

Theme Trades | North America

# The Dividend Playbook

We dive into dividends in this catch-all report with the goal of providing a one-stop shop for dividend investors. We identify several factors/screens for implementation ideas and provide industry commentary from our research analysts.

Dividends are a relatively secure and stable way to earn positive return on investment regardless of the macroeconomic or market environment. While they typically won't move the needle for short-term, tactical investors, dividends can make outsized contribution to total returns over the medium to long-term and should be considered by investors looking for stability or income within a portfolio. In this report, we look at both the macro and micro considerations of dividend investing by highlighting macro relationships, factors, and top regimes for dividend outperformance as well as the micro view with in-depth coverage from high dividend paying industries covered by our research analysts. Through our work, **we believe the 'dividend sweet spot' is not to find the highest yielding stock but to find consistent companies who can grow their dividend year-over-year and have a proven track record.** It's this underlying stability combined with the dividend return that can provide a defensive cushion during market turbulence - similar to today's environment.

**Not all dividends were created equal.** Reaching for the highest yielding dividend stock has its perils and often comes with greater risk. Balancing dividend growth, leverage, and underlying equity valuation are all important factors where each investor must gauge their risk tolerance and objective. In [Exhibit 1](#), we summarize much of the information in this report and find where those trade-offs exist - MLPs, for example, top the list and yield nearly 6% but come with 10x the volatility in their dividend yield as the S&P 1500. Other considerations include high valuations or high leverage that need to be monitored when making longer-term investments.

**Exhibit 1: Dividend Dashboard**

GICS Level 2 Industry Group	Dividend Yield (Fwd)	5yr Dividend CAGR	Volatility of Change in Div. Yield	Leverage		Valuation		
				Net Debt/EBITDA (Fwd)	P/E (Fwd)	P/B (Fwd)	FV/EBITDA (Fwd)	FCF Yield (Fwd)
Alerian Midstream Energy Index	5.7%	2%	73%	3.7	12.6	2.2	9.6	9.2
Telecommunication Services	4.9%	-3%	24%	2.9	9.3	1.4	6.9	10.1
Real Estate	3.4%	1%	19%	4.9	16.8	2.8	18.2	4.9
Banks	3.1%	11%	21%	*	9.7	1.1	-	-
Food Beverage & Tobacco	3.2%	5%	13%	2.0	18.7	5.1	14.2	4.9
Energy	3.1%	7%	39%	0.5	8.6	2.1	5.2	11.7
Utilities	2.9%	4%	14%	5.2	20.9	2.3	13.0	-1.9
Household & Personal Products	2.5%	5%	10%	1.4	23.7	8.9	16.3	4.2
Insurance	2.2%	9%	14%	1.3	12.7	1.7	22.4	2.5
Materials	2.0%	8%	13%	1.0	12.9	2.4	8.3	6.6
Pharma, Biotech & Life Sciences	2.0%	7%	9%	0.6	15.1	4.6	12.3	6.7
Transportation	1.8%	10%	11%	1.7	14.2	4.2	8.6	5.5
Capital Goods	1.8%	0%	12%	1.3	16.8	3.8	12.2	5.6
S&P Composite 1500	1.7%	6%	9%	1.1	16.7	3.4	11.7	5.1

\*Banks do not use Net Debt/EBITDA but run a highly leveraged business model with Assets/Equity of 11.6x.

Source: Factset, Bloomberg, Morgan Stanley Research

MORGAN STANLEY & CO. LLC

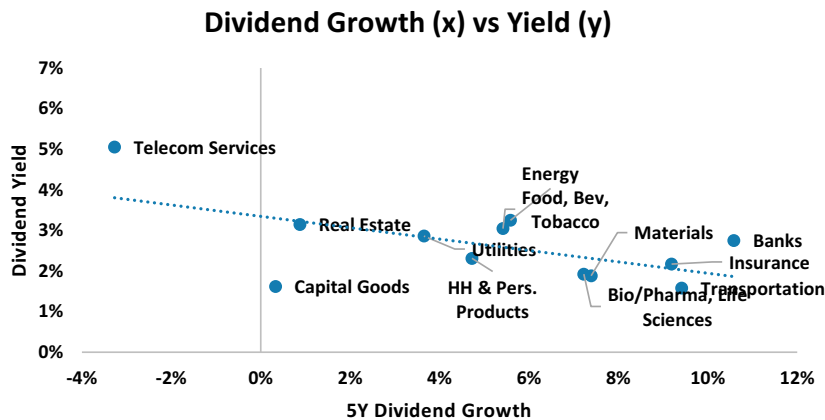
- Nicholas Lentini, CFA**  
RESEARCH ASSOCIATE  
Nick.Lentini@morganstanley.com +1 212 761-5863
- Michael J Wilson**  
EQUITY STRATEGIST  
M.Wilson@morganstanley.com +1 212 761-2532
- David Arcaro, CFA**  
EQUITY ANALYST  
David.Arcaro@morganstanley.com +1 212 761-1817
- Simon Flannery**  
EQUITY ANALYST  
Simon.Flannery@morganstanley.com +1 212 761-6432
- Betsy L. Graseck, CFA**  
EQUITY ANALYST  
Betsy.Graseck@morganstanley.com +1 212 761-8473
- Robert S Kad**  
EQUITY ANALYST  
Robert.Kad@morganstanley.com +1 212-761-0065
- Ronald Kamdem, CFA**  
EQUITY ANALYST  
Ronald.Kamdem@morganstanley.com +1 212 296-8319
- Pamela Kaufman, CFA**  
EQUITY ANALYST  
Pamela.Kaufman@morganstanley.com +1 212 761-7151
- Adam Kramer**  
EQUITY ANALYST  
Adam.Kramer@morganstanley.com +1 212 761-4623
- Dara Mohsenian, CFA**  
EQUITY ANALYST  
Dara.Mohsenian@morganstanley.com +1 212 761-6575
- Devin McDermott**  
EQUITY ANALYST AND COMMODITIES STRATEGIST  
Devin.McDermott@morganstanley.com +1 212 761-1125
- Snehaja Mogre**  
GVAT STRATEGIST  
Snehaja.Mogre@morganstanley.com +1 212 761-5289
- Li Tao, CFA, CPA**  
GVAT STRATEGIST  
Li.Tao@morganstanley.com +1 212 761-4369
- Andrew B Pauker**  
EQUITY STRATEGIST  
Andrew.Pauker@morganstanley.com +1 212 761-1330
- Michelle M. Weaver, CFA**  
EQUITY STRATEGIST  
Michelle.M.Weaver@morganstanley.com +1 212 296-5254
- Diane Ding, Ph.D.**  
QUANTITATIVE STRATEGIST  
Qian.Ding@morganstanley.com +1 212 761-6758

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

**Banks, Energy, and Food, Beverage, & Tobacco provide attractive yields alongside dividend growth.** While most investors will not invest at the industry group level, the frontier can help investors with where to begin their search. High dividend growth is an attractive income feature but this also means more free cash flow is being paid out to shareholders instead of being reinvested into the business.

Exhibit 2: Dividend Growth vs Dividend Yield



Source: Factset, Morgan Stanley Research

**Top Dividend Picks from Morgan Stanley Research Analysts.** We asked our analysts to provide their current top picks that combine yield, growth and stability measures alongside commentary for their industry. Exhibit 3 aggregates these top picks and more color is provided towards the end of the note on industry specifics.

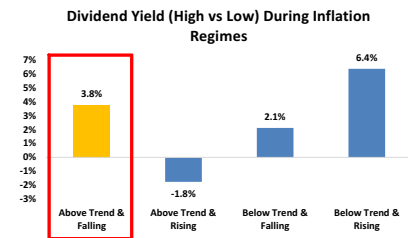
Exhibit 3: Top Dividend Picks from Morgan Stanley Bottom-Up Analysts

Ticker	Company	Analyst (Primary)	MS Rating	Morgan Stanley Industry	Price (\$)	MS 2023 Dividend Yield (%)
NEE	NEXTERA ENERGY INC	Arcaro, David	Equal-Weight	Diversified Utilities / IPPs	88.88	2.1%
DTE	DTE ENERGY COMPANY	Arcaro, David	Overweight	Regulated Utilities	134.05	2.8%
T	AT&T INC	Flannery, Simon	Overweight	Telecom Services	16.77	6.1%
ALLY	ALLY FINANCIAL INC	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	31.78	3.8%
BK	BANK OF NEW YORK MELLON CORP	Graseck, Betsy	Equal-Weight	Large Cap Banks & Consumer Finance	43.72	3.8%
CFG	CITIZENS FINANCIAL GROUP	Graseck, Betsy	Overweight	Midcap Banks	36.90	4.6%
MTB	M & T BANK CORP	Graseck, Betsy	Overweight	Midcap Banks	183.25	2.9%
NTRS	NORTHERN TRUST CORP	Graseck, Betsy	Equal-Weight	Large Cap Banks & Consumer Finance	94.67	3.2%
RF	REGIONS FINANCIAL CORP	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	22.13	3.7%
STT	STATE STREET CORP	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	71.40	3.6%
WFC	WELLS FARGO & CO	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	43.28	3.3%
ET	ENERGY TRANSFER LP	Kad, Robert	Overweight	MLPs & Midstream Energy Infrastructure	12.01	10.8%
PAA	PLAINS ALLIANCE PIPELINE LP	Kad, Robert	Overweight	MLPs & Midstream Energy Infrastructure	12.36	7.8%
O	REALTY INCOME CORP	Kamdern, Ronald	Overweight	Real Estate Investment Trusts	65.41	4.3%
ADC	AGREE REALTY CORP	Kamdern, Ronald	Overweight	Real Estate Investment Trusts	73.47	3.9%
SPG	SIMON PROPERTY GROUP INC	Kamdern, Ronald	Overweight	Real Estate Investment Trusts	100.03	6.3%
GLPI	GAMING AND LEISURE PROPERTY	Kamdern, Ronald	Overweight	Gaming & Lodging	48.63	5.4%
PM	PHILIP MORRIS INTERNATIONAL	Kaufman, Pamela	Overweight	Tobacco	93.70	5.3%
AVB	AVALONBAY COMMUNITIES INC	Kramer, Adam	Overweight	Real Estate Investment Trusts	205.08	3.0%
XOM	EXXON MOBIL CORP	McDermott, Devin	Overweight	Integrated Energy	97.67	3.6%
HES	HESS CORP	McDermott, Devin	Overweight	Exploration & Production	128.09	1.4%
PEP	PEPSICO INC	Mohsenian, Dara	Overweight	Beverages	168.68	2.7%
KO	COCA-COLA CO/THE	Mohsenian, Dara	Overweight	Beverages	60.79	2.9%

Source: Bloomberg, Morgan Stanley Research Estimates

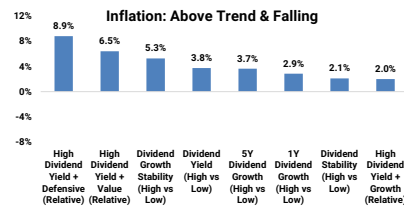
**Dividends perform well in late-cycle environments, like today.** We analyzed inflation and rate regimes and found that when inflation is above trend and falling (today's environment), this is one of the best performing regimes for high dividend stocks. Further looking at different factors within dividend yield, defensive, value, and dividend growth stability screen as the most attractive options.

**Exhibit 4: High Dividend Stocks Outperform Low Dividend Stocks in Falling Inflation Regimes**



Source: ClariFi, Morgan Stanley Research

**Exhibit 5: Skew Dividend Picks to Defensive and Value Oriented Names**



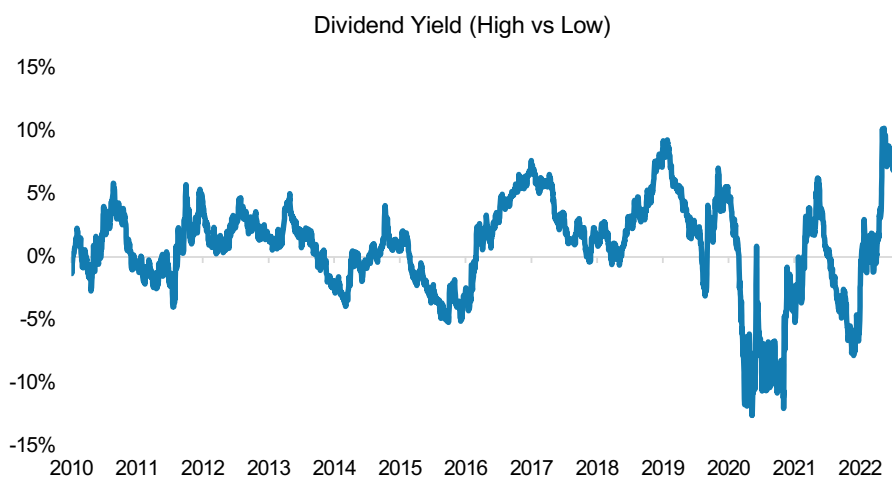
Source: ClariFi, Morgan Stanley Research

## Factors

**Dividend factors have outperformed in 2022.** The macro driven environment of the past year combined with rising risk of recession have fueled outperformance for many of the dividend paying stocks. Dividend paying stocks drive stability through periodic capital return and paying a dividend is generally taken as a sign of earnings stability from the underlying company. However, there are differences underneath the surface when growth, defense, and stability are relatively preferred over others ([Exhibit 12](#)).

**High dividend yield has lagged since May as markets rebounded from the ~3650 low** ([Exhibit 6](#)). Defensive oriented sectors have performed well in 2022 but have recently taken a breather as mainly growth stocks rallied on the hope of a Fed pivot and soft landing. Dividend yield has followed suit and so have the different styles (defensive, growth, value). However **5Y dividend growth and dividend growth stability have outperformed as of late** ([Exhibit 8](#)). We would note that when looking at high dividend yield, performance can be heavily skewed by Energy. Energy is highly cyclical and trades with the price of oil whereas the rest of high dividend yield skews more defensively.

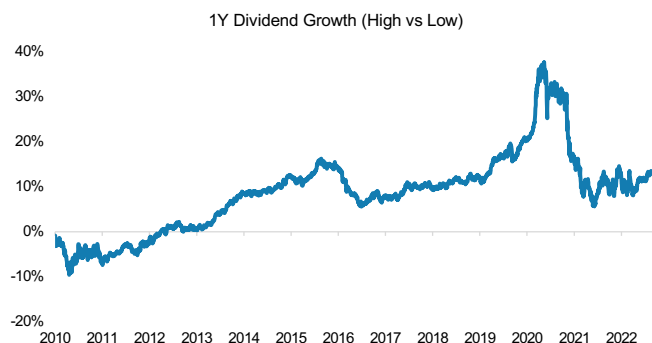
**Exhibit 6:** Dividend Yield (High vs Low)



Source: Clarifi, Morgan Stanley Research

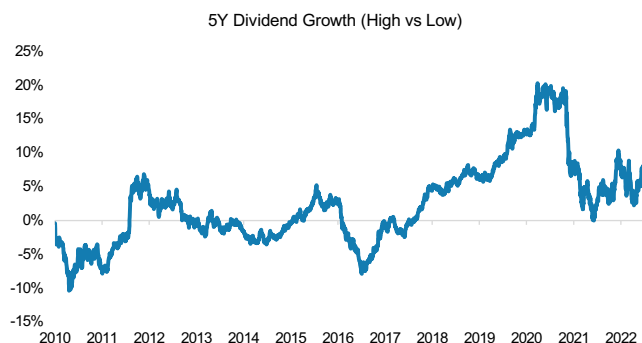
**High dividend growth tends to outperform high dividends over time.** High dividend yield ([Exhibit 6](#)) tends to be mean reverting over time, meaning that reaching for the highest yielding stocks should only be a tactical trade and not a long-term holding. Comparing this to the charts of 1Y and 5Y dividend growth ([Exhibit 7](#)), they show a more positive return trend (up-right on the graph) that provides slow, steady outperformance over time. The more defensive 1Y and 5Y dividend growth factors performed particularly well in 2017-2020 during the late cycle environment and saw ~25% of outperformance before the Covid crash. It's in these defensive, late cycle environments that the safety of dividend growth stocks shine and can provide attractive relative returns.

**Exhibit 7: 1Y Dividend Growth**



Source: Clarifi, Morgan Stanley Research

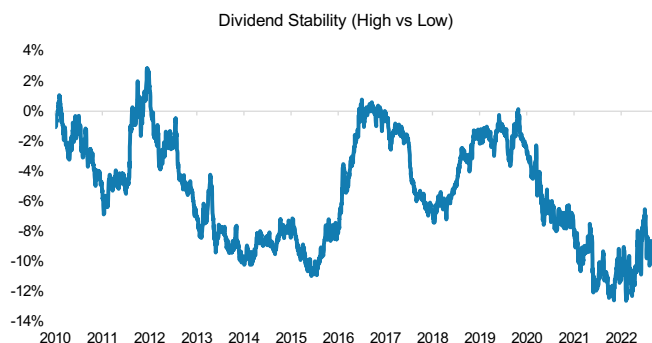
**Exhibit 8: 5Y Dividend Growth**



Source: Clarifi, Morgan Stanley Research

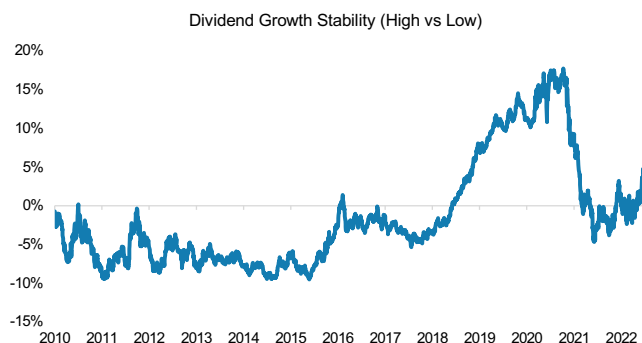
**Dividend stability is on the rise.** Dividend stability (Exhibit 9) is defined as the top quintile of low DPS volatility among top 1000 US stocks. Similar to 5Y dividend growth, dividend stability tends to outperform during defensive periods with dividend growth stability outperforming during late cycle environments like 2018-2020.

**Exhibit 9: Dividend Stability (High vs Low)**



Source: Clarifi, Morgan Stanley Research

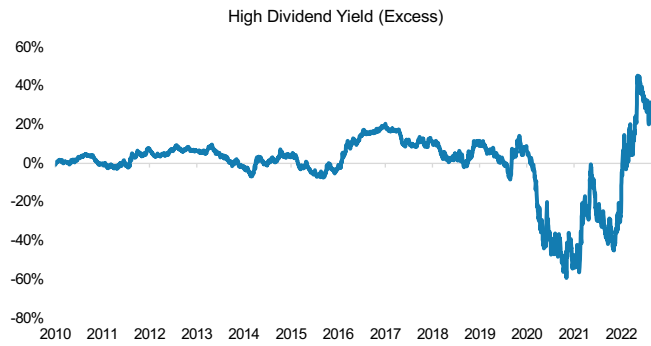
**Exhibit 10: Dividend Growth Stability (High vs Low)**



Source: Clarifi, Morgan Stanley Research

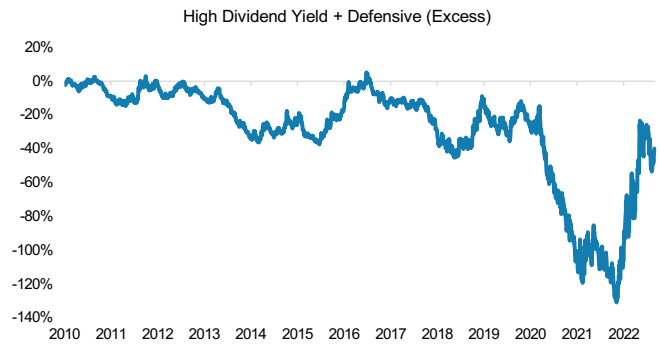
**High dividend yield has outperformed sharply in 2021 and 2022, in part due to Energy stocks.** While high dividend yields can be attractive, this can sometimes mean that the stock has recently derated and the dividend could potentially be unsustainable. We would advise caution on purely screening for high dividend yields and to look for sustainable dividends and quality earnings alongside high yields. Below we break out three different variations of high dividend yield between defensive, GARP, and value. Performance is similar among the styles but with High Div + Value value having a more cyclical tilt and High Div + Growth tending to provide a positive return spread over most years.

**Exhibit 11: High Dividend Yield, Relative to Top 1000**



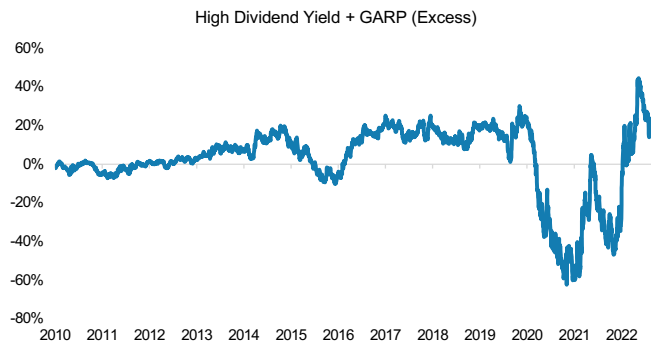
Source: Clarifi, Morgan Stanley Research

**Exhibit 12: High Dividend Yield + Defensive, Relative to Top 1000**



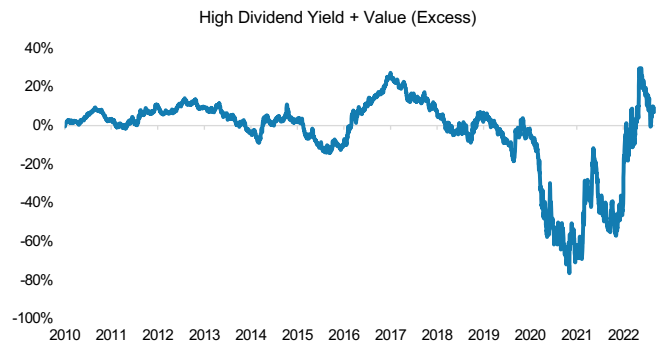
Source: Clarifi, Morgan Stanley Research

**Exhibit 13: High Dividend Yield + GARP, Relative to Top 1000**



Source: Clarifi, Morgan Stanley Research

**Exhibit 14: High Dividend Yield + Value, Relative to Top 1000**



Source: Clarifi, Morgan Stanley Research

## Dividend Screens

We provide 6 different dividend screens in the section below in order to help narrow down top dividend picks. The first screen aggregates the top dividend picks from our Morgan Stanley coverage analysts and the second screen is a proprietary quantitative framework using MS Research forecasts. The following four screens focus on more quantitative measures and include many of the dividend factors in the section prior.

**Screen 1: Analyst Top Picks** - The top picks from MS coverage analysts in high dividend industries. We asked analysts to provide their top dividend paying stocks within their coverage and not necessarily their top picks overall. These stocks combine yield, growth, and stability measures and look attractive on a 3-5 year basis from a dividend yield perspective.

**Exhibit 15:** Screen 1: Top Dividend Picks from Morgan Stanley Bottom-Up Analysts

Ticker	Company	Analyst (Primary)	MS Rating	Morgan Stanley Industry	Price (\$)	MS 2023 Dividend yield (%)
NEE	NEXTERA ENERGY INC	Arcaro, David	Equal-Weight	Diversified Utilities / IPPs	89.26	2.1%
DTE	DTE ENERGY COMPANY	Arcaro, David	Overweight	Regulated Utilities	133.59	2.8%
T	AT&T INC	Flannery, Simon	Overweight	Telecom Services	16.98	6.1%
ALLY	ALLY FINANCIAL INC	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	32.52	3.8%
BK	BANK OF NEW YORK MELLON CORP	Graseck, Betsy	Equal-Weight	Large Cap Banks & Consumer Finance	44.14	3.8%
CFG	CITIZENS FINANCIAL GROUP	Graseck, Betsy	Overweight	Midcap Banks	37.44	4.6%
MTB	M & T BANK CORP	Graseck, Betsy	Overweight	Midcap Banks	186.48	2.9%
NTRS	NORTHERN TRUST CORP	Graseck, Betsy	Equal-Weight	Large Cap Banks & Consumer Finance	95.46	3.2%
RF	REGIONS FINANCIAL CORP	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	21.67	3.7%
STT	STATE STREET CORP	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	72.61	3.6%
WFC	WELLS FARGO & CO	Graseck, Betsy	Overweight	Large Cap Banks & Consumer Finance	43.40	3.3%
ET	ENERGY TRANSFER LP	Kad, Robert	Overweight	MLPs & Midstream Energy Infrastructure	11.79	10.8%
PAA	PLAINS ALL AMER PIPELINE LP	Kad, Robert	Overweight	MLPs & Midstream Energy Infrastructure	12.02	7.8%
O	REALTY INCOME CORP	Kamdem, Ronald	Overweight	Real Estate Investment Trusts	66.29	4.3%
ADC	AGREE REALTY CORP	Kamdem, Ronald	Overweight	Real Estate Investment Trusts	74.51	3.3%
SPG	SIMON PROPERTY GROUP INC	Kamdem, Ronald	Overweight	Real Estate Investment Trusts	100.63	6.3%
GLPI	GAMING AND LEISURE PROPERTIE	Kamdem, Ronald	Overweight	Gaming & Lodging	49.04	5.4%
PM	PHILIP MORRIS INTERNATIONAL	Kaufman, Pamela	Overweight	Tobacco	94.49	5.3%
AVB	AVALONBAY COMMUNITIES INC	Kramer, Adam	Overweight	Real Estate Investment Trusts	208.91	3.0%
XOM	EXXON MOBIL CORP	McDermott, Devin	Overweight	Integrated Energy	96.08	3.6%
HES	HESS CORP	McDermott, Devin	Overweight	Exploration & Production	124.77	1.4%
PEP	PEPSICO INC	Mohsenian, Dara	Overweight	Beverages	168.37	2.7%
KO	COCA-COLA CO/THE	Mohsenian, Dara	Overweight	Beverages	60.69	2.9%

Source: Bloomberg, Morgan Stanley Research Estimates

**Screen 2: Systematic Dividend Picks to Own/Avoid** - We ran a quantitative screen using Morgan Stanley Research bull-base-bear forecasts to optimize total return and risk-reward among dividend paying stocks. This methodology compares upside/downside to price target, projected dividend yields, and bull-bear spread, and 1-year volatility to optimize risk and return metrics. We then ran the final 'To Own' ([Exhibit 16](#)) and 'To Avoid' ([Exhibit 17](#)) stocks by our coverage analysts as a fundamental overlay. The below lists represent the top and bottom two deciles of total return (PT upside + dividend yield) stocks as ranked by our model.

**Exhibit 16: Screen 2a: Systematic Top Dividend Picks - To Own**

Ticker	Company name	Analyst	Morgan Stanley Industry	Current price	MSe Price Target	Div yield (%) MSe 23	Total Expected Return
EMN	Eastman Chemical Co	Andrews, Vincent	Chemicals	95.04	165.00	3%	77%
LYB	LyondellBasell Industries N.V.	Andrews, Vincent	Chemicals	88.67	115.00	9%	41%
LIN	Linda PLC	Andrews, Vincent	Chemicals	286.25	365.00	2%	29%
APD	Air Products and Chemicals Inc.	Andrews, Vincent	Chemicals	262.23	335.00	3%	30%
PEG	Public Service Enterprise Group Inc.	Arcaro, David	Diversified Utilities / IPPs	66.69	81.00	3%	25%
FE	FirstEnergy Corp	Arcaro, David	Regulated Utilities	40.19	53.00	4%	36%
VST	Vistra Corp	Arcaro, David	Diversified Utilities / IPPs	24.93	33.00	3%	35%
AES	AES Corp.	Arcaro, David	Diversified Utilities / IPPs	25.63	32.00	3%	27%
OCK	Crown Holdings, Inc.	Castillo, Angel	Paper & Packaging	92.12	130.00	1%	42%
V	Visa Inc.	Faucette, James	Payments and Processing	202.89	291.00	1%	44%
MA	MasterCard Inc	Faucette, James	Payments and Processing	331.96	457.00	1%	38%
T	AT&T, Inc.	Flannery, Simon	Telecom Services	17.89	22.00	6%	29%
ABBV	Abbvie Inc.	Flynn, Terence	Major Pharmaceuticals	136.35	188.00	4%	42%
RPRX	Royalty Pharma Plc	Flynn, Terence	Major Pharmaceuticals	43.05	51.00	2%	20%
YUM	Yum! Brands, Inc.	Glass, John	Restaurants	112.16	142.00	2%	29%
WFC	Wells Fargo & Co.	Graseck, Betsy	Large Cap Banks & Consumer Finance	43.97	62.00	3%	44%
CFG	Citizens Financial Group, Inc	Graseck, Betsy	Midcap Banks	37.26	51.00	5%	41%
RF	Regions Financial Corp	Graseck, Betsy	Large Cap Banks & Consumer Finance	21.97	28.00	4%	31%
ROST	Ross Stores Inc.	Greenberger, Kimberly	Retail, Off-Price	87.26	118.00	1%	37%
TJX	TJX Companies Inc.	Greenberger, Kimberly	Retail, Off-Price	62.89	77.00	2%	24%
RACE	Ferrari NV	Jonas, Adam	Autos & Shared Mobility	199.85	300.00	1%	51%
ET	Energy Transfer LP	Kad, Robert	MLPs & Midstream Energy Infrastructure	12.14	15.00	11%	34%
WES	Western Midstream Partners LP	Kad, Robert	MLPs & Midstream Energy Infrastructure	28.25	35.00	8%	31%
PAA	Plains All American Pipeline LP	Kad, Robert	MLPs & Midstream Energy Infrastructure	12.26	15.00	8%	30%
PM	Philip Morris International Inc	Kaufman, Pamela	Tobacco	96.55	112.00	5%	21%
INVH	Invitation Homes Inc	Kramer, Adam	Real Estate Investment Trusts	37.28	45.00	2%	23%
RTX	Raytheon Technologies Corp	Liwig, Kristine	Aerospace	93.52	124.00	2%	35%
FANG	Diamondback Energy Inc	McDermott, Devin	Exploration & Production	133.93	170.00	9%	36%
MCHP	Microchip Technology Inc.	Moore, Joseph	Semiconductors	65.96	82.00	3%	27%
PRIM	Primoris Services Corp	Shane, Matthew	Engineering & Technical Services	21.40	33.00	1%	55%
NKE	Nike Inc.	Straton, Alex	Branded Apparel & Footwear	108.28	149.00	1%	39%
CMCSA	Comcast Corporation	Swinburne, Benjamin	Cable/Satellite	36.80	50.00	3%	39%
MSFT	Microsoft	Weiss, Keith	Software	268.09	354.00	1%	33%
CDW	CDW Corporation	Woodring, Erik	IT Hardware	179.69	227.00	1%	28%
ZTS	Zoetis Inc.	Wright, Erin	Specialty Pharmaceuticals	159.89	264.00	1%	66%

Source: Morgan Stanley Research Estimates, Eikon

**Exhibit 17: Screen 2b: Systematic Top Dividend Picks - To Avoid**

Ticker	Company name	Analyst	Morgan Stanley Industry	Current price	MSe Price Target	Div Yield (%) MSe 23	Total Expected Return
ED	Consolidated Edison Inc	Arcaro, David	Regulated Utilities	98.53	84.00	3%	-11%
SO	Southern Company	Arcaro, David	Regulated Utilities	78.20	69.00	4%	-8%
CAT	Caterpillar Inc.	Cumming, Dillon	Machinery & Construction	191.92	142.00	3%	-23%
LUMIN	LUMEN TECHNOLOGIES INC	Flannery, Simon	Telecom Services	10.76	9.50	2%	-9%
LAZ	Lazard Ltd	Gosalia, Manan	Midcap Advisors	36.85	30.00	5%	-13%
AEO	American Eagle Outfitters, Inc.	Greenberger, Kimberly	Retail, Specialty Retail	11.80	8.00	4%	-28%
KSS	Kohl's	Greenberger, Kimberly	Retail, Department Stores	29.74	19.00	6%	-30%
UE	Urban Edge Properties	Kardem, Ronald	Real Estate Investment Trusts	16.27	14.25	4%	-9%
LAD	Lithia Motors Inc.	Jonas, Adam	Autos & Shared Mobility	278.01	220.00	1%	-20%
PAG	Penske Automotive Group, Inc	Jonas, Adam	Autos & Shared Mobility	121.30	93.00	2%	-22%
GPI	Group 1 Automotive, Inc	Jonas, Adam	Autos & Shared Mobility	185.63	142.00	1%	-23%
SAH	Sonic Automotive Inc	Jonas, Adam	Autos & Shared Mobility	56.48	33.00	2%	-40%
FDS	FactSet Research Systems Inc.	Kaplan, Toni	Business & Education Services	445.12	338.00	1%	-23%
BFB	Brown-Forman Corporation	Mohsenian, Dara	Beverages	75.75	66.00	1%	-12%
WSO	Walco Inc.	Pokrzywinski, Joshua	Multi-Industry	284.50	204.00	3%	-26%
EBAY	eBay Inc	Schenk, Lauren	Internet	44.53	37.00	2%	-15%
UPS	United Parcel Service	Shanker, Ravi	Freight Transportation	198.93	148.00	3%	-23%

Source: Morgan Stanley Research Estimates, Eikon

**Screen 3: High Dividend Stability** - Quantitative screen looking at the top 40 stocks with the lowest 5 year Dividend Per Share (DPS) volatility, sorted by the lowest volatility at the top. Universe is top 1000 US stocks by market cap excluding Underweight rated stocks.



Exhibit 18: Screen 3: High Dividend Stability (sorted by most stable)

Ticker	Company Name	Sector	Industry Group	Price	Market Cap (\$MM)	MS Rating
NVT	NVENT ELECTRIC PLC	Industrials	Capital Goods	33.85	5,487	Not Covered
FTY	FORSTER CORP	Industrials	Capital Goods	22.80	5,820	Equal-Weight
QLN	QLIN CORP	Materials	Materials	53.4	7,936	Equal-Weight
EFX	EQUIFAX INC	Industrials	Commercial & Professional Services	195.43	23,103	Equal-Weight
NWSA	NEWS CORP NEW CLASS	Communication Services	Media & Entertainment	16.71	9,899	Not Covered
JBL	JABIL IN	Information Technology	Technology Hardware & Equipment	58.09	8,295	Not Covered
TECH	BIO-TECHNE COR	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	339.94	13,011	Not Covered
PKI	PERKINELMER	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	137.55	17,048	Not Covered
NYCB	NEW YORK COMMUNITY B	Financials	Banks	9.76	4,564	Not Covered
STWD	STARWOOD PROPERTY TR	Financials	Diversified Financials	23.15	7,090	Not Covered
IBKR	INTERACTIVE BROKERS	Financials	Diversified Financials	67.07	6,334	Not Covered
TW	TRADEWEB MARKETS INC	Financials	Diversified Financials	66.825	14,226	Overweight
L	LOEWS CORP	Financials	Insurance	56.44	13,327	Not Covered
COO	COOPER COS INC	Health Care	Health Care Equipment & Services	309.27	14,181	Not Covered
TXT	TEXTRON INC	Industrials	Capital Goods	64.04	13,195	Overweight
TFX	TELEREX INC	Health Care	Health Care Equipment & Services	237.15	10,612	Equal-Weight
COKE	COCA-COLA CONSOLIDAT	Consumer Staples	Food, Beverage & Tobacco	454.495	4,446	Not Covered
PSA	PUBLIC STORAGE	Real Estate	Real Estate	341.53	58,075	Equal-Weight
WWE	WORLD WRESTLING ENTE	Communication Services	Media & Entertainment	69.02	5,060	Equal-Weight
LPLA	LPL FINANCIAL HOLDIN	Financials	Diversified Financials	228.12	17,655	Overweight
MRVL	MARVELL TECHNOLOGY I	Information Technology	Semiconductors & Semiconductor Equipment	48.29	39,919	Equal-Weight
ZBH	ZIMMER BIOMET HOLDIN	Health Care	Health Care Equipment & Services	110.19	22,308	Equal-Weight
AVI	ACUTY BRANDS WI	Industrials	Capital Goods	166.55	5,297	Not Covered
AIG	AMER INTL GROUP	Financials	Insurance	54.3	39,352	++
BXMT	BLACKSTONE MORTGAGE	Financials	Diversified Financials	28.65	4,935	Not Covered
GPK	GRAPHIC PACKA	Materials	Materials	23.205	6,855	Not Covered
NWL	NEWELL BRANDS INC	Consumer Discretionary	Consumer Durables & Apparel	17.32	7,383	Equal-Weight
VLY	VALLEY NATL BNCP	Financials	Banks	11.82	5,884	Not Covered
BKR	BAKER HUGHES CO	Energy	Energy	23.91	25,557	Overweight
AGR	AVANGRID INC	Utilities	Utilities	49.62	19,099	++
OHI	OMEGA HEALTHCARE	Real Estate	Real Estate	32.374	7,678	Not Covered
AMCR	AMCOR PLC	Materials	Materials	12.13	17,789	Not Covered
REYN	REYNOLDS CONSUMER PR	Consumer Staples	Household & Personal Products	27.875	5,861	Not Covered
WPC	WP CAREY INC	Real Estate	Real Estate	85.73	16,210	Not Covered
GIS	GENERAL MILLS	Consumer Staples	Food, Beverage & Tobacco	76.06	45,751	Underweight
BWA	BORG WARNER	Consumer Discretionary	Automobiles & Components	37.215	8,929	Underweight
ARMK	ARAMARK	Consumer Discretionary	Consumer Services	36.7	9,203	Equal-Weight
CVS	CVS HEALTH CORP	Health Care	Health Care Equipment & Services	102.14	128,854	Overweight
EMR	EMERSON ELECTRIC CO	Industrials	Capital Goods	83.25	48,333	Equal-Weight

Source: Clarifi, Morgan Stanley Research

**Screen 4: High Dividend Yield + Defensive** - Top quintile of dividend yield combined with the top quintile of our proprietary defensive factor. The defensive factor is based on a mix of short/long term market beta, volatility, earnings estimate dispersion, volatility of ROE, and average underperformance in market declines. Universe is top 1000 US stocks by market cap excluding Underweight rated stocks.

Exhibit 19: Screen 4: High Dividend Yield + Defensive

Ticker	Company Name	Sector	Industry Group	Price	Market Cap (\$MM)	MS Rating
VZ	VERIZON COMMUNICATIONS	Communication Services	Telecommunication Services	41.21	175,500	Equal-Weight
LUMN	LUMEN TECHNOLOGIES I	Communication Services	Telecommunication Services	9.665	10,312	Underweight
T	AT & T INC	Communication Services	Telecommunication Services	16.885	124,988	Overweight
HAS	HASBRO	Consumer Discretionary	Consumer Durables & Apparel	79.67	10,884	Not Covered
LEG	LEGGET & PLATT	Consumer Discretionary	Consumer Durables & Apparel	37.8	5,069	Not Covered
NWL	NEWELL BRANDS INC	Consumer Discretionary	Consumer Durables & Apparel	17.32	7,383	Equal-Weight
WHR	WHIRLPOOL CORP	Consumer Discretionary	Consumer Durables & Apparel	154.435	6,536	Not Covered
GRMN	GERMANY LTD	Consumer Discretionary	Consumer Durables & Apparel	10.066	17,056	Not Covered
WBA	WALGREENS BOOTS ALLI	Consumer Staples	Food & Staples Retailing	36.055	30,301	Underweight
CAG	CONAGRA BRANDS INC	Consumer Staples	Food, Beverage & Tobacco	34.35	16,506	Equal-Weight
KHC	KRAFT HEINZ CO THE	Consumer Staples	Food, Beverage & Tobacco	36.745	45,831	Equal-Weight
MO	ALTRIA GROUP INC	Consumer Staples	Food, Beverage & Tobacco	45.235	81,253	Equal-Weight
FIZZ	NATL BEVERAGE	Consumer Staples	Food, Beverage & Tobacco	49.35	5,177	Not Covered
PM	PHILIP MORRIS	Consumer Staples	Food, Beverage & Tobacco	95.94	148,025	Overweight
KMB	KIMBERLY-CLARK	Consumer Staples	Household & Personal Products	125.78	43,054	Equal-Weight
TRF	TRUIST FINANCIAL COR	Financials	Banks	47.87	62,128	Equal-Weight
VLY	VALLEY NATL BNCP	Financials	Banks	11.82	5,884	Not Covered
UBSI	UTD BANKSHARES	Financials	Banks	35.81	4,979	Not Covered
NYCB	NEW YORK COMMUNITY B	Financials	Banks	9.76	4,564	Not Covered
FIBK	FIRST INTERSTATE BAN	Financials	Banks	39.7	4,301	Not Covered
BXMT	BLACKSTONE MORTGAGE	Financials	Diversified Financials	28.65	4,935	Not Covered
NLY	ANNALY CAPITAL MANAG	Financials	Diversified Financials	6.63	11,122	Not Covered
STWD	STARWOOD PROPERTY TR	Financials	Diversified Financials	23.15	7,090	Not Covered
AFG	AMER FINANCIAL	Financials	Insurance	130.28	10,874	Equal-Weight
ORI	OLD REPUBLIC	Financials	Insurance	22.03	6,599	Not Covered
FNF	FIDELITY NATIONAL FI	Financials	Insurance	40.13	10,804	Not Covered
MDT	MEDTRONIC INC	Health Care	Health Care Equipment & Services	88.0801	116,906	Equal-Weight
AMGN	AMGEN	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	245.6	128,544	Equal-Weight
BMJ	BRISTOL MYERS SQUIBB	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	69.265	143,938	Underweight
MRK	MERK & CO	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	87.37	216,241	Equal-Weight
VTRS	VIATRIS INC	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	9.6735	11,580	Not Covered
ABBV	ABBVIE INC	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	140.39	237,738	Overweight
GILD	GILEAD SCIENCES INC	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	65.53	79,551	Equal-Weight
GD	GENERAL DYNAMICS COR	Industrials	Capital Goods	227.86	62,661	Equal-Weight
LCI	JOHNSON CONTROLS INT	Industrials	Capital Goods	57.105	37,292	Overweight
LMT	LOOKH-EEED MARTIN CORP	Industrials	Capital Goods	419.29	111,393	Overweight
INTC	INTEL CORP	Information Technology	Semiconductors & Semiconductor Equipment	30.72	131,064	Underweight
AVGO	BROADCOM INC	Information Technology	Semiconductors & Semiconductor Equipment	510.35	201,549	Overweight
IBM	INTL BUSINESS MACHIN	Information Technology	Software & Services	128.21	116,014	Overweight
WU	THE WESTERN UNION CO	Information Technology	Software & Services	14.61	5,717	Underweight
VMW	VMWARE INC-CLASS A	Information Technology	Software & Services	116.23	49,037	++
CSCO	CISCO SYSTEMS	Information Technology	Technology Hardware & Equipment	45.36	185,184	Equal-Weight
JNPR	JUNIPER NETWORKS	Information Technology	Technology Hardware & Equipment	28.74	9,169	Underweight
NEM	NORANDA CORP	Materials	Materials	42.47	4,827	Not Covered
SMG	THE SCOTT'S MIRACLE G	Materials	Materials	57	3,709	Not Covered
GLPI	GAMING AND LEISU	Real Estate	Real Estate	49.66	12,387	Overweight
STOR	STORE CAP CORP	Real Estate	Real Estate	27.355	7,615	Underweight
OHI	OMEGA HEALTHCARE	Real Estate	Real Estate	32.374	7,646	Not Covered
HR	HEALTHCARE REALTY TR	Real Estate	Real Estate	24.35	9,255	Not Covered
LAMR	LAMAR ADVERTISING CO	Real Estate	Real Estate	97.09	9,533	Equal-Weight
WPC	WP CAREY INC	Real Estate	Real Estate	85.73	16,210	Not Covered
SRC	SPIRIT REALTY CAPITA	Real Estate	Real Estate	47.17	4,570	Equal-Weight
MPW	MEDICAL PRPS TR	Real Estate	Real Estate	14.73	8,749	Not Covered
PNW	PINNACL WEST CAP	Utilities	Utilities	77.06	8,518	Equal-Weight
DUK	DUKE ENERGY CORP	Utilities	Utilities	110.49	82,317	Equal-Weight
FE	FirstEnergy Corp	Utilities	Utilities	41.0901	22,599	Overweight
OGE	OGE ENERGY	Utilities	Utilities	41.56	8,116	Not Covered
PPL	PPL CORP	Utilities	Utilities	29.59	21,408	Equal-Weight
SJ	SOUTH JERSEY IND	Utilities	Utilities	34.3	4,142	Equal-Weight
ED	EDISON INTL	Utilities	Utilities	68.45	25,850	Underweight

Source: Clarifi, Morgan Stanley Research

**Screen 5: High Dividend Yield + Growth** - Top quintile of dividend yield combined with the top quintile of our proprietary growth factor. The growth factor is based on dividend yield, price to book, total debt to market cap, and the long term growth rate. Universe is top 1000 US stocks by market cap excluding Underweight rated stocks.

**Exhibit 20:** Screen 5: High Dividend Yield + Growth

Ticker	Company Name	Sector	Industry Group	Price	Market Cap (\$MM)	MS Rating
BBY	BEST BUY CO INC	Consumer Discretionary	Retailing	73.79	15,917	Equal-Weight
DKS	DICKS SPORTING GOODS	Consumer Discretionary	Retailing	111.935	8,424	Overweight
FIZZ	NATL BEVERAGE	Consumer Staples	Food, Beverage & Tobacco	49.35	5,177	Not Covered
PXD	Pioneer Natural Reso	Energy	Energy	233.93	60,435	Equal-Weight
DVN	DEVON ENERGY	Energy	Energy	68.595	46,242	Equal-Weight
EOG	EOG RESOURCES	Energy	Energy	117.497	71,067	Equal-Weight
CITRA	COTERRA ENERGY INC	Energy	Energy	29.12	24,592	Equal-Weight
C	CITIGROUP INC	Financials	Banks	49.6571	94,531	Underweight
CFG	CITIZENS FINANCIAL	Financials	Banks	37.29	18,190	Overweight
AFG	AMER FINANCIAL	Financials	Insurance	130.28	10,074	Equal-Weight
ORI	OLD REPUBLIC	Financials	Insurance	22.03	6,599	Not Covered
BMJ	BRISTOL-MYERS SQUIBB	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	69.265	143,938	Underweight
ABBV	ABBVIE INC	Health Care	Pharmaceuticals, Biotechnology & Life Sciences	140.39	237,736	Overweight
GD	GENERAL DYNAMICS COR	Industrials	Capital Goods	227.86	82,661	Equal-Weight
RRX	REGAL REXNORD CORP	Industrials	Capital Goods	141.15	9,147	Not Covered
AGCO	AGCO CORP	Industrials	Capital Goods	107.39	8,110	Equal-Weight
INTAP	NETAPP INC	Information Technology	Technology Hardware & Equipment	71.1	15,678	Equal-Weight
NEM	NEWMONT CORP	Materials	Materials	42.47	32,827	Not Covered
CC	CHEMOURS COMPANY	Materials	Materials	34.63	5,233	Equal-Weight
LYB	LYONDELLBASELL INDUS	Materials	Materials	81.72	27,075	Overweight
WY	WEYERHAEUSER CO STOC	Real Estate	Real Estate	33.89	25,289	Not Covered

Source: Clarifi, Morgan Stanley Research

**Screen 6: High Dividend + Low Leverage** - Top quintile of dividend yield combined with the bottom quintile by net debt/EBITDA. Universe is top 1000 US stocks by market cap excluding Underweight rated stocks.

**Exhibit 21:** Screen 6: High Dividend Yield + Low Leverage

Ticker	Company Name	Sector	Industry Group	Price	Market Cap (\$MM)	MS Rating
RL	RALPH LAUREN CORP	Consumer Discretionary	Consumer Durables & Apparel	93.92	6,190	Not Covered
BBY	BEST BUY CO INC	Consumer Discretionary	Retailing	73.79	15,917	Equal-Weight
FIZZ	NATL BEVERAGE	Consumer Staples	Food, Beverage & Tobacco	49.35	5,177	Not Covered
PXD	Pioneer Natural Reso	Energy	Energy	233.93	60,435	Equal-Weight
DVN	DEVON ENERGY	Energy	Energy	68.595	46,242	Equal-Weight
EOG	EOG RESOURCES	Energy	Energy	117.497	71,067	Equal-Weight
PRU	PRUDENTIAL FINANCIAL	Financials	Insurance	96.81	35,619	Equal-Weight
CMI	CUMMINS INC	Industrials	Capital Goods	214.47	30,366	Equal-Weight
SNA	SNAP-ON INC	Industrials	Capital Goods	221.75	11,605	Not Covered
WSO	WATSCO INC	Industrials	Capital Goods	283.79	9,857	Underweight
FAST	FASTENAL CO	Industrials	Capital Goods	50.85	28,923	Underweight
NEM	NEWMONT CORP	Materials	Materials	42.47	32,827	Not Covered
WY	WEYERHAEUSER CO STOC	Real Estate	Real Estate	33.89	25,289	Not Covered

Source: Clarifi, Morgan Stanley Research

## Dividend Regimes

In order to determine the relative attractiveness of various dividend factors and industry groups throughout a cycle, we used our regime framework from our initial [Inflation and Interest Rate Equity Playbook](#) in 2021. We define regimes both in terms of long-term trend with short-term direction, producing a matrix with four quadrants.

### Defining Regimes

We define 4 distinct inflation regimes - Above or Below Trend with Rising or Falling Inflation Expectations, and 4 interest rate regimes - Above or Below Trend with Rising or Falling rates.

Above and Below Trend inflation regimes are identified by comparing the current Core PCE Y/Y change to its 5-year moving average - periods when the current level of inflation is above the 5-year moving average are considered Above Trend, and vice versa. Rising and Falling Inflation Expectations are measured by month-over-month change in the 10yr breakevens - monthly increases in breakevens are identified as Rising Expectations, and conversely, monthly decreases in breakevens are identified as Falling Expectations ([Exhibit 22](#)).

Above and Below Trend interest rate regimes are defined by comparing the current 10-year Treasury yields to its 3-year moving average. And Rising and Falling rates regimes are identified by monthly changes in the 10-year yield. [Exhibit 2](#)

**Exhibit 22: Inflation Regimes**

	Above Trend	Below Trend
Rising Expectations	Core PCE > 5yr Moving Avg 10yr breakeven up m/m	Core PCE <= 5yr Moving Avg 10yr breakeven up m/m
Falling Expectations	Core PCE > 5yr Moving Avg 10yr breakeven down m/m	Core PCE <= 5yr Moving Avg 10yr breakeven down m/m

Source: Morgan Stanley Research

**Exhibit 23: Interest Rate Regimes**

	Above Trend	Below Trend
Rising	10yr yield > 3yr Moving Avg 10yr yield up m/m	10yr yield <= 3yr Moving Avg 10yr yield up m/m
Falling	10yr yield > 3yr Moving Avg 10yr yield down m/m	10yr yield <= 3yr Moving Avg 10yr yield down m/m

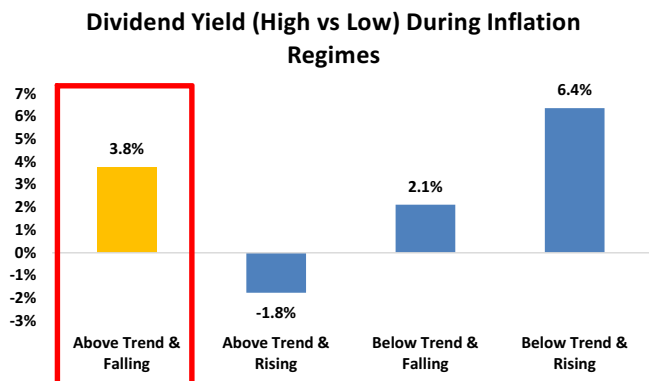
Source: Morgan Stanley Research

**Dividends perform well in late-cycle environments, like today.** The stability and guaranteed income from dividends make them a relatively safe bet that becomes increasingly attractive as the cycle progresses. Today, with CPI running at ~8% and PCE just under 5%, inflation is above trend and may have peaked with oil well off of recent highs. Looking at our regime framework, inflation during 'above trend and falling' is one of the best performing environments for the Dividend yield factor, which longs the top quintile and shorts the bottom quintile. The only regime better than 'above trend & falling' is the exact opposite, 'below trend & rising', but this is due to the large presence of Energy stocks in the high yield factor.

**High dividend yield + defensive, value outperform when inflation is 'Above Trend & Falling'.** Adding in the defensive and value factors with high dividend yield shows the most outperformance during periods similar to today. This is closely followed by dividend growth stability which is the top quintile of lowest DPS volatility among top

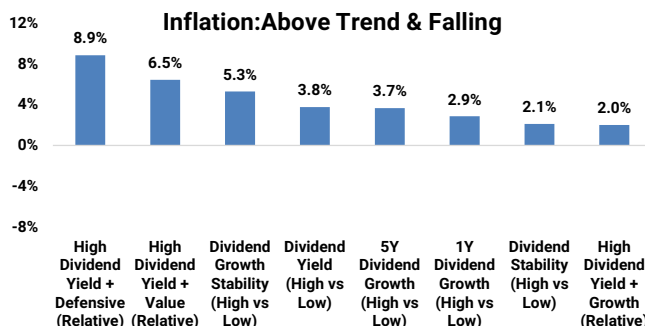
1000 stocks. In Exhibits 26 and 27, we show performance during all inflation and rate regimes. Dividend factor performance during interest rate regimes was more mixed than inflation regimes and less conclusive.

**Exhibit 24:** Dividend Yield Outperforms During Above Trend and Falling Inflation



Source: Clarifi, Morgan Stanley Research

**Exhibit 25:** Nearly All Dividend Factors Produce Positive Returns with Above Trend & Falling Inflation; High Yield with Defensive, Value Tilts are Top Performers



Source: Clarifi, Morgan Stanley Research

**Exhibit 26:** Inflation Regimes: Dividend Factors

Factor	Above Trend & Falling	Above Trend & Rising	Below Trend & Falling	Below Trend & Rising
Dividend Yield (High vs Low)	3.8%	-1.8%	2.1%	6.4%
1Y Dividend Growth (High vs Low)	2.9%	2.2%	2.2%	-7.3%
5Y Dividend Growth (High vs Low)	3.7%	-0.5%	0.0%	-4.9%
Dividend Stability (High vs Low)	2.1%	-3.1%	2.9%	-3.0%
Dividend Growth Stability (High vs Low)	5.3%	-3.3%	5.9%	-9.9%
High Dividend Yield + Defensive (Relative)	8.9%	-5.2%	11.7%	-13.9%
High Dividend Yield + Growth (Relative)	2.0%	-5.4%	6.4%	-13.6%
High Dividend Yield + Value (Relative)	6.5%	-0.5%	4.1%	-0.6%

Source: Clarifi, Morgan Stanley Research

**Exhibit 27:** Rate Regimes: Dividend Factors

Factor	Above Trend & Falling	Above Trend & Rising	Below Trend & Falling	Below Trend & Rising
Dividend Yield (High vs Low)	-2.7%	1.0%	4.8%	2.3%
1Y Dividend Growth (High vs Low)	1.4%	0.2%	1.5%	-0.2%
5Y Dividend Growth (High vs Low)	-1.7%	1.5%	2.3%	-2.7%
Dividend Stability (High vs Low)	0.1%	0.0%	2.7%	-5.1%
Dividend Growth Stability (High vs Low)	-2.7%	0.2%	4.2%	-4.5%
High Dividend Yield + Defensive (Relative)	-3.3%	-0.2%	12.2%	-11.4%
High Dividend Yield + Growth (Relative)	3.3%	-3.5%	4.0%	-12.8%
High Dividend Yield + Value (Relative)	-0.4%	0.2%	0.8%	-0.2%

Source: Clarifi, Morgan Stanley Research

**Utilities, Food Beverage & Tobacco, and Real Estate are the top performing industry groups in Above Trend & Falling inflation.** Unlike inflation regimes where we have more confidence in the direction, rate regimes vary widely by your forward outlook for rising for falling rates. During Above Trend & Falling rates, Utilities and Real Estate are once again the top performing industry groups but during rising rates, MLPs and Energy are the top industries, likely benefitting from periods of rising global energy prices. Real Estate is highly rate sensitive and flips from being a top performer to a bottom performer depending on whether above trend rates are falling or rising.

**Exhibit 28:** Inflation Regimes: High Yielding Industry Groups

Factor	Above Trend & Falling	Above Trend & Rising	Below Trend & Falling	Below Trend & Rising
Energy	-4.6%	14.2%	-22.0%	18.1%
Telecommunication Services	-0.9%	-5.9%	8.5%	-22.6%
Real Estate	9.7%	-0.1%	13.9%	-6.3%
Banks	2.6%	-2.2%	-4.8%	0.9%
Food, Beverage & Tobacco	11.6%	-6.6%	20.3%	-11.6%
Utilities	15.4%	-7.5%	18.8%	-22.7%
MLP	1.2%	10.1%	-26.3%	14.8%

Source: Clarifi, Morgan Stanley Research

**Exhibit 29:** Rate Regimes: High Yielding Industry Groups

Factor	Above Trend & Falling	Above Trend & Rising	Below Trend & Falling	Below Trend & Rising
Energy	-5.7%	19.6%	-6.0%	3.5%
Telecommunication Services	-8.0%	0.2%	-4.5%	-9.9%
Real Estate	7.2%	-1.7%	21.6%	-13.6%
Banks	-11.2%	6.8%	-7.6%	7.6%
Food, Beverage & Tobacco	-9.3%	5.7%	20.4%	-14.6%
Utilities	7.5%	4.4%	14.6%	-20.7%
MLP	3.4%	20.6%	-10.1%	-0.1%

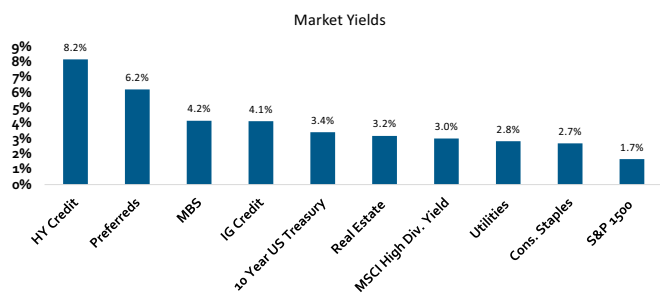
Source: Clarifi, Morgan Stanley Research

# Macro

We group a number of macro-oriented charts in this section to show dividend metrics across both broad indexes and to show relationships over time.

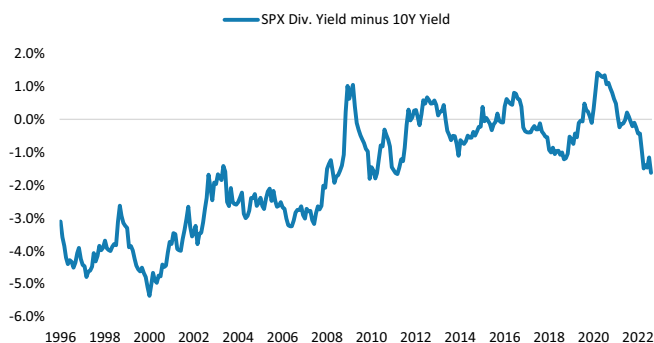
We first compare market relative yields on the cross-asset spectrum, comparing yields across equities, rates, and credit. While equities provide lower yields than credit, certain sectors such as Real Estate or Utilities can bridge this gap. However, the steepest competition for dividend yield often comes from the 10-Year Treasury, which as the time of publishing, yields 3.4%. While some investors may be constrained to equity as an asset class, the higher yields from Treasuries create an opportunity cost for investors at this time.

**Exhibit 30: Relative Market Yields**



Source: Bloomberg, Factset, Morgan Stanley Research

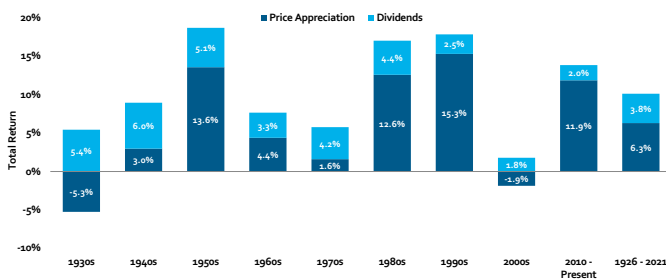
**Exhibit 31: S&P 500 Dividend Yield minus 10-Year Treasury Yield**



Source: Bloomberg, Factset, Morgan Stanley Research

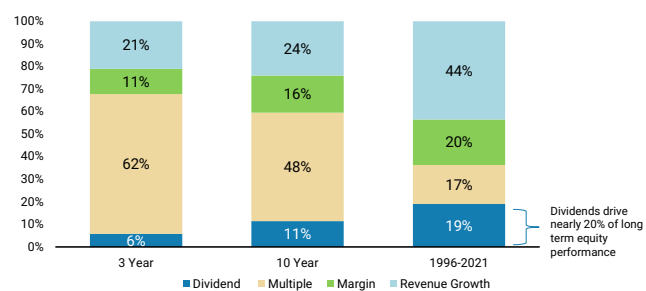
Dividends hold high importance for long-term investors with dividend yields making up 2-6% of return each decade back to 1930. On a compounded basis, dividends represent nearly 20% of total return since 1996. While dividends are never guaranteed on a single stock basis, they can provide stable return in aggregate and can cushion capital market losses during periods such as the Lost Decade (2000-2009).

**Exhibit 32: Importance of Dividends to Capital Appreciation**



Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 33: Drivers of S&P 500 Return**

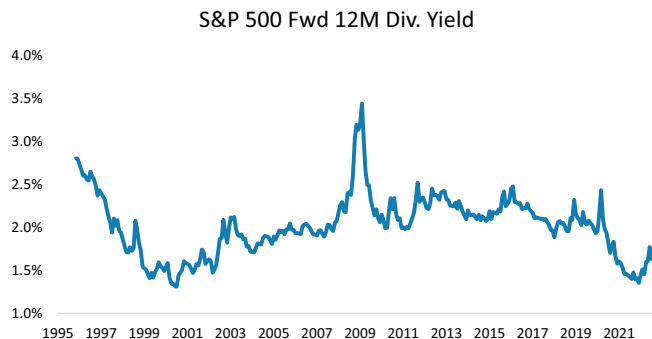


Source: Bloomberg, Factset, Morgan Stanley Research

Forward dividend yields fell sharply in 2020-2021 as valuations outpaced dividend growth. Now, in 2022, dividend yields appear to have bottomed as the S&P 500 peaked at 4,800 and nearly 22x earnings. Today, dividend yields have rebounded to 1.7% but

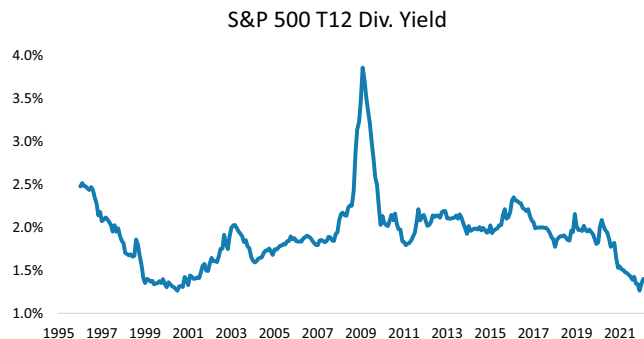
remain below the post-GFC average of 1.9%. A similar dynamic presents in dividend growth as well with forward consensus pricing 7% dividend growth for the S&P 500 versus the 10% post-GFC average.

**Exhibit 34:** S&P 500 12M Forward Dividend Yield



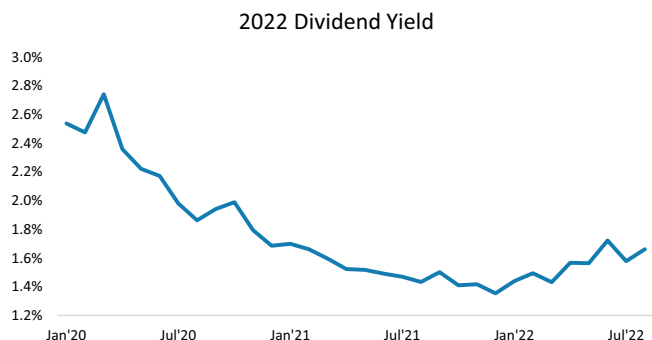
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 35:** S&P 500 T12 Dividend Yield



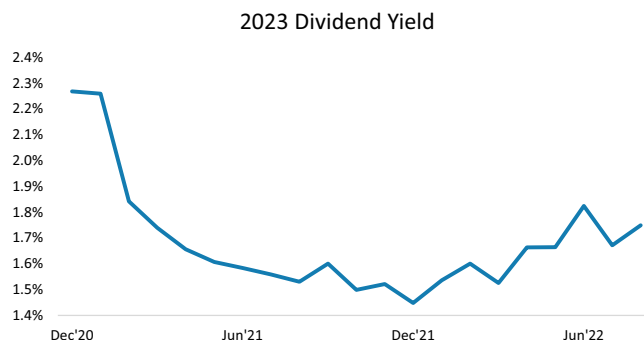
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 36:** 2022 Consensus Dividend Yield



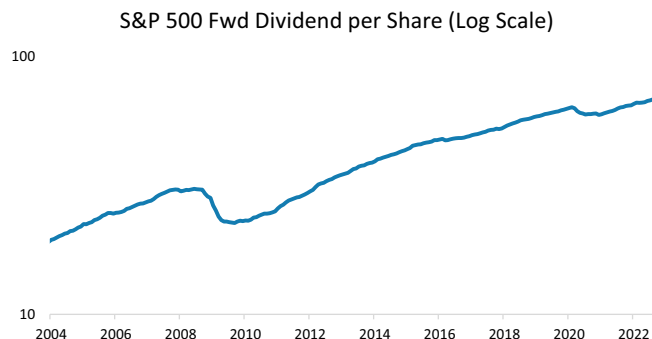
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 37:** 2023 Consensus Dividend Yield



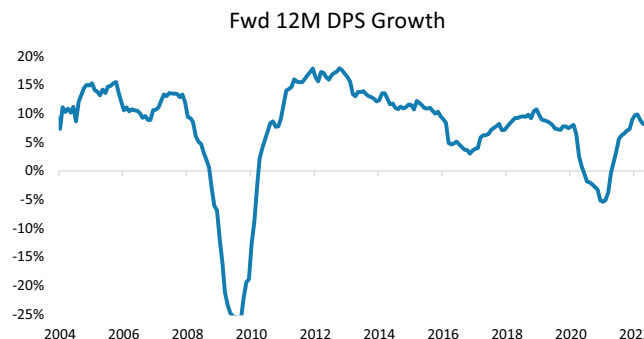
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 38:** S&P 500 12M Fwd Dividend Per Share



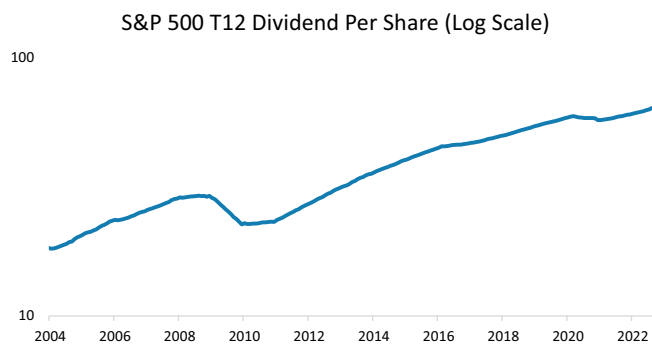
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 39:** S&P 500 12M Fwd Dividend Per Share Growth



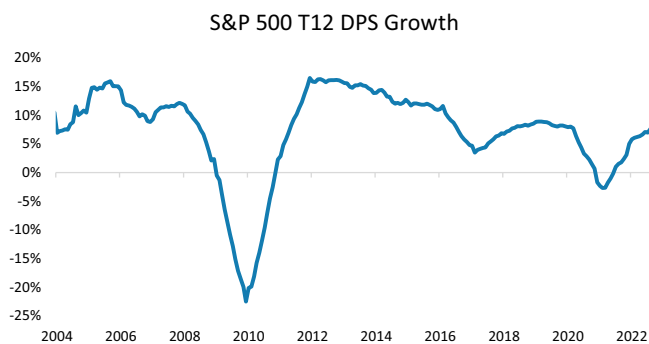
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 40:** S&P 500 T12 Dividend Per Share



Source: Bloomberg, Factset, Morgan Stanley Research

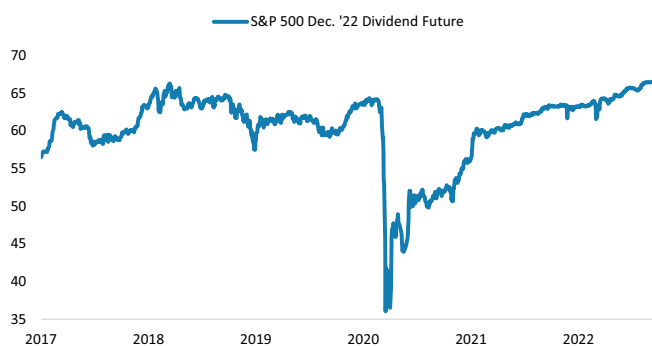
**Exhibit 41:** S&P 500 T12 Dividend Per Share Growth



Source: Bloomberg, Factset, Morgan Stanley Research

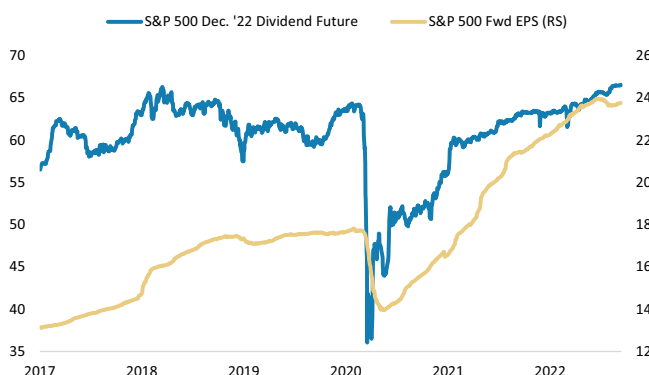
Dividend futures are a relatively small market in the US but have some historical efficacy at projecting forward earnings ([Exhibit 43](#)) and valuations ([Exhibit 44](#)) for the broad market. While we don't see any wide divergences today like we did six months ago when forward P/E's were closer to 22x, any future spreads are worth monitoring.

**Exhibit 42:** S&P 500 Dividend Future



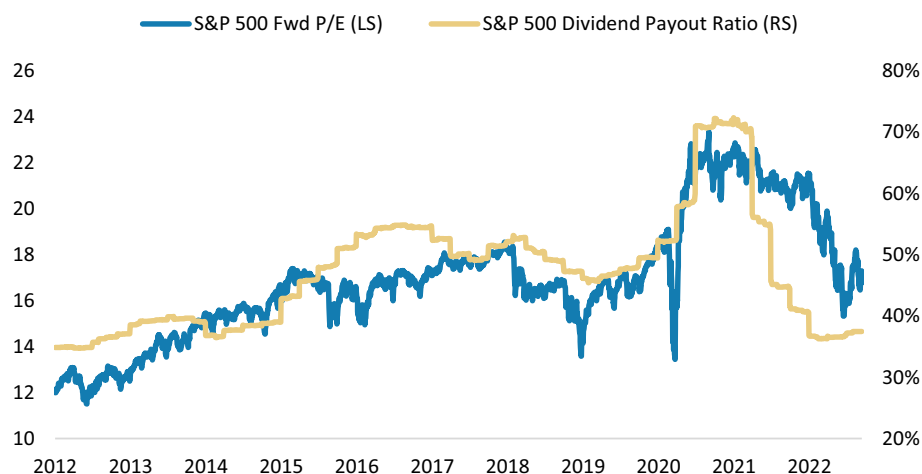
Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 43:** S&P 500 Dividend Future vs Forward EPS



Source: Bloomberg, Factset, Morgan Stanley Research

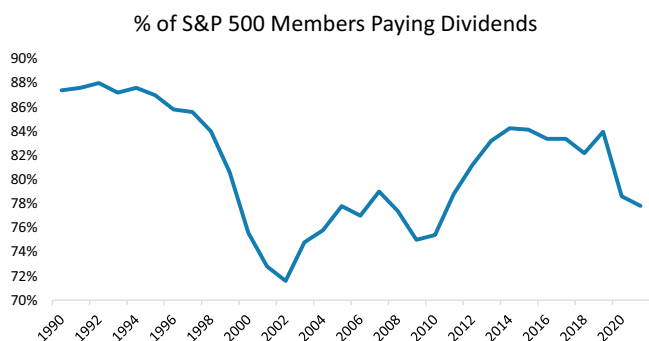
**Exhibit 44:** S&P 500 Dividend Payout Ratio vs Forward P/E



Source: Bloomberg, Factset, Morgan Stanley Research

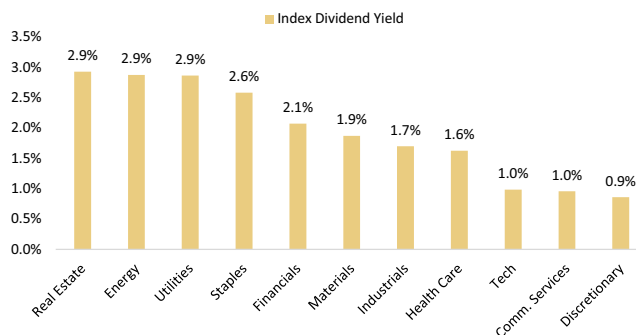
80% of S&P 500 members have paid a dividend in 2022, which is down from 84% in 2014 and 88% in 1992. At the sector level, Energy and Real Estate currently pay the highest dividend yields as of September 2022 with a 3.2% yield. Lastly in [Exhibit 47](#), the S&P 500 has a 38% earnings payout ratio in the form of dividends with the least number of dividend paying stocks coming from Software & Services and Media & Entertainment.

**Exhibit 45: Percentage of S&P 500 Members Paying Dividends**



Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 46: S&P 500 Sector Dividend Yields**



Source: Bloomberg, Factset, Morgan Stanley Research



Exhibit 47: S&P 500 Dividend Table by Industry Group

Sector	Industry Group	% of Total Paying Dividend	Median Dividend Yield	Payout Ratio
<b>S&amp;P 500</b>		80%	2.1%	38%
<b>Consumer Discretionary</b>	<b>Discretionary</b>	<b>67%</b>	<b>2.0%</b>	33%
	Automobiles & Components	80%	2.3%	24%
	Consumer Durables & Apparel	75%	2.8%	22%
	Consumer Services	56%	1.5%	42%
	Retailing	67%	2.0%	37%
<b>Energy</b>	<b>Energy</b>	<b>100%</b>	<b>2.1%</b>	36%
<b>Financials</b>	<b>Financials</b>	<b>98%</b>	<b>2.2%</b>	27%
	Banks	100%	3.1%	29%
	Diversified Financials	96%	1.9%	27%
	Insurance	100%	1.8%	25%
<b>Health Care</b>	<b>Health Care</b>	<b>66%</b>	<b>1.2%</b>	41%
	Health Care Equipment & Servi	69%	1.2%	32%
	Pharmaceuticals, Biotechnolog	62%	2.6%	46%
<b>Industrials</b>	<b>Industrials</b>	<b>87%</b>	<b>1.5%</b>	41%
	Capital Goods	93%	1.7%	45%
	Commercial & Professional Ser	91%	1.0%	33%
	Transportation	64%	1.3%	34%
<b>Materials</b>	<b>Materials</b>	<b>100%</b>	<b>1.7%</b>	35%
<b>Real Estate</b>	<b>Real Estate</b>	<b>93%</b>	<b>3.2%</b>	103%
<b>Consumer Staples</b>	<b>Staples</b>	<b>97%</b>	<b>2.4%</b>	64%
	Food & Staples Retailing	100%	1.8%	44%
	Food, Beverage & Tobacco	95%	2.8%	72%
	Household & Personal Product	100%	2.5%	61%
<b>Information Technology</b>	<b>Tech</b>	<b>58%</b>	<b>1.7%</b>	27%
	Semiconductors & Semiconduc	79%	1.6%	29%
	Software & Services	46%	1.4%	32%
	Technology Hardware & Equip	60%	2.6%	20%
<b>Utilities</b>	<b>Utilities</b>	<b>97%</b>	<b>2.8%</b>	75%
<b>Communication Services</b>	<b>Comm Services</b>	<b>50%</b>	<b>2.6%</b>	47%
	Media & Entertainment	45%	1.5%	33%
	Telecommunication Services	75%	5.3%	54%

Source: Bloomberg, Factset, Morgan Stanley Research

## Industries in Focus

### MLPs/Midstream Energy

**Robert Kad**

#### **Dividend Stability within Industry**

The past dozen years have been an ongoing iteration of the midstream business model to address vulnerabilities and reflect changes in investor preferences. This has largely reversed a narrow historical focus on dividend payout maximization. In shifting away from a full payout model, midstream companies have had to unwind the associated business model deficiencies that had elevated risk around what are often otherwise relatively stable cash flows. Reliance on recurring equity capital market access has been eliminated, leverage has been reduced in many cases, and complex and conflicted organizational structures have been restructured (GP/IDR eliminations). Industry growth has moderated (a function of both U.S. shale maturation and longer-term decarbonization trends), reinforced by more limited access to capital (investor aversion to either equity issuance or leverage that places credit ratings or covenants at risk in down cycles) and reduced incentives for growth (IDRs had previously been a significant motivating factor).

Full dividend payout models left little cushion in the event of dividend coverage shortfalls and little cash retention to support other calls on capital. With the cumulative impact of a large number of dividend cuts over multiple tail events in recent years, the industry no longer enjoys the valuation support of yields that were previously perceived to be safe and prioritized above other objectives (in effect, treated as an implicit covenant with investors).

Post-Covid onset, as the midstream industry has moved toward adoption of FCF generation as a strategic objective — accomplished through capital discipline with more stringent return focus rather than emphasis on growth — we see the broader de-risking of these business models having served to restabilize dividends in our coverage and recalibrating growth to more modest levels. Although we do not expect yield support for valuation to be restored as dividend cuts are now viewed as more discretionary management choices (rather than a function covenant non-compliance or credit metric deterioration that challenges ratings), we see limited risk to current dividend payouts across the substantial majority of our coverage.

#### **Prospects for Dividend Growth within Industry (next 3-5 years)**

The midstream value proposition is ultimately more one of cash flow resiliency than commodity torque, making growth more reliant on incremental capital investment. As noted, midstream industry growth has slowed in recent years given maturation of US shale production, regulatory headwinds to new project development, and an energy economy that is transitioning toward a low carbon future. However, selective capital investment opportunities still exist around smaller, more capital efficient investments

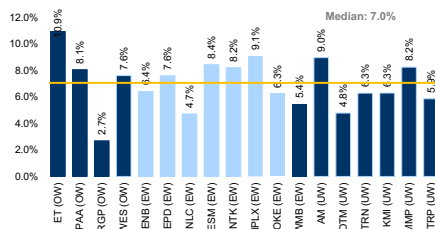
that address system bottlenecks, while the energy transition offers longer-term opportunities to repurpose pipeline and storage infrastructure for lower carbon uses.

With respect to dividends, capital investment discipline and resulting FCF generation have accompanied a pivot away from a narrow focus on dividend growth and payout maximization to other cash return measures with lower execution and terminal value risk. Historically, the full dividend payout model offered the collateral benefit of agency risk mitigation, returning predictable levels of cash and requiring ongoing investor approval of capital investment decisions to secure exogenous capital. Unfortunately, solving for both full payout and ongoing growth led to untenable funding risk and overly aggressive pursuit of capex. Moving to a model of capital discipline, positive FCF and capital structure reduction with more limited growth potentially offers a better pathway to risk mitigation.

- We see share repurchase announcements, if sizeable and credible (e.g., recurring execution), to be one of the most important potential idiosyncratic near-term catalysts within managements' control and differentiators of relative stock performance. Beyond positive signalling on capital discipline and opportunities it creates for capital structure reduction, positive FCF generation applied toward debt or share count reduction allows for positive stock performance without requiring multiple expansion or EBITDA growth.
- Return of capital is also an effective tool to address terminal value risk. While considerable debate exists around the timeline and extent to which the global energy economy might transition away from hydrocarbons to renewable sources, the burden of proof effectively now resides with the companies themselves and other industry participants to establish the longevity of hydrocarbon demand. In the absence of specifics around repurposing potential, managements can still de-risk terminal values through sustained capital discipline and redirection of cash flows to capital structure reduction, increasing and accelerating the residual claim on cash flows.
- While investors will likely continue to debate preferences for different strategies (share buybacks, leverage reduction, dividend growth, capital reinvestment to offset EBITDA declines) and variant optimal approaches across companies, we see prioritization of debt/equity repurchases (in whatever balance) as critical to elevating the primacy of attractive FCF yields as a midstream valuation metric.

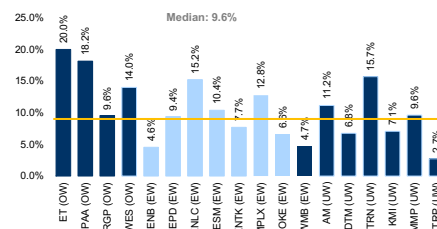
The implication then for midstream dividends is that while payout strategies are evolving (and historical precedent has become less instructive), most companies are likely to grow dividends at levels consistent with EBITDA growth – likely mid- to high-single digits. Exceptions exist, however, where dividends had been cut and have not yet been normalized and/or FCF generation is so high (and capital needs so low) that above average – and potentially quite meaningful – dividend growth is supported.

**Exhibit 48: Morgan Stanley Midstream Coverage 2023e Dividend Yield**



Source: Refinitiv, Morgan Stanley Research estimates.

**Exhibit 49: Morgan Stanley Midstream Coverage 2023e Free Cash Flow Before Dividends/Market Capitalization**



Source: Refinitiv, Morgan Stanley Research estimates.

### Key Risks to Dividends

The primary near-term risk to underlying FCF generation is less variability or deterioration in cash flows and more reacceleration of capital reinvestment. While much work has been done, capital discipline and positive FCF generation remain recent developments within midstream and still require either longer histories or forward guidance – including commitments to capital structure reduction (share buybacks, leverage targets) – to telegraph management buy-in to investors. Instances in which companies stretch on organic capital reinvestment or M&A and re-lever balance sheets could reintroduce dividend risk in a period of more pronounced cyclical downturn, but one we view as lower probability. One case within our coverage where dividend risk could exist (ETRN) is largely idiosyncratic, tied to regulatory uncertainty around a largely funded but not completed project.

Over time, should the energy transition materially diminish hydrocarbon demand, opportunities for repurposing prove unavailable, and midstream companies elect not to allocate FCF to leverage reduction, deteriorating cash flows viewed against non-amortizing debt could create long-term leverage issues that threaten dividend safety. While we see both the runaway for global hydrocarbon demand (and associated energy security) and the essential role of midstream assets in enabling the energy transition to be underappreciated by the market and see this risk as relatively low, individual outcomes across companies could still vary.

### Top Pick(s)

**ET (\$15 PT, +37% total return):** Highly dislocated stock (2023e FCF yield of 20%; S&P 500 ~5%) with one of the best catalyst paths to re-rate through the back half of the year: (1) positive estimate revision potential on both 2022 EBITDA (guidance: \$12.6-12.8Bn, cons: \$12.87Bn, MS: \$12.97Bn) and 2023 (cons: \$12.87Bn, MS: \$13.08Bn), likely starting with November earnings, (2) announcement of final investment decision on Lake Charles LNG project, which we expect this fall, adding \$0.70-0.90/unit of fair value above our PT and supporting FCF yield compression as inclusion of equity partners will demonstrate capital discipline, and (3) expected distribution increases of 15% in both 3q22/4q22, with resulting 11% yield likely to attract income investors.

**PAA (\$15 PT, +34% total return):** Another stock that screens unduly cheap at 2023e FCF yield of 18%. We think the stock starts to more sustainably work closer to October/November into early next year given: (1) tangible evidence of inflection in Permian oil production growth in the coming months, (2) initial producer commentary in

November/December around outlook for 2023+ Permian growth, (3) MLP seasonality from late December-January (in each of the past 26 years, the benchmark Alerian MLP Index has posted a positive total return during this period, outperforming the S&P roughly 75% of the time and accounting for roughly 50% of the sector's total return in just that period alone), (4) 2023 guidance that should point to deleveraging success and accelerating stock buybacks, one of only a handful of midstream companies doing so, and (5) evidence of tightening utilization of Permian crude oil pipeline takeaway capacity to Corpus Christi and Houston, supporting capacity contracting efforts beginning 1H23 and addressing a key overhang.

### At Risk Stocks

**ETRN (\$7 PT, -20% total return):** With ongoing uncertainty around the permitting process (inclusive of associated appellate court challenges) and the path forward for its Mountain Valley Pipeline project, we have excluded MVP (and related impacts) from our model, which drives our \$7/share fair value for ETRN. MVP and its related impacts (gathering MVC step-up, Henry Hub upside agreement, including Hammerhead revenue, etc.) would add ~\$6/share to our DCF-derived fair value.

There are different event paths in which the dividend could be at risk, such as a scenario in which MVP is re-permitted and allowed to restart construction (with associated further capex spending) but is ultimately not completed as legal challenged vacate key permits once again. Here, leverage remains elevated at or slightly above 5.0x throughout 2022 and in a similar range (~5.0x or slightly above) in 2023, but importantly, does not escalate out to the 5.5x+ range (and a newly finalized credit facility allows for temporary covenant relief once spending resumes on MVP). However, looking out further, with Gathering EBITDA beginning to decline more materially (consistent with the Gathering Agreement), leverage begins to approach the 5.5x range in the 2024 timeframe. Accordingly, while we acknowledge a dividend cut in the near- or medium-term could alleviate balance sheet stress, we believe the more acute risk of a dividend cut does not materialize until the 2024 timeframe, subject to the outcome of the project.

## Energy

### Devin McDermott

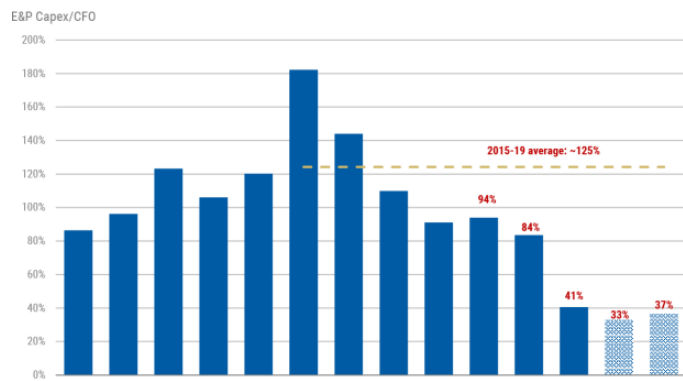
#### Dividend Stability within Industry

For the Energy sector, the Covid-driven price collapse in 2020 brought an end to a cycle defined by overinvestment, weak returns, and persistent underperformance. Concurrently, it ushered in a new period of pervasive capital discipline and rising shareholder returns. This new value proposition has not only proven supportive of oil & gas markets, but also helped drive record FCF for E&Ps and Integrated Energy stocks, collectively generating ~\$60 B in 2Q.

While inflation has put upward pressure on capex, the industry is spending at a much lower reinvestment rate than historical levels. For 2022/23, we estimate reinvestment rates of ~33%/37% of CFO, compared to an average of ~125% over 2015-19. Lower reinvestment rates mean that higher spending does little to change the sector's attractive FCF profile. This year we estimate the median E&P yields 18%, >3x the broader

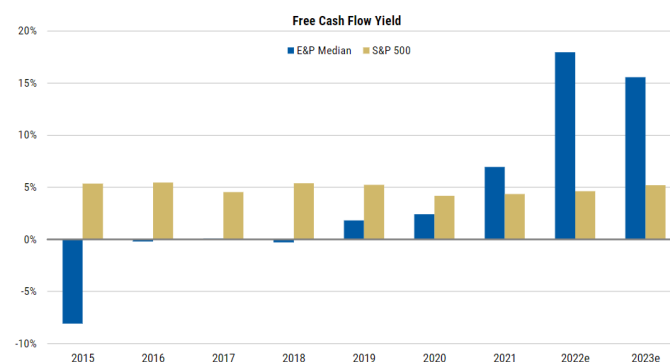
market. Further, across our US E&P and Integrated Energy coverage, FCF/base dividend coverage is robust at >7x.

**Exhibit 50:** After years of outspending cash flows, US E&Ps are taking a more disciplined approach...



Source: Bloomberg, Morgan Stanley Research

**Exhibit 51:** ...Despite modestly higher costs, our E&P coverage is offering a 18% median FCF this year, >3x the broader market



Source: Bloomberg, Morgan Stanley Research. Note: Assumes \$100/bbl WTI in 2022, \$90/bbl WTI in 2023

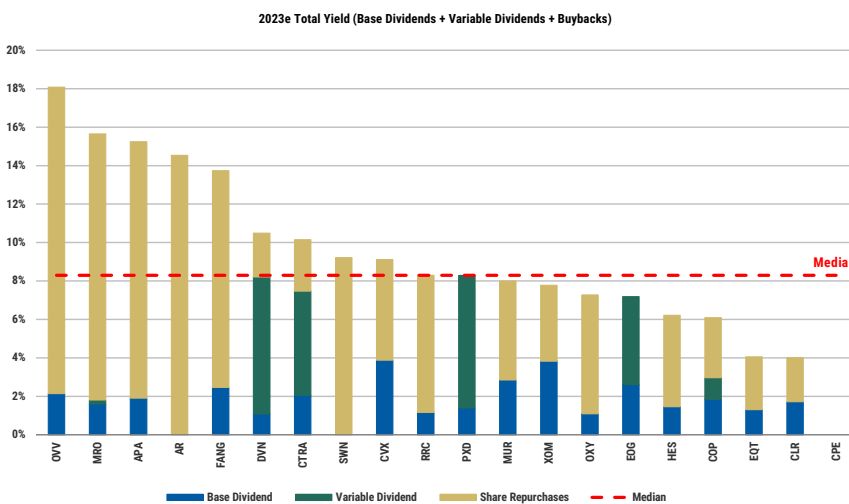
### Prospects for Dividend Growth within Industry (next 3-5 years)

Across our coverage, US majors **XOM** and **CVX** are best positioned for long-term dividend growth with integrated business models (upstream & downstream) and globally diversified cash flows. Both companies have long track records of base dividend growth and defended their dividends through the 2020 downturn. Notably, since the end of 2020, the majors have collectively generated ~\$100 B in FCF, repairing balance sheets and increasing shareholder returns through dividends & buybacks. With both at the low end or below targeted leverage ranges, we see dividends well covered and a path of continued stable growth.

Beyond the majors, select E&Ps are also well positioned to grow dividends over time. We highlight **HES**, which has highly economic, long-cycle growth in Guyana balanced by short-cycle optionality in the Bakken. This underpins a rate of change story that should support HES's longer-term plan to return up to 75% of FCF annually through the base dividend and opportunistic share repurchases.

We also highlight **COP**, which benefits from its globally diversified business and has committed to return >30% of CFO to shareholders annually. Ongoing share repurchases should allow COP to keep its absolute dividend burden manageable while supporting consistent base dividend increases, in our view. In December 2021, COP also initiated a three-tier return of capital program – adding a variable dividend component to go along with its base dividend and share repurchases. This year, COP has paid and declared a total of ~\$2.60/sh in variable dividends (a ~2.4% variable dividend yield), on top of its 1.7% base dividend yield.

**Exhibit 52:** The median 2023 total yield (Dividends + Buybacks) for our US E&P and Integrated coverage is compelling at ~8%; while we do not see risk to base dividends, the recent move lower in oil prices means there could be downside to 3Q22 variable payouts for companies with formulaic, cash-flow based returns programs (e.g. DVN, PXD, EOG)



Source: Morgan Stanley Research estimates

### Key Risks to Dividends

We generally do not see risk to base dividends given strong balance sheets and robust dividend coverage across the group. Most companies have set base dividend payouts at levels that can be fully covered with organic cash flow down to \$40/bbl oil prices (versus >\$85/bbl currently). Furthermore, low leverage (avg. net debt/EBITDA will be <0.5x by year-end) would allow companies to sustain payouts even if oil prices were to fall below \$40 for a period of time. However, with the move lower in oil prices q/q (avg. WTI is down 13% QTD), we do see downside risk to variable payouts in 3Q22 for companies with formulaic variable returns tied directly to cash flows (e.g. **DVN, EOG, PXD**).

### Top Pick(s)

**ExxonMobil (XOM):** XOM offers a 3.8% 2023 dividend yield backed by >300% dividend coverage and a strong balance sheet (12% net debt/cap as of 2Q22) which supports ~\$30 B of buybacks over 2022/23. While we anticipate higher y/y capex in 2023, the company is executing on >\$9 B of cost cuts and margin expansion opportunities across the business, which should serve as an offset. As such, on our estimates XOM should continue to build cash next year, leaving ample room for upside to shareholder returns.

**Hess (HES):** HES benefits from long-cycle growth in Guyana balanced by short-cycle optionality in the Bakken. This underpins a rate of change story that is differentiated within the sector as HES's breakeven oil price is set to fall from over \$70/bbl in 2019 to <\$40/bbl by 2025, shifting the company toward the lower end of the global cost curve. Longer term, HES plans to return up to 75% of FCF annually through the base dividend and opportunistic share repurchases. Due to HES's differentiated portfolio, which is anchored on a multi-decade low-breakeven investment opportunity in Guyana, we view this cash return framework as more durable and offering longer duration than many other US E&Ps.

**Cheniere (LNG):** Cheniere is the dominant LNG player in the US and is structurally advantaged compared to smaller independent US peers given its scale, low cost expansion opportunities, and existing platform of stable cash flows backed by long-term contracts. As the largest US exporter, the company is also well-positioned to benefit from higher marketing margins associated with ongoing market tightness and escalating geopolitical tensions. Over the next several years, strong FCF drives declining leverage, growing dividends, and share repurchases. With a recent capital allocation update, the company bumped the dividend by 20% to \$1.58/sh annualized (~1% yield). Through 2026, Cheniere now anticipates >\$20 B of available deployable cash and is targeting 10% annual dividend growth – that said, on our estimates we see ample room for upside to dividends (beyond the 10% annual growth target) over the next few years.

## Telecommunication Services

### Simon Flannery

#### Dividend Stability within Industry

We view the dividend stability outlook across the REIT subsector as mixed

Dividend stability for the Telecom sector is generally good, with AT&T and Verizon having modest payout ratios (c. 50%) and Investment Grade Balance Sheets. Payout ratios are higher in Canada at BCE and Telus, but growth is higher as well, and like the US, Capex is peaking as 5G buildouts are completed. We would note that AT&T recently cut their dividend payout in conjunction with the spin of WarnerMedia earlier this year.

Telecom business models benefit from recurring subscription based revenue streams, with wireless and broadband seen as critical services even in a downturn. Inflation pressures are building, but overall exposure to energy costs is modest. We have seen carriers look to take selective pricing actions to offset inflation pressures. We do see risks to select dividends, notably Lumen which is discussed further below.

The Tower and Data Center stocks are required by REIT rules to distribute at least 90% of their net income to shareholders which has combined with strong operating fundamentals to drive solid dividend growth in recent years, particularly for the Tower companies: American Tower, Crown Castle and SBA Communications. Equinix has also delivered c. 8% dividend growth over the last few years. Their business models are backed by secular growth trends and long term contracts with largely investment grade tenants.

#### Prospects for Dividend Growth within Industry (next 3-5 years)

We see better dividend growth in Canada than the US, with better industry fundamentals and dividend growth track records. Telus has committed to extend its 7-10% annual dividend growth model for a further three years (started in 2011). Verizon has a 16-year track record of dividend increases (c. 2%/year currently) while AT&T (and Rogers and Lumen) is not currently growing their dividend. Verizon and AT&T have suggested that stock buybacks may be more of a priority for any surplus FCF in the future once leverage targets are met. We are hopeful that industry cash flows will expand as capex moderates and spectrum auctions are in the rear view mirror.



We expect solid dividend growth to continue for the Communications Infrastructure stocks, particularly the Tower operators. Crown Castle (**CCI**) yields well over 3% while delivering consistently on its goal of growing dividends at least 7-8% per year. American Tower (**AMT**) and **SBAC** should grow dividends even faster off a lower base, as payout ratios rise as NOLs expire. Data Center operators should also deliver solid dividend growth, but face a little more uncertainty with heavy capex requirements and more exposure to Energy and other cost pressures.

### **Key Risks to Dividends**

The Telecom industry is a mature and competitive industry and a severe recession and/or a more aggressive pricing environment as well as rising rates and costs could pressure industry cash flows and dividend growth. We are currently forecasting a 75% dividend cut at Lumen with 4Q22 earnings in February 2023. Leverage is elevated, revenues are still declining, and capex is ramping as part of an aggressive Fiber build program. The company is currently evaluating Capital Allocation priorities under a new CFO in conjunction with the completion of some asset sales.

### **Top Pick(s)**

AT&T offers a c. 6.3% dividend yield, among the highest in the S&P 500, backed by an IG Balance sheet. The dividend represents a c. 50% payout on our 2023 FCF estimates. Capex should peak in 2023 and start to drop significantly thereafter as 5G buildouts are completed. The company is growing revenues modestly driven by strong wireless net adds and a growing consumer Fiber business.

### **At Risk Stock(s)**

We expect Lumen to reduce their dividend by 75% (or potentially eliminate it entirely) in February 2023 in conjunction with 4Q22 earnings. Rising capex and the impact of divestitures leads us to forecast free cash flow of just c. \$400m next year compared to an annual dividend of some \$1bn. Note Lumen has cut their dividend payout twice before and the company is assessing their Capital Allocation priorities under a new CFO.

## **Real Estate**

### **Ronald Kamdem, Adam Kramer**

#### **Dividend Stability within Industry**

We view the dividend outlook across REITs as mixed with REIT TTM free cash flow payout ratios increasing +400bps QoQ to +82% ([Exhibit 53](#)). Infrastructure, Storage, Data Centers, Manufactured Homes, SFRs and Lodging REITs have the healthiest payout ratios at 70% or below. Lodging has had the largest decline in FCF payout due to growth from a low base outpacing peers. Healthcare (+110%), Malls (+109%) and Office (+93%) remains the most at elevated. See [Liquidity, Leverage and FCF 3.1: Dividend & Leverage Watch List](#).

Exhibit 53: REIT FCF Payout Ratios by Subsector

Subsector	Current FCF Payout Ratio	Previous Quarter FCF Payout Ratio	Delta
Healthcare	110%	105%	4%
Regional Malls	109%	102%	7%
Office	93%	90%	3%
Specialty	91%	89%	2%
Diversified	85%	86%	-1%
Shopping Centers	84%	82%	3%
Industrial	82%	81%	3%
Timber	82%	52%	30%
Apartments	81%	84%	-3%
Triple Net	78%	80%	-3%
Infrastructure	70%	64%	6%
Storage	68%	69%	-1%
Data Centers	66%	38%	28%
Man Homes	66%	65%	1%
SFR	58%	54%	4%
Lodging/Resorts	19%	59%	-40%
<b>Total</b>	<b>82%</b>	<b>78%</b>	<b>4%</b>

Source: Company Data, Refinitiv, S&P Global, Morgan Stanley Research.

### Prospects for Dividend Growth within Industry (next 3-5 years)

We expect sectors with strong relative earnings growth and low maintenance capex levels to be in a relatively strong position to maintain dividend payments over the intermediate term. We are most positive on prospects for dividend growth in the **apartments, industrials, single family rental, towers** and select names in **triple net** sectors. We broadly expect dividend growth for these subsectors to remain in the high single digit to low double digit range over the next two years given the subsectors have not fully capitalized on the cash revenue upside from historically high rent growth over the past 18 months. We see flat dividend growth for healthcare and office REITs given the company's under coverage require larger capex reserves and typically utilize excess cash to fund external growth.

### Key Risks to Dividends

We see office REITs (with average div yields of +7.5%) to have the largest relative challenges in maintaining dividends as we estimate recurring capex accounts for a ~20-25% of cash from operations on an annualized basis and we expect flat earnings growth over the next 18 months for the subsector. The largest risk to dividend growth for the subsector will come about if (1) internal growth does not pick up and (2) a slowdown in office transactions materialize given the sector's historic reliance on dispositions to fund operations.

### Top Picks

We view **O, ADC, SPG, GLPI, INVH** and **AVB**, as the companies with the best prospects of maintaining and growing dividends. We particularly highlight SPG (6.7% yield) as the company's new quarterly dividend run-rate of \$1.75 per share compares to 4Q19 dividend of \$2.10 and we continue to expect the company to emphasize raising the quarterly dividend given cash flow generation is now near '19 levels.

### At Risk Stocks

Office REITS (**VNO, OPI, SLG**) have the highest dividend risk in our view given elevated FCF payout ratios in the 90-105% range, deteriorating fundamentals, and elevated leverage (particularly for office REITs SLG and VNO with debt to EBITDA ratios above 10x).

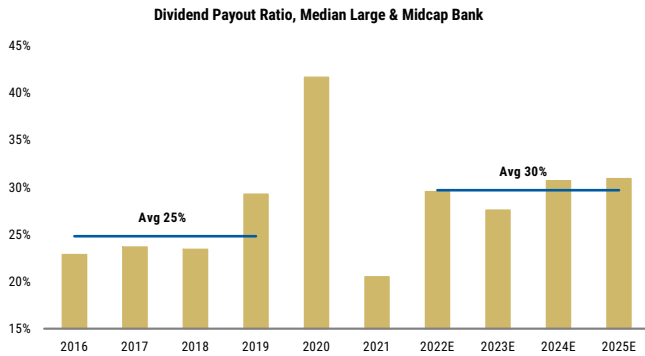
## Banks

### Betsy Graseck

**Tight regulation post GFC kept a lid on dividend payouts for a decade.** In 2021, the Fed enacted the new Stress Capital Buffer (SCB) approach to the annual Comprehensive Capital Analysis and Review (CCAR) process. This change gave banks more flexibility in determining their capital return. As a result, dividend payouts rose significantly, by a median ~500bps in 3Q21. We expect the next 3 years of dividend growth will be slower than the prior 3 given this dividend payout reset that occurred in 2021. Additionally, our expectation for a dividend payout of ~30% over the next 4 years reflects a prudent payout at a time when recession risk is rising. Once inflation declines back to more normalized levels, it's possible that bank payout ratios could rise back towards pre-GFC levels of the mid-30s% range.

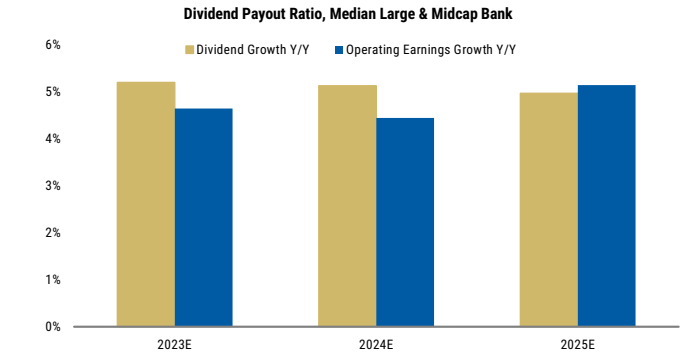
**Dividend stability is a function of earnings stability.** Banks are cyclically exposed to the credit cycle. In a recession, increasing level of loan losses pressures earnings. The question is whether it will pressure earnings enough where dividends have to be cut. Our expectation is that banks can increase their dividends 0-36% y/y in 2023 (median 8%), even as credit losses rise, given that dividend payout ratios are modest and our base case scenario assumes a 4% unemployment rate, only modestly higher than today's 3.7%. In a bear case recession outcome with unemployment at 6%, we anticipate the dividends could hold flat although the payout ratios could rise significantly for banks with a greater credit risk skew.

**Exhibit 54:** Tight regulation post GFC kept a lid on dividend payouts for a decade. In 2021, the Fed allowed the banks more flexibility in determining their capital return



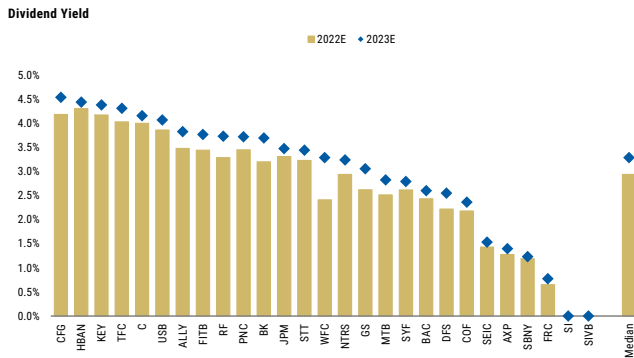
Source: Company data, Morgan Stanley Research estimates

**Exhibit 55:** We expect dividend growth will be a function of earnings growth



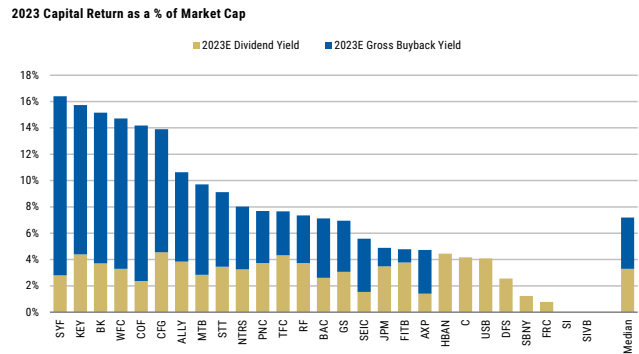
Source: Morgan Stanley Research estimates

**Exhibit 56:** Bank dividend yields are attractive relative to the market, at median 3.3%



Source: Refinitiv, Morgan Stanley Research estimates

**Exhibit 57:** In a riskier economic scenario, banks will look to cut buybacks first, which are a cushion against dividend risk

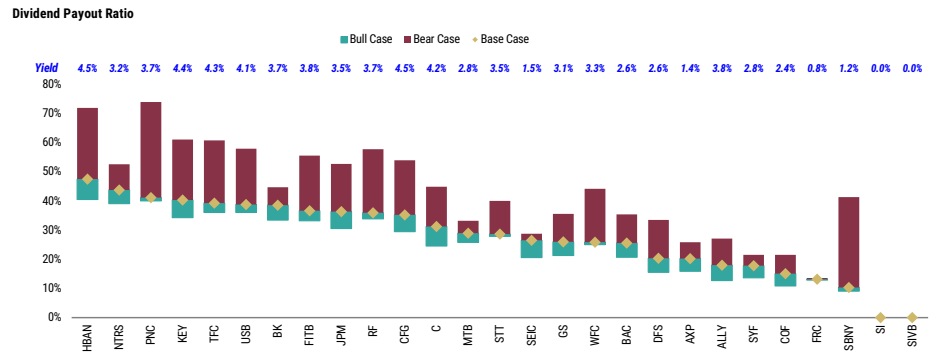


Source: Refinitiv, Morgan Stanley Research estimates

### Top Picks

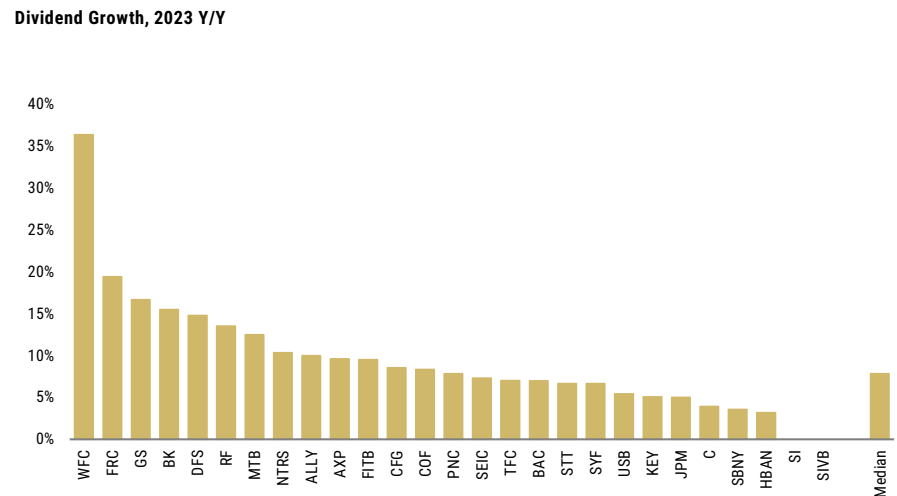
We view ALLY, BK, CFG, MTB, NTRS, RF, STT and WFC as the banks best positioned to deliver attractive returns to dividend investors. We are triangulating between dividend yield, dividend growth and risk. The banks on this list with lower yields have higher dividend growth, like ALLY and WFC. The banks on this list with higher dividend payout ratios have lower risk in a bear case scenario, like NTRS and BK. Also, these are the only two Equal-weight rated bank stocks on this list.

**Exhibit 58:** Stability of dividends is a function of stability of earnings, as banks are cyclically exposed to the credit cycle. We see relatively low credit and earnings risk at NTRS, BK and STT



Note: Assumes dividend per share in bull, base, and bear case are the same  
 Source: Company data, Morgan Stanley Research estimates

**Exhibit 59:** WFC has the highest dividend growth in our coverage



Source: Company data, Morgan Stanley Research estimates

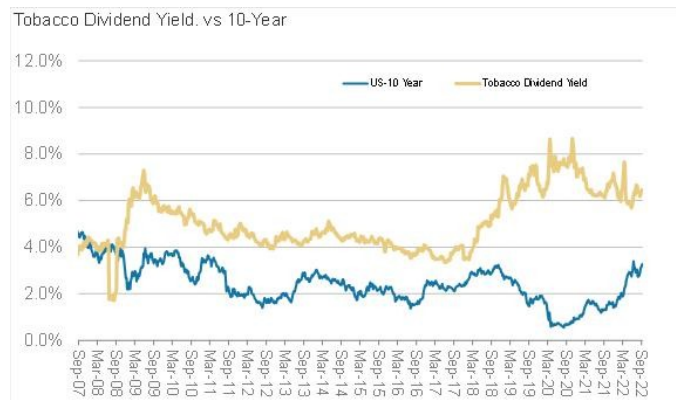
## Tobacco and Packaged Food

**Pamela Kaufman**

### Tobacco: Attractive Cash Flow Generation Supports Dividend Growth

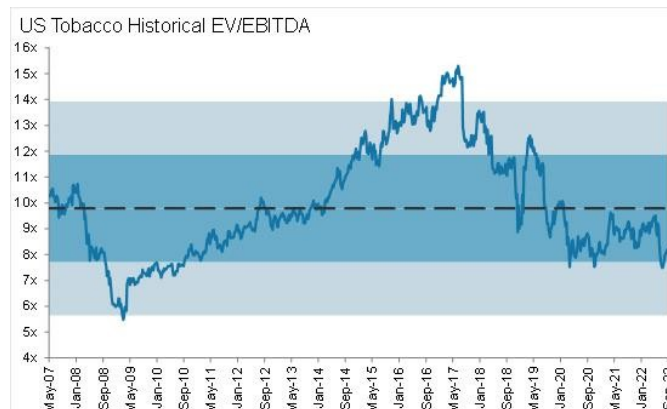
Within Tobacco, we view dividends as secure as the industry is highly cash generative, has limited capex needs, has relatively low leverage, and prioritizes dividends as a use of capital. Tobacco dividend yields are above historical averages as the current dividend yield for US and Global Tobacco stocks within our coverage is 6.5%, above the 5% average between 2007 and 2022 and also above the 10-year average of 5.2%. Since 2007, the dividend yield ranged from 1.7% to 8.7%. Tobacco dividend yields reflecting increasing investor concerns around the long-term growth outlook for the industry and have been impacted by an increasing focus on ESG, which has weighed on sector valuations. Notably, Tobacco yields are ~120 bps higher than the broader Staples group's 5.3% (including tobacco), slightly narrower than their historical premium of ~200 bps. Tobacco dividend yields are ~320 bps above Treasuries, close to one standard deviation above the average 250 bps spread between 2007 and 2022.

**Exhibit 60:** Tobacco Dividend Yields Roughly 320bps Above Treasuries



Source: Company data, Morgan Stanley Research

**Exhibit 61:** US Tobacco EV/EBITDA Below Historical Average



Source: Company data, Morgan Stanley Research

In US tobacco, MO targets an 80% dividend payout ratio and has historically grown its dividend by 8.5% over the last ten years, in-line with its average annual EPS growth. However, we expect slower EPS growth of 5% annually through 2025 reflecting accelerating cigarette volume declines (MSe -8.0% from 2022-2025E) and increasing investment needs behind reduced risk products. As a result, we expect softer dividend growth of 5% annually as the company maintains its dividend payout ratio. We do not see risk to MO's ability to pay dividends as the company has a 10% levered FCF yield. MO generates ~\$1.5 bn in excess cash, post dividends.

PM offers an attractive high single digit earnings growth outlook, which supports its ability to sustain a steady dividend growth rate. The company offers a 5.4% dividend yield and has grown dividends at 3.5% annually. The primary risk to PM's dividend is FX due to the strengthening USD as the entirety of its business is outside of the US, but the company pays dividends in USD. We expect the company to continue to support its dividend, despite FX headwinds and views its 83% payout ratio as manageable, particularly given it has averaged at 88% over the last five years. The impending Swedish Match acquisition will provide a USD cash flow stream, mitigating PM's sensitivity to the USD, as SWMA derives about two-thirds of its revenue from the US.

**Packaged Food: Stable Dividend Growth Outlook**

The packaged food industry offers a stable dividend growth outlook given steady demand, high margins, strong FCF generation, and modest leverage. Packaged Food companies offer a 2.8% dividend yield on average and we forecast mid to high single digit EPS growth that supports the outlook for dividend growth. Within our coverage we recommend companies with higher long-term topline growth trajectories supported by attractive category exposure and strong execution. We believe companies with exposure to snacking, better-for-you categories, and emerging market are likely to see sustained strong topline growth. Within the large cap group, MDLZ is our key OW recommendation as it offers an attractive topline and EPS growth outlook, supporting its dividend growth. MDLZ has consistently raised its dividend annually over the last 5 years by 13% on average. With an expected ~6.2% EPS growth through 2025, predictable capital expenditure forecast, and a FCF yield of 5.2%, we see the payout ratio of nearly 50% as stable and predictable.

### Top Pick(s)

**PM:** PM (OW) offers an attractive long-term growth prospects supported by its peer-leading MSD topline and double-digit EPS growth (11.9% through 2024) through its shift to IQOS, expansion into new reduced risk product categories and price points, and cost savings. We see compelling strategic and financial benefits from PM's impending SWMA acquisition.

**MDLZ:** We are OW MDLZ given our outlook for accelerating topline growth driven by positive strategic changes, improved market share performance, a balance between volume vs. pricing growth, and a recovery in gum/candy/travel retail post-COVID. MDLZ's topline/EPS growth profile is similar to higher growth mega-cap CPG peers (KO/PEP/PG/CL), and valuation looks compelling at an ~18% CY23 EV/EBITDA discount.

## Beverages and Household Products

### Dara Mohsenian

#### Dividend Stability within Industry

**High Dividend Stability:** We view dividends for large cap beverages and HPC companies as highly secure given generally predictable demand for everyday use products and cash generative business models. While commodities and FX have been headwinds to EPS growth, most our coverage has relatively low leverage and ample dividend coverage. KO/PEP/PG, for example, have raised their dividends for 60/50/66 consecutive years, through economic and commodity cycles, M&A, internal restructuring programs, wars, and other exogenous events. Management and the Board of Directors of these companies understand the importance of the dividend to a large portion of their investor bases. KO and PEP both call out paying and growing the dividend as their second priority for free cash flow, after investing in the business. Cap-ex is generally low and predictable, at only ~3.5% of sales for KO due to its franchise bottling system, and 5.5-6.0% of sales for PEP, up from ~4% several years ago, due to capacity increases particularly on the snacks side.

#### Prospects for Dividend Growth within Industry (next 3-5 years)

**Dividend Growth to Track Earnings and Cash Flow Over Time:** We generally expect dividend growth to track earnings and free cash flow growth over the next 3-5 years, which we estimate is in the HSD% annual range over the medium term for KO/PEP/PG. We don't expect any step-changes in payout ratios for the mega cap companies over the next several years. KO was able to acquire BODYARMOR for \$5.6 billion and PEP was able to increase capex and make several bolt-on acquisitions, both while continuing their streaks of 50-60 years of consecutive dividend increases. KO also targets continuing to grow its dividend while still prudently maintaining balance sheet flexibility to absorb any cash potential outflows related to its tax dispute with the IRS, the bulk of which could take years to play out. Commodity pressure, FX and macro uncertainty could keep dividend growth relatively muted in the short-term, however.

#### Continue to Prefer Beverages Over HPC, Supported by Stronger Pricing Power, More

**Limited Demand Elasticity, and a Post COVID Away From Home Volume Recovery****Top Pick(s) With Strong Dividend Support:**

**PEP: Top Line Momentum Building With Market Share Inflection on the Horizon; Sustainably Higher LT Growth.** Accelerating near-term US scanner data provides even greater visibility of our call for forward topline upside vs an assumed decelerating forward consensus topline forecast that looks clearly too low. Topline upside should extend to EPS upside even with assumed reinvestment, which should also set PEP up for above consensus EPS in FY23. In addition, weak corporate market share results have been a fair sentiment drag for PEP in recent quarters, but share is poised to inflect going forward as comparisons ease, which should drive more favorable sentiment. Beyond strong corporate scanner data, the even more pronounced acceleration at FLNA (Frito-Lay North America) should also drive greater LT appreciation for robust snacks business prospects, and the greater corporate impact as mix continues to shift to snacks, with snacks/food now at an estimated more than two-thirds of corporate profit. **We also see longer-term topline growth upside** beyond short-term upside, as we believe PEP has sustainably accelerated organic sales growth with favorable execution changes, greater capacity additions in the last few years, reinvestment in marketing, a mix shift to the higher growth snacks/international business, and higher growth M&A contribution. PEP's 2-Yr average organic sales growth has now been consistently above 4% in each of the last 11 quarters (excluding the COVID impacted Q2 of 2020) for a 6.0% average (again ex Q2 of 2020) as relatively new CEO Laguarda's strategy changes took hold, vs seven straight quarters of below 3.5% growth before his arrival for a 2.9% average. These results clearly show PEP is now at a higher and sustained organic sales growth level, which we still don't believe is priced into valuation, with PEP at a HSD CY23 EV/EBITDA discount vs KO/PG/CL.

**KO: Strong Pricing Power, Limited Demand Elasticity, Improved Execution, and Continued Away-From-Home Recovery.** We remain OW KO, with continued expected topline (and EPS) upside vs. consensus on a greater than expected post-COVID away from home topline recovery, higher pricing than peers, limited volume demand elasticity to higher pricing, and strong underlying growth with execution changes under a relatively new management team. We also see Coke as very well positioned margin wise vs. CPG peers with strong pricing power and limited commodity exposure given costs accrue more to its bottlers, as well potential execution benefits and cost savings from its recent restructuring. We see room for multiple expansion as upside plays out and strong underlying LT growth is more factored into valuation.

**PG: We are OW PG longer-term, as we believe favorable execution and strategy changes the last few years will continue to bear fruit and drive MSD LT topline growth above HPC peers,** with PG gaining share within the HPC industry. We view valuation as compelling with PG trading at a discount to US-centric HPC peers despite greater growth potential, as well as higher visibility, and we see recent concern over PG US scanner data market share weakness as overdone given PG is cycling very difficult comparisons near-term, and should still be able to drive corporate share gains with solid pricing, better performance in US untracked channels, and international share gains.

**Utilities**



**David Arcaro**

**Utility dividends are highly stable and predictable.** We consider regulated electric and gas utilities to have stable businesses with limited major downside risks that would put ongoing pressure on the ability to pay a consistent and growing dividend. Pricing levels are regulated, there are generally moderate year-to-year fluctuations in revenue from changes in sales volume (for weather, customer growth, increased usage), cost escalation gets recovered through higher customer rates, and payout ratios are in the 60-70% range. Utilities invest significant capex into growing the asset base such that we expect free cash flow to be consistently negative, but balance sheets are broadly healthy (almost all investment grade) and capital markets are accessible through low cost debt and moderate equity issuances needed across the group.

**We expect 6% dividend growth annually, in-line with EPS growth over time.** The average EPS growth rate is ~6% through 2024, with many utilities generally expecting a 5-7% annual growth rate range for earnings. Rate base growth is ~100-200bps faster than this rate to support the growth in earnings when considering a modest financing drag. Such growth is driven by asset maintenance and replacement, energy transition initiatives to shut coal and build renewables, transmission grid expansion and storm hardening investments. This asset growth is generally low risk in nature, with much of the capital plan necessary to maintain the existing system, most projects moderately sized and repeated often with low operational risk, and cleared in advance with the regulator. Utility dividend payout ratios are generally in the same 60-70% range as the historical norm, and we don't foresee any major changes in utility dividend strategy. As a result, we would expect dividends to grow around 6% annually. We see a long runway for the renewables buildout, gas pipe replacement, and transmission grid expansion so this growth rate appears sustainable over the long-term.

**Key risks.** Downside risks to the current dividend would stem from individual company-specific risks: major wildfires for CA utilities, divestitures (though the dividend is often prioritized), or significantly unfavorable regulatory treatment (generally a rare occurrence). A key risk to the growth outlook is the affordability of utility bills which typically grow at a 2-4% annual rate but with the higher commodity price backdrop and inflation in labor and equipment many utilities are experiencing 20%+ rate increases. This could result in regulators slowing the growth in utility investment to make bills more affordable for customers.

**Top Pick(s)**

**NEE:** The passage of the Inflation Reduction Act (IRA) brings faster solar, wind, and storage growth over the next decade and NEE, as the renewables development leader in the US, is poised to be one of the biggest beneficiaries. We factor in ~20% greater volumes of wind/solar/storage in aggregate through 2035 as a result of the legislation, and the long-term visibility into policy support and favorable renewables economics merits a 100bp lower discount rate on future growth in our view. A further underappreciated opportunity is the green hydrogen market, which in the 2030s could add an incremental 20% higher renewables demand along with higher returns for NEE. The company also has limited regulatory activity ahead, which lowers risk in the current inflationary backdrop. The stock prices in 9 years of renewables growth, while we see substantial further value, especially with hydrogen ramping up next decade. NEE is also

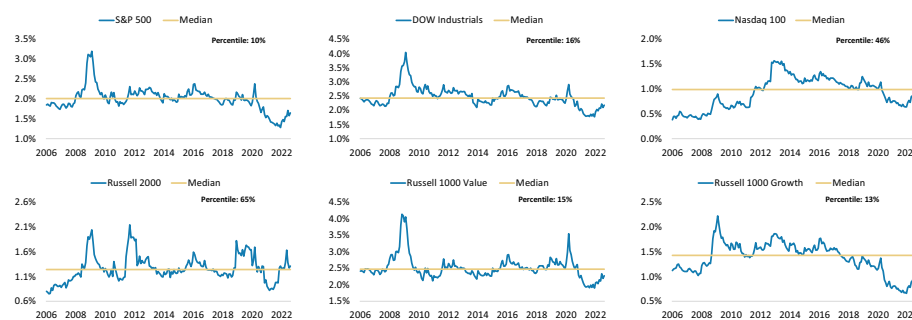
trading well below its prior P/E peaks, and we think the unprecedented strong renewable backdrop merits an expanding premium.

**DTE:** Constructive regulatory backdrop, top notch operational execution, and upside to 2023 EPS. We expect the company to file a plan for significantly increased renewables deployment over the next 10 years and accelerate coal plant closures. This offers upside to the capex plan driving faster rate base growth and we think the company is likely to raise its EPS growth range from 5-7% to 6-8% in the coming months.

# Dividend Yield

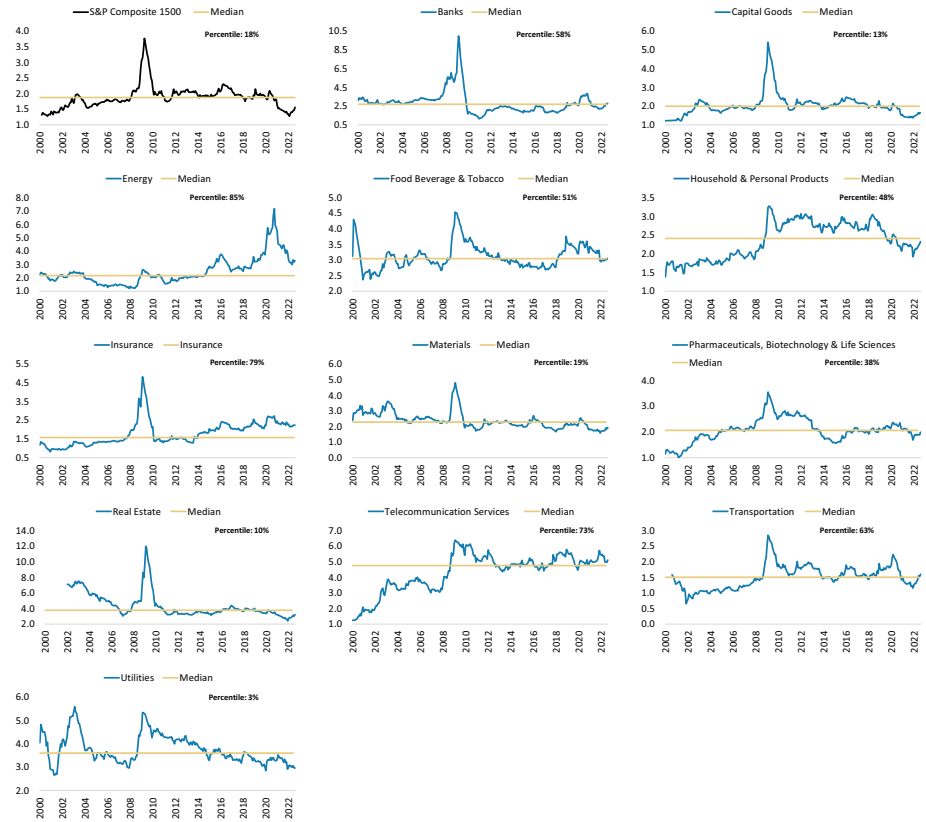
**Dividend yields are historically low across major indexes.** The majority of trailing dividend yields are below median levels with the S&P 500 currently yielding a 1.7% dividend yield, marking the 10th percentile since 2006. The Russell 2000 is the exception with an above median dividend yield as post-Covid performance and valuations are not as high as large cap peers. Large cap value historically has the highest dividend yield at 2.5% on median and is closely followed by Dow Industrials at 2.4%. The Nasdaq 100 and Russell 1000 growth historically have the lowest dividend yields at 1.0% and 1.4%, respectively. We further expand our scope from headline indexes in [Exhibit 62](#) to the S&P 1500 industry groups that pay above index level dividend yields in [Exhibit 63](#). MLPs, Telecom, Real Estate, and Utilities historically have paid the highest dividend yields.

**Exhibit 62: Dividend Yield by Index**



Source: Bloomberg, Factset, Morgan Stanley Research

**Exhibit 63: S&P 1500 Dividend Yield - Groups with Greater than Average Dividend Yields**

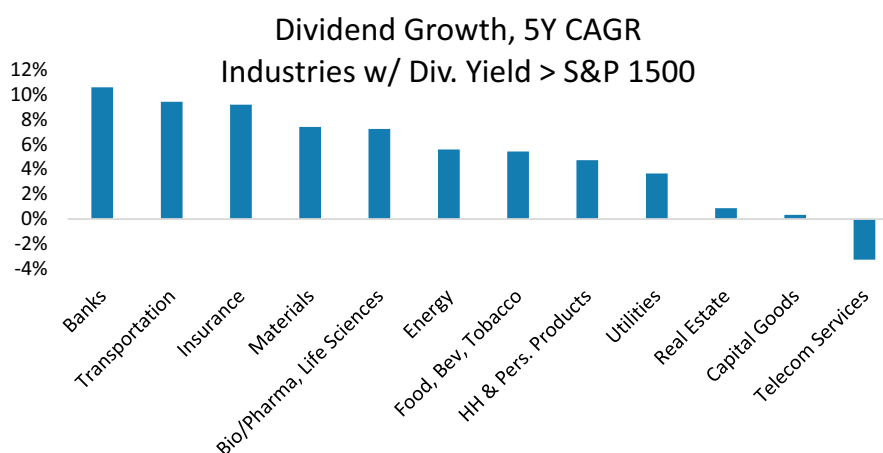


Source: Bloomberg, Morgan Stanley Research

## Dividend Growth & Volatility

**Consistent dividend growth is the sign of a quality dividend stock.** Below we rank the S&P 1500 industry groups in focus by their 5-year dividend growth. We see that Banks, Transportation, and Insurance have provided high dividend growth since 2017 while Real Estate, Capital Goods, and Telecom Services have had near flat or negative growth. As a caveat, we use the S&P 1500 to get a broader sample size than the S&P 500 but some sectors (i.e. Telecom Services) are still highly concentrated among a few members.

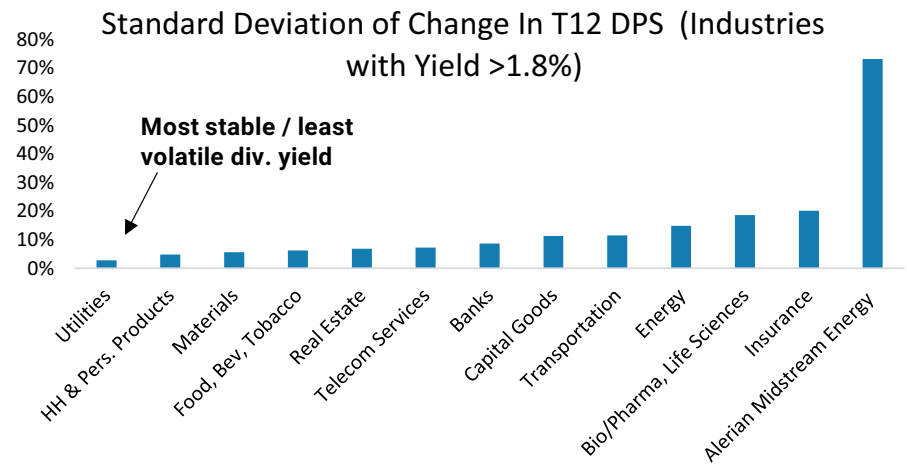
**Exhibit 64:** 5Y Dividend Growth



Source: Factset, Bloomberg, Morgan Stanley Research

**The most stable industry groups in terms of actual dividend per share paid are Utilities, Household & Personal Products, and Materials.** Dividend growth is important but is point-in-time. We looked at the volatility of trailing dividends paid since 2000 and found that the highest dividend growers on a 5-year growth are not necessarily the most stable historically. Combining both high dividend growth and lower DPS volatility, Materials and Food, Beverage & Tobacco stand out.

**Exhibit 65:** Volatility of Dividend Yield

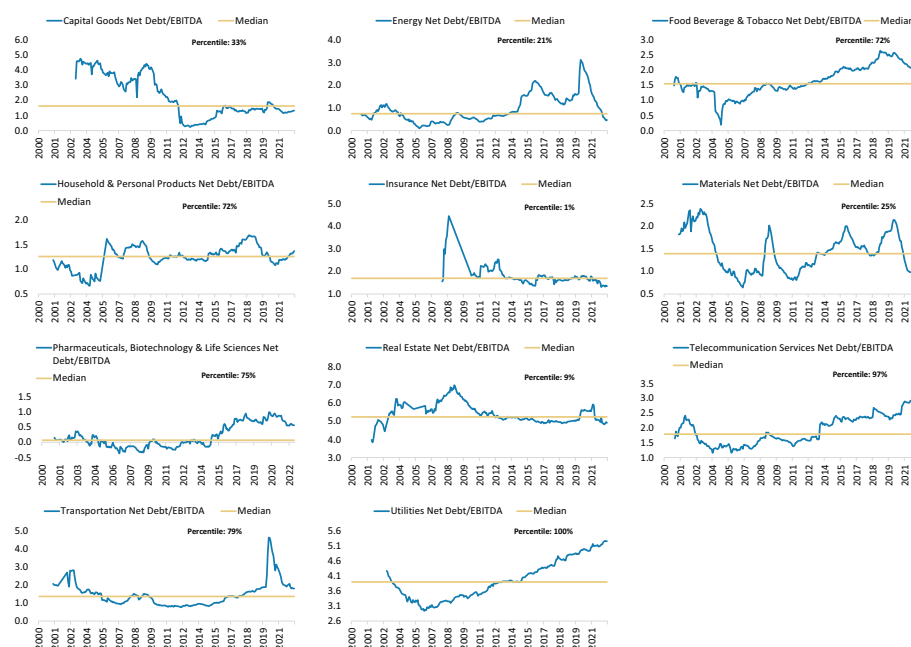


Source: Factset, Bloomberg, Morgan Stanley Research

# Leverage & Valuation

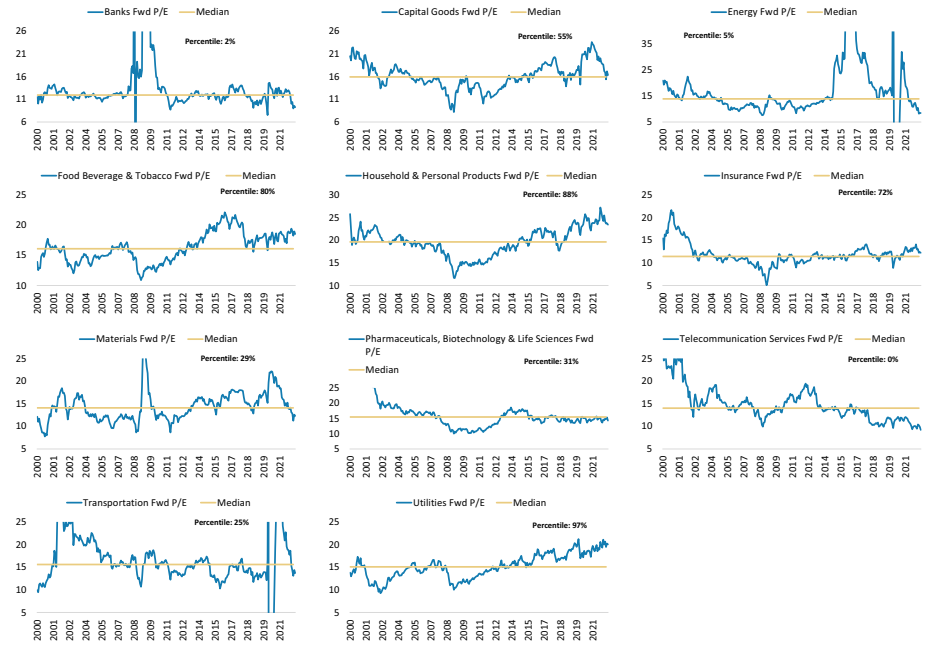
Below we place a repository of leverage and valuation stats across the industry groups covered in this note. Many of the industry groups covered have a preferred leverage or valuation statistic and some industry groups cannot use certain metrics given their business structure and have been removed. The goal is to provide a same-store view across leverage and valuation on the industry groups covered in this note but we encourage you to reach out to the coverage team for specifics on their industry group.

**Exhibit 66: Leverage - Net Debt/EBITDA**



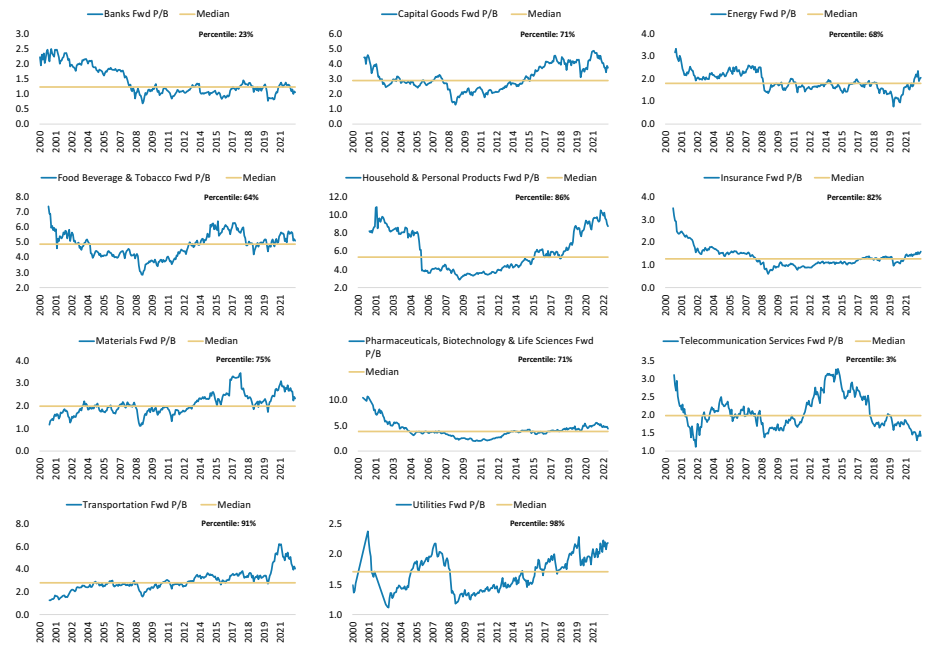
Source: Factset, Bloomberg, Morgan Stanley Research

**Exhibit 67: Valuation - Price/Earnings**



Source: Factset, Bloomberg, Morgan Stanley Research

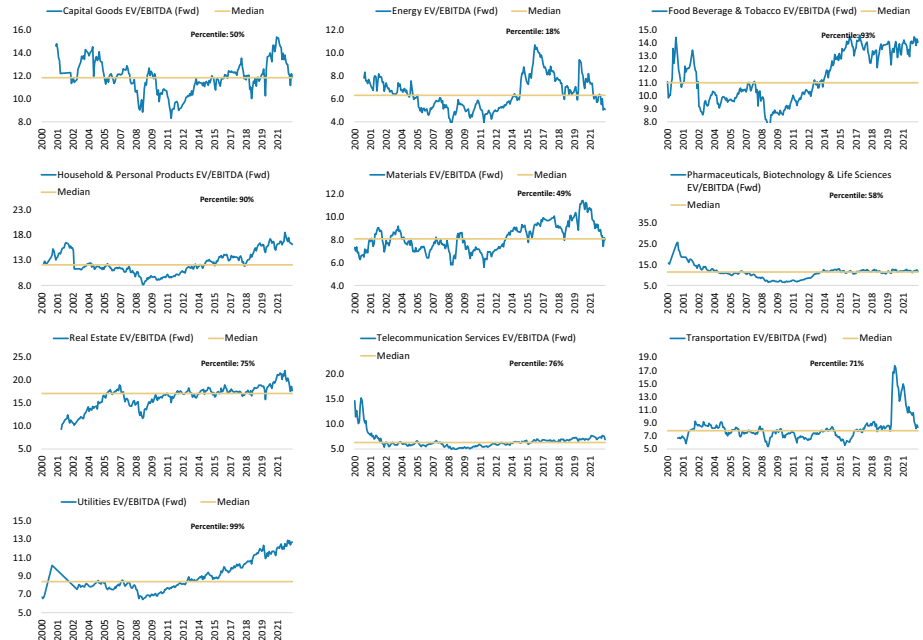
**Exhibit 68: Valuation - Price/Book**



Source: Factset, Bloomberg, Morgan Stanley Research

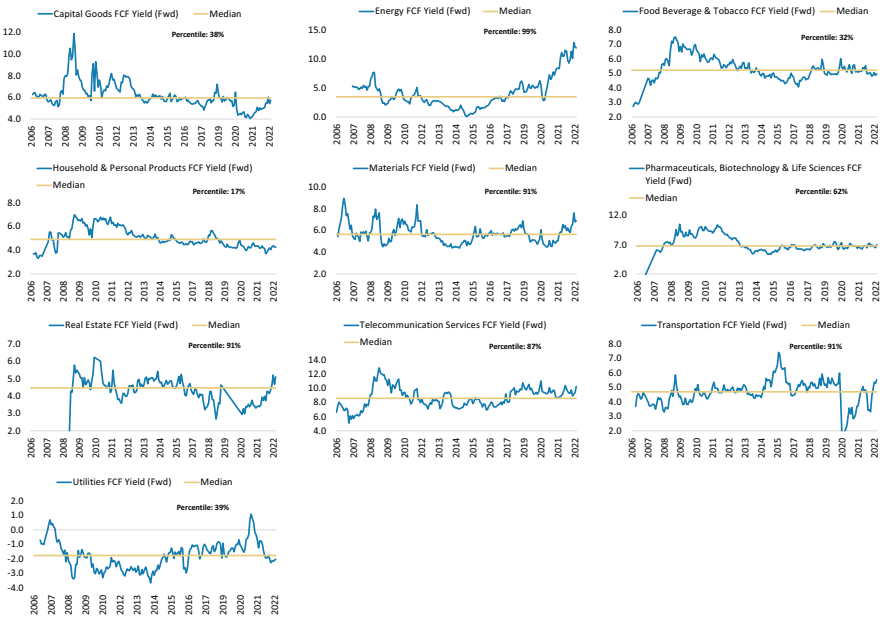


**Exhibit 69: Valuation - EV/EBITDA**



Source: Factset, Bloomberg, Morgan Stanley Research

**Exhibit 70: Valuation - FCF Yield**



Source: Factset, Bloomberg, Morgan Stanley Research

## Recent Dividend Raises

**Exhibit 71: Recent S&P 500 Dividend Raises**

Week Ending:	Stock	New Dividend (\$ per share)	Previous Dividend (\$ per share)	Dividend Raise (%)	Ex-Date
9-Sep	Verizon	0.6525	0.64	2	6-Oct
9-Sep	VICI Properties	0.39	0.36	8	21-Sep
26-Aug	Altria	0.94	0.9	4	14-Sep
26-Aug	Lam Research	1.725	1.5	15	13-Sep
19-Aug	CBOE	0.5	0.48	4	30-Aug
19-Aug	Tapestry	0.3	0.25	20	8-Sep
12-Aug	ResMed	0.44	0.42	5	17-Aug
12-Aug	International Flavors	0.81	0.79	3	22-Sep
12-Aug	Martin Marietta	0.66	0.61	8	31-Aug
12-Aug	Broadridge	0.725	0.64	13	14-Sep
12-Aug	Fox Corp Class B & A	0.25	0.24	4	30-Aug
12-Aug	Nordson	0.65	0.51	27	22-Aug
5-Aug	KLA Corp.	1.3	1.05	24	12-Aug
5-Aug	Pioneer Natural	8.57	7.38	16	2-Sep
5-Aug	Microchip	0.301	0.276	9	16-Aug
5-Aug	Devon	1.55	1.27	22	9-Sep
5-Aug	Simon Property	1.75	1.7	3	8-Sep
5-Aug	Coterra Energy Inc.	0.65	0.15	333	12-Aug
5-Aug	Dover	0.505	0.5	1	30-Aug
5-Aug	Skyworks	0.62	0.56	11	24-Aug
5-Aug	Host Hotels	0.12	0.06	100	29-Sep
5-Aug	Federal Realty Op LP	1.08	1.07	1	21-Sep

Source: Bloomberg, Morgan Stanley Research

## Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., and/or Morgan Stanley Canada Limited. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., Morgan Stanley Canada Limited and their affiliates as necessary.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures), or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

### Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: David Arcaro, CFA; Diane Ding, Ph.D.; Simon Flannery; Betsy L. Graseck, CFA; Robert S Kad; Ronald Kamdem, CFA; Pamela Kaufman, CFA; Adam Kramer; Nicholas Lentini, CFA; Devin McDermott; Sneha Mogre; Dara Mohsenian, CFA; Andrew B Pauker; Li Tao, CFA, CPA; Michelle M. Weaver, CFA; Michael J Wilson.

### Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at [www.morganstanley.com/institutional/research/conflictolicies](http://www.morganstanley.com/institutional/research/conflictolicies). A Portuguese version of the policy can be found at [www.morganstanley.com.br](http://www.morganstanley.com.br)

### Important Regulatory Disclosures on Subject Companies

The analyst or strategist (or a household member) identified below owns the following securities (or related derivatives): David Arcaro, CFA - Altria Group, Inc. (common or preferred stock), AT&T, Inc. (common or preferred stock), Bank of America (common or preferred stock), VMware Inc (common or preferred stock), Walgreens Boots Alliance Inc (common or preferred stock), Wells Fargo & Co. (common or preferred stock); Diane Ding, Ph.D. - Citigroup Inc. (common or preferred stock), Simon Property Group Inc (common or preferred stock), Visa Inc. (common or preferred stock), Vornado Realty Trust (common or preferred stock); Betsy L. Graseck, CFA - Abbvie Inc. (common or preferred stock), Air Products and Chemicals Inc. (common or preferred stock), Bristol Myers Squibb Co (common or preferred stock), Chevron Corporation (common or preferred stock), Cisco Systems Inc (common or preferred stock), Exxon Mobil Corporation (common or preferred stock), FirstEnergy Corp (common or preferred stock), Gilead Sciences Inc. (common or preferred stock), Kellogg Co. (common or preferred stock), MasterCard Inc (common or preferred stock), Medtronic PLC (common or preferred stock), NextEra Energy Inc (common or preferred stock), NRG Energy Inc (common or preferred stock), Sempra Energy (common or preferred stock), Verizon Communications (common or preferred stock), Visa Inc. (common or preferred stock), Vistra Corp (common or preferred stock); Pamela Kaufman, CFA - JPMorgan Chase & Co (common or preferred stock), Microsoft (common or preferred stock); Nicholas Lentini, CFA - Nike Inc. (common or preferred stock), Regions Financial Corp (common or preferred stock), Signature Bank (common or preferred stock); Devin McDermott - AGCO Corp (common or preferred stock), American Int'l Grp (common or preferred stock), PG&E Corp (common or preferred stock); Sneha Mogre - Visa Inc. (common or preferred stock); Dara Mohsenian, CFA - Philip Morris International Inc (common or preferred stock); Andrew B Pauker - Bank of America (common or preferred stock), Continental Resources Inc. (common or preferred stock), Raytheon Technologies Corp (common or preferred stock); Li Tao, CFA, CPA - Coca-Cola Co. (common or preferred stock), Goldman Sachs Group Inc (common or preferred stock), Mondelez International Inc (common or preferred stock), Simon Property Group Inc (common or preferred stock), Synchrony Financial (common or preferred stock).

As of August 31, 2022, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: Abbvie Inc., AES Corp., AGCO Corp, Agree Realty Corp., Air Products and Chemicals Inc., Algonquin Power & Utilities Corp, Ally Financial Inc, Ameren Corp, American Eagle Outfitters, Inc., American Electric Power Co, American Express Company, American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Anterix Inc, Antero Resources Corp, APA Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., Bank of America, Best Buy Co Inc, BNY Mellon, BorgWarner Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Campbell Soup Co, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, CenterPoint Energy Inc, Chemours Co, Cheniere Energy Inc, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Constellation Energy Corporation, Coterra Energy Inc., Crown Castle Corp., Cummins Inc., CVS Health Corp, Devon Energy Corp, Diamondback Energy Inc, Dick's Sporting Goods, Digital Realty Trust Inc., Discover Financial Services, DraftKings Inc, DT Midstream, Inc., Duke Energy Corp, Duke Realty Corp., EastGroup Properties Inc., Eastman Chemical Co, eBay Inc, Edison International, elf Beauty, Emerson Electric Co, Energizer Holdings Inc., Energy Transfer LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equity Residential, Estee Lauder Companies Inc, Eversource Energy, Exelon Corp, Exxon Mobil Corporation, FactSet Research Systems Inc., Fastenal Co., Ferrari NV, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Gaming and Leisure Properties Inc, General Mills Inc, Gilead Sciences Inc., Goldman Sachs Group Inc, Group 1 Automotive, Inc, Healthpeak Properties Inc, Hershey Co, Hess Midstream LP, Hostess Brands Inc, Hudson Pacific Properties, Huntington Bancshares, IBM, Intel Corporation, Invitation Homes Inc, Iridium Communications Inc, J. M. Smucker Co, Johnson Controls International Plc, JPMorgan Chase & Co, Juniper Networks Inc, KeyCorp, Kimberly-Clark Corp, Lamar Advertising Co., Lazard Ltd, Linde PLC, Lithia Motors Inc., Lockheed Martin Corp, LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., Microchip Technology Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, Monster Beverage Corp, National Retail Properties Inc, NetApp Inc, NextDecade Corporation, NextEra Energy Inc, Nike Inc., NRG Energy Inc, Occidental Petroleum Corp, Office Properties Income Trust, Olin Corp., ONE Gas Inc, Oneok Inc., Orintiv Inc, PepsiCo Inc., Philip Morris International Inc, Phillips Edison & Company, Inc, Physicians Realty Trust, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, Plains GP Holdings, L.P., PNC Financial Services, PPL Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Regions Financial Corp, Ross Stores Inc., Royalty Pharma Plc, SBA Communications, SEI Investments Company, Sempra Energy, Shaw Communications Inc, Signature Bank, Silvergate Capital Corp, Simon Property Group Inc, Site Centers Corp, SL Green Realty Corporation, Sonic Automotive Inc, South Jersey Industries Inc, Spire Inc, State Street Corporation, STORE Capital Corp, SVB Financial Group, Synchrony Financial, Targa Resources Corp., Teleflex Inc., Telephone & Data Systems, Tecton Inc., TJX Companies Inc., Truist Financial Corp, UDR, Inc., United Parcel Service, Urban Edge Properties, Verizon Communications, Visa Inc., Vistra Corp, Vornado Realty Trust, Walgreens Boots Alliance Inc, Watsco Inc., Wells Fargo & Co., Welltower Inc., Western Union Co, Williams Companies Inc, World Wrestling Entertainment Inc, Yum! Brands, Inc., Zimmer Biomet Holdings Inc, Zoetis Inc..

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of AES Corp., Agree Realty Corp., Algonquin Power & Utilities Corp, Ally Financial Inc, Ameren Corp, American Electric Power Co, American Express Company, American Homes 4 Rent,

American Tower Corp., Amgen Inc., AvalonBay Communities Inc., Baker Hughes Co, Bank of America, BellRing Brands Inc., BNY Mellon, Boston Properties, Inc., Bristol Myers Squibb Co, Capital One Financial Corporation, CDW Corporation, CenterPoint Energy Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, Colgate-Palmolive Co, ConocoPhillips, Consolidated Edison Inc, Continental Resources Inc., Coty Inc, Crown Castle Corp., Diamondback Energy Inc, Digital Realty Trust Inc., Dominion Energy Inc, DTE Energy Co., Duke Energy Corp, Edison International, Energy Transfer LP, Entergy Corp, Equinix Inc., Eversource Energy, Excelerate Energy Inc, Exelon Corp, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Frontier Communications Parent, Inc., General Mills Inc, Hess Midstream LP, Hudson Pacific Properties, Huntington Bancshares, Intel Corporation, Invitation Homes Inc, Johnson Controls International Plc, JPMorgan Chase & Co, KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kinetik Holdings Inc, Lockheed Martin Corp, M&T Bank Corp., MasterCard Inc, Merck & Co., Inc., Mondelez International Inc, MPLX LP, National Retail Properties Inc, NextEra Energy Inc, Office Properties Income Trust, Olaplex Holdings, Inc., PepsiCo Inc., PG&E Corp, Phillips Edison & Company, Inc, Physicians Realty Trust, PNC Financial Services, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Raytheon Technologies Corp, Realty Income Corp, Safehold Inc, Sempra Energy, Signature Bank, SoFi Technologies, Inc., Southern Company, Southwestern Energy Co, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, SVB Financial Group, T-Mobile US, Inc., Targa Resources Corp., Tricon Residential Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., Uniti Group Inc, Verizon Communications, Vistra Corp, Walgreens Boots Alliance Inc, Wells Fargo & Co., Welltower Inc., Williams Companies Inc, Xcel Energy Inc, Zimmer Biomet Holdings Inc.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from AES Corp., Agree Realty Corp., Algonquin Power & Utilities Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Assets Trust Inc., American Electric Power Co, American Express Company, American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Antero Resources Corp, APA Corp, Aramark Holdings Corporation, AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BellRing Brands Inc., BNY Mellon, Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadstone Net Lease, Inc., Capital One Financial Corporation, CDW Corporation, CenterPoint Energy Inc, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, Coca-Cola Co., Colgate-Palmolive Co, ConocoPhillips, Consolidated Edison Inc, Constellation Energy Corporation, Continental Resources Inc., Coty Inc, Crown Castle Corp., Cummins Inc., CVS Health Corp, Diamondback Energy Inc, Digital Realty Trust Inc., Dominion Energy Inc, DTE Energy Co., Duke Energy Corp, Duke Realty Corp., Eastman Chemical Co, eBay Inc, Edison International, elf Beauty, Enbridge, Energy Transfer LP, Entergy Corp, Equinix Inc., Eversource Energy, Excelerate Energy Inc, Exelon Corp, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Frontier Communications Parent, Inc., General Mills Inc, Goldman Sachs Group Inc, Healthpeak Properties Inc, Hess Corp., Hess Midstream LP, Hostess Brands Inc, Hudson Pacific Properties, Huntington Bancshares, IBM, Intel Corporation, Invitation Homes Inc, Johnson Controls International Plc, JPMorgan Chase & Co, Kellogg Co., KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kinetik Holdings Inc, Kohl's, Kraft Heinz Co, Local Bounti Corp, Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., Marathon Oil Corporation, MasterCard Inc, Merck & Co., Inc., Mondelez International Inc, MPLX LP, National Retail Properties Inc, National Storage Affiliates Trust, NextEra Energy Inc, Nike Inc., Oatly Group AB, Office Properties Income Trust, Olaplex Holdings, Inc., Oneok Inc., Paramount Group Inc., PepsiCo Inc., Phillips Edison & Company, Inc, Physicians Realty Trust, Plains All American Pipeline LP, PNC Financial Services, PPL Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Raytheon Technologies Corp, Realty Income Corp, Royalty Pharma Plc, Safehold Inc, Sempra Energy, Signature Bank, Simon Property Group Inc, Site Centers Corp, SoFi Technologies, Inc., Southern Company, Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, Targa Resources Corp., Tricon Residential Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Uniti Group Inc, Urban Edge Properties, Ventas Inc, Verizon Communications, Viasat Inc, VICI Properties Inc, Vistra Corp, Vornado Realty Trust, Walgreens Boots Alliance Inc, Wells Fargo & Co., Welltower Inc., Williams Companies Inc, Xcel Energy Inc, Zimmer Biomet Holdings Inc.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Abbvie Inc., AES Corp., AGCO Corp, Agree Realty Corp., Algonquin Power & Utilities Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Assets Trust Inc., American Eagle Outfitters, Inc., American Electric Power Co, American Express Company, American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Anterix Inc, Antero Midstream Corp, Antero Resources Corp, APA Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BCE Inc., BellRing Brands Inc., BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Broadstone Net Lease, Inc., Brown-Forman Corporation, Callon Petroleum Company, Campbell Soup Co, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, CenterPoint Energy Inc, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Constellation Energy Corporation, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Crown Holdings, Inc., Cummins Inc., CVS Health Corp, Devon Energy Corp, Diamondback Energy Inc, Dick's Sporting Goods, Digital Realty Trust Inc., Discover Financial Services, Dominion Energy Inc, DraftKings Inc, DT Midstream, Inc., DTE Energy Co., Duke Energy Corp, Duke Realty Corp., EastGroup Properties Inc., Eastman Chemical Co, eBay Inc, Edgewell Personal Care, Edison International, elf Beauty, Emerson Electric Co, Enbridge, Energizer Holdings Inc., Energy Transfer LP, EnLink Midstream LLC, Entergy Corp, Enterprise Products LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equinix Inc., Equitrans Midstream Corp, Equity Residential, Estee Lauder Companies Inc, Eversource Energy, Excelerate Energy Inc, Exelon Corp, Extra Space Storage Inc., Exxon Mobil Corporation, FactSet Research Systems Inc., Ferrari NV, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Fortive Corp, Frontier Communications Parent, Inc., Gaming and Leisure Properties Inc, General Dynamics Corp., General Mills Inc, Gilead Sciences Inc., Globalstar Inc, Gogo Inc, Goldman Sachs Group Inc, Healthpeak Properties Inc, Hershey Co, Hess Corp., Hess Midstream LP, Highwoods Properties, Honest Co Inc, Hostess Brands Inc, Hudson Pacific Properties, Huntington Bancshares, IBM, Imperial Oil Ltd, Intel Corporation, Invitation Homes Inc, Iridium Communications Inc, J. M. Smucker Co, Johnson Controls International Plc, JPMorgan Chase & Co, Juniper Networks Inc, Kellogg Co., Keurig Dr Pepper Inc, KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kinetik Holdings Inc, Kohl's, Kraft Heinz Co, Lamar Advertising Co., Lazard Ltd, Linde PLC, Lithia Motors Inc., Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, Marvell Technology Group Ltd, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., MGE Energy, Inc., Microchip Technology Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, Monster Beverage Corp, MPLX LP, Murphy Oil Corporation, National Retail Properties Inc, National Storage Affiliates Trust, NetApp Inc, New Fortress Energy Inc, Newell Brands Inc., NextEra Energy Inc, Nike Inc., Northern Trust Corp., NRG Energy Inc, Oatly Group AB, Occidental Petroleum Corp, Office Properties Income Trust, Olaplex Holdings, Inc., ONE Gas Inc, Oneok Inc., Orintiv Inc, Paramount Group Inc., PepsiCo Inc., PG&E Corp, Phillips Edison & Company, Inc, Physicians Realty Trust, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, PNC Financial Services, PPL Corp, Primoris Services Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Ralph Lauren Corp, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Regions Financial Corp, Rogers Communications, Inc., Royalty Pharma Plc, Safehold Inc, SBA Communications, Sempra Energy, Shaw Communications Inc, Signature Bank, Silvergate Capital Corp, Simon Property Group Inc, Site Centers Corp, SL Green Realty Corporation, SoFi Technologies, Inc., South Jersey Industries Inc, Southern Company, Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, Synchrony Financial, T-Mobile US, Inc., Targa Resources Corp., TC Energy Corp, Teleflex Inc., Telephone & Data Systems, Tellurian Inc, TELUS Corp., Textron Inc., TJX Companies Inc., Tradeweb Markets Inc, Tricon Residential Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Uniti Group Inc, Urban Edge Properties, Ventas Inc, Verizon Communications, Viasat Inc, VICI Properties Inc, Visa Inc., Vistra Corp, Vital Farms Inc., VMware Inc, Vornado Realty Trust, Walgreens Boots Alliance Inc, Watsco Inc., Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, World Wrestling Entertainment Inc, Xcel Energy Inc, Yum! Brands, Inc., Zevia PBC, Zimmer Biomet Holdings Inc.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Abbvie Inc.,

AES Corp., AGCO Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Electric Power Co, American Express Company, American Financial Group Inc., American Int'l Grp, American Tower Corp., Amgen Inc., Antero Resources Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BCE Inc., BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Campbell Soup Co, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, Cenovus Energy, CenterPoint Energy Inc, Chemours Co, Cheniere Energy Inc, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Constellation Energy Corporation, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Crown Holdings, Inc., CVS Health Corp, Devon Energy Corp, Discover Financial Services, Dominion Energy Inc, DTE Energy Co., Duke Energy Corp, Duke Realty Corp., Eastman Chemical Co, eBay Inc, Edgewell Personal Care, Edison International, Enbridge, Energy Transfer LP, Entergy Corp, Enterprise Products LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equinix Inc., Equity Residential, Eversource Energy, Exelon Corp, Exxon Mobil Corporation, Ferrari NV, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Fortive Corp, General Mills Inc, Gilead Sciences Inc., Goldman Sachs Group Inc, Healthpeak Properties Inc, Hess Corp., Huntington Bancshares, IBM, Intel Corporation, Invitation Homes Inc, Iridium Communications Inc, Johnson Controls International Plc, JPMorgan Chase & Co, Kellogg Co., KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kohl's, Kraft Heinz Co, Lamar Advertising Co., Lazard Ltd, Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, Marvell Technology Group Ltd, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., MGE Energy, Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, MPLX LP, NetApp Inc, Newell Brands Inc., NextEra Energy Inc, Northern Trust Corp., NRG Energy Inc, Occidental Petroleum Corp, ONE Gas Inc, Oneok Inc., Ovintiv Inc, PepsiCo Inc., PG&E Corp, Phillips Edison & Company, Inc, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, PNC Financial Services, PPL Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Range Resources Corp., Raytheon Technologies Corp, Regions Financial Corp, Rogers Communications, Inc., SEI Investments Company, Sempra Energy, Signature Bank, Simon Property Group Inc, Site Centers Corp, SL Green Realty Corporation, SoFi Technologies, Inc., Southern Company, Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, T-Mobile US, Inc., Targa Resources Corp., TC Energy Corp, Teleflex Inc., TELUS Corp., Textron Inc., Tradeweb Markets Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Ventas Inc, Verizon Communications, Viasat Inc, VICI Properties Inc, Visa Inc., Vistra Corp, Vornado Realty Trust, Walgreens Boots Alliance Inc, Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, Xcel Energy Inc, Yum! Brands, Inc., Zimmer Biomet Holdings Inc, Zoetis Inc..

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Abbvie Inc., AES Corp., AGCO Corp, Agree Realty Corp., Algonquin Power & Utilities Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Assets Trust Inc., American Eagle Outfitters, Inc., American Electric Power Co, American Express Company, American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Anterix Inc, Antero Midstream Corp, Antero Resources Corp, APA Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BCE Inc., BellRing Brands Inc., BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Broadstone Net Lease, Inc., Brown-Forman Corporation, Callon Petroleum Company, Campbell Soup Co, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, CenterPoint Energy Inc, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Constellation Energy Corporation, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Crown Holdings, Inc., Cummins Inc., CVS Health Corp, Devon Energy Corp, Diamondback Energy Inc, Dick's Sporting Goods, Digital Realty Trust Inc., Discover Financial Services, Dominion Energy Inc, DraftKings Inc, DT Midstream, Inc., DTE Energy Co., Duke Energy Corp, Duke Realty Corp., EastGroup Properties Inc., Eastman Chemical Co, eBay Inc, Edgewell Personal Care, Edison International, elf Beauty, Emerson Electric Co, Enbridge, Energizer Holdings Inc., Energy Transfer LP, EnLink Midstream LLC, Entergy Corp, Enterprise Products LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equinix Inc., Equitrans Midstream Corp, Equity Residential, Estee Lauder Companies Inc, Eversource Energy, Excelerate Energy Inc, Exelon Corp, Extra Space Storage Inc., Exxon Mobil Corporation, FactSet Research Systems Inc., Ferrari NV, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Fortive Corp, Frontier Communications Parent, Inc., Gaming and Leisure Properties Inc, General Dynamics Corp., General Mills Inc, Gilead Sciences Inc., Globalstar Inc, Gogo Inc, Goldman Sachs Group Inc, Healthpeak Properties Inc, Hershey Co, Hess Corp., Hess Midstream LP, Highwoods Properties, Honest Co Inc, Hostess Brands Inc, Hudson Pacific Properties, Huntington Bancshares, IBM, Imperial Oil Ltd, Intel Corporation, Invitation Homes Inc, Iridium Communications Inc, J. M. Smucker Co, Johnson Controls International Plc, JPMorgan Chase & Co, Juniper Networks Inc, Kellogg Co., Keurig Dr Pepper Inc, KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kinetik Holdings Inc, Kohl's, Kraft Heinz Co, Lamar Advertising Co., Lazard Ltd, Linde PLC, Lithia Motors Inc., Local Bounti Corp, Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, Marvell Technology Group Ltd, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., MGE Energy, Inc., Microchip Technology Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, Monster Beverage Corp, MPLX LP, Murphy Oil Corporation, National Retail Properties Inc, National Storage Affiliates Trust, NetApp Inc, New Fortress Energy Inc, Newell Brands Inc., NextEra Energy Inc, Nike Inc., Northern Trust Corp., NRG Energy Inc, Oatly Group AB, Occidental Petroleum Corp, Office Properties Income Trust, Olex Holdings, Inc., ONE Gas Inc, Oneok Inc., Ovintiv Inc, Paramount Group Inc., PepsiCo Inc., PG&E Corp, Phillips Edison & Company, Inc, Physicians Realty Trust, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, PNC Financial Services, PPL Corp, Primoris Services Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Ralph Lauren Corp, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Regions Financial Corp, Rogers Communications, Inc., Royalty Pharma Plc, Safehold Inc, SBA Communications, Sempra Energy, Shaw Communications Inc, Signature Bank, Silvergate Capital Corp, Simon Property Group Inc, Site Centers Corp, SL Green Realty Corporation, SoFi Technologies, Inc., South Jersey Industries Inc, Southern Company, Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, Synchrony Financial, T-Mobile US, Inc., Targa Resources Corp., TC Energy Corp, Teleflex Inc., Telephone & Data Systems, Tellurian Inc, TELUS Corp., Textron Inc., TJX Companies Inc., Tradeweb Markets Inc, Tricon Residential Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Uniti Group Inc, Urban Edge Properties, Ventas Inc, Verizon Communications, Viasat Inc, VICI Properties Inc, Visa Inc., Vistra Corp, Vital Farms Inc., VMware Inc, Vornado Realty Trust, Walgreens Boots Alliance Inc, Watsco Inc., Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, World Wrestling Entertainment Inc, Xcel Energy Inc, Yum! Brands, Inc., Zevia PBC, Zimmer Biomet Holdings Inc.

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: Abbvie Inc., AES Corp., AGCO Corp, Agree Realty Corp., Air Products and Chemicals Inc., Algonquin Power & Utilities Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Electric Power Co, American Express Company, American Financial Group Inc., American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Antero Resources Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BCE Inc., BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Campbell Soup Co, Canadian Natural Resources Ltd, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, Cenovus Energy, CenterPoint Energy Inc, Chemours Co, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Constellation Energy Corporation, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Crown Holdings, Inc., CVS Health Corp, Devon Energy Corp, Digital Realty Trust Inc., Discover Financial Services, Dominion Energy Inc, DraftKings Inc,

DTE Energy Co., Duke Energy Corp, Duke Realty Corp., Eastman Chemical Co, eBay Inc, Edgewell Personal Care, Edison International, elf Beauty, Emerson Electric Co, Enbridge, Energy Transfer LP, Entergy Corp, Enterprise Products LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equinix Inc., Equity Residential, Eversource Energy, Exelon Corp, Exxon Mobil Corporation, Ferrari NV, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Fortive Corp, Frontier Communications Parent, Inc., Garmin Ltd, General Mills Inc, Gilead Sciences Inc., Goldman Sachs Group Inc, Healthpeak Properties Inc, Hess Corp., Highwoods Properties, Hostess Brands Inc, Huntington Bancshares, IBM, Intel Corporation, Invitation Homes Inc, Iridium Communications Inc, J. M. Smucker Co, Johnson Controls International Plc, JPMorgan Chase & Co, Juniper Networks Inc, Kellogg Co., KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kohl's, Kraft Heinz Co, Lamar Advertising Co., Lazard Ltd, Linde PLC, Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, Marvell Technology Group Ltd, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., MGE Energy, Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, MPLX LP, National Retail Properties Inc, National Storage Affiliates Trust, NetApp Inc, Newell Brands Inc., NextEra Energy Inc, Northern Trust Corp., NRG Energy Inc, Occidental Petroleum Corp, ONE Gas Inc, Oneok Inc., Orintiv Inc, PepsiCo Inc., PG&E Corp, Phillips Edison & Company, Inc, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, Plains GP Holdings, L.P., PNC Financial Services, PPL Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Regions Financial Corp, Rogers Communications, Inc., Royalty Pharma Plc, SEI Investments Company, Sempra Energy, Signature Bank, Simon Property Group Inc, Site Centers Corp, SL Green Realty Corporation, SoFi Technologies, Inc., Sonic Automotive Inc, South Jersey Industries Inc, Southern Company, Southern Copper Corp., Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, Synchrony Financial, T-Mobile US, Inc., Targa Resources Corp., TC Energy Corp, Teleflex Inc., TELUS Corp., Textron Inc., TJX Companies Inc., Tradeweb Markets Inc, Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Ventas Inc, Verizon Communications, Viasat Inc, VICI Properties Inc, Visa Inc., Vistra Corp, VMware Inc, Vornado Realty Trust, Walgreens Boots Alliance Inc, Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, World Wrestling Entertainment Inc, Xcel Energy Inc, Yum! Brands, Inc., Zimmer Biomet Holdings Inc, Zoetis Inc..

An employee, director or consultant of Morgan Stanley is a director of AT&T, Inc., Caterpillar Inc., Cummins Inc., CVS Health Corp, eBay Inc, Estee Lauder Companies Inc, Merck & Co., Inc.. This person is not a research analyst or a member of a research analyst's household.

Morgan Stanley & Co. LLC makes a market in the securities of Abbvie Inc., AES Corp., AGCO Corp, Agree Realty Corp., Air Products and Chemicals Inc., Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Assets Trust Inc., American Eagle Outfitters, Inc., American Electric Power Co, American Express Company, American Financial Group Inc., American Homes 4 Rent, American Int'l Grp, American Tower Corp., Amgen Inc., Anterix Inc, Antero Resources Corp, APA Corp, Aramark Holdings Corporation, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., Baker Hughes Co, Bank of America, BCE Inc., BellRing Brands Inc., Best Buy Co Inc, BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Broadstone Net Lease, Inc., Brown-Forman Corporation, Callon Petroleum Company, Campbell Soup Co, Canadian Natural Resources Ltd, Capital One Financial Corporation, Caterpillar Inc., CDW Corporation, Cenovus Energy, CenterPoint Energy Inc, Chemours Co, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Coca-Cola Europacific Partners, Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Consolidated Edison Inc, Constellation Brands Inc, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Crown Holdings, Inc., Cummins Inc., CVS Health Corp, Devon Energy Corp, Diamondback Energy Inc, Dick's Sporting Goods, Digital Realty Trust Inc., Discover Financial Services, Dominion Energy Inc, DTE Energy Co., Duke Energy Corp, Duke Realty Corp., EastGroup Properties Inc., Eastman Chemical Co, eBay Inc, Edgewell Personal Care, Edison International, elf Beauty, Emerson Electric Co, Enbridge, Energizer Holdings Inc., Energy Transfer LP, EnLink Midstream LLC, Entergy Corp, Enterprise Products LP, EOG Resources Inc, EQT Corp., Equifax Inc, Equity Residential, Essex Property Trust, Inc., Estee Lauder Companies Inc, Eversource Energy, Exelon Corp, Extra Space Storage Inc., Exxon Mobil Corporation, FactSet Research Systems Inc., Fastenal Co., Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Gaming and Leisure Properties Inc, Garmin Ltd, General Dynamics Corp., General Mills Inc, Gilead Sciences Inc., Globalstar Inc, Gogo Inc, Goldman Sachs Group Inc, Group 1 Automotive, Inc, Healthpeak Properties Inc, Hershey Co, Hess Corp., Highwoods Properties, Honest Co Inc, Hostess Brands Inc, Hudson Pacific Properties, Huntington Bancshares, IBM, Imperial Oil Ltd, Intel Corporation, Iridium Communications Inc, J. M. Smucker Co, Johnson Controls International Plc, JPMorgan Chase & Co, Juniper Networks Inc, Kellogg Co., Keurig Dr Pepper Inc, KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kohl's, Kraft Heinz Co, Lamar Advertising Co., Lazard Ltd, Lithia Motors Inc., Lockheed Martin Corp, LPL Financial Holdings Inc., LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Macerich Co, Magellan Midstream Partners LP, Marathon Oil Corporation, Marvell Technology Group Ltd, MasterCard Inc, Medtronic PLC, Merck & Co., Inc., MGE Energy, Inc., Microchip Technology Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, Monster Beverage Corp, MPLX LP, Murphy Oil Corporation, National Retail Properties Inc, National Storage Affiliates Trust, NetApp Inc, New Fortress Energy Inc, Newell Brands Inc., NextEra Energy Inc, Nike Inc., Northern Trust Corp., NRG Energy Inc, Oatly Group AB, Occidental Petroleum Corp, Office Properties Income Trust, Olin Corp., ONE Gas Inc, Oneok Inc, Orintiv Inc, Paramount Group Inc., Penske Automotive Group, Inc, PepsiCo Inc., PG&E Corp, Philip Morris International Inc, Phillips Edison & Company, Inc, Physicians Realty Trust, Pinnacle West Capital Corp, Pioneer Natural Resources Co., Plains All American Pipeline LP, Plains GP Holdings, L.P., PNC Financial Services, PPL Corp, Primoris Services Corp, Procter & Gamble Co., Prologis, Inc., Prudential Financial, Public Service Enterprise Group Inc, Public Storage, Ralph Lauren Corp, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Regency Centers Corp, Regions Financial Corp, Rogers Communications, Inc., Ross Stores Inc., Royalty Pharma Plc, Safehold Inc, SBA Communications, SEI Investments Company, Sempra Energy, Shaw Communications Inc, Simon Property Group Inc, Simply Good Foods Co, Site Centers Corp, SL Green Realty Corporation, Sonic Automotive Inc, South Jersey Industries Inc, Southern Company, Southern Copper Corp., Southwestern Energy Co, Spire Inc, Spirit Realty Capital, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, Synchrony Financial, T-Mobile US, Inc., Targa Resources Corp., TC Energy Corp, Teleflex Inc., Telephone & Data Systems, TELUS Corp., Textron Inc., TJX Companies Inc., Tradeweb Markets Inc, Truist Financial Corp, UDR, Inc., United Parcel Service, Uniti Group Inc, Urban Edge Properties, US Cellular Corporation, Ventas Inc, Verizon Communications, Viasat Inc, Visa Inc., Vital Farms Inc., VMware Inc, Vornado Realty Trust, Walgreens Boots Alliance Inc, Watsco Inc., Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, World Wrestling Entertainment Inc, Xcel Energy Inc, Yum! Brands, Inc., Zimmer Biomet Holdings Inc, Zoetis Inc..

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

## STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the

contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

### Global Stock Ratings Distribution

(as of August 31, 2022)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm. For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
<b>Overweight/Buy</b>	<b>1356</b>	<b>38%</b>	<b>304</b>	<b>41%</b>	<b>22%</b>	<b>596</b>	<b>39%</b>
<b>Equal-weight/Hold</b>	<b>1589</b>	<b>45%</b>	<b>349</b>	<b>47%</b>	<b>22%</b>	<b>716</b>	<b>47%</b>
<b>Not-Rated/Hold</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>0%</b>	<b>0</b>	<b>0%</b>
<b>Underweight/Sell</b>	<b>610</b>	<b>17%</b>	<b>90</b>	<b>12%</b>	<b>15%</b>	<b>225</b>	<b>15%</b>
<b>TOTAL</b>	<b>3,555</b>		<b>743</b>			<b>1537</b>	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

### Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

### Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

### Important Disclosures for Morgan Stanley Smith Barney LLC & E\*TRADE Securities LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at [www.morganstanley.com/online/researchdisclosures](http://www.morganstanley.com/online/researchdisclosures). For Morgan Stanley specific disclosures, you may refer to

[www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures).

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC and E\*TRADE Securities LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

### Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of Abbvie Inc., AES Corp., Algonquin Power & Utilities Corp, Ally Financial Inc, Altria Group, Inc., Ameren Corp, American Electric Power Co, American Express Company, American Int'l Grp, American Tower Corp., Amgen Inc., Antero Resources Corp, APA Corp, AT&T, Inc., Atmos Energy Corp., AvalonBay Communities Inc., AVANGRID, Inc, Baker Hughes Co, Bank of America, BCE Inc., Best Buy Co Inc, BNY Mellon, BorgWarner Inc., Boston Properties, Inc., Bread Financial Holdings, Inc., Bristol Myers Squibb Co, Broadcom Inc., Callon Petroleum Company, Campbell Soup Co, Canadian Natural Resources Ltd, Capital One Financial Corporation, Caterpillar Inc., Cenovus Energy, CenterPoint Energy Inc, Chemours Co, Cheniere Energy Inc, Cheniere Energy Partners LP, Chevron Corporation, Church & Dwight Co., Inc., Cisco Systems Inc, Citigroup Inc., Citizens Financial Group, Inc, Clorox Co, CMS Energy Corp, Coca-Cola Co., Colgate-Palmolive Co, Comcast Corporation, Conagra Brands, ConocoPhillips, Constellation Brands Inc, Constellation Energy Corporation, Continental Resources Inc., Coterra Energy Inc., Coty Inc, Crown Castle Corp., Cummins Inc., CVS Health Corp, Devon Energy Corp, Diamondback Energy Inc, Discover Financial Services, Dominion Energy Inc, DT Midstream, Inc., DTE Energy Co., Duke Energy Corp, Eastman Chemical Co, eBay Inc, Edison International, Enbridge, Energy Transfer LP, EnLink Midstream LLC, Entergy Corp, EOG Resources Inc, EQT Corp., Equifax Inc, Equinix Inc., Eversource Energy, Exelon Corp, Exxon Mobil Corporation, Fifth Third Bancorp, First Republic Bank, FirstEnergy Corp, Fortive Corp, Frontier Communications Parent, Inc., General Dynamics Corp., General Mills Inc, Gilead

Sciences Inc., Goldman Sachs Group Inc, Healthpeak Properties Inc, Hess Midstream LP, Huntington Bancshares, IBM, Intel Corporation, Johnson Controls International Plc, JPMorgan Chase & Co, Kellogg Co., KeyCorp, Kimberly-Clark Corp, Kimco Realty Corp., Kinder Morgan Inc., Kohl's, Lockheed Martin Corp, LUMEN TECHNOLOGIES INC, LyondellBasell Industries N.V., M&T Bank Corp., Magellan Midstream Partners LP, Marathon Oil Corporation, MasterCard Inc, Merck & Co., Inc., Microsoft, Molson Coors Beverage Company, Mondelez International Inc, MPLX LP, Murphy Oil Corporation, National Retail Properties Inc, NetApp Inc, New Fortress Energy Inc, Newell Brands Inc., NextEra Energy Inc, Nike Inc., Northern Trust Corp., NRG Energy Inc, Occidental Petroleum Corp, Office Properties Income Trust, Olin Corp., Oneok Inc., Ointiv Inc, Penske Automotive Group, Inc, PepsiCo Inc., PG&E Corp, Philip Morris International Inc, Pioneer Natural Resources Co., Plains All American Pipeline LP, PNC Financial Services, Procter & Gamble Co., Prudential Financial, Public Storage, Range Resources Corp., Raytheon Technologies Corp, Realty Income Corp, Rogers Communications, Inc., Royalty Pharma Plc, SBA Communications, Sempra Energy, Site Centers Corp, SoFi Technologies, Inc., South Jersey Industries Inc, Southern Company, Southwestern Energy Co, Spire Inc, State Street Corporation, STORE Capital Corp, Suncor Energy Inc, SVB Financial Group, Synchrony Financial, T-Mobile US, Inc., Targa Resources Corp., Textron Inc., TJX Companies Inc., Truist Financial Corp, U.S. Bancorp, UDR, Inc., United Parcel Service, Uniti Group Inc, Verizon Communications, Viasat Inc, Visa Inc., VMware Inc, Walgreens Boots Alliance Inc, Wells Fargo & Co., Welltower Inc., Western Midstream Partners LP, Western Union Co, Williams Companies Inc, Xcel Energy Inc, Yum! Brands, Inc., Zimmer Biomet Holdings Inc.

As of September 14, 2022, State Street Corporation beneficially owned 5% or more of a class of common equity securities of Morgan Stanley.

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions. Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (<http://www.morganstanley.com/terms.html>). By accessing and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (<http://www.morganstanley.com/terms.html>). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy ([http://www.morganstanley.com/privacy\\_pledge.html](http://www.morganstanley.com/privacy_pledge.html)), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy ([http://www.morganstanley.com/privacy\\_pledge.html](http://www.morganstanley.com/privacy_pledge.html)).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.



Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V. which is regulated by Comisión Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The following companies do business in countries which are generally subject to comprehensive sanctions programs administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") and by other countries and multi-national bodies: MasterCard Inc.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.

The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.

Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

The following authors are neither Equity Research Analysts/Strategists nor Fixed Income Research Analysts/Strategists and are not opining on or expressing recommendations on equity or fixed income securities: Sneha Mogre; Li Tao, CFA, CPA.

## INDUSTRY COVERAGE: MLPs &amp; Midstream Energy Infrastructure

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Robert S Kad</b>		
Antero Midstream Corp (AMN)	U (03/19/2021)	\$10.44
DT Midstream, Inc. (DTMN)	U (01/07/2022)	\$58.14
Enbridge (ENB.TO)	E (01/07/2022)	C\$55.58
Energy Transfer LP (ET.N)	O (01/07/2022)	\$12.01
EnLink Midstream LLC (ENLC.N)	E (01/07/2022)	\$10.31
Enterprise Products LP (EPD.N)	E (01/07/2022)	\$26.73
Equitrans Midstream Corp (ETRN.N)	U (03/19/2021)	\$9.61
Hess Midstream LP (HESMN)	E (01/07/2022)	\$28.91
Kinder Morgan Inc. (KMI.N)	U (05/26/2021)	\$18.53
Kinetik Holdings Inc (KNTK.O)	E (08/25/2022)	\$40.39
Magellan Midstream Partners LP (MMP.N)	U (01/07/2022)	\$52.24
MPLX LP (MPLX.N)	E (03/19/2021)	\$33.17
Oneok Inc. (OKE.N)	E (05/26/2021)	\$63.44
Plains All American Pipeline LP (PAA.O)	O (07/16/2021)	\$12.36
Plains GP Holdings, L.P. (PAGP.O)	O (07/16/2021)	\$12.90
Targa Resources Corp. (TRGP.N)	O (03/19/2021)	\$72.45
TC Energy Corp (TRP.TO)	U (04/26/2022)	C\$63.81
Western Midstream Partners LP (WES.N)	O (07/20/2021)	\$28.64
Williams Companies Inc (WMB.N)	E (03/19/2021)	\$33.45

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Integrated Energy

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Devin McDermott</b>		
Canadian Natural Resources Ltd (CNQ.TO)	E (10/07/2021)	C\$73.87
Cenovus Energy (CVE.TO)	O (10/07/2021)	C\$25.57
Chevron Corporation (CVX.N)	E (03/14/2022)	\$163.27
Exxon Mobil Corporation (XOM.N)	O (01/11/2021)	\$97.67
Imperial Oil Ltd (IMO.TO)	E (10/07/2021)	C\$63.95
Suncor Energy Inc (SU.TO)	O (10/07/2021)	C\$42.38

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Telecom Services

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Landon Park</b>		
Gogo Inc (GOGO.O)	U (10/06/2021)	\$12.95
Iridium Communications Inc (IRDMO)	O (08/03/2021)	\$45.21
Viasat Inc (VSAT.O)	E (12/15/2017)	\$38.80
<b>Simon Flannery</b>		
Anterix Inc (ATEX.O)	E (11/11/2019)	\$36.55
AT&T, Inc. (T.N)	O (12/16/2021)	\$16.77
BCE Inc. (BCE.TO)	E (03/05/2021)	C\$61.09
Frontier Communications Parent, Inc. (FYBR.O)	E (05/26/2022)	\$25.32
Globalstar Inc (GSAT.A)	U (01/22/2021)	\$1.85
LUMEN TECHNOLOGIES INC (LUMN.N)	U (01/28/2021)	\$8.95
Rogers Communications, Inc. (RCIb.TO)	E (12/17/2015)	C\$54.07
Shaw Communications Inc (SJRb.TO)	E (10/23/2020)	C\$34.03
Telephone & Data Systems (TDS.N)	E (04/19/2022)	\$15.35
TELUS Corp. (T.TO)	E (07/16/2021)	C\$28.54
T-Mobile US, Inc. (TMUS.O)	O (04/17/2020)	\$141.93
US Cellular Corporation (USMN)	E (04/19/2022)	\$26.82
Verizon Communications (VZ.N)	E (12/12/2018)	\$41.28

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

**INDUSTRY COVERAGE: Real Estate Investment Trusts**

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Adam Kramer</b>		
American Homes 4 Rent (AMH.N)	E (11/15/2018)	\$36.14
AvalonBay Communities Inc. (AVB.N)	O (11/08/2021)	\$205.08
Equity Residential (EQR.N)	E (12/12/2016)	\$74.21
Essex Property Trust, Inc. (ESS.N)	E (04/01/2020)	\$264.59
Invitation Homes Inc (INVH.N)	O (08/11/2020)	\$38.21
Tricon Residential Inc (TCN.N)	E (11/01/2021)	\$10.47
UDR, Inc. (UDR.N)	E (11/08/2021)	\$45.67
<b>Ronald Kamdem, CFA</b>		
Agree Realty Corp. (ADC.N)	O (04/01/2022)	\$73.47
American Assets Trust Inc. (AAT.N)	E (05/18/2020)	\$27.00
Boston Properties, Inc. (BXP.N)	E (09/10/2019)	\$83.72
Broadstone Net Lease, Inc. (BNL.N)	E (04/15/2021)	\$19.04
Duke Realty Corp. (DRE.N)	++	\$57.44
EastGroup Properties Inc. (EGP.N)	E (04/12/2017)	\$163.11
Extra Space Storage Inc. (EXR.N)	U (09/16/2019)	\$191.65
Healthpeak Properties Inc (PEAK.N)	E (03/20/2017)	\$26.42
Highwoods Properties (HIW.N)	O (06/24/2020)	\$30.35
Hudson Pacific Properties (HPP.N)	E (09/09/2022)	\$13.73
Kimco Realty Corp. (KIM.N)	E (03/30/2022)	\$20.82
Macerich Co (MAC.N)	U (09/14/2020)	\$9.28
National Retail Properties Inc (NNN.N)	E (07/12/2022)	\$44.11
National Storage Affiliates Trust (NSAN)	E (08/07/2018)	\$48.09
Office Properties Income Trust (OPI.O)	U (12/13/2019)	\$17.49
Paramount Group Inc. (PGRE.N)	O (10/10/2019)	\$7.02
Phillips Edison & Company, Inc (PECO.O)	E (03/09/2022)	\$31.95
Physicians Realty Trust (DOC.N)	E (09/13/2021)	\$16.08
Prologis, Inc. (PLD.N)	++	\$121.08
Public Storage (PSAN)	E (01/22/2021)	\$324.68
Realty Income Corp (O.N)	O (05/04/2020)	\$65.41
Regency Centers Corp (REG.O)	E (12/17/2019)	\$58.90
Safehold Inc (SAFE.N)	++	\$36.97
Simon Property Group Inc (SPG.N)	O (02/11/2021)	\$100.03
Site Centers Corp (SITC.N)	E (04/27/2020)	\$12.74
SL Green Realty Corporation (SLG.N)	E (05/28/2020)	\$46.20
Spirit Realty Capital (SRC.N)	E (05/04/2020)	\$41.09
STORE Capital Corp (STOR.N)	U (07/12/2022)	\$26.79
Urban Edge Properties (UE.N)	U (12/17/2019)	\$15.49
Ventas Inc (VTR.N)	E (10/04/2021)	\$48.42
Vornado Realty Trust (VNO.N)	U (05/28/2020)	\$26.49
Welltower Inc. (WELL.N)	O (08/31/2022)	\$73.98

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Large Cap Banks &amp; Consumer Finance

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Betsy L. Graseck, CFA</b>		
Ally Financial Inc (ALLY.N)	O (05/28/2020)	\$31.78
American Express Company (AXP.N)	E (07/12/2022)	\$156.30
Bank of America (BAC.N)	E (03/28/2022)	\$33.87
BNY Mellon (BK.N)	E (03/28/2022)	\$43.72
Capital One Financial Corporation (COF.N)	E (07/12/2022)	\$100.65
Citigroup Inc. (C.N)	U (03/28/2022)	\$48.43
Discover Financial Services (DFS.N)	E (11/30/2020)	\$99.05
Goldman Sachs Group Inc (GS.N)	E (12/06/2021)	\$327.26
JPMorgan Chase & Co (JPM.N)	U (11/30/2020)	\$116.12
Northern Trust Corp. (NTRS.O)	E (06/08/2020)	\$94.67
PNC Financial Services (PNC.N)	U (12/06/2021)	\$162.41
Regions Financial Corp (RF.N)	O (11/30/2020)	\$22.13
State Street Corporation (STT.N)	O (11/30/2020)	\$71.40
Synchrony Financial (SYF.N)	E (03/28/2022)	\$31.74
Truist Financial Corp (TFC.N)	E (01/07/2018)	\$47.35
U.S. Bancorp (USB.N)	E (11/30/2020)	\$45.10
Wells Fargo & Co. (WFC.N)	O (12/06/2021)	\$43.28
<b>Jeffrey Adelson, CFA</b>		
Bread Financial Holdings, Inc. (BFH.N)	E (03/28/2022)	\$35.99
SoFi Technologies, Inc. (SOFI.O)	E (05/11/2022)	\$6.17
<b>Ryan Kenny, CFA</b>		
SEI Investments Company (SEIC.O)	U (07/12/2022)	\$55.39

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Tobacco

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Pamela Kaufman, CFA</b>		
Altria Group, Inc. (MO.N)	E (06/24/2022)	\$41.76
Philip Morris International Inc (PMN)	O (03/31/2008)	\$93.70

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Food

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Pamela Kaufman, CFA</b>		
BellRing Brands Inc. (BRBR.N)	O (11/11/2019)	\$24.65
Campbell Soup Co (CPB.N)	E (04/20/2020)	\$47.34
Conagra Brands (CAG.N)	E (05/20/2019)	\$33.35
General Mills Inc (GIS.N)	U (09/21/2021)	\$74.42
Hershey Co (HSY.N)	E (04/20/2020)	\$221.75
Hostess Brands Inc (TWNK.O)	O (09/21/2021)	\$23.90
J. M. Smucker Co (SJM.N)	U (08/19/2020)	\$139.04
Kellogg Co. (K.N)	E (09/17/2018)	\$70.51
Kraft Heinz Co (KHC.O)	E (03/03/2019)	\$34.96
Local Bounti Corp (LOCL.N)	E (04/20/2022)	\$3.12
Mondelez International Inc (MDLZ.O)	O (08/07/2019)	\$60.24
Simply Good Foods Co (SMPL.O)	E (05/18/2021)	\$30.31
Vital Farms Inc. (VTL.O)	O (07/20/2022)	\$13.22

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Beverages

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Dara Mohsenian, CFA</b>		
Brown-Forman Corporation (BFb.N)	U (03/08/2020)	\$72.04
Coca-Cola Co. (KO.N)	O (07/22/2020)	\$60.79
Coca-Cola Europacific Partners (CCEPC.AS)	E (06/12/2019)	€47.50
Constellation Brands Inc (STZ.N)	O (11/02/2020)	\$240.93
Keurig Dr Pepper Inc (KDP.O)	E (03/11/2021)	\$37.74
Molson Coors Beverage Company (TAP.N)	E (01/09/2018)	\$50.65
Monster Beverage Corp (MNST.O)	O (11/02/2020)	\$88.93
Oatly Group AB (OTLY.O)		\$2.99
PepsiCo Inc. (PEP.O)	O (03/22/2020)	\$168.68
Zevia PBC (ZVIAN)	E (08/16/2021)	\$4.76

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Household &amp; Personal Care

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Dara Mohsenian, CFA</b>		
Church & Dwight Co., Inc. (CHD.N)	U (04/19/2021)	\$77.54
Clorox Co (CLX.N)	U (04/19/2018)	\$141.63
Colgate-Palmolive Co (CL.N)	E (07/22/2020)	\$76.06
Coty Inc (COTY.N)	E (11/07/2018)	\$7.84
Edgewell Personal Care (EPC.N)	E (06/04/2015)	\$37.26
elf Beauty (ELF.N)	O (12/16/2019)	\$40.48
Energizer Holdings Inc. (ENR.N)	E (08/09/2022)	\$28.32
Estee Lauder Companies Inc (EL.N)	O (08/21/2020)	\$246.14
Honest Co Inc (HNST.O)	E (08/16/2021)	\$4.10
Kimberly-Clark Corp (KMB.N)	E (01/24/2019)	\$121.81
Newell Brands Inc. (NWL.O)	E (01/25/2018)	\$16.99
Olaplex Holdings, Inc. (OLPX.O)	O (11/07/2021)	\$12.17
Procter & Gamble Co. (PG.N)	O (12/13/2018)	\$138.51

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Regulated Utilities

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>David Arcaro, CFA</b>		
Algonquin Power & Utilities Corp (AQN.N)	++	\$13.51
Ameren Corp (AEE.N)	E (04/14/2020)	\$93.73
Atmos Energy Corp. (ATO.N)	O (12/15/2020)	\$117.03
AVANGRID, Inc (AGR.N)	++	\$49.96
CenterPoint Energy Inc (CNP.N)	O (02/17/2022)	\$32.75
CMS Energy Corp (CMS.N)	E (07/31/2017)	\$68.69
Consolidated Edison Inc (ED.N)	U (07/02/2020)	\$99.97
Dominion Energy Inc (D.N)	E (08/31/2021)	\$82.44
DTE Energy Co. (DTE.N)	O (01/06/2022)	\$134.05
Duke Energy Corp (DUK.N)	E (08/25/2014)	\$109.27
Edison International (EIX.N)	U (09/06/2022)	\$69.49
Entergy Corp (ETR.N)	U (01/06/2022)	\$118.71
Eversource Energy (ES.N)	E (10/19/2021)	\$90.69
Exelon Corp (EXC.O)	O (08/27/2019)	\$44.35
FirstEnergy Corp (FE.N)	O (03/23/2020)	\$41.44
ONE Gas Inc (OGS.N)	E (01/06/2022)	\$80.56
PG&E Corp (PCG.N)	E (11/15/2018)	\$13.22
Pinnacle West Capital Corp (PNW.N)	E (03/23/2020)	\$75.42
PPL Corp (PPL.N)	E (07/16/2013)	\$29.62
Sempra Energy (SRE.N)	E (08/10/2018)	\$173.70
Southern Company (SO.N)	U (08/13/2014)	\$79.43
South Jersey Industries Inc (SJI.N)	E (05/28/2021)	\$34.12
Spire Inc (SR.N)	E (09/01/2020)	\$69.91
Xcel Energy Inc (XEL.O)	E (10/19/2021)	\$75.31

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Diversified Utilities / IPPs

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>David Arcaro, CFA</b>		
AES Corp. (AES.N)	O (03/23/2020)	\$27.03
American Electric Power Co (AEP.O)	O (03/10/2020)	\$103.32
Constellation Energy Corporation (CEG.O)	O (03/16/2022)	\$88.05
MGE Energy, Inc. (MGEE.O)	U (11/17/2021)	\$76.13
NextEra Energy Inc (NEE.N)	O (09/06/2022)	\$88.88
NRG Energy Inc (NRG.N)	O (09/06/2019)	\$44.31
Public Service Enterprise Group Inc (PEG.N)	O (07/02/2020)	\$67.27
Vistra Corp (VST.N)	O (03/25/2019)	\$25.36

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Exploration &amp; Production

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Devin McDermott</b>		
Antero Resources Corp (AR.N)	E (03/11/2021)	\$41.87
APA Corp (APA.O)	O (03/11/2021)	\$41.74
Callon Petroleum Company (CPE.N)	E (12/09/2019)	\$44.60
ConocoPhillips (COP.N)	O (07/12/2018)	\$117.71
Continental Resources Inc. (CLR.N)	U (03/16/2020)	\$71.87
Coterra Energy Inc. (CTRN)	E (04/30/2020)	\$32.23
Devon Energy Corp (DVN.N)	E (06/18/2021)	\$72.17
Diamondback Energy Inc (FANG.O)	O (12/11/2020)	\$140.17
EOG Resources Inc (EOG.N)	E (07/12/2018)	\$126.73
EQT Corp. (EQT.N)	O (11/18/2021)	\$50.60
Hess Corp. (HES.N)	O (07/12/2018)	\$128.09
Marathon Oil Corporation (MRO.N)	E (06/18/2021)	\$27.36
Murphy Oil Corporation (MUR.N)	E (12/11/2020)	\$41.06
Occidental Petroleum Corp (OXY.N)	E (03/14/2022)	\$67.20
Ovintiv Inc (OVV.N)	O (03/30/2021)	\$53.64
Pioneer Natural Resources Co. (PXD.N)	E (02/08/2021)	\$251.70
Range Resources Corp. (RRC.N)	U (11/18/2021)	\$32.96
Southwestern Energy Co (SWN.N)	E (10/09/2020)	\$8.06

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Diversified Natural Gas

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Devin McDermott</b>		
Cheniere Energy Inc (LNG.A)	O (05/19/2020)	\$174.17
Cheniere Energy Partners LP (CQP.A)	E (09/20/2019)	\$56.81
Excelerate Energy Inc (EE.N)	E (05/09/2022)	\$28.23
New Fortress Energy Inc (NFE.O)	O (05/12/2021)	\$55.24
NextDecade Corporation (NEXT.O)	O (06/07/2021)	\$6.89
Tellurian Inc (TELL.A)	E (06/07/2021)	\$4.15

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Gaming &amp; Lodging

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Ed Young</b>		
DraftKings Inc (DKNG.O)	O (01/26/2022)	\$18.40
<b>Ronald Kamdem, CFA</b>		
Gaming and Leisure Properties Inc (GLPI.O)	O (07/24/2018)	\$48.63
VICI Properties Inc (VICI.N)	E (12/15/2021)	\$33.22

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Communications Infrastructure

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Simon Flannery</b>		
American Tower Corp. (AMT.N)	E (12/12/2018)	\$251.82
Crown Castle Corp. (CCI.N)	O (11/11/2009)	\$166.50
Digital Realty Trust Inc. (DLR.N)	E (06/24/2020)	\$116.08
Equinix Inc. (EQIX.O)	E (05/13/2009)	\$626.68
SBA Communications (SBAC.O)	O (06/02/2021)	\$316.22
Uniti Group Inc (UNIT.O)	U (12/12/2018)	\$8.86

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.

## INDUSTRY COVERAGE: Midcap Banks

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/14/2022)
<b>Betsy L. Graseck, CFA</b>		
Citizens Financial Group, Inc (CFG.N)	O (11/24/2021)	\$36.90
Fifth Third Bancorp (FITB.O)	E (03/28/2022)	\$34.98
Huntington Bancshares (HBAN.O)	E (12/10/2015)	\$13.87
KeyCorp (KEY.N)	E (04/07/2020)	\$17.64
M&T Bank Corp. (MTB.N)	O (04/21/2022)	\$183.25
<b>Manan Gosalia</b>		
First Republic Bank (FRC.N)	E (11/16/2016)	\$147.49
Signature Bank (SBNY.O)	O (07/01/2019)	\$177.27
Silergate Capital Corp (SI.N)	E (06/09/2022)	\$88.25
SVB Financial Group (SVB.O)	O (12/06/2021)	\$377.59

Stock Ratings are subject to change. Please see latest research for each company.

\* Historical prices are not split adjusted.