January 5, 2015

US Equity Strategy

The 2015 Playbook

We begin 2015, our fifth year of managing the US equity strategy product at Morgan Stanley, with mixed emotions. Last year, 2014, was our first year ever as equity strategists where our portfolio didn't beat the S&P500, lagging by 250bps. While our sector overweights in healthcare and technology were generally helpful, and our underweight in consumer discretionary for the first half of the year was spot on, the large growth rotation in the spring of 2014, our energy market-weight (not underweight) in the last third of the year, and poor application of the quantamental approach (read: stock selection) were the culprits.

MORGAN STANLEY & CO. LLC
Adam S. Parker, Ph.D.
Adam.Parker@morganstanley.com +1 212 761-1755
Brian T. Hayes, Ph.D.
Brian.T.Hayes@morganstanley.com +1 212 761-7991
Antonio Ortega
Antonio.Ortega@morganstanley.com +1 212 761-4783
Phillip Neuhart
Phillip.Neuhart@morganstanley.com +1 212 761-8584
Yaye A. Ba
Yaye.Ba@morganstanley.com +1 212 761-6537
Allison Rabkin Golden
Allison.Rabkin.Golden@morganstanley.com +1 212 761-3023

What stocks most influenced S&P500 performance in 2014? Amazon, IBM, CVX, XOM, and GE were the biggest negative contributors to S&P500 performance (market-cap weighted) in 2014. We generally avoided this group, holding only GE in a 1% position and getting a reasonable entry point in February, and owning none of the other names during the year. In summary, we did a reasonable job avoiding the underperformers. On the flip side, the biggest positive contributors were Apple (where we held a 4% position through the year until early December when we reduced it to 3%), MSFT, Berkshire, FB, and Intel. We basically didn't own four of the top five positive contributors, and generally, we didn't own the right technology stocks (ORCL was another top ten contributor to 2014 S&P500 performance we didn't own, with much of that in December). Without a doubt technology stock selection has been the poorest attribute of our portfolio since our initiation in 2011. It should not be surprising that we were technology analysts earlier in our career, as biases galore caused us at various times to poorly implement, i.e. stray, from the quantamental discipline, particularly in the technology sector. Our New Year's resolution in 2015 is to stop saying things like, "People don't understand Micron," when quite obviously we are the ones who don't understand it. We "owned up" to this in a note in the Fall of 2014, and our subsequent 2014 performance has been better, as we have been adhering more militantly to the quantamental rule book, adding or raising weights to stocks that screen well in our quantitative models and are Overweight rated by our analysts, and removing or reducing stocks they are no longer recommending as Overweight and that screen poorly in disciplined strategies.

The good news is that our quantamental approach has been generally positive, as our cumulative performance since the portfolio's launch at Morgan Stanley on January 1st of 2011 is now 960 basis points ahead of the market. With some perspective, our outperformance of about 250 bps a year for the last four years, even including last year's underperformance, is about what we should expect to be over the long term with our low turnover, large cap, quantamental, portfolio discipline. Given that our portfolio's beta has generally been below 1 for much of the last four years, this performance, volatility adjusted, has been in the top quintile of long only US equity investors.

Despite 2014's portfolio-level underperformance, we had a good market call last year. Our year-end target of 2014 on the S&P500,set in early December of 2013, and at the time the highest on the street, was not only easy to remember, but proved to be only 2% off the year end mark of 2058.9. Part of the challenge for investors (and us) has been that the types of stocks that have worked in the up tape haven't been typical of good markets. Utilities, REITS and other yield-related securities have continued to do well, and cyclicals like machinery and metals and mining were awful. It is the microstructure that matters and "under the surface" volatility has been far greater than "market level" volatility in the last several quarters.

The 2015 Outlook

We begin 2015 with a continued positive market outlook, having established a year-end 2015 target of 2275 in last month's year-ahead outlook. Our base case is 7% earnings growth, further supported by more than a 2% net buyback and an additional 2% dividend yield. If investors want to be short the S&P500, what they are really betting on is that earnings will decline, given the 4% total yield (dividend plus repurchase) seems pretty safe at this point. What would cause such an EPS decline? Our general sense is that the US economy is improving. Morgan Stanley's economic forecast is that the global GDP will be modestly higher in 2015, as US growth is stronger, Japan expands, Europe stabilizes, and the hot spots in the EM aren't large enough to drag down the global outlook. The two biggest global economies are China and the US. Hence, those areas represent the biggest risks to the current outlook. If the US economy slows materially, or if we get a few bad jobs reports or ISMs, this could cause a double digit S&P500 pullback. But our house forecast is for an improving US economy, so positioning for the decline doesn't seem prudent. China is also clearly difficult to forecast, but we are betting on some stabilization and higher GDP growth in China than we get in the rest of the world.

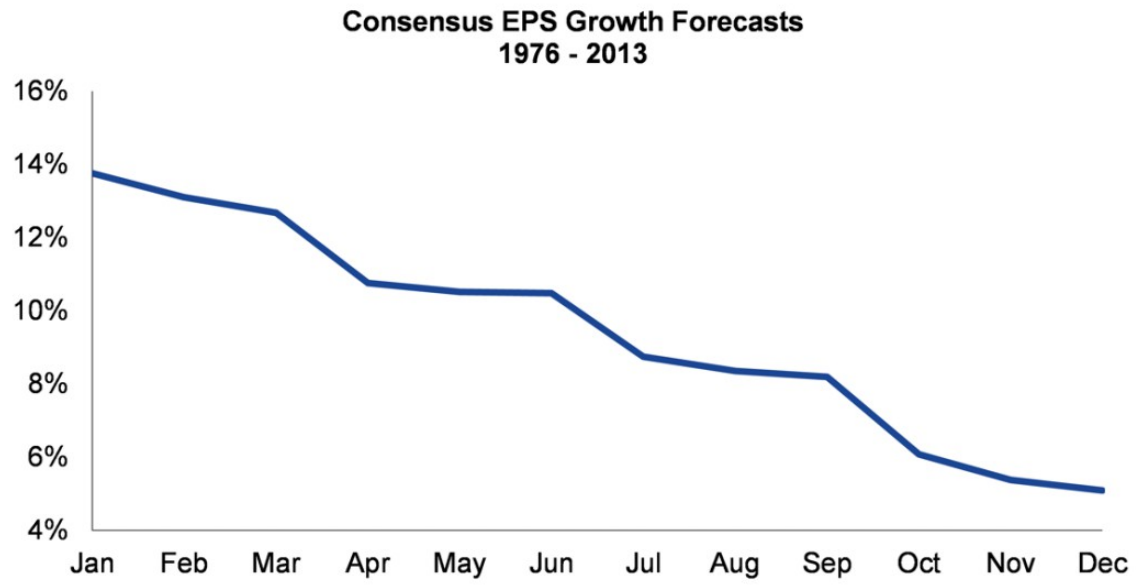
The part of our forecast that is clearly the most dubious is our forecast that the market multiple will expand to 16.9x in 2015. We don't think anyone (including us) can provide empirical evidence with statistical significance to forecast the price-to-earnings ratio of the S&P500 in a 12-month or shorter time frame. In fact, probably not in time frames shorter than a few years. Yes, we are strategists and

no we don't think we can forecast the market level. We don't think anyone can, and we wish more people knew that. While we are not surprised when people ask us our views about the market level, since some people regard that as part of our job, we have consistently demonstrated that we – and others – can't forecast the multiple. We should point out the preponderance of these questions come from financial advisors and the press, as opposed to institutional portfolio managers.

As we mentioned, our best guess, which, again, we can't support with data, is that the multiple will modestly expand. Why? We are tracking a whole host of economics, corporate, and credit factors, and think that they need to markedly shift in order for fear to increase about the potential for an earnings decline. **These factors include economic variables like consumer obligations, confidence, and delinquencies, corporate hubris gauges like capital spending, inventory, hiring, and M&A, and credit cycle issues like spreads, interest coverage, terms, and cost of capital.**

Over the past 39 years, the bottom-up earnings estimates for the US market have been too high 32 times, meaning that the analysts are typically too optimistic. In fact, analysts' estimates typically gross up to a 14% expectation for growth in a given January, only to decline through the year to 6% on average by year end (**Exhibit 1**). Therefore, it can't be that what matters is downward earnings revisions at the market level.

Exhibit 1: Forward Earnings Expectations Tend to Decline Throughout Any Given Year



Source: Thomson Reuters, Morgan Stanley Research

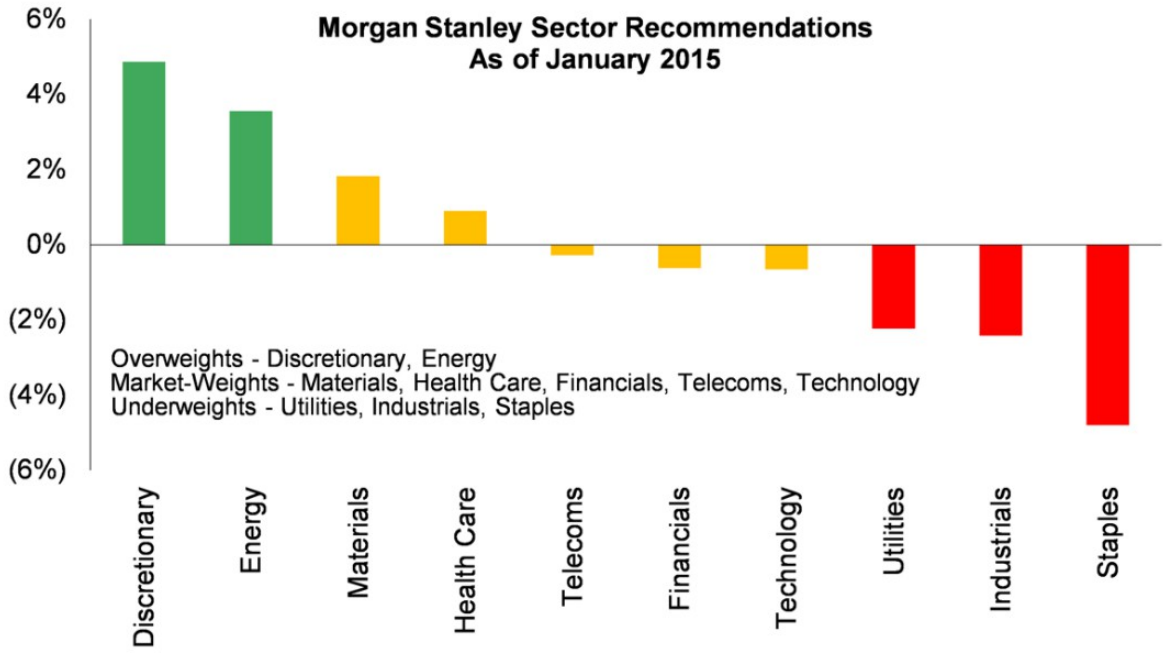
Our best guess is that what matters is the probability investors assign to an earnings decline, or to the bear case for earnings forming. As long as that stays above a certain threshold, the market seems to work. Since no one has this real-time probability distribution, the short-term multiple forecast is impossible. We absolutely believe over the long-term, say between five and ten years, that the market multiple is influenced by growth and rates, and given the current levels, we have reasonable conviction that the multiple will be lower several years from now. But in the interim, we are hoping we are not too arrogant by guessing that as long as our laundry list of factors doesn't markedly change, this could be a long economic expansion and the multiple could trend higher. That's our best guess, for now.

Sector and Portfolio Level Thoughts - Consensus and Contrarian Alike

We are recommending that investors overweight consumer discretionary and energy stocks, underweight industrials, consumer staples, and utilities (**Exhibit 2**). Our sense is that the contrarian bets at present are to be

overweight energy and underweight industrials, with the more consensual bets being to avoid the high yielding but expensive utilities and staples, and to own discretionary driven by the lower gas price.

Exhibit 2: We Are Overweight Discretionary and Energy



Source: Thomson Reuters, Morgan Stanley Research

Consumer discretionary: Our sense is that our overweight here is more of a tactical bet. We like the fact that the low end consumer benefits from lower fuel at the pump, but stocks like WMT and many other low end consumer stocks have been quickly re-rated higher, so our bets now are more on brands. We have substantive positions in NKE, LB, and HOG but all of them have moved materially post our additions, and our conviction level is more muted today. We have continued bets in media with FOXA and CBS, and still believe auto SAAR will be high enough to keep some exposure to auto parts names like DLPH.

Energy: Our bet here feels quite contrarian. During a recent visit with a long-only portfolio manager, he said "energy is over for a year because of all the capacity that has already been added." Our recent upgrade to overweight, something we addressed in two follow up notes in December, is predicated on three thoughts. Firstly, we think that the stocks are cyclical, and every time they have been down this much they have subsequently outperformed the S&P500 six months later. Secondly, the stocks typically bottom before the earnings revisions bottom, on average by two months, and as numbers have been slashed and likely will be further cut during the coming earnings season, we know we have to be anticipatory. Thirdly, the valuation for services and exploration and production companies is in the bottom decile on price-to-book and EV-to-EBITDA, levels heretofore only seen in recessions. We worry we are early, but the stocks have held in reasonably well over the last month, and we think further capacity reductions could make investors anticipatory of a higher oil price in the out years, providing some reasonable floor and good risk-reward for the stocks.

Healthcare and Technology – Contrarian to be market-weight? While we are currently market-weight both, a lot of investors we spoke with recently are overweight at least one (or both of these groups). For healthcare, our assessment is that our call there was probably our best sector-level call in the last four years. We were overweight 2011-through December 1st of 2014, nearly four years, on a thesis that there would be a R&D pipeline re-rating in biotechnology and pharmaceuticals and that the medical distribution businesses would benefit from volumes and were growth at a reasonable price. Both played out, and our view is reducing the overweight in now prudent. We still hold a 4% position in MCK, and a 2% one in CAH, and select pharma and biotech, and we don't view healthcare as a short, but valuations are now at ten-year highs on price-to-forward earnings in absolute terms, even if they remain compelling against other defensives like consumer staples.

For technology, we struggle to implement a discipline where we want to own stocks that are recommended by our fundamental analysts and screen well in our disciplined strategies. Today, there is one technology stock, HPQ, that screens in the top quintile in both our 24-month model, BEST, and our 3-month alpha model, MOST, that is recommended by a fundamental analyst at Morgan Stanley. Hard to get 20% weight in technology!

Utilities: While we appreciate that this sector is very idiosyncratic, and we wouldn't be surprised if the 10-year yield went lower in the next few months (we have not studied this like the US equity market multiple but wouldn't be at all surprised if this was also un-forecastable in short horizons), we just can't recommend a sector that is the most expensive vs. its own history it has ever been and trades at a premium to the overall market. Given the S&P500 benchmark weight is only 3%, we don't think the bet is that significant either way, but mid-cap value investors have to make up their minds to avoid valuation if they want to own even the benchweight in this group.

Consumer staples: We don't want to turn into staples perma-bears, and every time we scan our own personal items at CVS (where you have to now temporarily work to buy your items), we are surprised at the price inflation. But in aggregate, the group just doesn't look compelling. Valuations are high, estimate achievability is below average, and the stronger dollar impacts the household and personal products industry more than any other. Our sense is that if the market pulls back, this group will be resilient, and in some ways it looks more compelling than yield-focused names in REITS, and utilities, but our analysts disfavor a lot of the market cap, making it difficult to use our discipline here.

Industrials: While the energy stocks are down and the consumer stocks are up on lower oil, we don't think we have seen the full commensurate response yet from the industrials, particularly those that benefit from energy related capital spending. We still like rails and airlines (UNP and DAL are in the portfolio) but many of the high quality names look pricey, and the low quality names are currently exhibiting particularly poor fundamentals but aren't down anywhere near as much as the energy or metals and mining stocks.

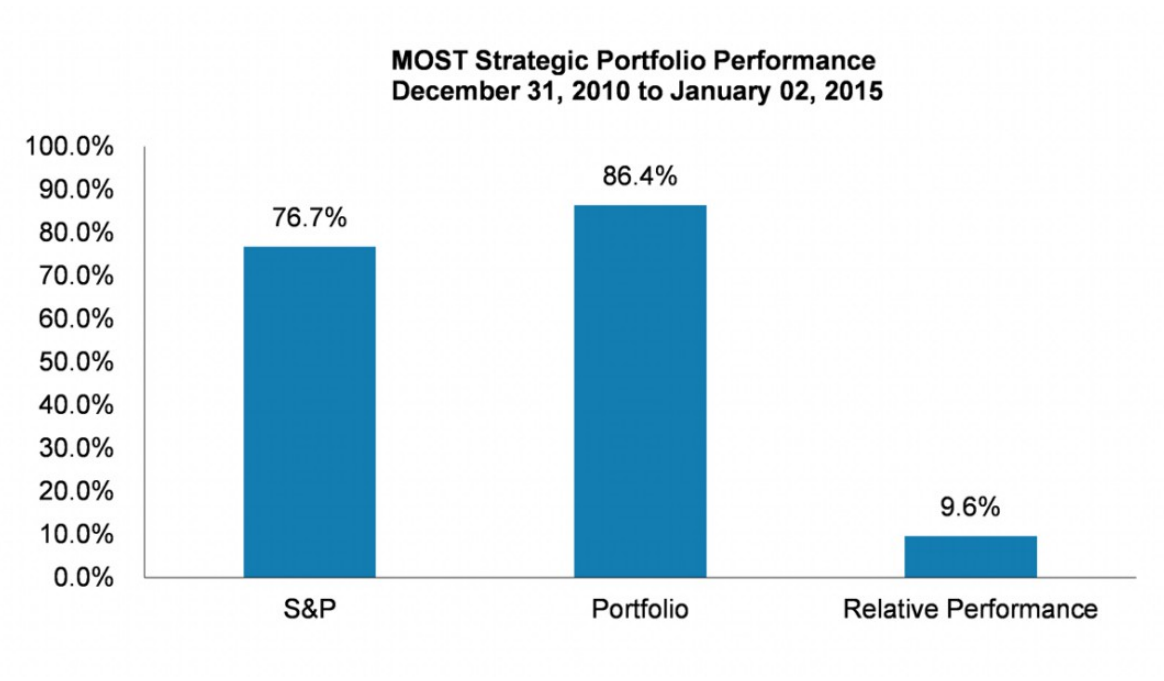
Small Caps: We are also recommending small cap stocks into 2015. We put this trade on aggressively in the middle of 2014 and it didn't work. The logic is that they have more margin expansion potential, better estimate achievability given they are more insulated from the strong dollar and lower oil, and they benefit as M&A picks up. Given they have lagged, we wouldn't be surprised to see better relative performance in the first half of the year.

Crazy thought? Dispersion remains low, and there is a huge focus on monetary policy. We wanted to write an outlook note without mentioning the word "Fed," but we couldn't. Morgan Stanley's House Call is that the Fed will act in 2016, as they will have to mark down their forecast for growth and want to be confident the US economy is on solid footing before acting. Virtually everyone we talk to thinks the market sells off when the Fed acts. Our crazy thought is that the market goes higher, maybe much higher, when the Fed finally acts, as it will be coincident with the accelerating revenue growth everyone wants if, in fact, it does happen. History is also on our side, as typically the market rallied through the first Fed action with EPS growth strong enough to offset multiple contraction. We wouldn't be surprised if the Fed waited longer than the consensus view, and we wouldn't be surprised if the market rallied when the Fed did act.

Portfolio

The relative performance of our portfolio to the S&P 500 since inception is 9.6% (**Exhibit 3**).

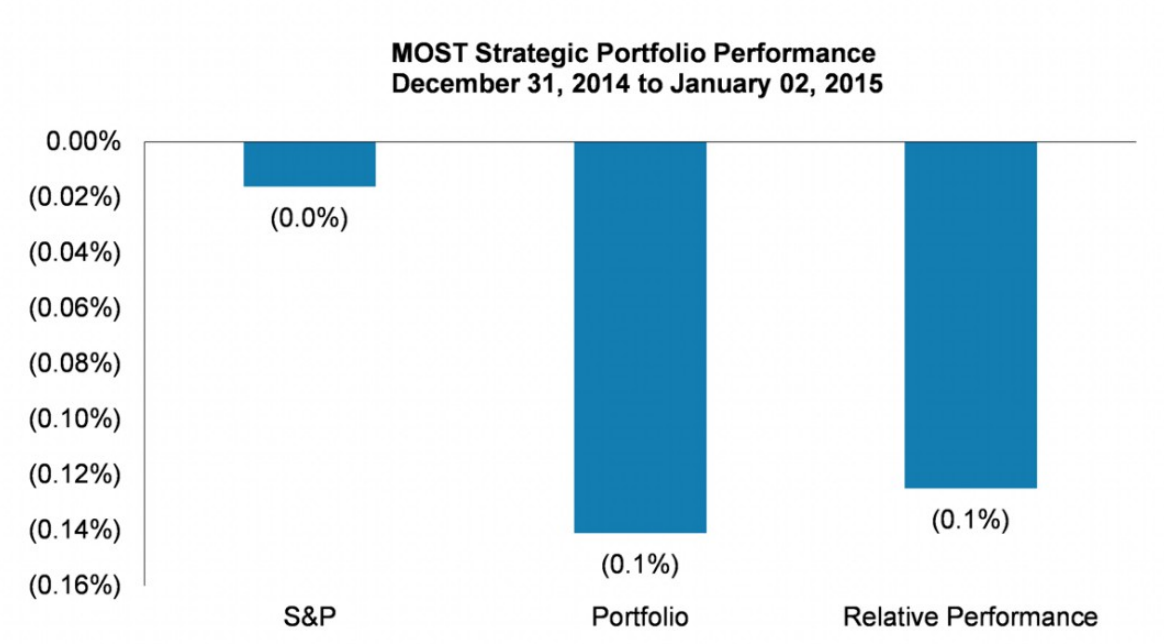
Exhibit 3: Our Portfolio Has Outperformed the S&P 500 (Total Return) by 9.6% Since Inception at the Beginning of 2011



Source: Morgan Stanley Research. Past performance is no guarantee of future returns. Performance includes dividends but excludes transaction costs

Year-to-date, our portfolio has underperformed its benchmark by 12bps (**Exhibit 4**).

Exhibit 4: Our Portfolio Has Underperformed the Market by 12bps YTD



Source: Morgan Stanley Research. Past performance is no guarantee of future returns. Performance includes dividends but excludes transaction costs

For reference, the "MOST Strategic Portfolio" is published each week and we generally only make changes on Friday nights and publish the changes early Monday mornings. Followers can therefore roughly mirror the performance. Please recall we use a combination of fundamentals and quantitative assessments to form this portfolio, in a strategy we call "quantamental". We typically start with Overweight-rated stocks by our analysts

that also screen well in our quantitative alpha models. We typically remove stocks that are no longer ranked highly by our quantitative models or have been subsequently downgraded by our fundamental analysts, although we try to do this at a moderate pace in order to keep portfolio turnover low.

The portfolio performance attribution detailing sector and stock contribution to the performance is shown in (**Exhibit 5**). Stock selection in health care, materials, staples, discretionary, and utilities has been strong, while stock selection in financials and technology has been poor.

Exhibit 5: Our Sector Bet in Health Care Has Helped Drive Outperformance

MOST Strategic Portfolio Performance Attribution December 31, 2010 to January 02, 2015

	Portfolio				S&P 500					
Sector	Relative Weight	Sector Weight	Sector Return	Relative Return	Sector Weight	Sector Return	Relative Return	Sector Allocation	Stock Selection	Total
Overweight	**8.6%**	**29.0%**	**86.2%**	**13.3%**	**20.4%**	**72.9%**	**(3.9%)**	**0.1%**	**0.6%**	**0.7%**
Consumer Discretionary	5.1%	17.0%	137.3%	32.5%	11.9%	104.7%	28.0%	(0.6%)	2.5%	1.9%
Energy	3.5%	12.0%	13.9%	(14.1%)	8.5%	28.1%	(48.7%)	0.6%	(1.9%)	(1.2%)
Market-Weights	**0.8%**	**57.0%**	**89.5%**	**4.3%**	**56.2%**	**85.1%**	**8.4%**	**2.4%**	**(2.1%)**	**0.4%**
Materials	1.8%	5.0%	166.9%	127.6%	3.2%	39.3%	(37.4%)	0.3%	4.1%	4.4%
Health Care	0.7%	15.0%	166.0%	35.8%	14.3%	130.2%	53.5%	2.3%	4.2%	6.5%
Financials	(0.7%)	16.0%	52.6%	(14.9%)	16.7%	67.5%	(9.2%)	(0.4%)	(2.3%)	(2.7%)
Telecommunication Services	(0.3%)	2.0%	1.9%	(35.2%)	2.3%	37.1%	(39.6%)	(0.0%)	(0.6%)	(0.7%)
Information Technology	(0.8%)	19.0%	48.8%	(31.6%)	19.8%	80.4%	3.7%	0.3%	(7.4%)	(7.1%)
Underweights	**(9.4%)**	**14.0%**	**104.4%**	**27.0%**	**23.4%**	**77.4%**	**0.6%**	**1.9%**	**6.7%**	**8.6%**
Utilities	(2.4%)	1.0%	127.7%	53.2%	3.4%	74.5%	(2.3%)	0.7%	2.2%	2.9%
Industrials	(2.5%)	8.0%	71.2%	(6.4%)	10.5%	77.6%	0.8%	0.7%	0.0%	0.7%
Consumer Staples	(4.5%)	5.0%	152.9%	74.7%	9.5%	78.2%	1.5%	0.5%	4.6%	5.0%
Total	**(0.0%)**	**100.0%**	**86.4%**		**100.0%**	**76.7%**		**4.4%**	**5.3%**	**9.6%**

Source: Morgan Stanley Research

The full portfolio is shown below in (**Exhibit 6**). For those interested in our quantitative output, please go to **www.morganstanley.com/equitystrategy** and use the alpha screener product for output from our 3-month model (MOST) and our 24-month model (BEST). A video tutorial is available there, or we or your Morgan Stanley salesperson can give you a brief demonstration.

Exhibit 6: The MOST Strategic Portfolio With Fundamental Analyst Recommendations and MOST Alpha Rankings

			Weight		Price		Inclusion	MOST	MS Analyst
	Ticker	Company	S&P 500	Portfolio	Latest	Inclusion	Date	Quintile	Rating
Consumer Discretionary			**12.1%**	**17.0%**					
Hotels, Restaurants and Leisure	PNRA	Panera Bread Company		1.0%	173.10	155.44	9/5/2014	Q1	Equal-Weight
Media	CBS	CBS Corporation		1.0%	54.79	19.05	12/31/2010	Q2	Overweight
Auto Components	DLPH	Delphi Automotive PLC		2.0%	72.59	69.06	5/30/2014	Q1	Overweight
Hotels, Restaurants and Leisure	HOT	Starwood Hotels & Resorts Worldwide Inc.		1.0%	80.68	79.00	11/28/2014	Q3	Overweight
Hotels, Restaurants and Leisure	LVS	Las Vegas Sands Corp.		2.0%	56.30	68.13	8/8/2014	Q2	Overweight
Textiles, Apparel and Luxury Goods	NKE	Nike, Inc.		2.0%	95.03	77.06	8/8/2014	Q2	Overweight
Multiline Retail	M	Macy's, Inc.		1.0%	65.69	59.60	10/3/2014	Q3	Overweight
Automobiles	HOG	Harley-Davidson, Inc.		2.0%	65.79	56.49	10/13/2014	Q3	Overweight
Media	FOXA	Twenty-First Century Fox, Inc.		3.0%	37.85	30.36	3/15/2013	Q3	Overweight
Specialty Retail	LB	L Brands, Inc.		2.0%	86.05	50.49	4/26/2013	Q2	Overweight
Consumer Staples			**9.8%**	**5.0%**					
Food Products	WWAV	The WhiteWave Foods Company		2.0%	34.76	21.27	11/29/2013	Q1	Overweight
Food and Staples Retailing	WMT	Wal-Mart Stores Inc.		1.0%	85.90	75.75	7/3/2014	Q5	Overweight
Food and Staples Retailing	SFM	Sprouts Farmers Market, Inc.		2.0%	34.02	31.79	11/28/2014	Q1	Overweight
Energy			**8.4%**	**12.0%**					
Oil, Gas and Consumable Fuels	APC	Anadarko Petroleum Corporation		2.0%	82.29	96.48	4/11/2014	Q5	Overweight
Energy Equipment and Services	SLB	Schlumberger Limited		3.0%	85.67	108.38	8/8/2014	Q3	Overweight
Oil, Gas and Consumable Fuels	ETE	Energy Transfer Equity, L.P.		2.0%	58.56	58.26	7/3/2014	NA	Overweight
Energy Equipment and Services	NBR	Nabors Industries Ltd.		2.0%	12.49	17.74	10/17/2014	Q1	++
Oil, Gas and Consumable Fuels	OXY	Occidental Petroleum Corporation		1.0%	80.65	79.77	11/28/2014	Q1	Overweight
Oil, Gas and Consumable Fuels	VLO	Valero Energy Corporation		2.0%	50.34	55.93	5/9/2014	Q1	Overweight
Financials			**16.6%**	**16.0%**					
Capital Markets	KKR	KKR & Co. L.P.		2.0%	23.49	23.98	2/21/2014	NA	Overweight
Banks	FITB	Fifth Third Bancorp		1.0%	20.21	21.63	7/3/2014	Q3	Overweight
Insurance	MMC	Marsh & McLennan Companies, Inc.		2.0%	56.97	47.96	2/21/2014	Q5	Overweight
Banks	BAC	Bank of America Corporation		3.0%	17.90	15.82	11/29/2013	Q4	Overweight
Real Estate Investment Trusts (REITs)	CCI	Crown Castle International Corp.		3.0%	79.51	67.55	11/23/2012	Q5	Overweight
Consumer Finance	AXP	American Express Company		2.0%	93.02	92.42	11/28/2014	Q4	Overweight
Banks	JPM	JPMorgan Chase & Co.		3.0%	62.49	42.42	12/31/2010	Q5	Overweight
Health Care			**14.1%**	**15.0%**					
Healthcare Providers and Services	MCK	McKesson Corporation		4.0%	207.20	77.74	2/4/2011	Q5	Overweight
Healthcare Providers and Services	CAH	Cardinal Health, Inc.		2.0%	80.51	38.31	12/31/2010	Q5	Overweight
Biotechnology	BIIB	Biogen Idec Inc.		3.0%	342.01	330.48	9/5/2014	Q2	Overweight
Pharmaceuticals	ABBV	AbbVie Inc.		4.0%	65.89	52.26	5/9/2014	Q5	Equal-Weight
Pharmaceuticals	PFE	Pfizer Inc.		2.0%	31.33	18.15	9/16/2011	Q5	Equal-Weight
Industrials			**10.4%**	**8.0%**					
Aerospace and Defense	HON	Honeywell International Inc.		2.0%	100.23	61.72	9/17/2012	Q3	Overweight
Road and Rail	UNP	Union Pacific Corporation		1.0%	118.61	65.45	1/4/2013	Q4	Overweight
Aerospace and Defense	BA	The Boeing Company		1.0%	129.95	128.51	7/3/2014	Q4	NA
Airlines	DAL	Delta Air Lines, Inc.		1.0%	49.18	31.76	2/21/2014	Q5	Overweight
Machinery	SPW	SPX Corporation		1.0%	85.87	101.85	9/12/2014	Q1	Overweight
Aerospace and Defense	UTX	United Technologies Corporation		2.0%	115.04	78.85	12/30/2010	Q4	Overweight
Information Technology			**19.7%**	**19.0%**					
Internet Software and Services	GOOGL	Google Inc.		5.0%	529.55	529.27	11/29/2013	Q4	Equal-Weight
Technology Hardware, Storage and Periphera	AAPL	Apple Inc.		3.0%	109.33	60.34	1/6/2012	Q5	Overweight
Internet Software and Services	LNKD	LinkedIn Corporation		1.0%	229.65	192.62	2/21/2014	Q4	NC
Technology Hardware, Storage and Periphera	HPQ	Hewlett-Packard Company		3.0%	40.24	28.34	1/3/2014	Q2	Overweight
Software	WDAY	Workday, Inc.		1.0%	80.41	67.41	5/10/2013	Q4	Equal-Weight
IT Services	XRX	Xerox Corporation		1.0%	13.75	12.39	10/13/2014	Q2	Overweight
IT Services	VNTV	Vantiv, Inc.		2.0%	33.76	31.95	8/8/2014	Q3	Overweight
IT Services	MA	MasterCard Incorporated		3.0%	85.68	34.60	1/17/2012	Q1	Overweight
Materials			**3.2%**	**5.0%**					
Chemicals	LYB	LyondellBasell Industries N.V.		1.0%	80.07	34.50	10/28/2011	Q1	Overweight
Chemicals	EMN	Eastman Chemical Co.		1.0%	76.48	77.03	11/29/2013	Q4	Equal-Weight
Metals and Mining	X	United States Steel Corp.		2.0%	26.59	33.35	11/28/2014	Q1	Overweight
Chemicals	MON	Monsanto Company		1.0%	119.74	79.02	4/5/2012	Q3	Overweight
Telecommunication Services			**2.3%**	**2.0%**					
Diversified Telecommunication Services	VZ	Verizon Communications Inc.		2.0%	46.96	50.59	11/28/2014	Q1	Overweight
Utilities			**3.2%**	**1.0%**					
Electric Utilities	EIX	Edison International		1.0%	65.51	45.44	1/3/2014	Q5	Overweight
			100%	**100%**					

Source: Thomson Reuters, Capital IQ, Morgan Stanley Research Past performance is no guarantee of future results. Price performance does not take transaction costs into account. For companies included in the portfolio, all important disclosures including personal holdings disclosures and Morgan Stanley disclosures appear on the Morgan Stanley public website at www.morganstanley.com/researchdisclosures. ++Rating for this company has been removed from consideration in this report because, under applicable law and/or Morgan Stanley policy, Morgan Stanley may be precluded from issuing such information with respect to this company at this time. NC = Not covered

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, 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 price targets 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: Yaye Ba, Brian Hayes, Phillip Neuhart, Antonio Ortega, Adam Parker, Allison Rabkin Golden.
Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

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/conflictpolicies.

Important US Regulatory Disclosures on Subject Companies

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.
Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity and specialized trading, risk arbitrage and other proprietary trading, 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.
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 December 31, 2014)
For disclosure purposes only (in accordance with NASD and NYSE 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.

	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)		
STOCK RATING CATEGORY	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY
Overweight/Buy	**1156**	**35%**	**328**	**42%**	**28%**
Equal-weight/Hold	**1439**	**44%**	**354**	**45%**	**25%**
Not-Rated/Hold	**107**	**3%**	**17**	**2%**	**16%**
Underweight/Sell	**589**	**18%**	**84**	**11%**	**14%**
TOTAL	**3,291**		**783**		

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.

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 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. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.
Each Morgan Stanley Equity Research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval is conducted by the same person who reviews the Equity Research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

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), 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).
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 US 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 or take proprietary positions that are inconsistent with the recommendations or views in this report.
To our readers in Taiwan: 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. 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. To our readers in Hong Kong: Information is distributed in Hong Kong by and on behalf of, and is attributable to, Morgan Stanley Asia Limited as part of its regulated activities in Hong Kong. If you have any queries concerning Morgan Stanley Research, please contact our Hong Kong sales representatives.
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.
Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A.; 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 Bank Morgan Stanley AG, Hong Kong Branch; 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 Bank Morgan Stanley AG, Singapore Branch (Registration number T11FC0207F); 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 Indonesia by PT Morgan Stanley Asia Indonesia; in Canada by Morgan Stanley Canada Limited, which has approved of and takes responsibility for its contents in Canada; in Germany by Morgan Stanley Bank AG, Frankfurt am Main and Morgan Stanley Private Wealth Management Limited, Niederlassung Deutschland, regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin); in Spain by Morgan Stanley, S.V., S.A., a Morgan Stanley group company, which is supervised by the Spanish Securities Markets Commission (CNMV) and states that Morgan Stanley Research has been written and distributed in accordance with the rules of conduct applicable to financial research as established under Spanish regulations; 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. Morgan Stanley Private Wealth Management Limited, authorized and regulated by the Financial Conduct Authority, also disseminates Morgan Stanley Research in the UK. Private UK investors should obtain the advice of their Morgan Stanley & Co. International plc or Morgan Stanley Private Wealth Management representative about the investments concerned. RMB Morgan Stanley (Proprietary) Limited is a member of the JSE Limited and regulated by the Financial Services Board in South Africa. 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 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.
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 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 portions of it may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.