US Economics & Rates Strategy | North America

Treasury Market Commentary, January 2

Both manufacturing PMIs in China surprise to the downside and decline below 50, potentially contributing to concerns about global growth. German Bund, UK Gilt and US Treasury 10y yields decline significantly. US 2s10s and 2s30s curves flatten. US 10y yield declines 6.4bp to 2.62%.

Government bond yields in the US, Germany, UK and Canada declined significantly to start the new year despite rebounds in both oil prices and US equity markets during the US session as concerns about both global growth and Chinese growth potentially weighed on markets. **Overnight, China's Caixin manufacturing PMI surprised to the downside and fell below 50, to 49.7, meaning that both reported manufacturing PMIs in China surprised to the downside and fell below 50 during the month of December.** Following the US equity market close, concerns about Chinese growth potentially resurfaced and contributed to a late-day rally in the treasury market after a large US company cut Q1 guidance noting an unforeseen slowdown in China as one of the catalysts. One notable move worth highlighting after hours was the Japanese yen rallied more than 3% versus the US dollar shortly after 5:30pm New York time, declining from about 109 to as low as 105.

Consistent with the decline in China's PMI was a drop in both the global and developed market manufacturing PMIs in December, to their lowest respective levels since September 2016. Broadly speaking, the message from global manufacturing PMIs for the month of December in front of tomorrow's ISM manufacturing index release, was that weakness appeared to be increasing over the last month with a greater number of countries experiencing PMIs below 50. **With 31 of the headline manufacturing PMIs we track having already been reported for the month of December, 10 now have headline manufacturing PMIs below 50. This represents the largest outright number of the manufacturing PMIs below 50 that we track since August 2016.** Some of the countries where PMIs fell, or remained, below 50 included but were not limited to China, France, Italy, Mexico, Poland, Czech Republic, South Korea, Taiwan and Malaysia. The forward-looking new orders sub-index for the global manufacturing PMI declined to 51.25, its lowest level since August 2016. **Looking forward to tomorrow's ISM manufacturing index release, our US economics team is forecasting a decline in the index to 55.6 versus a Bloomberg consensus estimate of 57.5.** Interestingly, all 5 regional manufacturing prints in the US (Empire, Philly Fed, Kansas City, Dallas and Richmond) materially missed the consensus estimate in December and declined noticeably versus levels seen in November, but the Chicago PMI surprised materially to the upside and remained well above 60 after barely

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falling in December relative to November.

Periphery spreads ended the session wider on the day coincident with the risk-off tone in European equity indices and the strong rally in German Bunds, as Italian bonds outperformed the broader periphery. The Italian, Spanish, Portuguese, Greek and French 10y spreads to 10y German Bunds widened 2.7bp, 6.2bp, 6.7bp, 6.7bp and 1.7bp, respectively. Today's widening in 10y spreads to 10y Bunds was not enough to push outright levels of periphery yields higher as 10y yields ended the day lower across all countries to varying degrees. **In particular, the Italian 10y yield declined 5bp to 2.692%, the lowest level for the on-the-run 10y yield since late July 2018**. A portion of today's widening in Spain may have been concession-related activity in front of tomorrow's expected auctions. Curves in the semi-core and periphery were mixed. 5s30s curves in Spain and Belgium flattened 1.9bp and 2bp, respectively, while 5s30s curves in France and Italy steepened 0.6bp and 2.4bp, respectively.

German Bund yields began the session lower in yield and continued to decline significantly for the majority of the session, led by outperformance in the 10y and longer maturity part of the curve. The German 10y yield finished the session down 7.7bp to 0.165%, which represented the lowest close for the on-the-run 10y Bund yield since April 2017. **Today's 7.7bp decline in the German 10y yield represented about a 1.8 standard deviation decline when analyzing daily yield moves since 2000. A portion of today's rally in Bunds may have been in reaction to the rally in treasuries on Monday when Eurex was closed, although the poor open for risk markets, softer global PMI data led by concerns in China, large bund option buying in favor of long duration early in the session and a lack of EGB supply outside of Spain to the start the year** may have also contributed to today's significant yield decline. The outperformance of the long end during today's rally in Bunds resulted a 1.6bp flattening in the German 5s30s curve to 117bp. The German 2y breakeven narrowed 4bp to -0.18%, its lowest closing level since mid-2016, despite the decline in the EUR and rebound in oil prices. Since early October the German 2y breakeven has declined almost 140bp.

UK Gilt yields declined significantly today coincident with the move in Bund yields, led by outperformance in the intermediate part of the curve. **Today's upside surprise in the UK manufacturing PMI to its strongest level since June 2018, at 54.2, that occurred despite increased Brexit uncertainty, did not appear to materially impact outright levels of UK yields**. The 10y yield finished the session down 6.8bp to 1.209%, while the UK 5s30s curve steepened 2.2bp to 94bp.

US treasury yields began the European session lower in yield with a flattening bias to the curve coincident with the significant declines in German Bund and UK Gilt yields as well as declines in US equity futures and a softer open for European equity indices. However, treasury yields began to stabilize and eventually bottom shortly after 8am New York time as equity futures began climbing off of their lows of the day and even despite the continued gradual push lower in Bund and Gilt yields. The 10y yield declined to as low as 2.645% in early US trading but climbed back to as high as 2.6775% shortly after 11am New York time as equity markets accelerated off of their morning lows and oil prices climbed. **The move higher in yield during the latter part of the US morning would prove short lived, though, and treasury yields began declining into**

midday. Shortly before 3pm New York time, treasury yields resumed their declines coincident with a brief move lower in equity markets back into negative territory, but the move lower was not reversed as equity markets rallied to finish positive on the day in the last 20 minutes of the session. **After the equity market close, a cut in revenue guidance from a large US company coincided with a push lower in treasury yields into the close.** Focus tomorrow in the US will shift to the release of the ISM manufacturing index before payrolls on Friday.

The 10y Treasury yield finished the session down 6.4bp to 2.62%, its lowest yield level of the day, while the 2y underperformed all other points on the curve, declining 2bp to 2.467%. **Today's closing level for the US 10y yield represented the lowest yield close since January 2018.** Both the 2s10s and 2s30s curves were flatter on the day coincident with the underperformance for the 2y and significant outperformance in the 30y. The 2s10s curve flattened 4.2bp to 48.4bp, while the 2s10s curve flattened 4.3bp to 15.3bp. Following today's move, the 2s30s curve closed back below the 200-day moving average; however, it remains above both the 50- and 100-day moving averages. Effective fed funds remained at 2.40% today. **Assuming that effective remains flat to IOER, Fed funds futures continue to price next to no Fed action in 2019 with only 3.5bp of hikes priced by the end of July 2019 and 1bp of cuts priced by the end of January 2020.**

The TIPS breakeven curve twist flattened today as the 2y breakeven widened coincident with a rebound in oil prices while intermediate and longer-maturity breakevens narrowed perhaps in part due to the strong rally in nominals. The 10y breakeven narrowed 2.5bp, to 1.688%, while the 2y breakeven narrowed 2.7bp 0.682%. The 2s10s breakeven curve flattened 5.2bp to 100bp. **Daily national average gasoline prices declined to their lowest level since July 2017, at $2.253/gallon. Daily national average gasoline prices have now fallen more than 65 cents since early October 2018.**

US equity markets finished the day up modestly across major indices led by outperformance in the Russell 2k. However, equity futures were lower after the cash close. The S&P 500 climbed 0.13% to 2510, while the VIX index declined 2.20 points, to 23.2. The on-the-run 5y CDX HY spread widened 10.3bp, to 459.4bp. The US dollar (DXY) rebounded from some of its recent weakness due mostly to strong gains versus both the EUR and GBP.

Tactical Trading Model Signals - Currently Active Strategies

G4 10y Futures Smarter (beta) Trading Strategy - A "Smarter" (beta) Way to Trade G4 10y Futures Duration? (please see Exhibit 13 found later in this publication for detailed breakdown)

- **US 10y** Futures Exposure: Total 0%, Trade Longs Only 0%, Fade Shorts Portfolio: 0%.

- **German 10y** Futures Exposure: Total 0%, Trade Longs Only 0%, Fade Shorts Portfolio: 0%.

- **Japan 10y** Futures Exposure: Total 0%, Trade Longs Only 0%, Fade Shorts Portfolio: 0%.

- **UK 10y** Futures Exposure: Total 100%, Trade Longs Only 0%, Fade Shorts Portfolio: 100%.

Trading Notes: there are no trades scheduled for execution tomorrow.

US Holiday Trading Strategy - Trading 10y Treasury Futures Around US Holidays

The US Holiday Trading Strategy is currently Active. Today, January 2, 2019, the US Holiday trading strategy bought the actively traded US 10y treasury future (TYH9) at 3pm New York time one business day after the New Years Holiday. It will sell/close that position on January 7, 2019 at 3pm New York time four business days after New Year's holiday. Per the strategy trading rules, the US Holiday Trading Strategy will buy/go long US 10y treasury futures on the first business day of the New Year at 3pm New York time and sell/exit that position on the 4th business day of the New Year at 3pm New York time.

At 3:00 PM New York, Treasury yields finished mixed Wednesday. The 2y yield rose 0.9bp to 2.502%, the 3y rose 1.2bp to 2.472%, the 5y fell 0.9bp to 2.500%, the 7y fell 2.5bp to 2.560%, the 10y fell 2.9bp to 2.660%, and the 30y fell 3.8bp to 2.981%..

Market-implied probabilities for a hike at the Fed's March FOMC meeting decreased on Wednesday to 2% from 4%. Over the next 12 months, the market is pricing -9.2bp of cumulative cuts..

TIPS breakevens finished higher led by the 2y BEI. The 2y BEI rate rose 2.7bp to 0.68%, the 5y fell 1.2bp to 1.48%, the 10y fell 2.5bp to 1.69%, and the 30y fell 2.2bp to 1.79%.**. TIPS real yields ended lower led by the 2y TIPS.** The 2y TIPS real yield fell 4.7bp to 1.84%, the 5y fell 3.8bp to 0.96%, the 10y fell 4.0bp to 0.93%, and the 30y fell 4.2bp to 1.16%..

Swap spreads closed higher Wednesday led by the 30y sector. 2y spreads fell 0.9bp to 17.4bp, 3y spreads fell 1.2bp to 13.2bp, 5y spreads rose 0.9bp to 7.2bp, 7y spreads rose 2.5bp to 4.8bp, 10y spreads rose 2.9bp to 3.0bp, and 30y spreads rose 3.8bp to -17.0bp..

Please click here if you would like to receive our weekly strategic advice on global interest rates: the Global Interest Rate Strategist.

US Treasury cash and futures pivot points
Exhibit 1 and Exhibit 2 display daily pivot points, support, and resistance levels for each benchmark Treasury and front Treasury futures contract. We explain our methodology and include weekly pivot points, support, and resistance levels inside the report.

Exhibit 1: US Treasury benchmark daily pivots, support, and resistance levels

	UST 2y	UST 3y	UST 5y	UST 7y	UST 10y	UST 30y
Daily resistance 3	2.544	2.506	2.549	2.624	2.720	3.048
Daily resistance 2	2.525	2.484	2.523	2.594	2.691	3.020
Daily resistance 1	2.520	2.470	2.507	2.576	2.674	3.003
Daily pivot high	2.489	2.448	2.481	2.546	2.645	2.976
Daily pivot low	2.480	2.443	2.475	2.539	2.639	2.970
Daily Support 1	2.461	2.426	2.454	2.516	2.617	2.948
Daily Support 2	2.455	2.412	2.438	2.497	2.599	2.931
Daily Support 3	2.440	2.400	2.424	2.480	2.583	2.916

Source: Morgan Stanley Research

Exhibit 2: US Treasury futures daily pivots, support, and resistance levels

	TU1	FV1	TY1	UXY1	US1	WN1
Daily resistance 3	106-081	115-025	122-280	131-121	148-140	163-215
Daily resistance 2	106-071	114-31+	122-22+	131-042	148-00+	163-05+
Daily resistance 1	106-066	114-301	122-193	130-313	147-23+	162-267
Daily pivot high	106-048	114-242	122-082	130-145	146-256	161-236
Daily pivot low	106-043	114-225	122-05+	130-105	146-190	161-155
Daily Support 1	106-033	114-19+	122-000	130-026	146-05+	160-31+
Daily Support 2	106-028	114-181	121-287	129-297	145-28+	160-207
Daily Support 3	106-021	114-152	121-235	129-218	145-14+	160-043

Source: Morgan Stanley Research

GDP tracking

We continue to track **4Q GDP at 3.6%.**

Economic data preview

The first data releases of the year are due out tomorrow. Most important is the **ISM manufacturing report** (10am), which we expect to surprise consensus to the downside. Elsewhere, we await a number of labor market-related releases, including **Challenger job cuts** (7:30am), the **ADP employment report** (8:15am), and **initial jobless claims** (8:30am). Finally, the results of **December motor vehicle sales** will trickle in throughout the day. Note that the release of the **November construction spending report**, originally scheduled for tomorrow, has been postponed due to the government shutdown.

As the key release tomorrow, the **ISM manufacturing survey** will likely have heightened market significance, especially on the back of a record decline in the Richmond Fed's survey last week. We are looking for a below-consensus decline of 3.7 points to a reading of 55.6 (vs. consensus for a smaller drop to 57.5). Driving our forecast is a weaker set of regional manufacturing surveys in December, all five of which declined on an ISM-adjusted basis with especially large drops in the Richmond (-7.2 points) and Kansas City (-5.9 points) surveys.

For some context, the ISM survey has averaged a reading of around 54 during expansions since its inception in 1948. A cooling off in line with our expectations from record highs earlier this year, having hit a cyclical max of 61.3 in August, resembles a reversion to more normal readings. The index would still be running at a healthy level, well above the average reading during recessions of around 43. Still, further declines should be watched closely.

Aside from the ISM survey, we'll be receiving several data points related to the labor market ahead of Friday's payrolls report. First is the Challenger Survey at 7:30am, where we'll get a count of **job cut announcements** for December from the private outsourcing firm Challenger, Gray & Christmas. So far this year, Challenger has announced a total of 494,775 job cuts, already above the full year total of 418,770 job cuts in 2017.

At 8:15am, the **ADP** Research Institute will release its **jobs report** for December. Consensus expects private payroll growth of 180,000 following a similarly sized gain in the previous month. Though this comes a bit above our forecast for net private job growth of 162,000 in the official employment report on Friday, we have not found the ADP report to be particularly useful in forecasting the official data—since altering their methodology in 2016, the report has had a mean absolute error of around 60k. Still, the details of the report give us useful data on hiring trends by firm size, showing the breakdown in hiring among small,

medium, and large businesses.

Last on the labor market front are **initial jobless claims** data at 8:30am. For tomorrow's report, which covers the week ending December 29, consensus looks for claims to rise to 220,000 from 216,000 in the prior week. Jobless claims appear to have stabilized in recent weeks after some volatility in November. The average level of claims since September is 215,000, so at 216,000 in the latest reading claims are running just about right in line with their recent trend. Other employment data received in recent weeks has had a generally positive tone – in particular, out of the December regional manufacturing surveys released thus far it is notable that broad softening did not include employment indices which remained positive.

Finally, data on **motor vehicle sales** in December will be released throughout the day so that by late afternoon we will have the overall pace for the month. Auto sales have held up stronger than expected in recent months, likely boosted in part by motor vehicle replacement following the September hurricanes. In November, motor vehicle sales were running at a 17.4 million-unit pace, above the average of 17.2 million in 2017. Consensus expects vehicle sales to slow just slightly in December to a pace of 17.22 million. Further ahead, we expect spending on autos to moderate in 2019 as Fed rate hikes begin to bite into the interest-rate sensitive sector.

Tactical Trading Model Signals - Currently Inactive Strategies

US Payroll Trading Strategy - Buy 10y Treasury Futures on a Strong Payroll Beat
The US Payroll Trading Strategy will Buy the actively traded US 10y Treasury future (TY) at 3pm New York time on the day of the payroll release and hold for 5 business days before closing the position at 3pm New York time, when US Nonfarm Payrolls beat the consensus estimate by 20,000 or greater.

Auction Outlook - An American Auction Tail
Our next Auction Preview will take place on January 7, in advance of the 3-year auction on January 8.

Additional content inside

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- Technical Analysis

- Cyclical and Secular Trends

- G4 Smarter (beta) Trading Strategy

- Holiday Trading Strategy

- Market data

● In case you missed it

Exhibit 3: Treasury market closes

Maturity	3PM YTM (%)	1d Δ (bp)	5PM YTM (%)	3~5PM Δ (bp)
2y	2.502	0.9	2.468	-3.4
3y	2.472	1.2	2.429	-4.3
5y	2.500	-0.9	2.458	-4.2
7y	2.560	-2.5	2.520	-4.1
10y	2.660	-2.9	2.620	-3.9
30y	2.981	-3.8	2.952	-2.9

Source: Morgan Stanley Research, Bloomberg
Note: All times listed in the Treasury Market Commentary are New York time.

Event Calendar

Exhibit 4: Upcoming events

	Date	NY Time	Auctions Event	NY Time	Economic Data Event	NY Time	Federal Reserve Event
Thu	3-Jan	11:30	8-Week Bills	7:00	MBA Mortgage Applications		
				8:15	ADP Employment Change		
				8:30	Initial Jobless Claims		
				10:00	Construction Spending MoM		
				10:00	ISM Manufacturing		
Fri	4-Jan			8:30	Change in Nonfarm Payrolls	10:15	Fed Chair Powell plus Bernanke and Yellen interviewed at AEA
				8:30	Unemployment Rate	10:15	Fed's Bostic Speaks at AEA in Atlanta
Mon	7-Jan	11:30	3-Month Bills	10:00	Factory Orders	12:40	Fed's Bostic Speaks to Rotary Club of Atlanta
		11:30	6-Month Bills	10:00	Durable Goods Orders		
Tue	8-Jan	13:00	3-Year Notes	8:30	Trade Balance		
Wed	9-Jan	13:00	10-Year Notes Reopening	7:00	MBA Mortgage Applications	8:20	Fed's Bostic Speaks in Chattanooga on Economic Outlook
						11:30	Fed's Rosengren Speaks on the Economic Outlook
						14:00	FOMC Meeting Minutes
Thu	10-Jan	11:30	8-Week Bills	8:30	Initial Jobless Claims	12:30	Fed's Bullard Speaks on Economy and Monetary Policy
		11:30	4-Week Bills	10:00	Wholesale Inventories MoM	17:30	
Fri	11-Jan			8:30	CPI MoM		
Mon	14-Jan	11:30	3-Month Bills				
		11:30	6-Month Bills				
Tue	15-Jan			8:30	Empire Manufacturing	13:00	Fed's George Speaks on Economy and Monetary Policy Outlook
				8:30	PPI Final Demand MoM		
Wed	16-Jan			7:00	MBA Mortgage Applications	18:30	Fed's Kashkari Speaks on Panel About Financial Crisis
				8:30	Retail Sales Advance MoM		

Source: Morgan Stanley Research, Bloomberg

Pivot Points

Pivot points are charting levels used by day traders to determine market direction, support, and resistance levels. We calculate daily pivot points using the previous day's open, high, low, and closing levels. We calculate weekly pivot points using the previous week's open, high, low, and closing levels.

Exhibit 5: US Treasury benchmark daily pivots, support, and resistance levels

	UST 2y	UST 3y	UST 5y	UST 7y	UST 10y	UST 30y
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Daily resistance 2	2.525	2.484	2.523	2.594	2.691	3.020
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Daily Support 1	106-033	114-19+	122-000	130-026	146-05+	160-31+
Daily Support 2	106-028	114-181	121-287	129-297	145-28+	160-207
Daily Support 3	106-021	114-152	121-235	129-218	145-14+	160-043

Source: Morgan Stanley Research

Technical Analysis

Exhibit 7: US Treasury cash

UST 2-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	2.453	2.518	2.453	2.468	(2.0)	5.9	2.565	2.673	25	-96	LH , LL	Inverted Hammer
Mon	31-Dec	2.565	2.565	2.484	2.488	(2.8)	5.8	2.587	2.689	26	-99	LH	Long Black
Fri	28-Dec	2.565	2.581	2.512	2.516	(4.6)	5.6	2.607	2.704	28	-99	LH	
Thu	27-Dec	2.611	2.615	2.542	2.563	(5.3)	5.6	2.628	2.718	31	-87	LH	Inside Day
Wed	26-Dec	2.554	2.625	2.538	2.615	5.6	5.4	2.650	2.731	35	-70		Inside Day

UST 3-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	2.467	2.487	2.429	2.429	(2.8)	6.3	2.546	2.665	23	-100	LH , LL	
Mon	31-Dec	2.545	2.545	2.448	2.456	(3.9)	6.3	2.570	2.682	24	-98	LH , LL	Long Black
Fri	28-Dec	2.556	2.572	2.490	2.495	(6.4)	6.0	2.591	2.700	26	-98	LL	
Thu	27-Dec	2.600	2.606	2.526	2.559	(4.7)	5.9	2.615	2.717	30	-87	LL	
Wed	26-Dec	2.551	2.617	2.526	2.606	5.2	5.7	2.635	2.731	34	-73	LL	White Engulfing

UST 5-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	2.516	2.526	2.458	2.458	(5.3)	6.3	2.584	2.675	25	-100	LH , LL	Long Black
Mon	31-Dec	2.570	2.570	2.496	2.511	(4.4)	6.3	2.604	2.692	28	-95		
Fri	28-Dec	2.613	2.627	2.550	2.555	(6.2)	6.2	2.621	2.708	31	-98		
Thu	27-Dec	2.662	2.665	2.581	2.617	(3.2)	6.1	2.639	2.723	35	-71		
Wed	26-Dec	2.574	2.655	2.552	2.648	6.9	5.9	2.653	2.736	38	-62		White Engulfing

UST 7-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	2.576	2.598	2.520	2.520	(6.6)	6.4	2.655	2.744	25	-100	LH , LL	
Mon	31-Dec	2.662	2.662	2.573	2.586	(4.2)	6.3	2.676	2.762	28	-95	LH	Long Black
Fri	28-Dec	2.677	2.692	2.618	2.628	(4.8)	6.1	2.694	2.779	31	-96		
Thu	27-Dec	2.725	2.730	2.646	2.676	(5.7)	6.0	2.712	2.794	34	-81		Inside Day
Wed	26-Dec	2.661	2.740	2.637	2.733	7.7	5.8	2.728	2.808	39	-55		Outside Day

UST 10-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	2.684	2.695	2.620	2.620	(6.4)	6.0	2.742	2.826	25	-100	LH , LL	Long Black
Mon	31-Dec	2.725	2.743	2.677	2.684	(3.4)	5.9	2.758	2.844	29	-97	LH	
Fri	28-Dec	2.765	2.779	2.711	2.718	(4.8)	5.8	2.775	2.860	31	-97		
Thu	27-Dec	2.799	2.804	2.731	2.767	(4.1)	5.7	2.792	2.876	34	-76		Inside Day
Wed	26-Dec	2.749	2.813	2.719	2.808	7.0	5.6	2.808	2.890	38	-56		Outside Day

UST 30-Year Yield

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	3.012	3.024	2.952	2.952	(6.3)	5.7	3.023	3.093	29.8	-100	LH	Long Black
Mon	31-Dec	3.039	3.051	3.003	3.015	(0.8)	5.6	3.026	3.110	34.6	-73		
Fri	28-Dec	3.047	3.064	3.019	3.022	(3.4)	5.7	3.033	3.124	35.3	-69		Inside Day
Thu	27-Dec	3.055	3.074	3.002	3.056	(0.8)	5.8	3.044	3.140	38.2	-56	HH	
Wed	26-Dec	3.004	3.069	2.974	3.065	7.1	5.7	3.055	3.152	38.9	-53		Outside Day

Source: Morgan Stanley Research, Bloomberg

Exhibit 8: UST Futures

TU Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	106-03+	106-06+	106-026	**106-040**	-0-010	0-032	106-006	105-263	72	-13		
Mon	31-Dec	105-300	106-042	105-300	**106-050**	0-022	0-032	105-318	105-25+	75	4		
Fri	28-Dec	105-300	106-042	105-300	**106-026**	0-012	0-030	105-308	105-245	73	-9		Outside Day
Thu	27-Dec	106-00+	106-020	106-00+	**106-01+**	0-026	0-026	105-297	105-237	71	-7	HL	Inside Day
Wed	26-Dec	106-02+	106-02+	106-000	**105-306**	-0-022	0-026	105-285	105-230	68	-22	HH , HL	

FV Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	114-172	114-290	114-170	**114-220**	0-000	0-071	114-102	113-266	77	-14	HH	Outside Day
Mon	31-Dec	114-18+	114-186	114-18+	**114-220**	0-06+	0-066	114-076	113-242	77	8	HL	
Fri	28-Dec	114-166	114-170	114-156	**114-15+**	0-030	0-070	114-045	113-216	75	-4		
Thu	27-Dec	114-090	114-106	114-08+	**114-12+**	0-090	0-072	114-015	113-19+	73	6		
Wed	26-Dec	114-100	114-106	114-020	**114-03+**	-0-052	0-072	113-30+	113-172	69	-20		Outside Day

TY Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	121-260	122-16+	121-260	**122-060**	0-05+	0-152	121-155	120-318	76	-16	HH , HL	
Mon	31-Dec	121-21+	122-040	121-180	**122-00+**	0-12+	0-145	121-11+	120-283	74	-6	HL	
Fri	28-Dec	121-12+	121-260	121-090	**121-200**	0-030	0-143	121-082	120-246	70	-14		
Thu	27-Dec	120-310	121-190	120-30+	**121-170**	0-160	0-142	121-055	120-216	69	-9		Inside Day
Wed	26-Dec	121-170	121-20+	120-280	**121-010**	-0-120	0-136	121-023	120-185	63	-46		Black Engulfing

UXY Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	129-280	130-26+	129-250	**130-12+**	0-100	0-200	129-160	128-252	100	-17	HH , HL	
Mon	31-Dec	129-210	130-08+	129-15+	**130-02+**	0-150	0-188	129-107	128-200	100	-10	HL	
Fri	28-Dec	129-09+	129-270	129-04+	**129-19+**	0-02+	0-18+	129-065	128-148	100	-15		
Thu	27-Dec	128-270	129-210	128-26+	**129-170**	0-18+	0-182	129-027	128-10+	100	-16		Inside Day
Wed	26-Dec	129-200	129-25+	128-240	**128-30+**	-0-150	0-17+	128-298	128-057	100	-48		Black Engulfing

US Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	145-230	147-140	145-190	**146-240**	0-240	1-041	145-14+	144-095	77	-16	HL	
Mon	31-Dec	145-210	146-090	145-070	**146-000**	0-150	1-023	145-075	144-002	74	-9	HL	
Fri	28-Dec	145-020	145-280	144-260	**145-170**	0-000	1-023	145-020	143-23+	72	-19		
Thu	27-Dec	144-160	145-280	144-150	**145-170**	0-250	1-023	144-27+	143-152	72	-19		Inside Day
Wed	26-Dec	145-240	146-030	144-130	**144-240**	-0-220	1-015	144-190	143-066	68	-42		Black Engulfing

WN Future

Day	Date	Open	High	Low	Close	1D Chg	ATR (14)	SMA (8)	SMA (21)	RSI (14)	%R (14)	Highs Lows	Candle Pattern
Wed	2-Jan	160-120	162-160	160-100	**161-210**	1-000	1-166	160-186	158-305	72	-17	HL	
Mon	31-Dec	160-100	161-060	159-240	**160-210**	0-190	1-151	160-151	158-178	68	-35		
Fri	28-Dec	159-250	160-210	159-120	**160-020**	-0-110	1-152	160-112	158-062	66	-47		Inside Day
Thu	27-Dec	159-160	161-050	159-050	**160-130**	0-180	1-155	160-060	157-27+	69	-34		
Wed	26-Dec	161-140	161-280	159-080	**159-270**	-1-060	1-143	159-28+	157-16+	67	-44		Black Engulfing

Source: Morgan Stanley Research, Bloomberg

Cyclical and Secular Trends

In The Tactical Bull Market Is Back, we discussed a simple methodology based on the Ichimoku Kinko charting technique for classifying market movements as bullish, bearish, or range bound. Then, we define whether the market movement is cyclical or secular in nature. A cyclical move is shorter term in nature, and a secular move is longer term in nature. For cyclical moves, we further divide them into tactical and strategic. We use daily data to inform tactical moves, and weekly data to inform strategic moves. We use monthly data to inform secular movements.

Exhibit 9: Summary of cyclical (tactical and strategic) and secular bull, bear, and range bound rates markets

	Daily Last	Daily Cloud Lower	Daily Cloud Upper	200d MA	Cyclical Tactical Daily	Cyclical Strategic Weekly	Secular Monthly
UST 2y	2.468	2.834	2.877	2.622	Bull Market	Bear Market	Bear Market
UST 5y	2.458	2.956	2.981	2.805	Bull Market	Range bound	Bear Market
UST 10y	2.620	3.084	3.150	2.951	Bull Market	Range bound	Bear Market
UST 30y	2.952	3.268	3.360	3.133	Bull Market	Range bound	Range bound
DBR 2y	-0.614	-0.594	-0.562	-0.593	Bull Market	Bear Market	Bull Market
DBR 5y	-0.371	-0.196	-0.129	-0.175	Bull Market	Bull Market	Range bound
DBR 10y	0.165	0.392	0.462	0.418	Bull Market	Bull Market	Range bound
DBR 30y	0.800	1.038	1.088	1.083	Bull Market	Bull Market	Bull Market
UKT 2y	0.715	0.760	0.809	0.776	Bull Market	Bear Market	Bear Market
UKT 5y	0.837	1.016	1.102	1.066	Bull Market	Range bound	Range bound
UKT 10y	1.209	1.461	1.551	1.399	Bull Market	Bull Market	Bull Market
UKT 30y	1.777	1.924	1.953	1.835	Bull Market	Bull Market	Bull Market
JGB 10y	0.003	0.118	0.129	0.077	Bull Market	Bull Market	Bull Market
JGB 20y	0.494	0.647	0.657	0.574	Bull Market	Bull Market	Bull Market
JGB 30y	0.719	0.876	0.897	0.795	Bull Market	Bull Market	Range bound
JGB 40y	0.852	1.038	1.045	0.938	Bull Market	Bull Market	Range bound
ACGB 2y	1.900	2.042	2.043	2.025	Bull Market	Bull Market	Range bound
ACGB 5y	1.906	2.223	2.250	2.263	Bull Market	Bull Market	Bull Market
ACGB 10y	2.318	2.668	2.687	2.657	Bull Market	Bull Market	Bull Market
ACGB 20y	2.682	3.071	3.095	3.047	Bull Market	Bull Market	Bull Market
NZGB 2y	1.699	1.790	1.873	1.807	Bull Market	Bull Market	Bull Market
NZGB 5y	1.854	2.039	2.108	2.126	Bull Market	Bull Market	Bull Market
NZGB 10y	2.367	2.658	2.700	2.700	Bull Market	Bull Market	Bull Market
NZGB 20y	2.695	2.991	3.011	3.081	Bull Market	Bull Market	Bull Market
CAN 2y	1.840	2.243	2.256	2.051	Bull Market	Range bound	Bear Market
CAN 5y	1.838	2.336	2.371	2.189	Bull Market	Bull Market	Bear Market
CAN 10y	1.901	2.402	2.469	2.293	Bull Market	Bull Market	Bear Market
CAN 30y	2.120	2.447	2.471	2.349	Bull Market	Bull Market	Range bound

Source: Morgan Stanley Research, Bloomberg

Holiday Trading Strategy

Combining the individual trading signals based on 10y Treasury future (TY) price patterns before and after US holidays has generated an annual strategy with no down years since 1987. See Trading 10y Treasury Futures Around US Holidays for more information.

Using historical data since 1983, we created a trading strategy using 10y Treasury futures (TY) that trades 11 times per year, either long or short, before or after the following US holidays: New Year's Day, Martin Luther King Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Thanksgiving, and Christmas. Exhibit 10 displays the trading rules:

Exhibit 10: Trading rules for US holiday trading model using US 10y futures contracts (TY)

Holiday	Day of Week	Direction	Before/After Holiday	Trading Rule (business days, 3pm NY unless specified)	Trade Entry (business days)	Trade Exit (business days)
New Year's Day	Rotates	Long TY	After	Buy TY New Years +1, Sell TY New Years +4	New Year + 1	New Year + 4
Martin Luther King Day 1	Monday	Long TY	Before	Buy TY Tuesday before MLK, Sell Friday before MLK	MLK - 4	MLK - 1
Martin Luther King Day 2	Monday	Short TY	After	Sell TY Tuesday after MLK, Buy Friday after MLK	MLK + 1	MLK + 4
President's Day	Monday	Long TY	After	Buy TY Tuesday after Pres. Day, Sell TY Friday after Pres. Day	Pres. Day + 1	Pres. Day + 4
Good Friday	Friday	Long TY	After	Buy TY Monday after Good Friday, Sell TY Friday after Good Friday	Good Friday + 1	Good Friday + 5
Memorial Day	Monday	Long TY	After	Buy TY Tuesday after Mem. Day, Sell TY Friday after Mem. Day	Mem. Day + 1	Mem. Day + 4
Independence Day (July 4th)	Rotates	Long TY	After	Buy TY Independence Day + 2, Sell TY Independence Day + 4	Ind. Day + 2	Ind. Day + 4
Labor Day	Monday	Long TY	Before	Buy TY Monday before Labor Day, Sell TY Thursday before Labor Day	Labor Day - 4	Labor Day - 2
Columbus Day	Monday	Short TY	Before	Sell TY Monday before Col. Day, Buy TY Thursday before Col. Day	Colum. Day - 5	Colum. Day - 2
Thanksgiving	Thursday	Long TY	Before	Buy TY Friday before Thanksgiving, Sell TY Tuesday before Thanksgiving	Thanksgiving - 4	Thanksgiving - 2
Christmas	Rotates	Short TY	Before	Sell TY Christmas Day - 4, Buy TY Christmas Day - 1	Christmas - 4	Christmas - 1

Source: Morgan Stanley Research

G4 Smarter (beta) Trading Strategy

Enhancements to a G4 10y government bond futures momentum strategy have produced higher Sharpe ratios and stronger returns, relative to total return government bond indices for the G4, US, Germany, Japan, and the UK since 2000. See A "Smarter" (Beta) Way to Trade G4 10y Futures Duration? for more information on these strategies.

Trading Strategy 1 – "Trade Longs/Fade Shorts"

When the 5-day moving average crosses above the 20-day moving average, buy the futures contract (long duration) and hold for a 25 business day period. When the 5-day moving average crosses below the 20-day moving average, buy the futures contract and hold for a 25 business day period. In short, this strategy buys futures when the Simple Moving Average Crossover (SMAX) generates both a long and a short signal, given the historical outperformance of long signals traded long and underperformance of short signals traded short. Given that the SMAX could generate both a long and a short signal within the predefined holding period, an investor may have a 200% long position since each of the two signals would be traded in separate portfolio sleeves.

Trading Strategy 2 – Trade "Longs Only"

When the 5-day moving average crosses above the 20-day moving average, buy the futures contract (long duration) and hold for a 25 business day period. When the 5-day moving average crosses below the 20-day moving average, do nothing. In short, an investor ONLY trades long signals initiated by the SMAX given their historical precedent to outperform.

Exhibit 11: Trading Signals for G4 Smarter (beta) Trading Strategy

Current Risk, G4 10y Futures	G4 Strategy Weight	Trade Longs Portfolio	Fade Shorts Portfolio	Total Risk Trade Longs Only	Total Risk Trade Longs/Fade Shorts (max 200%)	Trade Longs Portfolio Entry Date	Trade Longs Portfolio Exit Date	Fade Shorts Portfolio Entry Date	Fade Shorts Portfolio Exit Date
JB 10y Future	32.50%	0%	0%	0%	0%	N/A	N/A	N/A	N/A
GE 10y Future	29.25%	0%	0%	0%	0%	N/A	N/A	N/A	N/A
US 10y Future	30.50%	0%	0%	0%	0%	N/A	N/A	N/A	N/A
UK 10y Future	7.75%	0%	100%	0%	100%	N/A	N/A	12/27/2018	2/1/2019

Source: Morgan Stanley Research

Market Data

Exhibit 12: US market data summary

US Treasuries

Maturity	3PM YTM (%)	1d Δ (bp)	5PM YTM (%)	3~5PM Δ (bp)
2y	2.502	0.9	2.468	-3.4
3y	2.472	1.2	2.429	-4.3
5y	2.500	-0.9	2.458	-4.2
7y	2.560	-2.5	2.520	-4.1
10y	2.660	-2.9	2.620	-3.9
30y	2.981	-3.8	2.952	-2.9

UST curves	3PM Spread (bp)	1d Δ (bp)	5PM YTM (bp)	3 to 5PM Δ (bp)
2s/3s	-3.0	0.3	-3.9	-0.9
3s/5s	2.8	-2.0	2.9	0.1
5s/7s	6.0	-1.6	6.2	0.2
7s/10s	10.0	-0.4	10.1	0.1
10s/30s	32.1	-0.8	33.1	1.1
2s/3s/5s	-5.8	2.3	-6.8	-1.0
2s/5s/10s	-16.2	0.3	-17.3	-1.1
5s/7s/10s	-3.9	-1.2	-3.9	0.0
5s/10s/30s	-16.1	-1.2	-16.9	-0.8

USD Swap and UST Benchmark Swap Spread

Maturity	3PM YTM (%)	1d Δ (bp)	Spread (bp)	1d Δ (bp)
2y	2.675		17.4	-0.9
3y	2.604		13.2	-1.2
5y	2.572		7.2	0.9
7y	2.609		4.8	2.5
10y	2.690		3.0	2.9
30y	2.811		-17.0	3.8

Swap curves	3PM Spread (bp)	1d Δ (bp)	Sprd Curves (bp)	1d Δ (bp)
2s/3s	-7.1	0.0	-4.1	-0.3
3s/5s	-3.2	0.0	-6.0	2.0
5s/7s	3.6	0.0	-2.4	1.6
7s/10s	8.1	0.0	-1.8	0.4
10s/30s	12.1	0.0	-20.0	0.8
2s/3s/5s	-3.9	0.0	1.9	-2.3
2s/5s/10s	-22.0	0.0	-5.9	-0.3
5s/7s/10s	-4.5	0.0	-0.6	1.2
5s/10s/30s	-0.3	0.0	15.8	1.2

UST Futures

Front Contract	3PM Close (32nds)	1d Δ (32nds)	Agg Volume	Vol 1d Δ	Vol 60d Z	OI 1w Δ
TU	106-06+	0-01+	318,547	58,874	-0.51	108,453
FV	114-220	0-000	704,642	67,147	-0.65	9,177
TY	122-160	0-15+	1,252,514	455,017	-0.75	13,575
UXY	130-26+	0-240	125,690	-10,511	-0.60	12,820
US	147-130	1-130	266,807	42,065	-0.72	-1,673
WN	160-210	1-000	99,379	-31,647	-0.65	5,318

US TIPS - Real Yields

Maturity	Real Yield (%)	1d Δ (bp)
TII 7/20	1.84	-4.7
TII 4/23	0.96	-3.8
TII 7/28	0.93	-4.0
TII 2/48	1.16	-4.2

GCF Repo

Maturity	O/N (%)	1d Δ (bp)
GCF O/N	3.23	-191.8
GCF Feb19	2.44	
GCF Mar19	2.45	
GCF Apr19	2.45	
GCF May19	2.46	
GCF Jun19	2.47	
GCF Jul19	2.47	
GCF Aug19	2.47	

Eurodollar Futures

Pack	Rate (%)	1d Δ (bp)
Whites	2.69	1.4
Reds	2.51	1.1
Greens	2.45	-0.6
Blues	2.52	-2.5
Golds	2.64	-2.3

US TIPS - Breakeven Inflation

Maturity	BEI (bp)	1d Δ (bp)
TII 7/20	68.2	2.7
TII 4/23	148.2	-1.2
TII 7/28	168.9	-2.5
TII 2/48	179.4	-2.2

Mortgage Performance vs. Swaps

Coupon	Price	1d Δ (32nds)
FNCL 3.0	97-220	0-032
FNCL 3.5	100-020	0-022
FNCL 4.0	102-000	0-012
FNCL 4.5	103-17+	0-000

Forward Swap Rates

Maturity	Rate (%)	1d Δ (bp)
1y1y	2.58	1.2
1y2y	2.52	0.5
2y2y	2.47	-0.7
2y5y	2.58	-3.1
3y2y	2.52	-2.6
3y5y	2.65	-4.3
3y10y	2.81	-4.9
5y5y	2.82	-5.6
5y10y	2.90	-5.4
10y10y	2.96	-5.1
10y20y	2.90	-4.9

FOMC Meeting Pricing

Meetings	Rate (bp)	Prob, 1d Δ (%)
FF Effective	2.40	
1/30/2019	2.40	0 , 0
3/20/2019	2.41	2 , -2
5/1/2019	2.41	4 , -2
6/19/2019	2.42	7 , -2
7/31/2019	2.41	5 , -3
9/18/2019	2.40	0 , -7

Ginnie/Fannie Swaps

Swap	Spread (32nds)	1d Δ (32nds)
GN/FN 3.0	0-306	-0-006
GN/FN 3.5	0-206	-0-006
GN/FN 4.0	0-142	-0-006
GN/FN 4.5	-0-00+	0-01+

Gold/Fannie Swaps

Swap	Spread (32nds)	1d Δ (32nds)
FG/FN 3.0	-0-006	0-000
FG/FN 3.5	-0-007	0-000
FG/FN 4.0	-0-007	-0-001
FG/FN 4.5	-0-015	0-001

LIBOR Settings

Tenor	Rate (%)	1d Δ (bp)
O/N	2.387	0.9
1m	2.507	0.4
3m	2.794	-1.4
6m	2.874	-0.2
12m	3.002	-0.3

Other Market Data

Index/Security	Close	1d Δ
S&P 500	2,510.03	0.13%
USD/JPY	108.88	-0.78%
EUR/USD	1.1344	-1.06%
10y Bund	0.17%	-7.7 bp
10y Gilt	1.21%	-6.8 bp
20y JGB	0.50%	-2.1 bp
Gold	1284.60	0.59%
VIX	23.22	-8.65%

Source: Morgan Stanley Research, Bloomberg

In Case You Missed It

US Economics: The State of Play
2 Jan 2018
We finished the year strong with 4Q GDP tracking 3.6%, but tighter financial conditions and leading indicators point to slower growth ahead. We look for a material slowdown in 2019 GDP with outright growth correction by 3Q. Markets must adjust to a dimmer outlook, but recession fears are overblown.

US Economics & Rates Strategy: FOMC Reaction: Tough Love
20 Dec 2018
As expected, the FOMC raised the target range by 25bp, but the dots farther out moved down. Powell is not yet prepared to change the balance sheet runoff plan. Our rates strategists suggest UST 2s10s and 2s30s flatteners, and 5s10s TIPS breakeven flatteners.

US Interest Rate Strategy: UST Spreads into Year-End
14 Dec 2018
Net Primary Dealer UST holdings reached a record high, according to the Fed's latest data release. As a result, we turn tactically neutral on swap spreads given dealer balance sheet constraints into year-end. We remain bullish on March 2019 FRAOIS given seasonality in CP issuance and MMF flows.

Global Inflation Strategy: Can Breakevens Climb the Wall of Worry?
14 Dec 2018
Modest inflation, a hawkish Fed, falling oil prices, and poor carry have driven a capitulation in TIPS, mirrored in JGBi breakevens. A dovish FOMC tilt, and the 2014/15 precedent suggests some relief for breakevens. We take off our beta-weighted 10y TIPS breakeven short, & turn neutral on TIPS.

US Economics & Rates Strategy: FOMC Preview: All Options on the Table Next Year
13 Dec 2018
The Fed hikes in December and signals flexibility in the path ahead. A shift lower in the dots will underscore that the ultimate destination next year is unknown. Should the median remain at three hikes in 2019, our strategists expect UST 2s5s and 2s10s curves to flatten further.

Global Interest Rate Strategist: Yield Compression Has Begun
8 Dec 2018
The US and Canada shot birdies on the first hole of the Ryder Cup of Bonds. Europe plays next with the ECB ready to tee off. Financial conditions continue to tighten despite an increasingly self-proclaimed data-dependent Fed. Real yields need to fall further before détente with financial conditions.

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Global Stock Ratings Distribution

(as of December 31, 2018)

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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	1143	36%	282	40%	25%	540	38%
Equal-weight/Hold	1428	45%	336	47%	24%	651	46%
Not-Rated/Hold	46	1%	6	1%	13%	6	0%
Underweight/Sell	566	18%	86	12%	15%	232	16%
TOTAL	3,183		710			1429	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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