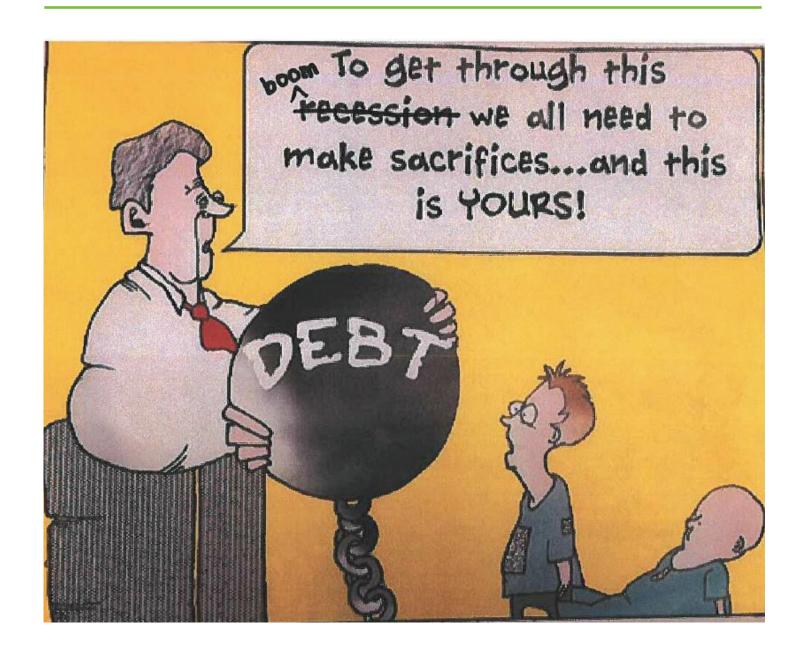
# **CHARTBOOK**

JANUARY 2020



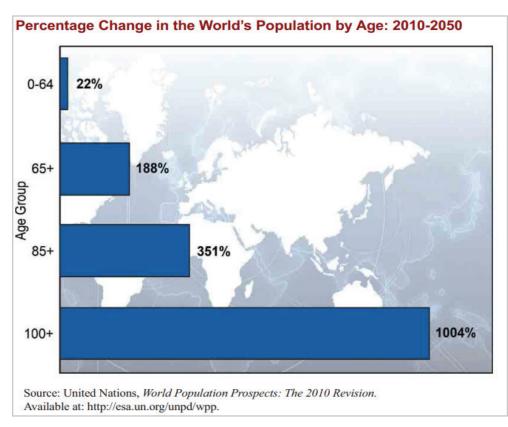
Enrich your life. Enjoy your wealth.

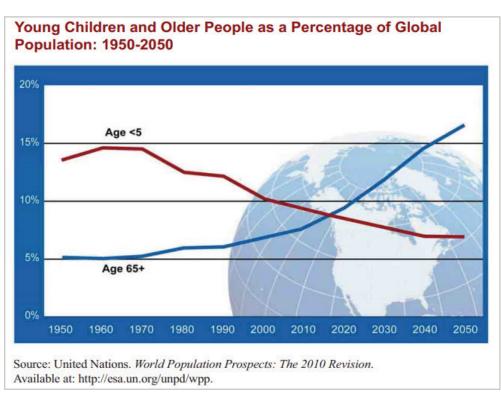


# **GLOBAL DEMOGRAPHICS CONTINUE TO IMPACT GROWTH**

The aging of the developed world, and increasingly, the developing world, will continue to moderate global growth.

Note that by 2050, youngsters will have fallen from almost 15% of the population to about 7% while those over 65 will have grown from 5% of the population to almost 17%.

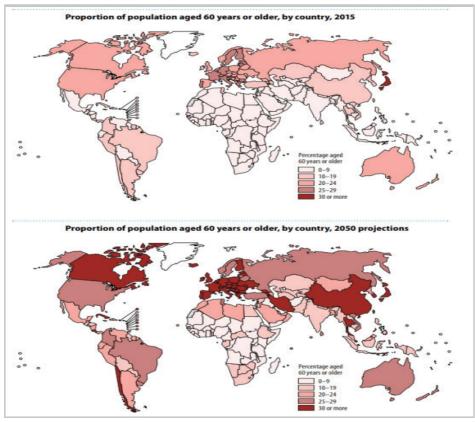




# **GLOBAL GROWTH IMPACTED BY AGING WORLD**

Again, the aging of the world population has a lot to do with modest economic growth.

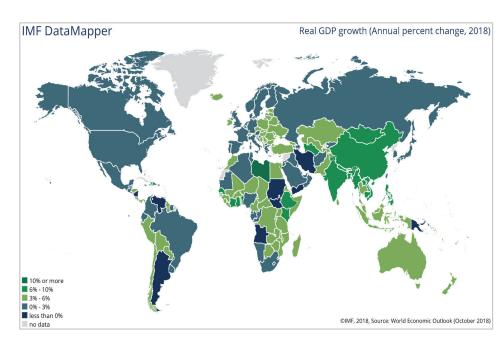
However, older people are working longer; partially moderating worker drain.



Source: World Report on Ageing and Health 2015.

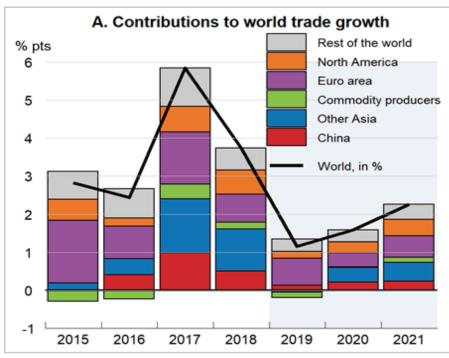
# NOT SURPRISINGLY, GDP GROWTH FOLLOWS YOUTH

The Developed World is and will continue to grow more slowly. GDP growth is highly correlated to a young, growing population.



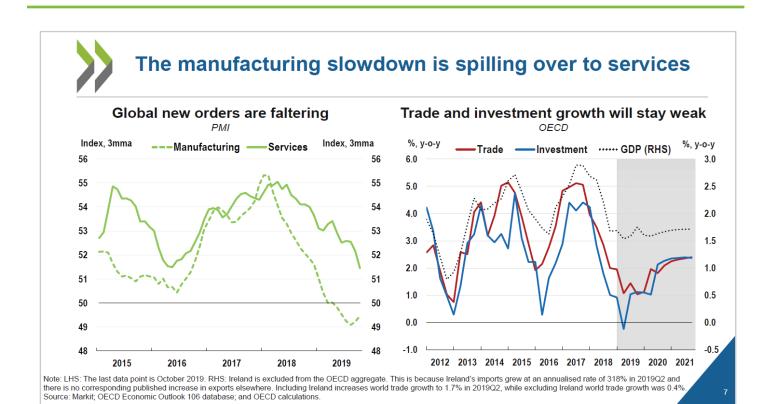
# **GLOBAL GROWTH WILL REMAIN SLOW**

The world IS expected to keep growing, albeit modestly with Developing economies growing the fastest.



Source: OECD Economic Outlook 106 Database.

# TARIFFS FINALLY STYMIED GLOBAL TRADE



5

# **DEVELOPING ECONOMIES WILL CONTINUE TO GROW FASTER**



# **OECD Economic Outlook projections**

### Real GDP growth

Percent, year-on-year. Arrows indicate the direction of revisions since the September 2019 Interim Economic Outlook

	2019	2020	2021		2019	2020	2021
World	2.9	2.9 🖐	3.0	G20	3.1	3.2	3.3
Australia	1.7 📦	2.3 👚	2.3	Argentina	-3.0 🖊	-1.7 👚	0.7
Canada	1.5 📦	1.6 📦	1.7	Brazil	0.8	1.7 📦	1.8
Euro area	1.2 👚	1.1 👚	1.2	China	6.2 👚	5.7 📫	5.5
Germany	0.6	0.4 🐣	0.9	India <sup>1</sup>	5.8 👢	6.2 🐣	6.4
France	1.3	1.2 📦	1.2	Indonesia	5.0	5.0	5.1
Italy	0.2	0.4	0.5	Mexico	0.2 🖊	1.2 🚚	1.6
Japan	1.0	0.6	0.7	Russia	1.1 👚	1.6 📫	1.4
Korea	2.0 🚚	2.3 📫	2.3	Saudi Arabia	0.2 🖊	1.4 🚚	1.4
United Kingdom	1.2 👚	1.0 👚	1.2	South Africa	0.5	1.2 👚	1.3
United States	2.3 👢	2.0	2.0	Turkey	0.3	3.0 👚	3.2

Note: Difference in percentage points based on rounded figures. The European Union is a full member of the G20, but the G20 aggregate only includes countries that are members in their own right.

1. Fiscal years starting in April.

Source: OECD Economic Outlook 106 database; and OECD calculations.

downward by 0.3 pp and more downward by less than 0.3 pp



# **OECD Economic Outlook projections**

no change e upward by less than 0.3 pp

### Real GDP growth

Percent, year-on-year

	2019	2020	2021		2019	2020	2021
Austria	1.5	1.3	1.3	Latvia	2.3	2.5	2.7
Belgium	1.3	1.1	1.1	Lithuania	3.6	2.5	2.5
Chile	2.2	2.4	3.5	Luxembourg	3.3	2.8	2.3
Colombia	3.4	3.5	3.3	Netherlands	1.7	1.8	1.6
Costa Rica	2.0	2.2	2.3	New Zealand	2.7	2.5	2.4
Czech Republic	2.6	2.1	2.3	Norway	1.1	2.4	2.3
Denmark	1.8	1.4	1.4	Poland	4.3	3.8	3.0
Estonia	3.2	2.2	2.2	Portugal	1.9	1.8	1.7
Finland	1.3	1.0	0.9	Slovak Republic	2.5	2.2	2.6
Greece	1.8	2.1	2.0	Slovenia	2.0	1.6	1.6
Hungary	4.8	3.3	3.1	Spain	3.1	3.0	3.1
Iceland	0.8	1.6	2.6	Sweden	1.4	1.2	1.2
Ireland	5.6	3.3	3.0	Switzerland	0.8	1.4	1.0
Israel	3.1	2.9	2.9				

Source: OECD Economic Outlook 106 database; and OECD calculations.

# JANUARY, 2020 WEOU UPDATE: GLOBAL GROWTH RATE SLIPPED A BIT

Table 1. Overview of the World Economic Outlook Projections

(Percent change, unless noted otherwise)

			Year	over Year						
					Difference from		Q4 o	over Q4 2/		
	_	Estimate	Projecti		WEO Projecti		Estimate	Projecti		
	2018	2019	2020	2021	2020	2021	2019	2020	2021	
World Output	3.6	2.9	3.3	3.4	-0.1	-0.2	2.9	3.5	3.3	
Advanced Economies	2.2	1.7	1.6	1.6	-0.1	0.0	1.5	1.9	1.4	
United States	2.9	2.3	2.0	1.7	-0.1	0.0	2.3	2.0	1.6	
Euro Area	1.9	1.2	1.3	1.4	-0.1	0.0	1.0	1.7	1.2	
Germany	1.5	0.5	1.1	1.4	-0.1	0.0	0.3	1.2	1.5	
France	1.7 0.8	1.3 0.2	1.3 0.5	1.3 0.7	0.0 0.0	0.0	1.2 0.3	1.3 0.9	1.4 0.5	
Italy	2.4		1.6	-	-0.2	-0.1		1.6	1.6	
Spain Japan	0.3	2.0 1.0	0.7	1.6 0.5	-0.2 0.2	-0.1 0.0	1.7 0.5	1.6	-0.3	
United Kingdom	1.3	1.3	1.4	1.5	0.2	0.0	0.9	1.8	1.5	
Canada	1.9	1.5	1.8	1.8	0.0	0.0	1.8	1.7	1.8	
Other Advanced Economies 3/	2.6	1.5	1.9	2.4	-0.1	0.0	1.4	2.4	2.3	
Emerging Market and Developing Economies	4.5	3.7	4.4	4.6	-0.2	-0.2	4.0	4.8	4.8	
Emerging and Developing Asia	6.4	5.6	5.8	5.9	-0.2	-0.3	5.3	6.0	5.8	
China	6.6	6.1	6.0	5.8	0.2	-0.1	5.9	5.9	5.8	
India 4/	6.8	4.8	5.8	6.5	-1.2	-0.9	4.3	6.9	6.1	
ASEAN-5 5/	5.2	4.7	4.8	5.1	-0.1	-0.1	4.6	4.8	5.	
Emerging and Developing Europe	3.1	1.8	2.6	2.5	0.1	0.0	2.8	2.4	2.6	
Russia	2.3	1.1	1.9	2.0	0.0	0.0	1.5	1.6	2.4	
Latin America and the Caribbean	1.1	0.1	1.6	2.3	-0.2	-0.1	0.0	2.0	2.4	
Brazil	1.3	1.2	2.2	2.3	0.2	-0.1	1.8	2.0	2.4	
Mexico	2.1	0.0	1.0	1.6	-0.3	-0.3	0.1	1.2	1.8	
Middle East and Central Asia	1.9	0.8	2.8	3.2	-0.1	0.0				
Saudi Arabia	2.4	0.2	1.9	2.2	-0.3	0.0	-0.9	2.7	2.2	
Sub-Saharan Africa	3.2	3.3	3.5	3.5	-0.1	-0.2				
Nigeria	1.9	2.3	2.5	2.5	0.0	0.0				
South Africa	8.0	0.4	0.8	1.0	-0.3	-0.4	0.3	0.6	1.3	
Memorandum										
Low-Income Developing Countries	5.0	5.0	5.1	5.1	0.0	-0.1				
World Growth Based on Market Exchange Rates	3.0	2.4	2.7	2.8	0.0	0.0	2.3	2.9	2.6	
World Trade Volume (goods and services) 6/	3.7	1.0	2.9	3.7	-0.3	-0.1				
Advanced Economies	3.2	1.3	2.2	3.1	-0.4	-0.1				
Emerging Market and Developing Economies	4.6	0.4	4.2	4.7	0.0	0.0				
Commodity Prices (U.S. dollars) Oil 7/	29.4	-11.3	-4.3	-4.7	1.9	-0.1	-10.9	-1.5	-2.7	
Nonfuel (average based on world commodity import weights)	1.6	0.9	1.7	0.6	0.0	-0.7	4.8	1.0	1.2	
Consumer Prices										
Advanced Economies	2.0	1.4	1.7	1.9	-0.1	0.1	1.4	1.8	1.9	
Emerging Market and Developing Economies 8/	4.8	5.1	4.6	4.5	-0.2	0.0	5.1	3.8	3.6	
London Interbank Offered Rate (percent)										
On U.S. Dollar Deposits (six month)	2.5	2.3	1.9	1.9	-0.1	-0.2				
On Euro Deposits (three month)	-0.3	-0.4	-0.4	-0.4	0.2	0.2				
On Japanese Yen Deposits (six month)	0.0	0.0	-0.1	0.0	0.0	0.2				

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during October 14-November 11, 2019. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted. WEO = World Economic Outlook.

<sup>1/</sup> Difference based on rounded figures for the current and October 2019 World Economic Outlook forecasts. Countries whose forecasts have been updated relative to October 2019 World Economic Outlook forecasts account for 90 percent of world GDP measured at purchasing-power-parity weights.

<sup>2/</sup> For World Output, the quarterly estimates and projections account for approximately 90 percent of annual world output at purchasing-power-parity weights. For Emerging Market and Developing Economies, the quarterly estimates and projections account for approximately 80 percent of annual emerging market and developing economies' output at purchasing-power-parity weights.

<sup>3/</sup> Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

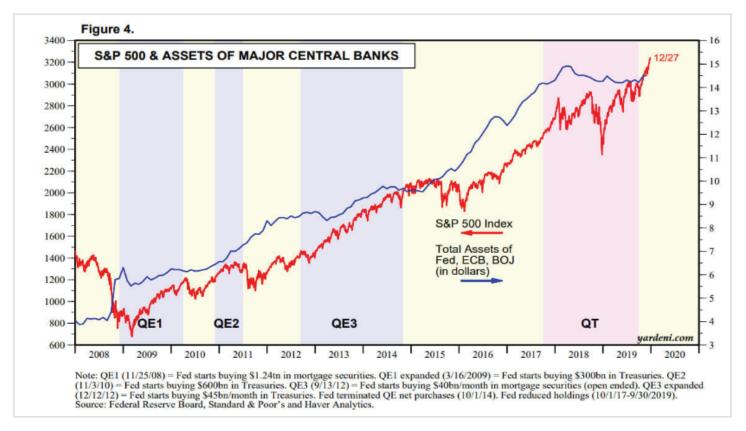
<sup>4/</sup> For India, data and forecasts are presented on a fiscal year basis and GDP from 2011 onward is based on GDP at market prices with fiscal year 2011/12 as a base year.

<sup>5/</sup> Indonesia, Malaysia, Philippines, Thailand, Vietnam.

<sup>6/</sup> Simple average of growth rates for export and import volumes (goods and services).

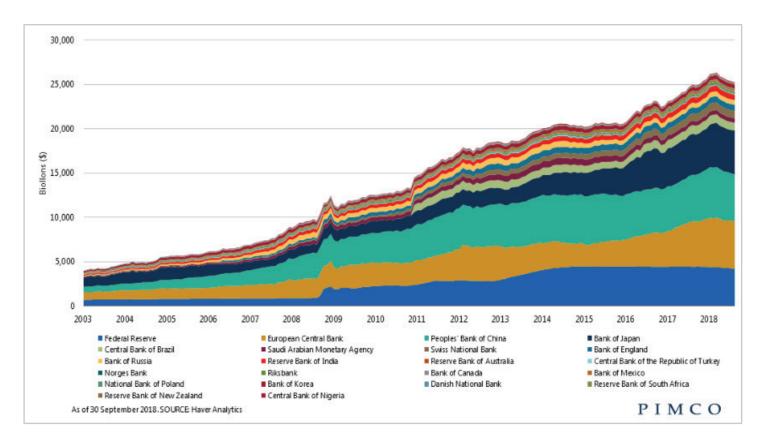
<sup>7/</sup> Simple average of prices of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil. The average price of oil in US dollars a barrel was \$60.62 in 2019; the assumed price, based on futures markets (as of November 12, 2019), is \$58.03 in 2020, and \$55.31 in 2021.

# THE STOCK MARKET IS HIGHLY CORRELATED TO QE



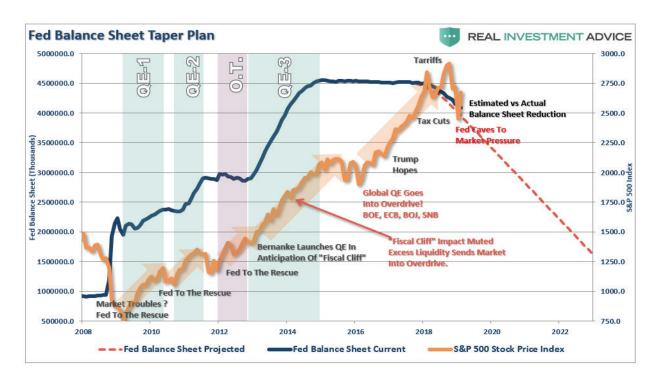
This rising Quantitative Easing (QE) helps markets to rise, while falling QE creates volatility at best; descending market prices at worst. The link is strong for U.S. stocks, U.S. real estate, global stocks and global real estate although only the first is reflected above.

## **GLOBAL CENTRAL BANKS ASSETS KEEP GROWING**

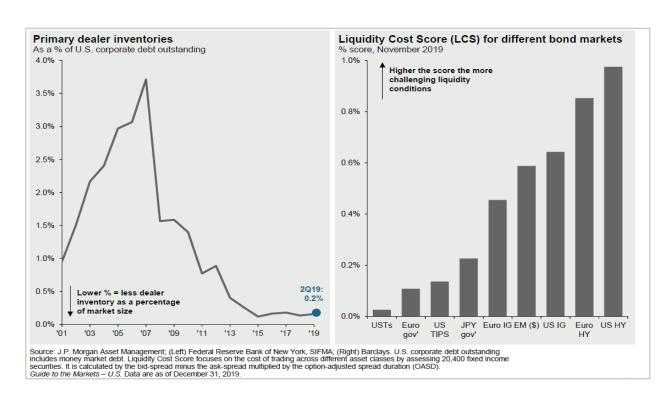


The planned transition from Quantitative Easing (QE) to Quantitative Tightening (QT) was an obvious place for volatility to begin and returns to compress. The prospect of QT ahead sunk global markets in Q4, 2018. The prospect of a rapid end to QT, similarly, caused world markets to soar in 2019. Cessation of QT means we now can't accurately see the end of bull markets although something else could de-rail them. Now that the Central banks have capitulated; it would take a grossly large event to cause significant market disruption.

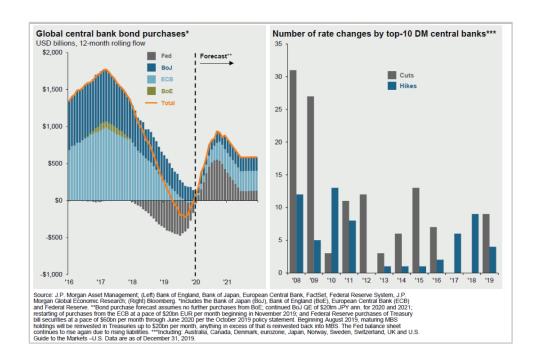
# STALLED QT PLUS NO LIQUIDITY BODE POORLY FOR THE FUTURE



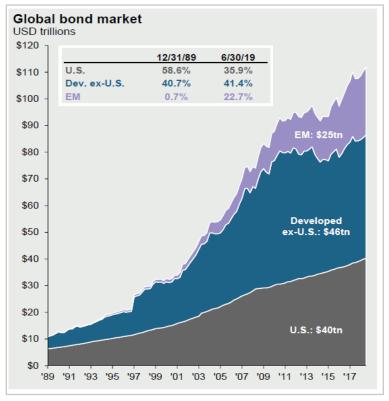
	Start	Finish	\$ Increase	% Increase	S&P Start	S&P Finish	Point Gain	% Gain	Effectiveness
QE1 (\$ Bil)	\$ 937,907.00	\$ 2,372,145.00	\$ 1,434,238.00	152.92%	753.9	1196.1	442.3	58.67%	1.6:1
QE2	\$ 2,344,102.00	\$2,909,094.00	\$ 564,992.00	24.10%	1057.3	1352.5	295.2	27.92%	1.0:1
QE3	\$ 2,855,696.00	\$4,555,234.00	\$ 1,699,538.00	59.51%	1308.5	2082.8	774.3	59.17%	1.0:1
ECB (1.13/USD)	\$ 2.637.562.38	\$4.892.346.30	\$ 2.254.783.92	85.49%	2082.8	2794.1	711.3	34.15%	1.5:1



# **WORLD REMAINS AWASH IN EXCESS LIQUIDITY**



The chart to the left reflects the QT expected into 12/19 and the about-face witnessed as unexpected fallout resulted.



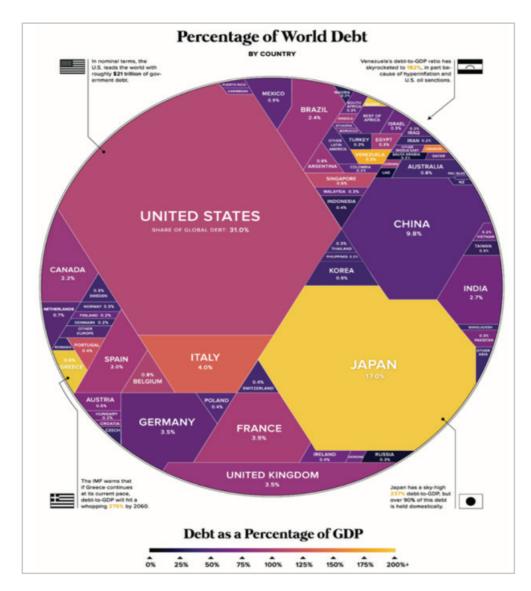
exploded to fund QE; can this genie be re-stuffed into it's bottle?

Global government debt has

Source: JPMorgan Guide to the Markets as of December 31, 2019.

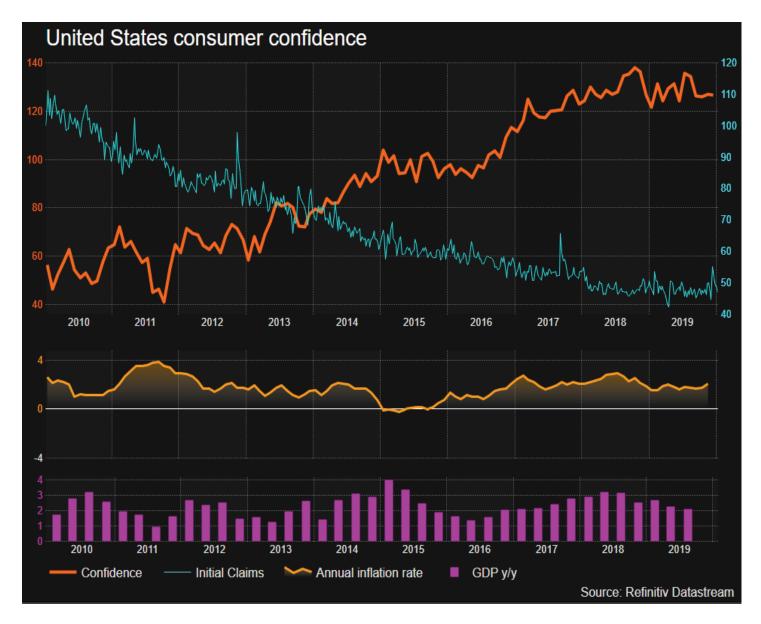
# UNITED NATIONS OF DEBT

Debt as a percent of GDP has burgeoned: sowing the seeds of a future global crisis. The future crisis will likely last much longer than the 2008 crisis as governments and Central banks (the former rescuers) are tapped out. World rates have become unanchored from risk, with Greek government bonds paying less than U.S. bonds. Moreover, should interest rates rise, steepening interest payments would force large budget cuts in most countries (defense, social services).



Source: Visual Capitalist

# THE U.S. IS STILL ENJOYING A BENIGN ENVIRONMENT



Initial claims for unemployment are very low, GDP is growing moderately and inflation is tame leading to off- the-charts consumer confidence. This is likely as good as it will get.

# RATE WILL REMAIN IN HISTORICAL BAND UNTIL DECISIVE BREAKOUT

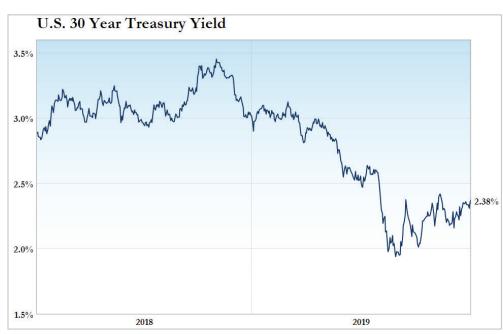
Current band could bring us down to around 2% with a 3.2% high range.



Source: Eikon, through December 31, 2019

### U.S. 30 YEAR TREASURY YIELD

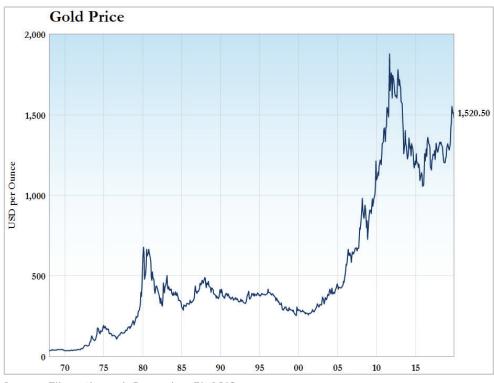
We have correctly deflected predictions for high and then low rates. We have been right to insist on decisive band breakout before concluding anything new.



Source: Eikon, through December 31, 2019

# **GOLD PRICE**

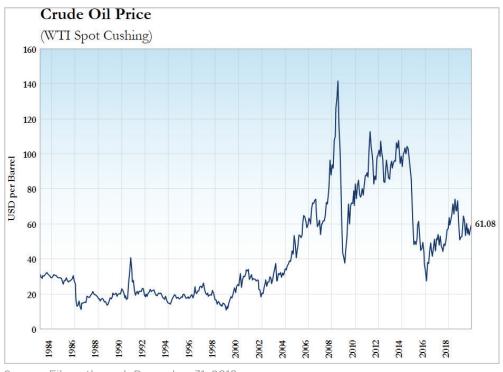
Gold has remained elevated with trade, tariff and Corona virus threats. It will really shine when interest rates begin to reflect the risk of their countries/currencies.



Source: Eikon, through December 31, 2019

# **CRUDE OIL PRICE**

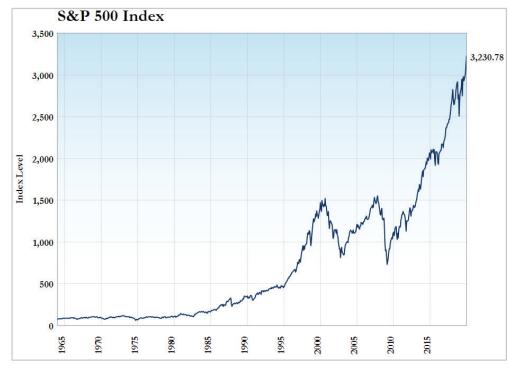
Crude prices reflect poor near term demand which is unlikely to persist longer term.



Source: Eikon, through December 31, 2019

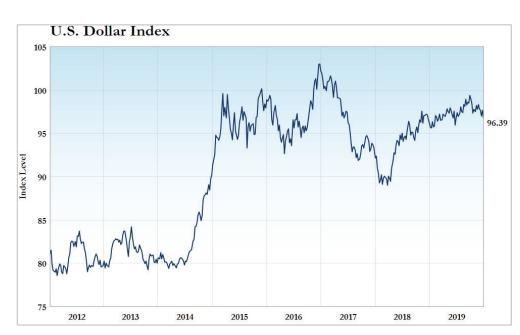
# **S&P 500 INDEX**

The resumption of global QE favors markets remaining elevated but 'real' rationale is poor and prices remain elevated.



Source: Eikon through December 31, 2019

We could see the dollar pull back slightly over time.



Source: Eikon through December 31, 2019

# TWENTY YEAR VIEW OF ASSET CLASS RETURNS

# Annual Returns of Key Indices (2000-2019) Ranked in Order of Performance (Best to Worst)

-22.43%	Growth	Small Cap	-22.08%	Growth	Large Cap	-14.17%		Int'l	-9.11%	Core	Large Cap	6.08%	Value	Large Cap	11.63%	Income	Fixed	22.83%	Value	Small Cap	24.21%		Cmdty	31.04%	Estate	Real	2000
-2232%		Cmdty	-21.44%		Int'l	-12.73%	Growth	Large Cap	-11.88%	Core	Large Cap	-11.71%	Value	Large Cap	-9.23%	Growth	Small Cap	8.44%	Income	Fixed	12.35%	Estate	Real	14.03%	Value	Small Cap	2001
-30.26%	Growth	Small Cap	-23.59%	Growth	Large Cap	-2210%	Core	Large Cap	-20.85%	Value	Large Cap	-15.94%		Int'l	-1143%	Value	Small Cap	3.58%	Estate	Real	1026%	Income	Fixed	23.86%		Cmdty	2002
4.11%	Income	Fixed	2266%		Cmdty	25.65%	Growth	Large Cap	28.67%	Core	Large Cap	31.77%	Value	Large Cap	36.18%	Estate	Real	39.17%		Int'l	46.02%	Value	Small Cap	48.53%	Growth	Small Cap	2003
4.33%	Income	Fixed	613%	Growth	Large Cap	7.64%		Cmdty	10.88%	Core	Large Cap	14.31%	Growth	Small Cap	15.71%	Value	Large Cap	20.69%		Int'l	2225%	Value	Small Cap	33.16%	Estate	Real	2004
243%	Income	Fixed	4.15%	Growth	Small Cap	471%	Value	Small Cap	4.88%	Core	Læge Cap	5.26%	Growth	Large Cap	7.10%	Value	Large Cap	13.50%		Int'l	13.82%	Estate	Real	17.54%		Cmdty	2005
-2.71%		Candity	4.33%	Income	Fixed	9.07%	Growth	Large Cap	13.35%	Growth	Small Cap	15.77%	Core	Large Cap	22.24%	Value	Large Cap	23.47%		Int'l	23.48%	Value	Small Cap	43.72%	Es tate	Real	2006
-9.78%	Value	Small Cap	-4.63%	Estate	Real	-0.17%	Value	Læge Cap	5.48%	Core	Læge Cap	6.97%	Income	Fixed	7.05%	Growth	Small Cap	8.62%		Int'l	11.09%		Cmdty	11.81%	Growth	Large Cap	2007
-48.90%	Estate	Real	-43.38%		Int'l	-38.54%	Growth	Small Cap	-38.44%	Growth	Large Cap	-37.03%	Core	Large Cap	-36.85%	Value	Large Cap	-36.61%		Cmdty	-28.92%	Value	Small Cap	5.24%	Income	Fixed	2008
5.93%	Income	Fixed	18.72%		Cmdty	19.69%	Value	Large Cap	20.58%	Value	Small Cap	26.50%	Core	Large Cap	27.75%		Int'l	24.47%	Growth	Small Cap	3721%	Growth	Large Cap	41.25%	Estate	Real	2009
4.90%		Int'l	6.54%	Income	Fixed	15.06%	Core	Large Cap	1551%	Value	Large Cap	16.67%		Cmdty	16.71%	Growth	Large Cap	20.03%	Estate	Real	2450%	Value	Small Cap	29.09%	Growth	Small Cap	2010
-1482%		Int'l	-13.37%		Cmdty	-8.14%	Estate	Real	-5.50%	Value	Small Cap	-291%	Growth	Small Cap	0.39%	Value	Large Cap	211%	Core	Large Cap	264%	Growth	Large Cap	7.84%	Income	Fixed	2011
-114%		Cmdty	4.22%	Income	Fixed	13.55%		Int'l	1459%	Growth	Small Cap	15.26%	Growth	Large Cap	16.00%	Core	Large Cap Large Cap Large Cap	17.51%	Value	Large Cap Large Cap	18.05%	Value	Large Cap Small Cap	29.85%	Estate	Real	2012
-9.58%		Candity	-2.03%	Income	Fixed	223%	Estate	Real	22.78%		Int'l	32.39%	Core	Large Cap	32.53%	Value	Large Cap	33.48%	Growth	Large Cap	34.52%	Value	Small Cap	43.30%	Growth	Small Cap	2013
-17.04%		Omdry	4,90%		Indi	4.22%	Value	Small Cap	5.60%	Growth	Small Cap	5.97%	Income	Fixed	13.03%	Growth	Large Cap	13.43%	Value	Large Cap Large Cap	13.69%	Core		14,73%	Estate	Real	2014
-24.70%		Cmdiy	-7,48%	Value	Small Cap	-3.83%	Value	Læge Cap	-1.38%	Growth	Small Cap	-0.81%		Im'l	-0.41%	Estate	Real	0.55%	Income	Fixed	1.38%	Core	Læge Cap	5,67%	Growth	Large Cap	2015
1.00%		1m/1	2.65%	Income	Fixed	4,62%	Estate	Real	7,07%	Growth	Small Cap Small Cap Large Cap	11.31%	Growth	Small Cap	11.77%		Candity	11.96%	Core	Large Cap	17.34%	Value	Large Cap Large Cap Large Cap	31,74%	Value	Large Cap Small Cap	2016
1.70%		Cmdty	3.54%	Income	Fixed	7.84%	Value	Small Cap	13.66%	Value	Large Cap	15.01%	Estate	Real	21.83%	Core	Large Cap	2217%	Growth	Small Cap	25.03%		Int'l	3021%	Growth	Large Cap	2017
-13.79%		Int'l	-12.86%	Value	Small Cap	-11.25%		Cmdty	-9.31%	Growth	Small Cap	-8.27%	Value	Large Cap	-5.50%	Estate	Real	-4.38%	Core	Large Cap	-1.52%	Growth	Large Cap	1.68%	Income	Fixed	2018
7.69%		Cmdty	8.72%	Income	Pixed	22.01%		Intl	22.40%	Value	Small Cap	23.60%	Estate	p Red	26.54%	Value	Læge Cap	28.36%	Growth	p Small Cap	31.49%	Core	p Læge Cap	36.39%	Growth	Læge Cap	2019

As sociation, and seves tenent-grade (rated BBB or better) corporate bonds, all of which will mature within 30 years . secusities is a ued by the Government National Mortgage Association, the Federal Home Loan Mortgage Corporation, or the Federal National Mortgage The Barchys US Aggregate B and Indexis an unmanaged market-neighted index that consists of US. Go vemment and agencys ecurities, mortgage-backed

unmortgaged index that measures the total returns of developed foreigns to ck The Morgan Stanley Capital International (MSCI) EAFE Indexes an o 500 large-capita fration companies, within various industrials ectors, most of which are fated on the New York Stock Exchange. The S&P 300 Indexis an unmanaged index that consists of the common stocks

The Russell 2000 Value Index consists of small-cap companies that have lower paice-to-book ratios and lower fore casted growth values.

The Russ ell 2000 Growth Index consider of small-cap companies that have higher price-to-book ratios and higher forecasted growth values.

markets in Europe, Asia, and the Far East.

values.\* values.\* The Russell 1000 Growth Index consists of large-cap companies that have higher price-to-book ratios and higher forecasted growth The Russell 1000 Value Indexcoss is to of large-cap companies that have lowerprice-to-book ratios and b wer forecasted growth

futures prices of 22 physical commodities. (Cmdty)

The B b omberg CommodityIndex reflects the return of underlying

The FTS EEPRA/NAREIT Global Real Estate Index is designed to represent general trends in eligible real estate equities worldwide.

<sup>\*</sup>As of 1105, the Russell 1000 Growth and the Russell 1000 Value replaced the S&P / Barra Growth and the S&P / Barra indices were twee used for Large Cap Growth and Large Cap Value. Through 2005 on this chart, the With him U.S. REIT index was used for Real Estate.



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