

The GIC Weekly



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The next issue of *The GIC Weekly* will be published on Tuesday, April 23.

Upcoming Catalysts

April 15 Empire State Manufacturing Survey
 April 16 US industrial production
 April 16 NAHB/Wells Fargo Housing Market Index
 April 17 US trade balance
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 April 18 Philadelphia Fed Survey
 April 18 US initial jobless claims
 April 18 Euro Zone Markit Composite PMI
 April 18 US leading indicators
 April 18 Japan CPI
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What We Are Talking About

- Remember Corporate Fundamentals?** The Fed's radical policy pivot from tightening to potential easing appears fully priced by markets; the real 10-year US Treasury rate, now back at early 2018 levels, powered an expansion in valuation multiples; equities now discount an economic soft landing, but the bond market expects deteriorating growth and possibly a recession; this disconnect is likely not sustainable; investors seem to dismiss weakening corporate fundamentals as temporary; we are not convinced and believe first quarter S&P 500 profits could be weighed down by data deterioration in Europe, a strong US dollar, weak pricing power, swollen inventories plus higher labor, oil and debt service costs; this could become an earnings recession. **Consider** taking profits in the tech sector, where valuations are rich and negative operating leverage may be most severe.

Remember Corporate Fundamentals?

As we enter the second quarter of 2019, year-to-date returns are impressive: The S&P 500 Index is up 16.7%; the NASDAQ Composite up 20.7%; and the MSCI All Country World Index up nearly 14.7%. With the Federal Reserve reflexively responding to financial conditions and market declines as much as to hard economic data, investors have been emboldened to take risk. Much of the rebound has been a retracement of the fourth quarter's cyclical bear market, a correction of more than 20%, on the back of a 180-degree shift in Fed policy bias. Importantly, 100% of the gains have been fueled by an expansion in stock valuation multiples. As we have explained often in recent months, the dramatic decline in the real 10-year US Treasury rate to 55 basis points from 115 basis points in November 2018 explains much of this revaluation and the shrinkage of equity risk premiums. Ordinarily, this type of repricing, while certainly swift, is completely rational, lining up with the traditional relationship between interest rates and the equity risk premium. Furthermore, for investors who are making comparisons to relatively recent reversals in Fed policy—namely 2009, 2013 and 2016—such a move in multiples is justified because of the potential for powerful reflation and a rebound in

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profit growth. Many have resurrected the Goldilocks meme to mark the return to a steady economic growth, accommodative central banks and limited threats from inflation. We are not convinced.

Mike Wilson, chief investment officer at Morgan Stanley & Co., notes that the US economy is operating at full capacity: The output gap has closed, unemployment is near a 50-year low, consumer and business confidence are near 30-year highs and importantly, S&P 500 profits and operating margin are near peaks. Not only do 2019 consensus estimates suggest that profit growth is rapidly decelerating to a 2% gain this year from 25% a year ago, but we see an actual contraction or earnings recession. Consensus estimates seem to embody our view that first quarter earnings growth could be negative, with FactSet estimates suggesting an average 3.6% decline in S&P 500 earnings. Forecasts for the remainder of the year suggest that the drop in earnings growth will prove ephemeral, the result of one-time items like the 35-day government shutdown, US-China trade tensions, a soft patch in consumer spending related to tax refund uncertainty and overly tight monetary policy. We disagree with that explanation, and fear that earnings disappointments could prove more pernicious, making current valuations unsustainable.

Our caution begins with the threats to revenue growth, for which the FactSet consensus estimate is 3%. From our seat, investors should prepare for headwinds from the lingering global slowdown. European demand, which accounts for 30% of S&P 500 revenues, has proven much worse than expected, with most manufacturing gauges contracting in the first quarter. While other major regions saw March PMIs stabilize or rebound, Europe continued to weaken with a contractionary reading. Tech companies and multinationals are also vulnerable, given that the US dollar is up nearly 8% versus a year ago. In addition, bulging supply-chain inventories, defensively accumulated in case of disruptive trade disputes, have dampened production. What's more, the evidence shows that pricing power is weak.

Even more critical is that weak sales could be amplified on the bottom line if operating margins are squeezed. Specifically, what is fundamentally different is that in prior episodes of Fed pausing or easing since 2009, S&P 500 operating margins were well below the 12.8% 10-year average. Now, the profitability rate is 13.3%, close to the recent peak. That means there's little room for companies to generate outsized profit growth through

positive operating leverage. The *Chart of the Week* (see page 3) shows that global PMIs tend to lead profit margins by roughly three months. In 2017, the last time global PMIs were at the current level, margins were roughly 80 basis points lower. We see margin pressures from rising costs for labor and benefits. Manufacturing inputs linked to oil, such as plastics, could see the effect of a 36% jump in oil prices for the year to date. Prices for industrial metals are up 6% in the same period. All told, Wilson estimates that first-quarter tech sector earnings may show the worst examples of this negative operating leverage: sector profits down 10.6% while industry groups such as semiconductors and hardware are down 24% and 16%, respectively.

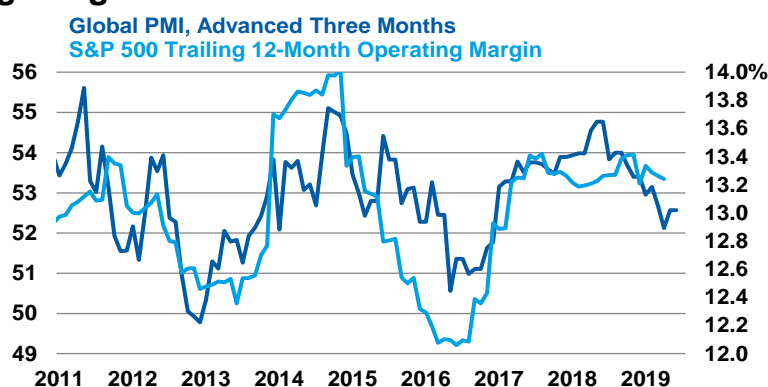
A final factor is the outlook for capital spending. As we have noted before, productivity gains, the ultimate driver of operating profit margins, are highly dependent on capital investment. Incentives coming out of tax reform helped drive 2018 capital spending growth more than 7%, the best pace in five years, but the potential for gains this year may be strained. By our analysis, there is a good correlation between changes in the National Federation of Independent Businesses survey of Capital Expenditures Intentions and forward real investment in the nonresidential/nonoil pipeline capital base. Because the most recent survey is the worst since 2010, expectations are for muted capital spending at best—and thus only incremental gains in profit margins.

Bottom Line: It is appropriate that risk premiums have readjusted for the change in Fed policy, but valuation multiples are now at the high end of their range. This would not be problematic if earnings were growing or if the odds of a reflationary rebound were good, but they are not and thus earnings growth and profit margins are vulnerable. We believe the headwinds from a weakening Europe, a strong US dollar, rising labor costs, higher oil and industrial metals prices, increased capital costs and above-average inventories will cause an earnings recession and further disappointment. Fragile confidence in forward estimates could snowball, impeding capital spending. **Watch** forward earnings guidance, especially around the outlook for operating margins. **Consider** taking profits in the tech sector, where valuations are rich and negative operating leverage on profits may be most severe. ■

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Chart of the Week: Corporate Operating Margins Are at Risk

Entering the first-quarter earnings season, consensus expectations are for a year-over-year decline in S&P 500 profits, a reflection of what many say is a temporary soft patch caused by the US government shutdown, ongoing trade tensions and the roll-off of tax-cut stimulus. While we agree that these factors contribute to the negative earnings outlook, we are not convinced that the first quarter will be the trough in profit margins. To the contrary, the leading properties of the PMI data suggest that the recent global slowdown could reverberate for at least another three months (see chart). Beyond the negative effects of slowing sales on operating leverage, we see headwinds from higher labor costs, swollen inventories, oil prices that are up 36% for the year to date and a US dollar that is 8% higher than a year ago.



Source: Bloomberg as of April 10, 2019

Asset Class Performance and Heat Map (as of April 12, 2019)

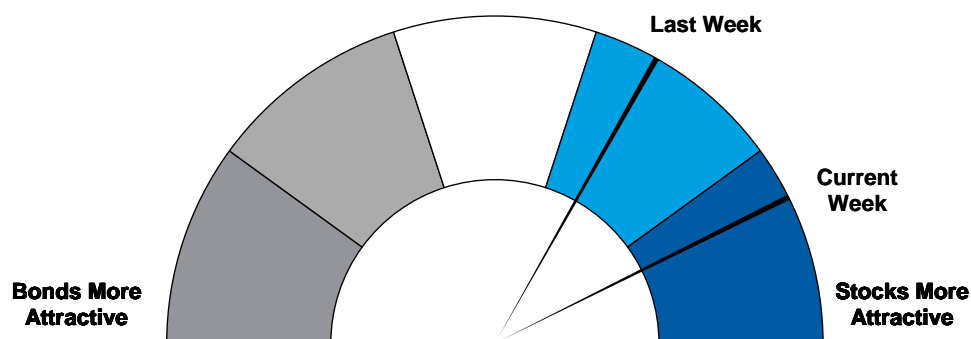
Asset Class	Annualized Returns (%)							Yield	Valuation		Volatility (%)		Correlation to Global Equities	
	YTD	1-Yr.	2018	3-Yr. ¹	5-Yr. ¹	10-Yr. ¹	20-Yr. ¹		Current YTM	Current YTM	Avg. YTM ²	30 Days	20 Yrs. ¹	30 Days
Cash								2.49	2.49	1.77	0.08	0.55	0.04	-0.05
90-Day US Treasury Bills	0.7	2.1	1.9	1.2	0.7	0.4	0.8	Current Div. Yld.	Current P/E	Avg. P/E ²				
Global Equities								1.03	22.3	20.7	10.3	17.0	0.90	0.89
US Large-Cap Growth	19.4	14.7	-0.9	18.2	13.1	18.0	5.0	3.08	13.7	13.7	9.8	13.9	0.93	0.88
US Large-Cap Value	13.4	8.8	-6.5	13.0	8.7	15.0	6.2	0.64	22.4	26.4	13.2	22.6	0.89	0.81
US Mid-Cap Growth	23.7	11.3	-7.9	14.8	8.6	17.6	7.5	2.79	14.5	14.4	11.2	16.0	0.85	0.88
US Mid-Cap Value	17.3	5.4	-11.4	14.2	8.6	17.7	9.7	0.58	28.8	24.0	15.6	21.3	0.85	0.84
US Small-Cap Growth	21.4	10.0	-6.6	19.4	9.1	19.1	10.5	2.75	16.6	17.2	15.2	17.2	0.78	0.85
US Small-Cap Value	17.8	3.5	-13.3	14.2	7.5	17.6	10.1	3.71	13.7	13.9	10.8	17.9	0.84	0.94
Europe Equity	14.6	-2.4	-14.3	9.2	1.3	10.3	4.4	2.43	12.6	19.1	15.9	16.1	0.25	0.70
Japan Equity	6.7	-6.9	-12.6	9.9	5.6	8.4	3.4	3.89	15.3	14.5	9.3	19.6	0.51	0.88
Asia Pacific ex Japan Equity	14.7	4.6	-10.2	14.3	4.3	12.9	9.2	2.71	12.4	11.2	10.2	21.7	0.76	0.87
Emerging Markets	13.2	-4.8	-14.2	15.5	4.5	10.7	9.4	Current YTM	Current Spread	Avg. Spread ²				
Global Fixed Income								2.56	14.0	31.0	1.0	1.4	-0.74	-0.15
Short-Term Fixed Income	1.1	3.0	1.6	1.2	1.1	1.6	3.2	3.04	42.0	54.0	2.9	3.4	-0.67	-0.03
US Fixed Income	2.5	4.3	0.0	1.7	2.3	3.7	4.7	1.12	48.0	49.0	3.1	7.9	-0.34	0.32
International Fixed Income	1.5	-3.3	-1.9	2.2	0.0	2.9	3.7	-	-	-	5.3	7.7	-0.13	0.45
Inflation-Protected Securities	3.7	-2.3	-4.2	4.0	1.3	4.7	5.5	6.43	406.0	499.0	2.2	9.5	0.86	0.75
High Yield	7.2	2.5	-4.1	8.9	4.0	11.5	8.1	6.16	274.0	331.0	8.0	11.6	0.63	0.66
Emerging Markets Fixed. Inc.	4.7	-5.5	-6.2	6.8	0.1	5.1	7.9	Current Div. Yld.	-	-				
Alternative Investments								3.85	-	-	6.0	17.9	0.54	0.80
Real Estate/REITs	15.5	12.6	-5.5	9.5	6.8	15.0	9.3	7.14	-	-	11.5	18.7	0.67	0.58
MLP/Energy Infrastructure ³	18.5	12.9	-12.4	7.3	-5.1	9.8	-	-	-	-	7.8	16.7	0.64	0.47
Commodities ex Prec. Metals	10.3	-5.0	-12.5	4.0	-10.1	-3.1	1.3	-	-	-	11.5	19.0	0.10	0.19
Precious Metals	-0.3	-5.5	-4.6	1.7	-2.0	2.6	6.9	-	-	-	2.1	5.9	0.16	0.65
Hedged Strategies ⁴	2.7	-3.6	-6.7	2.2	-0.4	1.7	-	-	-	-	4.0	7.8	-0.08	0.18
Managed Futures ⁵	-0.8	-2.5	-3.2	-2.3	-0.3	-2.2	-							
S&P 500	16.7	11.3	-4.4	15.3	10.7	16.7	6.1	1.85	16.8	15.7	9.85	14.5	0.94	0.95
Russell 2000	18.0	3.2	-11.0	16.7	7.4	16.6	8.6	1.34	25.9	20.3	16.39	19.5	0.81	0.82
MSCI EAFE	12.7	-2.7	-13.4	9.9	2.5	10.1	4.6	3.41	13.6	14.7	8.72	16.3	0.85	0.96
MSCI AC World	15.3	4.6	-8.9	13.5	6.9	13.3	5.6	2.54	15.1	15.2	8.55	15.2	1.00	1.00

Note: Performance values calculated using USD. 1. As of March 31, 2019. 2. 20-year average as of March 31, 2019. 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.

Cheap	Low	Low
Moderate	High	High
Expensive		

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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	Neutral
Last Week	Very Negative	Very Positive	Very Positive	Very Positive	Neutral	Neutral	Neutral	Very Positive

Indicator	Category	Reading
PMI (+)		Risk Off
Durable Goods (+)	Growth	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 (-)		Neutral
S&P 500 Earnings/Baa Yield (+)	Valuation & Market Behavior	Neutral
Large vs. Small Performance (-)		Risk Off
High- vs. Low-Quality Performance (-)		Risk Off
High- vs. Low-Beta Performance (+)		Neutral
S&P 500 Forward Price/Earnings Ratio (+)		Risk On
Earnings Revisions Breadth (-)		Earnings
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 (+)		Risk On
S&P 500 Put/Call Ratio (-)		Risk Off
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

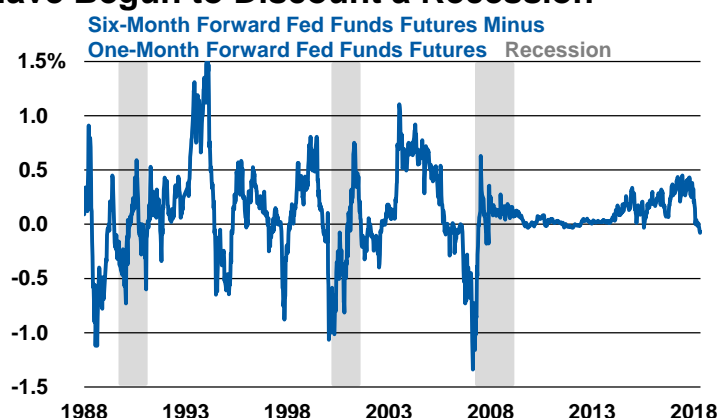
Note: Commodity prices are represented by the Bloomberg Commodity Index; pace of interest rate hikes by the Morgan Stanley Pace of Rate Hikes Index; high yield spreads by the Bloomberg Barclays Aggregate US High Yield Index; investment grade spreads by the Bloomberg Barclays US Aggregate Index; financial 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 12, 2019

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Fixed Income Insight: Treasury Futures Have Begun to Discount a Recession

Since the Fed's policy pivot away from tightening in March, the Treasury futures markets have been discounting at least two 25-basis-point rate cuts through the end of 2020. Our reading is that a 50-basis-point cut in the next two years would be bad for stocks as it would undermine the Goldilocks and soft landing theses currently priced in the markets and would suggest a recession. While longer-dated futures can sometimes exaggerate market expectations, a shorter-term indicator, the six-month forward fed funds futures less the one-month forward fed funds futures, may give a more immediate and better reading on current expectations (see chart). Our analysis shows that when the market prices in excess of 50 basis points on this metric, we are likely in a recession. Current readings of -15 basis points, or -0.15%, on the indicator suggest nothing imminent for the next three to five months. Even so, caution is warranted.



Source: Bloomberg as of April 11, 2019

Government Debt Monitor

	US			Total Return (%)
	Yield (%)			
Treasury Benchmark	Current	ΔWTD	ΔYTD	YTD
3-Month	2.42	0.00	0.07	0.68
2-Year	2.39	0.05	-0.10	0.83
5-Year	2.38	0.07	-0.13	1.33
10-Year	2.57	0.07	-0.12	1.87
30-Year	2.98	0.07	-0.04	2.01
2-Yr./10-Yr. Spread (bp)	17	1.76	-2.27	-
10-Yr. TIPS Breakeven (bp)	196	5.20	24.98	-
Interest Rate Volatility† (bp)	49	-0.38	-17.74	-

Fixed Income Spread Dashboard

	Duration (Yrs.)	Yield-to-Worst (%)	OAS (bp)	OAS Range**	
				Rich	Cheap
Investment Grade	MBS*	5.30	3.19	35	20 - 39
	AAA	5.75	2.79	16	11 - 18
	AA	6.21	3.07	54	46 - 76
	A	7.37	3.39	83	68 - 122
	BBB	7.67	4.03	145	111 - 201
High Yield	BB	3.93	4.65	205	187 - 365
	B	3.38	6.15	348	299 - 542
	CCC	3.48	9.73	714	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 12, 2019

Government Debt Monitor

	Global			Total Return (%)*
	Yield (%)			
10-Year Govt. Bond	Current	ΔWTD	ΔYTD	YTD
France	0.40	0.04	-0.31	3.64
Germany	0.05	0.05	-0.19	2.50
Japan	-0.06	-0.02	-0.05	1.34
Spain	1.05	-0.05	-0.37	4.75
UK	1.21	0.10	-0.06	1.23
3-Month LIBOR	2.60	0.00	-0.21	-
US Tax Exempt				
10-Year AAA Muni	1.96	-0.21	-0.36	2.67
10-Yr. Muni/UST Ratio	76.25	-5.79	-10.07	-

Benchmark Returns

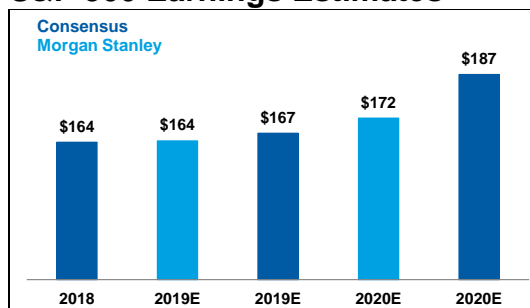
Index	Total Returns (%)		
	YTD	MTD	2018
Bloomberg Barclays US Aggregate	2.52	-0.41	0.01
Bloomberg Barclays US MBS	1.89	-0.27	0.99
Bloomberg Barclays US IG Corporate	5.13	-0.01	-2.51
Bloomberg Barclays Municipal	2.67	-0.22	1.28
Bloomberg Barclays US High Yield	8.40	1.07	-2.08
Bloomberg Barclays Global Aggregate	1.88	-0.32	-1.20
JPMorgan Emerging Market	6.39	-0.19	-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 12, 2019

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S&P 500 Earnings Estimates



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	3.2%
Base Case	\$172	16.0	2,750	-5.4%
Bear Case	\$158	15.0	2,400	-17.5%
Current S&P 500 Price			2,907	

Source: FactSet, Thomson Reuters, Morgan Stanley & Co. Research as of April 12, 2019

Note: 2019 price targets are based on estimated 2020 earnings. Source: Thomson Reuters, Morgan Stanley & Co. Research as of April 12, 2019

S&P 500 Sector Performance and Valuation (as of April 12, 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	0.56	16.67	11.34	1.85		15.7	16.8
Energy	-0.17	18.84	-1.29	3.14	1.01	17.3	17.9
Materials	0.49	15.55	2.06	2.19	0.97	13.9	16.2
Industrials	0.32	20.69	6.50	1.87	1.05	16.1	16.2
Consumer Discretionary	0.65	20.24	17.05	1.17	1.16	17.9	21.5
Consumer Staples	1.02	11.99	11.03	2.87	0.51	16.8	18.9
Health Care	-2.38	4.36	11.56	1.69	0.92	16.5	15.3
Financials	2.10	14.64	-0.55	1.94	0.91	12.6	11.9
Information Technology	1.19	24.42	17.79	1.38	1.37	20.2	19.1
Telecommunication Services	1.81	19.50	12.20	1.38	0.93	15.8	18.0
Utilities	0.20	10.90	22.01	3.14	0.19	14.3	18.5
Real Estate	0.38	19.11	25.41	3.00	0.49	15.4	19.5

*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 12, 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. Cyclical and Defensive, and Quality and Junk are based on Morgan Stanley & Co. Research analysis.

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Morgan Stanley & Co. Forecasts (as of April 12, 2019)

	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 12, 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	↑	↓	↑ Rising CPI	↑	↑	↓	↑	Political Stability Supports Recovery
	Risk Asset Positive	Neutral	Risk Asset Negative					

Note: Text in a factor box denotes a color change; In **Brazil**, inflation increased from neutral to risk asset positive with the strongest CPI reading since late-2017; for further explanation of the chart, see page 9.

Source: Morgan Stanley Wealth Management GIC

Market Factor Data Points (for the week ending April 12, 2019)

	Positives	Negatives
Global Growth	<ul style="list-style-type: none"> US weekly initial jobless claims fell to 196,000 vs. 210,000 expected For March, US export prices rose 0.7% vs. an estimated 0.2% 	<ul style="list-style-type: none"> For the week ending April 5, MBA mortgage applications decreased 5.6% in contrast with the 18.6% spike for the previous week US import prices increased 0.6% in March vs. 0.4% forecast
Rates	<ul style="list-style-type: none"> European Central Bank held main refinancing rate at 0.0%; expects to hold rates at current level to year-end 	
Inflation	<ul style="list-style-type: none"> March US CPI came in at 1.9% year over year, beating estimate of 1.8% March US PPI increased 2.2% year over year vs. 1.9% expected Japan PPI rose 1.3% year over year in March vs. 1.0% projected 	
Sentiment and Flows		<ul style="list-style-type: none"> U. of M. Consumer Sentiment Index below expectations in April at 96.9 vs. forecast of 98.2 NFIB Small Business Optimism Index, at 101.8 in March, slightly missed the 102.0 forecast

Source: Morgan Stanley Wealth Management GIC

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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 12, 2019

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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	<ul style="list-style-type: none"> • Industrial production • Unemployment • Total return • Earnings revisions • Home prices • OECD LEI (China and Brazil) • MS & Co. ARIA (US) 	<ul style="list-style-type: none"> • 10-year vs. 2-year government bond yield spread 	<ul style="list-style-type: none"> • Consumer Price Index 	<ul style="list-style-type: none"> • M1 growth • Private credit growth • Libor-OIS spread 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Forward price/earnings ratio • Price/book ratio • Equity risk premium • High yield option-adjusted spread 	<ul style="list-style-type: none"> • Earnings revisions breadth • Earnings surprise • Return on equity 	<ul style="list-style-type: none"> • 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

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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.

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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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