Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | June 27, 2022

The GIC Weekly

Inflation-Driven Recessions Are Different

By our estimates, accelerated Fed tightening has doubled recession probabilities. While some sectors and stocks already discount a hit to earnings and valuations coming from the higher cost of capital, the main indexes have only repriced Fed policy and the shift in real rates and inflation expectations. For the bear market to end, we need to see 12-month forward profit estimates down 5% to 10% and the 10-year US Treasury yield fall to roughly 2.5%. This recession would be inflation-driven, not credit-driven. That means peak-to-trough profits are likely to be down less than 15% as nominal prices cushion weakness in real volume. Furthermore, this recession would be shallower than the past three for several reasons: the lack of credit bubbles; strength in corporate, bank and household balance sheets; a strong labor market; and low inventories in vulnerable industries like housing and autos. **Consider** using tax-loss harvesting to neutralize overweight and underweight positions. Pursue maximum asset-class diversification. The bear market bottom may still be 5% to 10% away.

The S&P 500 Index is down nearly 18% for the year to date, having given back some $9 trillion from its Jan. 4 peak. This reflects a near-100% unwinding of the impact of the fiscal and monetary COVID-19 stimulus; the market's forward price/earnings has compressed to 16.5 from 21.5. Investors have discounted the Federal Reserve's policy pivot, more than doubling the 10-year US Treasury yield for the year to date by recalibrating both the real component and inflation expectations. That said, investor concerns about the implications of tighter policy on either corporate profits or the economy have been modest. In fact, the 2022 analysts' consensus forecast for the S&P 500 has continued to climb while earnings revision breadth has gone negative and GDP growth forecasts have been slashed.

The Federal Reserve's most recent hawkish move, a "surprise" 75-basis-point jump for the fed funds rate, reset the degree of restrictive policy. Most economic models now suggest that the probability of a recession during the next 12 months has doubled to more than 50%. While the bond market has begun to reflect these odds by shaving 44 basis points from the 10-year Treasury yield and 52 basis points from the two-year yield, the S&P 500 is up 4.7%. We find such resilience of markets and

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Upcoming Catalysts

June 27
US durable goods orders
US pending home sales
Dallas Fed Manufacturing Activity Index

June 28
US wholesale inventories
FHFA House Price Index
Conf. Board Consumer Confidence Index
Richmond Fed Manufacturing Index

June 30
US personal income
US personal spending
US initial jobless claims
US continuing claims
Chicago PMI

July 01
US construction spending
ISM Manufacturing Survey
ISM Prices Paid Index
Wards Total Vehicle Sales

obstinance by analysts to reflect these changes in their forecasts as a risk that could cost equity investors another 5% to 10% (see *The GIC Weekly,* June 13). As we illustrate in *Chart of the Week,* every time in the past 40 years that the Fed has raised rates, the forward S&P 500 earnings growth rate has materially decelerated. Furthermore, never in that time have forward expectations, which remain at 14% year over year, been this high during a Fed hiking cycle. Until expectations are recalibrated and policy intensity stabilizes, we have a hard time seeing a buyable bottom to this bear market.

If there is a recession, what would it look like? Here we are increasingly constructive. In the June 13 issue of *The GIC Weekly*, we posited that the best possible case may no longer be a soft landing but just stagflation—low growth and still-high inflation. That scenario still holds decent odds. But if we have a recession, what analogue can investors look to as a benchmark? For starters, we reject the idea that the prior three recessions hold any valuable lessons this time around. The 2020 pandemic-induced shutdown is obviously unique. The recessions emanating from the 2007-2008 financial crisis and the 2000-2001 dot-com bust were both fueled by credit. The result was overbuilding in housing and internet infrastructure. In both cases, it took nearly a decade to absorb the excesses, and the profit implications were staggering. S&P 500 profits fell 57% in 2007-2008 and 32% in 2000-2001. Critically, current cycle excesses are not credit-driven as balance sheets of corporations, banks and households are the strongest in decades. Rather, the excesses of the current cycle have been driven by liquidity, which fueled speculation in financial assets such as cryptocurrencies, venture capital, unprofitable technology companies and special purpose acquisition companies. Unwinding those excesses has thus far not caused much damage to the economy.

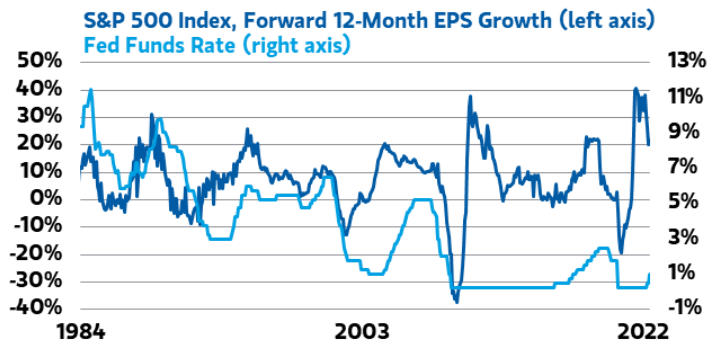
What about inflation-driven recessions? We don't think the 1970s or 1980s analogies apply now even though inflation is at a 42-year high, though we note that profit vulnerability then was more modest than in credit-driven cycles. Ironsides Macroeconomics, an independent research firm, notes that in 1973-1974, when the fed funds rate reached 11%, S&P 500 profits fell 15% while in 1982-1983, when the fed funds rate peaked at 20%, S&P 500 earnings fell less than 14%. In both cases, nominal prices helped cushion profits from declines in real volume. We think this time could be similar. Furthermore, the hit to S&P 500 profits could be even more modest, resembling the 1990-1991 recession which, in part, was catalyzed by the Gulf War.

Our call for a shallow recession is also premised on some unique conditions. First, while higher interest rates will undoubtedly hurt demand for housing and autos, both sectors are sitting on a strong position vis-à-vis inventories and production rates. In the case of housing, new activity may be affected. However, the resilience of high housing prices, up by double-digit rates over the past two years, reflects very low supply that will only worsen with higher rates and a construction slowdown. In autos, this cycle has yet to fully recover from COVID-related semiconductor shortages, and production remains below prior peaks. As supply chains clear, ample order backlogs may keep manufacturing utilization uncharacteristically high for a recession. The second consideration is the labor market. Not only is it tight as defined by unemployment, but we are at an all-time high with regard to the ratio of new job openings to potential applicants. This suggests that rather than initially resorting to layoffs going into a slowdown, companies may first reduce their postings of unfilled openings. Next, while consumer savings have run down and credit card debt growth has picked up, payments relative to disposable incomes are not stressed. At the same time, the catalysts for the corporate capital spending boom appear strong with current needs around supply chains, energy infrastructure, service business automation, cybersecurity and national defense. And finally, market index composition is an important factor. Megacap tech stocks have finally begun to underperform, but profit resiliency may endure at the index level because of a growing share of earnings attributed to recurring revenues as businesses build subscription-based and fee-based models.

Bottom Line: Odds of an economic recession have doubled as the Fed's signaled policy acceleration narrows the openings for a soft landing. Critically, while the US Treasury market has begun to price this scenario, we don't think the S&P 500 has—at least not from the perspective of lowering earnings expectations. Until this is done, the bear market is not over. Where we go from there depends on whether we end up with stagflation or in a recession and, if so, what does that recession looks like? Inflation-driven recessions are different than credit-driven ones, as earnings vulnerability is usually contained to under 15% peak to trough because of the cushioning power of nominal prices. Based on our constructive assessment of the economy's fundamentals, we see any potential recession as a shallow one, resembling the 1990-1991 experience. That's because secular forces such as strong balance sheets, robust capital spending, a hardy labor market and tight inventories in the most cyclical parts of the economy provide ballast. **Watch** earnings estimate cuts and a bottoming in economic surprise indexes to signal a buyable bottom. **Consider** using tax-loss harvesting to neutralize overweight and underweight positions. Pursue maximum asset-class diversification. The bear market bottom may still be 5% to 10% away.

Chart of the Week: Rising Fed Funds Rate Should Be a Headwind to Profits

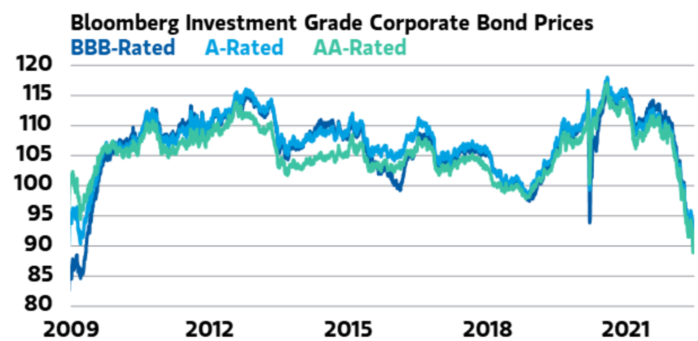
There's a notable disconnect between earnings estimates and the Federal Reserve's efforts to slow the economy—and inflation. Since March, the Fed has raised the fed funds rate 150 basis points, yet 12-month forward earnings estimates still show double-digit growth (see chart). These expectations are completely out of line with economic forecasts that point toward a recession and a fed funds rate that may double before the end of the year. The implication of the sticky earnings forecasts is that the market decline has happened by lowering the valuation multiple on earnings, not cutting the earnings themselves. We don't think the cyclical bear market can end until earnings are marked down, which makes profit reports for the second and third quarters critical.



Source: Alpine Macro, Bloomberg as of June 22, 2022

Fixed Income Insight: Investment Grade Boasts Highest Yields in 13 Years

A combination of rising US Treasury rates and widening credit spreads have combined to send prices on investment grade bonds to their lowest levels since 2009 (see chart). Average prices have fallen to under 91, a drop of nearly 9% from par value. That means higher yields than we've seen in 13 years—4.08% on AA-rated bonds, 4.43% on A-rated bonds and 5.06% on BBB-rated. bonds. Strong supply has weighed on the sector, creating opportunities for investors to trade up in quality, especially versus high yield bonds. In high yield, spread widening has proceeded more slowly than might be expected given the pick-up in equity volatility and the rising risk of recession.



Source: Bloomberg as of June 23, 2022

Market Factor Data Points (for the week ending June 24, 2022)

Report	Period	Consensus	Actual	Prior	Trend
S&P Global US Manufacturing PMI	Jun '22	56.0	52.4	57.0	↓
S&P Global US Services PMI	Jun '22	53.3	51.6	53.4	↓
S&P Global US Composite PMI	Jun '22	53.0	51.2	53.6	↓
Chicago Fed National Activity Index	May '22	0.47	0.01	0.40	↓
US new home sales	May '22	590,000	696,000	629,000	↑
US existing home sales	May '22	5,400,000	5,410,000	5,600,000	↓
US initial jobless claims	Wk. of June 18	226,000	229,000	231,000	↓
US continuing claims	Wk. of June 11	1,320,000	1,315,000	1,310,000	↑
US current account balance	1Q '22	-$275,000,000,000	-$291,400,000,000	-$224,800,000,000	↓
Japan CPI, year over year	May '22	2.5%	2.5%	2.5%	-
Euro Zone consumer confidence	June '22	-20.5	-23.6	-21.2	↓

Color coding shows how actual data compares with consensus estimates. Green implies better than expected, red implies worse than expected. Trend shows the one-period change between actual and prior reports.
Source: Morgan Stanley Wealth Management GIC

Macro Factor Heat Map (as of June 24, 2022)

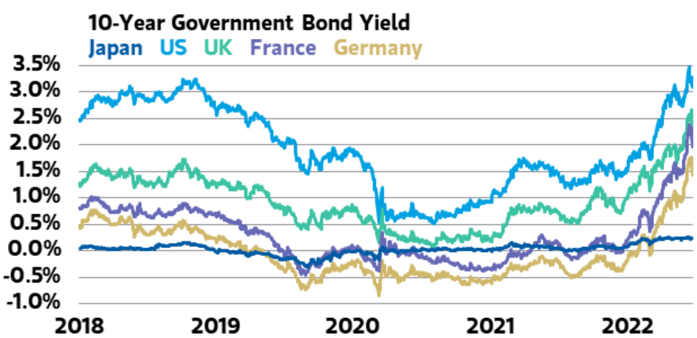
	Economic Growth	Rates	Inflation / Deflation	Liquidity	Sentiment And Risk	Valuation	Earnings	GIC Conclusion
Europe	↓	↑	↑	↓	↑	↓	↑	Inflation Threat is Building And Confidence Collapsing
China	↓	↑	↑	↑	↓ Increasing MS GRDI	↓	↓	Recent Stimulus Should Help Markets Rebound
Japan	↑	↑	↑	↑	↓ Increasing MS GRDI	↓	↓	Valuations Still Discounting Recession, Fundamentals Improving on Margins
Brazil	↑	↓	↑	↑	↓	↓	↓	Headinds from Stronger Currency + Higher Rates May Offset Positives From Commodity Prices

Risk Asset Positive	Neutral	Risk Asset Negative

Note: Text in a factor box denotes a color; In China, Sentiment and Risk fell from Risk On to Neutral due to an increasing Morgan Stanley Global Risk Demand Index (MS GRDI); In Japan, Sentiment and Risk fell from Risk On to Neutral due to an increasing Morgan Stanley Global Risk Demand Index (MS GRDI); for further explanation of the chart, see page 10. Source: Morgan Stanley Wealth Management GIC

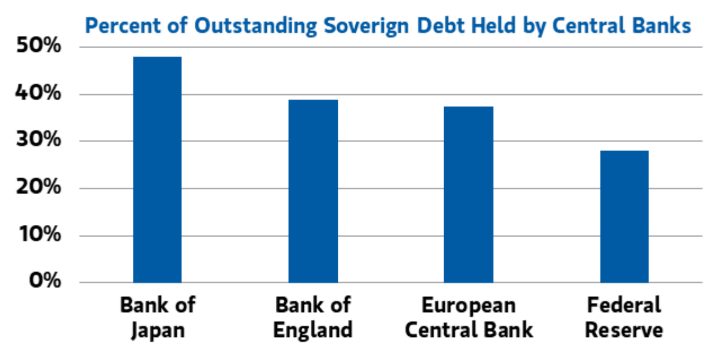
Charts in Focus: Global Dynamics

Can Japan Stay on This Path as Others Raise Rates?



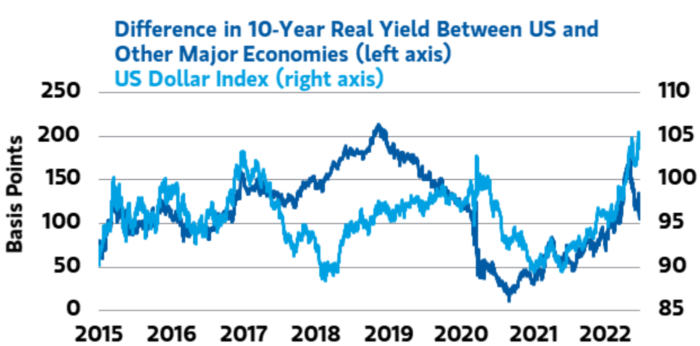
Source: Bloomberg as of June 23, 2022

Japan Keeps Yields Low to Increase Inflation



Source: Bloomberg as of June 21, 2022

The Dollar Decouples From Interest Rate Differentials

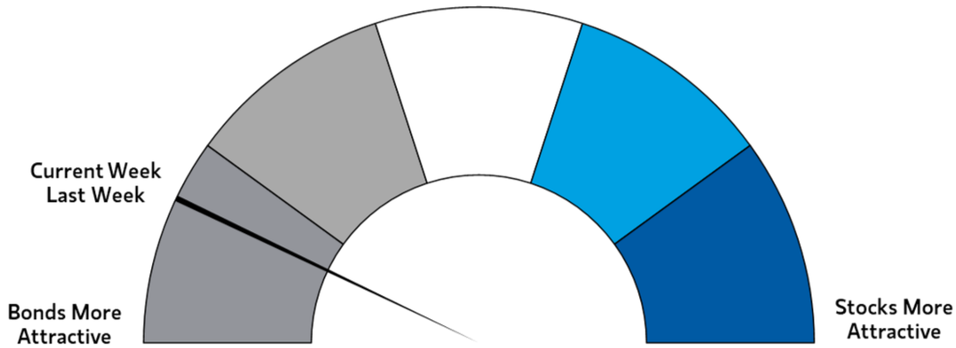


Source: Bloomberg as of June 23, 2022

Emerging Markets Start to Look Relatively Attractive

Source: Bloomberg as of June 22, 2022

Short-Term Stock and Bond Indicator



	MACRO		POLICY		FUNDAMENTALS		SENTIMENT & TECHNICALS	
	Growth	Inflation	Rates	Liquidity	Valuation & Market	Earnings	Sentiment	Technicals
Current	Neutral	Very Negative	Very Negative	Neutral	Very Negative	Neutral	Very Negative	Neutral
Last Week	Neutral	Very Negative	Very Negative	Neutral	Very Negative	Neutral	Neutral	Neutral

CATEGORY	INDICATOR	READING
Growth	PMI (+)	Risk Off
	Durable Goods (+)	Neutral
	Retail Sales (+)	Neutral
	Manufacturing Hours Worked (+)	Neutral
Inflation	Commodity Prices (+)	Risk Off
Rates	Yield Curve: 10-Yr./Three-Mo.(-)	Neutral
	Yield Curve: Two-Yr./Three-Mo.(-)	Risk Off
	Pace of Interest Rate Hikes (-)	Risk Off
	Term Premium Model (-)	Risk Off
Liquidity	High Yield Spreads (-)	Risk Off
	Investment Grade Spreads (-)	Neutral
	Financial Conditions (-)	Risk On
Valuation & Market Behavior	S&P 500 Earnings/Baa Yield (+)	Risk Off
	Large vs. Small Performance (-)	Neutral
	High- vs. Low-Quality Performance (-)	Risk Off
	High- vs. Low-Beta Performance (+)	Neutral
	S&P 500 Forward Price/Earnings Ratio (+)	Neutral
Earnings	Earnings Revisions Breadth (-)	Risk Off
Sentiment	Global Risk Demand (+)	Risk Off
	Implied Currency Volatility (-)	Neutral
	Five-Yr. Macro Sensitivity (-)	Neutral
Technicals	% Stocks Above 200-Day Moving Avg. (+)	Risk Off
	Cumulative Advance/Decline (+)	Risk Off
	S&P 500 Put/Call Ratio (-)	Risk On
	Emerging Market Fund Flows (+)	Risk Off
	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

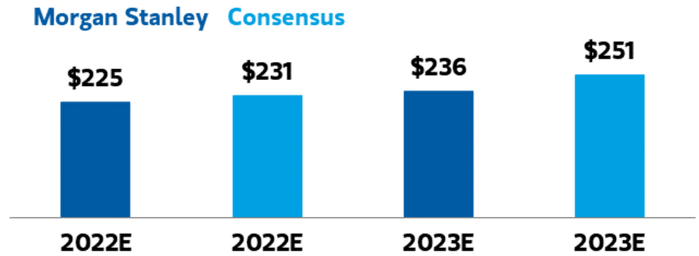
Note: Commodity prices are represented by the Bloomberg Commodity Index; pace of interest rate hikes by the Morgan Stanley Pace of Rate Hikes Index; high yield spreads by the Bloomberg Aggregate US High Yield Index; investment grade spreads by the Bloomberg US Aggregate Index; financial conditions by 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. Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions. Source: Morgan Stanley Wealth Management GIC, Morgan Stanley & Co., Haver Analytics, Bloomberg, FactSet as of June 24, 2022.

Asset Class Performance (as of June 24, 2022)

ASSET CLASS	ANNUALIZED RETURNS (%)							YIELD	VALUATION		VOLATILITY (%)		CORRELATION TO GLOBAL EQUITIES	
								Current	Current	Avg				
CASH	**YTD**	**1-Yr**	**2020**	**3-Yr[1]**	**5-Yr[1]**	**10-Yr[1]**	**20-Yr[1]**	**YTM**	**YTM**	**YTM[3]**	**30 Days**	**20 Yrs.[1]**	**30 Days**	**20 Yrs.[1]**
90-Day US Treasury Bills	0.2	0.2	-	-	-	-	-	-	-	1.19	0.0	0.00	0.00	-
								Current	Current	Avg.				
GLOBAL EQUITIES								**Div. Yld.**	**P/E[2]**	**P/E[3]**				
US Large-Cap Growth	-26.1	-16.1	27.5	19.3	16.6	16.6	10.2	0.49	24.8	19.4	40.8	16.7	0.96	0.90
US Large-Cap Value	-9.7	-0.7	26.4	12.7	9.8	12.0	7.7	2.41	13.7	13.4	24.2	13.9	0.95	0.91
US Mid-Cap Growth	-26.9	-21.7	17.5	13.3	11.9	13.0	9.7	0.39	23.7	21.2	43.3	20.7	0.93	0.86
US Mid-Cap Value	-15.8	-8.4	30.9	12.2	8.9	12.6	9.6	2.12	12.2	14.5	31.3	16.1	0.96	0.89
US Small-Cap Growth	-25.2	-26.9	11.5	10.6	10.7	12.8	10.5	0.49	22.7	24.4	40.4	20.4	0.92	0.87
US Small-Cap Value	-12.8	-10.2	27.7	12.4	8.2	11.4	9.5	2.27	11.3	17.6	33.1	17.5	0.94	0.86
Europe Equity	-18.7	-16.5	17.0	7.7	4.7	8.0	6.2	3.16	11.6	13.1	26.3	17.9	0.92	0.95
Japan Equity	-19.9	-19.6	2.0	5.5	4.0	7.3	4.4	2.41	12.3	16.0	19.1	16.0	0.21	0.72
Asia Pacific ex Japan Equity	-10.7	-15.0	4.8	5.1	5.6	6.6	9.0	4.25	13.5	14.5	19.8	19.3	0.68	0.88
Emerging Markets	-16.8	-23.9	-2.2	5.4	4.2	4.5	8.7	2.82	11.2	11.4	24.0	21.5	0.66	0.88
								Current	Current	Avg.				
GLOBAL FIXED INCOME								**YTM**	**Spread**	**Spread[3]**				
Short-Term Fixed Income	-3.3	-3.7	-0.5	0.7	1.2	1.1	2.3	3.29	21.0	20.0	3.3	1.4	0.46	-0.17
US Fixed Income	-10.9	-10.7	-1.5	0.0	1.2	1.7	3.7	3.81	55.0	49.0	9.5	3.4	0.38	-0.06
International Fixed Income	-15.7	-17.9	-6.4	-2.3	-0.6	-0.2	3.7	2.41	54.0	48.0	9.5	7.8	0.45	0.33
Inflation-Protected Securities	-12.9	-11.1	2.0	1.7	2.0	1.6	5.2	-	-	-	13.8	7.7	0.53	0.45
High Yield	-15.1	-16.0	1.0	1.0	1.7	4.7	7.4	8.96	603.0	468.0	11.5	9.5	0.84	0.76
Emerging Markets Fixed Income	-13.9	-18.7	-8.7	-2.6	-1.3	-0.5	5.3	7.00	380.0	312.0	10.0	11.5	0.73	0.66
								Current						
ALTERNATIVE INVESTMENTS								**Div. Yld.**						
Real Estate/REITs	-18.3	-13.1	23.0	2.4	4.4	6.8	8.0	3.89	-	-	22.7	17.7	0.91	0.80
Master Limited Partnerships[4]	9.3	2.6	40.2	6.1	2.6	2.6	-	7.34	-	-	40.5	17.6	0.72	0.50
Commodities ex Prec. Metals	28.8	40.2	35.1	21.2	11.7	0.8	1.9	-	-	-	24.4	16.7	0.22	0.49
Precious Metals	-2.6	-3.2	-6.1	10.9	5.6	-0.3	7.9	-	-	-	15.6	18.9	0.20	0.20
Hedged Strategies[5]	-4.8	-4.9	3.7	4.3	2.4	2.1	-	-	-	-	4.0	5.2	0.81	0.70
Managed Futures[6]	0.0	1.9	-0.8	3.4	1.9	0.7	-	-	-	-	4.1	7.1	-0.51	0.13
S&P 500	-17.3	-7.0	28.7	16.4	13.4	14.4	9.1	1.56	16.3	15.4	30.81	14.6	0.99	0.96
Russell 2000	-20.9	-23.4	14.8	9.7	7.7	10.8	8.4	1.24	16.1	25.4	35.48	19.2	0.94	0.84
MSCI EAFE	-18.1	-17.0	11.8	6.9	4.7	7.7	6.1	3.12	11.9	13.6	20.57	16.3	0.89	0.97
MSCI AC World	-17.9	-13.0	19.0	12.2	9.5	10.8	7.9	2.11	14.3	14.6	26.02	15.3	1.00	1.00

Note: Performance values calculated using USD. 1. As of May 31, 2022. 2. Forward P/E using Next 12-month earnings 3. 20-year average as of May 31, 2022. 4. Volatility and Correlation: June 30, 2006 – Present. 5. Volatility and Correlation: Jan. 31, 1998 – Present Hedged strategies consist of hedge funds and managed futures 6. Volatility and Correlation: Feb. 28, 1998 – Present. 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

S&P 500 Earnings Estimates



Source: Refinitiv, S&P, MS & Co. Research as of June 24, 2022

MS & Co. S&P 500 Price Target: Midyear 2023

LANDSCAPE	EARNINGS	PRICE/EARNINGS MULTIPLE	PRICE TARGET	UPSIDE/ DOWNSIDE
Bull Case	$249	17.9	4,450	13.8%
Base Case	$236	16.5	3,900	-0.3%
Bear Case	$212	15.9	3,350	-14.4%
Current S&P 500 Price			3,912	

Note: Price targets are based on estimated 2023 earnings.
Source: MS & Co. Research as of June 24, 2022

S&P 500 Sector Performance and Valuation (as of June 24, 2022)

INDEX NAME	TOTAL RETURN WTD (%)	TOTAL RETURN YTD (%)	TOTAL RETURN 1-YEAR (%)	DIVIDEND YIELD (%)	BETA	20-YEAR AVG. FORWARD 12-MO. PE	FORWARD 12-MO. P/E*
S&P 500	***6.46***	***-17.31***	***-6.98***	***1.56***		***15.5***	***16.3***
Energy	-1.55	31.95	37.19	3.15	0.67	14.1	**8.5**
Materials	2.70	-14.72	-4.94	2.04	0.88	14.7	**12.9**
Industrials	4.24	-15.36	-11.66	1.70	0.83	16.2	**16.2**
Consumer Discretionary	8.25	-28.13	-18.21	0.78	1.34	19.1	**23.3**
Consumer Staples	6.57	-4.62	8.98	2.51	0.49	17.1	**20.3**
Health Care	8.17	-7.60	4.88	1.56	0.64	15.1	**15.8**
Financials	5.14	-16.38	-9.63	2.04	0.93	12.4	**11.7**
Information Technology	7.30	-23.30	-7.87	0.98	1.32	18.1	**19.9**
Telecommunication Services	7.00	-26.35	-25.06	1.06	1.13	15.4	**15.3**
Utilities	7.24	-2.12	12.39	3.05	0.42	15.2	**19.3**
Real Estate	7.79	-18.19	-3.06	2.72	0.77	16.3	**18.4**

Source: Morgan Stanley & Co. Research

Equity Market Relative Valuation (as of June 24, 2022)

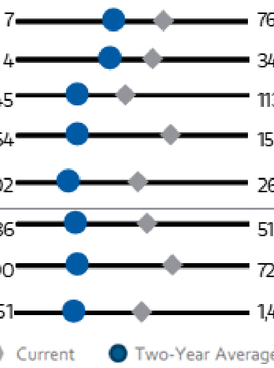
	Forward 12 Months: Price/Earnings Level	Price/Earnings %-ile	Price/Cash Flow Level	Price/Cash Flow %-ile	Price/Sales Level	Price/Sales %-ile	Price/Book Value Level	Price/Book Value %-ile	Equity Risk Premium Level	Equity Risk Premium %-ile
US Equities										
Large Cap Growth	20.8	79%	16.4	82%	3.3	85%	7.7	86%	167	4%
Large-Cap Value	13.0	30%	9.1	49%	1.5	63%	2.1	89%	458	54%
Mid-Cap Growth	21.7	73%	15.4	75%	2.2	76%	5.8	86%	148	10%
Mid-Cap Value	12.3	4%	8.1	41%	1.1	45%	1.9	89%	500	86%
Small-Cap Growth	28.3	51%	8.4	21%	1.2	34%	2.9	43%	39	21%
Small-Cap Value	11.7	0%	5.0	16%	0.7	26%	1.2	35%	542	99%
International Equities										
Europe	11.3	26%	7.3	35%	1.2	62%	1.6	34%	738	80%
Japan	12.0	10%	7.9	66%	0.9	83%	1.2	43%	813	92%
Asia Pacific ex Japan	13.1	18%	9.5	15%	2.2	63%	1.5	26%	392	53%
Emerging & Frontier Markets	10.7	28%	7.2	50%	1.1	42%	1.5	48%	749	46%
Total Equities										
US	15.9	46%	11.3	63%	1.9	78%	3.1	85%	316	25%
International	11.5	17%	7.6	35%	1.2	73%	1.5	33%	682	81%
Emerging Markets	10.7	28%	7.2	50%	1.1	42%	1.5	48%	749	46%

Note: Dark blue, light blue and gray fill denotes whether the group is relatively attractive, neutral or unattractive to other groups under the same metric.
Source: Bloomberg

Government Debt Monitor & Fixed Income Spread Dashboard

US				
	YIELD (%)			TOTAL RETURN (%)
Treasury Benchmark	Current	ΔWTD	ΔYTD	YTD
3-Month	1.63	0.07	1.60	0.16
2-Year	3.06	-0.12	2.33	-3.14
5-Year	3.19	-0.16	1.92	-7.57
10-Year	3.13	-0.10	1.62	-12.20
30-Year	3.26	-0.02	1.35	-23.86
2-Yr./10-Yr. Spread (bp)	7	1.98	-71.10	-
10-Yr. TIPS Breakeven (bp)	257	-2.13	-2.03	-
Interest Rate Volatility† (bp)	127	-6.75	60.42	-

		DURATION (YRS.)	YIELD-TO-WORST	OAS (BP)	OAS RANGE** RICH	OAS RANGE** CHEAP
INVESTMENT GRADE	MBS*	6.25	3.89	51	7	76
INVESTMENT GRADE	AAA	6.28	3.47	22	4	34
INVESTMENT GRADE	AA	7.62	3.96	77	45	113
INVESTMENT GRADE	A	7.51	4.43	121	64	150
INVESTMENT GRADE	BBB	7.78	5.06	185	102	261
HIGH YIELD	BB	5.16	7.02	368	186	511
HIGH YIELD	B	4.47	9.12	578	290	723
HIGH YIELD	CCC	4.06	12.99	973	451	1,415



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 as of June 24, 2022

Government Debt Monitor & Benchmark Returns

Global				
	YIELD (%)			TOTAL RETURN (%)*
10-Year Govt. Bond	Current	ΔWTD	ΔYTD	YTD
France	1.97	-0.23	0.00	-11.17
Germany	1.44	-0.22	0.00	-11.05
Japan	0.23	0.00	0.16	-1.36
Spain	2.54	-0.20	0.00	-12.13
UK	2.30	-0.20	1.33	-8.74
3-Month LIBOR	2.20	0.10	-0.61	-
US Tax Exempt				
10-Year AAA Muni	2.81	0.65	0.49	-9.31
10-Yr. Muni/UST Ratio	89.65	7.60	3.33	-

	TOTAL RETURN (%)		
Index	YTD	MTD	2021
Bloomberg US Aggregate	-10.73	-1.99	-1.54
Bloomberg US MBS	-9.52	-2.40	-1.04
Bloomberg US IG Corporate	-14.42	-2.84	-1.04
Bloomberg Municipal	-9.31	-2.00	1.52
Bloomberg US High Yield	-13.11	-5.56	5.28
Bloomberg Global Aggregate	-13.85	-3.14	-4.71
JPMorgan Emerging Market	-17.82	-4.37	-1.51

*Global total returns reflect Citigroup 7- to 10-year bond indexes and Muni total returns reflect Bloomberg Municipal Bond Index Total Return
Source: Bloomberg as of June 24, 2022

Morgan Stanley & Co. Forecasts (as of June 24, 2022)

	REAL GDP GROWTH (%)			10-YR. GOVT. BOND YIELD (%)		HEADLINE INFLATION (%)		
	2021	2022E	2023E	Q3 '22E	Q1 '23E	2021	2022E	2023E
Global	6.2	2.6	3.3			3.6	7.8	4.5
US	5.7	2.4	2.0	2.90	3.10	4.7	7.9	2.8
Euro Zone	5.3	3.0	1.3			2.6	7.7	4.1
UK	7.4	3.4	0.5	2.20	2.25	2.6	8.3	4.9
Japan	1.7	1.9	1.6	0.20	0.30	-0.2	2.0	1.5
Emerging Markets	7.0	2.5	4.6			3.8	8.3	5.4
China	8.1	3.2	6.2			0.9	1.8	2.0

Source: Morgan Stanley & Co. Research

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Market Weight	With the Fed launching aggressive tightening, supply chains improving and global growth slowing on the back of Russia/Ukraine war and China's COVID outbreaks, we see greater chances of stagflation and thus have reduced our overweight. While recession risks for the broad economy remain low, prospects for negative earnings revisions are rising as are and headwinds to valuation multiples. We expect volatile but rangebound trading plus/minus another 5% to 10%.
International Equities (Developed Markets)	Market Weight	The mix of all-time high inflation, existential risks associated with Russia/Ukraine and the European Central Bank's position that it has limited tools to help suggests that the odds of recession are over 50%. Developed market exposure should skew toward commodity and materials exporters, especially those in the Asia/Pacific region.
Emerging Markets	Overweight	China’s regulatory crackdown and zero-tolerance for COVID cases have exacerbated the economic slowing that began last year. Odds are rising for China stimulus and growth linked to supply chains is rebounding in South Asia. We are opportunistically adding to positions there and in Latin America, which benefits from already tight central bank policy and commodity exporter windfalls.
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Overweight	Markets have aggressively priced the Fed’s hawkish rate path and with yield curves apt to face ongoing flattening pressure as risks of a policy mistake rise. We are taking a more balanced risk-reward approach and have added to large underweight positions. With Quantitative Tightening ahead, execution risk remains large as do the risks from even higher inflation. However, with spreads widening and long-term rates reflecting a more reasonable terminal value, bonds are a decent relative portfolio hedge.
International Investment Grade	Underweight	Central banks’ hawkish pivots have prompted a material move in global nominal rates. Risk premiums are moving up, too, creating opportunity. While timing and catalysts are still hazy, the amount of negative yielding debt is down by more than two-thirds since last summer. Prospects are brightening for fixed income investors, with opportunities to invest in local currencies that are expected to strengthen against the US dollar.
Inflation-Protection Securities	Underweight	TIPS yields have moved up as realized inflation remains near 40-year highs and geopolitical uncertainties add pricing pressures. However, real yields remain deeply negative, which suggests valuation is not compelling.
High Yield	Underweight	We recently halved our exposure to the equity-like asset class to reduce equity beta of portfolios. High yield bonds have rallied aggressively with the unprecedented provision of liquidity from the Fed and fiscal stimulus from Washington. Surging commodity prices have also repaired balance sheets of energy-levered companies. With spreads near all-time tights, the upside is limited.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Overweight	With the debate between growth and rising rates moving to center stage, we recently added modestly to the asset class, believing it is a diversifying source of income that is also leveraged to reflation. With real interest rates still negative and inflation expectations rising, we expect to be selective opportunistic investors in the sector this year, with a focus on residential.
Commodities	Market Weight	Global central banks are intensifying their inflation fights with aggressive rate hikes, especially in commodity-based economies like Australia and Canada. Supply chains for goods are starting to clear, relieving some pressures on inflation coming from industrial metals, semiconductors and auto parts. As a result, we anticipate that overall inflation is peaking. That said, structural disruption in energy and global agricultural commodities remain severe and may take multiple quarters to cure.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	With broad market valuations rich, a majority of returns will be based on company earnings and managements' ability to navigate rising costs, surging demand and disruptive competition. These factors are constructive for hedge fund managers who are good stock-pickers and can use leverage and risk management to amplify returns. We prefer very active and fundamental strategies, especially low beta, low volatility and absolute return hedge funds.

*For more about the risks to Duration, please see the Risk Considerations section beginning on page 11 of this report.
Source: Morgan Stanley Wealth Management GIC as of June 24, 2022

Macro Factor Heat Map Key

	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

Disclosure Section

The **Global Investment Committee (GIC)** is a group of seasoned investment professionals from Morgan Stanley & Co. and Morgan Stanley Wealth Management who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend asset allocation model weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

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

Important note regarding economic sanctions. This event may involve the discussion of country/ies which are generally the subject of selective sanctions programs administered or enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC"), the European Union and/or by other countries or multi-national bodies. The content of this presentation is for informational purposes and does not represent Morgan Stanley's view as to whether or not any of the Persons, instruments or investments discussed are or may become subject to sanctions. Any references in this presentation to entities or instruments that may be covered by such sanctions should not be read as recommending or advising on any investment activities involving such entities or instruments. You are solely responsible for ensuring that your investment activities in relation to any sanctioned country/ies are carried out in compliance with applicable sanctions.

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 and frontier 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 appropriate 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 appropriate 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.

Hedge funds may involve a high degree of risk, often engage in leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

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 appropriate 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.

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.

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.

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.

The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments (ESG)** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein.

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. **Health care sector stocks** are subject to government regulation, as well as government approval of products and services, which can significantly impact price and availability, and which can also be significantly affected by rapid obsolescence and patent expirations.

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.

Certain securities referred to in this material may not have been registered under the U.S. Securities Act of 1933, as amended, and, if not, may not be offered or sold absent an exemption therefrom. Recipients are required to comply with any legal or contractual restrictions on their purchase, holding, and sale, exercise of rights or performance of obligations under any securities/instruments transaction. 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.

Disclosures

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