

Hannon Armstrong

Tailwinds materializing, offsetting rates – Upgrade to Buy

Rating Change: BUY | PO: 27.00 USD | Price: 23.12 USD

Getting constructive as pipeline growth accelerates

We upgrade the shares of Hannon Armstrong (HASI) to Buy from Neutral as Inflation Reduction Act (IRA) tailwinds have been stronger than we expected. HASI's pipeline of investment opportunities has expanded 25% since February to >\$5Bn. With strong conversion rates YTD and originations up 20% YoY, we raise our EPS expectations and now sit at the high-end of FY24 guidance. Portfolio accelerating tangibly, driving renewed confident on EPS growth despite rate headwind in '24-'27 period, albeit at higher risk in post-REIT world. We see this acceleration as intriguing.

Hedges should mitigate interest rate headwinds

HASI has a portfolio of interest rate swaps with a total notional value of \$2.05Bn and weighted-average rate of ~3.3%. Upcoming maturities include ~\$1.2Bn in 2025 and \$1.0Bn in 2026. This was a positive, novel development with 2Q. We believe hedges should keep cost of debt below 6.0% through 2030, inclusive of incremental growth financing. This is well-below yields of >7.0% on HASI's outstanding notes today.

Rising portfolio yields support earnings growth beyond '24

Mgmt indicated >8.5% yields on 1H23 originations, well above the mid-7% historical range. Strong progress YTD and a continued push into higher-yielding markets gives us increased confidence in the outlook beyond FY24, when current guidance expires. Specifically, we see mid-single-digit EPS growth: the question is will mgmt roll its 10-13% CAGR?

Syndication efforts offer several potential benefits

Mgmt believes syndications should expand the addressable market in a "capital-light" manner. While this strategy is in the early stages, adding syndications to the investment mix should allow for more large projects while minimizing incremental capital raises. We believe fewer issuances should result in decreased share price volatility.

Valuation upside on earnings emphasis, REIT pivot

We value HASI using a blend of DDM/DCF/Price-to-earnings methodologies (weighted 33.3% each). Continued emphasis on earnings growth over dividend growth would bias our valuation higher considering our DDM yields the lowest per-share value. Board approval of REIT status revocation would also bias our peer P/E multiple higher by ~1x.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	1.88	2.08	2.32	2.53	2.66
GAAP EPS	1.44	0.46	0.81	0.85	0.99
EPS Change (YoY)	22.1%	10.6%	11.5%	9.1%	5.1%
DPS	1.40	1.50	1.58	1.69	1.77
Valuation (Dec)					
P/E	12.3x	11.1x	10.0x	9.1x	8.7x
GAAP P/E	16.1x	50.3x	28.5x	27.2x	23.4x
Dividend Yield	6.1%	6.5%	6.8%	7.3%	7.7%
EV / EBITDA*	320.4x	324.5x	88.6x	71.1x	53.7x
Free Cash Flow Yield*	0.5%	0%	17.4%	20.5%	24.0%

* For full definitions of *IQmethod*SM measures, see page 12.

15 August 2023

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Stock Data

Price	23.12 USD
Price Objective	27.00 USD
Date Established	15-Aug-2023
Investment Opinion	C-1-7
52-Week Range	21.31 USD - 44.11 USD
Mrkt Val (mn) / Shares Out (mn)	2,480 USD / 107.3
Average Daily Value (mn)	23.95 USD
BofA Ticker / Exchange	HASI / NYS
Bloomberg / Reuters	HASI US / HASI.N
ROE (2023E)	12.5%
Net Dbt to Eqty (Dec-2022A)	169.4%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to ["BofA ESGMeter Methodology"](#).

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Refer to important disclosures on page 13 to 15. Analyst Certification on page 10. Price Objective Basis/Risk on page 10.

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Timestamp: 15 August 2023 06:17AM EDT

iQprofileSM Hannon Armstrong

iQmethodSM – Bus Performance*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	0.4%	0.3%	1.1%	1.2%	1.4%
Return on Equity	11.4%	11.5%	12.5%	12.8%	13.5%
Operating Margin	13.6%	11.2%	30.3%	30.3%	32.8%
Free Cash Flow	13	0	431	508	594

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	0.1x	0x	1.9x	1.9x	1.9x
Asset Replacement Ratio	0x	0x	0x	0x	0x
Tax Rate	11.9%	15.0%	15.0%	15.0%	15.0%
Net Debt-to-Equity Ratio	144.7%	169.4%	161.4%	170.8%	170.5%
Interest Cover	NA	NA	NA	NA	NA

Income Statement Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	133	161	218	272	333
% Change	9.4%	21.2%	35.6%	24.7%	22.2%
Gross Profit	91	111	175	231	272
% Change	7.5%	22.4%	56.8%	32.3%	18.0%
EBITDA	18	18	66	82	109
% Change	-43.2%	-1.3%	266.3%	24.6%	32.3%
Net Interest & Other Income	126	31	34	36	40
Net Income (Adjusted)	159	186	230	270	313
% Change	35.1%	17.1%	23.7%	17.6%	15.7%

Free Cash Flow Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	127	42	229	270	312
Depreciation & Amortization	0	0	0	0	0
Change in Working Capital	NA	NA	NA	NA	NA
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	(113)	(41)	201	238	282
Capital Expenditure	0	0	0	0	0
Free Cash Flow	13	0	431	508	594
% Change	-81.8%	-98.3%	NM	17.8%	17.0%

Balance Sheet Data (Dec)

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	226	156	156	156	156
Trade Receivables	NA	NA	NA	NA	NA
Other Current Assets	22	85	0	0	0
Property, Plant & Equipment	NA	NA	NA	NA	NA
Other Non-Current Assets	3,900	4,519	5,406	6,101	6,661
Total Assets	4,148	4,760	5,561	6,257	6,817
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	0	0	0	0	0
Long-Term Debt	2,493	2,975	3,419	3,928	4,279
Other Non-Current Liabilities	89	120	120	120	120
Total Liabilities	2,582	3,095	3,539	4,048	4,399
Total Equity	1,567	1,665	2,022	2,208	2,418
Total Equity & Liabilities	4,148	4,760	5,561	6,257	6,817

* For full definitions of iQmethodSM measures, see page 12.

Company Sector

Alternative Energy

Company Description

Hannon Armstrong (HASI) is a specialty finance company based in MD that provides capital and advisory services to companies in the renewable energy (wind/solar), energy efficiency, and sustainable infra markets. The company's \$3bn portfolio of 200+ transactions includes 50% behind-the-meter assets such as energy efficiency, distributed solar, and storage, 45% of GC (grid-connected) assets such as wind and solar, and 5% of other sustainable infrastructure investments.

Investment Rationale

We expect a growing bias toward higher-yielding equity interests coupled with accelerating origination growth as supporting of higher earned returns. Pivot towards REIT is further enabling this higher-growth pivot, diluting impact of higher rates. Expanding partnerships and IRA benefits may foster pipeline growth and ensure sourcing of future deals. We see interest rate risk as a continued concern as higher cost of debt erodes interest margins on the fixed income portion of the portfolio.

Stock Data

Average Daily Volume 1,035,875

Quarterly Earnings Estimates

	2022	2023
Q1	0.52A	0.53E
Q2	0.61A	0.53E
Q3	0.49A	0.51E
Q4	0.47A	0.74E

Outlook supports buying opportunity

Shares of HASI have been pressured amid Fed tightening, with the stock's performance generally resembling that of treasuries. HASI is uniquely exposed to interest rates as the company's strategy centers on capturing the spread between the yield of its investment portfolio and financing costs. While we have been cautious on the outlook for earnings growth considering rising rates, the company's hedging strategy along with an expanding pipeline gives us increased confidence in the outlook beyond FY24, which is when current guidance expires. Given elevated pressure on shares of late following recent capital raises, we believe current levels represent an attractive entry point as line-of-sight to earnings growth becomes clearer. HASI issued \$345Mn common stock in May 2023 and \$350Mn (\$342Mn net before green shoe) 3.75% exchangeable senior unsecured notes in August.

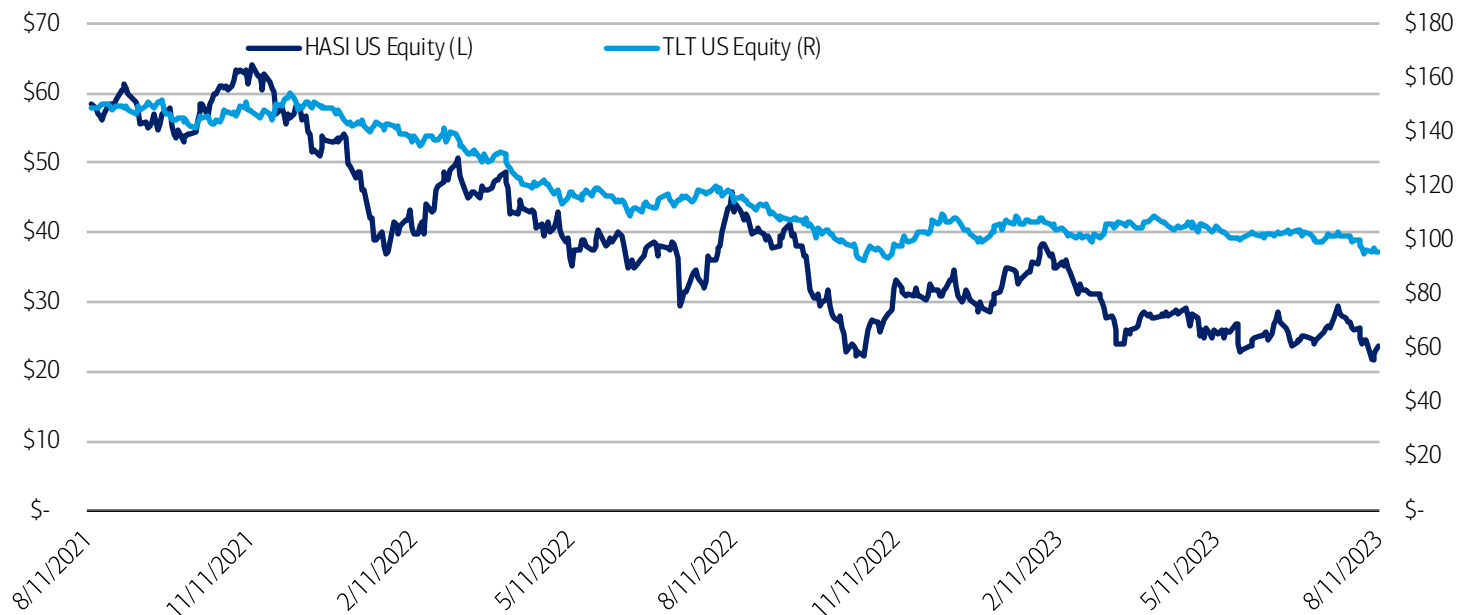
Why upgrade now? Higher margins/volume & value

1. **Higher margins:** The company's net margins are holding intact to a greater degree than we expected. This is a combination of interest rate hedges and the +100bp guided returns on projects.
2. **Higher volumes:** Volumes are accelerating with management pursuing additional investment avenues. While there is a degree of 'risking-up' in our view, the larger opportunity set supports higher returns. The combination of stronger margins and returns lifts our 2024-2025 EPS +3% and we are now +4% above Consensus.
3. **Lower stock price:** HASI has declined -34% the past six months, similar to YieldCo peer NextEra Energy Partners (NEP -35%) but materially more than Clearway Energy (CWEN -24%) and Atlantica Sustainable Infrastructure (AY -14%). When combined with more line-of-sight into fundamentals, this creates a better backdrop for shares. We appreciate the entire YieldCo sector has been under pressure as has been renewable developers in tandem with the higher rate environment. We see a willingness to review HASI in particular amid an improving backdrop for EPS growth as portfolio origination growth appears to be exceeding what many have thought possible. The key risk to us is know just the added risk undertaken to achieve this acceleration.



Exhibit 1: HASI Equity vs 20Yr+ US Treasuries (TLT)

HASI has underperformed bonds for a long period of time



Source: Bloomberg

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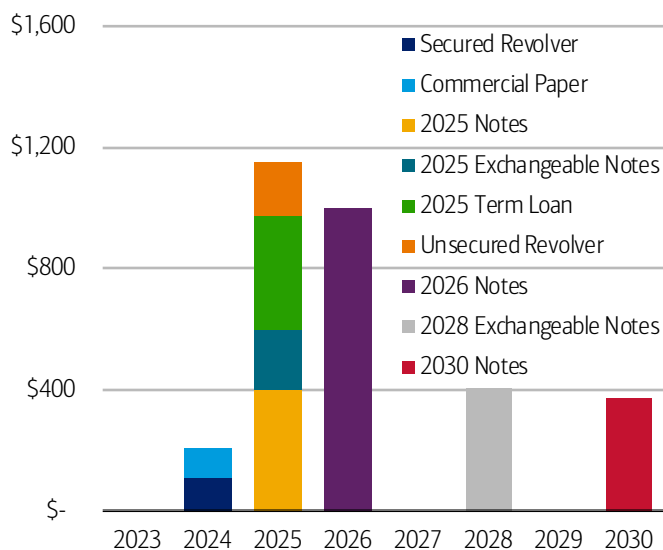
Hedges preserve margins to a greater degree

HASI has a large portion of outstanding debt coming due over the next ~3.5 years. Maturities in 2024 consist of modest obligations related to short-term facilities. In 2025, however, the Company has ~\$1.2Bn coming due across several instruments, followed by an additional \$1.0Bn of unsecured notes in 2026. Yields on the 2025 and 2026 secured notes currently sit at 7.15% and 7.36%, respectively.

To mitigate refinancing risk, HASI has entered into several current and forward-starting interest rate swap agreements. Specifically, the Company has effectively converted the 2025 floating-rate term loan into a 10-year, fixed-rate obligation at 3.79%. For the 2025 and 2026 notes, HASI secured 10-year, forward-starting interest rate swaps at 2.98% and 3.05% (blended), respectively. In total, HASI's portfolio of interest rate swaps carries a weighted-average rate of ~3.3% on notional value of \$2.05Bn. We believe the net effect of these hedges should keep consolidated cost of debt below 6.0% through 2030, inclusive of incremental debt raised to fund future growth. We assume ~70% of future originations are funded using debt issued at SOFR+225.

Exhibit 2: HASI debt maturities through 2030

Major maturity wall approaching in 2025 mitigated with hedges

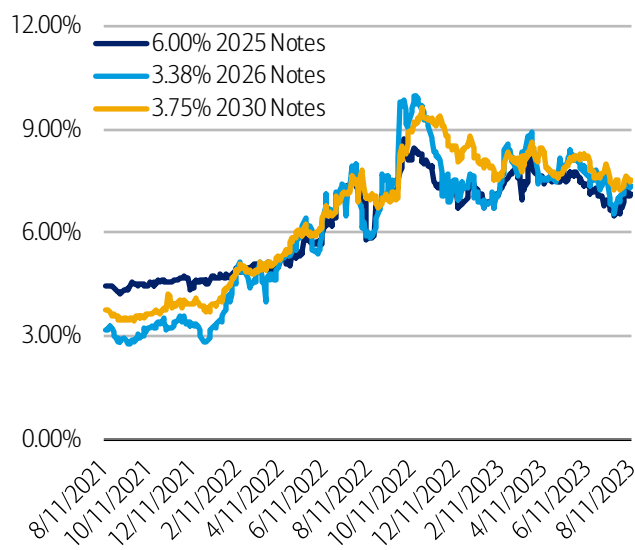


Source: Company Filings, Bloomberg, & BofA Global Research

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Exhibit 3: HASI yield-to-maturities on outstanding notes

We forecast consolidated cost of debt below 6.0% despite elevated yields



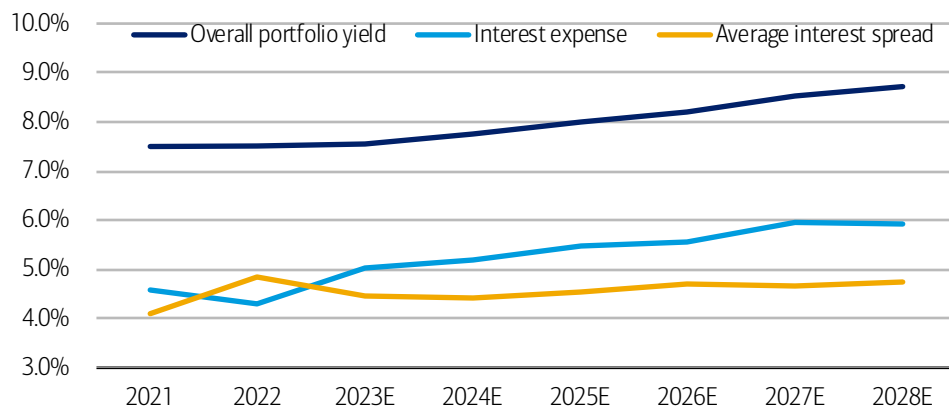
Source: Company Filings, Bloomberg, & BofA Global Research

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Mgmt. expects average portfolio yield to rise in the coming quarters/years driven by higher overall cost of capital for project developers. Additionally, a push into higher-yielding markets like renewable fuels should further bolster weighted-average yields. YTD, HASI has seen weighted-average yields on new originations of >8.5%, which is 100bp+ above the historic mid-7% range. Considering recent progress, we model a modest increase in overall portfolio yield through 2028. While cost of financing is also assumed to rise over the forecast period, average interest spread (i.e. net earnings) remain relatively constant. Originations are also expected to grow, as we assume 25% growth in 2023 and 10% growth thereafter, which supports EPS growth through our forecast.

Exhibit 4: HASI Portfolio Yield, Interest Expense, and Average Interest Spread

Higher portfolio yields and lower cost of financing support average interest spread through the forecast



Source: Company Filings, Bloomberg, & BofA Global Research

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Forecast supports guidance roll-forward to 2026

We now have increased confidence in the trajectory of EPS growth and see potential for mgmt. to roll-forward the 10-13% long-term CAGR through 2026 vs 2024 currently (baseline of \$1.55 in 2020). Our updated estimates now put 2024 EPS at the high end of guidance at \$2.53. For 2025 and 2026, our forecast has EPS compounding within the same 10-13% range from 2020. *We stress the mid-single digit EPS growth, despite massive growth in the portfolio origination reflects perhaps a meaningful flowing for those looking at the details – we see this as a remarkable outcome still given sizeable interest rate headwinds the company has faced. We see reason to be more constructive on shares.*

Importantly, we note growth begins to decelerate post 2024, which likely remains a sticking point for investors especially considering the broader market tailwinds afforded by the IRA. At the same time, we view shares as attractively priced at current levels even despite this deceleration and believe a guidance roll-forward should serve to bolster shares in the near-term while a potential for rate cuts amid a fluid macro backdrop could offer support in the longer-term.

Exhibit 5: HASI earnings dashboard

Forecast supports guidance roll-forward through 2026 as pipeline expansion bolsters earnings

\$000s	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E
Core earnings	158,723	185,791	229,915	270,376	312,928	360,491	402,612	453,303
Consensus Core earnings - VA	158,640	185,791	221,978	265,445				
EPS - Diluted	\$1.88	\$2.08	\$2.32	\$2.53	\$2.66	\$2.80	\$2.86	\$2.99
y/y % chg		10.6%	11.7%	8.7%	5.4%	5.0%	2.2%	4.8%
BofAe EPS CAGR from 2021		10.6%	11.1%	10.3%	9.1%	8.3%	7.2%	8.1%
Prior EPS			\$2.28	\$2.48	\$2.58	\$2.70	\$2.80	\$2.94
% chg vs. prior			1.8%	1.8%	3.3%	3.4%	2.2%	1.9%
EPS Guidance - 10-13%								
Low		\$1.88	\$2.06	\$2.27	\$2.50	\$2.75	\$3.02	\$3.32
Midpoint		\$1.93	\$2.15	\$2.40	\$2.68	\$2.99	\$3.33	\$3.72
High		\$1.98	\$2.24	\$2.53	\$2.86	\$3.23	\$3.65	\$4.12
Consensus EPS (Diluted)			\$2.19	\$2.38	\$2.52	\$2.62		
Consensus EPS CAGR from 2021			8.0%	8.1%	7.6%	6.8%		
BofA vs. Consensus			\$0.13	\$0.15	\$0.14	\$0.18		
BofA vs. Consensus (%)			5.9%	6.2%	5.6%	6.9%		
BofA vs. Guidance Midpoint			\$0.17	\$0.13	(\$0.01)	(\$0.19)		
BofA vs. Guidance Midpoint (%)			8.0%	5.3%	-0.5%	-6.4%		
Dividend per Share	\$1.40	\$1.50	\$1.58	\$1.69	\$1.77	\$1.86	\$1.95	\$2.05
DPS Growth	2.2%	7.1%	5.5%	6.5%	5.0%	5.0%	5.0%	5.0%
Consensus - DPS (VA)	\$1.41	\$1.50	\$1.59	\$1.70				
DPS Growth	2.2%	6.8%	5.9%	6.7%				

Source: Company Filings, Bloomberg, & BofA Global Research

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Stock attractively priced – upside potential exists

We raise our PO to \$27 from \$24 following our estimate revisions and mark-to-market. Higher estimates add +\$1 to our PO and our mark-to-market adds +\$2. We continue to value HASI using a combination of methodologies each weighted at 33.3%.

Exhibit 6: HASI valuation summary

We arrive at a \$27 PO

	Value/Unit	Weight	Weighted Value
Dividend Discount Model	\$20.00	33%	\$6.67
DCF Methodology	\$27.00	33%	\$9.00
P/E Methodology	\$33.00	33%	\$11.00
HASI Value/Sh			\$27.00
Share Price (As of 08/11/23)			\$23.64
Premium (Discount) to Share Price			14%
2023E Dividend Yield			6.7%
Total Potential Return			20.9%

Source: Company Filings, Bloomberg, & BofA Global Research

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Below we show our dividend discount model (DDM) for HASI. We acknowledge mgmt.'s emphasis on earnings growth over dividend growth. That said, we believe investors continue to view HASI primarily as an income investment. As management delivers on its strategy to outgrow the dividend with earnings, we believe this perception could change. Considering our DDM implies the lowest per-share value for HASI, we view a decreasing emphasis on the dividend as a potential source of upside for valuation.

Exhibit 7: HASI dividend discount analysis

We arrive at a \$20 dividend discount valuation

	2022E	2023E	2024E	2025E	2026E	2027E	2028E
DPS Growth		5.5%	6.5%	5.0%	5.0%	5.0%	5.0%
DPS	\$1.50	\$1.58	\$1.69	\$1.77	\$1.86	\$1.95	\$2.05
DPS Guidance (5-8% CAGR)		\$1.57-1.71					
Terminal Value							\$18.73
<u>Discounted Cash Flows</u>							
Discount Factor			1.00	0.90	0.81	0.73	0.66
Discounted Cash Flows			\$1.69	\$1.60	\$1.51	\$1.43	\$13.72
Value/Unit							\$20.00
Premium (Discount) to Share Price (As of 08/11/23)							-15%
<u>Memo:</u>							
Terminal Value (2030 Required Yield)		12.9%					
Terminal Value Growth Rate		2.0%					
Discount Rate		10.9%					
Share Price (As of 08/11/23)		\$23.64					

Source: Company Filings, Bloomberg, & BofA Global Research

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Our DCF for HASI is shown below, where we value the existing portfolio consistent with our approach for similar companies in our coverage universe. Our DCF contemplates the portfolio as it stands today and represents the discounted value of future cash flows after debt service.

Exhibit 8: HASI DCF valuation

We arrive at a \$27 DCF valuation

Part I: Static DCF of Portfolio as of 2023

Yield Disclosed by Mgmt on Portfolio	7.7%
Cost of debt	5.8%
Portfolio Amortization	17
Equity Amortization	100

Cumulative Gross CF	9,672
Cost of equity	10.9%
NPV (\$mn)	\$1,975
Shares outstanding (mn)	110.6
NPV per share on core portfolio	\$18.00
Part II of DCF: Valuing the Securitization Biz + Corporate Overhang	
Latest Disclosed Pipeline (\$Bn) - Latest Slides	\$5,000
Pipeline Realization	50%
Percent Securitization (linked to I/S)	50%
Securitization Amount (\$Bn)	\$1,250
Implied Yield (Below Against Assumption)	6.8%
Linked to I/S...	
SG&A (annual est.)	(81.3)
Origination on Portion Sold Down (Gain on Sales Est for '23)	84.4
Assume ALL of the Business is Securitized (eg: this is growth)	168.8
Annual net gain on sale (\$mn), net of SG&A	87.4
P/E multiple - BDC/Commercial Mortgage REITS peer group - '25	8.8x
Prem to peer group	3.0x
P/E multiple - HASI Securitization Biz	11.8x
Net equity value (\$mn)	\$1,031.3
Shares outstanding (mn)	110.6
Value of origination business per share	\$9.00
Total implied equity value	\$27.00

Source: Company Filings, Bloomberg, & BofA Global Research

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Our P/E methodology is shown below, and we include a complete comp table in Exhibit 10 of the peer group we use. We also increase our relative discount to the peer group to (1.0)x (from (2.0)x) given improved visibility to the earnings trajectory. We continue to include Commercial Mortgage REITs in our peer group pending approval by HASI's Board of mgmt.'s proposal to discontinue REIT election. We note excluding REITs from the peer group results in a ~1x increase in our peer multiple.

Exhibit 9: HASI P/E analysis

We arrive at a \$35 P/Evaluation

2025 P/E Multiple - Peer Group	14.1x
Plus: Prem/(Disc) to Peer Group	(1.0x)
P/E Multiple - HASI	13.1x
HASI 2025E EPS	\$2.66
HASI Valuation (\$/sh)	\$35.00
Prem/(Disc) to Share Price	48.1%

Source: Company Filings, Bloomberg, & BofA Global Research

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Exhibit 10: HASI peer group

Below we show the peer group we use for HASI

											25		
Ticker	Market Cap. (\$B)	Stock Price	P/E					BV Current	P/BV Current	Current Div Yield	Exp. ROE	EPS Growth	Estimated Div Yield
											'22-'25, Ann.		
Commercial Mortgage REITs													
Starwood Property Trust Inc	STWD	\$6.4	\$20.38	8.9x	10.4x	10.1x	10.4x	\$20.51	0.99x	9.4%	9.6%	-5.0%	9.4%
Ladder Capital Corp	LADR	\$1.4	\$10.77	9.6x	7.8x	8.3x	8.1x	\$12.07	0.89x	8.5%	11.0%	6.0%	8.7%
Blackstone Mortgage Trust Inc	BXMT	\$3.8	\$21.81	8.0x	7.5x	8.4x	8.5x	\$26.35	0.83x	11.4%	9.7%	-2.0%	11.4%
Apollo Commercial Real Estate Finance Inc	ARI	\$1.5	\$10.75	7.2x	10.6x	8.9x	8.1x	\$14.47	0.74x	13.0%	9.1%	-3.8%	12.8%
Ares Commercial Real Estate Corp	ACRE	\$0.6	\$10.46	7.1x	10.1x	9.4x	9.3x	\$12.77	0.82x	12.6%	8.8%	-8.7%	13.1%
Commercial Mortgage REITs		\$13.6		8.2x	9.3x	9.0x	8.9x	\$17.23	0.86x	11.0%	9.6%	-2.7%	11.1%
Business Development Companies													
Ares Capital Corp	ARCC	\$10.9	\$19.54	10.0x	8.4x	8.6x	9.4x	\$18.59	1.05x	9.8%	11.2%	2.0%	9.8%
Main Street Capital Corp	MAIN	\$3.4	\$40.67	13.0x	9.8x	10.5x	10.7x	\$27.24	1.49x	6.9%	14.0%	6.7%	8.1%
Hercules Capital Inc	HTGC	\$2.6	\$17.15	11.9x	8.3x	8.9x	9.1x	\$10.53	1.63x	9.3%	17.9%	9.6%	10.2%
Sixth Street Specialty Lending Inc	TSLX	\$1.8	\$20.31	10.7x	9.0x	9.1x	NA	\$16.59	1.22x	9.1%	NA	NA	10.1%
SLR Investment Corp	SLRC	\$0.8	\$15.24	10.4x	10.0x	9.0x	NA	\$18.04	0.84x	10.8%	NA	NA	10.8%
New Mountain Finance Corp	NMFC	\$1.3	\$12.81	11.4x	8.4x	8.5x	NA	\$13.14	0.97x	10.0%	NA	NA	10.3%
Golub Capital BDC Inc	GBDC	\$2.5	\$14.77	NA	8.7x	8.2x	NA	\$14.89	0.99x	10.0%	NA	NA	9.4%
PennantPark Investment Corp	PNNT	\$0.4	\$6.84	9.9x	7.4x	7.9x	7.3x	\$7.60	0.90x	12.3%	12.4%	10.8%	11.0%
BlackRock TCP Capital Corp	TCPC	\$0.7	\$12.58	8.6x	6.9x	7.3x	NA	\$12.94	0.97x	10.8%	NA	NA	11.5%
BlackRock Capital Investment Corp	BKCC	\$0.3	\$3.61	9.4x	7.4x	7.8x	NA	\$4.33	0.83x	11.0%	NA	NA	11.1%
Goldman Sachs BDC Inc	GSBD	\$1.6	\$14.41	7.2x	6.6x	6.7x	7.7x	\$14.44	1.00x	12.5%	12.9%	-2.3%	12.5%
Business Development Companies		\$26.2		10.3x	8.3x	8.4x	8.8x	\$14.39	1.08x	10.2%	13.7%	5.4%	10.4%
Environmental Services & Equipment													
Trane Technologies PLC	TT	\$46.4	\$203.16	28.3x	23.0x	20.9x	19.0x	\$27.41	7.41x	1.5%	38.9%	14.1%	1.5%
Tetra Tech Inc	TTEK	\$9.0	\$168.39	38.3x	31.9x	28.2x	24.5x	\$27.28	6.17x	0.6%	25.2%	16.1%	0.6%
Environmental Services & Equipment		\$55.4		33.3x	27.5x	24.6x	21.7x	\$27.35	6.79x	1.0%	32.1%	15.1%	1.0%
Industrial Products & Services													
Honeywell International Inc	HON	\$126.6	\$190.67	21.8x	20.8x	18.9x	17.4x	\$26.05	7.32x	2.2%	42.1%	7.8%	2.2%
3M Co	MMM	\$57.7	\$104.55	10.3x	11.8x	10.8x	10.0x	\$14.13	7.40x	5.7%	73.7%	0.7%	5.8%
Eaton Corp PLC	ETN	\$87.1	\$218.36	28.9x	25.0x	22.5x	20.5x	\$44.99	4.85x	1.6%	23.6%	12.0%	1.6%
Emerson Electric Co	EMR	\$54.7	\$95.74	18.7x	22.0x	20.2x	18.3x	\$35.81	2.67x	2.2%	14.6%	0.7%	2.2%
Carrier Global Corp	CARR	\$46.5	\$55.54	23.8x	21.4x	19.5x	17.9x	\$9.52	5.83x	1.3%	32.5%	9.9%	1.3%
Parker-Hannifin Corp	PH	\$53.4	\$416.51	23.2x	20.0x	18.6x	16.9x	\$80.49	5.17x	1.4%	30.7%	11.2%	1.4%
Rockwell Automation Inc	ROK	\$34.0	\$296.18	31.4x	24.7x	22.3x	20.6x	\$29.10	10.18x	1.6%	49.4%	15.0%	1.6%
Dover Corp	DOV	\$20.0	\$142.97	16.9x	16.1x	14.6x	13.5x	\$33.33	4.29x	1.4%	31.7%	7.8%	1.5%
Fortive Corp	FTV	\$28.0	\$79.41	25.5x	23.8x	21.7x	19.8x	\$28.32	2.80x	0.4%	14.2%	8.7%	0.4%
A O Smith Corp	AOS	\$10.7	\$71.36	23.3x	19.8x	18.6x	17.6x	\$12.55	5.69x	1.7%	32.3%	9.8%	1.7%
ITT Inc	ITT	\$8.1	\$98.51	22.5x	19.5x	17.3x	15.7x	\$28.59	3.45x	1.2%	21.9%	12.7%	1.2%
John Bean Technologies Corp	JBT	\$3.6	\$111.60	23.7x	26.6x	22.4x	17.4x	\$28.93	3.86x	0.4%	22.2%	10.8%	0.4%
Flowserve Corp	FLS	\$5.2	\$39.51	38.9x	20.3x	16.6x	14.4x	\$14.40	2.74x	2.0%	19.0%	39.2%	2.1%
Industrial Products & Services		\$535.6		23.8x	20.9x	18.8x	16.9x	\$29.71	5.10x	1.8%	31.4%	11.3%	1.8%
AVERAGE - ALL PEER GROUPS				17.3x	15.0x	13.9x	14.1x		3.10x	6.2%	23.5%	7.6%	6.3%
AVERAGE - Excluding REITs				19.1x	16.1x	14.8x	15.4x	\$23.05	3.53x	5.3%	27.0%	10.2%	5.4%
Hannon Armstrong - BofAe	HASI	\$2.5	\$23.64	11.4x	10.2x	9.4x	8.9x	\$21.47	1.10x	6.7%	12.4%	8.6%	6.7%
Hannon Armstrong - Consensus	HASI	\$2.5	\$23.64	11.3x	10.8x	9.9x	9.4x	\$21.47	1.10x	6.7%	11.7%	6.4%	6.7%

Source: Company Filings, Bloomberg, & BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

Hannon Armstrong (HASI)

Our valuation with \$27/share price objective uses 33/33/33 DDM/DCF/PE methodology, with \$20 DDM valuation, \$27 DCF valuation, \$35 relative P/E valuation.

For the DCF, we apply a cost of equity of 10.9% with 4.22% 10-year Treasury, 0.96 adj. beta, a 200bps discount to the peer overall group, and a 3x premium to peer group of commercial mortgage REITs and business development companies (BDCs) to value the existing portfolio and growth prospects.

For the DDM, we assume 6.5% annual DPS growth for 2023-2024, 5.0% growth for 2025-2030, and 2% terminal growth, vs. near-term guidance for 5-8% DPS growth and 10-13% EPS growth.

Our assumptions for 7.5% yield and 6.9% cost of debt arise from analysis of historical and projected portfolio composition (and associated yields by asset class) and expectations for fixed vs. floating-rate debt.

For the PE valuation, we apply a 1x discount to the '25E peer P/E multiple of 14.1x. Our peer group includes CM REITs, BDCs, environmental service companies, & industrials.

Upside risks: 1) Origination growth above expectations, 2) acceleration in securitization transactions, 3) dividend growth faster than expected, 4) SG&A costs below expectations, 5) faster-than-expected yield expansion.

Downside risks: 1) Origination growth below expectations, 2) slowdown in securitization transactions, 3) shift toward greater proportion of BTM vs. GC assets resulting in drag on portfolio's yield, 4) rapid rise in interest rates, 5) slowing dividend growth.

Analyst Certification

I, Julien Dumoulin-Smith, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Alliant Energy Corporation	LNT	LNT US	Julien Dumoulin-Smith
	Ameren Corporation	AEE	AEE US	Julien Dumoulin-Smith
	Ameresco	AMRC	AMRC US	Julien Dumoulin-Smith
	Array Technologies	ARRY	ARRY US	Julien Dumoulin-Smith
	Atlantica Sustainable Infrastructure	AY	AY US	Julien Dumoulin-Smith
	Atmos Energy Corporation	ATO	ATO US	Julien Dumoulin-Smith
	Bloom Energy	BE	BE US	Julien Dumoulin-Smith
	CenterPoint Energy	CNP	CNP US	Julien Dumoulin-Smith
	ChargePoint Holdings	CHPT	CHPT US	Alex Vrabel
	Cheniere Energy Inc	LNG	LNG US	Julien Dumoulin-Smith
	CMS Energy	CMS	CMS US	Julien Dumoulin-Smith
	Consolidated Edison	ED	ED US	Julien Dumoulin-Smith
	DTE Energy	DTE	DTE US	Julien Dumoulin-Smith
	Duke Energy	DUK	DUK US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	ENLT	ENLT US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	XENLF	ENLT IT	Julien Dumoulin-Smith
	Exelon	EXC	EXC US	Paul Zimbardo
	First Solar, Inc.	FSLR	FSLR US	Julien Dumoulin-Smith
	FREYR Battery	FREY	FREY US	Julien Dumoulin-Smith
	FTC Solar	FTCI	FTCI US	Julien Dumoulin-Smith
	Hannon Armstrong	HASI	HASI US	Julien Dumoulin-Smith

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Hydro One	YH	H CN	Dariusz Lozny, CFA
	Maxeon Solar Technologies	MAXN	MAXN US	Julien Dumoulin-Smith
	MDU Resources Group, Inc.	MDU	MDU US	Dariusz Lozny, CFA
	Nextracker Inc	NXT	NXT US	Julien Dumoulin-Smith
	NiSource Inc	NI	NI US	Julien Dumoulin-Smith
	NorthWestern Corporation	NWE	NWE US	Julien Dumoulin-Smith
	NRG Energy	NRG	NRG US	Julien Dumoulin-Smith
	PG&E Corporation	PCG	PCG US	Julien Dumoulin-Smith
	PNM Resources Inc.	PNM	PNM US	Julien Dumoulin-Smith
	Portland General Electric Company	POR	POR US	Julien Dumoulin-Smith
	PPL Corporation	PPL	PPL US	Paul Zimbardo
	Public Service Enterprise Group	PEG	PEG US	Julien Dumoulin-Smith
	ReNew Power	RNW	RNW US	Julien Dumoulin-Smith
	Sempra Energy	SRE	SRE US	Julien Dumoulin-Smith
	SolarEdge Technologies	SEDG	SEDG US	Julien Dumoulin-Smith
	Sunnova Energy	NOVA	NOVA US	Julien Dumoulin-Smith
	SunRun	RUN	RUN US	Julien Dumoulin-Smith
	TPI Composites	TPIC	TPIC US	Julien Dumoulin-Smith
	Vistra Energy	VST	VST US	Julien Dumoulin-Smith
	WEC Energy Group Inc	WEC	WEC US	Julien Dumoulin-Smith
	Xcel Energy Inc	XEL	XEL US	Julien Dumoulin-Smith

NEUTRAL

	AES	AES	AES US	Julien Dumoulin-Smith
	Algonquin Power & Utilities Corp	AQN	AQN US	Dariusz Lozny, CFA
	Algonquin Power & Utilities Corp	YAQN	AQN CN	Dariusz Lozny, CFA
	AltaGas	YALA	ALA CN	Dariusz Lozny, CFA
	American Electric Power	AEP	AEP US	Julien Dumoulin-Smith
	Clearway Energy	CWENA	CWEN/A US	Julien Dumoulin-Smith
	Clearway Energy	CWEN	CWEN US	Julien Dumoulin-Smith
	Constellation Energy Corp	CEG	CEG US	Paul Zimbardo
	Emera Inc	YEMA	EMA CN	Dariusz Lozny, CFA
	Entergy	ETR	ETR US	Paul Zimbardo
	Essential Utilities	WTRG	WTRG US	Julien Dumoulin-Smith
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	Idacorp	IDA	IDA US	Paul Zimbardo
	New Fortress Energy	NFE	NFE US	Cameron Lochridge
	NextEra Energy	NEE	NEE US	Julien Dumoulin-Smith
	NextEra Energy Partners	NEP	NEP US	Julien Dumoulin-Smith
	Northwest Natural Holdings	NWN	NWN US	Julien Dumoulin-Smith
	OGE Energy Corp	OGE	OGE US	Julien Dumoulin-Smith
	ONE Gas, Inc.	OGS	OGS US	Julien Dumoulin-Smith
	Ormat Technologies	ORA	ORA US	Julien Dumoulin-Smith
	Pinnacle West	PNW	PNW US	Julien Dumoulin-Smith
	Southwest Gas Holdings	SWX	SWX US	Julien Dumoulin-Smith
	TransAlta Corp	TAC	TAC US	Dariusz Lozny, CFA
	TransAlta Corporation	YTA	TA CN	Dariusz Lozny, CFA

UNDERPERFORM

	Allete Inc	ALE	ALE US	Julien Dumoulin-Smith
	American Water Works	AWK	AWK US	Julien Dumoulin-Smith
	Avangrid	AGR	AGR US	Paul Zimbardo
	Avista	AVA	AVA US	Julien Dumoulin-Smith
	Black Hills Corporation	BKH	BKH US	Julien Dumoulin-Smith
	Dominion Energy	D	D US	Paul Zimbardo
	Edison International	EIX	EIX US	Paul Zimbardo
	Enphase Energy	ENPH	ENPH US	Julien Dumoulin-Smith
	Evergy, Inc	EVRG	EVRG US	Julien Dumoulin-Smith
	Eversource Energy	ES	ES US	Paul Zimbardo
	EVgo Inc.	EVGO	EVGO US	Alex Vrabel
	FirstEnergy	FE	FE US	Julien Dumoulin-Smith
	Fortis	YFTS	FTS CN	Dariusz Lozny, CFA
	Fortis Inc	FTS	FTS US	Dariusz Lozny, CFA
	Generac Holdings Inc.	GNRC	GNRC US	Julien Dumoulin-Smith
	Hawaiian Electric Industries	HE	HE US	Julien Dumoulin-Smith
	MGE Energy	MGEE	MGEE US	Julien Dumoulin-Smith



North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	New Jersey Resources Corp	NJR	NJR US	Julien Dumoulin-Smith
	Southern Company	SO	SO US	Julien Dumoulin-Smith
	Spire	SR	SR US	Julien Dumoulin-Smith
	Stem, Inc.	STEM	STEM US	Julien Dumoulin-Smith
	SunPower Corp.	SPWR	SPWR US	Julien Dumoulin-Smith
	Tellurian Inc	TELL	TELL US	Julien Dumoulin-Smith
	UGI Corp.	UGI	UGI US	Julien Dumoulin-Smith
	Unitil Corporation	UTL	UTL US	Julien Dumoulin-Smith

IQmethodSM Measures Definitions**Business Performance**

Return On Capital Employed

Return On Equity
Operating Margin
Earnings Growth
Free Cash Flow

Quality of Earnings

Cash Realization Ratio
Asset Replacement Ratio
Tax Rate
Net Debt-To-Equity Ratio
Interest Cover

Valuation Toolkit

Price / Earnings Ratio
Price / Book Value
Dividend Yield
Free Cash Flow Yield
Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income
Operating Profit
Expected 5 Year CAGR From Latest Actual
Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations
Capex
Tax Charge
Net Debt = Total Debt – Cash & Equivalents
EBIT

Numerator

Current Share Price
Current Share Price
Annualised Declared Cash Dividend
Cash Flow From Operations – Total Capex
EV = Current Share Price × Current Shares + Minority Equity + Net Debt +
Other LT Liabilities
Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Amortization
Shareholders' Equity
Sales
N/A
N/A

Denominator

Net Income
Depreciation
Pre-Tax Income
Total Equity
Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)
Shareholders' Equity / Current Basic Shares
Current Share Price
Market Cap = Current Share Price × Current Basic Shares
Sales
Basic EBIT + Depreciation + Amortization

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Important Disclosures

Hannon Armstrong (HASI) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Alternative Energy Group (as of 30 Jun 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	11	64.71%	Buy	9	81.82%
Hold	5	29.41%	Hold	4	80.00%
Sell	1	5.88%	Sell	0	0.00%

Equity Investment Rating Distribution: Global Group (as of 30 Jun 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1877	53.28%	Buy	1040	55.41%
Hold	815	23.13%	Hold	464	56.93%
Sell	831	23.59%	Sell	385	46.33%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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