



Fixed Income Monthly Market Update

January 2020

Prepared by the Portfolio Strategies Group

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Management LLC

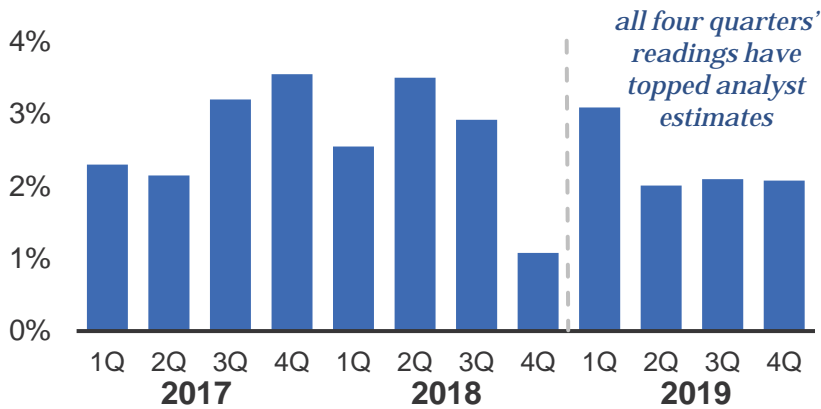
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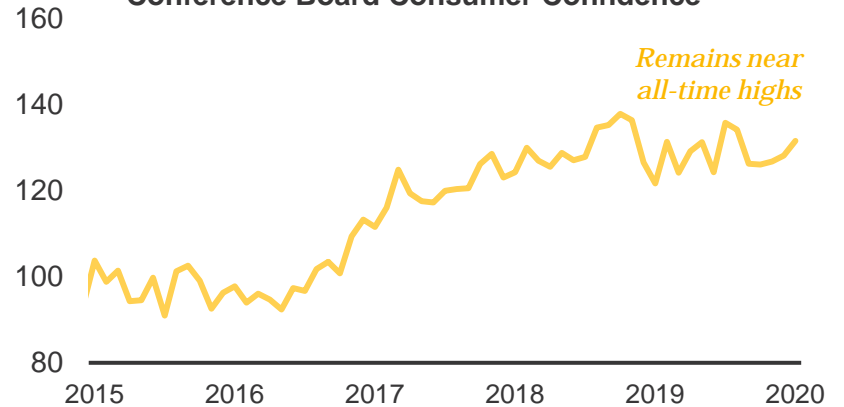


U.S. Economy Heads into 2020 with Steady Growth

U.S. GDP Growth

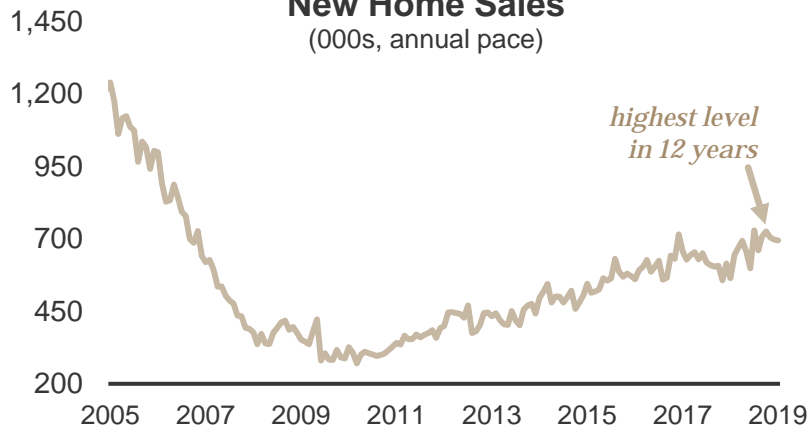


Conference Board Consumer Confidence

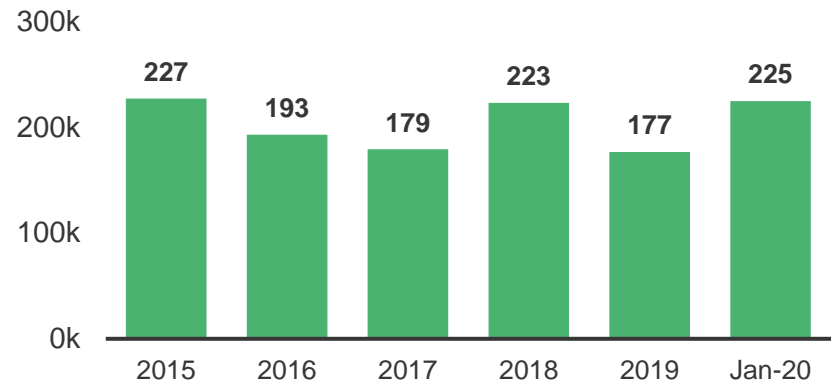


New Home Sales

(000s, annual pace)



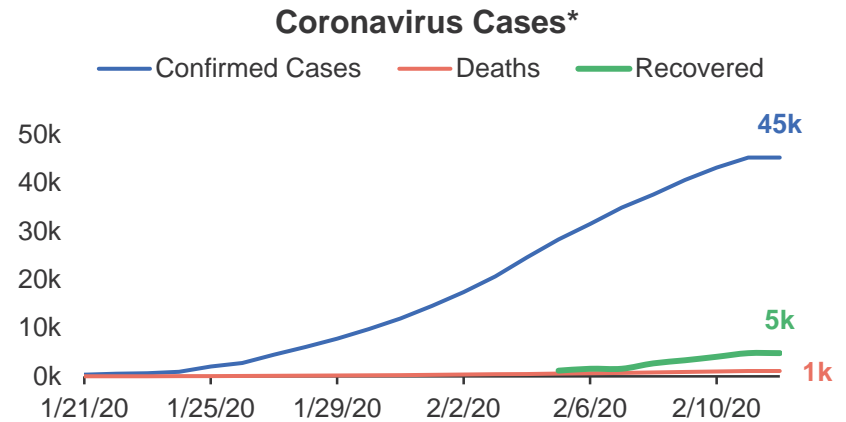
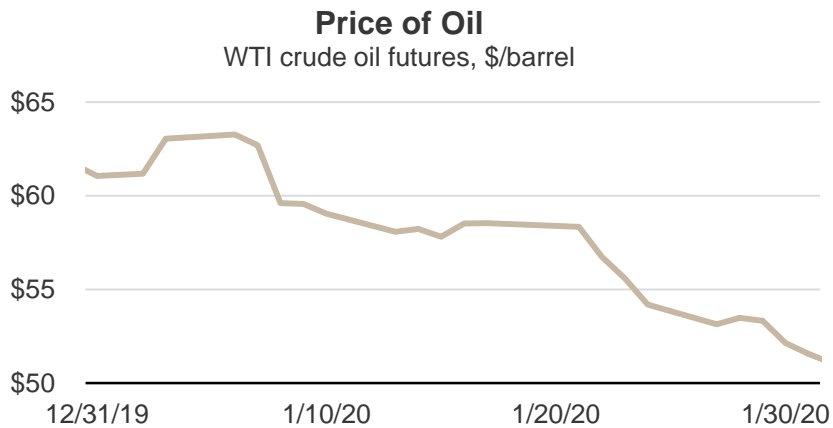
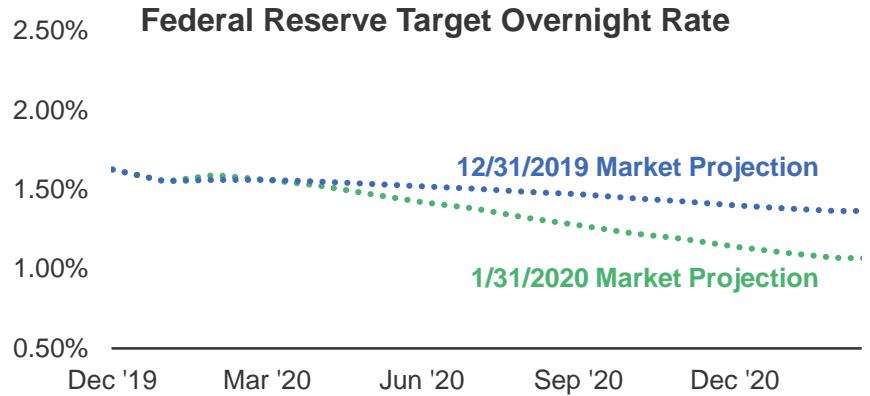
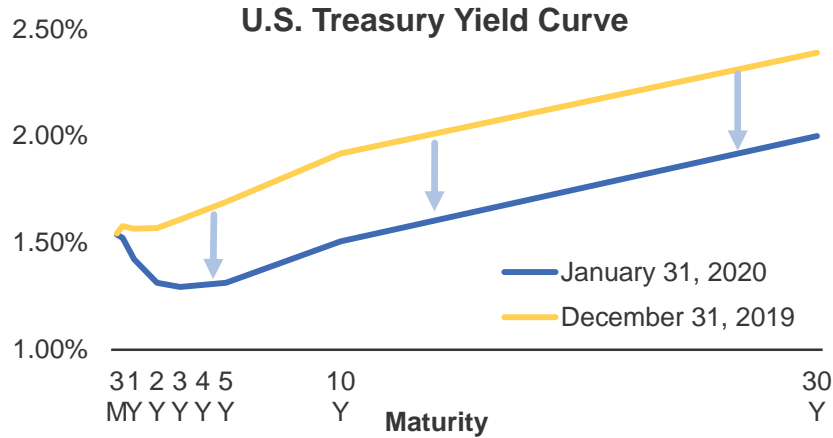
Average Monthly Job Growth



Source: Bloomberg, data available as of 1/31/2020.



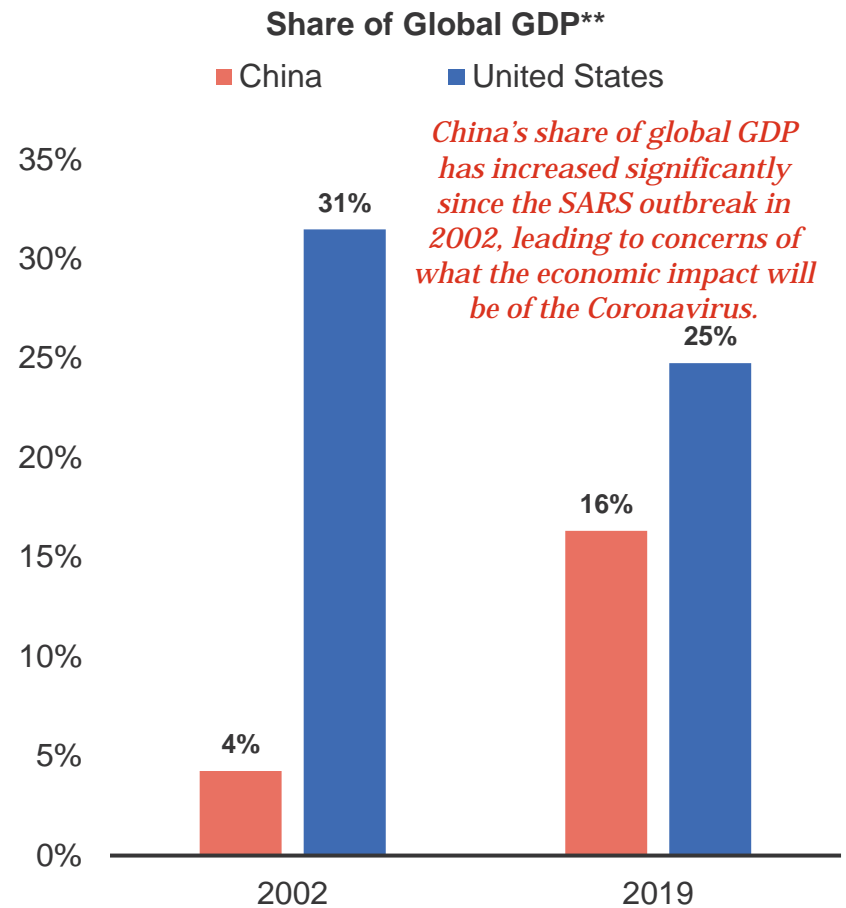
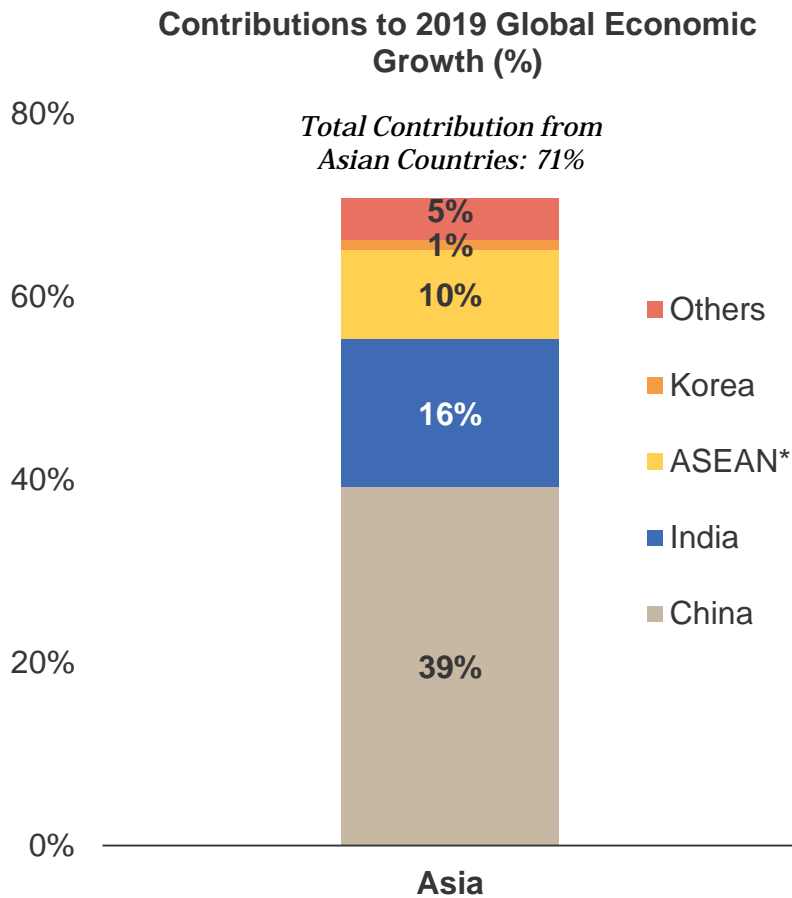
Market Reaction to the Coronavirus Outbreak



Source: Bloomberg, as of 1/31/2020. *Source: WHO, CDC, ECDC, NHC, NIH, as of 2/12/20.



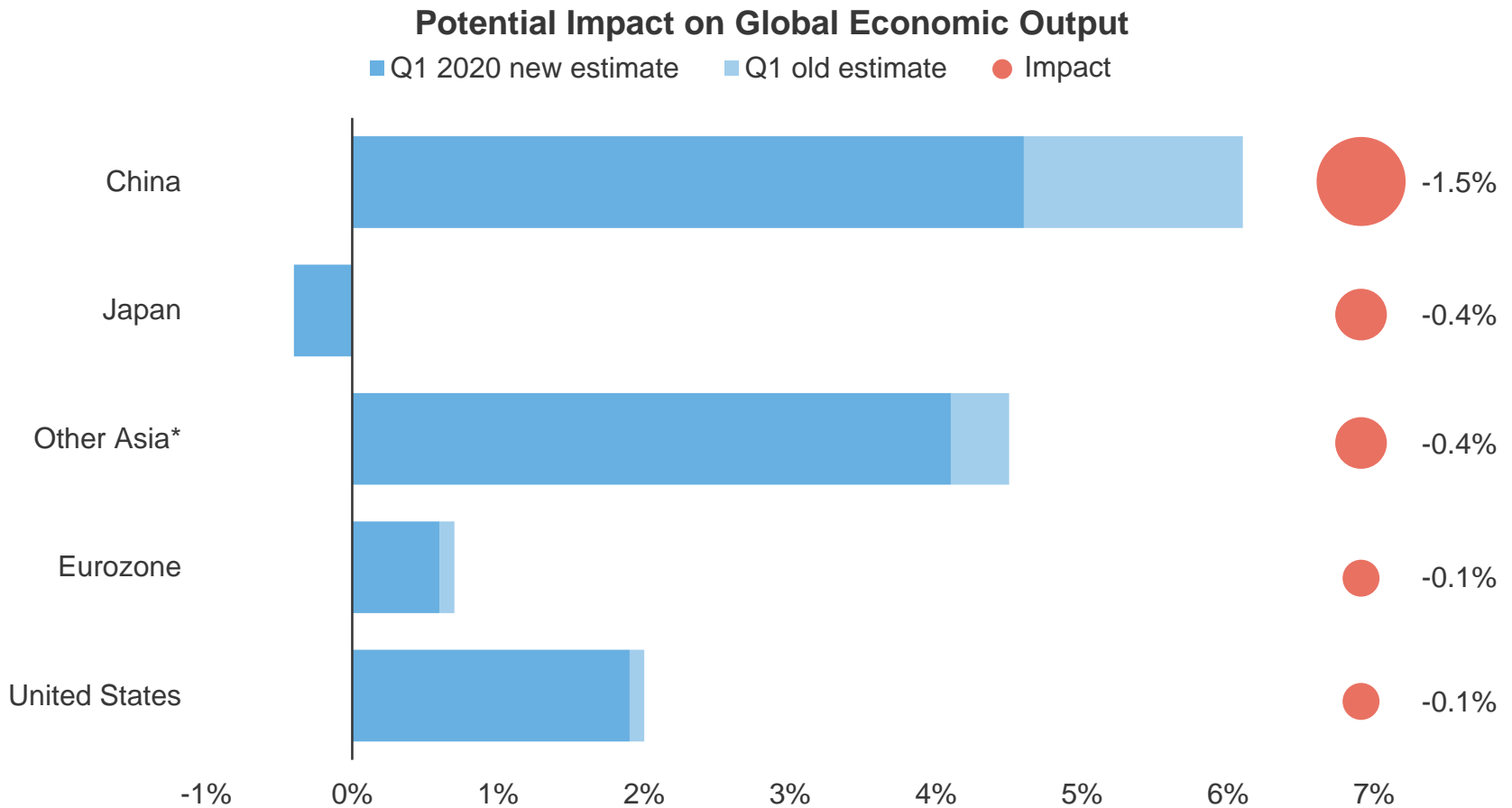
A Slowdown in Growth in China Could Weigh Heavily on Global Growth



Source: IMF, World Economic Outlook and IMF staff Estimates. *Association of Southeast Asian Nations includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. **Based on nominal GDP.



Coronavirus Complicates Global Economic Outlook

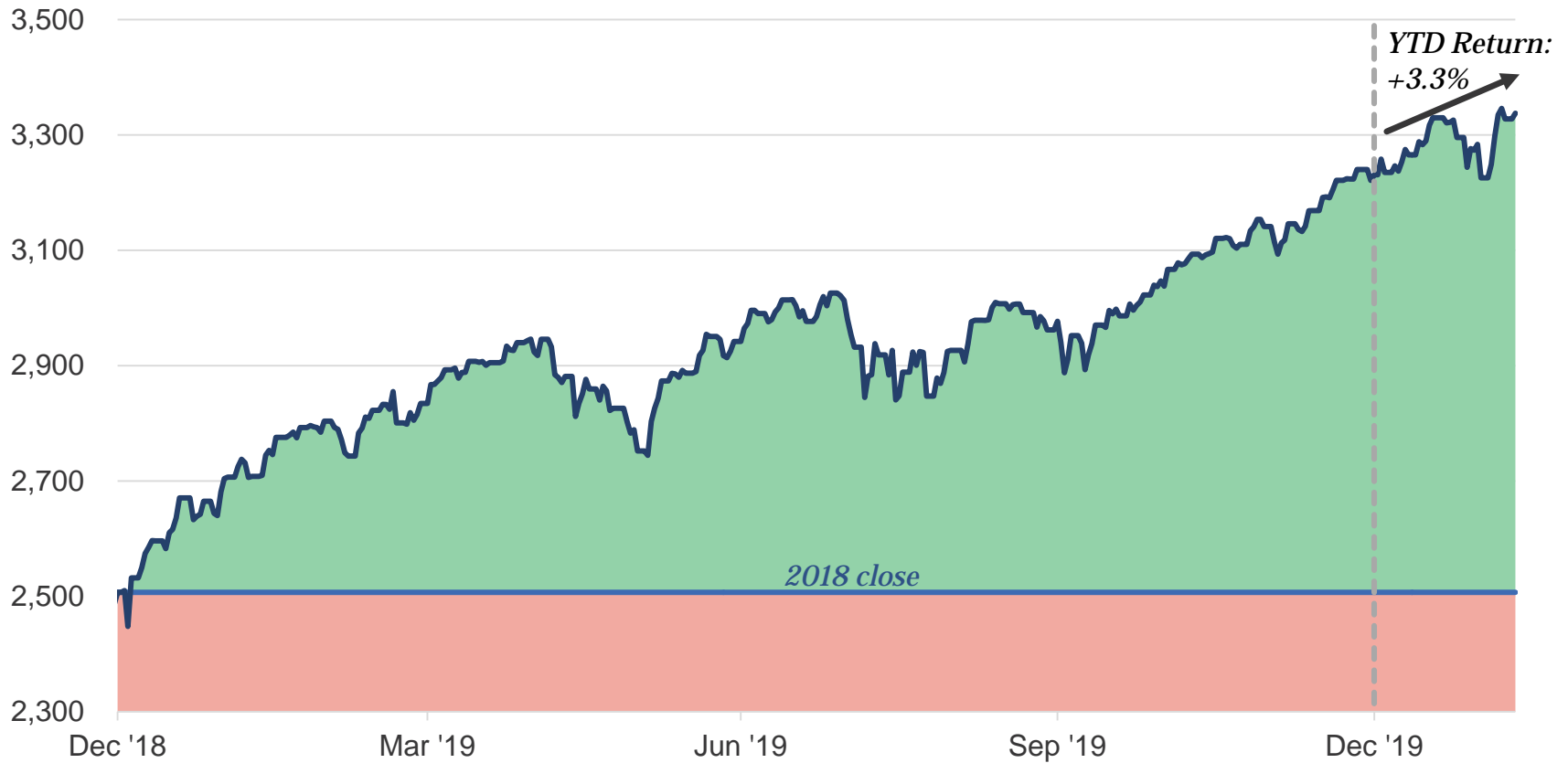


Source: Bloomberg, Statista, as of 1/31/2020. *Includes emerging Asian market economies other than China (2020 Projections).



Stocks Begin the Decade with Added Volatility

S&P 500 Price Change



Source: Bloomberg, as of 2/10/2020.



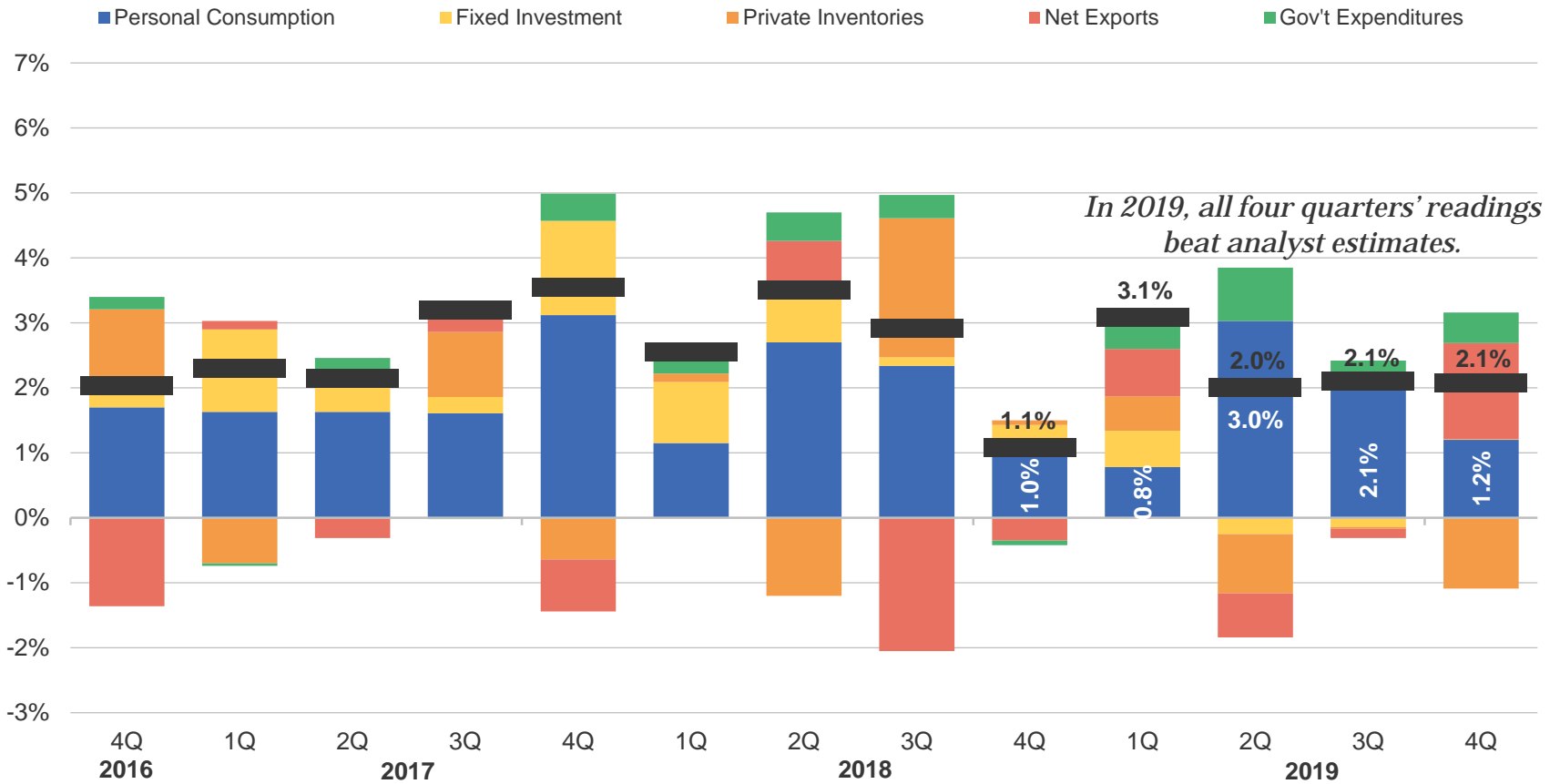
Current Market Themes

- U.S. economic conditions are characterized by:
 - Robust job growth, strong consumer confidence, and a solid housing market
 - Manufacturing stabilization as political uncertainty fades
 - Coronavirus outbreak presenting emerging new risks
- Emerging risks over the month prompted a significant rally in Treasuries. The yield curve flattened and is now inverted once again (between three months and ten years). The 30-year Treasury yield settled at 2.00%, near a five month-low.
- The Federal Reserve expectedly left interest rates unchanged at its January meeting, maintaining the target range at 1½ to 1¾ percent. FOMC members have a favorable view of the U.S. economy and believe the current policy stance will remain appropriate unless there is a meaningful change in the economic outlook.
- The Federal Reserve's balance sheet has expanded by over \$400 billion since August 2019. The Fed has committed to T-Bill purchases at least into Q2 and continued repo operations through April 2020 to ensure an ample supply of reserves.
- Manufacturing emerged from the contraction that began last summer amid a surge in new orders. ISM PMI Manufacturing rebounded sharply to 50.9 in January, above the 50-line demarcation that signals expansion, for the first time in six months.
- U.S equities soared to record highs amid an improved trade outlook in early January; however, in the latter half of the month, the coronavirus outbreak left stocks struggling for direction. Over the month, the S&P 500 lost 0.04%, the Dow retreated 0.9%, while the NASDAQ advanced 2.0% on solid tech earnings.
- The housing market continues to gather momentum amid low mortgage rates and solid job growth. For December, existing homes sales jumped 3.6%, while housing starts surged to a 13-year high at an impressive 16.9%.



Economic Growth Continued at a Moderate Pace in Q4

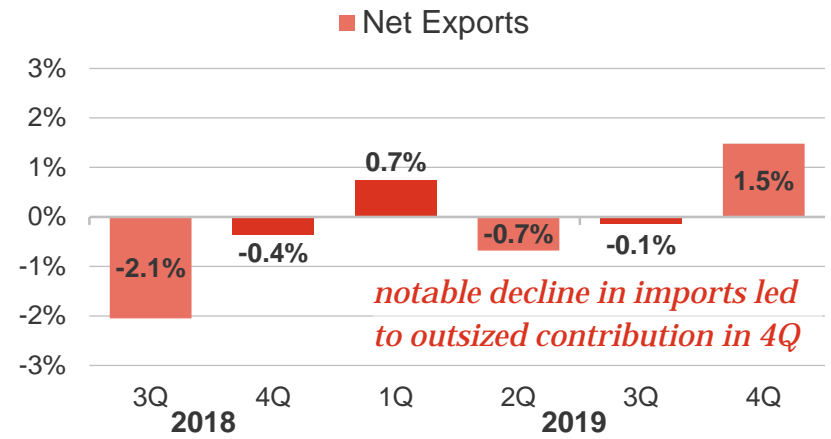
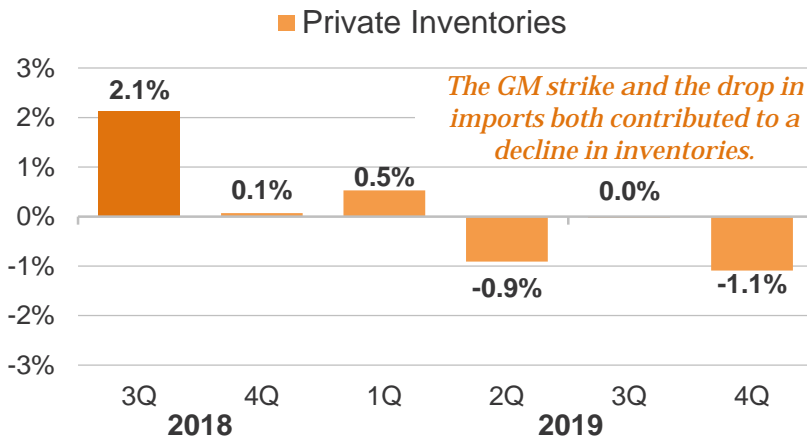
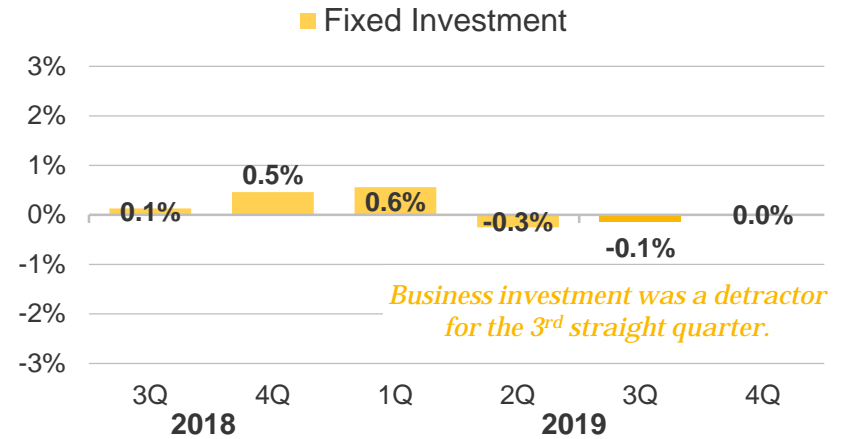
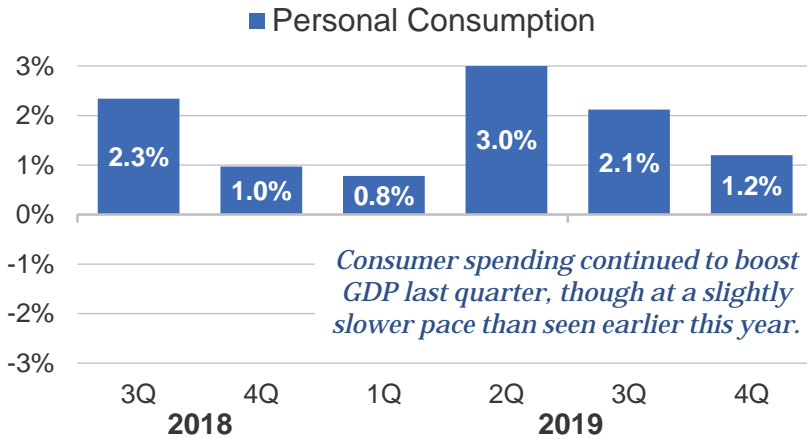
U.S. GDP Contributors and Detractors



Source: Bureau of Economic Analysis.



The Consumer Remains in the Driver Seat

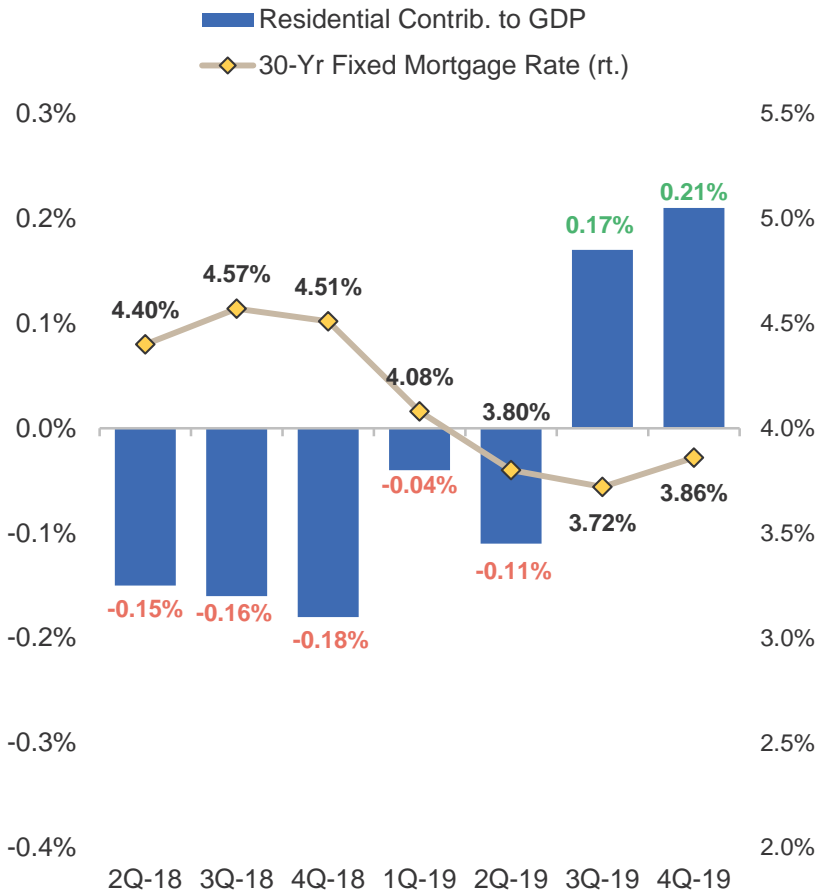


Source: Bureau of Economic Analysis



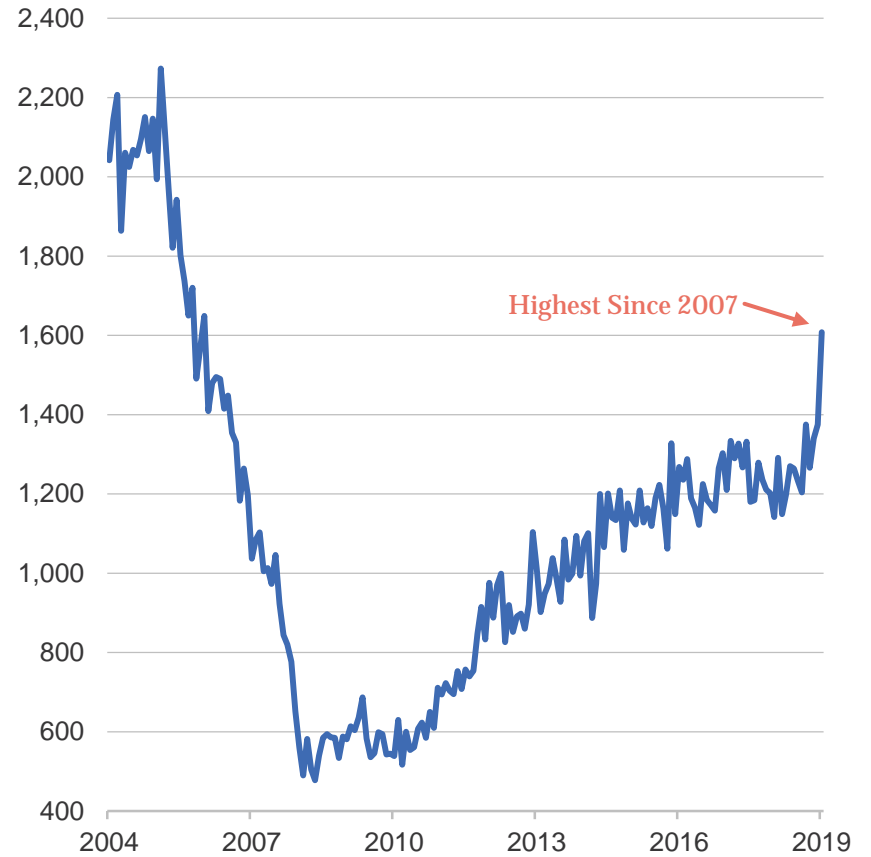
Housing Market Gathers Strength

Growth Follows Falling Mortgage Rates



Housing Starts

(000s, SAAR)



Source: Bankrate.com U.S. Home Mortgage 30 Year Fixed National Average; Bloomberg, as of 01/31/20.



Most Domestic Economic Indicators Not Signaling Imminent Recession

X = Contraction **?** = Caution **↑** = Expansion

		Recession		
		2001	2007-2009	Current
Financial	Yield Curve	X	X	?
	Credit Spreads	X	X	↑
	Money Supply	X	X	?
Inflation	Wage Growth	X	X	?
	Commodities	X	X	?
Consumer	Housing Permits	?	X	↑
	Jobless Claims	X	?	↑
	Retail Sales	X	X	↑
	Job Sentiment	X	X	↑
Business Activity	ISM New Orders	X	X	X
	Profit Margins	X	X	?
	Business Investment	X	?	X

Source: BBG, BLS, Federal Reserve, Census Bureau, ISM, BEA, Conference Board, & ClearBridge Investments. Current as of 12/31/2019.



The Fed on Hold, but Market Expects at Least One Rate Cut by Year-End

Federal Reserve Target Overnight Rate



Source: Bloomberg. Market Projection as of January 31, 2020.



Treasury Yields Fall to New Lows Amid Emerging Risks

2-Year Treasury



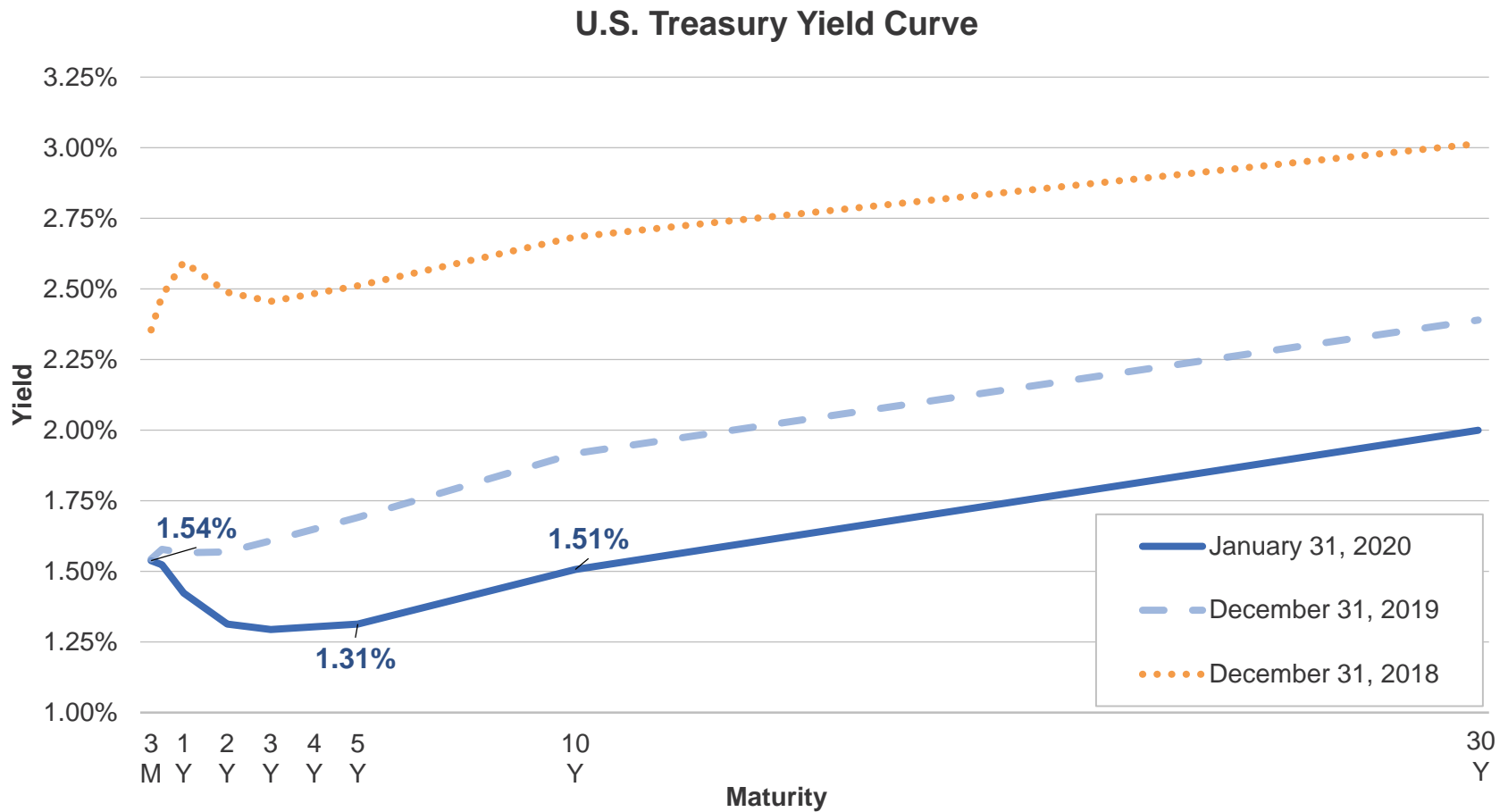
10-Year Treasury



Source: Bloomberg, as of 01/31/2020.



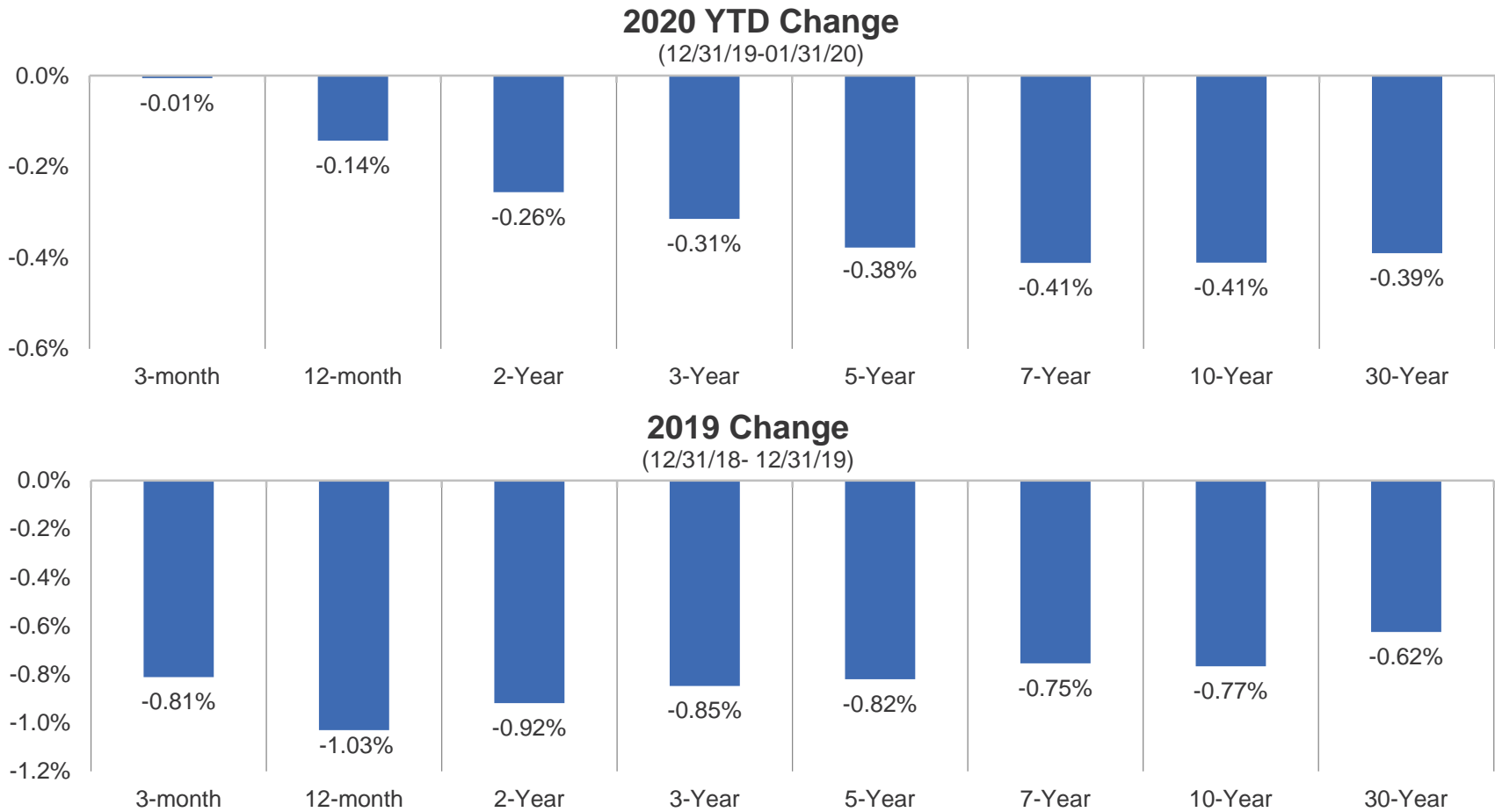
Treasury Yield Curve Becomes Inverted Once Again



Source: Bloomberg, as of 01/31/2020.



Treasury Yields Resume Downtrend



Source: Bloomberg, as of 01/31/2020.



Yield Environment as of January 31, 2020

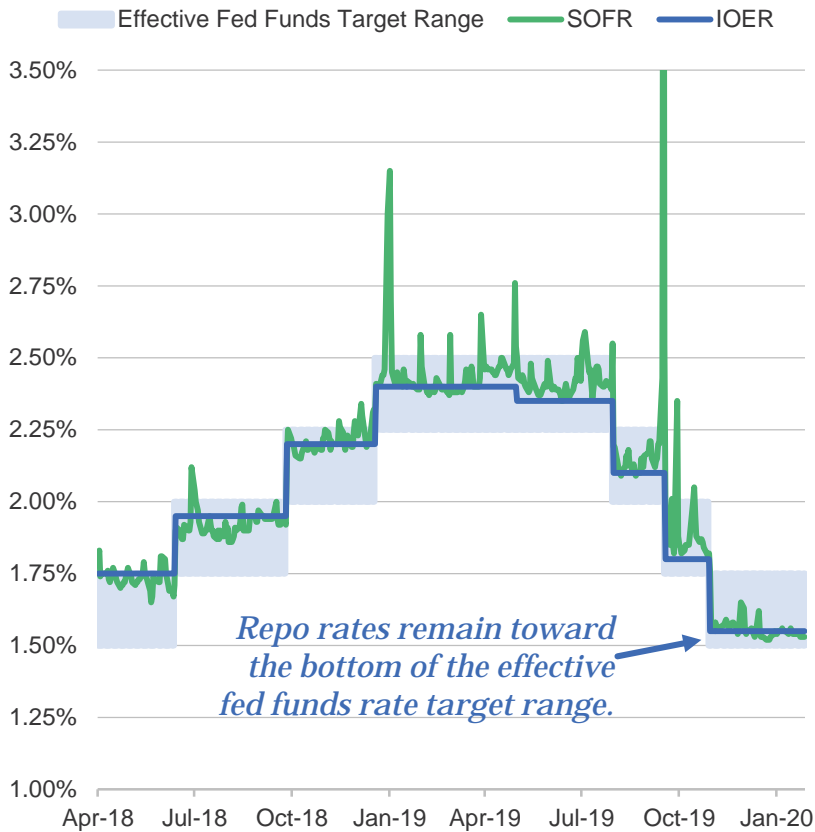
Maturity	Treasury	Federal Agency	AA Corporate	A Corporate	BBB Corporate
3-Month	1.54%	1.54%	1.66%	1.73%	1.92%
1-Year	1.42%	1.45%	1.59%	1.66%	1.89%
2-Year	1.31%	1.43%	1.52%	1.63%	1.90%
3-Year	1.29%	1.40%	1.54%	1.67%	1.96%
5-Year	1.31%	1.48%	1.71%	1.84%	2.19%
10-Year	1.51%	1.80%	2.16%	2.34%	2.82%

Source: Bloomberg BVAL yield curves for Treasury, Agency, and Corporate. 3-month corporate yields from commercial paper; A-1+ for AA and A-1 for A. Yields are for indicative purposes only; actual yields may vary by issue.

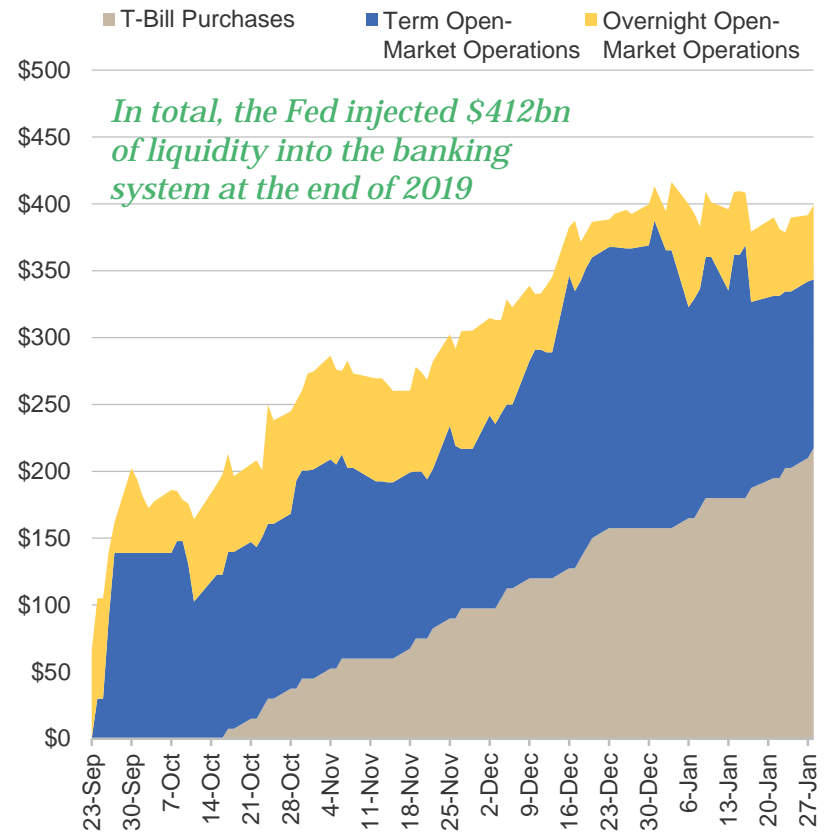


Fed Open Market Operations and T-Bill Purchases to Keep Repo Rates under Control

Repo Rate



Open Market Operations



Source: Bloomberg, Federal Reserve Bank of St. Louis, J.P. Morgan, as of 1/28/20.

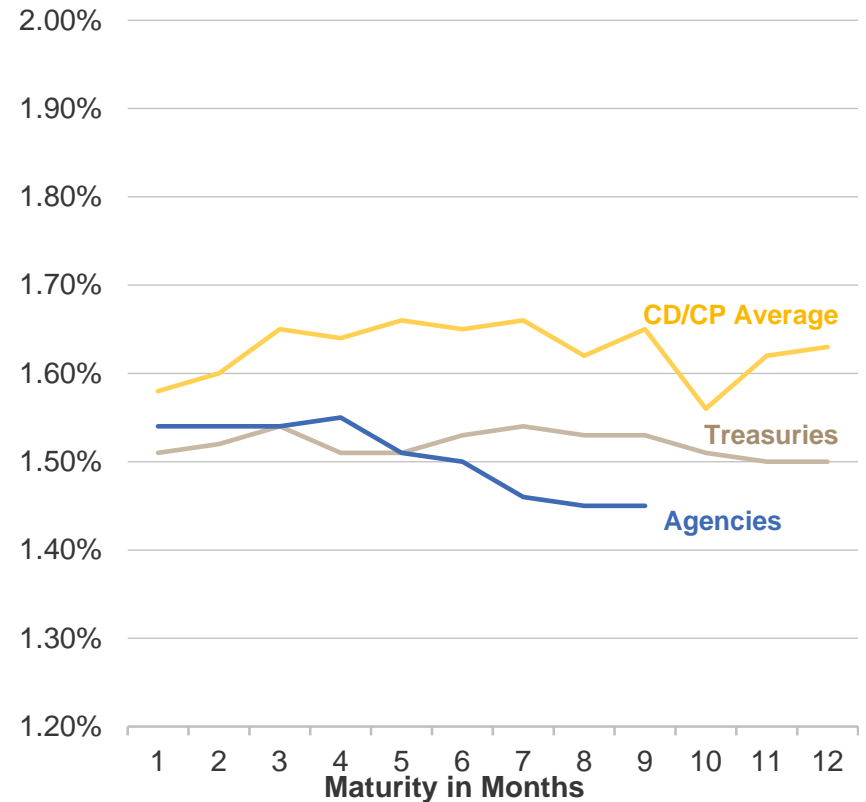


Short-Term Credit Spreads Have Tightened Back to Less Attractive Levels

Yield Spread on 6-month Commercial Paper over T-Bill



Money Market Yield Curves

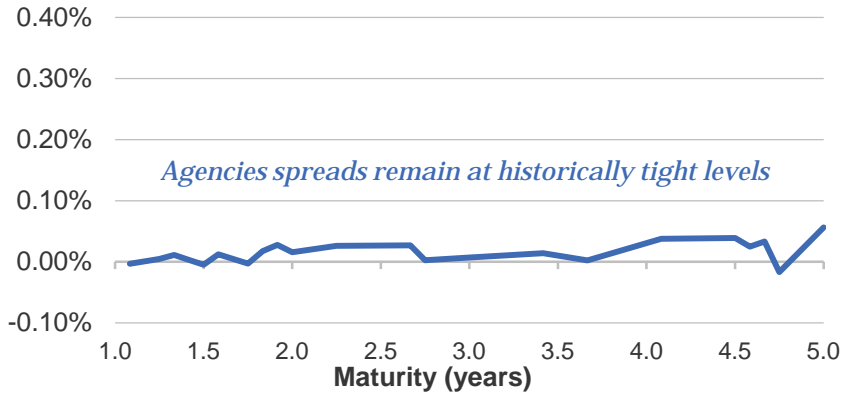


Source (left): Bloomberg, as of 01/31/2020. Source (right): PFM Trading Desk, as of 01/31/2020. 6-mo CP yield spread based on A1/P1 rated CP index.



Spread Sectors Provide Only Modest Value

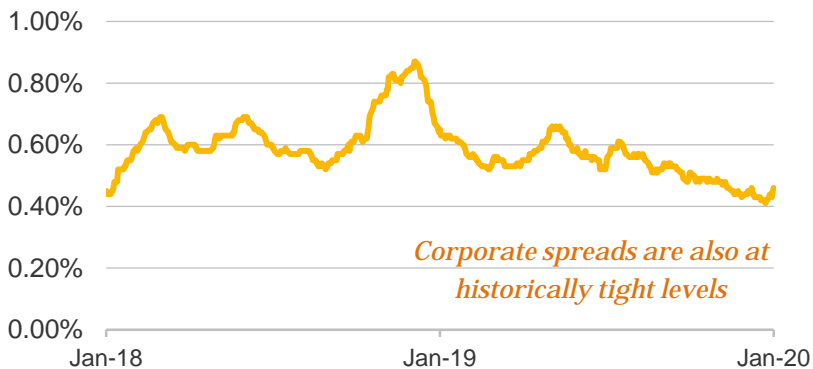
Federal Agency Yield Spreads



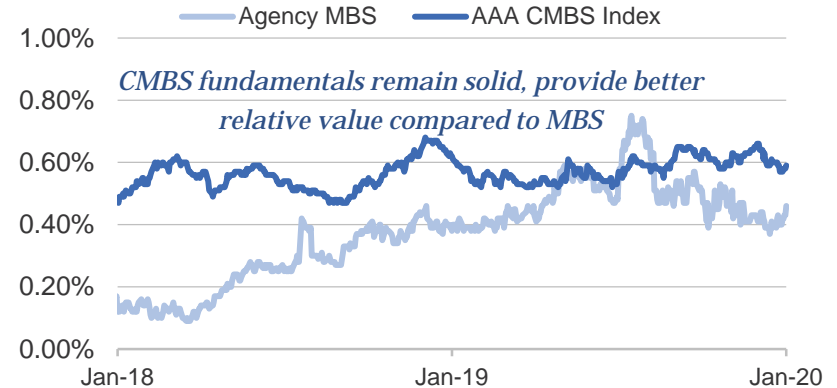
Auto Asset-Backed Securities Yield Spreads



Corporate Notes (1-5 yr A-AAA) Yield Spreads



Mortgage-Backed Securities Yield Spreads

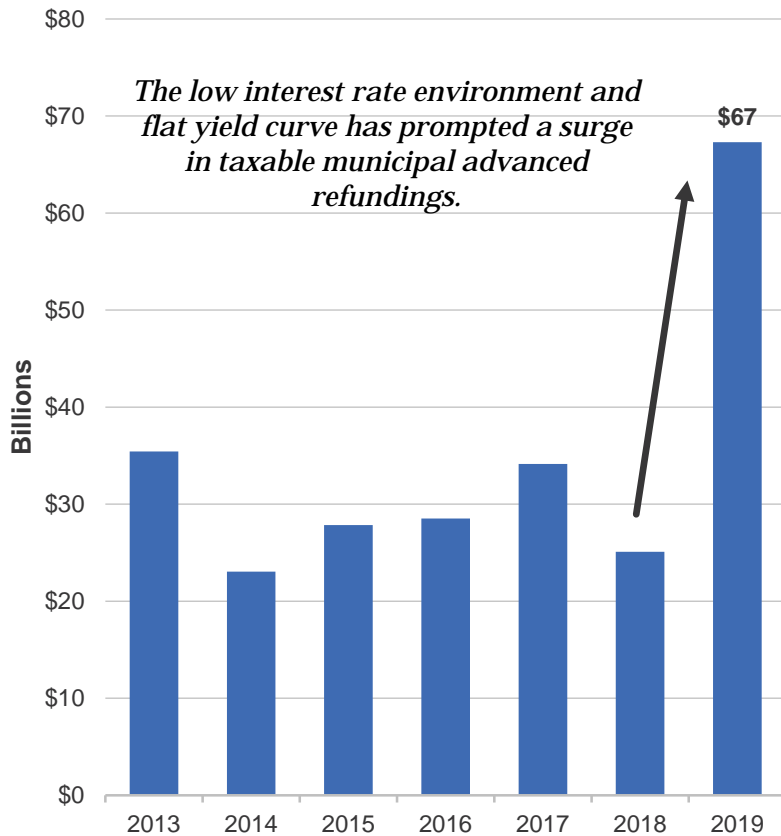


Source: ICE BofAML 1-5 year Indices via Bloomberg, MarketAxess and PFM as of January 31, 2020. Spreads on ABS and MBS are option-adjusted spreads of 0-5 year indices based on weighted average life; spreads on agencies are relative to comparable maturity Treasuries. CMBS is Commercial Mortgage-Backed Securities.



Taxable Municipal Securities Are Attractive, but Supply Constrained

Taxable Municipal Bond Issuance



Yield Spread on 5-Year AA-Rated Taxable Municipals

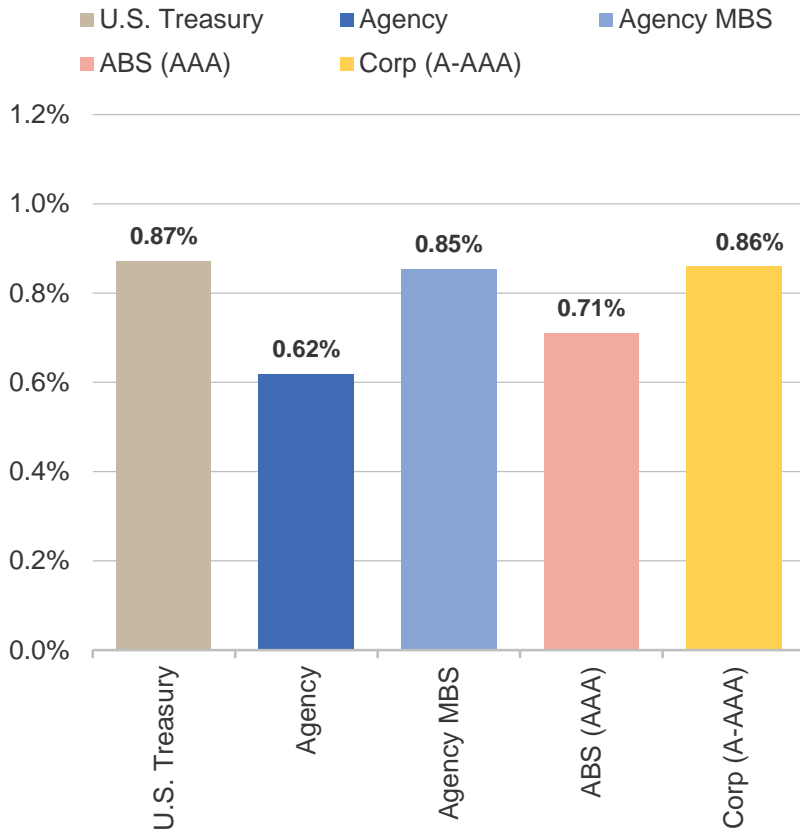


Source: Bloomberg BVAL yield spread, as of January 31, 2020.



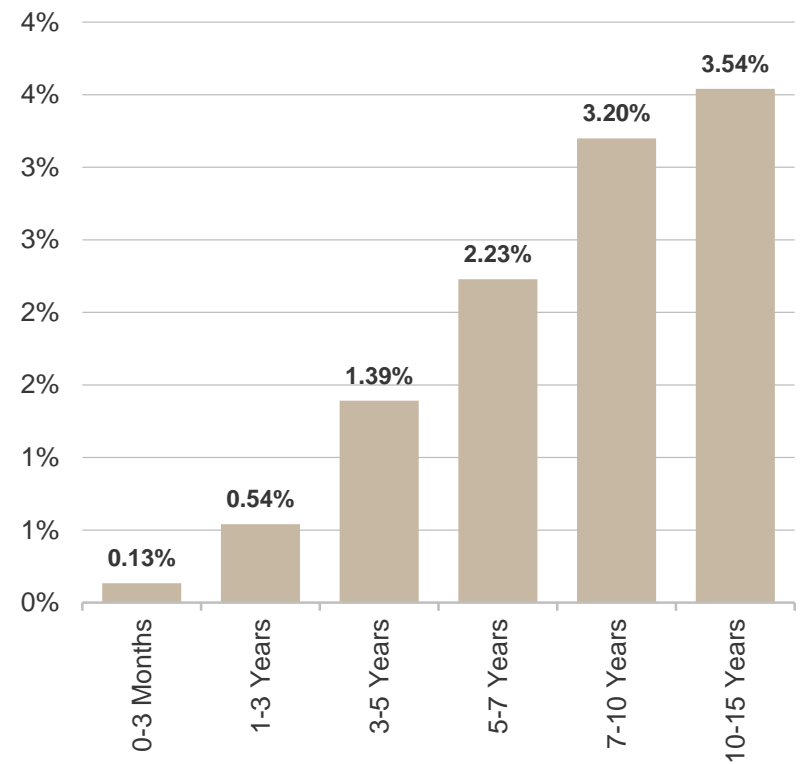
Fall in Rates Leads to Strong Absolute Returns in January

1-5 Year Index Returns



Treasury Returns

January 2020



Source: ICE BofAML Indices. ABS indices are 0-5 year, based on weighted average life. MBS is the ICE BofAML 15-Year MBS Index.



Fixed-Income Index Returns

January 31, 2020	Effective Duration	Yield	YTD	1 Month	3 Month	1 Year	3 Years	5 Years
1-3 Year Indices								
U.S. Treasury	1.78	1.44%	0.54%	0.54%	0.72%	3.83%	1.98%	1.40%
Agency	1.44	1.39%	0.43%	0.43%	0.67%	3.63%	2.06%	1.50%
Corp A-AAA	1.73	1.79%	0.54%	0.54%	0.93%	4.85%	2.86%	2.23%
ABS (0 to 3 Years)	1.14	1.76%	0.57%	0.57%	0.83%	3.80%	2.40%	1.87%
1-5 Year Indices								
U.S. Treasury	2.53	1.41%	0.87%	0.87%	0.91%	4.77%	2.35%	1.65%
Agency	1.92	1.37%	0.62%	0.62%	0.79%	4.11%	2.25%	1.65%
Corp A-AAA	2.51	1.80%	0.86%	0.86%	1.22%	6.21%	3.41%	2.63%
MBS (15 Years)	2.81	1.91%	0.85%	0.85%	1.22%	5.67%	2.98%	2.13%
ABS (0 to 5 Years)	1.39	1.79%	0.71%	0.71%	0.90%	4.17%	2.53%	1.98%
Master Indices (Maturities 1 Year and Greater)								
U.S. Treasury	6.82	1.55%	2.56%	2.56%	1.62%	9.22%	4.17%	2.35%
Agency	4.21	1.54%	1.57%	1.57%	1.23%	7.13%	3.55%	2.33%
Corp A-AAA	7.85	2.35%	2.45%	2.45%	2.60%	13.22%	6.12%	4.06%
MBS (0 to 30 Years)	2.87	2.30%	0.72%	0.72%	1.06%	6.39%	3.56%	2.58%
Municipals	6.84	1.60%	1.79%	1.79%	2.31%	8.85%	5.14%	3.60%

Source: ICE BofAML Indices. Returns greater than one year are annualized.



Fixed-Income Sector Outlook – February 2020

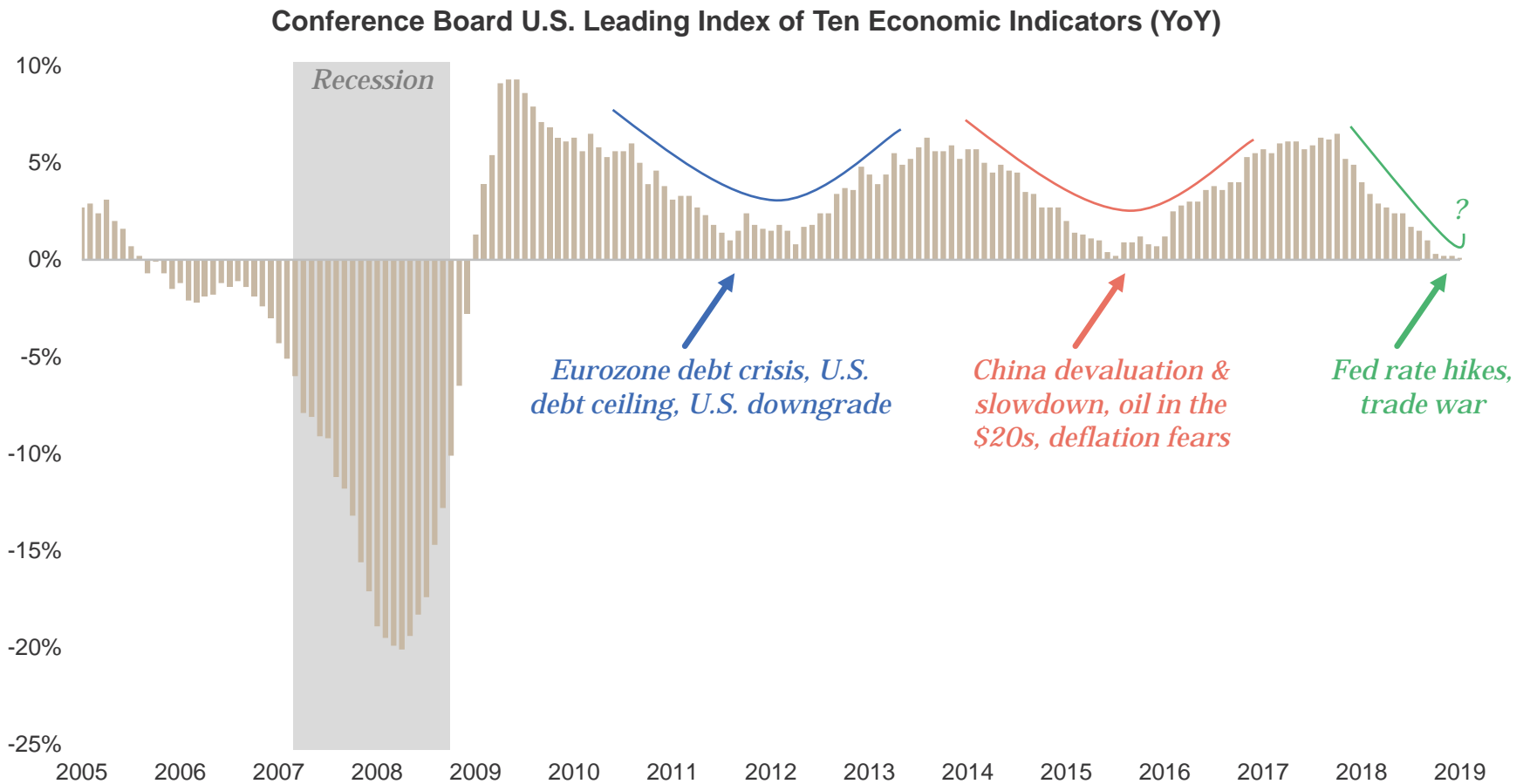
Sector	Our Investment Preferences	Comments
COMMERCIAL PAPER / CD		<ul style="list-style-type: none"> Money market credit spreads have compressed even with the pick-up in issuance.
TREASURIES	 T-Bill T-Note	<ul style="list-style-type: none"> The U.S. government is increasing net issuance over the coming months to cover tax refunds; this increase in supply has made T-Bills more attractive. Given tight spreads in other sectors and the potential for lower rates later in 2020, T-Notes offer attractive yield.
FEDERAL AGENCIES	 Bullets Callables	<ul style="list-style-type: none"> Bullet valuations remain near historical tightness across the curve and continue to trade in a relatively narrow range. New issues should be evaluated for opportunities to add relative value; otherwise, Treasuries should be preferred. Callable spread pick-up vs. bullets remains well below recent averages with little chance for outperformance. Accounts should favor bulleted structures vs. callable.
SUPRANATIONALS		<ul style="list-style-type: none"> Spreads remain anchored across the curve. New supply has emerged, but greater market demand resulted in little movement in spreads. New issues should be evaluated for opportunities to add relative value.
CORPORATES	 Financials Industrials	<ul style="list-style-type: none"> Solid economic data, an accommodative Fed, and positive technicals continue to support the corporate sector. Tight valuations limit the potential for outperformance in 2020. A growing list of uncertainties and pending supply could result in wider spreads and better buying opportunities.
SECURITIZED	 Asset-Backed Agency Mortgage-Backed Agency CMBS	<ul style="list-style-type: none"> AAA-rated ABS yield spreads have tightened to near record lows. Consumer ABS fundamentals remain solid; however, tight valuations will make it difficult to see outperformance. A rally in Treasuries has increased prepayment risk for MBS. This, combined with a slight uptick in volatility, resulted in YTD underperformance in MBS. However, MBS spreads are on the wide-end of recent ranges relative to other sectors, which may present a buying opportunity going forward. Agency CMBS spreads have narrowed in 2020. The sector has good relative value compared to other government sectors especially in shorter maturities.
MUNICIPALS		<ul style="list-style-type: none"> Value in new issue taxable deals has decreased due to high investor demand.



New or Topical Material



Current Expansion Features “Mini-Cycles”

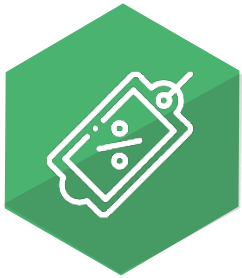


Source: Bloomberg & Wall Street Journal, as of 01/31/20.



Retail Sales Show Modest Growth in December

December 2019



retail
+0.3%



auto and other motor vehicles
-1.3%



clothing and clothing accessories
+1.6%



furniture and home furnishings
+0.1%



building material
+1.4%

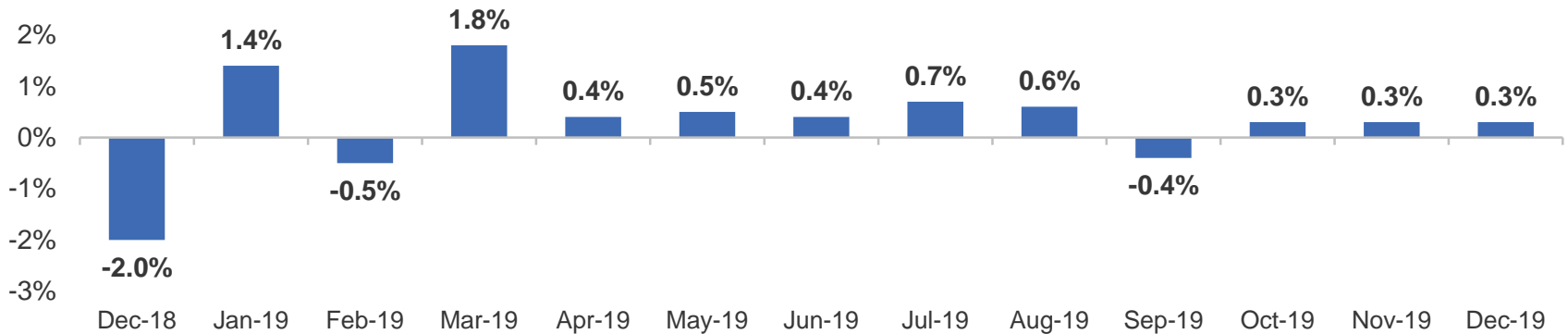


food and beverage stores
+0.4%



gasoline stations
+2.8%

Retail Sales



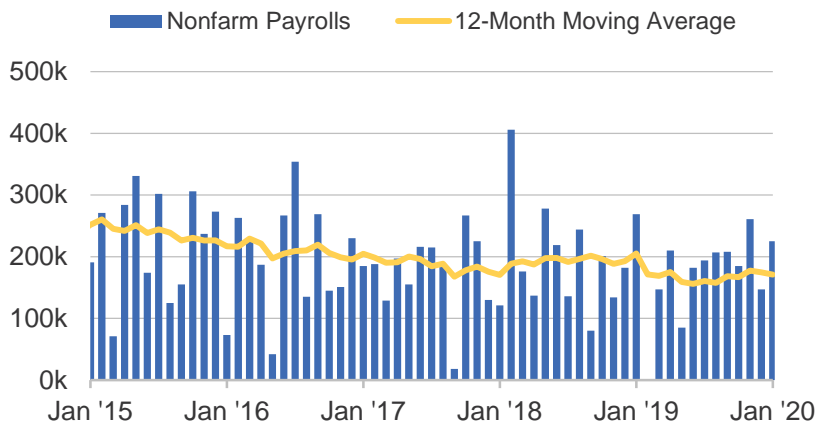
Source (top): U.S. Census Bureau, as of 12/31/2019. Source (bottom): Bloomberg.



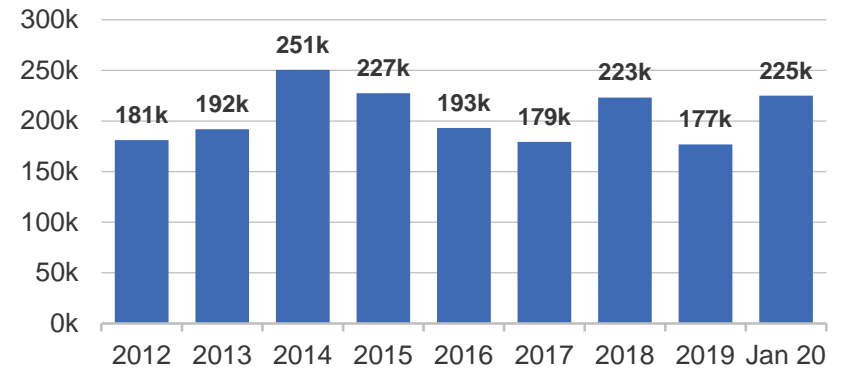
Robust U.S. Job Growth in January

- ◆ The U.S. economy added 225,000 jobs, exceeding expectations of 165,000 for the month
 - The unemployment rate edged higher to 3.6%
 - Wage growth rose 3.1%, better than the 2.9% increase in December
- ◆ Labor participation rose to 63.4% as more Americans entered the workforce amid low unemployment and faster wage gains.

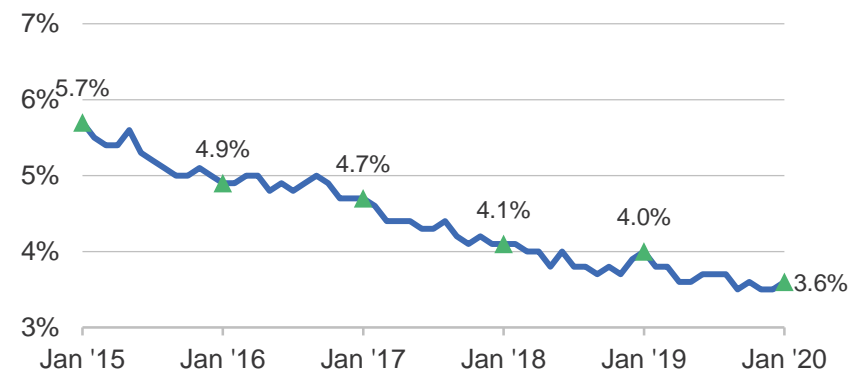
Monthly Change in Non-Farm Payrolls



Average Monthly Job Growth



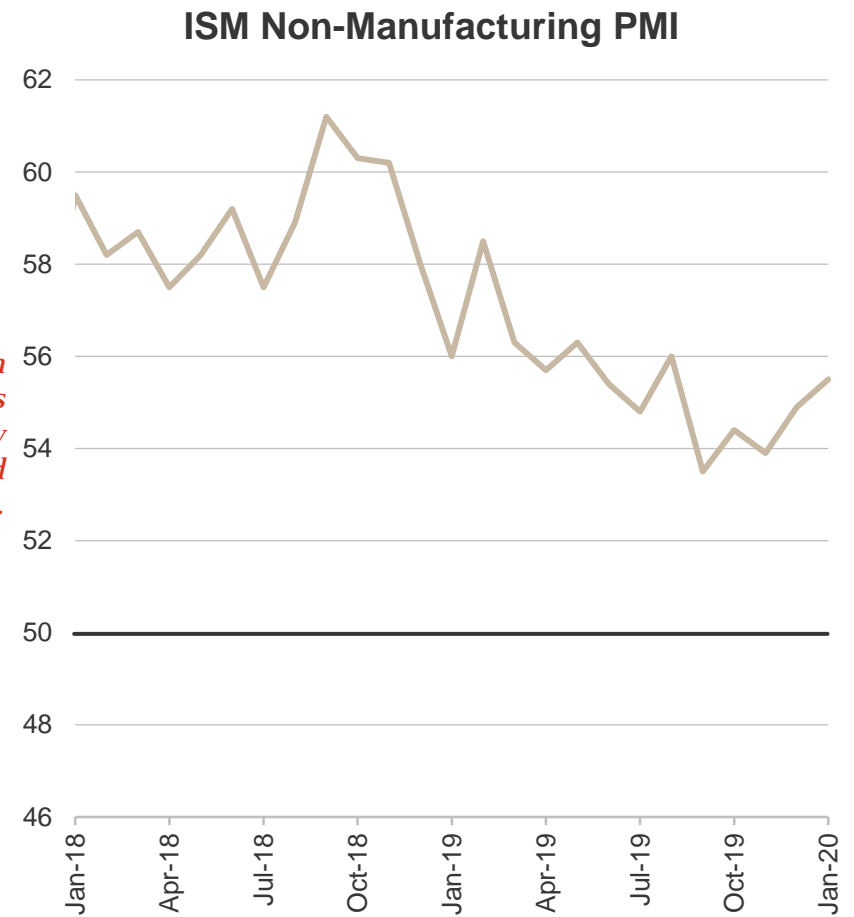
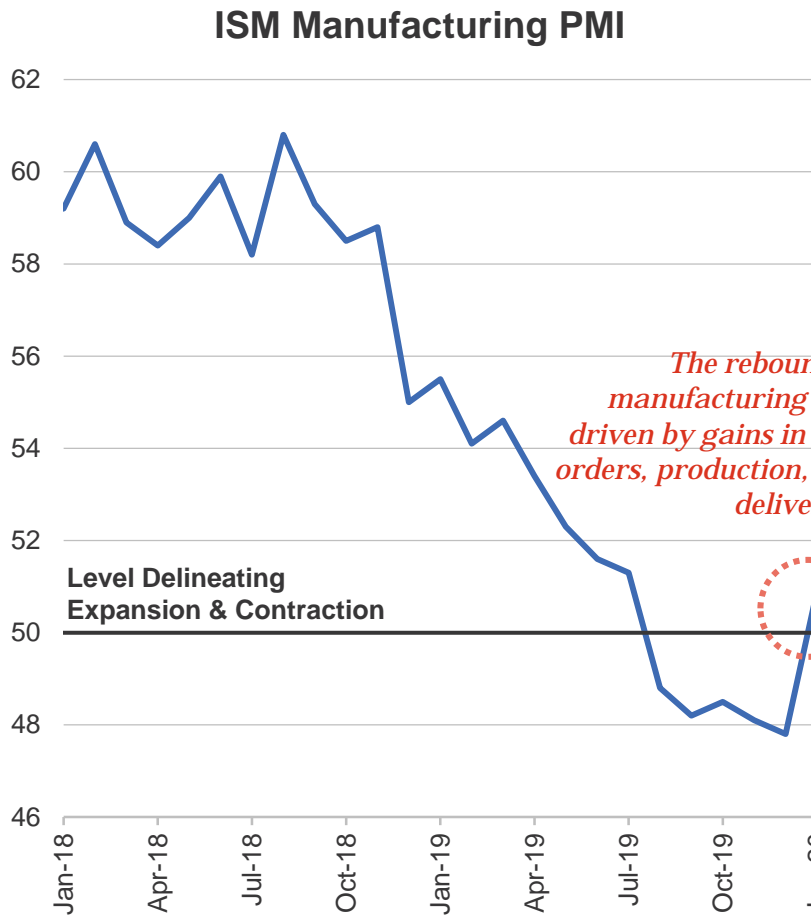
Unemployment Rate



Source: Bloomberg, as of January 2020.



Manufacturing Sector Bounces Back

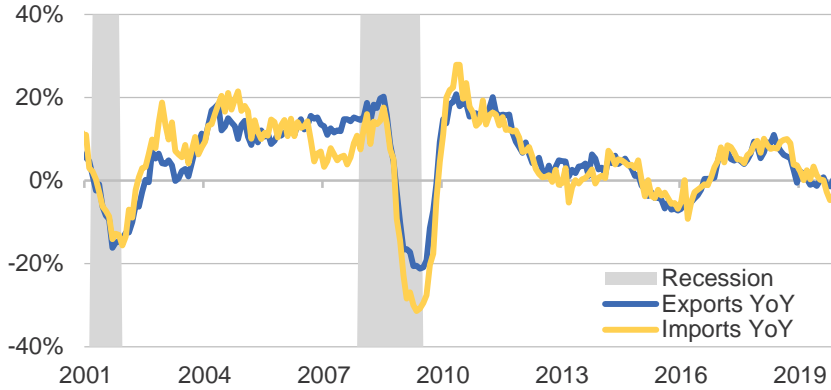


Source: Bloomberg, as of January 2020.

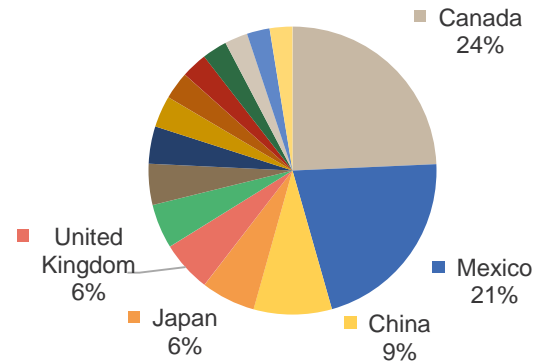


Trade Tensions Span Worldwide

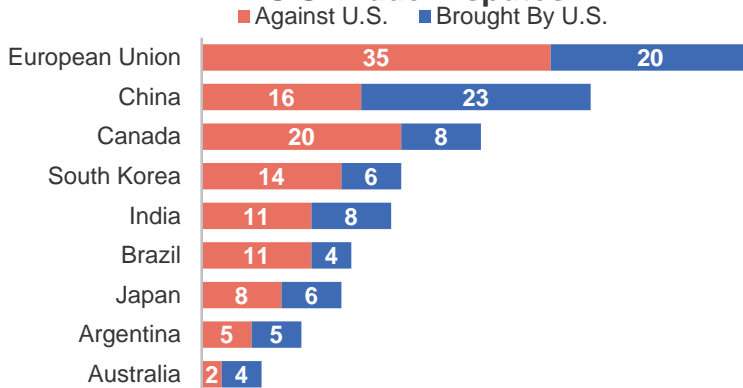
U.S. Trade Flows Soften



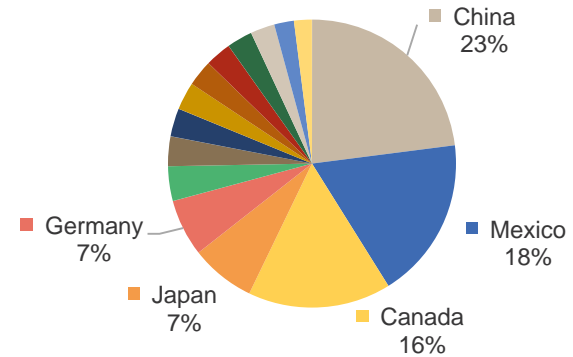
U.S. Export Destination YTD



U.S. Trade Disputes



U.S. Import Destination YTD

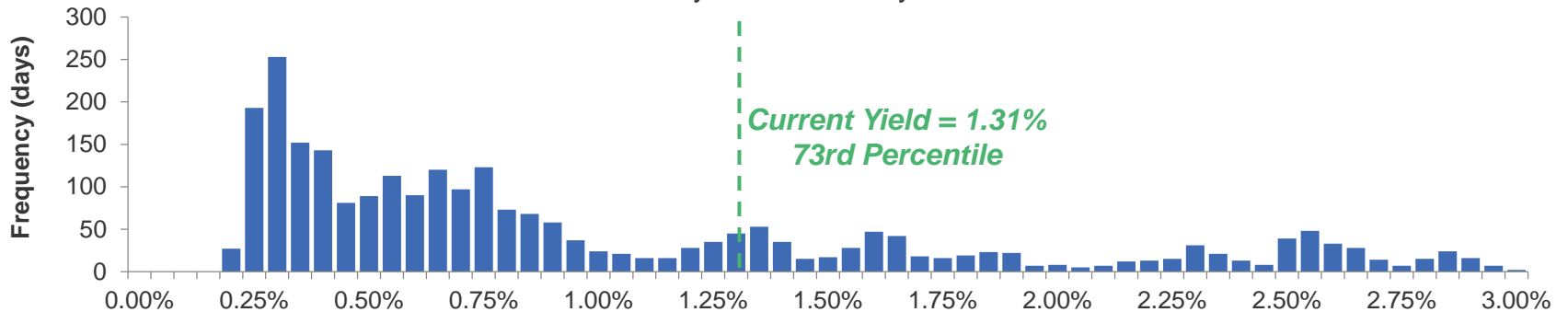


Source: Bloomberg, WTO, as of 12/31/2019. Trade disputes arise when one government believes another government is violating an agreement or commitment it has made in the World Trade Organisation (WTO).

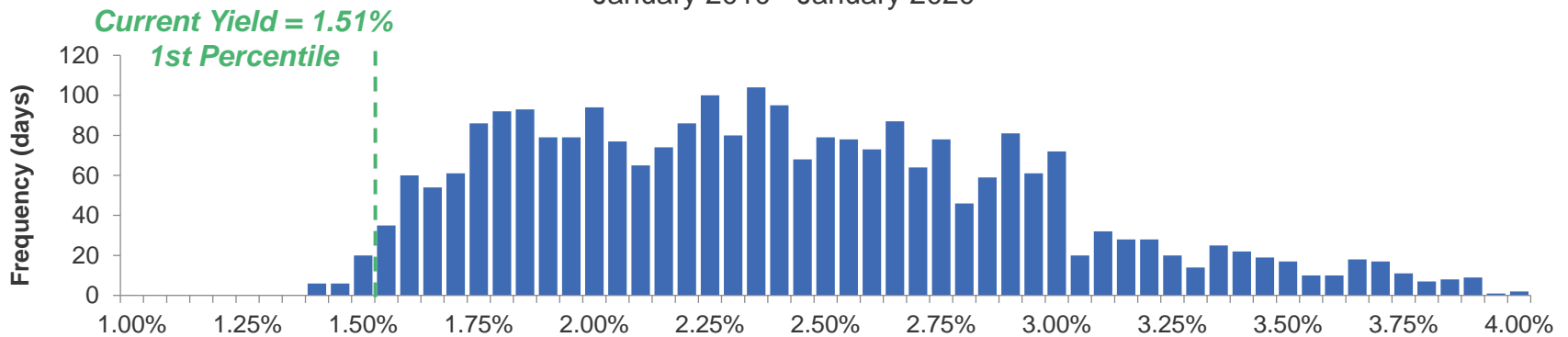


U.S. Treasury Yields – Where are We Now?

2-Year U.S. Treasury Yield
January 2010 - January 2020



10-Year U.S. Treasury Yield
January 2010 - January 2020



Source: Bloomberg, as of 1/31/2020.

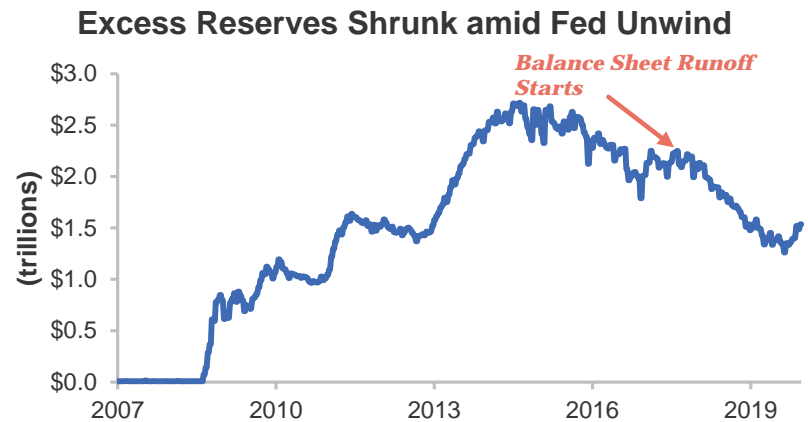


Federal Reserve's Balance Sheet Expands

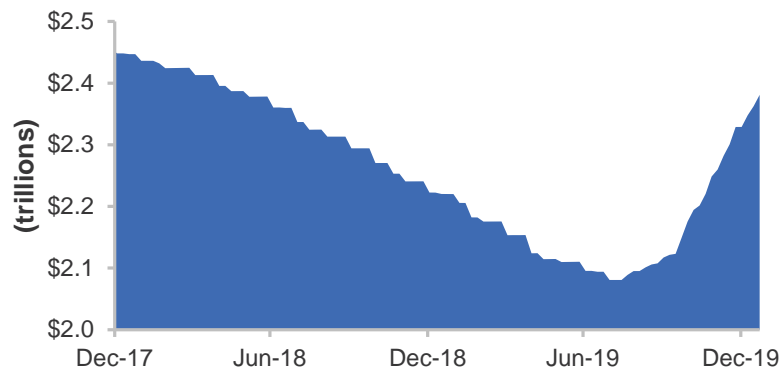
(in billion)	Treasury Holdings	MBS Holdings	Total Fed Assets
Dec 2017 (Peak)	\$2,454	\$1,765	\$4,449
Jan 2020	\$2,381	\$1,400	\$4,146

Permanent Open Market Operations

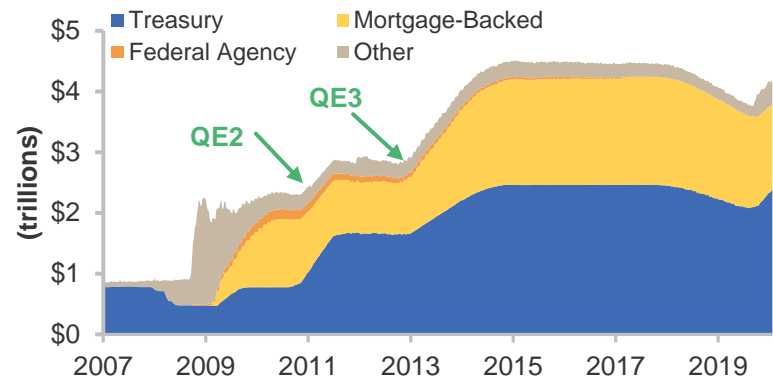
- Fed plans to purchase approximately \$60 billion Treasury bills per month at least into Q2 2020.



Fed Treasury Holdings



Fed's Balance Sheet Assets



Source: PFM, Bloomberg, The Federal Reserve, FRB of St. Louis, as of 1/28/20.



The Fed's Economic Projections – December 2019

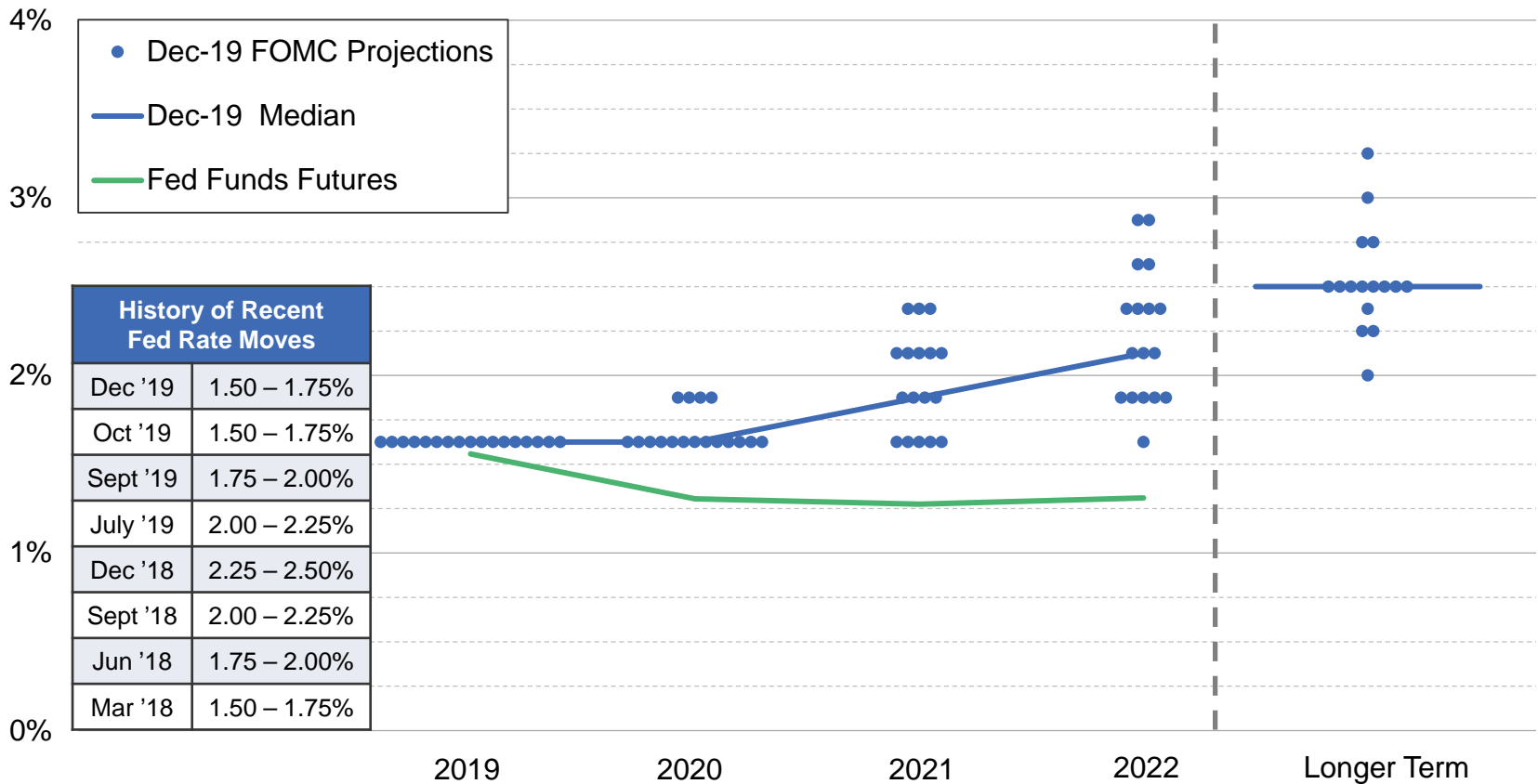
Indicator	2019		2020		2021		Longer run	
	Sept.	Dec.	Sept.	Dec.	Sept.	Dec.	Sept.	Sept.
Real GDP (YoY)	2.2%	2.2%	2.0%	2.0%	1.9%	1.9%	1.9%	1.9%
Unemployment Rate	3.7%	3.6%	3.7%	3.5%	3.8%	3.6%	4.2%	4.1%
PCE Inflation (YoY)	1.5%	1.5%	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%
Core PCE (YoY)	1.8%	1.6%	1.9%	1.9%	2.0%	2.0%	-	-
Federal Funds Rate (Median)	1.9%	1.6%	1.9%	1.6%	2.1%	1.9%	2.5%	2.5%

Source: Federal Reserve, as of September 2019. Green denotes an improved projection in June compared to March, red for worse.



Federal Reserve May Be on Hold for Foreseeable Future

Fed Participants' Assessments of 'Appropriate' Monetary Policy



Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the federal funds rate at each year-end. Fed funds futures as of 12/11/19.



1-3 Year Index Returns

January 31, 2020	Effective Duration	Yield	YTD	1 Month	3 Month	1 Year	3 Years	5 Years
U.S. Treasury	1.78	1.44%	0.54%	0.54%	0.72%	3.83%	1.98%	1.40%
Agency	1.44	1.39%	0.43%	0.43%	0.67%	3.63%	2.06%	1.50%
Non-callable	1.67	1.48%	0.48%	0.48%	0.71%	3.80%	2.09%	1.50%
Callable	0.57	1.07%	0.23%	0.23%	0.54%	2.99%	1.92%	1.49%
U.S. Treasury/Agency	1.77	1.43%	0.54%	0.54%	0.72%	3.82%	1.99%	1.41%
Corp A-AAA	1.73	1.79%	0.54%	0.54%	0.93%	4.85%	2.86%	2.23%
Corp AAA	1.74	1.59%	0.49%	0.49%	0.83%	4.41%	2.48%	1.84%
Corp AA	1.62	1.68%	0.51%	0.51%	0.82%	4.54%	2.71%	2.07%
Corp A	1.77	1.83%	0.56%	0.56%	0.96%	4.97%	2.92%	2.30%
Corp BBB	1.78	2.07%	0.61%	0.61%	1.13%	5.91%	3.38%	2.85%
Corp/Govt	1.77	1.56%	0.55%	0.55%	0.80%	4.24%	2.30%	1.70%
ABS 0 - 3	1.14	1.76%	0.57%	0.57%	0.83%	3.80%	2.40%	1.87%
Corp/Govt/Mtge	1.76	1.57%	0.55%	0.55%	0.82%	4.26%	2.32%	1.71%
Supranationals	1.76	1.49%	0.58%	0.58%	0.78%	4.10%	2.31%	1.63%

Source: ICE BofAML Indices. Returns greater than one year are annualized.



1-5 Year Index Returns

January 31, 2020	Effective Duration	Yield	YTD	1 Month	3 Month	1 Year	3 Years	5 Years
U.S. Treasury	2.53	1.41%	0.87%	0.87%	0.91%	4.77%	2.35%	1.65%
Agency	1.92	1.37%	0.62%	0.62%	0.79%	4.11%	2.25%	1.65%
<i>Non-callable</i>	2.27	1.47%	0.72%	0.72%	0.86%	4.39%	2.32%	1.68%
<i>Callable</i>	0.82	1.06%	0.29%	0.29%	0.59%	3.16%	2.03%	1.54%
U.S. Treasury/Agency	2.51	1.41%	0.86%	0.86%	0.90%	4.75%	2.35%	1.65%
Corp A-AAA	2.56	2.06%	6.33%	0.33%	0.81%	6.33%	3.22%	2.67%
<i>Corp AAA</i>	2.43	1.60%	0.75%	0.75%	0.98%	5.47%	3.01%	2.13%
<i>Corp AA</i>	2.26	1.70%	0.75%	0.75%	1.00%	5.50%	3.12%	2.39%
<i>Corp A</i>	2.58	1.89%	0.89%	0.89%	1.28%	6.42%	3.51%	2.71%
<i>Corp BBB</i>	2.65	2.21%	0.96%	0.96%	1.56%	7.93%	4.17%	3.44%
Corp/Govt	2.52	1.59%	0.87%	0.87%	1.04%	5.43%	2.79%	2.05%
MBS 15 Years	2.81	1.91%	0.85%	0.85%	1.22%	5.67%	2.98%	2.13%
ABS 0 - 5	1.39	1.79%	0.71%	0.71%	0.90%	4.17%	2.53%	1.98%
Corp/Govt/Mtge	2.40	1.65%	0.84%	0.84%	1.04%	5.52%	2.82%	2.09%
Supranationals	2.43	1.57%	0.84%	0.84%	0.97%	5.20%	2.84%	2.00%

Source: ICE BofAML Indices. Returns greater than one year are annualized.



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