STARWOOD REAL ESTATE INCOME TRUST, INC. SUPPLEMENT NO. 12 DATED OCTOBER 15, 2020 TO THE PROSPECTUS DATED APRIL 15, 2020

This prospectus supplement ("Supplement") is part of and should be read in conjunction with the prospectus of Starwood Real Estate Income Trust, Inc., dated April 15, 2020 (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 to our September 2020 rent collections;
- to provide an update on our acquisition pipeline;
- to disclose the transaction price for each class of our common stock as of November 1, 2020;
- to disclose the calculation of our September 30, 2020 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").

September 2020 Rent Collections Update

Rent collections remain strong, which has enabled us to provide investors with consistent, stable distributions. We have collected 97% of September rents, which continues to demonstrate that COVID-19 has had very limited impact on our rent collections.

Acquisition Pipeline

We have approximately \$832 million of multifamily and industrial acquisitions under exclusivity with Investment Committee approval.

November 1, 2020 Transaction Price

The transaction price for each share class of our common stock for subscriptions accepted as of November 1, 2020 (and repurchases as of October 31, 2020) is as follows:

	action Price er share)
Class S	\$ 21.39
Class T	\$ 21.25
Class D	\$ 21.28
Class I	\$ 21.33

The November 1, 2020 transaction price for each of our share classes is equal to such class's NAV per share as of September 30, 2020. A detailed presentation of the NAV per share is set forth below. No transactions or events have occurred since September 30, 2020 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.

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September 30, 2020 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 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 for September 30, 2020 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 stockholders, 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 September 30, 2020 (\$ and shares in thousands):

Components of NAV	September 30, 2020			
Investments in real properties	\$	3,880,099		
Investments in real estate-related securities		228,524		
Cash and cash equivalents		132,341		
Restricted cash		126,157		
Other assets		48,562		
Debt obligations		(2,584,905)		
Subscriptions received in advance		(88,402)		
Other liabilities		(71,533)		
Performance participation accrual		(46)		
Management fee payable		(1,736)		
Accrued stockholder servicing fees (1)		(652)		
Minority interest		(15,022)		
Net asset value	\$	1,653,387		
Number of outstanding shares		77,415		

⁽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 as such fee is paid. 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 September 30, 2020, we have accrued under GAAP \$65.3 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 September 30, 2020:

	Cl	ass S		Class T		Class D		Class I	Pa	perating rtnership	
NAV Per Share	Sł	nares		Shares		Shares		Shares	1	Units (1)	Total
Net asset value	\$874,	910,650	\$43	8,246,917	\$5	3,034,260	\$6	666,943,124	\$10),252,106	\$1,653,387,057
Number of outstanding shares	40,	910,827	2	2,270,733		2,491,810		31,261,064		480,539	77,414,973
NAV per share as of September 30, 2020	\$	21.39	\$	21.25	\$	21.28	\$	21.33	\$	21.33	

⁽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 September 30, 2020 valuations, based on property types.

Property Type	Discount Rate	Exit Capitalization Rate
Multifamily	6.4%	5.2%
Hotel	9.2%	7.8%
Office	7.4%	6.0%
Industrial	7.0%	5.9%
Medical office	6.6%	5.7%

These assumptions are determined by the Advisor, and reviewed by our independent valuation advisor. 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	Hotel Investment	Office Investment	Industrial Investment	Medical office Investment
Input	Change	Values	Values	Values	Values	Values
Discount Rate	0.25% decrease	+1.9%	+1.8%	+1.9%	+1.7%	+2.0%
(weighted average)	0.25% increase	(1.9)%	(1.8)%	(1.9)%	(1.7)%	(1.9)%
Exit Capitalization Rate	0.25% decrease	+3.1%	+1.8%	+2.9%	+2.7%	+3.1%
(weighted average)	0.25% increase	(2.8)%	(1.7)%	(2.6)%	(2.5)%	(2.8)%

The following table provides a breakdown of the major components of our NAV as of August 31, 2020 (\$ and shares in thousands):

Components of NAV	Au	August 31, 2020		
Investments in real properties	\$	3,813,931		
Investments in real estate-related securities		228,594		
Cash and cash equivalents		132,971		
Restricted cash		89,514		
Other assets		21,829		
Debt obligations		(2,552,075)		
Subscriptions received in advance		(52,371)		
Other liabilities		(69,373)		
Performance participation accrual		(46)		
Management fee payable		(1,674)		
Accrued stockholder servicing fees (1)		(646)		
Minority interest		(14,928)		
Net asset value	\$	1,595,726		
Number of outstanding shares		74,817		

⁽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 as such fee is paid. Under 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 August 31, 2020, we have accrued under GAAP \$64.4 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 August 31, 2020:

NAV Per Share		Class S Shares		Class T Shares		Class D Shares		Class I Shares		artnership Units (1)	Total
Net asset value	\$854	1,340,397	\$4	6,365,221	\$:	50,858,755	\$6	533,923,170	\$10	0,238,170	\$1,595,725,713
Number of outstanding shares	40	0,004,397		2,185,123		2,392,829		29,753,779		480,539	74,816,667
NAV per share as of August 31, 2020	\$	21.36	\$	21.22	\$	21.25	\$	21.31	\$	21.31	

⁽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 \$5.0 billion in shares of common stock, consisting of up to \$4.0 billion in shares in our primary offering and up to \$1.0 billion in shares pursuant to our distribution reinvestment plan. As of the date hereof, we had issued and sold (i) 79,725,076 shares of our common stock (consisting of 41,861,886 Class S shares, 2,408,920 Class T shares, 2,572,190 Class D shares and 32,882,080 Class I shares) in the primary offering for total proceeds of \$1.7 billion and (ii) 2,092,735 shares of our common stock (consisting of 1,340,962 Class S Shares, 55,164 Class T Shares, 93,055 Class D Shares and 603,554 Class I Shares) pursuant to our distribution reinvestment plan for a total value of \$44.5 million. We intend to continue selling shares in the offering on a monthly basis.