The GIC Weekly

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What We Are Talking About

- **The Vulnerability of Growth Stocks.** The Fed's March policy pivot revived the playbook of the past decade as the first quarter's greatest relative returns accrued to high beta, low quality, US growth stocks; the appeal of growth stocks is understandable as GDP gains decelerate and inflation pauses, yet the current late-cycle easy money policy is reminiscent of 1999-2000; now, as then, market-cap weighted indexes are skewed to growth stocks, and "as goes tech, so goes the market"; earnings misses against rich valuations make a dangerous mix, and there are other vulnerabilities: ownership of growth stocks by hedge funds is high, real interest rates appear to be bottoming, growth style betas are near all-time highs, regulatory pressures are building and the IPO market has finally reopened. **Consider** neutralizing growth-style bias in portfolios by adding to value-oriented active managers.

Upcoming Catalysts

April 22 Chicago Fed National Activity Index
April 22 US existing home sales
April 23 FHFA House Price Index
April 23 Richmond Fed Manufacturing Survey
April 23 US new home sales
April 23 Euro Zone consumer confidence
April 24 Japan All Industry Activity Index
April 25 US durable goods orders
April 25 US initial jobless claims
April 25 Kansas City Fed Manufacturing Survey
April 25 US first quarter GDP
April 25 Japan industrial production
April 25 Japan retail sales
April 26 U. of M. Consumer Sentiment Index
April 26 US personal consumption

The Vulnerability of Growth Stocks

The 10th anniversary last month of both the US economic expansion and the equities bull market will likely be viewed by financial historians as aptly commemorated by the Federal Reserve's abrupt policy pivot. After all, it has been the central bank's extraordinary accommodation through negative real interest rates and Quantitative Easing that has fueled the party and all its gifts of stellar performance of financial assets. Few asset classes have benefitted more from this largesse than US growth-style equities. While US stocks have delivered 10-year compound annual returns of more than 12%—nearly 50% higher than the norm of the last 85 years—the Russell 1000 Growth Index has delivered returns that approach an annualized 16%.

Some investors have chalked up the decade-long superiority of growth to value to a belief that certain category killers have established quasi-monopolies that are competitively unassailable and thus deserve outsized valuations. While it is true that the past decade has seen some incredible examples of companies which have achieved dominance using technology and closed-platform business models, our reading is

different: In an environment of very low interest rates and scant growth, investors rewarded companies that were able to grow revenues and that could use whatever excess cash was generated to buy back stock. Given the power and persistence of this narrative, it is no wonder that the Fed's about-face was met with an immediate resumption of the rally in growth stocks. The Fed pause means rates are lower for longer, which supports high price/earnings (P/E) ratios. While we understand that this dynamic could persist as the Fed, as expected, remains on the sidelines through year end, we see many reasons for caution.

For starters, growth-style valuations are stretched, and there are some comparisons with 1999. Now, as then, the relative P/E of the top quintile of the S&P 500 ranked by the rate of sales growth sells at a multiple 85% higher than the overall index, according Empirical Research Partners. What's more, the 50 fastest-growing companies are valued at three times the market's current 17.3 P/E ratio.

Beyond valuations are the assumptions about the real interest rates that underpin them. There is reason to believe that just as the 10-year real interest rate overshot to the high side last year and triggered a 20% sell-off in equities, it may have overshot on the downside this year, which allowed for excessive expansion in valuation. To wit, the bond market is pricing as many as 50 basis points of rate cuts by the end of 2020. If global growth proves to be more resilient and/or inflation bounces back, the real 10-year rate, 62 basis points on April 18, could back up. An example of this dynamic played out last week: With better economic news on China, the 10-year real rate jumped 11 basis points and growth/value relative performance made an abrupt shift toward value stocks in a more than three-standard-deviation move (see *Chart of the Week,* page 3). Because gold, which typically moves in the opposite direction of real rates, hit a year-to-date low, there is reason to believe that real rates may have bottomed and, in turn, growth stock P/Es have peaked.

Another reason for caution centers on technical factors. First, hedge fund positioning in several high growth subsectors has become crowded and extreme. Analysis of proprietary data from Morgan Stanley Prime Brokerage reveals that based on the past 10 years, hedge-fund ownership of software stocks is in the 100th percentile, information technology services is in the 98th and internet retail is in the 97th percentile as is travel and leisure stocks. In addition, a recent analysis by Andrew Sheets, chief cross-asset strategist for Morgan Stanley & Co., suggests that the growth-style cohort is no longer defensive within the context of a global equity portfolio. In fact, relative to the MSCI All Country World Index, the growth style's downside beta is 1.07, near an all-time high, while the value style's downside beta, at 0.93, is near an all-time low (see *Chart of the Week Part 2,* page 5). The implication is that in the next downturn, growth stocks will correct more than the market.

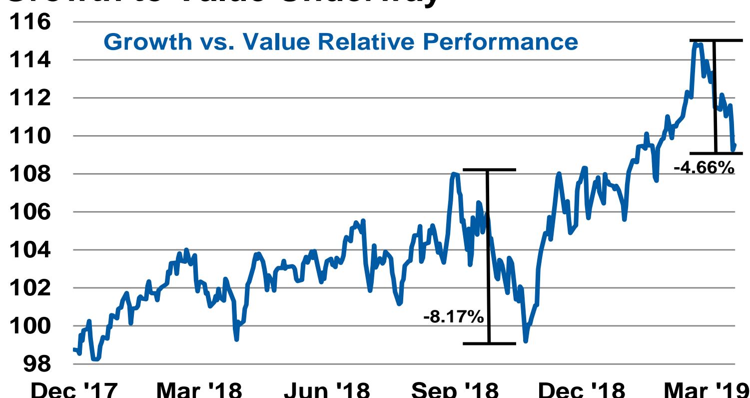
We also note a turning point in the global regulatory regime for social media platforms, developments that will add costs and slow growth. In Australia, legislators are contemplating a law that would fine social media providers as much as 10% of annual profits if they failed to remove material from their sites that is viewed as "abhorrent and violent," including content related to terrorist actions, murder, torture, rape or kidnapping. In Britain, the government's newly issued "Online Harms White Paper" imposes a duty on social media providers to "prevent the dissemination of material that incites violence, could cause suicide, disinformation, cyberbullying or allows children to access inappropriate material." At the same time, the EU Copyright Directive would force online news aggregators to screen for copyright violations and to pay publishers for the use of "abridged" content. This is a radical affront to business models that have relied on free user-supplied content.

A final point is that the market for initial public offerings (IPO), dormant for much of the decade as tech "unicorns" preferred private-market financing, is enjoying a revival. In 2018, 190 IPOs raised $46.8 billion, the highest since 2014. Despite the 35-day federal government shutdown that slowed SEC approvals, 2019's IPO pace is running at nearly three times last year's pace. What's more, the average deal size is up more than 25% on the back of highfliers in ride-sharing and social media/internet commerce. With ever more IPOs on the way, investors will likely need to fund new positions by selling their growth stock winners.

Bottom Line: The Fed's decade-long financial repression created the perfect backdrop for growth stocks to outperform and dominate global equity markets. Although the Fed's policy pivot away from normalization has convinced some investors that this narrative will resume in 2019, we are doubtful. A mature business cycle is creating headwinds for profits at a time when P/Es are already rich. What's more, many of the past decade's highfliers, overowned by hedge funds, have seen their market betas inflate, removing their defensive characteristics. They are likely to suffer should real rates back up on a recovery in economic growth. In addition, we see the global regulatory backdrop turning hostile for social media companies and the current crop of winners potentially being used as a source of funds as investors embrace the latest wave of IPOs. **Watch** the 10-year real rate as it holds the key to valuations. **Consider** neutralizing growth-style bias in portfolios by adding to value-oriented active managers. ■

Chart of the Week: Style Rotation From Growth to Value Underway

One of the most durable characteristics of the 10-year bull market in stocks has been the leadership of growth-style stocks—and in particular, technology stocks. As we have noted before, growth stocks have benefited from both the scarcity of secular growth over the past decade and low real interest rates, which support higher valuation multiples for long-duration assets. Recently, a shift in leadership from growth to value style, seen in March and last September, may signal a broader market correction (see chart). With the styles once again rotating last week, we are cautioning that this could signal yet another correction in the broad US stock indexes.



Source: Bloomberg as of April 18, 2019

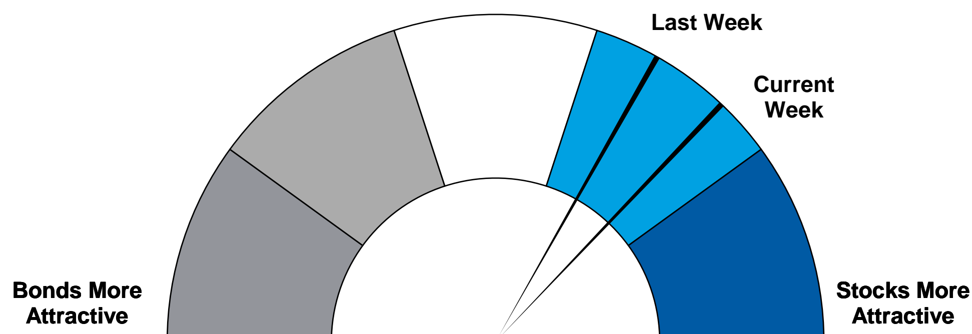
Asset Class Performance and Heat Map (as of April 18, 2019)

Asset Class	Annualized Returns (%)							Yield	Valuation		Volatility (%)		Correlation to Global Equities	
Cash	YTD	1-Yr.	2018	3-Yr.[1]	5-Yr.[1]	10-Yr.[1]	20-Yr.[1]	Current YTM	Current YTM	Avg. YTM[2]	30 Days	20 Yrs.[1]	30 Days	20 Yrs.[1]
90-Day US Treasury Bills	0.7	2.2	1.9	1.2	0.7	0.4	1.8	2.49	2.49	1.77	0.09	0.55	0.08	-0.05
Global Equities								Current Div. Yld.	Current P/E	Avg. P/E[2]				
US Large-Cap Growth	19.3	11.9	-0.9	18.2	13.1	18.0	5.0	1.03	22.3	20.7	10.2	17.0	0.89	0.89
US Large-Cap Value	13.5	8.0	-6.5	13.0	8.7	15.0	6.2	3.08	13.7	13.7	9.6	13.9	0.93	0.88
US Mid-Cap Growth	22.6	7.8	-7.9	14.8	8.6	17.6	7.5	0.64	22.2	26.4	13.6	22.6	0.87	0.81
US Mid-Cap Value	16.4	3.4	-11.4	14.2	8.6	17.7	9.7	2.79	14.4	14.4	11.5	16.0	0.84	0.88
US Small-Cap Growth	19.9	6.4	-6.6	19.4	9.1	19.1	10.5	0.58	28.5	24.0	16.2	21.3	0.84	0.84
US Small-Cap Value	16.6	1.1	-13.3	14.2	7.5	17.6	10.1	2.75	16.5	17.2	15.5	17.2	0.80	0.85
Europe Equity	14.9	-3.6	-14.3	9.2	1.3	10.3	4.4	3.71	13.8	13.9	10.1	17.9	0.86	0.94
Japan Equity	7.6	-7.8	-12.6	9.9	5.6	8.4	3.4	2.43	12.7	19.1	15.4	16.1	0.22	0.70
Asia Pacific ex Japan Equity	14.5	3.7	-10.2	14.3	4.3	12.9	9.2	3.89	15.3	14.5	9.3	19.6	0.53	0.88
Emerging Markets	13.6	-4.5	-14.2	15.5	4.5	10.7	9.4	2.71	12.5	11.2	9.8	21.7	0.76	0.87
Global Fixed Income								Current YTM	Current Spread	Avg. Spread[2]				
Short-Term Fixed Income	1.2	3.1	1.6	1.2	1.1	1.6	3.2	2.54	14.0	31.0	1.0	1.4	-0.82	-0.15
US Fixed Income	2.6	4.5	0.0	1.7	2.3	3.7	4.7	3.04	43.0	54.0	2.8	3.4	-0.78	-0.03
International Fixed Income	1.2	-3.8	-1.9	2.2	0.0	2.9	3.7	1.12	48.0	49.0	2.9	7.9	-0.45	0.32
Inflation-Protected Securities	3.2	-2.7	-4.2	4.0	1.3	4.7	5.5	-	-	-	5.1	7.7	-0.18	0.45
High Yield	7.2	2.2	-4.1	8.9	4.0	11.5	8.1	6.44	409.0	499.0	2.0	9.5	0.86	0.75
Emerging Markets Fixed. Inc.	4.3	-6.5	-6.2	6.8	0.1	5.1	7.9	6.15	274.0	331.0	8.0	11.6	0.59	0.66
Alternative Investments								Current Div. Yld.						
Real Estate/REITs	13.1	9.2	-5.5	9.5	6.8	15.0	9.3	3.92	-	-	7.8	17.9	0.41	0.80
MLP/Energy Infrastructure[3]	15.5	5.0	-12.4	7.3	-5.1	9.8	-	7.24	-	-	12.4	18.7	0.71	0.58
Commodities ex Prec. Metals	9.0	-7.6	-12.5	4.0	-10.1	-3.1	1.3	-	-	-	7.6	16.7	0.60	0.47
Precious Metals	-1.4	-8.2	-4.6	1.7	-2.0	2.6	6.9	-	-	-	10.4	19.0	-0.02	0.19
Hedged Strategies[4]	2.8	-4.2	-6.7	2.2	-0.4	1.7	-	-	-	-	2.1	5.9	0.14	0.65
Managed Futures[5]	-1.0	-3.8	-3.2	-2.3	-0.3	-2.2	-	-	-	-	3.9	7.8	-0.15	0.18
S&P 500	16.6	9.4	-4.4	15.3	10.7	16.7	6.1	1.87	16.8	15.7	9.70	14.5	0.94	0.95
Russell 2000	16.6	0.2	-11.0	16.7	7.4	16.6	8.6	1.34	25.9	20.3	16.72	19.5	0.82	0.82
MSCI EAFE	13.1	-3.7	-13.4	9.9	2.5	10.1	4.6	3.41	13.7	14.7	8.39	16.3	0.83	0.96
MSCI AC World	15.4	3.3	-8.9	13.5	6.9	13.3	5.6	2.54	15.1	15.2	8.29	15.2	1.00	1.00

Valuation	Volatility	Correlation
Cheap	Low	Low
Moderate	High	High
Expensive		

Note: Performance values calculated using USD. 1. As of March 31, 2019. 2. 20-year average as of March 31, 1998. 3. Volatility and Correlation: June 30, 2006 – Present. 4. Volatility and Correlation: Jan 31, 1998 – Present Hedged strategies consist of hedge funds and managed futures 5. Volatility and Correlation: February 28, 1998 – Present. Cheap = Below -0.5 standard deviation; Moderate = Between +0.5 standard deviation and -0.5 standard deviation; Expensive = Above +.5 std dev. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.
Source: Factset, Bloomberg, Morgan Stanley Wealth Management GIC.

Short-Term Stock and Bond Indicator



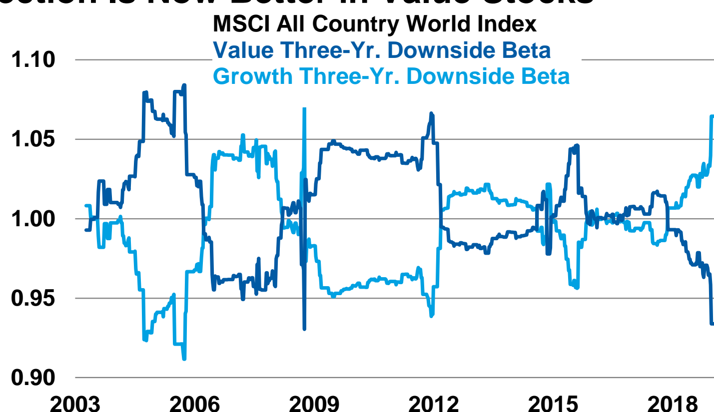
	Macro		Policy		Fundamentals		Sentiment and Technicals	
	Growth	Inflation	Rates	Liquidity	Valuation & Market	Earnings	Sentiment	Technicals
Current	Very Negative	Neutral	Very Positive	Very Positive	Neutral	Neutral	Neutral	Very Positive
Last Week	Very Negative	Neutral	Very Positive	Very Positive	Neutral	Neutral	Neutral	Neutral

Indicator	Category	Reading
PMI (+)	Growth	Risk Off
Durable Goods (+)		Neutral
Retail Sales (+)		Neutral
Manufacturing Hours Worked (+)		Risk Off
Commodity Prices (+)	Inflation	Neutral
Yield Curve: 10-Yr./Three-Mo.(-)	Rates	Risk On
Yield Curve: Two-Yr./Three-Mo.(-)		Risk On
Pace of Interest Rate Hikes (-)		Risk On
Term Premium Model (-)		Risk Off
High Yield Spreads (-)	Liquidity	Risk On
Investment Grade Spreads (-)		Neutral
Financial Conditions (-)		Risk On
S&P 500 Earnings/Baa Yield (+)	Valuation & Market Behavior	Neutral
Large vs. Small Performance (-)		Risk Off
High- vs. Low-Quality Performance (-)		Neutral
High- vs. Low-Beta Performance (+)		Neutral
S&P 500 Forward Price/Earnings Ratio (+)		Neutral
Earnings Revisions Breadth (-)	Earnings	Neutral
Global Risk Demand (+)	Sentiment	Risk On
Implied Currency Volatility (-)		Risk On
Five-Yr. Macro Sensitivity (-)		Risk Off
% Stocks Above 200-Day Moving Avg. (+)	Technicals	Risk On
Cumulative Advance/Decline (+)		Neutral
S&P 500 Put/Call Ratio (-)		Risk On
Emerging Market Fund Flows (+)		Neutral
Smart Money Flow Index (+)		Neutral
Note: + Indicates that a rise in the indicator is linked to a more favorable outlook for risk assets; - indicates that a rise in the indicator is linked to a less favorable outlook for risk assets. Color coding is set in accordance with the impact on risk assets.		Positive for Stocks Relative to Bonds
		Neutral
		Negative for Stocks Relative to Bonds

Note: Commodity prices are represented by the Bloomberg Commodity Index; pace of interest rate hikes by the Morgan Stanley Pace of Rate Hikes Index; high yield spreads by the Bloomberg Barclays Aggregate US High Yield Index; investment grade spreads by the Bloomberg Barclays US Aggregate Index; financial conditions by the Morgan Stanley Financial Conditions Index; global risk demand and implied currency volatility by the Morgan Stanley Standardized Global Risk Demand Index. For more information on our Term Premium Model, please refer to our special report, *Using the Term Premium to Manage Portfolio Duration*, March 2016.
Source: Morgan Stanley Wealth Management GIC, Morgan Stanley & Co., Haver Analytics, Bloomberg, FactSet as of April 18, 2019

Chart of the Week, Part 2: Downside Protection Is Now Better in Value Stocks

Conventional wisdom often suggests that secular growth stocks are defensive and would protect investors better in a market downturn than value stocks, which are often correlated with the business cycle. Interestingly enough, as we analyze downside market betas, we can see that at the current juncture, value style's beta is 0.93 (see chart). That's the lowest it has been in 10 years. In contrast, growth stock's beta is 1.07, a mirror image. This suggests that in a correction, value stocks should decline less than growth stocks.



Note: Downside beta is three-year beta to MSCI ACWI when the index is down. Based on weekly returns.
Source: Bloomberg, Morgan Stanley & Co. Research as of April 18, 2019

Government Debt Monitor

US				
	Yield (%)			Total Return (%)
Treasury Benchmark	Current	ΔWTD	ΔYTD	YTD
3-Month	2.41	-0.01	0.06	0.73
2-Year	2.38	0.03	-0.11	0.89
5-Year	2.37	0.06	-0.14	1.42
10-Year	2.56	0.06	-0.12	1.94
30-Year	2.96	0.03	-0.05	2.32
2-Yr./10-Yr. Spread (bp)	18	3.64	-1.70	-
10-Yr. TIPS Breakeven (bp)	195	1.51	23.71	-
Interest Rate Volatility† (bp)	49	2.33	-17.35	-

Fixed Income Spread Dashboard

		Duration (Yrs.)	Yield-to-Worst (%)	OAS (bp)	OAS Range** Rich	Cheap
Investment Grade	MBS*	5.34	3.21	39	20	39
	AAA	5.76	2.79	17	11	18
	AA	6.20	3.07	55	46	76
	A	7.38	3.39	83	68	122
	BBB	7.66	4.03	145	111	201
High Yield	BB	3.95	4.72	211	187	365
	B	3.43	6.18	352	299	542
	CCC	3.54	9.80	720	512	997

Unless stated, indexes utilized are FTSE Broad Investment Grade, FTSE High Yield, and FTSE Global Indexes
†Interest Rate Volatility measured by Merrill Lynch Option Volatility Estimate (MOVE) Index
*MBS distills high grade agency-rated mortgage-backed securities, a substantial subsector of investment grade indexes.
**OAS stands for Option-Adjusted Spread or spread over the Treasury. Grey diamond denotes current OAS; blue circle denotes two-year average.
Source: Bloomberg, The Yield Book® Software and Services. © 2019 FTSE Index LLC. All rights reserved. Data as of April 18, 2019

Government Debt Monitor

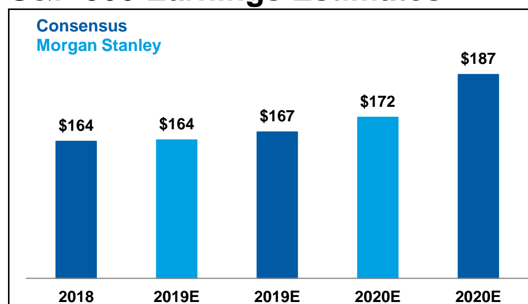
Global				
	Yield (%)			Total Return (%)*
10-Year Govt. Bond	Current	ΔWTD	ΔYTD	YTD
France	0.37	0.04	-0.34	4.01
Germany	0.02	0.03	-0.22	2.87
Japan	-0.03	0.03	-0.03	1.14
Spain	1.07	0.06	-0.35	4.67
UK	1.20	0.05	-0.08	1.45
3-Month LIBOR	2.58	-0.02	-0.23	-
US Tax Exempt				
10-Year AAA Muni	1.97	-0.19	-0.35	2.70
10-Yr. Muni/UST Ratio	76.08	-5.96	-10.24	-

Benchmark Returns

	Total Returns (%)		
Index	YTD	MTD	2018
Bloomberg Barclays US Aggregate	2.58	-0.35	0.01
Bloomberg Barclays US MBS	1.86	-0.30	0.99
Bloomberg Barclays US IG Corporate	5.24	0.09	-2.51
Bloomberg Barclays Municipal	2.70	-0.19	1.28
Bloomberg Barclays US High Yield	8.44	1.10	-2.08
Bloomberg Barclays Global Aggregate	1.69	-0.50	-1.20
JPMorgan Emerging Market	6.55	-0.04	-4.61

*Global total returns reflect Citigroup 7- to 10-year bond indexes and Muni total returns reflect Bloomberg Barclays Municipal Bond Index Total Return
Source: Bloomberg, Thomson Reuters Municipal Market Data (MMD) as of April 18, 2019

S&P 500 Earnings Estimates



Source: FactSet, Thomson Reuters, Morgan Stanley & Co. Research as of April 18, 2019

MS & Co. S&P 500 Price Target: Year-End 2019

Landscape	Earnings	Price/Earnings Multiple	Price Target	Upside / Downside
Bull Case	$180	16.5	3,000	3.3%
Base Case	$172	16.0	2,750	-5.3%
Bear Case	$158	15.0	2,400	-17.4%
	Current S&P 500 Price		2,905	

Note: 2019 price targets are based on estimated 2020 earnings.
Source: Thomson Reuters, Morgan Stanley & Co. Research as of April 18, 2019

S&P 500 Sector Performance and Valuation (as of April 18, 2019)

Index Name	Total Return			Dividend Yield (%)	Beta	20-Year Avg. Forward 12-Mo. PE	Forward 12-Mo. P/E*
	WTD (%)	YTD (%)	1-Year (%)				
S&P 500	***-0.07***	***16.59***	***9.43***	***1.87***		***15.7***	***16.8***
Energy	-0.53	18.22	-5.69	3.20	1.01	17.3	**17.5**
Materials	-0.49	14.99	-1.55	2.17	0.97	13.9	**16.5**
Industrials	1.35	22.33	5.17	1.88	1.05	16.1	**16.4**
Consumer Discretionary	0.83	21.23	15.08	1.15	1.16	17.9	**21.6**
Consumer Staples	1.09	13.21	11.21	2.86	0.51	16.8	**19.1**
Health Care	-4.39	-0.22	4.98	1.78	0.92	16.5	**14.6**
Financials	0.69	15.42	1.68	1.98	0.91	12.6	**11.9**
Information Technology	1.32	26.06	16.81	1.38	1.37	20.2	**19.2**
Telecommunication Services	0.68	20.32	11.86	1.36	0.93	15.8	**18.1**
Utilities	-1.58	9.15	16.88	3.21	0.19	14.3	**18.2**
Real Estate	-3.21	15.29	18.93	3.11	0.49	15.4	**18.8**

*Dark blue/light blue/gray fill denotes whether current relative forward 12-month P/E is low/neutral/high relative to history.
Source: Morgan Stanley & Co. Research

Performance of Style and Cap Pairs (as of April 18, 2019)

Source: Morgan Stanley & Co. Small Cap is represented by the Russell 2000 Index; Large Cap represented by the Russell 1000 Index; Growth represented by the Russell 1000 Growth Index; Value represented by the Russell 1000 Value Index.Cyclicals and Defensives, and Quality and Junk are based on Morgan Stanley & Co. Research analysis.

Morgan Stanley & Co. Forecasts (as of April 18, 2019)z

	Real GDP Growth (%)			10-Yr. Govt. Bond Yield (%)		Headline Inflation (%)			Currency Versus US Dollar		
	2018E	2019E	2020E	Q2 '19E	Q4 '19E	2018E	2019E	2020E	Q2 '19E	Q4 '19E	Q2 '20E
Global	3.7	3.4	3.5			2.8	2.6	2.9			
US	2.9	2.1	2.2	2.40	2.25	2.4	1.8	2.6			
Euro Zone	1.8	1.0	1.3			1.8	1.3	1.5	1.17	1.25	1.30
UK	1.4	1.2	1.5	1.55	1.65	2.5	2.0	2.1	1.38	1.52	1.56
Japan	0.8	0.8	0.6	0.00	-0.05	1.0	0.4	0.6	106	102	98
Emerging Markets	4.8	4.7	4.8			3.4	3.3	3.5			
China	6.6	6.3	6.1			2.1	2.4	2.2	6.63	6.55	6.45

Source: Morgan Stanley & Co. Research

Macro Factor Heat Map (as of April 18, 2019)

	Economic Growth	Rates	Inflation / Deflation	Liquidity	Sentiment and Risk	Valuation	Earnings	GIC Conclusion
China	↓	↑	↓	↑	↓	↑	↑	Soft Landing Better than Expected
Japan	↓	↓	↓	↓	↓	↑	↓	Improving Profits and Weaker Yen
Europe	↓	↓	↓	↑	↑	↑	↑	Cyclical Headwinds from China Trade Links Abating
Brazil	↑	↓	↑	↑	↑	↓	↑	Political Stability Supports Recovery

Risk Asset Positive	Neutral	Risk Asset Negative

Note: Text in a factor box denotes a color change; for further explanation of the chart, see page 9.
Source: Morgan Stanley Wealth Management GIC

Market Factor Data Points (for the week ending April 18, 2019)

	Positives	Negatives
Global Growth	• US weekly initial jobless claims fell to 192,000 vs. 205,000 projected • Empire State Manufacturing Survey increased to 10.1 for April, beating forecast of 8.0 • March US retail sales rose 1.6% month over month vs. 1.0% forecast • US wholesale inventories rose less than expected in February, 0.2% month over month vs. 0.3% projected	• Philadelphia Fed Survey disappointed at 8.5 in April vs. 11.0 forecast • US industrial production declined 0.1% month over month in March vs. an expected 0.2% increase • US Markit Manufacturing PMI missed forecast in April at 52.4 vs. estimate of 52.8 • March US capacity utilization decreased to 78.8% vs. 79.2% forecast
Sentiment and Flows	• Bloomberg Consumer Comfort Survey came in at 60.3 for week ending April 14 vs. 59.8 the previous week • Bloomberg US National Economy Expectations Diffusion Index rose to 50.0 in April vs. 47.5 in March	

Source: Morgan Stanley Wealth Management GIC

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Underweight	After the worst fourth quarter since 2008, the S&P 500 had its best first quarter since 1998. This kind of volatility is unusual and was precipitated by a Federal Reserve that appeared too hawkish in December, only to reverse course on its policy perhaps faster than we've ever witnessed. Meanwhile, economic and earnings fundamentals continue to deteriorate, leaving us with an unexciting target of just 2,750 for the S&P 500 this year. As a result, we remain underweight the US.
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. The populist movements around the world are likely to drive more fiscal policy action in both regions, especially in Europe, which will allow the central banks to exit their extraordinary monetary policies and help valuations to rise.
Emerging Markets	Overweight	After a difficult first 10 months of 2018, emerging market (EM) equities have performed relatively well, a positive sign for future leadership. With our view for the US dollar to make a secular top this year, global nominal GDP growth should accelerate faster than the US GDP, particularly as China's fiscal stimulus takes hold. This should disproportionately benefit international equities, led by EM equities.
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Underweight	We have recommended shorter-duration* (maturities) since March 2013 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels. We are also increasingly concerned that credit spreads do not reflect the current earnings recession in the US nor the significant leverage now present on corporate balance sheet. Therefore, we are underweight US IG.
International Investment Grade	Underweight	Yields are even lower outside the US, leaving very little value in international fixed income, particularly as the global economy begins to recover more broadly. While interest rates are likely to stay low, the offsetting diversification benefits do not warrant much, if any, position, in our view.
Inflation-Protected Securities	Overweight	With the recent collapse in real yields from the Fed's pivot, these securities offer little relative value in the context of our expectations for global growth to eventually accelerate, oil prices to trough and the US dollar to top. In short, inflation risk is underpriced.
High Yield	Underweight	High yield bonds have rebounded with equity markets this year as the Fed pivoted to a more dovish policy. Since February, high yield has underperformed investment grade as it starts to reflect earnings recession risk in the US. With a zero weighting in high yield since January 2018, we will revisit our allocation to high yield bonds during 2019 if spreads widen appropriately.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive.
Master Limited Partnerships/Energy Infrastructure*	Overweight	Master limited partnerships (MLPs) rebounded this year. With oil prices recovering and a more favorable regulatory environment, MLPs should provide a reliable and attractive yield relative to high yield. Global supply shortages from Iranian sanctions should also be supportive for fracking activity and pipeline construction, both of which should lead to an acceleration in dividend growth.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. With the recent surge in volatility, these strategies could perform better on a relative basis.

For more about the risks to Master Limited Partnerships (MLPs) and Duration, please see the Risk Considerations section beginning on page 10 of this report.

Source: Morgan Stanley Wealth Management GIC as of April 18, 2019

Macro Factor Heat Map Key (see page 7)

	Economic Growth	Rates	Inflation / Deflation	Liquidity	Sentiment and Risk	Valuation	Earnings	Conclusion
Dark Blue	Economic growth robust	Steep yield curve	Low-moderate and rising inflation	Liquidity robust in economy / banking system	Shorter-term sentiment and technicals bearish	Risk assets attractively valued	Earnings outlook robust	Confluence of factors supports a risk-on investment approach
Light Blue	Economic growth neutral	Normal yield curve	Low-moderate and declining inflation; moderate inflation; higher and falling inflation	Liquidity neutral in the economy / banking system	Shorter-term sentiment and technicals neutral	Risk assets neutral	Earnings outlook neutral	Confluence of factors supports a neutral investment approach
Gray	Economic growth anemic	Flat/inverted yield curve	Very high/low inflation/deflation; high and rising inflation	Liquidity low in economy / banking system	Shorter-term sentiment and technicals bullish	Risk assets are richly valued	Earnings outlook anemic	Confluence of factors supports a risk-off investment approach
Up	Growth accelerating	Yield curve steepening	Inflation rising	Liquidity increasing	Sentiment becoming more bullish	Valuations rising	Earnings outlook improving	
Down	Growth declining	Yield curve flattening	Inflation falling	Liquidity decreasing	Sentiment becoming more bearish	Valuations falling	Earnings outlook worsening	
Signal Horizon	One to three years	One to three years	One to three years	One to three years	One to three months	Six months to two years	Six months to two years	
Inputs	• Industrial production • Unemployment • Total return • Earnings revisions • Home prices • OECD LEI (China and Brazil) • MS & Co. ARIA (US)	• 10-year vs. 2-year government bond yield spread	• Consumer Price Index	• M1 growth • Private credit growth • Libor-OIS spread	• MS US Equity Risk Indicator (US) • MS Combined Market Timing Indicator (Europe) • MS Global Risk Demand Index • Relative strength index • Members above / below moving average. • Index above / below moving average • Consumer confidence	• Forward price/earnings ratio • Price/book ratio • Equity risk premium • High yield option-adjusted spread	• Earnings revisions breadth • Earnings surprise • Return on equity	• Weighted average z-score of all factors

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:
https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

Risk Considerations

MLPs

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

Investing in foreign markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. **Investing in currency** involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with **emerging markets**, since these countries may have relatively unstable governments and less established markets and economies.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an

investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation ("SIPC") provides certain protection for customers' cash and securities in the event of a brokerage firm's bankruptcy, other financial difficulties, or if customers' assets are missing. SIPC insurance does not apply to precious metals or other commodities.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Interest on municipal bonds is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence.

Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

Ultrashort bond funds Ultra-short bond funds are mutual funds and exchange-traded funds that generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Ultrashort-term fixed income asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk

The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price.

The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

Some $25 or $1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

Asset-backed securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Companies paying **dividends** can reduce or cut payouts at any time.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Credit ratings are subject to change.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Technology stocks** may be especially volatile. Risks applicable to companies in the **energy and natural resources** sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

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