterprise agreement, with an unknown sublease duration. The WeWork Co. is rated 'CCC+/Negative' by S&P Global Ratings. We believe WeWork's operating model faces added pressure given the uncertainty around the extent of the COVID-19 pandemic's impact on demand for co-working space. To account for this risk, we assumed a 20.0% vacancy rate in our analysis. WeWork has remained current on rent throughout the COVID-19 pandemic. During our site visit, the property manager noted that this location has a 90.0% utilization rate.
- Robinhood (17.4% of the total NRA; 18.3% of in-place gross rent) has the right to terminate the currently occupied space of 34,259 sq. ft. (11.1%; 12.0%) at the end of the 42nd full month following the commencement date (May 1, 2021) by giving at least 12 months' notice and paying a termination fee equal to the sum of the unamortized TI/LC allowance and six months of abated rent. We have accounted for the risk of termination option in our capitalization rate assumption.
- The property is subject to two land and improvement leases covering the entirety of the property for purposes of effectuating an abatement of the Government Property Lease Excise Tax (GPLET). The landlord under these GPLET leases is the City of Tempe and the tenant is the borrower. The GPLET lease commenced on Feb. 4, 2020, and continues for eight years, during which term the GPLET shall be fully abated. Upon the expiration of the GPLET lease or upon any early termination of the lease, the ownership of the fee interest in the property will automatically vest in borrower. We assumed the fully assessed unabated real estate taxes in our derivation of long-term NCF and added back the net present value of the savings over the GPLET abatement's remaining term to our value. However, the tax savings are a "wasting asset" and the present value will decline with each passing year. If rental income does not increase, or if other expenses increase or capitalization rates increase in such a way as to offset the loss of yearly tax savings, our overall value will continue to decline.
- The mortgage loan proceeds were used to refinance approximately \$102.7 million, fund upfront reserves (\$6.7 million) and closing costs (\$1.6 million), and return approximately \$10.1 million (8.3% of the financing) of equity to the sponsor. Based on the appraisal value of \$186.2 million, \$65.2 million of implied equity will remain in the property at closing.
- As of September 2021, all of the occupied tenants are open and operating at the property. QWENCH (2,408 sq. ft.; 0.8% of NRA; 0.8% of in-place gross rent) requested rent relief and received a 50.0% rent deferment from September to December 2020, but is now current and

Presale: Benchmark 2021-B29 Mortgage Trust

has paid off all deferred rent. Although WeWork (69,115 sq. ft.; 22.4%; 24.0%) requested rent relief at the beginning of the pandemic, no relief was granted, and the tenant has continued to pay rent pursuant to the lease.

- During alterations to the property, the loan documents leave to the servicer's discretion the decision whether to require collateral for alterations whose cost exceeds a certain threshold. Additionally, this collateral, if required, may not be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.

4.2 Washington

Table 16

Credit Profile

Loan no.	4	Property type	Multifamily
Loan name	2 Washington	Subproperty type	High-rise
Pooled trust loan balance (\$)	80,000,000	No. of units	345
% of total pooled trust balance (%)	7.1	Year built/renovated	1972/2020
City	New York	Sponsor	Joseph Moinian
State	N.Y.	S&P Global Ratings' amortization category	Interest-only
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	5,350,000(i)	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(32.14)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	6.83	S&P Global Ratings' LTV (%)	102.0(ii)
S&P Global Ratings' value (mil. \$)	78.4(i)	S&P Global Ratings' DSC (x)	1.91(ii)
S&P Global Ratings' value variance (%)	(40.6)	'AAA' SCE (%)	53.5
S&P Global Ratings' value per sq. ft./unit (\$)	373,510	'AAA' DCE (%)	16.5

(i)Pari passu adjusted. (ii)The loan is pari passu; the LTV ratio and DSC are calculated based on the \$131.5 million whole loan (\$80.0 million trust loan and the \$51.5 million pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The mortgage loan is secured by the borrower's fee-interest in a condominium residential tower totaling 345 units (floors 3-15) with 27,989 sq. ft. of commercial space located in the Battery Park/Financial District neighborhood of lower Manhattan. The property is located on the southern tip of the Manhattan Financial District. It is directly adjacent to the waterfront park, The Battery, and is within walking distance of several subway stations including the World

Presale: Benchmark 2021-B29 Mortgage Trust

Trade Center Transportation Hub (13 subway lines, PATH trains, and ferry service), Bowling Green (subway lines 4 and 5), and Rector Street (subway lines N, R, and W).

- The trust loan has a moderately high DSC of 1.91x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 32.1% lower than the issuer's NCF.
- The multifamily collateral (90.4% of total rent as calculated by S&P Global Ratings) consists of 345 units (304 studios, 30 one-bedroom, nine two-bedroom, and two three-bedroom units) over 13 floors (floors 3-15), a welcome area on the first floor, and a rooftop pool and lounge. The commercial space (27,989 sq. ft.; 9.6% of total rent as calculated by S&P Global Ratings) on the second floor is leased to the New York City Board of Education (NYC Board of Ed.) from December 2014 to February 2031; District 2 Pre-K Center occupies the space and has its own separate entrance. There is also an additional 2,131 sq. ft. of vacant loading dock space that the sponsor plans to lease out to a local retailer, but which is currently generating no income. The collateral does not include the condominium owned by Nyack College, which occupies a partial space on the first floor, the basement, and floors 16-22.
- The property was originally built in 1972 as an office building and the sponsor acquired the property in 2004. Since January 2019, the sponsor spent \$80.0 million (\$432 per sq. ft.) in converting floors 3-15 from traditional office space into a residential development. Construction was completed in 2020, with the rooftop pool and lounge completed in May 2021. Each residential floor contains its own unique amenity space such as a fitness center, golf simulator, office co-working space, music room, and/or kitchen area, all of which are reserved for residential tenants.
- In early 2020, prior to delivery, the sponsor was approached by Sonder Hospitality Inc. (Sonder), to lease the entire residential portion of the collateral for 10 years at an annual starting rent of \$15.14 million (\$81.75 per sq. ft. or \$3,658 per unit per month). Sonder, founded in 2014, is a hospitality brand that operates properties in 35 cities around the world, including six properties in Manhattan, and advertises their guestrooms on traditional online travel platforms. Sonder has raised over \$560 million in investor funding, most recently through a \$170 million round of investment in June 2020, led by Fidelity, WestCap, and Inovia Capital. Additional investors include Valor Equity, Greenoaks Capital, and Greylock Partners, among others. It leases and manages its rentals and offers hotel-like rooms with the conveniences of a rental apartment including a full-size refrigerator, in-unit washer and dryer, and fully equipped kitchens.
- Sonder executed a lease in September 2020 for all 345 residential units at the property, of which 59 units are designated strictly as residential apartments per New York City zoning regulations. These 59 units must be rented for a minimum of 30 days, while the remaining 286 units are rented as traditional hotel units, with a maximum 30-day stay. Nevertheless, we are utilizing a residential look-through analysis to account for the property's buildout as residential apartments and the low likelihood of another hospitality brand taking over the space in the event Sonder vacates. The appraiser utilized a similar approach in its analysis.
- The lender provided a \$5.0 million cash reserve to cover operating expense and debt service shortfalls in the event Sonder defaults on its lease. This equates to approximately 8.4 months of operating expense and debt service coverage, as calculated by S&P Global Ratings. The \$5.0 million shortfall reserve will be indirectly released to the borrower if Sonder achieves an investment-grade credit rating or if Sonder exercises its lease renewal option. The appraiser notes that if Sonder were to vacate, the sponsor could transition the 59 long-term units to a typical residential operation without requiring a new temporary certificate of occupancy. The remaining 286 units currently utilized as lodging would require a reinspection by the Department of Buildings for residential use. Given the property was renovated in 2020 with a residential design plan, risks or delays from this zoning change would likely be minimal. Sonder

Presale: Benchmark 2021-B29 Mortgage Trust

also provided a \$7.5 million reserve, 50.0% of which was in the form of a letter of credit and 50.0% in the form of a surety bond. However, neither the letter of credit nor the surety bond conform to the replacement language for nonderivative counterparties set forth in S&P Global Ratings' Counterparty Risk Framework: Methodology and Assumptions (March 8, 2019). As such, no credit was given to this portion of the reserve.

- The sponsor is a joint venture between The Moinian Group (Moinian; 55.0% ownership), GFP Real Estate (GFP; 18.75%), and other smaller investors (collectively 26.25%). Moinian is one of the largest privately held real estate firms in the U.S., with a portfolio in excess of 20.0 million sq. ft. and approximately \$10.0 billion in assets. Moinian is experienced in the development and operation of office, hotel, retail, and apartment rental properties.
- The mortgage loan is a cash-in refinancing. The sponsor contributed approximately \$8.2 million of cash (5.8% of the total financing) as part of the approximately \$139.7 million refinance. The proceeds of the loan were primarily used to retire an existing \$129.5 million loan, fund approximately \$8.2 million of reserves, and pay approximately \$1.9 million in closing costs. As of Dec. 31, 2020, and based on the sponsor's cost basis of \$155.0 million, \$53.5 million of cash equity will remain in the property at closing.
- The mortgage loan is structured with a hard in-place lockbox and in-place cash management. A cash sweep event occurs upon an event of default, if the debt yield falls below 7.0%, or if Sonder has terminated or elected to terminate its lease, declared bankruptcy, or reduced its square footage beyond certain minimum thresholds. There are also ongoing reserves for taxes, insurance, and capital expenditures.
- We visited the property on Aug. 17, 2021, accompanied by a sponsor representative and the property manager. We found the property to be in overall good condition and well-located, next to Battery Park. The property has high-quality finishes and amenities befitting a typical multifamily asset, as well as a spacious rooftop pool and lounge. The units we toured have an in-unit Bosch washer and dryer, stainless steel appliances, and premium bathroom fixtures. We noted that each floor contains a unique common space for tenants. These spaces may include large communal kitchens, a music room with instruments, and/or a card and poker room. It was noted that the 59 units designated as traditional residential units were generally rented month-to-month, rather than on traditional 12-month residential leases. According to the property manager, at the time of our visit, there were no units leased for longer than three months.

The loan exhibits the following concerns and mitigating factors:

- The whole loan has high leverage, with an S&P Global Ratings' LTV ratio of 102.0% based on our valuation and the whole loan balance. The LTV ratio based on the appraiser's valuation is 60.6%. Our estimate of long-term sustainable value is 40.6% lower than the appraiser's valuation.
- The trust loan is interest-only for its entire 10-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- The property is in the Battery Park neighborhood of New York City, which we consider a primary market. According to CoStar, the property is in the Financial District multifamily submarket of Manhattan. As of second-quarter 2021, the multifamily submarket vacancy rate and monthly asking rent, according to CoStar, were 5.3% and \$2,814 per unit, respectively. The submarket's historical five-year and 10-year average vacancy rates were 4.5% and 4.3%, respectively, with a 5.7% five-year forecasted vacancy rate. As with many luxury apartments in New York,

multifamily vacancy rates in the Financial District were adversely affected during the pandemic, with average vacancy from April 2020 through June 2021 averaging 6.2%. In comparison, the submarket averaged a 3.7% vacancy rate from 2017 to 2019. Despite this, submarket vacancy has steadily dropped since fourth quarter of 2020 (7.3%), although CoStar still predicts a five-year forecasted vacancy rate of 5.7%. Additionally, CoStar has identified over 550 units of new supply expected to be delivered to the Financial District in first-quarter 2022, resulting in a forecasted vacancy rate of 7.5% in first-quarter 2022. As a result of the submarket volatility and new supply, we applied a 7.0% vacancy rate to the residential portion of the collateral in our derivation of long-term sustainable NCF.

- The 27,989 sq. ft. of commercial space on the second floor, categorized as office space by the appraiser, is 100% leased by the NYC Board of Ed. at \$45.95 per sq. ft. According to CoStar, the property is in the World Trade Center office submarket of Manhattan. As of second-quarter 2021, the office submarket vacancy rate, availability rate, and asking rent for class B office were 11.7%, 18.0%, and \$52.43 per sq. ft., respectively. The submarket's historical five-year and 10-year average vacancy rates were 12.2% and 13.0%, respectively, with a 13.3% five-year forecasted vacancy rate. We applied a 12.0% vacancy rate on the office portion of the collateral in our derivation of long-term sustainable NCF.
- Due to the unique nature of the asset, we analyzed this property on a rent per sq. ft. basis, rather than on a rent per unit basis. Sonder is currently paying a total rent of approximately \$15.1 million, or \$81.75 per sq. ft., which is above the appraiser's concluded residential market rent of \$76.02 per sq. ft. However, due to the renovation of the property from office to residential and the varying unit sizes and unit layouts (ranging from 347 sq. ft. to 813 sq. ft. on studio units alone), the limited operating history of the property (construction completed in 2020 with the rooftop lounge completed in May 2021), and Sonder's above-market rents, we applied a rent of \$65.00 per sq. ft. in our analysis, 20.5% lower than in-place rent and 14.5% lower than the appraiser's concluded rent. This equates to an average rental income of approximately \$2,900 per unit per month compared to the appraiser's concluded average submarket rent of \$3,402 per unit per month.
- In early 2020, Sonder executed an original lease but subsequently renegotiated it at the onset of the COVID-19 pandemic to allow for a series of free rent allowances in exchange for a lease extension to February 2031. Sonder executed its current lease in September 2020 and received approximately \$17.4 million (\$93.92 per sq. ft.) in free rent that could be used from September 2021 through September 2027, with \$6.48 million of this allowance applied by September 2021. The in-place rent of \$15.14 million (\$81.75 per sq. ft.) is inclusive of the free rent negotiated in the renegotiated lease. There is an upfront \$3.0 million free rent reserve put in place by the sponsor to replicate 2.4 months of rent payments.
- The property is part of a condominium structure in which the borrower does not hold a majority interest. The management and operation of a condominium is generally controlled by a condominium board representing the owners of the individual condominium units, subject to the terms of the related condominium rules or by laws. Since the borrower does not have control over decisions made by the related board of managers or directors, this could adversely affect the management and operation of the property.
- During alterations to the property, the loan documents do not require the borrower to post collateral for alterations whose cost exceeds a certain threshold. Additionally, in our opinion, this optional threshold is higher than a de minimis amount. Lastly, this collateral, if required, may not be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.

5. The Domain

Table 17

Credit Profile

Loan no.	5	Property type	Retail
Loan name	The Domain	Subproperty type	Anchored
Pooled trust loan balance (\$)	64,000,000	Property sq. ft.	886,526
% of total pooled trust balance (%)	5.7	Year built/renovated	2007/2010
City	Austin	Sponsor	Simon Property Group L.P.
State	Texas	S&P Global Ratings' amortization category	Interest-only
S&P Global Ratings' market type	Secondary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	6,420,000(i)	S&P Global Ratings' subordinate debt category	Unsecured Debt (S&P Global Ratings' LTV < 90.0%)
S&P Global Ratings' NCF variance (%)	(23.41)	S&P Global Ratings' subordinate debt adjustment	(1.50)
S&P Global Ratings' cap rate (%)	7.50	S&P Global Ratings' LTV ratio (%)	74.8
S&P Global Ratings' value (mil. \$)	85.6(ii)	S&P Global Ratings' DSC (x)	3.20(ii)
S&P Global Ratings' value variance (%)	(37.9)	'AAA' SCE (%)	42.5(ii)
S&P Global Ratings' value per sq. ft.(\$)	317	'AAA' DCE (%)	8.5

(i)Pari passu adjusted. (ii)The loan is pari passu; the LTV ratio and DSC are calculated based on the \$210.0 million whole loan balance (\$64.0 million trust loan and the \$146.0 million pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement.

Strengths and concerns

The loan exhibits the following strengths:

- The trust loan represents a pari passu portion within a larger \$210.0 million whole loan. The whole loan has low leverage with an S&P Global Ratings' LTV ratio of 74.8%, based on our valuation. The LTV ratio based on the appraiser's as-is valuation is 46.5%. Our long-term sustainable value estimate is 37.9% lower than the appraiser's as-is valuation. The variation is mainly driven by our capitalization rate of 7.50% compared with the appraiser's capitalization rate of 6.00% and our marking of the mall's in-line retail tenants to a more sustainable level of occupancy cost (discussed further in the Concerns And Mitigating Factors section).
- The whole loan has a strong DSC of 3.20x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 23.4% lower than the issuer's NCF.
- The whole loan is secured by the borrower's fee-simple interest in a 1.23 million-sq.-ft. (886,526 sq. ft. of collateral) multi-level, open-air regional mall and office property, built in

Presale: Benchmark 2021-B29 Mortgage Trust

2007 and expanded in 2010, in Austin, Texas. The property is situated in a larger mixed-use, park-like, live-work-play development, with several adjacent hotels, office complexes, and over 800 multifamily units. The property is located approximately eight miles north of the Austin CBD and is easily accessible and in proximity to U.S. Highway 183, Mopac Expressway (Loop 1), and Capital of Texas Highway (Loop 360), as well as the Capital Metro Kramer Station rail.

- The collateral consists of approximately 730,285 sq. ft. of retail space (82.7% of total NRA; 84.5% of total gross rent, as calculated by S&P Global Ratings) and 156,241 sq. ft. of office space (17.3%; 15.5%) on the upper level, which is 100% leased to 13 different tenants. The property includes several children's play areas, outdoor fireplaces, and plentiful greenspace that is covered by an LED-lit overhead structure. The greenspace features concerts, family and fitness programming, food trucks, and other activities throughout the year.
- The property benefits from a diverse roster of over 125 office and retail tenants, including national anchors (totaling more than 50,000 sq. ft.), major retailers (between 10,000 sq. ft. and 50,000 sq. ft.), and in-line retailers (less than 10,000 sq. ft.), which helps lower the risk of sudden drops in the loan's capacity to meet its debt service obligations. The three largest retail tenants at the collateral are Dick's Sporting Goods (9.1% of NRA; 3.3% of in-place gross rent, as calculated by S&P Global Ratings; January 2025 lease expiration), Neiman Marcus (9.0%; 2.1%; March 2027 expiration), and IPIC Theaters (4.2%; 2.8%; January 2031 expiration). The retail tenancy also includes non-collateral anchors, Macy's ('B+/Positive') and Dillard's ('BB-/Stable'), several luxury tenants, and a wide variety of food options that range from fast casual to fine dining. The two largest office tenants are Hanger Orthopedic Group Inc. (8.8%; 8.3%; July 2023 expiration), which is one of the largest providers of orthotic and prosthetic care in the U.S., and Cantilo & Bennett LLP (1.7%; 1.5%; September 2027 expiration). Hanger Orthopedic Group Inc. has been at the property since January 2010 and has two, five-year renewal options remaining.
- Prior to the COVID-19 pandemic, the property exhibited stable occupancy and increasing operating performance. The property maintained occupancy rates above 90.0% since 2011; however, it dipped slightly in 2020 to approximately 89.0%. The in-line retail occupancy rate averaged 94.2% between 2014 and 2020, while the office space demonstrated an average occupancy rate of 96.5% over the same period. As of the June 2021 rent roll, the property was 92.9% leased, reflecting 64,000 sq. ft. of space leased to at least 15 tenants in the last six months. The property's net operating income (NOI) increased from \$27.1 million in 2018 to \$28.7 million in 2019 before dropping 13.3% in 2020 to \$24.9 million. The property's NOI rebounded slightly by 3.4% to \$25.8 million in the TTM ending April 2021. The same trend was demonstrated with tenant sales at the property. Reported in-line sales increased 14.7% from 2018 to 2019 but then declined 22.1% in 2020 and another 4.2% in the TTM ending April 2021.
- According to CoStar, the property is located in the North/Domain retail and office submarkets in the Austin, Texas MSA, which we consider a secondary market. As of second-quarter 2021, the retail submarket had average vacancy and availability rates of 3.3% and 4.2%, respectively. The retail submarket has shown strong and stable performance historically with vacancy rates below 5.0% since the second half of 2015 and below 10.0% since 2006. Additionally, CoStar forecasts the average retail vacancy rate to be 3.9% over the next five years. This compares to the current physical vacancy rate of 9.4% within the property's retail space. The office submarket had average vacancy and availability rates of 9.4% and 19.5%, respectively, as of second-quarter 2021. The historical five- and 10-year average office vacancy rates were 7.9% and 8.7%, respectively. CoStar projected the office submarket to weaken over the next five years with a forecasted five-year average vacancy rate of 12.4%. This compares to the fully occupied office space at the subject property. The entire collateral is approximately 7.1% vacant as of the June 2021 rent roll. We utilized a weighted average 13.4% vacancy rate on the

Presale: Benchmark 2021-B29 Mortgage Trust

collateral property in our analysis, which represents a 5.0% vacancy rate assumption on the collateral anchor and major retail space, a 15.1% vacancy rate on the in-line retail space, a 20.0% vacancy rate on the theater space, and a 10.0% vacancy rate on the office space.

- The loan benefits from Simon Property Group L.P.'s ('A-/Stable') experienced sponsorship. As of March 31, 2021, Simon Property Group L.P. owned or held an interest in 202 properties in 37 U.S. states, Puerto Rico, Europe, Asia, and Canada. In addition, it owns an 80.0% non-controlling interest in the Taubman Realty Group LLC, which has an interest in 24 regional, super-regional, and outlet malls in the U.S. and Asia.
- The mortgage loan is structured with a hard in-place lockbox and springing cash management, as determined by S&P Global Ratings, which allows the borrower to control funds until an event of default has occurred, a bankruptcy action of the borrower or manager, or a debt yield ratio of 9.0% is breached for two consecutive quarters. At that point, the borrower will be required to maintain monthly tax and insurance escrows, replacement reserves, and TI/LC deposits. During a lockbox event, all excess cash flow will be deposited into a lender-controlled account.
- We visited the property on June 24, 2021, with the property manager and found that it presents well. The property appears to be in its own self-contained development, which comprises hotels, retail, and entertainment properties, apartment buildings, and office complexes. The property is a blend of retail, restaurants, and office, as well as several outdoor play areas for children with well-maintained landscaping. While the property includes several typical mall anchors, major tenants, and in-line tenants, it presents more like a neighborhood retail and entertainment complex because the restaurant and entertainment selections appeared better than typical malls. We noted that the north end of the subject property appeared more stable with less vacancies and larger, high-end retailers, while the south end had a noticeable number of vacant storefronts and less well-known tenants. The north end appears to cater to a younger crowd with bars and luxury retailers while the south end is more service-oriented. The property manager confirmed that the rental rates at both the property and the immediate surrounding market are above-market and that since the COVID-19 pandemic, it has been typical to offer free rent to new tenants in addition to the standard tenant improvement packages previously offered. Demand at the property is typically generated by local traffic, but prior to the COVID-19 pandemic, approximately 30% of the foot traffic came from tourists. The tourism traffic is expected to rebound this year with the opening of a brand-new soccer stadium approximately half a mile away from the property. The free rent offered depends on the strength of the incoming tenant and typically ranges from one to two months. It was noted that there are several incoming tenants, as well as some potential tenants interested in the retail space. Additionally, no tenants were dark at the time of the tour.

The loan exhibits the following concerns and mitigating factors:

- The whole loan is interest-only for its entire 10-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for higher refinancing risk at loan maturity.
- The loan is a refinancing and the loan proceeds retired approximately \$175.1 million in outstanding debt, funded about \$1.1 million in closing costs, and returned approximately \$33.8 million (16.1% of the financing) of equity to Simon Property Group L.P., the sponsor. The sponsor developed the property in two phases in March 2007 and February 2010 and spent approximately \$14.3 million on renovations between 2015 and 2018, for a total cost basis of approximately \$400.8 million (\$325.86 per sq. ft.). Based on the sponsor's cost basis of over \$400.0 million, \$157.0 million of equity remained in the property at closing.
- Our estimated 18.0% occupancy cost for in-line tenants at the retail mall is above the range

that we believe can be supported by regional malls, with in-line sales in the mid-\$400s per sq. ft. Additionally, the appraiser concludes that average in-place base rent of \$39.44 per sq. ft. for the retail tenants at the property, as of the June 2021 rent roll, is approximately 13.9% above market. On the other hand, the in-place gross rent of \$32.29 per sq. ft. for the office tenants was at market, according to the appraiser. We applied a mark-to-market adjustment to the property's cash flow to derive a sustainable occupancy cost of 15.0%. This adjustment lowered our long-term sustainable value by approximately 14.4%.

- In addition to the mortgage loan, the borrower can obtain up to \$5.0 million in PACE debt. The borrower's ability to incur subordinated debt exposes the trust loan to a higher default risk. We reduced our LTV recovery thresholds across the capital structure to account for this risk.
- During our site visit on June 24, 2021, we noted that half of the mall appeared to be less desirable than the rest of the retail space, with more vacancies, less upscale and national tenants, and more service-oriented retailers. The appraiser also acknowledged that the north end of the mall, known as Domain I, in general, significantly outperforms the less desirable south end part of the mall, known as Domain II, in sales; and therefore, may struggle to attract national retailers. According to the appraiser, as of the TTM ending March 2021, sales per sq. ft. for Domain I and Domain II were \$626.98 and \$206.48, respectively. This trend had also persisted prior to the COVID-19 pandemic with sales per sq. ft. for the full-year 2019 of \$671.78 and \$291.13 for Domains I and II, respectively. We utilized higher vacancy and capitalization rates to account for this risk.
- The loan agreement allows for a self-insured retention amount, which may result in the property effectively having an insurance deductible exceeding 5.0% of the property's insurable value. We reduced our LTV recovery thresholds across the capital structure to account for this risk.
- There is no warm body carve-out guarantor and the carve-out guaranty is capped at only 15.0% of the loan amount. In our view, these limitations generally lessen the disincentive provided by a full non-recourse carve-out related to "bad acts" or voluntary bankruptcy.
- Although the SPE borrower is structured with a non-consolidation opinion and two independent directors, the independent directors can be removed without cause with five business days' notice.
- Although the borrower must provide the lender with quarterly and annual financial statements, they are not required to be audited. We believe audited financial statements are more conclusive and reliable than unaudited statements.
- The property is currently open and operating. During the COVID-19 pandemic, the sponsor closed all of its malls in the U.S. on March 18, 2020. Specifically, the subject property was closed for about a month and a half and re-opened on May 1, 2020. Due to the government-mandated closures and limitations on mall foot-traffic, several tenants at the subject property received rent abatements and rent deferrals. The mall also experienced a decrease in sales of 22.1% from 2019 to 2020 and 4.2% in the TTM ending April 2021. It remains to be seen if sales would increase to pre-pandemic levels after restrictions are lifted. However, monthly collections have been above 95% in 2021 and have improved in recent months, reaching 99.0% in June 2021. Many of the tenants that received deferred or abated rents have begun repayment plans in 2021. Additionally, the sponsor has leased over 64,000 sq. ft. of space to more than 15 tenants in the last six months. We believe our occupancy cost adjustment and higher capitalization rate assumption help mitigate the possibility of decreased sales going forward. We will continue to monitor the performance of this mall and update our assumptions and estimates accordingly.

6. InCommerical Net Lease Portfolio #4

Table 18

Credit Profile

Loan no.	6	Property type	Retail
Loan name	InCommercial Net Lease Portfolio #4	Subproperty type	Single-tenant
Pooled trust loan balance (\$)	41,570,000	Property sq. ft./no. of units	304,789
% of total pooled trust balance (%)	3.7	Year built	Various
City	Various	Sponsor	Erik Conrad
State	Various	S&P Global Ratings' amortization category	Partial interest-only
S&P Global Ratings' market type	Various	S&P Global Ratings' amortization adjustment (%)	(1.25)
S&P Global Ratings' NCF (\$)	3,320,000	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(16.57)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	7.93	S&P Global Ratings' LTV (%)	99.4
S&P Global Ratings' value (mil. \$)	41.8	S&P Global Ratings' DSC (x)	1.56
S&P Global Ratings' value variance (%)	(37.1)	'AAA' SCE (%)	52.5
S&P Global Ratings' value per sq. ft./unit (\$)	137	'AAA' DCE (%)	24.2

NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The trust loan is secured by the borrower's fee simple interest in a NNN lease portfolio of 13 properties (12 single-tenant unanchored retail properties and one single-tenant medical office property) containing 304,789 sq. ft., spanning eight states and 12 markets. The largest three states account for 77.2% of the portfolio's NRA and 53.1% of the net rent as calculated by S&P Global Ratings: Wisconsin (44.0% of NRA; 25.5% of net rent as calculated by S&P Global Ratings), Michigan (28.4%; 18.4%), and Maryland (4.9%; 9.3%).
- The properties are leased to seven distinct tenants, all of which are rated by S&P Global Ratings; six (87.2% of rent) are rated investment grade: Pick N' Save (two properties; parent company Kroger Co.; 'BBB/Stable/A-2'; 29.1% of NRA; 15.1% of net rent), Kohl's (one property; 'BBB/Stable'; 28.4%; 18.4%), Walgreens (four properties; 'BBB/Negative/A-2'; 19.3%; 36.5%), Tractor Supply (one property; 'BBB/Stable'; 9.0%; 3.2%), BMO Harris (two properties; 'A+/Stable/A-1'; 5.9%; 7.2%), Outback Steakhouse (two properties; parent company Bloomin'

Presale: Benchmark 2021-B29 Mortgage Trust

Brands Inc.; 'BB-/Stable'; 4.2%; 12.8%), and Fresenius Medical Care (one property; 'BBB/Stable/A-2'; 4.2%; 6.9%). With the exception of Tractor Supply, no tenants within the portfolio have a lease expiration during the seven-year loan term.

- The portfolio faces limited tenant rollover risk during the seven-year loan term, with 9.0% of NRA and 3.2% of in-place net rent expiring during the loan term. However, there is concentrated rollover after loan maturity with 12.4% of NRA and 10.3% of rent expiring in 2030 and 25.6% of the NRA and 19.0% of rent expiring in 2031. However, the majority of the properties in the portfolio have extension options with one to seven, five-year extension options remaining.
- According to CoStar, for the eight submarkets that had vacancy data available, the weighted average submarket vacancy rate of the portfolio is 4.7% based on year-to-date 2021 data. We assumed a weighted average vacancy rate of 8.4% in our derivation of a long-term sustainable NCF for the portfolio. Our vacancy assumption is primarily driven by the single-tenant tenancy, remaining lease terms, and available market information. The portfolio is also in line with market rent, with the appraiser noting the in-place contract rent on a weighted average is 99.1% of market rent.
- The loan benefits from InCommerical Inc.'s experienced sponsorship. InCommerical Inc. specializes in net leased assets and owns more than 250 properties comprising 2.0 million sq. ft. and approximately \$350 million in value. The loan proceeds financed the sponsor's acquisition of the portfolio for a purchase price of \$65.9 million (\$216.20 per sq. ft.). The sponsor contributed approximately \$25.7 million of equity (38.2% of the total financing) as part of the \$67.3 million all-in acquisition costs, including \$0.9 million of reserves and \$0.5 million of closing costs.
- The mortgage loan is structured with a hard in-place lockbox and in-place cash management, as determined by S&P Global Ratings. A trigger period occurs upon an event of default, if the DSC falls below 1.30x, if one of the major tenants has terminated or elected to terminate its space, defaulted, declared bankruptcy, reduced its square footage beyond certain minimum thresholds, or had its credit rating downgraded below certain minimum thresholds. There are also ongoing reserves for taxes, insurance, capital expenditures, and leasing expenses.
- As of Sept. 6, 2021, there have been no reported delinquencies in rent payment across the portfolio since the onset of the COVID-19 pandemic; all of the tenants in the portfolio have been current on rent payments. The loan is not subject to any modification or forbearance requests.

The loan exhibits the following concerns and mitigating factors:

- The trust loan has high leverage with an S&P Global Rating's LTV ratio of 99.4% based on our valuation. The LTV ratio based on the appraiser's as-is valuation is 62.5%. Our estimate of long-term sustainable value is 37.1% and 4.7% lower than the appraiser's as-is and go-dark valuations, respectively.
- The loan is interest-only for the first year of its seven-year term, and then amortizes on a 30-year schedule. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- There is a concentration of leases leased to Walgreens; it occupies four of the 13 properties, comprising 19.3% of the NRA and 36.5% of the base rent. This is mitigated by the fact that Walgreens is rated 'BBB/Negative/A-2' by S&P Global Ratings. In addition, a cash flow sweep is triggered in the event that Walgreens terminates or elects to terminate its space, defaults, declares bankruptcy, or reduces its square footage beyond certain minimum thresholds, or its credit rating is downgraded below certain minimum thresholds.

Presale: Benchmark 2021-B29 Mortgage Trust

- The properties are primarily concentrated in markets we consider secondary and tertiary. Four properties (37.4% of NRA; 42.6% of the base rent) are located in secondary markets, eight properties (58.5%; 50.6%) are in tertiary markets, and one property is in a primary market. The properties are located in 12 distinct submarkets with only two in the same submarket (Pick N' Save and Tractor Supply in Eagle River, Wis.).
- The portfolio has a weighted average age of 21 years, with 12 of the 13 properties built before 2009. The property condition reports estimated an annual \$0.46 per sq. ft. replacement reserve expense, which is higher than what we typically see for single-tenant retail or medical office buildings. We utilized \$0.47 per sq. ft. for capital expenditures in our analysis.
- One property, BMO Harris Watertown (4.9% of the allocated loan amount [ALA]) was identified as having a recognized environmental condition (REC). This REC is related to previous usage as a filling station and three underground storage tanks that were previously located on a portion of the property. The Phase 1 environmental report was awaiting a records request from the Wisconsin Department of Natural Resources. Under the terms of the loan agreement, the borrower must, at its own cost and expense, remediate and or close the REC in consultation with the Wisconsin Department of Natural Resources within six months of loan closing or it results in an event of default.
- The loan permits individual property releases subject to a release premium equal to 120.0% (110.0% if dark) of the ALA. However, the release is subject to debt yield, LTV ratio, and DSC tests where the debt yield and DSC after release must be at or above the greater of the debt yield and DSC at closing, or the debt yield and DSC immediately preceding the release. Further, the LTV ratio after release must be at or below the lower of the LTV ratio at closing and immediately preceding the release.
- The loan agreement allows tenants to provide insurance coverage in lieu of the borrower providing the insurance coverage, which generally must be consistent with the coverage and carriers required in the loan agreement. One tenant, Walgreens, is permitted to self-insure and needs only insure to policies consistent with the tenant's lease in terms of coverages and carriers, and thus may not be consistent with the insurance requirements in the loan agreement and S&P Global Ratings' insurance criteria. We reduced our LTV recovery thresholds across the capital structure to account for this risk.
- Although the SPE borrower is structured with a non-consolidation opinion and one independent director, the independent director can be removed without cause with the earlier of five days' or three business days' notice.
- The borrower is structured as a Delaware statutory trust (DST), which allows multiple individuals to own interest in the portfolio as owners and not as limited partners. However, the DST assigned the master lease of the properties to a sponsor affiliated SPE.

7. Epic West Towne Crossing

Table 19

Credit Profile

Loan no.	7	Property type	Retail
Loan name	Epic West Towne Crossing	Subproperty type	Anchored
Pooled trust loan balance (\$)	40,820,000.00	Property sq. ft.	276,157

Table 19

Credit Profile (cont.)

% of total pooled trust balance (%)	3.6	Year built/renovated	2018
City	Grand Prairie	Sponsor	Weber & Co.
State	Texas	S&P Global Ratings' amortization category	Interest- only
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	3,710,000	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(6.46)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	8.25	S&P Global Ratings' LTV (%)	90.8
S&P Global Ratings' value (mil. \$)	45.00	S&P Global Ratings' DSC (x)	2.76
S&P Global Ratings' value variance (%)	(28.5)	'AAA' SCE (%)	50.4
S&P Global Ratings' value per sq. ft./unit (\$)	163.00	'AAA' DCE (%)	12.2

NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The trust loan has a strong DSC of 2.76x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 6.5% lower than the issuer's NCF.
- The loan is secured by the fee-simple interest in a 276,157-sq.-ft., newly constructed power center located in Grand Prairie, Texas, approximately 19 miles southeast from Dallas CBD. The property has good visibility and is easily accessible, as it has frontage on South State Highway 161.
- The property was developed by Weber & Co., the sponsor, in 2018 and is occupied by 34 unique tenants and anchored by the furniture and appliance store chain Conn's HomePlus (Conn's), Burlington Coat Factory (Burlington), and Ross Dress for Less (Ross; 'BBB+/Stable). The property is shadow-anchored by a new IKEA, while a Kohl's anchored shopping center (currently undergoing construction by the sponsor) is located across the street, and a Walmart Supercenter is four minutes away. In addition, the property is located adjacent to Epic Central, a recently approved development that will feature 120,000 sq. ft. of recreational space, 10 acres of trails and playgrounds, an amphitheater, and a \$75.0 million indoor/outdoor waterpark.
- As of the July 6, 2021, rent roll, the property is 95.0% occupied by a diverse roster of 34 tenants, including two national anchors (totaling more than 40,000 sq. ft.), seven major retailers (between 10,000 sq. ft. and 40,000 sq. ft.), and 25 in-line retailers (less than 10,000 sq. ft.). The three largest tenants at the property are Conn's (14.5% of NRA; 11.8% of gross rental income, as calculated by S&P Global Ratings; December 2029 lease expiration), Burlington (14.6%; 11.2%; February 2029), and Ross (9.1%; 7.3%; January 2029), and collectively represent 38.2%

Presale: Benchmark 2021-B29 Mortgage Trust

of NRA and 30.3% of gross rental income. Outside of the top three tenants, no tenant occupies more than 8.0% of NRA or contributes more than 6.6% of gross rental income. Conn's has three, five-year renewal options and Ross has five, five-year renewal options remaining.

- According to CoStar, the property is in the North Grand Prairie retail submarket of Dallas-Fort Worth, which we consider a primary market. As of second-quarter 2021, the submarket's power center vacancy rate and NNN asking rent were 3.3% and \$16.66 per sq. ft., respectively. The submarket's historical five-year and 10-year average vacancy rates were 2.3% and 7.6%, respectively, with a 3.9% five-year forecasted vacancy rate. As of the July 2021 rent roll, the property was 95.0% leased, with an average base rent of \$16.04 per sq. ft. and an average gross rent of \$23.34 per sq. ft., as calculated by S&P Global Ratings. According to the appraiser, the property has a competitive advantage relative to nearby retail centers because the subject is occupied by several well-known national tenants, is proximate to other traffic-generating retail centers, and has strong visibility due to its frontage at the northwest corner of Mayfield Road and George Bush Turnpike. We assumed a 10.0% vacancy rate in our analysis, which is higher than the in-place vacancy rate to account for the property's limited stabilized operating history.
- The trust loan benefits from the experienced sponsorship of Weber & Co., a Dallas-based real estate development firm founded in 1990 by John Weber that focuses on developing large, credit-anchored shopping centers. Since inception, the company has developed 40 shopping centers in Texas (comprising over 14.0 million sq. ft.) that are anchored by nationally recognized tenants including Target, Kmart, Wal-Mart, Home Depot, Lowe's, Ross Stores, Albertson's, WinCo, Aldi's, and Kroger.
- The mortgage loan is structured with a hard springing lockbox, as determined by S&P Global Ratings, that springs into existence upon the first occurrence of an event of default, if the DSC falls below 1.60x, or upon the bankruptcy of the borrower or manager. There are also ongoing reserves for taxes, insurance, capital expenditures, and leasing expenses.

The loan exhibits the following concerns and mitigating factors:

- The trust loan has high leverage with an S&P Global Ratings' LTV ratio of 90.8% based on our valuation. The LTV ratio based on the appraiser's valuation is 64.9%. Our estimate of long-term sustainable value is 28.5% lower than the appraiser's valuation.
- The trust loan is interest-only for its entire 10-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- The property faces considerable tenant rollover risk, with 93.9% of the leased NRA and 96.7% of the in-place gross rent, as calculated by S&P Global Ratings, expiring during the loan term. The rollover is concentrated in 2029 (12 leases including Conn's, Burlington, and Ross; 77.5% of NRA; 68.4% of in-place gross rent). This is partially mitigated with ongoing TI/LC reserves of \$276,156 (\$1.00 per sq. ft.) per year, capped at five years, and a net cash flow sweep that commences in an event of default or if the DSC falls below 1.60x. We accounted for this risk by assuming an 8.25% capitalization rate in our valuation of the property.
- The property has limited operating history as it was recently developed. However, since completing construction in 2018, the sponsor has executed 34 leases totaling 262,717 sq. ft., representing 95.0% of NRA. As of the TTM ended July 2021, the property reached 92.1% occupancy, and is 95.0% occupied as of July 6, 2021.
- The loan is a refinancing, and the loan proceeds paid off existing debt of \$29.6 million, returned approximately \$6.5 million (15.9% of the financing) of equity to the sponsor, funded upfront reserves of \$1.5 million, and funded \$3.2 million in closing costs. The sponsor developed the

Presale: Benchmark 2021-B29 Mortgage Trust

property in 2018 and, based on a total cost basis of \$56.0 million (\$203 per sq. ft.), \$12.5 million of cash equity remains in the property at closing.

- During alterations to the property, the loan agreement does not require that all collateral posted by the borrower be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- Although the SPE borrower is structured with a non-consolidation opinion and two independent directors, the independent directors can be removed without cause with 30 days' notice.
- Although the borrower must provide the lender with quarterly and annual financial statements, they are not required to be audited. We believe audited financial statements are more conclusive and reliable than unaudited statements.
- As of Sept. 1, 2021, the property is open and operating. Three tenants, including HomeGoods, Burkes, and Burlington, received rent relief as part of each respective tenant's deferment program. As of May 3, 2021, no loan modification or forbearance requests have been made.

8. Novonix

Table 20

Credit Profile

Loan no.	8	Property type	Industrial
Loan name	Novonix	Subproperty type	Industrial
Pooled trust loan balance (\$)	30,045,632	Property sq. ft.	404,000
% of total pooled trust balance (%)	2.7	Year built/renovated	1968/2021
City	Chattanooga	Sponsor	Novonix Ltd.
State	Tenn.	S&P Global Ratings' amortization category	25 years
S&P Global Ratings' market type	Tertiary	S&P Global Ratings' amortization adjustment (%)	1.00
S&P Global Ratings' NCF (\$)	1,960,000	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(18.86)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	8.00	S&P Global Ratings' LTV (%)	122.8
S&P Global Ratings' value (mil. \$)	24.5	S&P Global Ratings' DSC (x)	1.02
S&P Global Ratings' value variance (%)	(41.3)	'AAA' SCE (%)	60.5
S&P Global Ratings' value per sq. ft./unit (\$)	61	'AAA' DCE (%)	60.5

NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The trust loan is secured by the leased fee and leasehold interest in a 404,000-sq.-ft. industrial manufacturing facility located in Chattanooga, Tenn. The property is 100% leased to PUREgraphite, an affiliate of the sponsor, Novonix Ltd. (Novonix), which executed a NNN lease in June 2021 through May 2036, with an initial base rent of \$6.75 per sq. ft., with 2.0% annual rent escalations and no termination options. The property was originally built in 1968 and redeveloped in 2009, and features 12 loading docks and 15 exterior bay doors that range from 60 to 70 feet. The property is currently undergoing renovations, which include an \$84 million buildout, which is expected to be completed within 12 months of loan closing.
- The tenant, PUREgraphite is a subsidiary of Novonix, an Australian-based corporation publicly traded on the Australian Securities Exchange under the ticker NVX, with a \$2.2 billion AUD market cap. PUREgraphite develops and supplies materials, equipment, and services related to the lithium-ion battery industry and is the only company that offers synthetic graphite lithium-ion battery materials that are not supplied by Asia. PUREgraphite's anode materials can be used not only in electric vehicle applications, but also in emergency power generators, marine technology, solar power storage, surveillance or alarm systems, electric wheelchairs, stairlifts, portable power packs, digital cameras, and more items. The property will serve as Novonix's primary North American manufacturing facility to produce synthetic graphite lithium-ion battery materials. Novonix has manufactured its products in Chattanooga, Tenn., since 2017, when the company was in its early product development phase. It leases another facility on a long-term basis, approximately 6.5 miles from the subject property. Novonix has since evolved from the development stage and now has contracts with Samsung and SANYO, requiring a larger facility. Novonix plans to spend nearly \$270.0 million in total, with the majority on machinery and equipment, to complete the development and renovation of the property (which it considers mission critical) over the next five years.
- The \$84.0 million in planned improvements includes approximately \$79.8 million in equipment installation and approximately \$5.4 million of capital improvements. There is an upfront reserve of approximately \$6.2 million for 115.0% of the capital improvements. There is also an upfront earnout reserve to incentivize the sponsor to complete the buildout work, such that the borrower will receive \$8.0 million from the reserve upon the following conditions: the capital improvements have been completed; when \$6.1 million of the \$79.8 million of equipment has been purchased, installed, and utilized; the tenant is operating in the leased premises; no trigger event has occurred; and the absence of any shutdown or shelter-in-place requirements due to the COVID-19 pandemic. While this earnout reserve acts as an incentive to the tenant to complete the renovations, we did not give credit to the reserve in our analysis since all of the stipulations around the release need to be completed in order for Novonix to operate at the property. The tenant is only operational in a portion of the building that is not undergoing either capital expenditures or equipment installation but rent payment has commenced and the tenant is current on all contractual lease payments.
- Although the property is in Chattanooga, which we consider a tertiary market, the industrial submarket vacancy rates are below 5.0%. According to CoStar, the property is in the Chattanooga industrial submarket. As of second-quarter 2021, the submarket's vacancy rate and gross rent were 3.3% and \$6.59 per sq. ft., compared to \$9.62 per sq. ft. gross rent at the property. The submarket's five-year and 10-year vacancy rates were 7.3% and 8.6%, respectively. Although the property is 100% leased to Novonix through 2036, we applied a 15.0% vacancy rate in our analysis to account for the single-tenant risk. The appraiser found

Presale: Benchmark 2021-B29 Mortgage Trust

Novonix's rent to be within 5.0% of market rents and to be sustainable throughout the loan term.

- This location was strategically chosen by the tenant as Chattanooga is a center for the automobile industry, and companies like Volkswagen and Mercedes have electric vehicle production in the area. The local area is also in an expansion stage as the site adjacent to the property is undergoing a large redevelopment and is planned to become a mixed-use master planned neighborhood called "The Bend," with office, retail, residential, and hospitality components.
- The mortgage loan is an acquisition and Novonix, the loan's sponsor, contributed \$27.5 million of equity as part of the \$57.6 million all-in acquisition costs (47.7% of the acquisition costs).
- The loan amortizes on a 25-year schedule with a maturity balloon balance of \$21.7 million. Generally, amortizing balloon loans carry lower refinance risk at loan maturity. We accounted for this by increasing our LTV recovery thresholds across the capital structure.
- The mortgage loan is structured with a hard in-place lockbox and in-place cash management, as determined by S&P Global Ratings. A cash sweep event occurs upon an event of default; if the DSC falls below 1.20x; or if one of the major tenants has terminated or elected to terminate its lease, declared bankruptcy, or failed to timely renew, defaulted, reduced its square footage beyond certain minimum thresholds, or been downgraded below investment grade, if they had previously obtained an investment grade rating. There are also ongoing reserves for taxes, insurance, capital expenditures, and leasing expenses.

The loan exhibits the following concerns and mitigating factors:

- The trust loan has high leverage with a 122.8% LTV ratio, based on S&P Global Ratings' valuation. The LTV ratio based on the appraiser's as-is valuation is 72.2%. Our estimate of long-term sustainable value is 41.3% and 41.2% lower than the appraiser's as-is and go-dark valuations, respectively.
- The loan has a low DSC of 1.02x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 18.9% lower than the issuer's NCF and is primarily driven by our 15.0% vacancy rate and our TI/LC assumptions.
- The property is exposed to single-tenant risk. PUREgraphite is the sole tenant at the property, and the loan could come under stress if the tenant defaults on its lease or goes bankrupt. This risk is heightened because Novonix is currently dependent on large institutional investors and grants from the U.S. government, since the company does not currently generate positive cash flow. Recent investments include a \$115.0 million placement in February 2021 as well as Phillips 66 acquiring a 16.0% stake in the company for \$150.0 million in August 2021. Novonix reported a \$20.0 AUD million after-tax loss in 2020 and a \$26.1 million AUD loss in 2019. If Novonix loses investors, or if their technology becomes obsolete, the tenant may default on its lease obligations. In addition, this property was previously occupied by a single tenant, General Electric, until 2018 and remained empty until it was purchased by the loan sponsor in 2021. To account for both the single-tenant risk as well the tenant's financial condition, we utilized a 15.0% vacancy rate and an 8.0% capitalization rate in our analysis.
- The property is currently under a payment in lieu of taxes (PILOT) tax abatement with the Industrial Development Board of Chattanooga. In connection with the abatement, the fee-simple interest in the property is currently held by the Industrial Development Board of Chattanooga, which has granted an accommodation to the lender to allow the fee-simple interest to be collateral for the loan. The ground lease terminates on December 31 of the year that the tax abatement expires, and the ground lessee will have the right to purchase the fee

Presale: Benchmark 2021-B29 Mortgage Trust

interest for \$1.00. The PILOT program for the property will commence no later than January 1 of the calendar year immediately following the five-year period after acquiring the property in July 2021. To maintain their PILOT status, Novonix must meet the minimum jobs requirement of 240 full-time jobs with an average annual wage of no less than \$42,000, as well as a minimum investment requirement of \$120.0 million. Since there is not a firm date as to when the abatement will begin and there is no PILOT schedule available, we assumed the appraiser's estimated unabated tax expense in our analysis and passed this increase in expense to the tenant in accordance with the terms of PUREgraphite's NNN lease.

- During alterations to the property, the loan documents do not require the borrower to post collateral for alterations whose cost exceeds a certain threshold. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- The loan does not have a warm body carve-out guarantor. In our view, this limitation generally lessens the disincentive provided by a full nonrecourse carve-out related to "bad acts" or voluntary bankruptcy. Additionally, the guarantor entity is an Australian entity. This feature may introduce additional uncertainty regarding the enforceability of the guaranty.

9. College Point

Table 21

Credit Profile

Loan no.	9	Property type	Retail
Loan name	College Point	Subproperty type	Anchored
Pooled trust loan balance (\$)	30,000,000	Property sq. ft.	331,130
% of total pooled trust balance (%)	2.7	Year built	1998
City	College Point	Sponsor	The Related Cos. L.P.
State	N.Y.	S&P Global Ratings' amortization category	Interest- only
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	(2.50)
S&P Global Ratings' NCF (\$)	1,770,000(i)	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(9.85)	S&P Global Ratings' subordinate debt adjustment	N/A
S&P Global Ratings' cap rate (%)	7.50	S&P Global Ratings' LTV (%)	127.0(ii)
S&P Global Ratings' value (mil. \$)	23.6(i)	S&P Global Ratings' DSC (x)	1.63(ii)
S&P Global Ratings' value variance (%)	(52.9)	'AAA' SCE (%)	64.6
S&P Global Ratings' value per sq. ft./unit (\$)	166	'AAA' DCE (%)	37.6

(i)Pari passu adjusted. (ii)The loan is pari passu; the LTV ratio and DSC are calculated based on the \$70.0 million whole loan balance (\$30.0 million trust loan and the \$40.0 million pari passu companion loan). NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The mortgage loan is secured by the borrower's fee-simple interest in a 331,130-sq.-ft. anchored retail center anchored by a Target store and BJ's Wholesale Club (BJ's). The property is located within the College Point neighborhood in the Queens borough of New York City near the intersection of 20th Avenue, a major commercial thoroughfare, and Interstate 678. The property was built in 1998 and is 100% leased to five tenants consisting of two anchor tenants, two major tenants, and one outparcel, all of whom have NNN leases.
- The property comprises five buildings, four of which are contiguous, while the fifth building is an outparcel leased to Buffalo Wild Wings. As of June 2021, the property is 100% occupied to five tenants. The tenants are Target Corp. ('A/Stable'; 42.2% of NRA; 23.0% of in-place gross rent; July 2023 lease expiration), BJ's (36.1%; 32.5%; September 2023), P.C. Richards & Son ([P.C. Richards]; 9.9%; 15.6%; January 2029), T.J. Maxx ('A/Stable' under TJX Cos. Inc.; 9.9%, 20.4%; November 2023), and Buffalo Wild Wings (1.9%, 8.5%, August 2028). All five tenants at the property have at least one, five-year renewal option remaining. NOI at the property has remained consistent at approximately \$5.6 million since 2019, primarily due to the property's stable occupancy, while gains in effective gross income offset operating expense increases. The sponsor provided January 2021 TTM sales data for P.C. Richards and TJ Maxx of \$345 and \$508 per sq. ft., respectively. The sponsor also provided January 2021 trailing four-month sales data for Buffalo Wild Wings of \$485 per sq. ft. No sales data were provided for Target or BJ's.
- The property is in the College Point neighborhood of New York City, which we consider a primary market. According to CoStar, the property is in the Northeast Queens retail submarket. As of second-quarter 2021, the retail submarket vacancy rate, availability rate, and asking NNN rent, according to CoStar, were 4.0%, 5.8%, and \$51.04 per sq. ft., respectively. The submarket's historical five-year and 10-year average vacancy rates were 2.8% and 3.4%, respectively, with a 3.5% five-year forecasted vacancy rate. Despite the submarket's strong overall retail performance, a CoStar analysis of the submarket for neighborhood shopping centers alone shows a five-year vacancy and availability rate of 7.4% and 10.3%, respectively. We assumed a 7.5% vacancy rate in our analysis to derive our long-term sustainable NCF. Additionally, several competitive shopping centers identified by the appraiser indicate that the College Point and nearby Whitestone neighborhoods exhibit strong occupancy levels in a neighborhood with little new supply.
- As of the June 2021 rent roll, the property was 100% leased, with an average NNN rent of \$16.63 per sq. ft. This is substantially below both the appraiser's NNN rent conclusion (\$35.00 per sq. ft.) and CoStar's NNN submarket estimate (\$51.04 per sq. ft.). The appraiser's rent comparables included four NNN leases in Brooklyn and Queens that ranged from \$24.20 to \$42.67 per sq. ft. for tenants such as Target, Ikea, and Kohl's. At College Point, Target and BJ's pay a NNN rent of \$6.54 and \$16.76 per sq. ft., respectively, with no remaining rent increases. Target and BJ's below-market rents are due to the fact that both tenants contributed funds toward the construction of the property in 1998 to reduce their future contractual rents.
- On Aug. 13, 2021, we visited Target, BJ's, P.C. Richards, and T.J. Maxx, and spoke to the general manager of each store. Overall, the general managers voiced optimism regarding their store's performance. The general managers at BJ's and T.J. Maxx noted that their stores are one of the top performers in their respective chains. During our visit, each store was busy with a constant flow of shoppers; however, relative to the other tenants at the property, P.C. Richards was notably less busy. Recently, Target performed a large-scale renovation of its store including a

Presale: Benchmark 2021-B29 Mortgage Trust

Starbucks expansion and increasing the size of the pickup area in the front of the store.

- The mortgage loan benefits from The Related Cos. L.P.'s (Related) experienced sponsorship. Related is the largest landlord in New York City, owning over 8,000 residential units and managing approximately \$4.0 billion in equity capital. The loan is a recapitalization of an original leasehold structure between the borrower and Pepsi-Cola And National Brand Beverages Ltd. (Pepsi-Cola). In October 1997, Related leased the land from Pepsi-Cola under a series of three leases that were set to expire in August 2046; however, during the recapitalization of this property, Related and Pepsi-Cola consolidated the leasehold and fee-simple interest in the property. Simultaneous with this financing, loan proceeds were used to collapse the ground lease, and Related will join Pepsi-Cola's fee-simple ownership structure as a 36% member, with Pepsi-Cola retaining 64%. Related is the carve-out guarantor and sponsor of this deal. The collateral for this financing is a 100% fee-simple interest in the property with Related and Pepsi-Cola serving as co-managing members and Related overseeing the management of day-to-day operations at the property.
- The mortgage loan is structured with a hard in-place lockbox and springing cash management, as determined by S&P Global Ratings, which allows the borrower to control funds until a DSC of 1.10x is breached for two consecutive quarters, or if Target or BJ's has terminated or elected to terminate its lease, declared bankruptcy, or reduced its square footage beyond certain minimum thresholds. At that point, the borrower will be required to maintain monthly tax and insurance escrows. During a trigger period, all excess cash flow will be deposited into a lender-controlled account.
- As of Sept. 6, 2021, the loan is not subject to any forbearance, modification, or debt service relief request. As of Sept. 6, 2021, the borrower has reported that 100% of the expected July and August 2021 rent payments were received. Further, the September 2021 debt service payment was made.

The loan exhibits the following concerns and mitigating factors:

- The whole loan has high leverage, with an S&P Global Ratings' LTV ratio of 127.0% based on our valuation and the whole loan balance. The LTV ratio based on the appraiser's as-is and land value valuations are 59.8% and 42.2%, respectively. Our estimate of long-term sustainable value is 52.9% lower than the appraiser's as-is valuation.
- The loan is interest-only for its entire 10-year term, and there will be no scheduled amortization during the loan term. We reduced our LTV recovery thresholds across the capital structure to account for the higher refinancing risk at loan maturity.
- The property faces considerable tenant rollover risk with 100% of the leased NRA expiring during the loan term. The rollover is concentrated in 2023 when the Target, BJ's, and T.J. Maxx leases expire, representing 88.2% of NRA and 75.8% of in-place gross rent. This is partially mitigated by Target, BJ's, and T.J. Maxx having been at the property since 1998, with both Target and BJ's paying below-market rents. Target and BJ's both have four, five-year renewal options and one final 46-month renewal option available, and T.J. Maxx has one, five-year renewal option available. Additionally, there is an ongoing TI/LC reserve of \$0.65 per sq. ft. per year, which reduces to \$0.25 per sq. ft. in the event both Target and BJ's renew their respective leases. We have accounted for this rollover risk in our analysis by adding 50 basis points to our capitalization rate.
- Prior to Buffalo Wild Wings' September 2020 lease renewal, the tenant's sales were below average and the local franchisee missed a series of rental payments. However, Blazin Wings Inc., a subsidiary of Buffalo Wild Wings, took over the space in September 2020 and negotiated

Presale: Benchmark 2021-B29 Mortgage Trust

a percentage rent lease structure, paying between 8%-10% of gross sales between September 2020 and March 2022. As of April 1, 2022, Buffalo Wild Wings will pay the full \$80.91 per sq. ft. in rent.

- Of the five tenants at the property, T.J. Maxx is the only tenant who received relief due to the COVID-19 pandemic. This was negotiated as a 100% base rent deferral between June and August 2020. The tenant has since had no collection issues and began repayment of the deferral in February 2021, with the final payment occurring in January 2022. However, P.C. Richards has been at the property since 2009 and has reported declining year-over-year sales at the property since 2019, with sales per sq. ft. decreasing from \$444 to \$345 and occupancy cost increasing from 9.7% to 12.4% from January 2019 to January 2021, respectively. The tenant has two, five-year renewal options remaining. The tenant was originally granted a rent deferral due to the pandemic, although this was waived in August 2020 based on better-than-anticipated store performance. They have since had no collection issues or pandemic-related lease amendments.
- The whole loan proceeds were used to refinance approximately \$4.1 million and fund closing costs (\$385,421) before returning approximately \$65.5 million (93.6% of total financing) to the sponsor. Based on the appraised value of \$117.0 million, the sponsor has an implied \$54.7 million of equity remaining in the transaction.
- During alterations to the property, the loan documents leave to the servicer's discretion the decision whether to require collateral for alterations whose cost exceeds a certain threshold. Additionally, this collateral, if required, may not be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- The loan does not have a warm body carve-out guarantor. In our view, this limitation generally lessens the disincentive provided by a full nonrecourse carve-out related to "bad acts" or voluntary bankruptcy.

10. Independence Lofts

Table 22

Credit Profile

Loan no.	10	Property type	Multifamily
Loan name	Independence Lofts	Subproperty type	Mid-rise
Pooled trust loan balance (\$)	29,000,000	No. of units	95
% of total pooled trust balance (%)	2.6	Year built/renovated	1920/2019
City	Philadelphia	Sponsor	John Wei
State	Pa.	S&P Global Ratings' amortization category	Amortizing balloon
S&P Global Ratings' market type	Primary	S&P Global Ratings' amortization adjustment (%)	0.00
S&P Global Ratings' NCF (\$)	1,960,000	S&P Global Ratings' subordinate debt category	N/A
S&P Global Ratings' NCF variance (%)	(15.46)	S&P Global Ratings' subordinate debt adjustment	N/A

Table 22

Credit Profile (cont.)

S&P Global Ratings' cap rate (%)	6.37	S&P Global Ratings' LTV (%)	96.0
S&P Global Ratings' value (mil. \$)	30.2	S&P Global Ratings' DSC (x)	1.24
S&P Global Ratings' value variance (%)	(36.4)	'AAA' SCE (%)	47.9
S&P Global Ratings' value per sq. ft./unit (\$)	317,898	'AAA' DCE (%)	31.5

NCF--Net cash flow. LTV--Loan-to-value. DSC--Debt service coverage. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. N/A--Not applicable.

Strengths and concerns

The loan exhibits the following strengths:

- The loan is secured by the borrower's fee-simple interest in a nine-story, 95-unit, class A, multifamily property with 7,880 sq. ft. of ground floor commercial space and a 92-space parking garage, located in the Callowhill neighborhood of Philadelphia, Pa., approximately less than a mile from City Hall.
- The property was originally built in 1920 and functioned as a printing/manufacturing building. In 2015, the current sponsors acquired the vacant property for \$5.0 million and subsequently spent approximately \$31.6 million (\$332,631 per unit) in a gut renovation and conversion to its present multifamily use, which was completed in October 2019. The property includes 17, one-bedroom units averaging 687 sq. ft.; 75, two-bedroom units averaging 996 sq. ft.; and 3 three-bedroom units averaging 1,260 sq. ft. The property's amenities include nine-foot ceilings, granite countertops, stainless steel appliances, in-unit washer/dryers, hardwood floors, walk-in closets, and private patios or balconies. The property also includes a fitness center.
- As of May 2021, the multifamily portion (83,212 sq. ft.) was 100% occupied. The commercial space (7,880 sq. ft.; 9.8% of total gross rent) was 78.9% occupied by a craft beer bar/eatery (35.5% of commercial NRA; 49.8% of commercial in-place gross rent), SoSuite office space (13.1%; 19.1%), Redevelopment Consultant LLC (14.3%; 19.5%), AWACS Inc./AT&T antenna (6.1%; 11.5%), and the building's fitness center (9.9%; 0.0%), and currently has one vacant 1,660-sq.-ft. space (21.1% of NRA). The property opened in November 2019 at a 55.0% residential occupancy rate and was leased-up to 90.0% by September 2020. Since October 2020, the occupancy of the multifamily component has hovered around 98.0% and is currently 100% occupied. Limited concessions ranging from none to approximately two months per 12-month lease (historically averaged 5.7% of gross potential rent) have been offered since the property was delivered in October 2019, which we accounted for in our analysis.
- The loan is structured with a hard in-place lockbox for commercial tenants, a soft in-place lockbox for residential tenants, and in-place cash management, as determined by S&P Global Ratings. A cash sweep event occurs upon an event of default, if the debt yield falls below 6.5%, if the financial reports are not delivered as required, or if deposits into the investor member payment account are not made as required by the loan agreement. There are also ongoing reserves for taxes, insurance, and capital expenditures.

The loan exhibits the following concerns and mitigating factors:

Presale: Benchmark 2021-B29 Mortgage Trust

- The trust loan has high leverage with an S&P Global Ratings' LTV ratio of 96.0% based on our valuation. The LTV ratio based on the appraiser's valuation is 61.1%. Our estimate of long-term sustainable value is 36.4% lower than the appraiser's valuation.
- The trust loan has a moderately low DSC of 1.24x, calculated using the loan's fixed interest rate and our in-place NCF for the property, which is 15.5% lower than the issuer's NCF.
- Although the property is in Philadelphia, which we consider a primary market, the subject's in-place rents are above market. According to CoStar, the property is in the Art Museum/Northern Liberties multifamily submarket. As of second-quarter 2021, the submarket's average monthly rent was \$2,043 per unit, while the average monthly in-place rent at the property is 18.4% higher at \$2,419 per unit. The appraiser's conclusion of market monthly asking rent for comparable properties was \$2,231 per unit. According to CoStar, as of second-quarter 2021, the submarket had a multifamily vacancy rate of 10.1%. The five-year and 10-year vacancy rates were 9.1% and 9.8%, respectively, with a 14.1% five-year forecasted vacancy rate. The submarket had a retail vacancy rate of 3.6%. We assumed an overall 12.0% vacancy rate in our derivation of long-term sustainable NCF for the property. Our vacancy assumption considers the outsized new supply/deliveries that are scheduled to occur in the submarket over the next 24-months.
- Twelve of the 95 units (12.6% of units; 11.9% of in-place residential gross rent) at the property are subject to a three-year master lease that is scheduled to expire in October 2022. The 12 units (on the sixth floor) are master leased to Dan Housing Management, an unaffiliated third party that connects landlords to insured renters who need temporary housing. If Dan Housing Management were to cancel its master lease, the in-place vacancy of the multifamily portion would increase from 0.0% to 12.6%. The 12 master-leased units are leased at a lower rent compared to the non-master leased units; consequently, the 12 units can potentially be leased at higher rents if Dan Housing Management vacates or decides not to renew the master lease upon the October 2022 lease expiration. In addition to the 12 master-leased units, there are three other units (ninth floor; 2.8% of in-place residential gross rent), which are leased to SoSuite, a company that leases the units on a short-term basis, including to Airbnb.
- As a result of the sponsor's renovation and rehabilitation of the historic property, the property became eligible to benefit from historic tax credits (HTC). The sponsor has monetized these credits by selling a 99.0% interest in the HTCs to an entity controlled by PNC or the investor member. To properly structure the benefits of the HTC, the borrower created an entity, the master tenant, through which the property is leased to the master tenant pursuant to a master lease. The master tenant is 99.0% owned by PNC and 1.0% owned by the sponsor, who is also the managing member. The actual HTC received was approximately \$5.8 million, resulting from the sponsor spending approximately \$30.7 million on the rehabilitation of the property. The master tenant is the operator of the property and pays an annual rent to the borrower, payable out of the NCF. The rent payment due under the PNC master lease is subordinate to the debt service under the loan, and during a trigger period there is no leakage as all cash is trapped. PNC has a put option to sell its interest in the master tenant to the sponsor, exercisable on Dec. 31, 2024, the date on which the HTC expires. The borrower funded a \$500,000 debt service reserve at the request of the investor member (an affiliate of PNC) to cover debt service shortfalls and to satisfy payment obligations upon exercise of the put option. The balance of funds shall be disbursed after the put has been exercised, all required payments have been made to the investor member, the investor member is no longer a member of the master tenant, and a master lease termination event has occurred.
- The property benefits from a 10-year tax abatement from the City of Philadelphia, expiring on Dec. 31, 2029. We assumed the fully unabated tax expense in our analysis and added the

present value of the tax savings, approximately \$676,608, to our capitalized value. However, the tax savings are a "wasting asset" whose present value will decline with each passing year. If rental income does not increase, or if other expenses increase or capitalization rates increase in such a way as to offset the loss of yearly tax savings, our overall value will continue to decline.

- The environmental report noted the absence of a secondary containment tank for a 187-gallon, above-ground, diesel storage tank. The installation of a secondary containment tank was recommended as a preventive measure at an estimated cost of \$2,000. The loan was structured with an environmental reserve amount of \$2,200 (110% of total costs), but no deadline for completion was identified in the loan agreement.
- The mortgage loan proceeds were used to refinance approximately \$26.7 million, as well as fund closing costs (\$310,620), a debt service reserve (\$500,000), and an environmental reserve (\$2,200), before returning approximately \$1.4 million (4.9% of total financing) to the sponsor. Based on the sponsor's cost basis of \$36.6 million, \$35.2 million of cash equity will remain in the property at closing. The sponsor acquired the vacant property in 2015 for approximately \$5.0 million (\$52,632 per unit) and invested approximately \$31.6 million (\$332,632 per unit) to renovate the property. The property benefits from the experienced sponsorship of Jon Wei. Mr. Wei has over 15 years of industry experience and successfully operates a development and construction company serving corporate and private investors.
- Following a casualty or condemnation, the loan documents require the lender to disburse to the borrower, without supervision of such funds, insurance proceeds in an amount that exceeds the threshold, which we view as de minimis. In our view, this structure gives the borrower atypically high levels of discretion over the restoration process.
- During alterations to the property, the loan documents do not require the borrower to post collateral for alterations whose cost exceeds a certain threshold. Additionally, in our opinion, this optional threshold is higher than a de minimis amount. Lastly, this collateral, if required, may not be rated by S&P Global Ratings. This structure potentially exposes the transaction to risks associated with additional leverage beyond a de minimis amount and potential additional liens, such as mechanic's liens, some of which may have priority over the mortgage lien.
- Although the borrower must provide the lender with quarterly and annual financial statements, they are not required to be audited. We believe audited financial statements are more conclusive and reliable than unaudited statements.

Appendices

Our property evaluation results and loan-level credit enhancement for the full pool appear in the Appendix I and II tables below.

The loan-level credit enhancement levels shown in Appendix II include the SCE and DCE for each loan at various rating categories. The SCE assumes the loan is part of an undiversified stand-alone transaction, while the DCE assumes the loan is part of a well-diversified transaction with an effective loan count of at least 30. To arrive at the transaction credit enhancement levels, we calculated the weighted average SCE and weighted average DCE at each rating category and used the transaction's effective loan count of 22.5 to ascertain the final transaction credit enhancement level at each rating category relative to the upper and lower ranges established by the weighted average SCE and DCE. These final transaction credit enhancement levels are subject to applicable floors, including a 1% floor at the 'B' rating category, and any adjustment for overall transaction-level considerations.

S&P Global Ratings' Property Evaluation Results(i)

Loan no.	Property name	Property type	Market type	Loan balance (mil. \$)	% of pool	S&P Global Ratings' net cash flow (mil. \$)	Net cash flow variance	Cap rate (%)	S&P Global Ratings' value (mil. \$)	Value variance (%)	Loan-to-value ratio (%)	Debt service coverage (x)
1	One SoHo Square	OF	P	112.000	10.0	9.848	(34.7)	6.50	134.724	(58.1)	83.1	3.18
2	HQ @ First	OF	P	98.700	8.8	7.625	(37.6)	7.25	105.169	(54.4)	93.8	2.57
3	Watermark Tempe	MU	S	88.500	7.9	6.030	(27.8)	8.25	68.088	(50.0)	130.0	2.37
4	2 Washington	MF	P	80.000	7.1	5.354	(32.1)	6.83	78.394	(40.6)	102.0	1.91
5	The Domain	RT	S	64.000	5.7	6.418	(23.4)	7.50	85.569	(37.9)	74.8	3.20
6	InCommercial Net Lease Portfolio #4	RT	T	41.570	3.7	3.315	(16.6)	7.93	41.809	(37.1)	99.4	1.56
7	Epic West Towne Crossing	RT	P	40.820	3.6	3.709	(6.5)	8.25	44.962	(28.5)	90.8	2.76
8	Novonix	IN	T	30.046	2.7	1.958	(18.9)	8.00	24.475	(41.3)	122.8	1.02
9	College Point	RT	P	30.000	2.7	1.772	(9.8)	7.50	23.624	(52.9)	127.0	1.63
10	Independence Lofts	MF	P	29.000	2.6	1.956	(15.5)	6.37	30.200	(36.4)	96.0	1.24
11	McCullough Commons	RT	S	28.500	2.5	2.666	(13.2)	8.00	33.320	(41.5)	85.5	1.71
12	524 Courtlandt	MU	P	27.700	2.5	2.043	(9.2)	8.12	25.159	(52.6)	110.1	1.77
13	Falls of Deer Park Apartments	MF	P	27.000	2.4	1.882	(10.2)	7.25	25.956	(31.0)	104.0	1.26
14	175 East 62nd Street Leased Fee	GL	P	25.000	2.2	2.528	--	--	36.117	--	--	--
15	Celeros Houston	IN	P	23.885	2.1	1.719	(15.4)	8.00	21.211	(43.0)	112.6	1.31
16	Greene Plaza and Chippewa Center	RT	T	23.000	2.1	2.272	(6.7)	9.50	23.387	(31.0)	98.3	1.77
17	Midlothian Towne Crossing	RT	P	21.827	1.9	2.157	(11.2)	8.50	25.379	(25.4)	86.0	2.79
18	Paragon Films Sale-Leaseback	IN	T	21.790	1.9	1.570	(18.1)	8.00	19.625	(41.5)	111.0	2.06
19	The Village Lofts	MF	P	21.500	1.9	1.510	(18.3)	7.25	20.209	(38.8)	106.4	1.73
20	ExchangeRight Net Leased Portfolio #48	RT	T	20.035	1.8	1.518	(11.3)	8.09	18.492	(43.3)	108.3	2.36

S&P Global Ratings' Property Evaluation Results(i) (cont.)

Loan no.	Property name	Property type	Market type	Loan balance (mil. \$)	% of pool	S&P Global Ratings' net cash flow (mil. \$)	Net cash flow variance	Cap rate (%)	S&P Global Ratings' value (mil. \$)	Value variance (%)	Loan-to-value ratio (%)	Debt service coverage (x)
21	Veit Self Storage Portfolio	SS	T	20.000	1.8	1.890	(11.2)	8.40	22.505	(31.9)	88.9	3.16
22	Tutor Perini Portfolio	IN	T	19.500	1.7	2.743	(11.8)	9.59	28.619	(63.8)	68.1	3.64
23	Stockton Plaza	RT	S	18.460	1.6	1.432	(12.3)	7.50	19.100	(32.7)	96.7	2.33
24	931-955 Coney Island Avenue	MU	P	18.000	1.6	1.235	(11.0)	7.19	16.194	(43.8)	111.2	1.86
25	Centro Plaza	RT	T	13.410	1.2	1.033	(12.3)	8.50	12.152	(34.3)	110.4	1.32
26	BlueCross BlueShield Building	OF	P	13.330	1.2	1.155	(15.9)	7.75	14.908	(27.6)	89.4	2.44
27	47-01 Queens Boulevard	OF	P	12.750	1.1	0.976	(15.9)	7.75	12.592	(40.0)	101.3	2.36
28	Summit Orchards	RT	S	12.500	1.1	1.024	(12.3)	7.75	13.207	(32.6)	94.6	2.35
29	Redwood Waukee	MF	T	11.890	1.1	0.823	(10.2)	7.25	11.356	(34.0)	104.7	2.01
30	19th & Northern Marketplace	RT	S	10.684	1.0	0.826	(12.3)	7.75	10.659	(31.2)	100.2	1.42
31	800 Corporate Drive	MU	P	10.595	0.9	0.846	(11.7)	8.00	10.579	(35.5)	100.2	1.46
32	Staybridge Suites Bowling Green	LO	T	10.250	0.9	1.012	(15.1)	9.75	8.527	(45.7)	120.2	1.71
33	360 George Patterson Boulevard	OF	S	9.200	0.8	0.706	(15.9)	8.50	8.311	(41.3)	110.7	2.12
34	Home2 Suites Atlanta Airport West	LO	P	8.500	0.8	0.862	(15.1)	9.75	8.839	(32.5)	96.2	1.72
35	Peak & Perry Storage Portfolio	SS	T	8.436	0.8	0.633	(8.8)	8.50	7.446	(39.9)	113.3	1.34
36	Tonnelle Square Two	IN	P	8.125	0.7	0.557	(17.5)	7.50	7.424	(40.6)	109.4	1.68
37	Westlake Village Court Office	OF	S	7.800	0.7	0.788	(15.9)	8.25	9.549	(26.0)	81.7	2.91
38	Arrowhead Center	MU	T	6.447	0.6	0.663	(10.6)	9.75	6.798	(28.4)	94.8	1.72

Appendix I

S&P Global Ratings' Property Evaluation Results(i) (cont.)

Loan no.	Property name	Property type	Market type	Loan balance (mil. \$)	% of pool	S&P Global Ratings'	Net cash flow	Net cash flow	Cap rate (%)	S&P Global Ratings' value	Value variance (%)	Loan-to-value ratio (%)	Debt service coverage (x)
						net cash flow (mil. \$)	flow variance	(mil. \$)					
39	28 East 38th Street	MF	P	6.400	0.6	0.424	(10.2)	6.75	6.283	(40.7)	101.9	1.89	
40	Chenal Woods Apartments	MF	T	6.320	0.6	0.480	(10.2)	7.25	6.623	(33.8)	95.4	2.27	
41	1822 Sunset Boulevard	RT	P	6.000	0.5	0.424	(12.3)	8.00	5.301	(48.3)	113.2	1.60	
42	494 Jackson Avenue	MF	P	5.500	0.5	0.387	(10.2)	6.75	5.740	(30.8)	95.8	1.98	
43	Bay Oaks Apartments	MF	T	5.475	0.5	0.412	(10.2)	7.75	5.311	(39.0)	103.1	2.25	
44	5807 W 20th St	IN	T	4.854	0.4	0.357	(17.5)	7.75	4.604	(47.7)	105.4	1.96	
45	Walgreens Maricopa	RT	T	4.100	0.4	0.295	(12.3)	8.00	3.692	(48.9)	111.0	1.95	
46	NNN Portfolio	RT	T	4.000	0.4	0.340	(12.3)	8.48	4.009	(39.5)	99.8	1.59	
47	Fayetteville Self Storage	SS	T	3.500	0.3	0.311	(10.0)	8.25	3.776	(47.6)	92.7	1.46	
	Total/weighted average	--	--	1,120.899	100.0	90.486	(20.5)	7.68	-	(43.0)	99.9	2.22	

(i) Loan balances, net cash flows, and values refer to the trust portion of the contributed loan (i.e., the pari passu amount). All LTVs, DSCRs, debt yields, haircuts, and values refer to those generated by S&P Global Ratings, unless otherwise indicated. NCF--Net Cash Flow. LTV--Loan-to-value. DSC--Debt service coverage. IN--Industrial. LO--Lodging. MF--Multifamily. OF--Office. RT--Retail. SS--Self-storage. MU--Mixed-use. P--Primary. S--Secondary. T--Tertiary. VAR--Various.

Appendix II

S&P Global Ratings' Loan-Level Credit Enhancement Levels(i)

Loan no.	Property name	Loan balance (\$)			'AAA'		'AA'	
			'AAA' DF	'BBB' DF	SCE	DCE	SCE	DCE
1	One SoHo Square	112,000,000	21.9	17.2	49.2	10.8	40.2	8.1
2	HQ @ First	98,700,000	25.0	19.7	52.1	13.0	44.1	10.2
3	Watermark Tempe	88,500,000	38.3	30.2	65.4	28.8	59.6	28.8
4	2 Washington	80,000,000	30.8	24.3	53.5	16.5	45.1	12.9
5	The Domain	64,000,000	19.9	15.6	42.5	8.5	32.5	6.0
6	InCommercial Net Lease Portfolio #4	41,570,000	46.2	36.6	52.5	24.2	44.9	19.3
7	Epic West Towne Crossing	40,820,000	24.1	19.0	50.4	12.2	42.2	9.4
8	Novonix	30,045,632	100.0	91.4	60.5	60.5	54.4	52.8
9	College Point	30,000,000	58.3	46.4	64.6	37.6	58.7	31.9

S&P Global Ratings' Loan-Level Credit Enhancement Levels(i) (cont.)

Loan no.	Property name	Loan balance (\$)	'AAA' DF	'BBB' DF	'AAA'		'AA'	
					SCE	DCE	SCE	DCE
10	Independence Lofts	29,000,000	65.7	52.5	47.9	31.5	39.1	23.8
11	McCullough Commons	28,500,000	32.9	26.0	45.9	15.1	37.2	11.3
12	524 Courtlandt	27,700,000	40.4	32.0	59.1	23.9	52.3	19.7
13	Falls of Deer Park Apartments	27,000,000	70.1	56.1	51.9	36.4	43.8	28.5
14	175 East 62nd Street Leased Fee(ii)	25,000,000	-	-	11.1	0.0	4.5	0.0
15	Celeros Houston	23,885,000	73.0	58.5	58.9	43.0	52.3	35.5
16	Greene Plaza and Chippewa Center	23,000,000	35.1	27.7	53.7	18.9	46.1	15.0
17	Midlothian Towne Crossing	21,827,000	22.7	17.9	47.7	10.8	39.0	8.2
18	Paragon Films Sale-Leaseback	21,790,000	30.6	24.1	59.5	18.2	52.7	16.7
19	The Village Lofts	21,500,000	40.5	32.1	55.4	22.4	47.4	17.9
20	ExchangeRight Net Leased Portfolio #48	20,035,000	29.5	23.3	55.7	16.5	48.8	13.4
21	Veit Self Storage Portfolio	20,000,000	23.6	18.5	53.9	12.7	45.4	9.9
22	Tutor Perini Portfolio	19,500,000	18.3	14.4	34.0	6.2	22.9	3.9
23	Stockton Plaza	18,460,000	25.9	20.4	53.4	13.9	45.7	11.0
24	931-955 Coney Island Avenue	18,000,000	36.5	28.9	59.5	21.7	52.8	17.9
25	Centro Plaza	13,410,000	69.8	55.9	57.0	39.7	50.2	32.6
26	BlueCross BlueShield Building	13,330,000	23.6	18.5	49.7	11.7	41.3	9.0
27	47-01 Queens Boulevard	12,750,000	27.2	21.4	55.6	15.1	48.1	12.2
28	Summit Orchards	12,500,000	25.3	19.9	52.5	13.3	44.5	10.4
29	Redwood Waukee	11,890,000	28.5	22.5	56.5	16.1	48.4	13.6
30	19th & Northern Marketplace	10,684,362	55.4	44.1	52.6	29.1	45.1	23.2
31	800 Corporate Drive	10,595,000	52.8	42.0	53.8	28.4	46.3	22.7
32	Staybridge Suites Bowling Green	10,250,000	48.8	38.8	74.0	36.1	66.9	30.4
33	360 George Patterson Boulevard	9,200,000	30.6	24.1	59.3	18.2	52.6	16.4
34	Home2 Suites Atlanta Airport West	8,500,000	36.5	28.9	63.6	23.2	54.8	18.5
35	Peak & Perry Storage Portfolio	8,435,906	70.4	56.4	59.2	41.7	52.6	34.5
36	Tonnelle Square Two	8,125,000	44.7	35.4	58.9	26.3	52.0	21.6
37	Westlake Village Court Office	7,800,000	21.7	17.0	44.9	9.7	35.7	7.2
38	Arrowhead Center	6,447,024	36.1	28.5	48.9	17.6	41.0	13.7
39	28 East 38th Street	6,400,000	31.6	24.9	53.4	16.9	45.0	13.2
40	Chenal Woods Apartments	6,320,000	25.3	19.9	50.2	12.7	41.3	9.6

S&P Global Ratings' Loan-Level Credit Enhancement Levels(i) (cont.)

Loan no.	Property name	Loan balance (\$)	'AAA' DF	'BBB' DF	'AAA'		'AA'	
					SCE	DCE	SCE	DCE
41	1822 Sunset Boulevard	6,000,000	51.6	41.0	60.2	31.1	53.6	25.8
42	494 Jackson Avenue	5,500,000	26.3	20.7	50.4	13.2	41.6	10.1
43	Bay Oaks Apartments	5,475,000	27.8	21.9	53.9	15.0	45.7	11.8
44	5807 W. 20th St.	4,854,000	30.0	23.6	57.3	17.2	50.2	14.0
45	Walgreens Maricopa	4,100,000	32.6	25.7	59.5	19.4	52.7	16.7
46	NNN Portfolio	4,000,000	45.0	35.7	52.4	23.6	44.9	18.7
47	Fayetteville Self Storage	3,500,000	48.7	38.7	50.1	24.4	42.0	19.0
	Total/weighted average	1,120,898,925	36.6	29.3	52.7	20.1	44.9	16.6

(i) Loan balances, net cash flows, and values refer to the trust portion of contributed loan (i.e. the pari passu amount). (ii) Ground lease. DF--Diversity adjustment factor. SCE--Stand-alone credit enhancement. DCE--Diversified credit enhancement. CE--Credit enhancement.

Related Criteria

- Criteria | Structured Finance | General: Global Framework For Payment Structure And Cash Flow Analysis Of Structured Finance Securities, Dec. 22, 2020
- Criteria | Structured Finance | Legal: U.S. Structured Finance Asset Isolation And Special-Purpose Entity Criteria, May 15, 2019
- Criteria | Structured Finance | General: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- General Criteria: U.S. Government Support In Structured Finance And Public Finance Ratings, Dec. 7, 2014
- Criteria | Structured Finance | General: Global Framework For Assessing Operational Risk In Structured Finance Transactions, Oct. 9, 2014
- Criteria | Structured Finance | CMBS: Insurance Criteria For U.S. And Canadian CMBS Transactions, June 13, 2013
- General Criteria: Methodology And Assumptions: Assigning Ratings To Bonds In The U.S. Based On Escrowed Collateral, Nov. 30, 2012
- Criteria | Structured Finance | CMBS: Rating Methodology And Assumptions For U.S. And Canadian CMBS, Sept. 5, 2012
- Criteria | Structured Finance | CMBS: CMBS Global Property Evaluation Methodology, Sept. 5, 2012
- General Criteria: Global Investment Criteria For Temporary Investments In Transaction Accounts, May 31, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- Criteria | Structured Finance | CMBS: Assessing Borrower-Level Special-Purpose Entities In U.S. CMBS Pools: Methodology And Assumptions, Nov. 16, 2010

Presale: Benchmark 2021-B29 Mortgage Trust

- Criteria | Structured Finance | General: Global Methodology For Rating Interest-Only Securities, April 15, 2010
- Criteria | Structured Finance | General: Methodology For Servicer Risk Assessment, May 28, 2009

Related Research

- ESG Industry Report Card: Commercial Mortgage-Backed Securities, March 31, 2021
- Global Structured Finance 2021 Outlook: Market Resilience Could Bring Over \$1 Trillion In New Issuance, Jan. 8, 2021
- Global Structured Finance Scenario And Sensitivity Analysis 2016: The Effects of The Top Five Macroeconomic Factors, Dec. 16, 2016

Copyright © 2021 Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.