The GIC Weekly

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What We Are Talking About

- **The Maturing Credit Cycle.** Investment grade and high yield bond returns have proven resilient in the face of strong global growth, positive earnings surprises and accommodative central banks; with spreads near record tights, vulnerability to rising rates is increasing just as the Fed is poised to shrink its balance sheet, supply/demand tailwinds are reversing and inflation could surprise; in investment grade, interest coverage ratios have fallen to seven-year lows, debt leverage ratios are at 25-year highs and issuance continues to grow at a 7% annual pace; in this cycle, credit market dynamics changed profoundly as the total credit market has more than doubled to $5 trillion; nearly 50% of investment grade is BBB, so a wave of downgrades could overwhelm high yield market's liquidity. **Consider** reducing allocation to high yield; in investment grade, consider moving up in quality and down in duration.

The Maturing Credit Cycle

Among 2017's pleasant surprises is the standout performance of corporate credit. While many fixed income investors started the year fretting over potential Federal Reserve rate hikes, swelling issuance and growing corporate leverage, year-to-date returns for investment grade and high yield bonds are strong. The Bloomberg Barclays US Aggregate Bond Index is up 3.1% and the Bloomberg Barclays Global High Yield Index is up 7.7%, in both cases besting what were already robust three-year average returns. This has come despite some suggestions in early January of vulnerability from a peaking commercial real estate market, a retail sector reeling from the onslaught of online shopping and questions about auto-linked lenders who were facing falling used car prices and growing exposure to subprime borrowers.

To the contrary, better-than-expected synchronous global growth, excellent US dollar liquidity, benign inflation, rebounding corporate earnings and a measured Fed have kept spreads near cycle tights. The option-adjusted spread on investment grade bonds is 108 basis points. On high yield, it's 400 basis points even after the recent risk-off bout

Upcoming Catalysts

Aug. 21 Chicago Fed National Activity Index
Aug. 22 FHFA House Price Index
Aug. 22 Richmond Fed Manufacturing Survey
Aug. 23 US new home sales
Aug. 23 Markit US Manufacturing PMI
Aug. 24 Kansas City Fed Manufacturing Survey
Aug. 24 US existing home sales
Aug. 24 Japan CPI
Aug. 25 US durable goods orders

triggered by tensions with North Korea. Critical to the resilience has been falling default rates in 2017, but default rates are a lagging indicator. While the Global Investment Committee has supported exposure to corporate credit based on a view that company cash flow and interest coverage are solid, in late June we reduced our allocation to high yield to equal weight from overweight after determining that the maturing economic cycle was negatively skewing the risk/reward proposition. We purposely timed our trade to be early, acknowledging that market stress could quickly constrain liquidity in this asset class. Now, we address the additional risks that may be building more broadly across the corporate credit spectrum.

The most obvious risk for the broadest investment grade universe remains the overvaluation in US Treasury interest rates. As we have highlighted for months, Treasuries have been anchored by low global rates in which spreads to German Bunds in particular remain near record wides, inflation expectations have continued to drift downward and supply/demand dynamics have been extremely constructive. But risks are building as the Fed continues to pursue interest rate normalization that calls for four hikes—about 100 basis points—through 2108 while markets only discount about 30 basis points of tightening. These risks may become more apparent next month when the Fed is expected to start reducing its balance sheet; inflation may be poised to surprise on the upside from stronger oil prices, improving wages, and a weak US dollar; and fiscal policy could expand deficits while tax reform may add to supply. Most importantly—and the least-discussed issue— is the 2018 shift in supply/demand dynamic. According to Morgan Stanley & Co. estimates, next year sovereign bond issuance in the developed markets will increase by 25%, which would make it the first year of net issuance since 2011. All these elements could catalyze a shift to higher rates, which would hit investment grade returns hard. Beyond that however, we see several issues that are specific to corporate credit.

To start with, the US credit universe swelled in this cycle, up roughly 125% since 2008 to close to $6 trillion when leveraged loans are included, according to Adam Richmond, head of US credit strategy at MS & Co. The investment grade segment alone has grown more than five times since 1999 and twice since 2008, and now tops $5 trillion. It is perhaps perverse to consider that one of the most notable outgrowths of the financial crisis has been a further expansion of debt. However, low interest rates and easy liquidity, the result of Quantitative Easing, have combined with demographics and regulation to create an unprecedented reach for yield. In turn, historically low costs of corporate debt have created incentives for companies to lever up, often using funds raised to buy back stock. While this dynamic has been a powerful characteristic of this cycle, we believe that the combination of rising equity market valuations and rising leverage suggest we may be reaching its limits. As we illustrate in *Chart of the Week* (see page 3), investment grade debt leverage, at 2.4, is now at 25-year highs and interest payment coverage, at 10.4, is at a seven-year low even as net annual issuance continues to grow at a near 7% annual pace, twice the rate of the 1998-2009 period. Although we do not see extreme risks in the current cycle and the next recession may be relatively shallow enough to keep default rates in check, a wave of downgrades may overwhelm the market's ability to provide liquidity as the credit market increasingly trades via exchange traded funds (ETFs) and passive index vehicles.

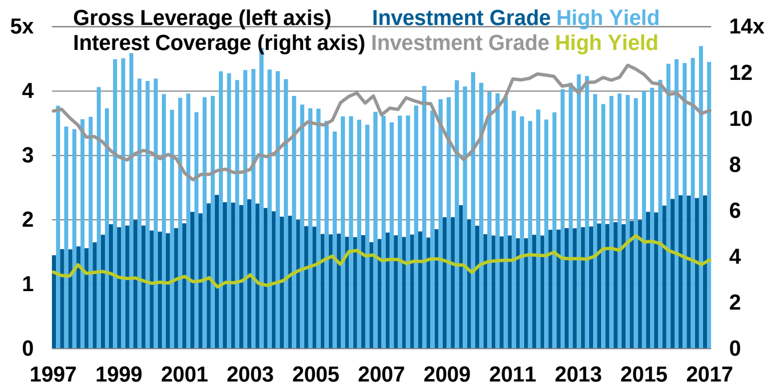
Richmond's concerns center on the degradation of the credit mix within the investment grade cohort and the risk of ratings downgrades. Specifically, he notes that in the 1991 recession, bonds rated BBB, the lowest investment grade rating, comprised 22% of total bonds outstanding; in 1999, it was 30%; in 2007, 32%; and today, nearly 50%. What's more, BBB bonds plus high yield and leveraged loans now comprise 64% of the total corporate debt (see *Fixed Income Insight*, page 7). The risk is that if deteriorating financial conditions lead to the downgrading of a large amount of BBB bonds, it could trigger forced selling as many institutional investors are not permitted to own noninvestment grade debt.

Today, Richmond estimates that only 2% of the investment grade universe is priced "through BB" spreads, which suggests about $84 billion in bonds would be most likely candidates for downgrades. His work also shows that in the past down cycle, "fallen angels," or the share of BBB that ultimately move into high yield, has varied between 23% and 45%. Using these estimates on today's outstanding bonds suggests potential downgrade volume of $550 billion to $1.1 trillion in new high yield supply. To put this staggering figure in perspective, annual net issuance in high yield has averaged $300 billion in this cycle.

Bottom Line: The credit market has doubled in size in the past eight years. Since nearly 50% of investment grade bonds are rated BBB, even modest ratings downgrades could overwhelm the high yield market. With central bankers poised to reduce accommodation, fiscal policy poised to reverse supply/demand tailwinds and inflation potentially surprising, we are advising caution in credit allocations. **Watch** credit default swaps on investment grade bonds and high yield spreads. **Consider** reducing allocations to high yield; in investment grade, consider moving up in quality and down in duration. ■

Chart of the Week: Leverage and Interest Coverage Point to Maturing Cycle

In investment grade credit, gross leverage is at all-time highs and the interest coverage ratio is near seven-year lows (see chart). Besides the risk of higher interest rates and inflation, bulging volume and continued growth in net new issuance create the potential for a wave of ratings downgrades given that credit quality has shifted downward materially this cycle. BBB-rated investment grade bonds are now near 50% of all investment grade bonds outstanding, and when combined with high yield and leveraged loans, the lowest quality tranche of the market represents 64% of the total corporate bonds outstanding (see *Fixed Income Insight*, page 7). Investors should therefore seek opportunities to increase credit quality and shorten duration.



Source: Morgan Stanley & Co. Research as of July 31, 2017

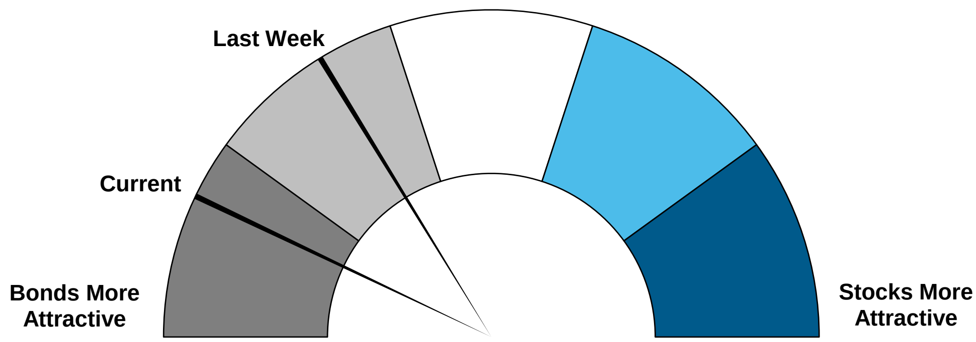
Asset Class Performance and Heat Map (as of August 18, 2017)

Asset Class	Annualized Returns (%)							Yield	Valuation		Volatility (%)		Correlation to Global Equities	
Cash	YTD	1-Yr.	2016	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	0.4	0.6	0.3	0.2	0.2	0.5	2.1	1.10	1.10	2.02	0.03	0.61	0.32	-0.05
Global Equities								Current Div. Yld.	Current P/E	Avg. P/E[2]				
US Large-Cap Growth	16.8	17.2	6.5	13.2	15.9	9.7	6.2	1.20	21.4	21.4	9.5	17.6	0.82	0.89
US Large-Cap Value	4.4	10.3	16.3	8.8	13.5	6.0	6.6	2.86	15.6	13.9	7.6	14.3	0.88	0.88
US Mid-Cap Growth	8.2	8.5	6.4	8.3	14.1	7.6	7.2	0.81	22.0	26.7	9.6	23.4	0.81	0.81
US Mid-Cap Value	6.0	12.9	20.9	10.5	16.2	8.1	9.4	2.50	19.3	14.4	8.6	16.4	0.88	0.87
US Small-Cap Growth	7.2	11.5	14.0	9.9	15.2	9.3	9.3	0.62	27.6	24.0	11.4	22.2	0.79	0.83
US Small-Cap Value	-0.4	10.9	25.8	9.6	14.9	8.9	9.6	2.44	19.7	17.0	11.1	17.3	0.81	0.84
Europe Equity	18.2	17.0	0.2	2.6	9.8	1.7	5.8	3.32	14.8	14.3	8.4	18.4	0.80	0.94
Japan Equity	12.4	14.1	2.7	6.4	10.8	1.6	1.8	2.07	13.9	20.9	9.0	17.4	-0.26	0.69
Asia Pacific ex Japan Equity	17.8	15.2	8.0	1.6	6.4	4.2	6.4	3.68	15.4	14.3	9.6	21.7	0.60	0.85
Emerging Markets	25.1	18.7	11.6	2.8	5.1	2.3	6.0	2.34	12.7	11.4	9.5	23.8	0.67	0.86
Global Fixed Income								Current YTM	Current Spread	Avg. Spread[2]				
Short-Term Fixed Income	1.1	0.7	1.3	1.1	0.9	2.2	3.5	1.51	16.0	31.0	0.6	1.4	-0.17	-0.14
US Fixed Income	3.2	0.1	2.6	2.7	2.0	4.4	5.1	2.47	43.0	55.0	2.6	3.4	-0.11	-0.04
International Fixed Income	8.9	-2.5	1.8	-0.7	0.3	3.2	4.4	0.98	40.0	50.0	6.0	8.1	-0.20	0.29
Inflation-Protected Securities	6.2	0.9	6.5	0.3	1.4	3.8	6.4	-	-	-	5.2	7.6	-0.16	0.43
High Yield	7.8	8.5	14.3	4.7	7.1	8.2	7.7	5.65	381.0	514.0	2.1	10.2	0.57	0.76
Emerging Markets Fixed. Inc.	12.9	4.8	9.9	-1.8	-0.7	4.1	7.2	6.07	252.0	357.0	4.4	13.2	0.32	0.68
Alternative Investments								Current Div. Yld.						
REITs	8.3	0.1	4.6	5.3	8.0	3.2	7.3	3.78	-	-	7.1	18.5	0.75	0.79
MLP/Energy Infrastructure[3]	-10.2	-9.2	18.3	-9.8	1.0	6.0	-	7.70	-	-	13.5	18.4	0.23	0.56
Commodities ex Prec. Metals	-6.8	-2.6	11.6	-14.7	-10.8	-8.2	-0.8	-	-	-	10.9	17.0	0.18	0.42
Precious Metals	9.7	-8.6	9.5	-2.7	-6.7	4.9	6.9	-	-	-	10.1	19.4	-0.28	0.21
Hedged Strategies[4]	2.9	4.3	2.5	0.3	2.0	-0.8	-	-	-	-	2.5	6.0	0.84	0.64
Managed Futures[5]	-0.2	-3.3	-2.9	0.2	-0.4	-1.0	-	-	-	-	4.8	7.9	0.50	0.17
S&P 500	9.8	13.2	12.0	10.9	14.8	7.7	6.9	1.92	17.3	16.0	8.15	15.0	0.89	0.95
Russell 2000	0.8	11.3	21.3	9.9	14.2	7.8	7.8	1.51	23.5	20.3	12.15	19.9	0.81	0.82
MSCI EAFE	16.6	15.8	1.5	3.3	9.6	1.9	4.8	3.07	14.6	15.2	6.43	16.8	0.70	0.96
MSCI AC World	13.5	14.5	8.5	6.8	11.5	4.7	5.9	2.40	15.7	15.6	6.20	15.7	1.00	1.00

Valuation	Volatility	Correlation
Cheap	Low	Low
Moderate	High	High
Expensive		

Note: Performance values calculated using USD. 1. As of July 31, 2017. 2. 20-year average as of July 31, 2017. 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	Neutral	Neutral	Very Positive	Very Negative	Very Negative	Neutral	Very Negative	Very Negative
Last Week	Neutral	Neutral	Very Positive	Neutral	Very Negative	Neutral	Very Negative	Neutral

Indicator	Category	Absolute Level and Change	Impact on Risk Assets: Z-Score of Level	Impact on Risk Assets: Z-Score of Change
PMI (+)	Growth	Neutral	0.06	-0.50
Durable Goods (+)	Growth	High and Rising	1.84	0.59
Retail Sales (+)	Growth	Neutral and Rising	0.69	0.59
Manufacturing Hours Worked (+)	Growth	Neutral	-0.07	0.11
Commodity Prices (+)	Inflation	Neutral	0.40	-0.06
Yield Curve: 10-Yr./Three-Mo.(-)	Rates	Low	2.15	-0.10
Yield Curve: Two-Yr./Three-Mo.(-)	Rates	Neutral	0.68	-0.10
Pace of Interest Rate Hikes (-)	Rates	Low and Rising	2.28	-0.82
Term Premium Model (-)	Rates	Long Duration	-	-
High Yield Spreads (-)	Liquidity	High	-1.09	-0.40
Investment Grade Spreads (-)	Liquidity	Neutral	0.93	0.09
Financial Conditions (-)	Liquidity	High and Rising	-2.18	-1.60
S&P 500 Earnings/Baa Yield (+)	Valuation & Market Behavior	Low and Rising	-1.05	0.65
Large vs. Small Performance (-)	Valuation & Market Behavior	Neutral	-0.46	-0.15
High- vs. Low-Quality Performance (-)	Valuation & Market Behavior	High and Rising	-1.47	-0.57
High- vs. Low-Beta Performance (+)	Valuation & Market Behavior	Low	-1.31	-0.28
S&P 500 Forward Price/Earnings Ratio (+)	Valuation & Market Behavior	Neutral and Falling	-0.72	-0.85
Earnings Revisions Breadth (-)	Earnings	Neutral	-	-
Global Risk Demand (+)	Sentiment	Low and Falling	-1.83	-1.18
Implied Currency Volatility (-)	Sentiment	Neutral and Falling	-0.44	0.55
Five-Yr. Macro Sensitivity (-)	Sentiment	High and Rising	-1.23	-0.59
% Stocks Above 200-Day Moving Avg. (+)	Technicals	Low and Falling	-1.26	-0.72
Cumulative Advance/Decline (+)	Technicals	Low and Falling	-1.27	-0.83
S&P 500 Put/Call Ratio (-)	Technicals	Neutral	-0.37	0.12
Emerging Market Fund Flows (+)	Technicals	Neutral	-0.06	-0.12
Smart Money Flow Index (+)	Technicals	Neutral and Falling	-0.71	-1.11

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. Z-Scores and color coding are set in accordance with the impact on risk assets. A z-score is a statistical measurement of a score's relationship to the mean in a group of scores. A z-score of 0 means the score is the same as the mean.

Positive for Stocks Relative to Bonds
Neutral
Negative for Stocks Relative to Bonds

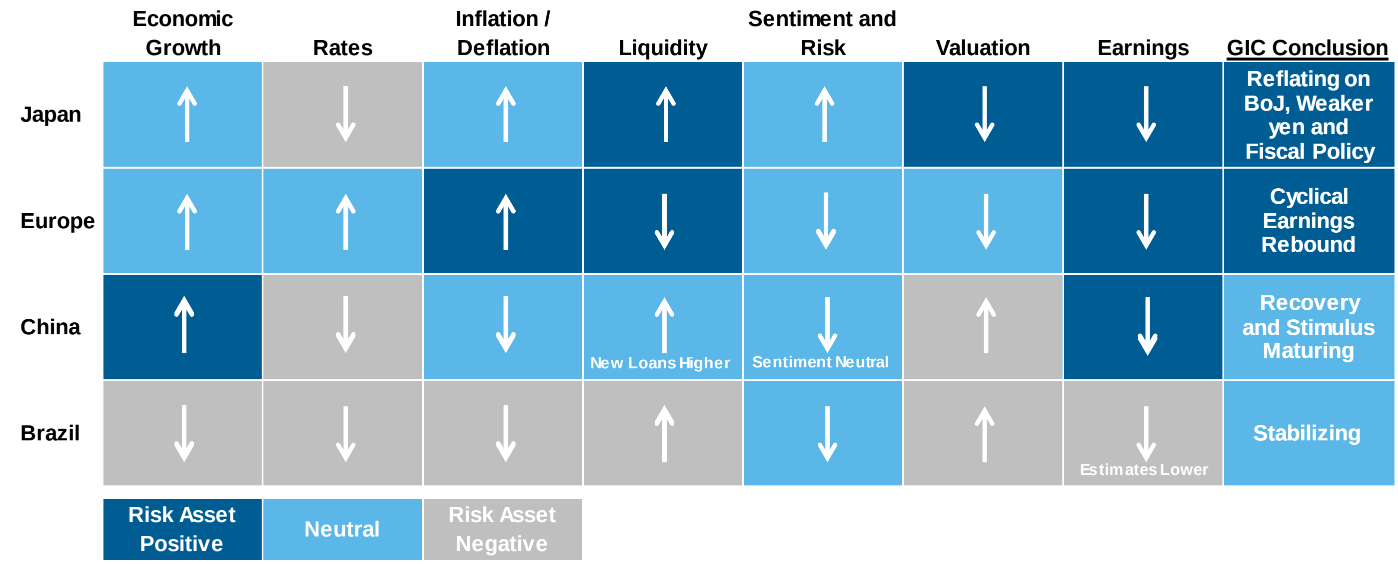
Note: Commodity prices are represented by the Bloomberg Commodity Index; pace of interest rate hikes by the Morgan Stanley Pace of Rate Hikes Index; high yield spreads by the Bloomberg Barclays Aggregate US High Yield Index; investment grade spreads by the Bloomberg Barclays US Aggregate Index; financial 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 Aug. 18, 2017

Morgan Stanley & Co. Forecasts (as of Aug. 18, 2017)

	Real GDP Growth (%)			10-Yr. Govt. Bond Yield (%)		Headline Inflation (%)			Currency Versus US Dollar		
	2016	2017E	2018E	Q4 '17E	Q2 '18E	2016	2017E	2018E	Q4 '17E	Q2 '18E	Q4 '18E
Global	3.1	3.6	3.7			2.6	2.6	2.8			
US	1.6	2.2	2.2	2.45	2.40	1.3	1.9	1.8			
Euro Zone	1.7	2.1	1.8			0.2	1.5	1.5	1.22	1.21	1.16
UK	1.8	1.6	1.1	1.00	0.95	0.7	2.7	3.1	1.24	1.23	1.27
Japan	1.0	1.9	1.1	0.08	0.20	-0.1	0.6	1.2	114	112	105
Emerging Markets	4.2	4.7	5.0			3.9	3.2	3.5			
China	6.7	6.6	6.4	3.89	3.85	2.0	1.7	2.3	6.60	6.70	6.80

Source: Morgan Stanley & Co. Research

Macro Factor Heat Map (as of Aug. 18, 2017)



Note: Text in a factor box denotes a color change; China liquidity went from risk asset negative to neutral on higher loan growth; China sentiment and risk went from risk asset negative to neutral on lower relative strength; Brazil earnings went from neutral to risk asset negative on lower earnings estimates; for further explanation of the chart, see page 9.

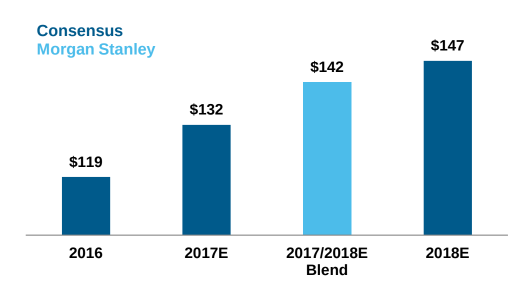
Source: Morgan Stanley Wealth Management GIC

Market Factor Data Points (for the week ending Aug. 18, 2017)

	Positives	Negatives
Global Growth	• August Empire State Mfg. Survey beat expectations • August Philadelphia Fed survey up in line with forecast • NAHB Housing Market Index higher in August • August Univ. of Mich. Consumer Sentiment Index at 97.6, above expectations • July US retail sales strong, up 4.2% year over year • Euro Zone second-quarter GDP up 2.2% year over year • Japan second-quarter GDP grew at 4% annualized rate	• US housing starts were weaker than expected in July, falling 4.8% month over month • July US industrial production was weaker than expected
Rates	• Fed minutes show members divided on timing of future rate hikes due to inflation outlook	
Inflation	• US import prices up 1.5% year over year in July	• Euro Zone CPI up 1.3% year over year in July
Sentiment	• US crude oil inventories fell more than expected at around 9 million barrels	• High yield spreads widened • VIX elevated

Source: Morgan Stanley Wealth Management GIC

S&P 500 Earnings Estimates



Source: FactSet, Thomson Reuters, Morgan Stanley & Co. Research as of Aug. 18, 2017

MS & Co. S&P 500 12-Month Price Target

Landscape	Earnings	Price/Earnings Multiple	Price Target	Upside / Downside
Bull Case	142.00	21.1	3,000	23.7%
Base Case	142.00	19.0	2,700	11.2
Bear Case	126.50	16.6	2,100	-13.4%
	Current S&P 500 Price		2,426	

Source: Thomson Reuters, Morgan Stanley & Co. Research as of Aug. 18, 2017

S&P 500 Sector Performance and Valuation (as of Aug. 18, 2017)

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	***-0.58***	***9.76***	***13.23***	***1.92***		***16.0***	***17.3***
Energy	-2.44	-15.91	-10.03	3.09	1.05	17.4	**27.2**
Materials	0.44	9.11	12.19	2.03	1.11	13.8	**17.6**
Industrials	-1.07	7.76	14.58	2.03	1.06	16.2	**17.3**
Consumer Discretionary	-1.80	9.25	10.20	1.39	0.97	18.0	**19.2**
Consumer Staples	0.11	8.35	3.41	2.61	0.67	17.1	**19.9**
Health Care	-0.76	14.26	6.67	1.62	0.91	17.6	**16.0**
Financials	-0.44	6.65	28.40	1.64	1.24	12.9	**13.7**
Information Technology	0.10	22.53	27.25	1.30	1.13	20.8	**18.2**
Telecommunication Services	-1.83	-8.50	-6.09	4.97	0.73	16.6	**12.7**
Utilities	1.49	14.10	10.95	3.30	0.53	14.1	**18.1**
Real Estate	0.29	5.94	-0.51	3.29	0.75	15.2	**17.8**

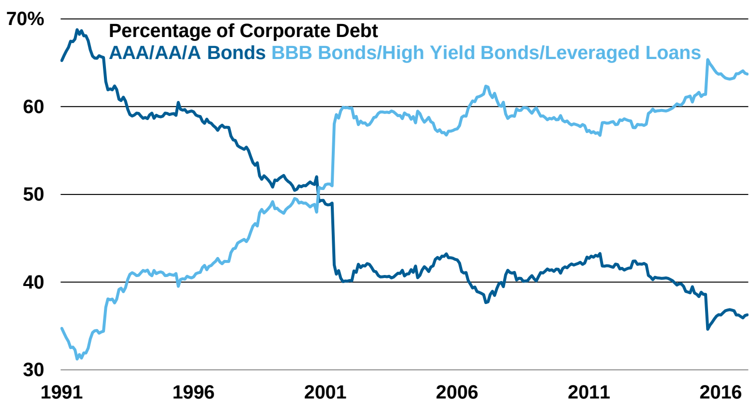
*Dark blue/light blue/gray fill denotes whether current relative forward 12-month P/E is low/neutral/high relative to history
Source: Morgan Stanley & Co.

Performance of Style and Cap Pairs (as of Aug. 18, 2017)

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.

Fixed Income Insight: With the Reach for Yield, Credit Quality Has Declined

We are closely watching the changing mix of credit quality within the corporate bond market, where debt outstanding has more than doubled this cycle to close to $6 trillion. Specifically, during this cycle, BBB-rated bonds, high yield bonds and leveraged loans have increasingly dominated by the market. In fact, lower-quality paper now accounts for 64% of total outstanding corporate debt, up from 50% 15 years ago (see chart). Adam Richmond, MS & Co.'s head of US credit strategy, says that if in this cycle the same ratio of BBB bonds gets downgraded to BB as in past cycles, the high yield market would have to absorb some $550 billion to $1.1 trillion in bonds—that's 1.5 to three times more than the net annual high yield issuance of the past eight years. Investors need to be vigilant about the potential for ratings downgrades.



Source: Morgan Stanley & Co. Research as of July 28, 2017

Government Debt Monitor

US				
	Yield (%)			Total Return (%)
Treasury Benchmark	**Current**	**ΔWTD**	**ΔYTD**	**YTD**
3-Month	1.03	-0.04	0.53	0.38
2-Year	1.29	-0.06	0.11	0.69
5-Year	1.74	-0.07	-0.18	2.10
10-Year	2.19	-0.07	-0.26	3.35
30-Year	2.79	-0.06	-0.28	7.06
2-Yr./10-Yr. Spread (bp)	89	-1.63	-36.12	-
10-Yr. TIPS Breakeven (bp)	180	-0.14	-17.56	-
Interest Rate Volatility† (bp)	52	4.78	-19.57	-

Fixed Income Spread Dashboard

		Duration (Yrs.)	Yield-to-Worst (%)	OAS (bp)	OAS Range** Rich	Cheap
Investment Grade	MBS*	4.10	2.66	25	9	35
	AAA	4.43	1.91	29	20	44
	AA	5.36	2.15	13	8	18
	A	7.54	2.84	87	79	158
	BBB	7.33	3.45	146	133	295
High Yield	BB	4.37	4.59	288	248	662
	B	3.71	6.07	437	386	1,009
	CCC	2.94	10.99	1,043	851	1,972

Unless stated, indexes utilized are Citi Broad Investment Grade, Citi High Yield, and Citi 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. © 2017 Citigroup Index LLC. All rights reserved. Data as of Aug. 18, 2017

Government Debt Monitor

Global				
	Yield (%)			Total Return (%)*
10-Year Govt. Bond	**Current**	**ΔWTD**	**ΔYTD**	**YTD**
France	0.68	-0.07	-0.01	1.89
Germany	0.38	-0.09	0.18	0.63
Japan	0.06	-0.01	0.01	0.94
Spain	1.44	-0.03	0.06	2.98
UK	1.06	-0.11	-0.17	3.11
3-Month LIBOR	1.32	0.00	0.32	-
US Tax Exempt				
10-Year AAA Muni	1.88	-0.07	-0.43	4.90
10-Yr. Muni/UST Ratio	85.96	0.70	-8.67	-

Benchmark Returns

	Total Returns (%)		
Index	**YTD**	**MTD**	**2016**
Bloomberg Barclays US Aggregate	3.14	0.41	2.65
Bloomberg Barclays US MBS	2.18	0.36	1.67
Bloomberg Barclays US IG Corporate	4.61	0.06	6.11
Bloomberg Barclays Municipal	4.90	0.47	0.25
Bloomberg Barclays US High Yield	5.34	-0.71	17.13
Bloomberg Barclays Global Aggregate	6.76	0.56	2.09
JPMorgan Emerging Market	7.11	0.20	10.19

*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 Aug. 18, 2017

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Overweight	While US equities have done exceptionally well since the global financial crisis, they are now in the latter stages of a cyclical bull market. This bull market was challenged during the past year by fears of political events and instability. While the Trump/Republican progrowth agenda has been slower to develop than hoped, it has also left us in a bit of a Goldilocks environment in which growth and interest rates are neither too hot nor too cold. This is supportive of our call for higher valuations and 2700 on the S&P 500.
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, which is needed to make the extraordinary monetary policy offered more effective. Both are still at record levels of cheapness but we prefer Japan at the moment given the over-exuberance on Europe. We recommend hedging currency risk for 50% of Japanese positions but not Europe.
Emerging Markets	Overweight	Emerging market (EM) equities have been the best region over the past 12 months and for the year to date. With the US dollar appearing to have made a cyclical top, global growth and earnings accelerating, and financial conditions remaining loose, we think EM equities will continue to keep up with global equity markets but are unlikely to lead as strongly in the first half of the year.
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. While interest rates have remained exceptionally low, there is more near-term upward pressure US economic data to reverse and begin surprising to the upside and the European Central Banks tapers its bond purchases. Within investment grade, we prefer BBB-rated corporates and A-rated municipals to US Treasuries.
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 deflationary fears having become extreme in 2015 and early 2016, these securities still offer relative value in the context of our forecasted acceleration in global growth, and expectations for oil prices and the US dollar's year-over-year rate of change to revert back toward 0%. That view played out in 2016 but has not yet run its course.
High Yield	Equal weight	High yield has performed exceptionally well since early 2016 with the stabilization in oil prices and retrenchment by the weaker players. We recently downgraded high yield to equal weight from overweight on the back of this performance, record low credit spreads and interest rates and early signs of credit deterioration in commercial real estate and auto financing.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Underweight	Real estate investment trusts (REITs) have underperformed global equities since mid-2016 when interest rates bottomed. We think it is still too early to reconsider our underweight zero allocation given the further rise in rates we expect and deteriorating fundamentals for the industry. Non-US REITs should be favored relative to domestic REITs.
Master Limited Partnerships/Energy Infrastructure*	Overweight	Master limited partnerships (MLPs) rebounded sharply from a devastating 2015 but, with oil's slide, have performed poorly in 2017. As long as oil remains above $40 per barrel, they should provide a reliable and attractive yield and they look exceptionally cheap relative to high yield. A Trump presidency 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. As volatility becomes more persistent in 2017, these strategies should do better than in recent years.

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 Aug. 18, 2017

Macro Factor Heat Map Key (see page 5)

	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

For other index, indicator and survey definitions referenced in this report please visit the following:
http://www.morganstanleyfa.com/public/projectfiles/id.pdf

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.

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. 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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.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

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.

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.

Investing in foreign emerging markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks.

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.

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