STARWOOD REAL ESTATE INCOME TRUST, INC. SUPPLEMENT NO. 9 DATED JANUARY 18, 2022 TO THE PROSPECTUS DATED JUNE 2, 2021

This prospectus supplement ("Supplement") is part of and should be read in conjunction with the prospectus of Starwood Real Estate Income Trust, Inc., dated June 2, 2021 (as supplemented to date, the "Prospectus"). Unless otherwise defined herein, capitalized terms used in this Supplement shall have the same meanings as in the Prospectus. References herein to the "Company," "we," "us," or "our" refer to Starwood Real Estate Income Trust, Inc. and its subsidiaries unless the context specifically requires otherwise.

The purposes of this Supplement are as follows:

- to provide an update on the tax characterization of our 2021 distributions;
- to update the Company's mailing address;
- to disclose the transaction price for each class of our common stock as of February 1, 2022;
- to disclose the calculation of our December 31, 2021 NAV per share for each class of our common stock; and
- to provide an update on the status of our current public offering (the "Offering").

Tax Characterization of 2021 Distributions

100% of our distributions for the year ended December 31, 2021 will be characterized as return of capital for federal income tax purposes.

Change of the Company's Mailing Address

The disclosure of the Company's address appearing under the headings "Stock Ownership of Certain Beneficial Owners and Management," "Description of Capital Stock – Meetings and Special Voting Requirements," and "Incorporation of Certain Information by Reference" is supplemented with the following:

We have moved our principal executive offices from 1601 Washington Avenue, Suite 800, Miami Beach Florida 33139 to 2340 Collins Avenue, Miami Beach, Florida 33139. Our telephone number is unchanged and remains (305) 695-5500.

February 1, 2022 Transaction Price

The transaction price for each share class of our common stock for subscriptions accepted as of February 1, 2022 (and repurchases as of January 31, 2022) is as follows:

•	Transact (per s	ion Price hare)
Class S	\$	26.09
Class T	\$	26.05
Class D	\$	25.68
Class I	\$	25.94

The February 1, 2022 transaction price for each of our share classes is equal to such class's NAV per share as of December 31, 2021. A detailed presentation of the NAV per share is set forth below. No transactions or events have occurred since December 31, 2021 that would have a material impact on our NAV per share. The purchase price of our common stock for each share class equals the transaction price of such class, plus applicable upfront selling commissions and dealer manager fees.

December 31, 2021 NAV Per Share

NAV per share is calculated in accordance with the valuation guidelines that have been approved by our board of directors. Our NAV per share, which is updated as of the last calendar day of each month, is posted on our website at www.starwoodNAV.reit. Please refer to "Net Asset Value Calculation and Valuation Guidelines" in the Prospectus for information on how our NAV is determined. The Advisor is ultimately responsible for determining our NAV. All of our property investments are appraised annually by third party appraisal firms in accordance with our valuation guidelines and such appraisals are reviewed by our independent valuation advisor. We have included a breakdown of the components of total NAV and NAV per share as of December 31, 2021 along with the immediately preceding month.

Our total NAV presented in the following tables includes the NAV of our Class S, Class T, Class D, and Class I common shares, as well as partnership interests of the Operating Partnership held by parties other than the Company. The following table provides a breakdown of the major components of our NAV as of December 31, 2021 (\$ and shares/units in thousands):

Components of NAV	December 31, 2021		
Investments in real estate	\$	19,649,799	
Investments in real estate debt		954,077	
Cash and cash equivalents		271,877	
Restricted cash		665,799	
Other assets		486,597	
Debt obligations		(11,327,804)	
Secured financings on investments in real estate debt		(268,181)	
Subscriptions received in advance		(496,845)	
Other liabilities		(645,814)	
Performance participation accrual		(204,225)	
Management fee payable		(9,628)	
Accrued stockholder servicing fees (1)		(3,192)	
Minority interest		(79,666)	
Net asset value	\$	8,992,794	
Number of outstanding shares/units		345,972	

⁽¹⁾ Stockholder servicing fees only apply to Class S, Class T and Class D shares. For purposes of NAV we recognize the stockholder servicing fee as a reduction of NAV on a monthly basis. Under accounting principles generally accepted in the United States of America ("GAAP"), we accrue the full cost of the stockholder servicing fee as an offering cost at the time we sell Class S, Class T and Class D shares. As of December 31, 2021, we have accrued under GAAP \$291.5 million of stockholder servicing fees payable to the Dealer Manager related to the Class S, Class T and Class D shares sold.

The following table provides a breakdown of our total NAV and NAV per share, by share class, as of December 31, 2021 (\$ and shares/units in thousands, except per share/unit data):

		Class S	Class T	Class D		Class I	O Pa	ird-party perating rtnership	
NAV Per Share		Shares	 Shares	 Shares		Shares	1	Units (1)	 Total
Net asset value	\$4	,028,101	\$ 121,076	\$ 568,654	\$ 4	1,244,461	\$	30,502	\$ 8,992,794
Number of outstanding shares/units		154,381	4,648	22,142		163,625		1,176	345,972
NAV Per Share/Unit as of December 31, 2021	\$	26.09	\$ 26.05	\$ 25.68	\$	25.94	\$	25.94	

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(1) Includes the partnership interests of the Operating Partnership held by the Special Limited Partner.

Set forth below are the weighted averages of the key assumptions in the discounted cash flow methodology used in the December 31, 2021 valuations, based on property types.

Desparty Type	Discount Rate	Exit Capitalization Rate
Property Type	Kate	Kate
Multifamily	5.9%	4.7%
Hospitality	9.7%	7.9%
Office	7.5%	6.1%
Industrial	5.8%	4.8%
Other	6.4%	5.3%

For quarter-end months, these assumptions are determined by the independent valuation advisor or third party appraisers. In addition, the independent valuation advisor reviews the assumptions included in the third-party appraisals. The Advisor reviews the assumptions from each of the appraisals regardless of who performs the work. A change in these assumptions would impact the calculation of the value of our property investments. For example, assuming all other factors remain unchanged, the changes listed below would result in the following effects on our investment values:

	Hypothetical	Multifamily Investment	Hospitality Investment	Office Investment	Industrial Investment	Other Investment
Input	Change	Values	Values	Values	Values	Values
Discount Rate	0.25% decrease	+2.0%	+1.9%	+1.9%	+2.1%	+2.0%
(weighted average)	0.25% increase	(2.0)%	(1.7)%	(1.9)%	(2.0)%	(2.0)%
Exit Capitalization Rate	0.25% decrease	+3.8%	+1.8%	+2.8%	+3.9%	+3.4%
(weighted average)	0.25% increase	(3.4)%	(1.5)%	(2.6)%	(3.5)%	(3.1)%

The following table provides a breakdown of the major components of our NAV as of November 30, 2021 (\$ and shares/units in thousands):

Components of NAV	Nove	mber 30, 2021
Investments in real estate	\$	16,387,594
Investments in real estate debt		946,091
Cash and cash equivalents		229,501
Restricted cash		518,910
Other assets		549,694
Debt obligations		(9,253,460)
Secured financings on investments in real estate debt		(261,954)
Subscriptions received in advance		(423,668)
Other liabilities		(414,312)
Performance participation accrual		(179,801)
Management fee payable		(8,581)
Accrued stockholder servicing fees (1)		(3,170)
Minority interest		(70,269)
Net asset value	\$	8,016,575
Number of outstanding shares/units		312,172

⁽¹⁾ Stockholder servicing fees only apply to Class S, Class T and Class D shares. For purposes of NAV we recognize the stockholder servicing fee as a reduction of NAV on a monthly basis. Under accounting principles generally accepted in the United States of America ("GAAP"), we accrue the full cost of the stockholder servicing fee as an offering cost at the time we sell Class S, Class T and Class D shares. As of November 30, 2021, we have accrued under GAAP \$269.6 million of stockholder servicing fees payable to the Dealer Manager related to the Class S, Class T and Class D shares sold.

The following table provides a breakdown of our total NAV and NAV per share, by share class, as of November 30, 2021 (\$ and shares/units in thousands, except per share/unit data):

		Class S	Class T	Class D		Class I	O Pa	ird-party perating rtnership	m
NAV Per Share		Shares	Shares	Shares		Shares		Jnits (1)	Total
Net asset value	\$ 3	3,676,380	\$ 113,167	\$ 543,874	\$ 3	3,652,988	\$	30,166	\$ 8,016,575
Number of outstanding shares/units		142,722	4,402	21,482		142,390		1,176	312,172
NAV Per Share/Unit as of November 30, 2021	\$	25.76	\$ 25.71	\$ 25.32	\$	25.65	\$	25.65	

⁽¹⁾ Includes the partnership interests of the Operating Partnership held by the Special Limited Partner.

Status of our Current Public Offering

We are currently offering on a continuous basis up to \$10.0 billion in shares of common stock, consisting of up to \$8.0 billion in shares in our primary offering and up to \$2.0 billion in shares pursuant to our distribution reinvestment plan. As of the date hereof, we had issued and sold (i) 187,120,874 shares of our common stock (consisting of 75,577,340 Class S shares, 1,575,555 Class T shares, 14,069,703 Class D shares and 95,898,276 Class I shares) in the primary offering for total proceeds of approximately \$4.5 billion and (ii) 3,049,259 shares of our common stock (consisting of 1,533,438 Class S shares, 58,092 Class T shares, 227,019 Class D shares and 1,230,710 Class I shares) pursuant to our distribution reinvestment plan for a total value of approximately \$73.1 million. As of December 31, 2021 our aggregate NAV was approximately \$9.0 billion. We intend to continue selling shares in the Offering on a monthly basis.