

520

Patten & Patten, Inc.

# 1Q20 Market Outlook

# Market commentary

- Record setting stock market performance characterized the final year of the decade. The S&P 500's rally in 2019 reflected, in part, recovery from a sharp correction in December 2018. The market surged in the fourth quarter as trade tensions subsided and global economic data improved. After beginning the year above 2.7%, the 10-year Treasury yield fell to 1.4% mid-year because of deflation scares before settling above 1.9% by year end. Both the stock and bond markets responded to a shift in policy by the Federal Reserve, which resulted in three 0.25% rate cuts in the second half of 2019. **Of note, the combined performance of stock and bond markets in 2019 was the best since 1998.**
- While the Fed spent 2018 raising rates and shrinking its balance sheet, the sharp reversal on Christmas Eve 2018 to a more accommodative policy posture represented acquiescence to political pressure, according to many commentators. Fed Chair Powell argued the policy shift was a necessary “mid cycle” adjustment because of uncertainties associated with the trade war and worrisome economic data, particularly as related to global manufacturing.
- Concurrent with the low in bond yields, the Treasury yield curve, as measured by the difference in yield between 2- and 10-year Notes, slipped into negative territory in August 2019. This prompted widespread fears of imminent recession and calls for aggressive monetary accommodation. Responding to the Fed's rate cuts, the stock market fully recovered from the December 2018 correction by late summer, and further gains through the end of the year were fueled by progress in trade negotiations.
- We look forward to a new year and a new decade with optimism. To the extent the Fed has adroitly navigated the economy through the purported “mid cycle” slowdown, further gains in the stock market could prove substantial. In addition, we expect the Fed will be more tolerant of inflation going forward. As a barometer for success in this regard, we view the yield on the 10-year Treasury as the principal indicator. If yields revisit levels below 1.5%, it is likely that global deflationary pressures have overwhelmed the Fed's liquidity support. If, however, yields rise above 2.0%, it would suggest sustainable global growth that should be reflected in corporate earnings. A rise above 3.0% could indicate accelerating inflation and would likely prompt the Fed to be less accommodative.

# Market commentary (*continued*)

- Across the pond, we now know that England's separation from the European Union, a process known as "Brexit", arrives without any further delay at the end of this month. However, that is not the end of the story. The United Kingdom faces a deadline of December 31, 2020 to secure new trade arrangements with the EU. To the extent the next 12 months prove unproductive in that regard, market participants will revisit the prospects of a "hard Brexit" later this year. A lack of progress in these negotiations could prove a source of significant market volatility as the deadline draws near. In the final analysis, we anticipate there will be some economic disruption as this process heads to conclusion. The extent of the market disruption will depend on whether Brexit proves to be a "Y2K-like" non-event or a much more chaotic separation. Most likely, the economic impact of Brexit will fall somewhere in the middle, but the political, cultural, and historical reverberations will be felt for generations.
- Recent developments with Iran are an important reminder that geo-political uncertainties can surface without much warning. We recommend remaining vigilant, but investors should avoid reacting too quickly to predictions of worse case outcomes. A well diversified portfolio should provide ballast against heightened volatility if the situation intensifies.

# Year to date and historical performance of various asset classes

Asset Class	YTD	1 year	Annualized Total Returns		
			3 year	Since Trough*	Since Peak*
<b>Domestic Equities</b>					
S&P 500	-30.43	-18.51	0.40	9.74	5.75
Dow Jones Ind. Avg.	-34.46	-25.30	-1.15	9.06	5.53
NASDAQ Comp	-23.35	-9.27	6.79	13.18	9.40
Russell 2000 (IWM)	-39.70	-32.51	-8.32	6.80	3.59
<b>International Equities</b>					
Shanghai Composite (CIN)	-9.44	-4.07	-0.76	NA	NA
Hedged Japan (DXJ)	-26.39	-18.58	-5.34	3.01	0.81
Hedged Europe (HEDJ)	-33.33	-23.74	-6.69	NA	NA
Asia Pacific ex. Japan (EPP)	-36.91	-32.66	-8.89	1.94	-0.13
Emerging Markets (EEM)	-31.78	-25.77	-6.15	0.57	-0.82
Brazil (EWZ)	-56.12	-47.08	-14.95	-6.30	-5.29
Canada (EWC)	-40.95	-34.20	-10.75	-0.72	-2.09
India (EPI)	-42.63	-44.09	-14.62	-1.61	NA
Mexico (EWW)	-44.21	-40.24	-18.95	-2.91	-4.52
<b>Bonds</b>					
Long Treasuries (TLT)	22.91	35.91	14.07	7.99	8.25
Inv. Grade Corporates (LQD)	-9.95	-0.03	2.56	4.51	4.83
High Yield Corporates (HYG)	-21.29	-15.92	-2.55	4.47	3.65
<b>Commodities</b>					
Gold (GLD)	2.38	18.01	7.23	3.77	6.12
Silver (SLV)	-26.20	-14.81	-9.61	-2.29	-0.11

\*Stock market trough at 03/09/2009. Stock market peak at 10/09/2007. YTD through 03/23/2020

Source: Thomson Reuters Datastream

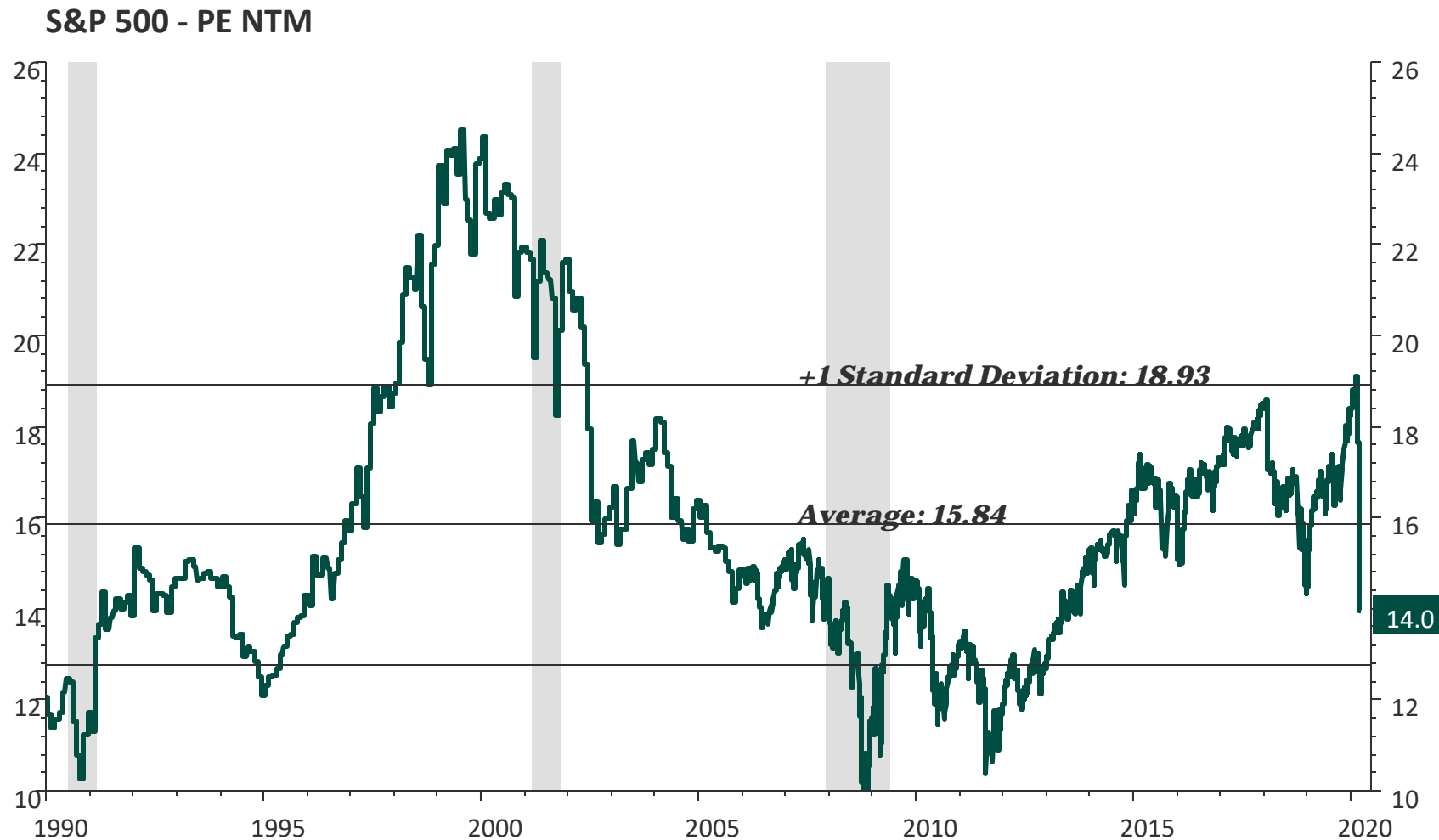
# Year to date and historical performance equity sectors

Domestic Equity Sectors	YTD	1 year	Annualized Total Returns		
			3 year	Since Trough*	Since Peak*
<b>Domestic Equities</b>					
Consumer Discretionary	-29.89	-18.79	1.00	12.57	8.49
Retail (XRT)	-40.96	-36.59	-11.68	6.24	4.40
Consumer Staples	-24.23	-13.10	-2.87	8.53	6.67
Energy	-59.90	-61.60	-27.21	-5.38	-7.21
Oil & Gas Exploration (XOP)	-67.79	-74.32	-39.34	-11.93	-12.25
Financial Services	-42.20	-30.87	-8.06	5.40	0.15
Regional Banks (KRE)	-51.13	-41.28	-17.24	4.91	-1.21
Health Care	-26.49	-15.80	2.70	11.82	9.19
Industrials	-39.20	-29.99	-6.07	9.04	4.04
Materials	-39.74	-30.31	-9.66	4.88	2.37
Technology	-22.51	-5.34	12.32	14.31	10.54
Telecom	-23.30	-10.81	-2.73	7.92	3.40
Utilities	-30.07	-22.09	-1.43	8.15	5.11
Transportation (IYT)	-38.57	-32.87	-8.26	6.73	4.15
Real Estate	-39.29	-32.03	-6.85	8.24	2.89

\*Stock market trough at 03/09/2009. Stock market peak at 10/09/2007. YTD through 03/23/2020

Source: Thomson Reuters Datastream

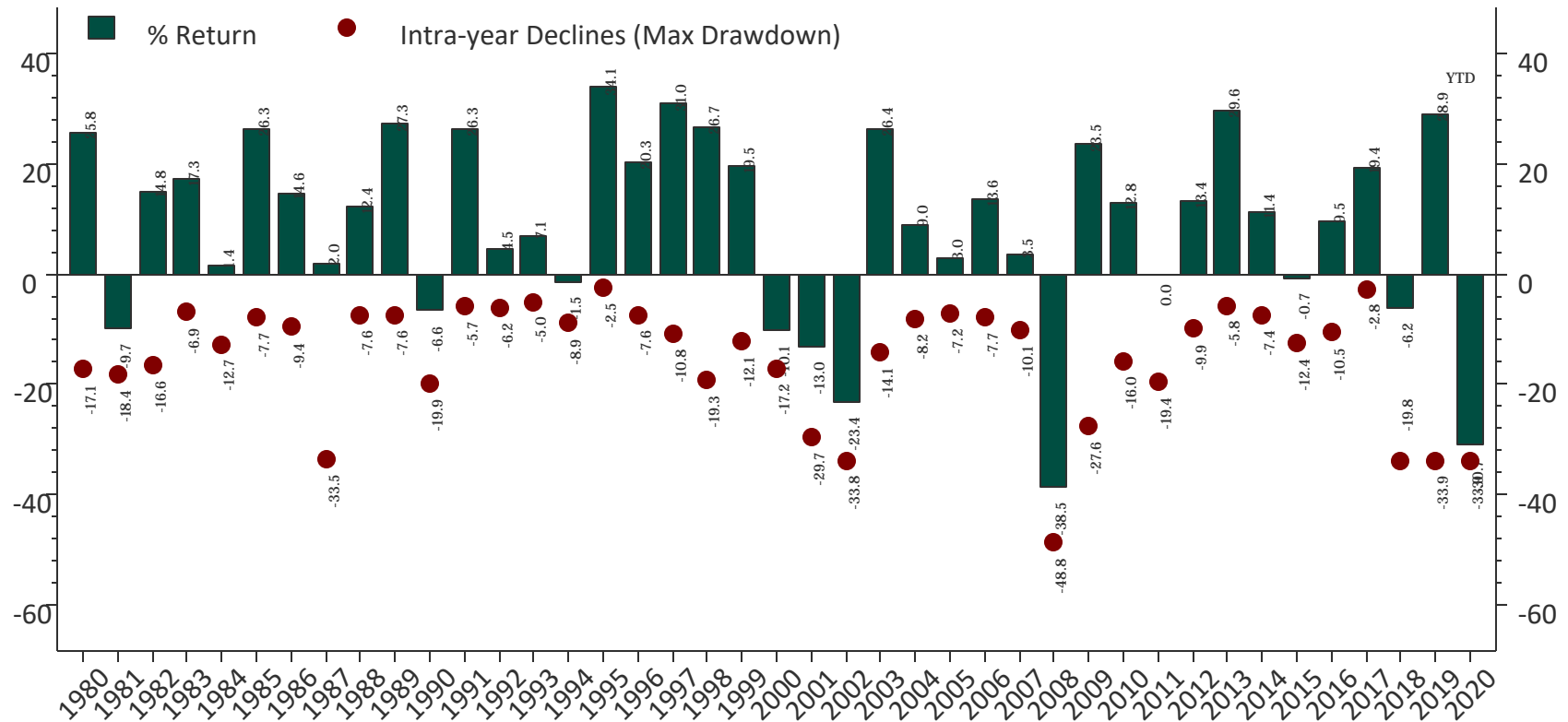
# S&P 500 Valuation



Source: Refinitiv Datastream

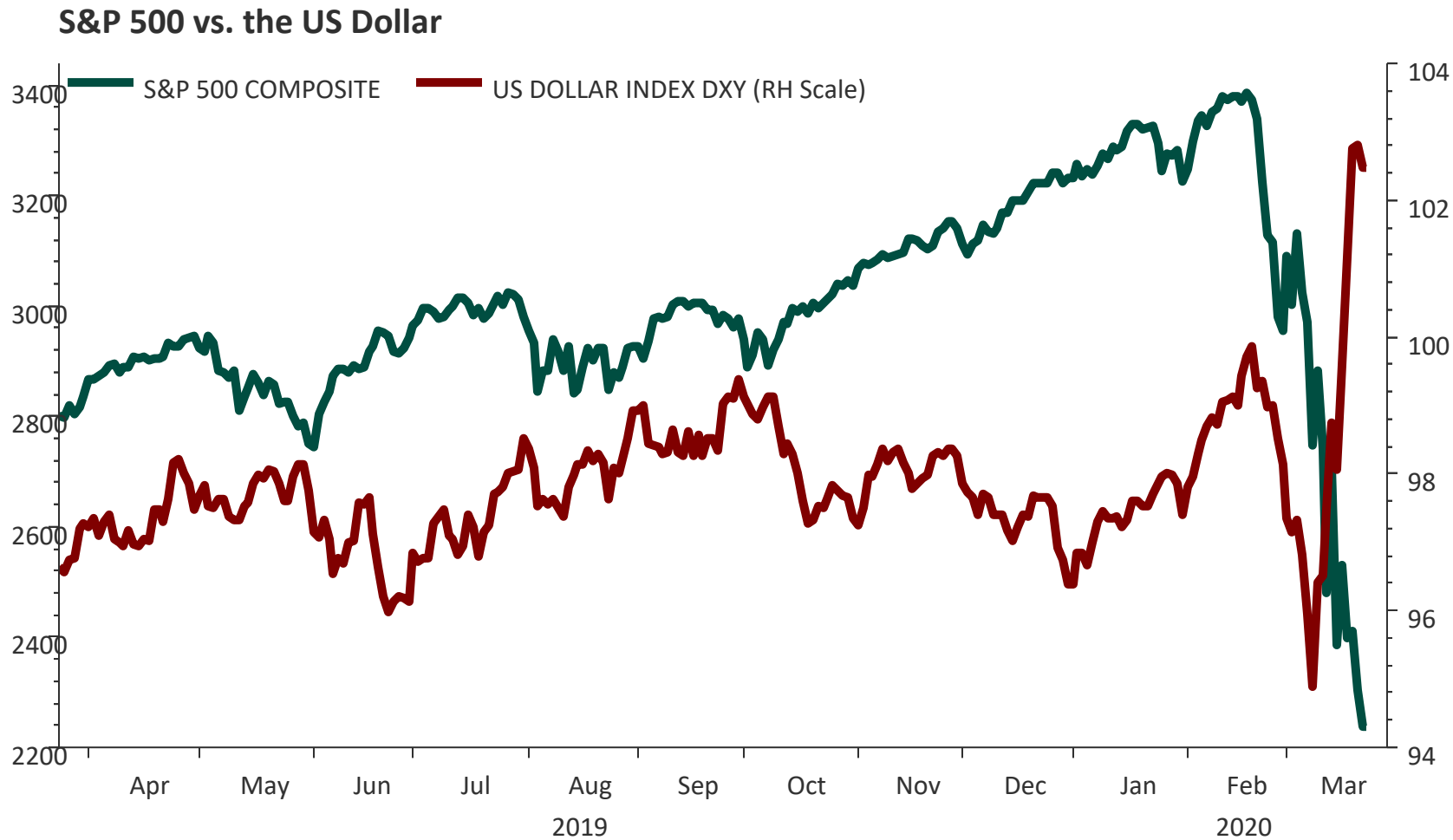
# Stock Market Sell-offs are Normal

## S&P 500 Intra-year Price Declines (Max Drawdown) vs. Yearly Price Returns



Source: Data provided by Thomson Reuters

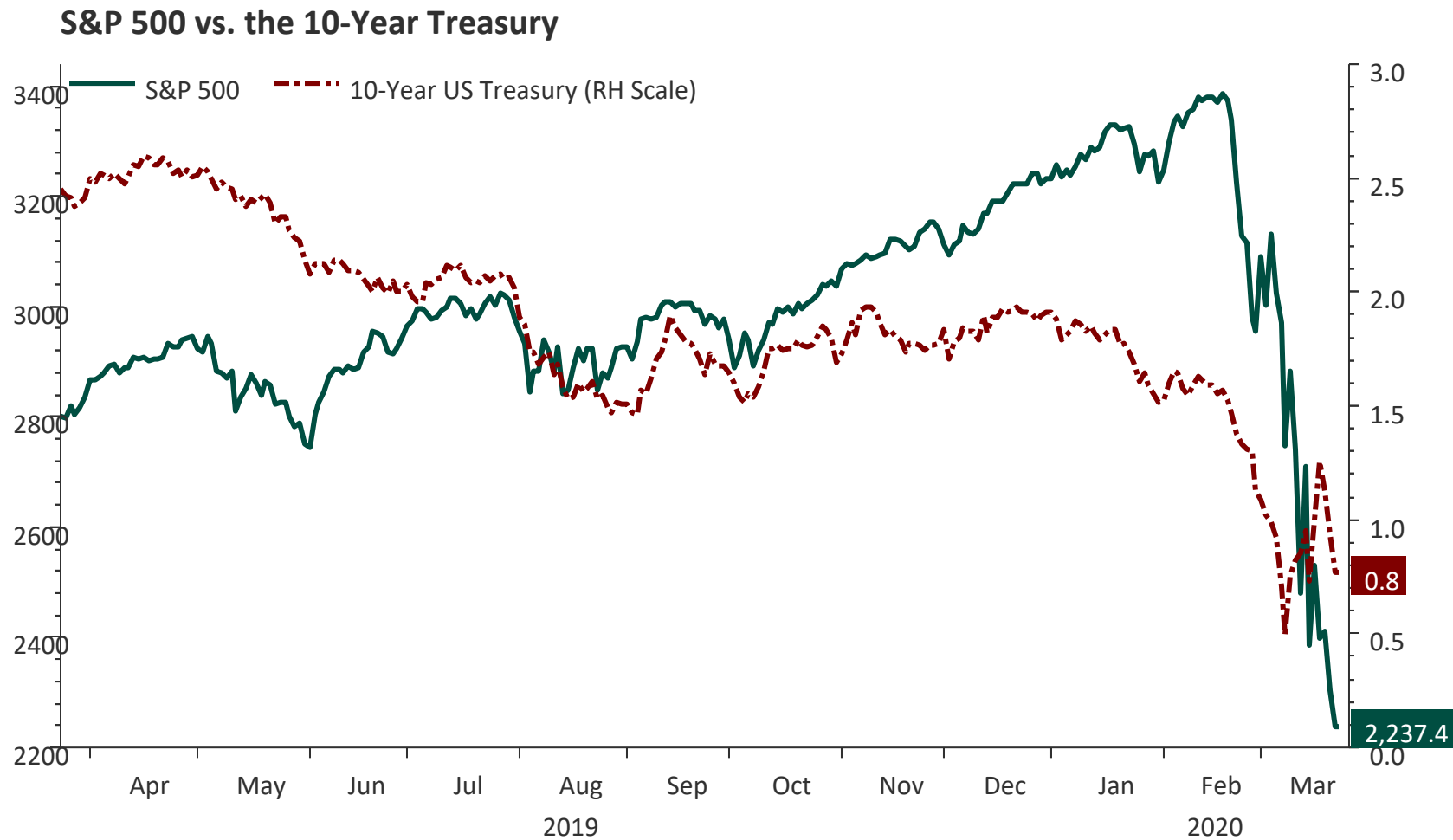
# S&P 500 vs. the US Dollar



Source: Refinitiv Datastream



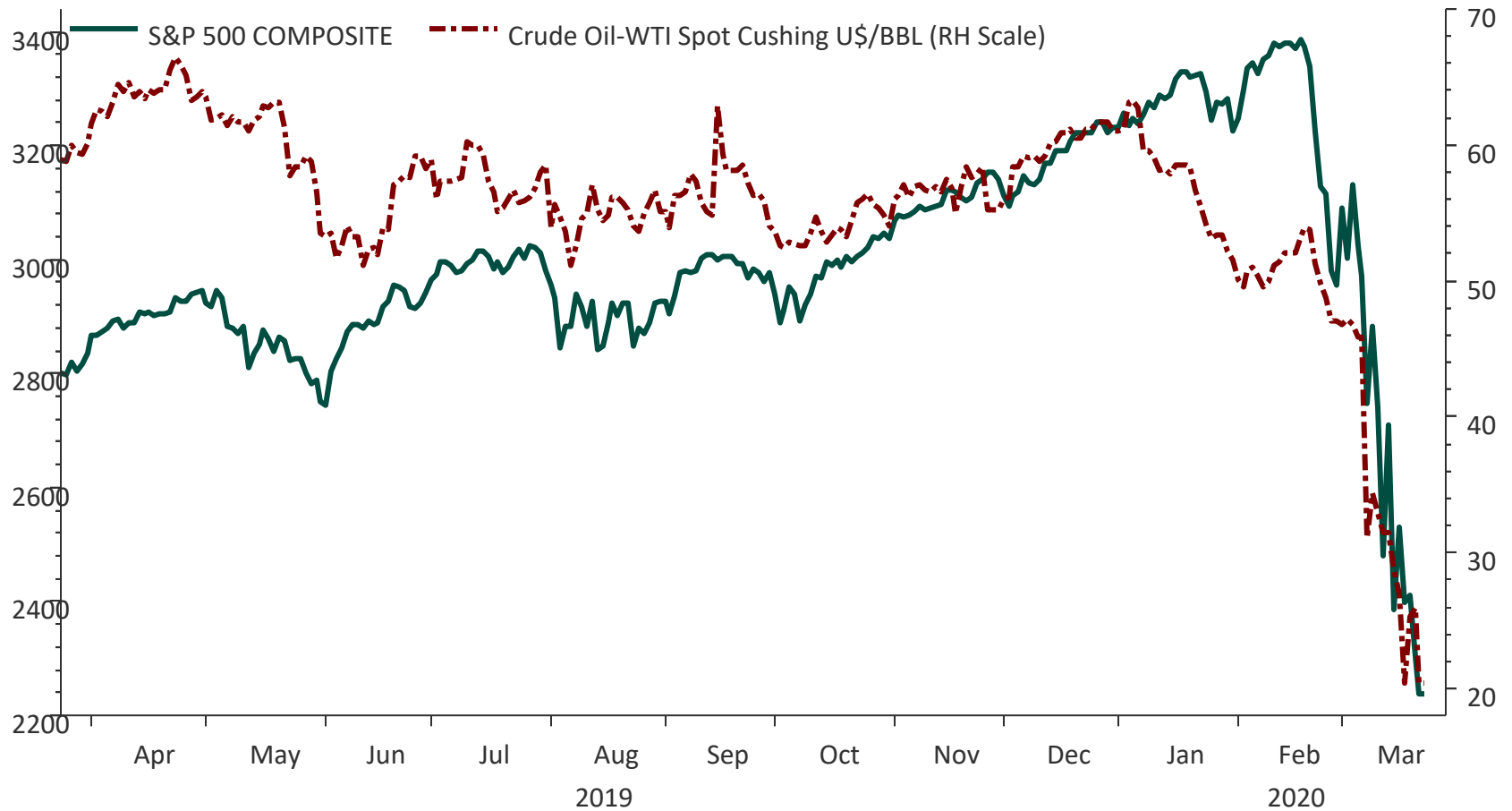
# S&P 500 vs. the 10-Year Treasury



Source: Refinitiv Datastream

# S&P 500 vs. the price of crude oil

## S&P 500 vs. WTI Crude Spot



Source: Refinitiv Datastream

## LME Copper Spot Price

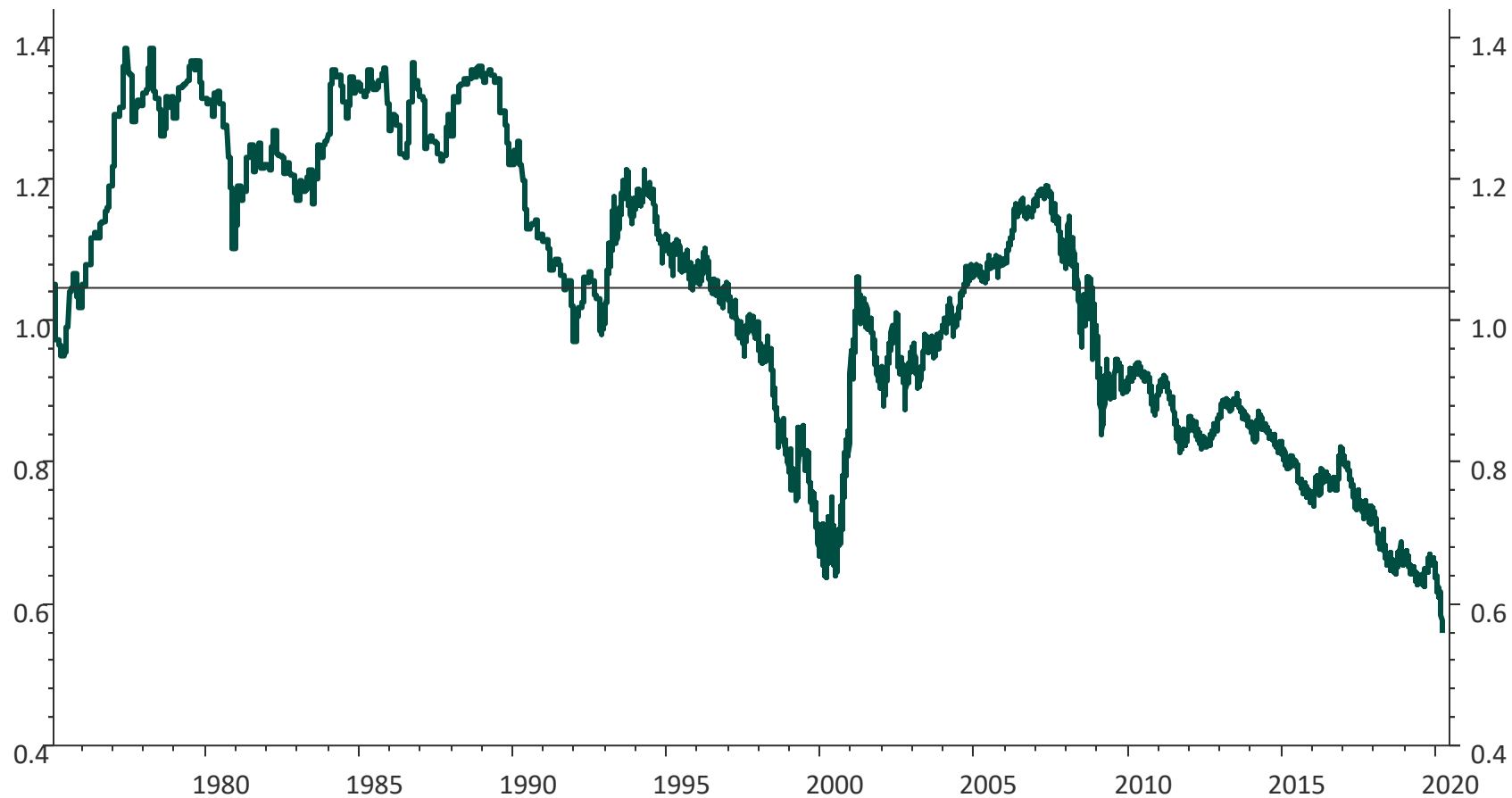
\$/MT



Source: Refinitiv Datastream

# Value is out of favor

## S&P 500 Value Index/Growth Index



Source: Refinitiv Datastream

# Market Performance and Fed Rate Cuts

## Rate Cut Cycles Ending In Recession

Month of First Rate Cut	S&P 500 Price Performance in the next...		
	3 Months	6 Months	1 Year
July 1974	-14.70%	-13.90%	14.1%
July 1981	-8.10%	-10.70%	-15.20%
June 1989	7.8%	9.4%	13.4%
January 2001	-17.90%	-8.40%	-13.50%
August 2007	0.9%	-6.60%	-10.20%
<b>Average</b>	<b>-6.4%</b>	<b>-6.0%</b>	<b>-2.3%</b>
<b>Median</b>	<b>-8.1%</b>	<b>-8.4%</b>	<b>-10.2%</b>

## Rate Cut Cycles Not Ending In Recession

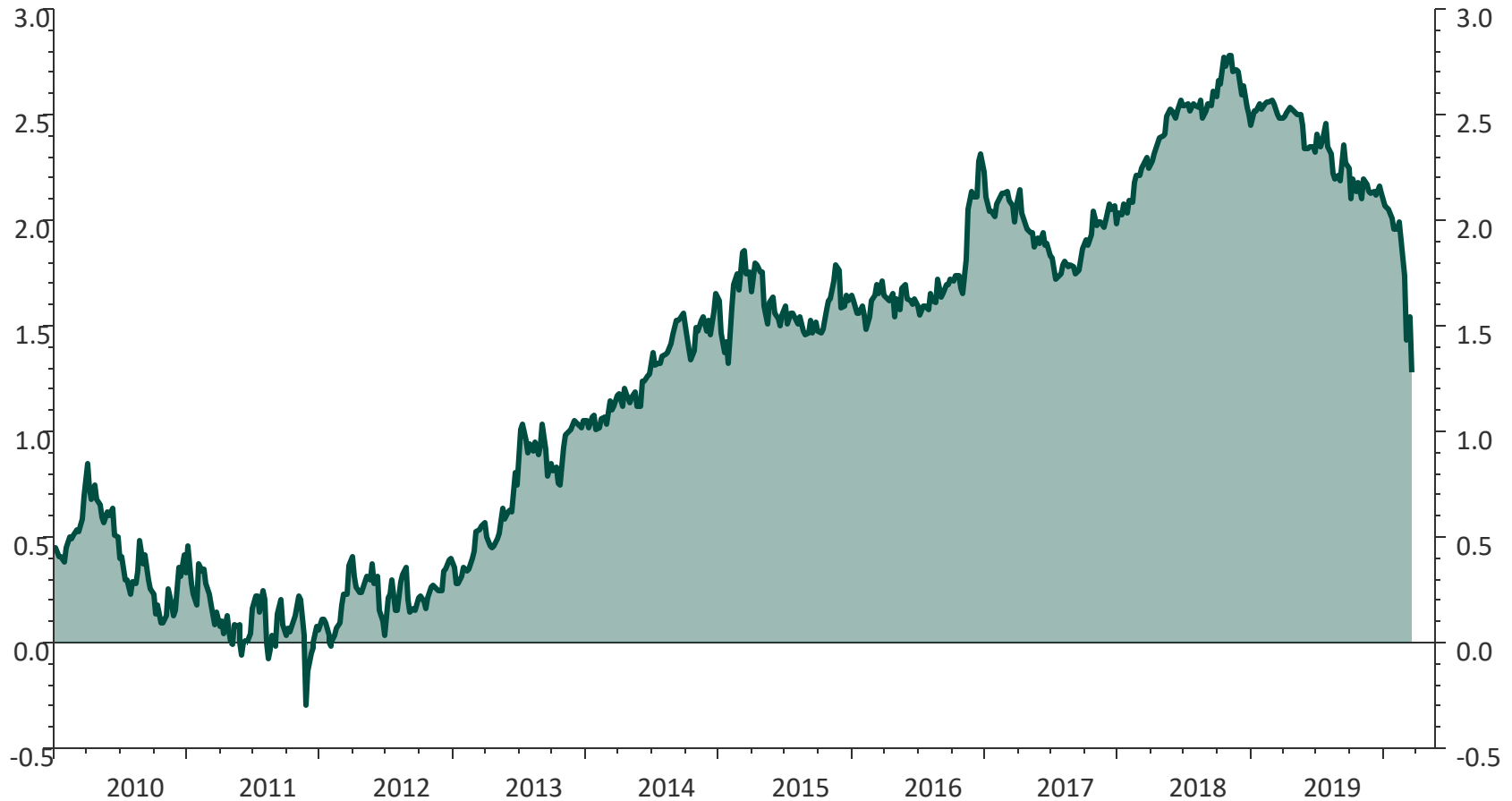
Month of First Rate Cut	S&P 500 Price Performance in the next...		
	3 Months	6 Months	1 Year
September 1984	-3.60%	4.60%	8.40%
October 1987	-15.40%	-12.90%	-7.60%
July 1995	5.10%	11.30%	18.70%
September 1998	18.40%	24.90%	20.90%
<b>Average</b>	<b>1.13%</b>	<b>6.98%</b>	<b>10.10%</b>
<b>Median</b>	<b>0.75%</b>	<b>7.95%</b>	<b>13.55%</b>
<b>Average, ex. 1987</b>	<b>6.63%</b>	<b>13.60%</b>	<b>16.00%</b>
<b>Median, ex. 1987</b>	<b>5.10%</b>	<b>11.30%</b>	<b>18.70%</b>

## Avg. and Median of All Rate Cut Cycles

	S&P 500 Price Performance in the next...		
	3 Months	6 Months	1 Year
Average	-3.06%	-0.26%	3.22%
Median	-3.60%	-6.60%	8.40%
Average, ex. 1987	-1.51%	1.10%	2.00%
Median, ex. 1987	-1.35%	2.75%	4.35%

# US Treasury – German Bund Spread

## 10-Year US Treasury-German Bund Spread



Source: Refinitiv Datastream

# Global Interest Rates

## Global Bond Yields on March 24, 2020

Maturity	US	Canada	UK	Germany	Switzerland	Japan	Spain	Italy	Brazil	Greece
2 year	0.347	0.603	0.075	-0.632	-0.779	-0.230	-0.071	0.553	5.170	NA
5 year	0.474	0.739	0.221	-0.534	-0.561	-0.110	0.329	0.992	8.795	1.828
10 year	0.845	0.861	0.435	-0.347	-0.354	0.040	0.873	1.604	9.785	2.451
30 year	1.417	1.320	0.774	0.009	-0.212	0.455	1.586	2.462	NA	NA

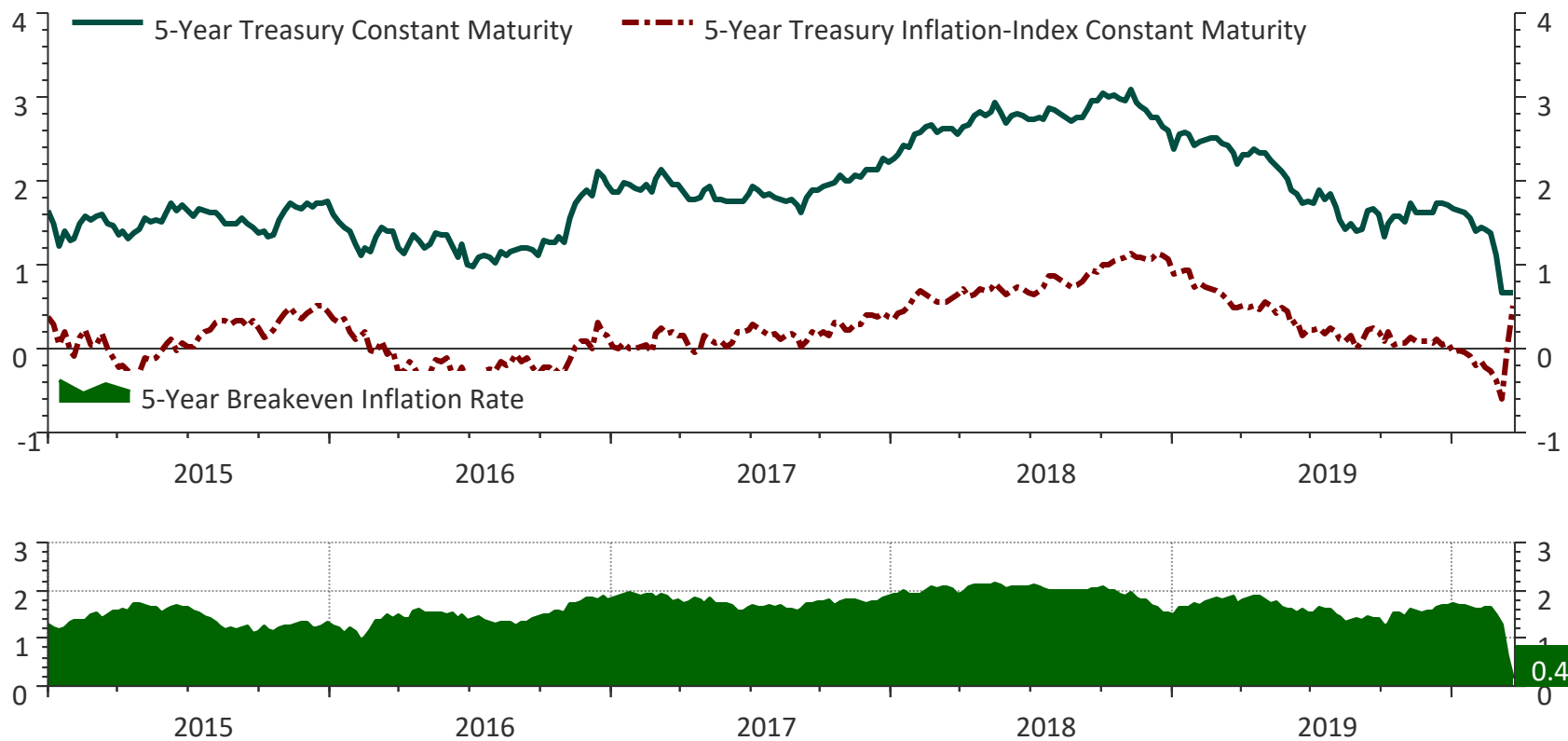
## Change in Global Bond Yields since March 17, 2020

Maturity	US	Canada	UK	Germany	Switzerland	Japan	Spain	Italy	Brazil	Greece
2 year	0.057	0.093	-0.017	0.049	-0.012	-0.024	0.021	-0.005	-0.350	NA
5 year	0.075	0.061	0.015	0.021	0.018	-0.037	0.103	-0.001	0.115	-0.013
10 year	0.078	0.072	0.017	0.031	-0.005	-0.025	0.101	0.015	0.165	-0.044
30 year	0.071	0.063	-0.003	0.045	-0.026	0.019	0.148	0.024	NA	NA

Source: Data provided by Thomson Reuters

# Low inflation expectations

## 5-Year Breakeven Inflation Rate



Source: Refinitiv Datastream



# Forward interest rates

## Forward Rate Analysis

### US Dollar Swap Curves

Maturity	Forward Rates						Chg (in bp)
	Current	6 Mo	1 year	2 year	5 year	10 year	
1 year	0.634%	0.389%	0.404%	0.539%	0.883%	0.937%	30
2 year	0.506%	0.427%	0.472%	0.585%	0.926%	0.953%	45
3 year	0.522%	0.482%	0.525%	0.633%	0.950%	0.930%	41
5 year	0.575%	0.585%	0.636%	0.750%	0.974%	0.918%	34
10 year	0.769%	0.780%	0.808%	0.865%	0.947%	0.897%	13
30 year	0.822%	0.831%	0.836%	0.845%	0.845%	0.771%	(5)
2 - 10 Curve	<b>26</b>	35	34	28	2	(6)	
1 - 30 Curve	<b>19</b>	44	43	31	(4)	(17)	

\*market rates as of 03/24/2020 and based on 3 month LIBOR.

Source: Data provided by Thomson Reuters

# Slowing Global Growth

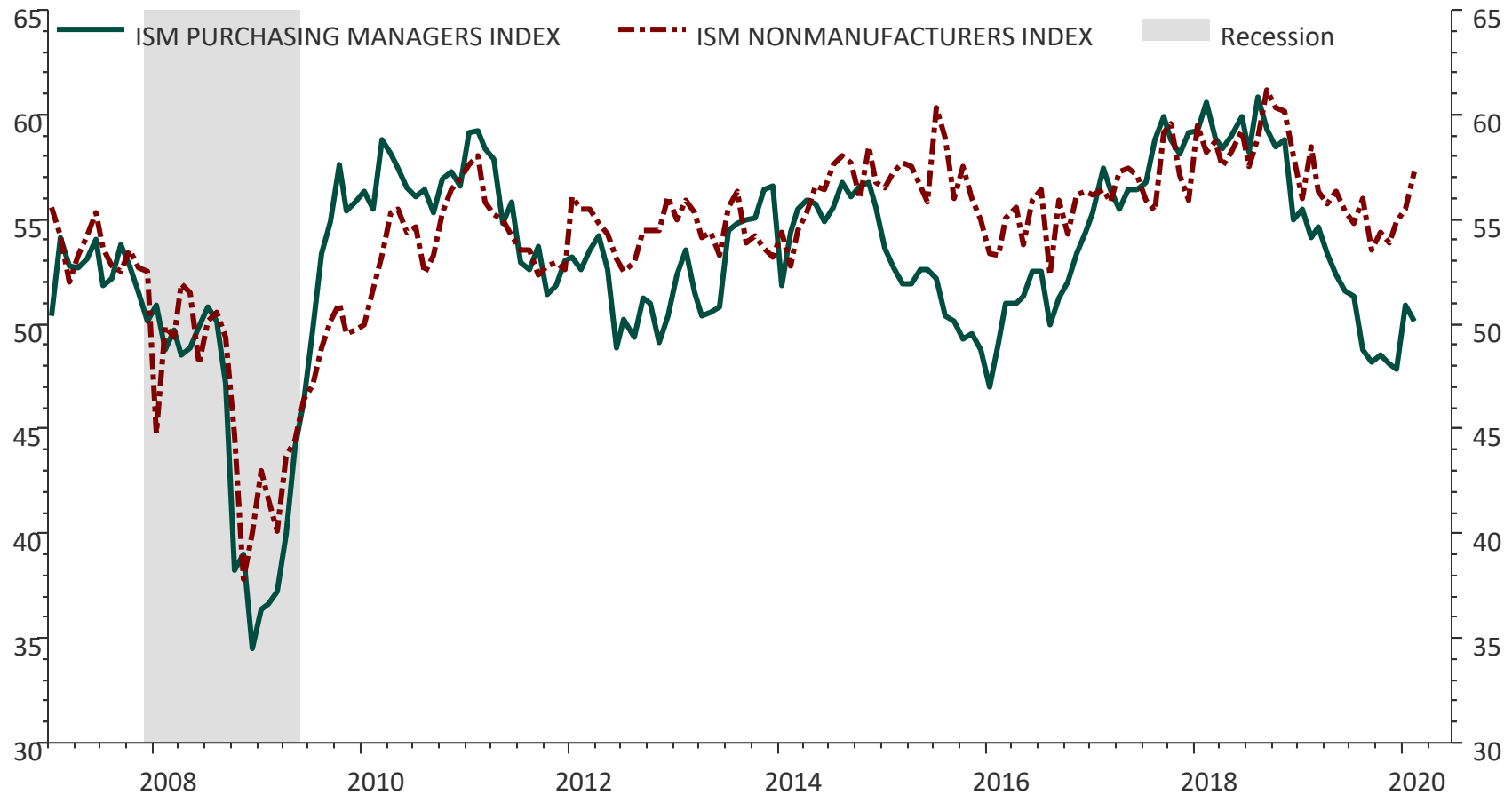
## Markit Manufacturing PMI by Country / Region

		07/31/2017	08/31/2017	09/30/2017	10/31/2017	11/30/2017	12/31/2017	01/31/2018	02/28/2018	03/31/2018	04/30/2018	05/31/2018	06/30/2018	07/31/2018	08/31/2018	09/30/2018	10/31/2018	11/30/2018	12/31/2018	01/31/2019	02/28/2019	03/31/2019	04/30/2019	05/31/2019	06/30/2019	07/31/2019	08/31/2019	09/30/2019	10/31/2019	11/30/2019	12/31/2019	01/31/2020	02/29/2020	
	<b>World</b>	52.0	52.6	52.6	52.9	52.9	52.6	52.5	52.5	52.6	53.1	53.2	53.4	53.9	54.4	54.3	54.0	53.2	53.4	53.0	52.9	52.7	52.5	52.1	52.0	51.9	51.4	50.8	50.6	50.5	50.4			
	<b>Developed Markets</b>	52.9	53.7	54.1	54.1	53.9	54.1	53.9	53.9	54.2	54.6	55.2	55.8	56.2	56.3	55.7	54.8	55.1	54.7	54.4	54	53.8	53.6	53.2	52.8	52.3	51.8	50.4	49.9	50.2				
	<b>Emerging Markets</b>	50.8	51.1	50.8	51.3	51.6	50.9	50.5	50.8	50.9	51.7	51.4	51.2	51.5	52.1	51.8	51.9	51.3	51.3	51.1	51.2	51	50.8	50.3	50.5	50.7	50.2	49.5	50.6	51	50.5			
AMERICAS	United States	54.1	54.3	55	54.2	53.3	52.8	52.7	52	53.3	52.8	53.1	54.6	53.9	55.1	55.5	55.3	55.6	56.5	56.4	55.4	55.3	54.7	55.6	55.7	55.3	53.8	54.9	53	52.4	52.6	51.1	51.3	
	Brazil	46.2	45.2	44	46.9	49.6	50.1	52	50.5	50	50.9	50.9	51.2	53.5	52.4	51.2	53.2	53.4	52.3	50.7	49.8	50.5	51.1	50.9	51.1	52.7	52.6	52.7	53.4	52.8	51.5	52.9	50.2	
	Canada	51.5	51.8	53.5	54.7	55.5	55.9	55.1	54.7	55.5	54.6	55	54.3	54.4	54.7	55.9	55.6	55.7	55.5	56.2	57.1	56.9	56.8	54.8	53.9	54.9	53.6	53	52.6	50.5	49.7	51.4	50.4	
	Mexico	51.1	50.2	50.8	50.6	51.5	50.7	51.2	52.3	51.2	52.2	52.8	49.2	52.4	51.7	52.6	51.6	52.4	51.6	51	52.1	52.1	50.7	51.7	50.7	49.7	50.9	49.7	50.9	52.6	49.8	50.1	48.0	47.1
ASIA PACIFIC	Australia	53.0	56	52	59.6	54.1	56.9	54.3	53.8	57.2	57.5	54.4	51.2	57	57.8	56.4	62.5	58.6	56.8	55.6	52.5	55.9	57.1	54.7	50.8	50	52.5	54	51	54.8	49.9	49.2		
	China	50.9	51.9	51	51.7	51.2	50.3	49.6	50.4	51.1	51.6	51	51	50.8	51.5	51.5	51.6	51	51.1	51.1	51	50.8	50.6	50	50.1	50.2	49.7	48.3	49.9	50.8	50.2	51.8	51.2	52.7
	India	52.3	49.6	50.4	50.7	52.5	52.5	51.6	50.9	47.9	51.2	51.2	50.3	52.6	54.7	52.4	52.1	51	51.6	51.2	53.1	52.3	51.7	52.2	53.1	54	53.2	53.9	54.3	52.6	51.8	51.2	52.7	
	Indonesia	49.7	49	50.4	49.3	50.5	51.2	50.6	49.5	48.6	50.7	50.4	50.1	50.4	49.3	49.9	51.4	50.7	51.6	51.7	50.3	50.5	51.9	50.7	50.5	50.4	51.2	49.9	50.1	51.2	50.4	48.2	49.5	
	Japan	51.3	52.4	52.7	53.3	52.4	52.7	53.1	52.4	52.1	52.2	52.9	52.8	53.6	54	54.8	54.1	53.1	53.8	52.8	53	52.3	52.5	52.5	52.9	52.2	52.6	50.3	48.9	49.2	50.2	48.9	48.4	
	Singapore	50.2	50.6	51	50.9	51.2	51.1	50.8	50.9	51	51.8	52	52.6	52.9	52.8	53.1	52.7	53	52.9	52.7	52.5	52.3	52.6	52.4	51.9	51.5	51.1	50.7	50.4	50.8	50.3	49.8	50.1	
	South Korea	48.0	49.4	49	49.2	48.4	49.4	49.2	50.1	49.1	49.9	50.6	50.2	51.2	49.9	50.7	50.3	49.1	48.4	48.9	49.8	48.3	49.9	51.3	51	48.6	49.8	48.3	47.2	48.8	50.2	49.4	50.1	
	Taiwan	54.7	56.2	55.6	54.5	56.2	54.4	53.1	53.3	53.6	54.3	54.2	53.6	56.3	56.6	56.9	56	55.3	54.8	53.4	54.5	53.1	53	50.8	48.7	48.4	47.7	47.5	46.3	49	48.2	49.8	50.8	
Vietnam	54.0	52.4	51.9	54.2	54.6	54.1	51.6	52.5	51.7	51.8	53.3	51.6	51.4	52.5	53.4	53.5	51.6	52.7	53.9	55.7	54.9	53.7	51.5	53.9	56.5	53.8	51.9	51.2	51.9	52.5	51.0	50.8		
EUROPE	European Union (EU)	53.5	54.9	55.2	55.4	55.9	56.7	56.8	56.8	56.3	57.1	57.6	58.1	59.6	59.8	58.9	58.1	56.3	55.9	55.3	54.9	54.9	54.3	53.1	51.8	51.8	51.5	50.6	49.5	48.3	48.4	47	46.4	
	Euro Zone	53.7	54.9	55.2	55.4	56.2	56.7	57.0	57.4	56.6	57.4	58.1	58.5	60.1	60.6	59.6	58.6	56.6	56.2	55.5	54.9	55.1	54.6	53.2	52.0	51.8	51.4	50.5	49.3	47.5	47.9	46.9	46.3	
	Austria	55.4	56.3	57.3	57.2	56.8	58.1	58.0	60.7	60.0	61.1	59.4	59.4	61.9	64.3	61.3	59.2	58.0	58.0	57.3	56.6	56.8	56.4	55.0	53.8	54.9	53.9	52.7	51.8	50.0	49.2	46.0	46	
	France	51.7	53.5	53.6	52.2	53.3	55.1	53.8	54.8	54.9	55.8	56.1	56.1	57.7	58.8	58.4	55.9	53.7	53.8	54.4	52.5	53.3	53.5	52.5	51.2	50.8	49.7	51.2	51.5	49.7	50.0	51.7	50.4	
	Germany	54.3	55.6	56.4	56.8	58.3	58.2	59.5	59.6	58.1	59.3	60.6	60.6	62.5	63.3	61.1	60.6	58.2	58.1	56.9	55.9	56.9	55.9	53.7	52.2	51.8	51.5	49.7	47.6	44.1	44.4	44.1	43.7	
	Greece	48.3	49.3	46.6	47.7	46.7	48.2	49.6	50.5	50.5	52.2	52.8	52.1	52.2	53.1	55.2	56.1	55.0	52.9	54.2	53.5	53.5	53.9	53.6	53.1	54.0	53.8	53.7	54.2	54.7	56.6	54.1	53.9	
	Ireland	53.7	55.7	55.5	53.8	53.6	55.0	55.9	56.0	54.6	56.2	56.4	54.4	58.1	59.1	57.6	56.2	54.1	55.3	55.4	56.6	56.3	57.5	56.3	54.9	55.4	54.5	52.6	54.0	53.9	52.5	49.7	49.5	
	Italy	52.2	53.2	53.0	55.0	55.7	56.2	55.1	55.2	55.1	56.3	56.3	57.8	58.3	57.4	59.0	56.8	55.1	53.5	52.7	53.3	51.5	50.1	50.0	49.2	48.6	49.2	47.8	47.7	47.4	49.1	47.6	46.2	
	Netherlands	57.0	57.3	56.5	58.3	57.8	57.8	57.6	58.6	58.9	59.7	60.0	60.4	62.4	62.2	62.5	63.4	61.5	60.7	60.3	60.1	58.0	59.1	59.8	57.1	56.1	57.2	55.1	52.7	52.5	52.0	49.6	48.3	
	Spain	54.5	55.3	55.6	54.8	53.9	54.5	55.4	54.7	54.0	52.4	54.3	55.8	56.1	55.8	55.2	56.0	54.8	54.4	53.4	52.9	53.0	51.4	51.8	52.6	51.1	52.4	49.9	50.9	51.8	47.5	47.4		
	Czech Republic	52.2	53.8	55.7	57.6	57.5	57.5	56.4	56.4	55.3	54.9	56.6	58.5	58.7	59.8	59.8	58.8	57.3	57.2	56.5	56.8	55.4	54.9	53.4	52.5	51.8	49.7	49.0	48.6	47.3	46.6	43.5	43.6	
	Denmark	57.4	61.7	57.7	51.9	56.4	48.2	61.2	65.4	64.7	61.2	62.2	58.4	58.5	59.7	66.9	65.0	60.5	53.1	52.2	52.7	56.7	59.8	54.0	66.6	57.6	57.4	50.1	61.1	55.3	57.8	53.0	50.7	
	Poland	51.9	54.3	54.8	54.2	53.5	54.1	52.7	53.1	52.3	52.5	53.7	53.4	54.2	55.0	54.6	53.7	53.7	53.9	53.3	54.2	52.9	51.4	50.5	50.4	49.5	47.6	48.2	47.6	48.7	49.0	46.7	48	
	Sweden	56.5	59.2	61.0	60.7	64.6	62.8	58.6	63.3	59.6	57.7	63.8	59.5	62.1	59.3	56.0	59.5	55.3	55.1	55.6	55.1	56.7	55.4	55.2	55.0	55.4	52.1	51.7	52.6	52.7	50.8	45.7	47.1	
	United Kingdom	53.2	55.5	55.3	54.9	54.1	57.7	56.5	54.2	55.5	57.0	55.5	56.6	58.2	55.7	55.2	55.3	54.8	53.8	54.3	54.0	53.9	52.9	53.7	51.1	53.3	54.3	52.8	52.1	55.1	53.1	48.9	47.5	
	Russia	53.6	53.7	54.7	52.5	52.4	50.8	52.4	50.3	52.7	51.6	51.9	51.1	51.5	52.0	52.1	50.2	50.6	51.3	49.8	49.5	48.1	48.9	50.0	51.3	52.6	51.7	50.9	50.1	52.8	51.8	45.6	47.5	
Switzerland	55.5	55.7	54.6	57.9	57.9	58.4	55.8	60.2	60.3	61.4	62.1	61.9	64.6	65.2	64.6	65.1	61.4	62.8	62.8	61.8	61.7	64.6	59.9	57.8	57.7	57.5	54.3	55.4	50.3	48.5	48.8	50.2		
Turkey	48.8	47.7	48.7	49.7	52.3	51.7	53.5	54.7	53.6	55.3	53.5	52.8	52.9	54.9	55.7	55.6	51.8	48.9	46.4	46.8	49.0	46.4	42.7	44.3	44.7	44.2	44.2	46.4	47.2	46.8	49.5	49.5		
OTHER	Israel	54.3	67.2	62.6	61.2	54.8	52.0	56.2	50.3	54.3	58.4	57.2	53.2	49.7	53.4	53.5	53.6	54.7	54.0	49.6	52.6	58.0	50.4	50.0	52.7	53.7	57.0	47.9	49.6	52.2	51.9	52.8	51.8	

Source: Data provided by Refinitiv

# Manufacturing and Services sector growth deceleration

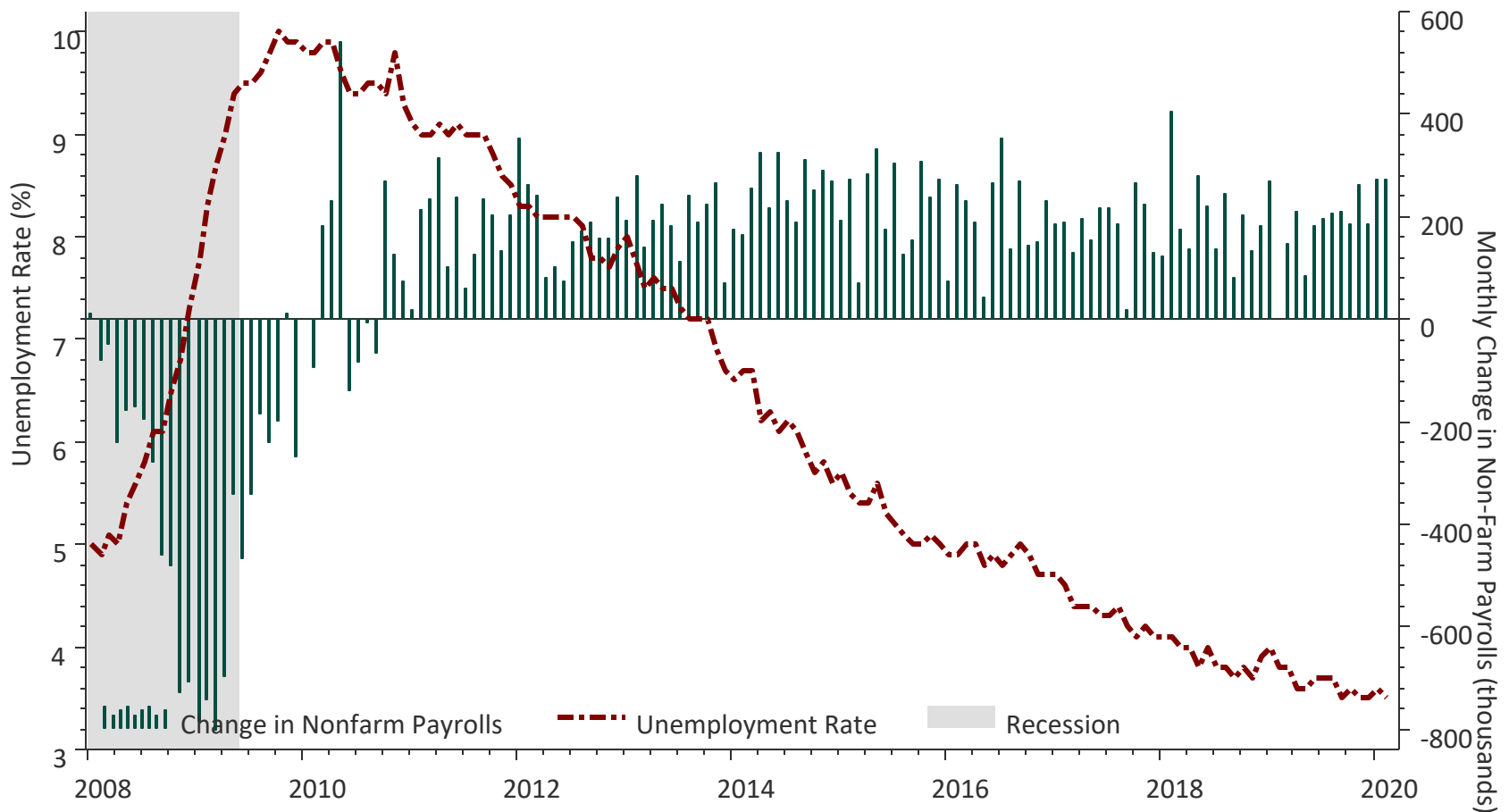
## ISM Manufacturing PMI and Non-Manufacturing NMI



Source: Refinitiv Datastream

# Labor: The Jobs Picture since 2008

## US U3 Unemployment Rate and Monthly Nonfarm Payroll Additions

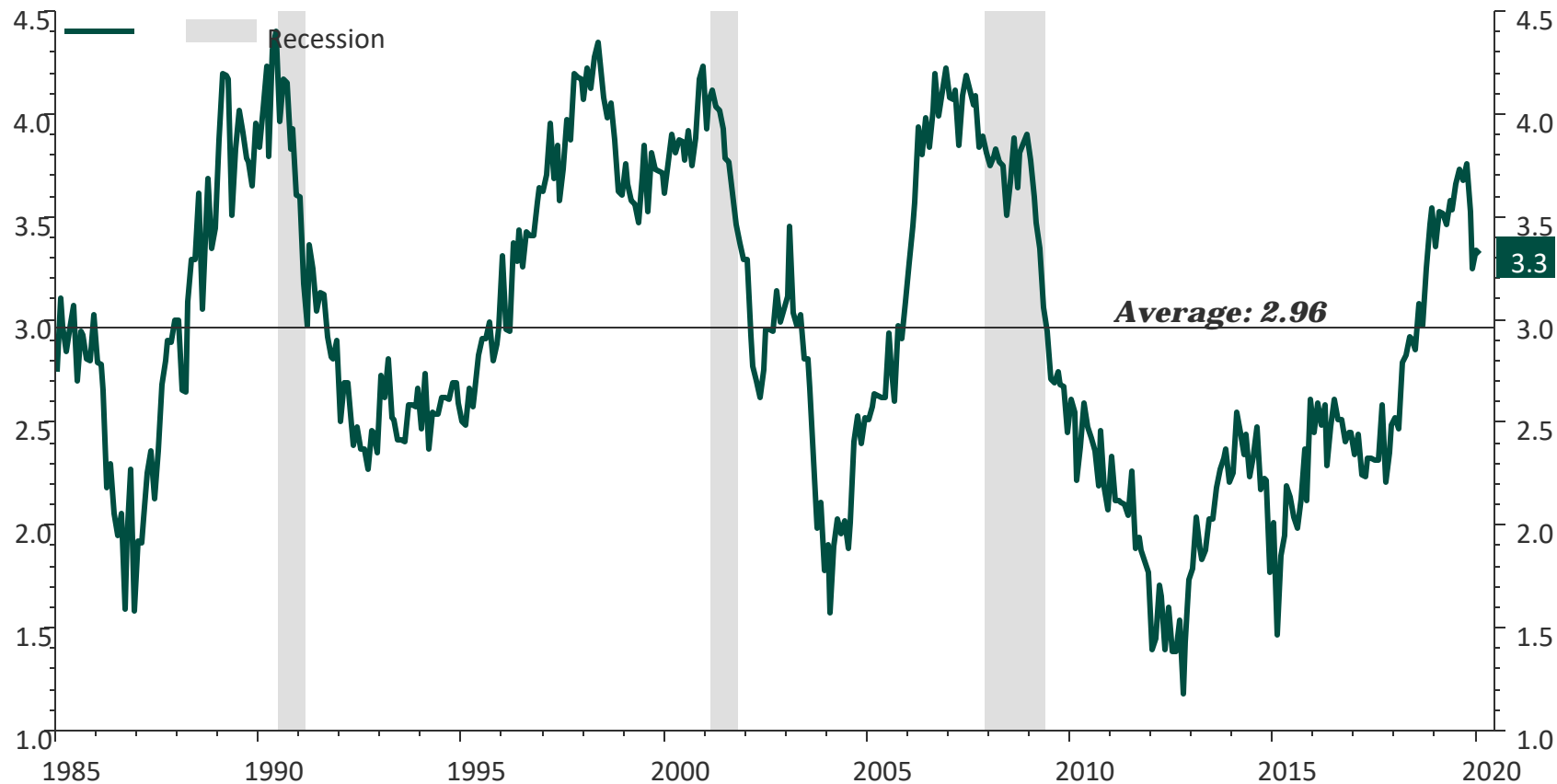


Source: Refinitiv Datastream

# Labor: Wage growth

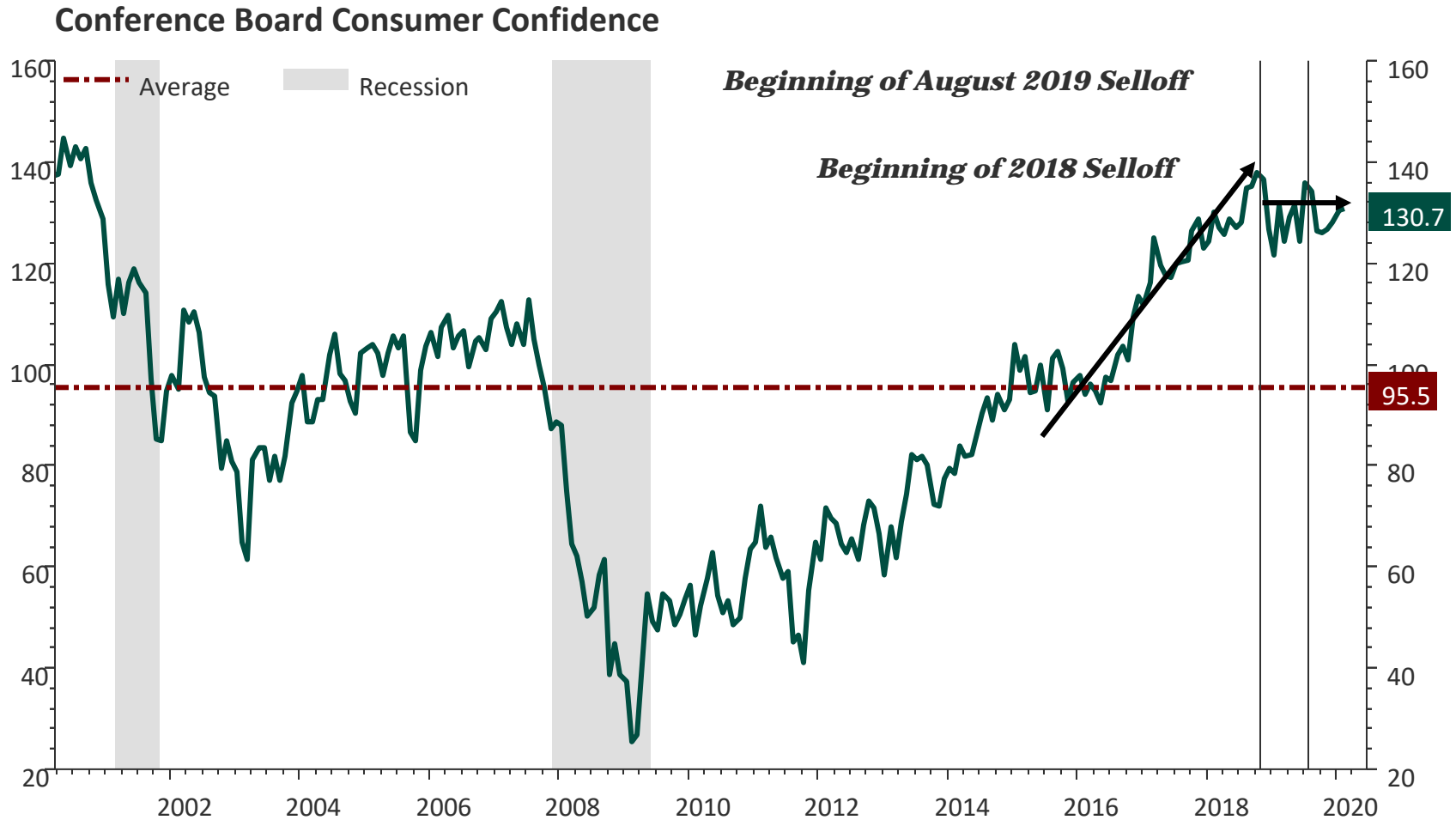
## Avg. Hourly Earnings of Production and Non-Supervisory Workers

Year-over-Year Percent Change



Source: Refinitiv Datastream

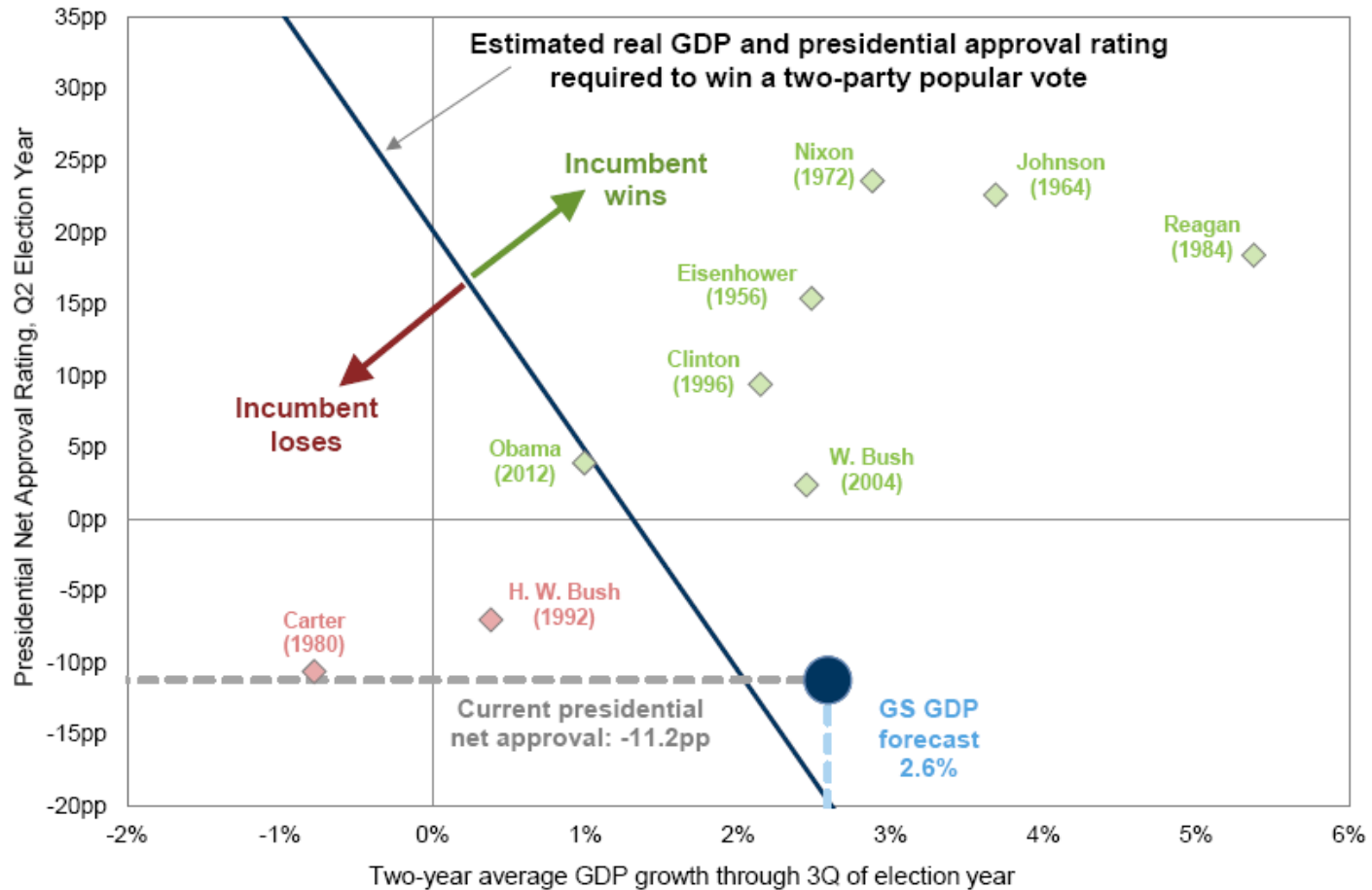
# Consumer: High confidence but rattled by 2018 market volatility



Source: Refinitiv Datastream

# Politics: “It’s the economy, stupid”

## Economic growth forecast suggests popular vote victory for Trump

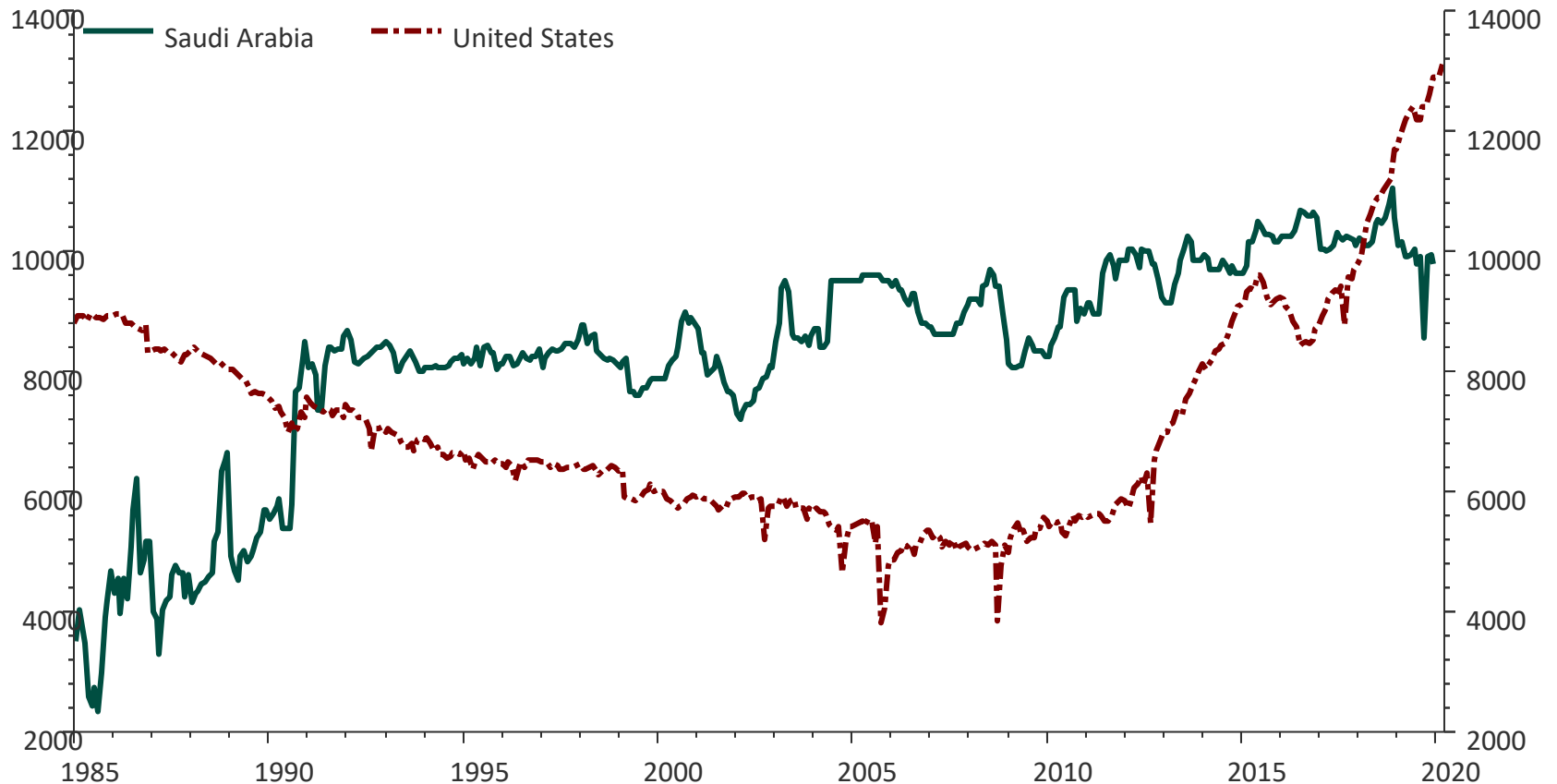


Source: Goldman Sachs

# United States is the new swing oil producer

## US vs. Saudi Arabia Crude Production

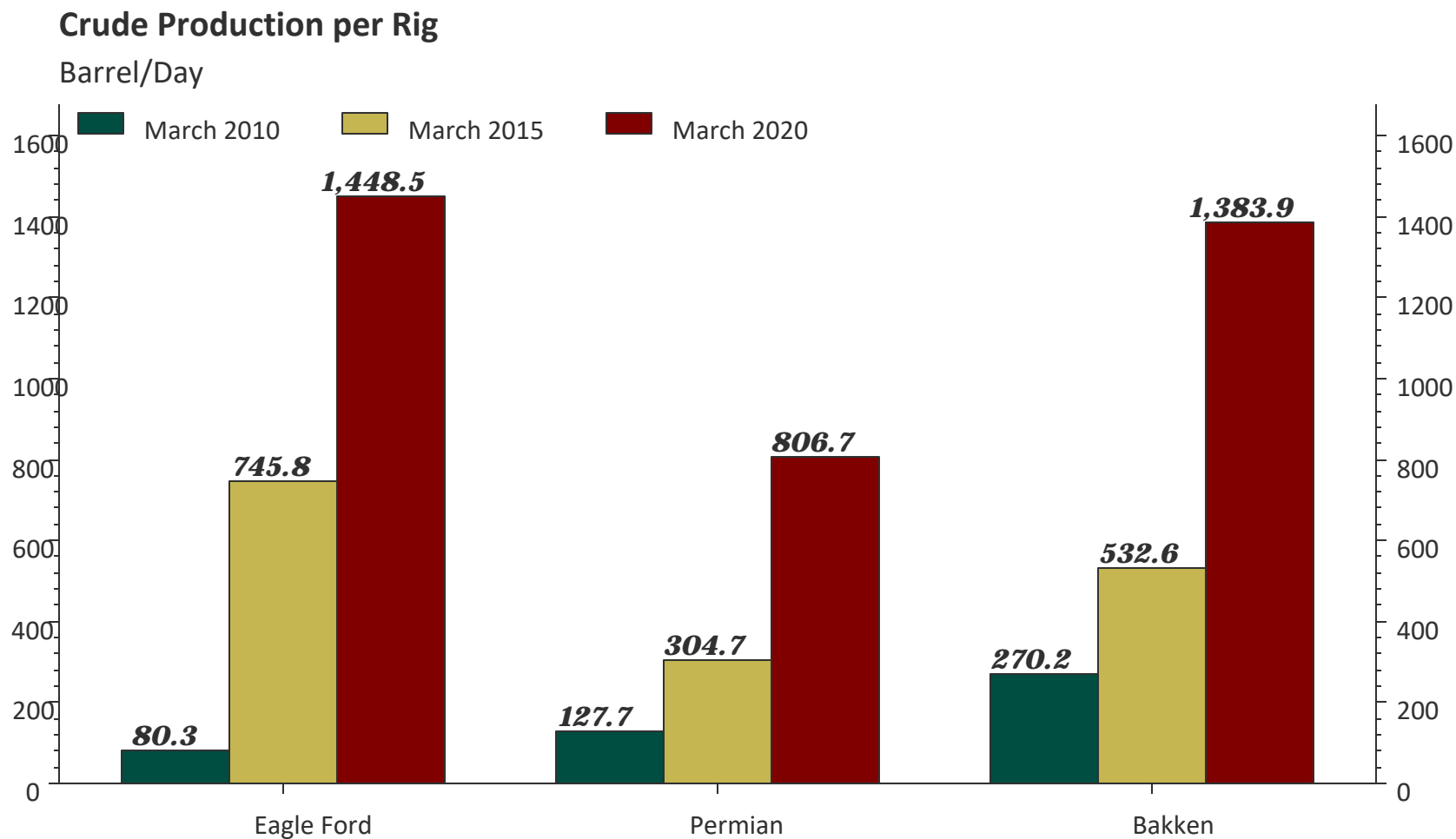
Barrels/Day in Thousands



Source: Refinitiv Datastream



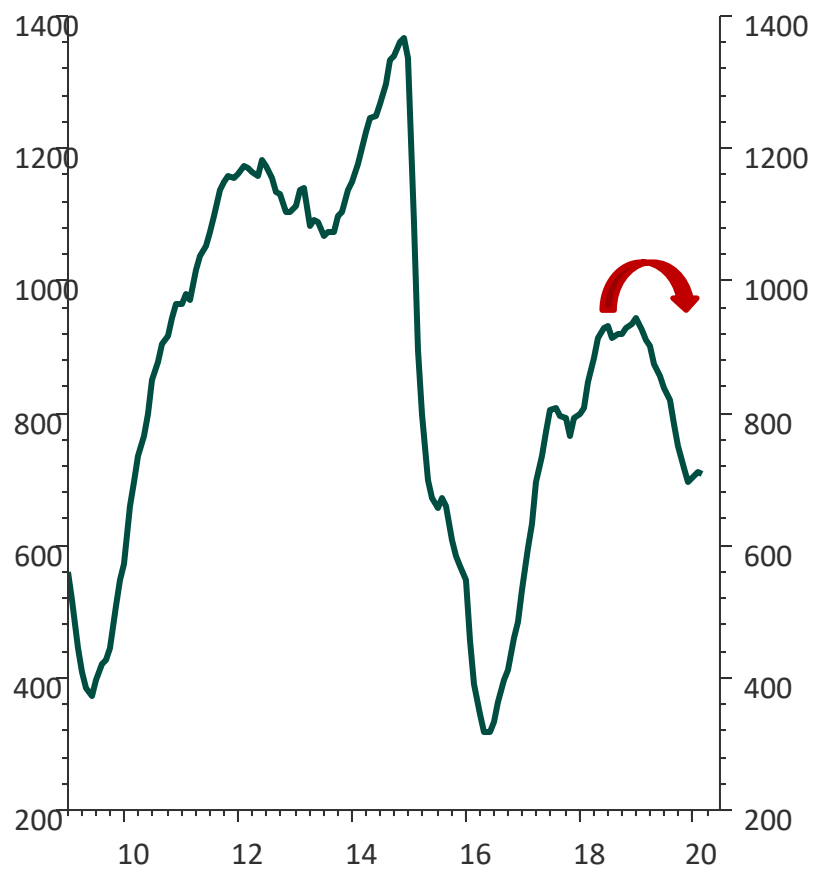
# United States Rig Productivity Boom



Source: Refinitiv Datastream

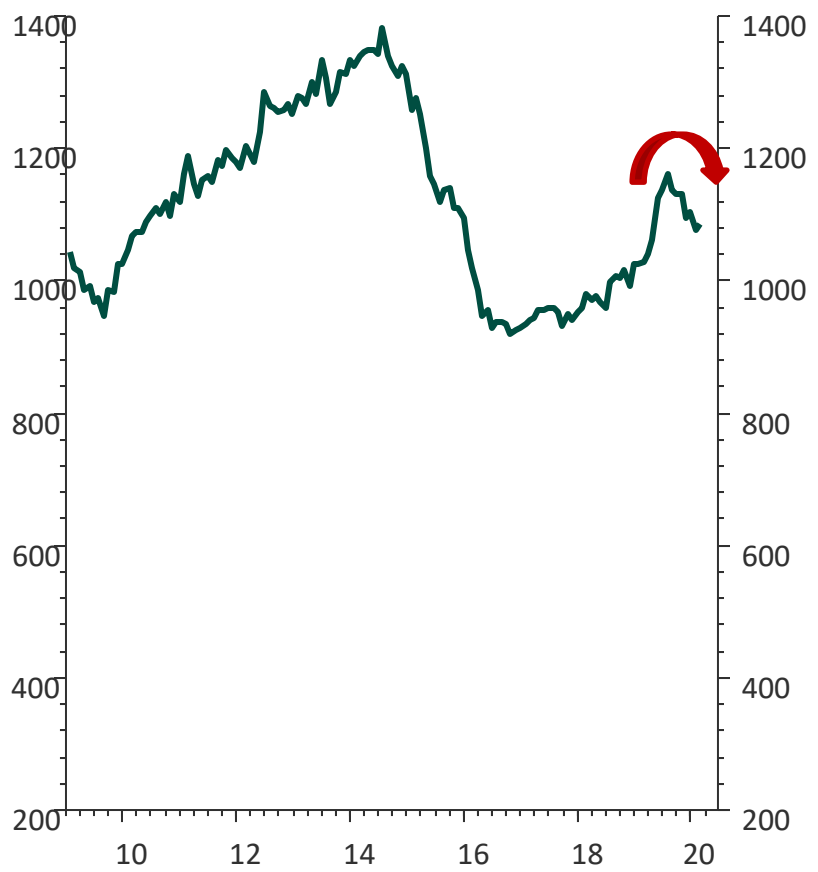
# Global Decline in Rig Count

### US Horizontal Rotary Rig Count



Source: Refinitiv Datastream

### Int'l Crude Oil & Nat. Gas Rig Count



Source: Refinitiv Datastream

# Recessionary indicators point to limited downside risk

## Recession Dashboard

Start of Recession	Yield Curve	Inflation Trends	Labor Market	Credit Platform	ISM Mfg.	Earnings Quality	Housing Market
Nov-73	↓	↓	↑	--	↑	--	↓
Jan-80	↓	↓	↓	--	↓	--	↓
Jul-81	↓	↑	↑	--	↓	--	↓
Jul-90	↓	↓	↓	↓	↓	↓	↓
Mar-01	↓	↓	↓	↓	↓	↓	↔
Dec-07	↓	↓	↔	↓	↓	↓	↓
<b>Present</b>	↓	↔	↑	↑	↓	↑	↔

**Key:**      ↓ Recessionary      ↑ Expansionary      ↔ Neutral

Source: '80-'07, Credit Suisse; '73 & Present, Patten & Patten

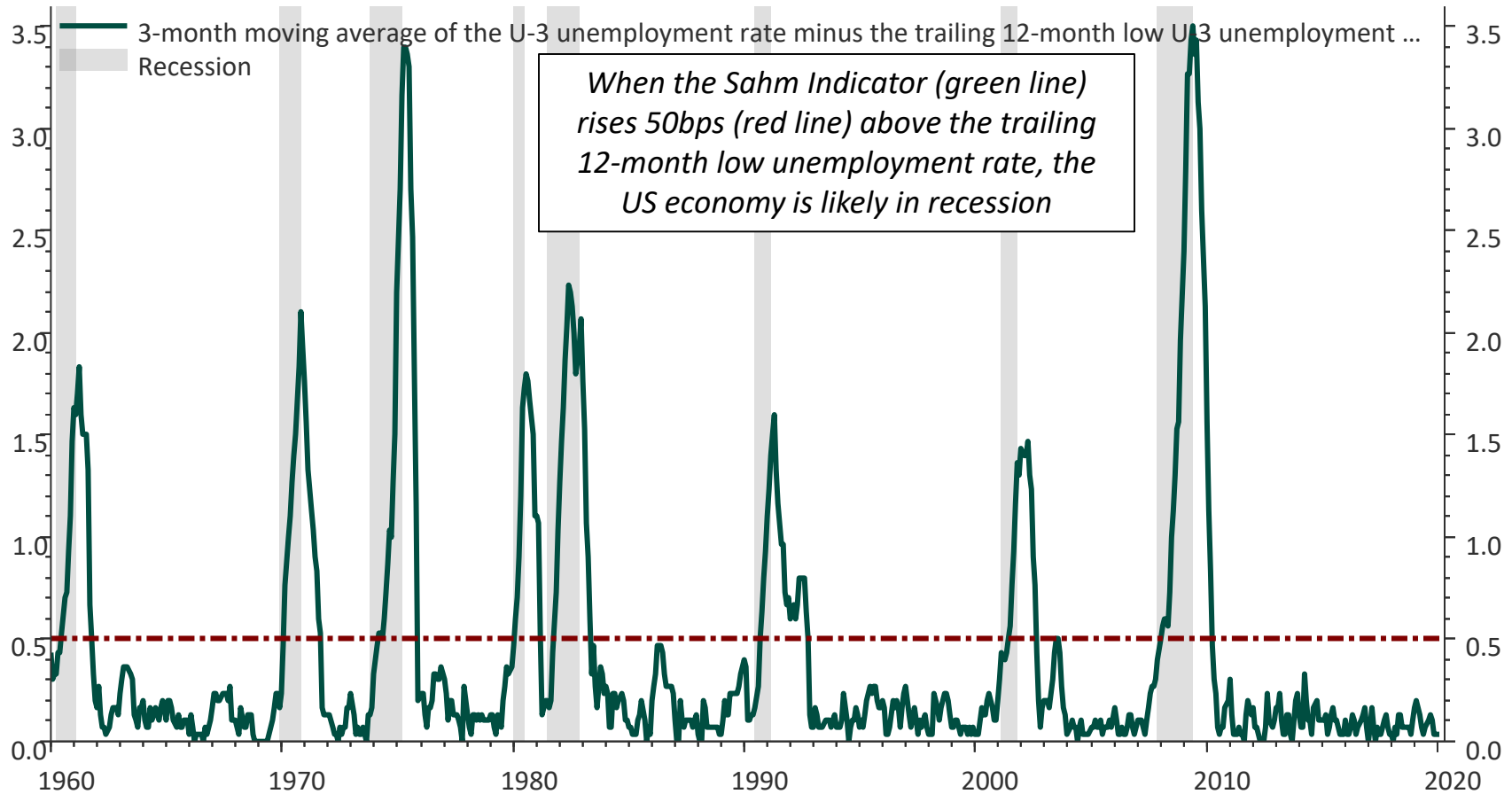
# Characteristics of a bear market

Pre Bear	Cyclical	Event	Structural
Rising Rates	✓	MAYBE	✓
Exogenous Shock	MAYBE	✓	MAYBE
"Speculative Rise" in Equity Prices	✗	✗	✓
Economic Imbalances	✗	✗	✓
Rising Productivity	MAYBE	-	✓
Unusual Strength in Economy	✗	✗	✓
"New Era" Belief	✗	✗	✓
Post Peak	Cyclical	Event	Structural
Economic Recession/ Downturn	USUALLY	MAYBE	USUALLY
Profits Collapse	✓	MAYBE	✓
Interest Rates Fall & Trigger Rise in Equity Prices / Fall in Bonds	✓	USUALLY	✗
Price Shock	✗	✗	✓

Source: Goldman Sachs Global Investment Research

# Unemployment rate does not suggest imminent recession

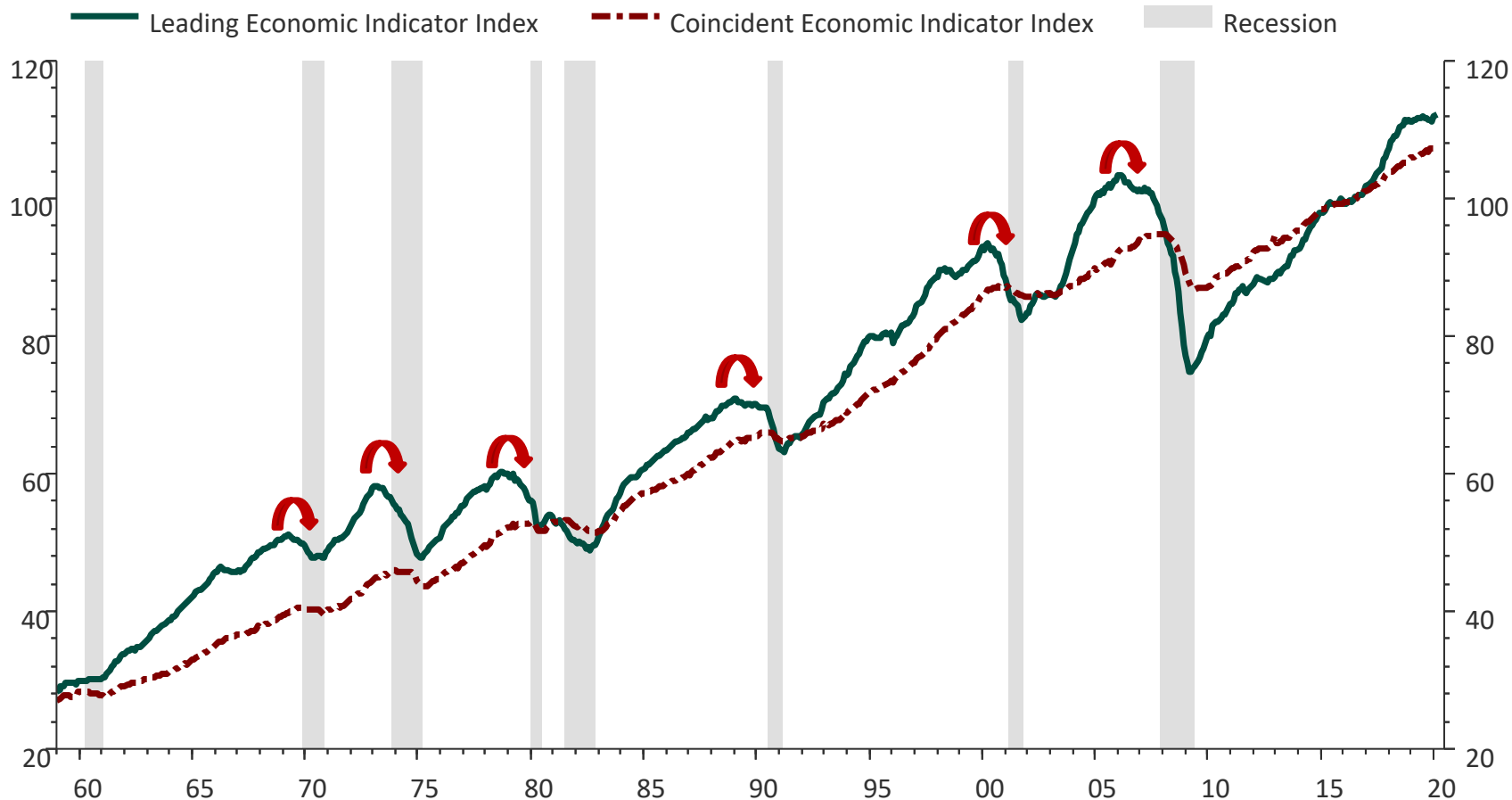
## Sahm Recession Indicator



Source: Refinitiv Datastream

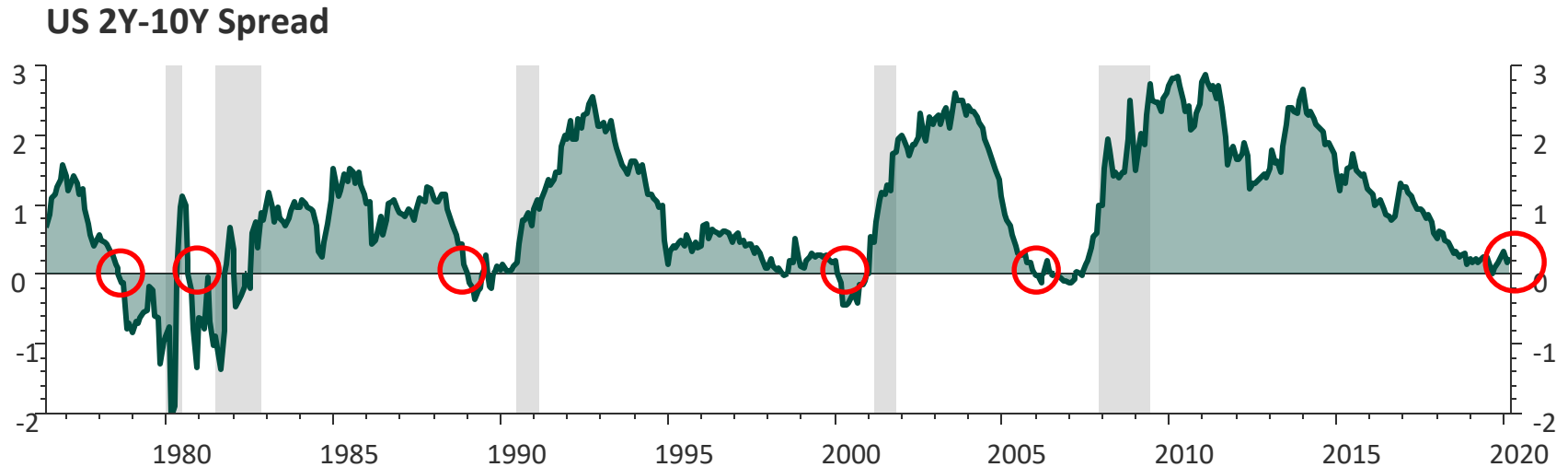
# Leading economic indicators are stable

## Conference Board Leading and Coincident Economic Indicators



Source: Refinitiv Datastream

# Yield Curve Indicator



Source: Refinitiv Datastream

Yield Curve Inversion	Recession Lag	S&P 500 Peak Lag	S&P 500 Return post Yield Curve Inversion
8/1978	17 months	19 months	<b>17.7%</b>
9/1980	10 months	3 months	<b>13.6%</b>
12/1988	19 months	20 months	<b>35.7%</b>
2/2000	13 months	2 months	<b>8.4%</b>
12/2005	24 months	23 months	<b>23.5%</b>

Source: Data provided by Thomson Reuters