ARES INDUSTRIAL REAL ESTATE INCOME TRUST INC. SUPPLEMENT NO. 8 DATED OCTOBER 14, 2022 TO THE PROSPECTUS DATED FEBRUARY 11, 2022

This prospectus supplement ("Supplement") is part of and should be read in conjunction with the prospectus of Ares Industrial Real Estate Income Trust Inc. (the "Company"), dated February 11, 2022, as supplemented by Supplement No. 1, dated April 14, 2022, Supplement No. 2, dated May 5, 2022, Supplement No. 3, dated May 13, 2022, Supplement No. 4, dated June 15, 2022, Supplement No. 5, dated July 15, 2022, Supplement No. 6, dated August 15, 2022, and Supplement No. 7, dated September 15, 2022 (the "Prospectus"). Unless otherwise defined herein, capitalized terms used in this Supplement shall have the same meanings as in the Prospectus.

The purpose of this Supplement is to disclose:

- the transaction price and offering price for each class of our common stock for subscriptions to be accepted as of November 1, 2022;
- the calculation of our September 30, 2022 net asset value ("NAV") per share, as determined in accordance with our valuation procedures, for each of our share classes;
- the status of this offering;
- updated information regarding distributions;
- an update on our assets and performance;
- an update to information regarding our investment strategy, objectives and policies; and
- updated experts information.

• NOVEMBER 1, 2022 TRANSACTION PRICE

The transaction price for each share class of our common stock for subscriptions to be accepted as of November 1, 2022 (and distribution reinvestment plan issuances following the close of business on October 31, 2022 and share redemptions as of October 31, 2022) is as follows:

Share Class	T	ransaction Price (per share)	(per share)
Class T	\$	15.3806	\$ 16.1053
Class D	\$	15.3806	\$ 15.3806
Class I	\$	15.3806	\$ 15.3806

The transaction price for each of our share classes is equal to such class's NAV per share as of September 30, 2022. A calculation of the NAV per share is set forth in the section of this Supplement titled "September 30, 2022 NAV Per Share." The offering 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.

• SEPTEMBER 30, 2022 NAV PER SHARE

Our board of directors, including a majority of our independent directors, has adopted valuation procedures, as amended from time to time, that contain a comprehensive set of methodologies to be used in connection with the calculation of our NAV. Our most recent NAV per share for each share class, which is updated as of the last calendar day of each month, is posted on our website at www.areswmsresources.com/investment-solutions/AIREIT and is also available on our toll-free, automated telephone line at (888) 310-9352. With the approval of our board of directors, including a majority of our independent directors, we have engaged Altus Group U.S. Inc., a third-party valuation firm, to serve as our independent valuation advisor ("Altus Group" or the "Independent Valuation Advisor") with respect to helping us administer the valuation and review process for the real properties in our portfolio, providing monthly real property appraisals, reviewing annual third-party real property appraisals, providing monthly valuations of our debt-related assets (excluding DST Program Loans), reviewing the internal valuations of DST Program Loans and debt-related liabilities performed by Ares Commercial Real Estate Management LLC (our "Advisor"), providing quarterly

valuations of our properties subject to master lease obligations associated with the DST Program, and assisting in the development and review of our valuation procedures.

As used below, "Fund Interests" means our outstanding shares of common stock, along with the partnership units in our operating partnership ("OP Units"), which may be or were held directly or indirectly by the Advisor, our former sponsor, members or affiliates of our former sponsor, and third parties, and "Aggregate Fund NAV" means the NAV of all the Fund Interests.

The following table sets forth the components of Aggregate Fund NAV as of September 30, 2022 and August 31, 2022:

		As of		
(in thousands)	Sej	otember 30, 2022		August 31, 2022
Investments in industrial properties	\$	8,790,900	\$	8,744,100
Investment in unconsolidated joint venture partnership		21,625		21,281
DST Program Loans		130,764		118,324
Cash and cash equivalents		81,948		48,783
Other assets		75,890		70,474
Line of credit, term loans and mortgage notes		(2,764,450)		(2,844,468)
Financing obligations associated with our DST Program		(1,163,381)		(1,081,060)
Other liabilities		(165,021)		(142,779)
Accrued performance participation allocation		(136,480)		(132,273)
Accrued fixed component of advisory fee		(6,248)		(6,083)
Aggregate Fund NAV	\$	4,865,547	\$	4,796,299
Total Fund Interests outstanding		316,343		312,363

The following table sets forth the NAV per Fund Interest as of September 30, 2022 and August 31, 2022:

(in thousands, except per Fund Interest data)	Total	Class T Shares	Class D Shares	Class I Shares	OP Units
As of September 30, 2022			,		
Monthly NAV	\$ 4,865,547	\$ 3,550,337	\$ 303,271	\$ 942,222	\$ 69,717
Fund Interests outstanding	316,343	230,832	19,718	61,260	4,533
NAV Per Fund Interest	\$ 15.3806	\$ 15.3806	\$ 15.3806	\$ 15.3806	\$ 15.3806
As of August 31, 2022					
Monthly NAV	\$ 4,796,299	\$ 3,524,347	\$ 293,527	\$ 908,825	\$ 69,600
Fund Interests outstanding	312,363	229,527	19,116	59,187	4,533
NAV Per Fund Interest	\$ 15.3549	\$ 15.3549	\$ 15.3549	\$ 15.3549	\$ 15.3549

Under GAAP, we record liabilities for ongoing distribution fees that (i) we currently owe the Dealer Manager under the terms of the dealer manager agreement and (ii) we estimate we may pay to the Dealer Manager in future periods for the Fund Interests. As of September 30, 2022, we estimated approximately \$97.5 million of ongoing distribution fees were potentially payable to the Dealer Manager. We do not deduct the liability for estimated future distribution fees in our calculation of NAV since we intend for our NAV to reflect our estimated value on the date that we determine our NAV. Accordingly, our estimated NAV at any given time does not include consideration of any estimated future distribution fees that may become payable after such date.

We include no discounts to our NAV for the illiquid nature of our shares, including the limitations on our stockholders' ability to redeem shares under our share redemption program and our ability to modify or suspend our share redemption program at any time. Our NAV generally does not reflect the potential impact of exit costs (e.g. selling costs and commissions related to the sale of a property) that would likely be incurred if our assets and liabilities were liquidated or sold today. While we may use market pricing concepts to value individual components of our NAV, our per share NAV is not derived from the market pricing information of open-end real estate funds listed on stock exchanges.

Our NAV is not a representation, warranty or guarantee that: (i) we would fully realize our NAV upon a sale of our assets; (ii) shares of our common stock would trade at our per share NAV on a national securities exchange; and (iii) a stockholder would be able to realize the per share NAV if such stockholder attempted to sell his or her shares to a third party.

The valuations of our real properties as of September 30, 2022, excluding certain newly acquired properties that are currently held at cost which we believe reflects the fair value of such properties, were provided by the Independent Valuation Advisor in accordance with our valuation procedures. Certain key assumptions that were used by the Independent Valuation Advisor in the discounted cash flow analysis are set forth in the following table:

	Weighted- Average Basis
Exit capitalization rate	4.8 %
Discount rate / internal rate of return	6.1 %
Average holding period (years)	10.3

A change in the exit capitalization and discount rates used would impact the calculation of the value of our real property. For example, assuming all other factors remain constant, the changes listed below would result in the following effects on the value of our real properties, excluding certain newly acquired properties that are currently held at cost which we believe reflects the fair value of such properties:

Input	Hypothetical Change	(Decrease) to the NAV of Real Properties
Exit capitalization rate (weighted-average)	0.25 % decrease	3.9 %
	0.25 % increase	(3.5)%
Discount rate (weighted-average)	0.25 % decrease	2.1 %
	0.25 % increase	(2.1)%

Increase

From November 1, 2017 through January 31, 2020, we valued our debt-related investments and real estate-related liabilities generally in accordance with fair value standards under GAAP. Beginning with our valuation for February 29, 2020, our property-level mortgages and corporate-level credit facilities that are intended to be held to maturity (which for fixed rate debt not subject to interest rate hedges may be the date near maturity at which time the debt will be eligible for prepayment at par for purposes herein), including those subject to interest rate hedges, were valued at par (i.e. at their respective outstanding balances). In addition, because we utilize interest rate hedges to stabilize interest payments (i.e. to fix all-in interest rates through interest rate swaps or to limit interest rate exposure through interest rate caps) on individual loans, each loan and associated interest rate hedge is treated as one financial instrument which is valued at par if intended to be held to maturity. This policy of valuing at par applies regardless of whether any given interest rate hedge is considered as an asset or liability for GAAP purposes. Notwithstanding, if we acquire an investment and assume associated in-place debt from the seller that is above or below market, then consistent with how we recognize assumed debt for GAAP purposes when acquiring an asset with pre-existing debt in place, the liabilities used in the determination of our NAV will include the market value of such debt based on market value as of the closing date. The associated premium or discount on such debt as of closing that is reflected in our liabilities will then be amortized through loan maturity. Per our valuation policy, the corresponding investment is valued on an unlevered basis for purposes of determining NAV. Accordingly, all else equal, we would not recognize an immediate gain or loss to our NAV upon acquisition of an investment whereby we assume associated pre-existing debt that is above or below market. As of September 30, 2022, we classified all of our debt as intended to be held to maturity, and our liabilities included mark-to-market adjustments for pre-existing debt that we assumed upon acquisition.

• STATUS OF THIS OFFERING

As of September 30, 2022, we had raised gross proceeds of approximately \$1.3 billion from the sale of approximately 95.8 million shares in this offering, including proceeds from our distribution reinvestment plan of approximately \$77.6 million. As of September 30, 2022, approximately \$3.7 billion in shares remained available for sale pursuant to this offering, including approximately \$1.2 billion in shares available for sale through our distribution reinvestment plan. We may reallocate amounts between the primary offering and our distribution reinvestment plan. During the three months ended September 30, 2022, we raised gross proceeds of approximately \$564.5 million, including proceeds from our distribution reinvestment plan and the sale of DST Interests. The aggregate dollar amount of shares redeemed during the three months ended September 30, 2022 totaled \$65.9 million.

DISTRIBUTIONS

We have declared monthly distributions for each class of our common stock. To date, each class of our common stock has received the same gross distribution per share. Monthly gross distributions were \$0.0454 per share for each share class for the month of September 2022 and were paid to all stockholders of record as of the close of business on September 30, 2022. The net distribution per share is calculated as the gross distribution per share less any distribution fees that are payable monthly with respect to Class T shares and Class D shares. Since distribution fees are not paid with respect to Class I shares, the net distributions payable with respect to Class I shares are equal to the gross distributions payable with respect to Class I shares. The table below details the net distributions for each class of our common stock for the period presented:

		Net Distrib	itions per Share			
Month	Pay Date	Class T Share			Class D Share	Class I Share
September 2022	10/3/2022	\$	0.035	\$	0.042	\$ 0.045

• UPDATE ON OUR ASSETS AND PERFORMANCE

As of September 30, 2022, our leverage ratio was approximately 30.4% (calculated as outstanding principal balance of our borrowings less cash and cash equivalents, divided by the fair value of our real property and our net investment in an unconsolidated joint venture partnership).

As of September 30, 2022, we directly owned and managed a real estate portfolio that included 241 industrial buildings totaling approximately 49.8 million square feet located in 29 markets throughout the U.S., with 422 customers, and was 98.4% occupied (98.7% leased) with a weighted-average remaining lease term (based on square feet) of 4.4 years. The occupied rate reflects the square footage with a paying customer in place. The leased rate includes the occupied square footage and additional square footage with leases in place that have not yet commenced. During the third quarter of 2022, we transacted over 1.7 million square feet of new and renewal leases, and rent growth on these leases averaged 49%. We experienced significantly higher acquisition volume in the first and second quarters of 2022 as compared to the third quarter of 2022 as the industrial property market in general saw lower acquisition activity due to the impact of recent interest rate increases. Industrial market fundamentals remain favorable and management continues to evaluate acquisition opportunities within the industrial market to effectively execute our business strategy.

The following table sets forth the top ten geographic allocations of our real estate portfolio based on fair value as of September 30, 2022:

(\$ in thousands)	Number of Buildings (1)	F	air Value of Real Property	% of Fair Value
Southern California	18	\$	1,132,750	12.9 %
New Jersey	16		982,400	11.2
Atlanta	21		623,600	7.1
Chicago	26		617,800	7.0
Dallas	15		605,650	6.9
Seattle	14		580,550	6.6
Pennsylvania	17		533,000	6.1
Central Valley	9		364,300	4.1
Memphis	10		287,800	3.3
Bay Area	3		273,400	3.1
Other	92		2,789,650	31.7
Total Portfolio	241	\$	8,790,900	100.0 %

(1) Excludes 10 buildings that are either under construction or in the pre-construction phase.

The NAV increase was primarily due to continued strong leasing demand and rental rate growth, which was largely offset by expansion in discount rates and capitalization rates from continued increases in interest rates. The following table sets forth the total shareholder returns for the periods ended September 30, 2022:

	Trailing One-Month (1)	Year-to-Date (1)	One-Year (Trailing 12- Months)(1)	Since NAV Inception Annualized (1)(2)(3)
Class T Share Total Return (without				
sales charge) (3)	0.40 %	25.83 %	37.69 %	13.82 %
Class T Share Total Return (with				
sales charge) (3)	(4.12)%	20.17 %	31.49 %	12.76 %
Class D Share Total Return (3)	0.44 %	26.37 %	38.39 %	15.88 %
Class I Share Total Return (3)	0.46 %	26.59 %	38.81 %	14.88 %

- (1) Performance is measured by total return, which includes income and appreciation (i.e., distributions and changes in NAV) and reinvestment of all distributions ("Total Return") for the respective time period. Past performance is not a guarantee of future results. Performance data quoted above is historical. Current performance may be higher or lower than the performance data quoted. Actual individual stockholder returns will vary. The returns have been prepared using unaudited data and valuations of the underlying investments in our portfolio, which are estimates of fair value and form the basis for our NAV. Valuations based upon unaudited or estimated reports from the underlying investments may be subject to later adjustments or revisions, may not correspond to realized value and may not accurately reflect the price at which assets could be liquidated on any given day.
- (2) The inception date for Class I shares and Class T shares was November 1, 2017, which is when shares of our common stock were first issued to third-party investors in our initial public offering. The inception date for Class D shares (formerly designated as Class W shares) was July 2, 2018, which is when Class D shares of common stock were first issued to third-party investors.
- (3) The Total Returns presented are based on the actual NAVs at which stockholders transacted, calculated pursuant to our valuation procedures. With respect to the "Class T Share Total Return (with sales charge)," the Total Returns are calculated assuming the stockholder also paid the maximum upfront selling commission, dealer manager fee and ongoing distribution fees in effect during the time period indicated. With respect to "Class T Share Total Return (without sales change)," the Total Returns are calculated assuming the stockholder did not pay any upfront selling commission or dealer manager fee, but did pay the maximum ongoing distribution fees in effect during the time period indicated. From NAV inception to January 31, 2020, these NAVs reflected mark-to-market adjustments on our borrowing-related debt instruments and our borrowing-related interest rate hedge positions. See

Item 5 in Part II of our Annual Report on Form 10-K for the year ended December 31, 2021 for additional information on the impact of not continuing to mark these instruments to market on the calculation of our Total Returns.

• INVESTMENT STRATEGY, OBJECTIVES AND POLICIES

The following supersedes and replaces the section titled "Investment Strategy, Objectives and Policies—Investments in Real Estate-Related Debt and Securities—Mortgage Programs and Mortgage Backed Securities" on page 112 of the Prospectus:

Our charter does not preclude us from investing in mortgage programs, CMBS and residential mortgage backed securities ("RMBS").

EXPERTS

The statements included in this Supplement under the section titled "September 30, 2022 NAV Per Share" relating to the role of Altus Group U.S. Inc., have been reviewed by Altus Group U.S. Inc., an independent valuation advisor, and are included in this Supplement given the authority of such advisor as experts in real estate valuations.