STIFEL

Macro & Portfolio Strategy

MARKET COMMENTARY/STRATEGY

September 19, 2019

The "3rd mini-recession recovery" view is consensus, and premature

Summary

The market today has a lot in common with Pavlov's dogs. Since the 2008 Crisis, iterations of weak global GDP have elicited repeated policy stimulus (rates, QE, debt). Investors are now conditioned to expect the third policy rescue of the past decade, but policymakers are reluctant to go "all in" because of diminishing economic benefit vs. cost. Our view is to either expect continued flight to safety because a recession looms, or await more weakness that coerces policymakers to do more (China credit, Fed cuts, EU/German fiscal) than what has been offered. In either case, despite what we view as a short-lived pop in Cyclicals, we still prefer Defensives a bit longer (Utilities, REITs, Staples).

Key Points

S&P 500 fair value is 2,900, striking a balance between Fed P/E levitation and 2020 recession risk

- The 10Y-3M yield curve (50dma smoothed) inverted 6/20/19 and indicates a recession ~1 year later ***(p. 4)***
- On the one hand, low real interest rates support an S&P 500 TTM P/E 19.0x and fair value 3,021 in 2019 ***(p. 5)***
- On the other hand, the probability of a 2020 recession (curve-based) reduces S&P 500 fair value to 2,791 ***(p. 6)***

But in just an average recession, S&P EPS drops from $155 now to $135 in 2020E, $118 in 2021E

- The interval from inversion (50dma) to S&P 500 EPS weakness (y/y%) has shortened since the late-80s ***(p. 8)***
- In just an average recession, S&P 500 EPS would fall from $155 now to $135 in 2020E and $118 in 2021E ***(p. 9)***
- The S&P 500 should soon signal whether yield curve inversion foreshadows a mid-2020 recession ***(p. 10)***

We see the 10Y yield pop fading, because it reflects past China stimulus which has had no follow-up

- Just as Fed drives global liquidity, China drives non-U.S. GDP, and China stimulated 1Q19, but less since ***(p. 12)***
- China's stimulus (adv. 6 mo.) should stabilize the global PMI in 3Q19, but the S&P 500 may just be flat y/y ***(p. 13)***
- China's 1Q19 stimulus probably played a part in lifting the U.S. 10Y yield in 3Q19, but we see that fading ***(p. 14)***

The "Fed put" may expire worthless for investors, since the Fed has already made recession errors

- The Fed's blind spot: crises and recessions occur at progressively lower "spreads" to the neutral rate ***(p. 16)***
- Too late to avoid recession? Even after the Fed's Sep-2019 rate cut the policy setting remains *too tight* ***(p. 17)***
- Peaks in fed funds minus the neutral rate (de-trended) mark *every* equity bear market since the late-90s ***(p. 18)***

We'll stay with defensives to hedge either actual 2020 recession or peaking recession *fear* in 4Q19E

- Some investors believe a low 10Y yield supports stocks, but what if the low yield indicates recession? ***(p. 20)***
- Weak 3Q19E U.S. *nominal* GDP should continue supporting Defensives vs. Cyclicals for a bit longer ***(p. 21)***
- S&P Defensive sectors are expensive, but until "mid-recession" they historically beat S&P Cyclicals ***(p. 22)***

Topics: Is "Value" bad for markets? Is a trade truce too late? $78 Brent? ERP myopia? 5 flat years?

- If a *major* Value vs. Growth rotation occurs, we note that has been negative for the S&P 500 in the past ***(p. 24)***
- Fearing recession, Pres. Trump may push a weak *"buy soybeans, get semis"* truce. But is it too late? ***(p. 25)***
- The Brent oil vs. Broad dollar gap may close, with oil rising to ~$78/bbl., thus weighing on consumers ***(p. 26)***
- Bulls cite a "high" Equity Risk Premium (ERP), but in reality CAPE ERP is only average and can go higher ***(p. 27)***

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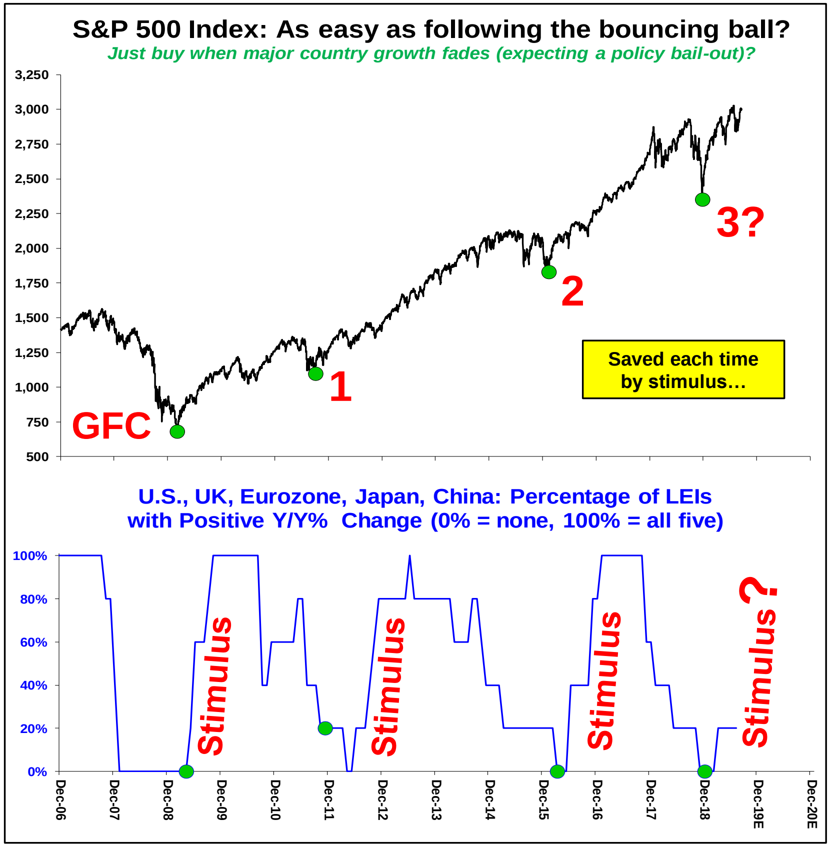
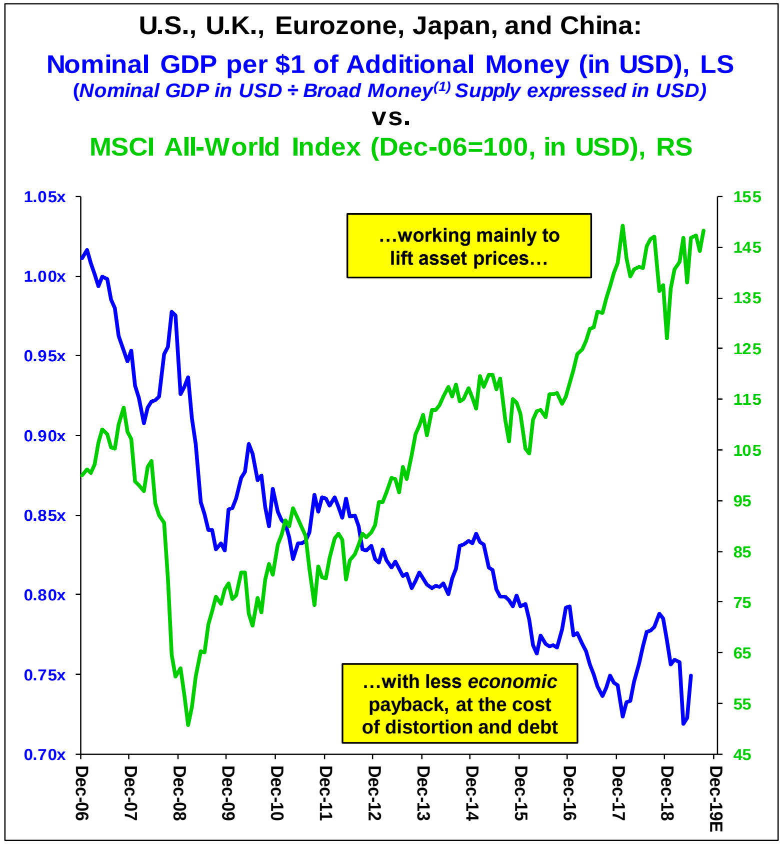
Pavlov's Dogs: Since the Crisis, iterations of weak global GDP elicit repeated stimulus (rates, QE, debt). Investors are conditioned to expect a 3rd policy rescue (left chart), but policymakers are reluctant to go "all in" due to diminishing *economic* benefit vs. cost (right chart). Our view is either to expect more flight to safety because a recession looms, *or* await more weakness that *coerces* policymakers to go further (China credit, Fed cuts, EU/German fiscal). In either case, we like Defensives a bit longer (Utilities, REITs, Staples).





Source: Bloomberg data, Stifel estimates.

(1) The Dollar Value of Broad Money Supply was composed of U.S. M3, U.K. M4, China M2, Eurozone M3, and Japanese M3, all converted at the various dollar exchange rates.

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In our view:

S&P 500 fair value is 2,900, striking a balance between Fed P/E levitation and 2020 recession risk

Source: U.S. Department of Transportation, Stifel.

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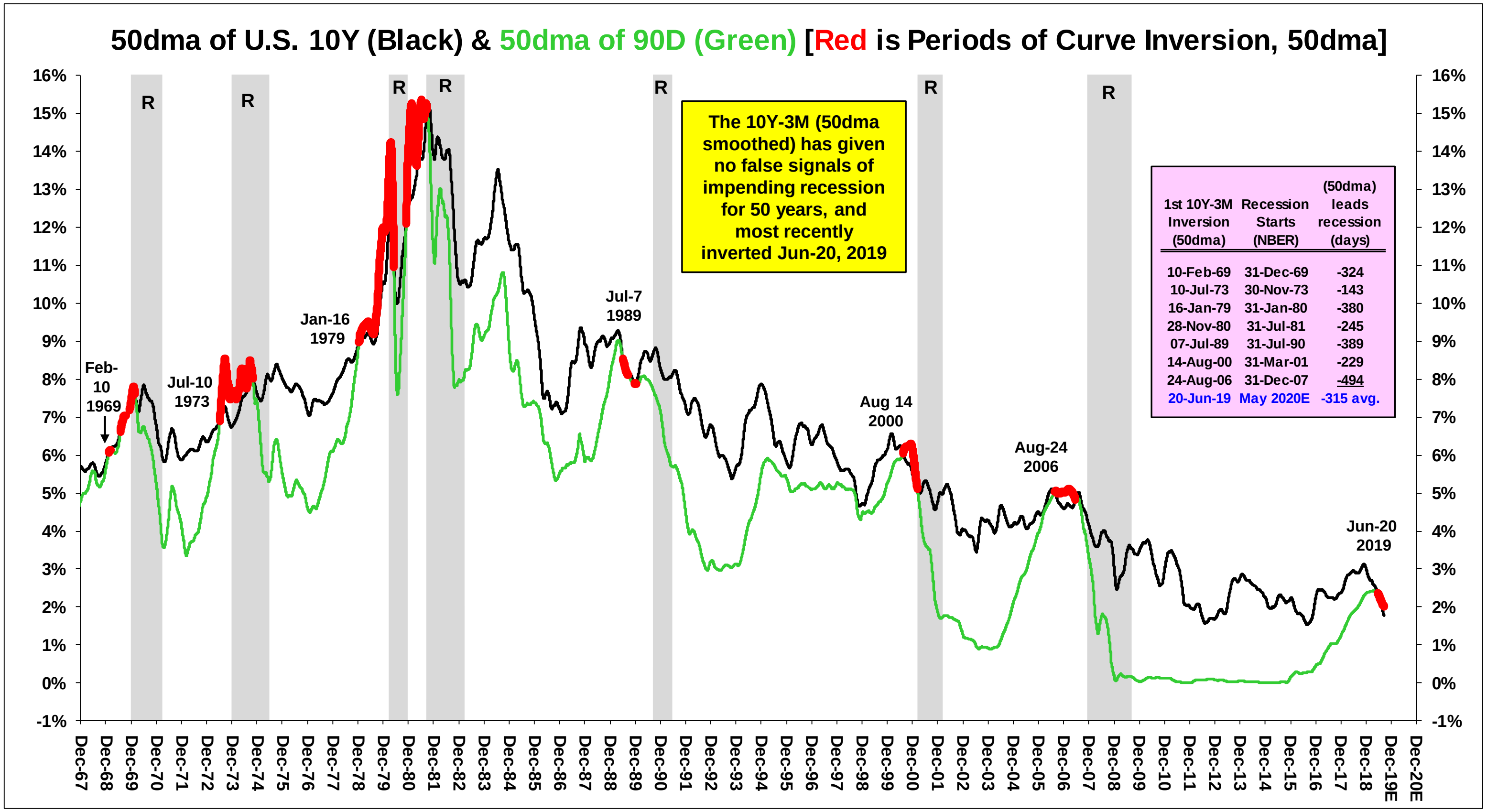
The 10Y-3M yield curve (50dma smoothed) inverted 6/20/19 and indicates a recession ~1 year later. Smoothing the yield curve with a 50 day moving average (dma) dispenses with brief inversions and removes all false signals. Although policymakers historically rationalize(1) curve inversion, that confuses cause and effect and leaves investors exposed *within a year* to a recession and bear market.



1st 10Y-3M Inversion (50dma)	Recession Starts (NBER)	(50dma) leads recession (days)
10-Feb-69	31-Dec-69	-324
10-Jul-73	30-Nov-73	-143
16-Jan-79	31-Jan-80	-380
28-Nov-80	31-Jul-81	-245
07-Jul-89	31-Jul-90	-389
14-Aug-00	31-Mar-01	-229
24-Aug-06	31-Dec-07	-494
20-Jun-19	May 2020E	-315 avg.

Source: Bloomberg data, Standard & Poor's data, Stifel estimates.

(1) The yield curve inversion that began 6/20/19 (50dma) has been attributed to low yields overseas pulling down the U.S. 10Y and other factors, but that overlooks the deflation signal from a falling long-term yield as well as unsustainable imbalances overseas that *cause* low/negative yields abroad. Past inversions were similarly rationalized, such as the global savings glut (2006 inversion) that gave rise to a U.S. mortgage bubble that burst, as well as the 2000 inversion which was partly attributed to a U.S. budget surplus but still contributed to a tech capex bubble that burst.

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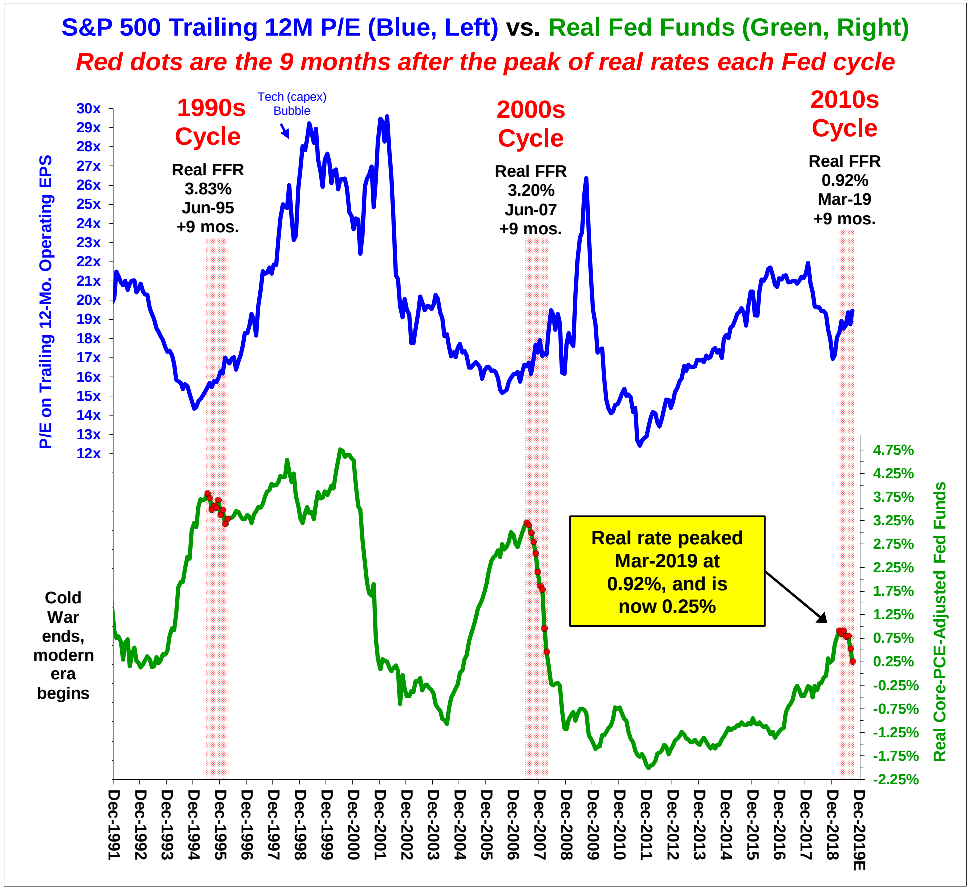
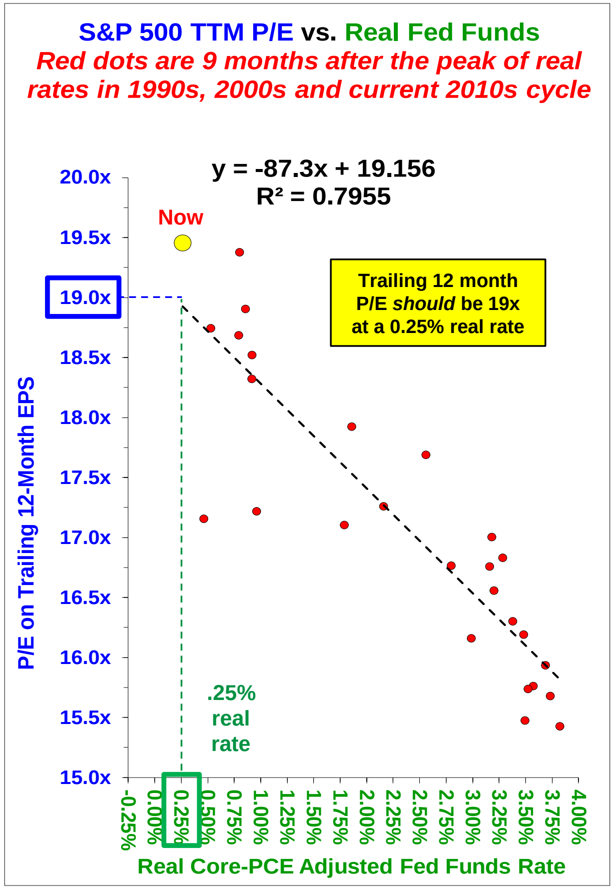
On the one hand, low real interest rates support an S&P 500 TTM P/E 19.0x and fair value <u>3,021</u> in 2019. **The real (after inflation) fed funds peaked at 0.92% in Mar-2019, the lowest peak in the post-Cold War era, which lifts S&P 500 valuation (left chart). The real (after inflation) fed funds is now only 0.25%, which is worth a P/E 19x our 2019 trailing 12m (TTM) S&P 500 EPS estimate of $156 or 2,964, but on *Consensus* EPS $162 that is 3,078 (19 x $162). Taking the average, the S&P 500 fair value is 3,021 (2,964 + 3,078)/2.**





Source: Bloomberg data, Stifel estimates.

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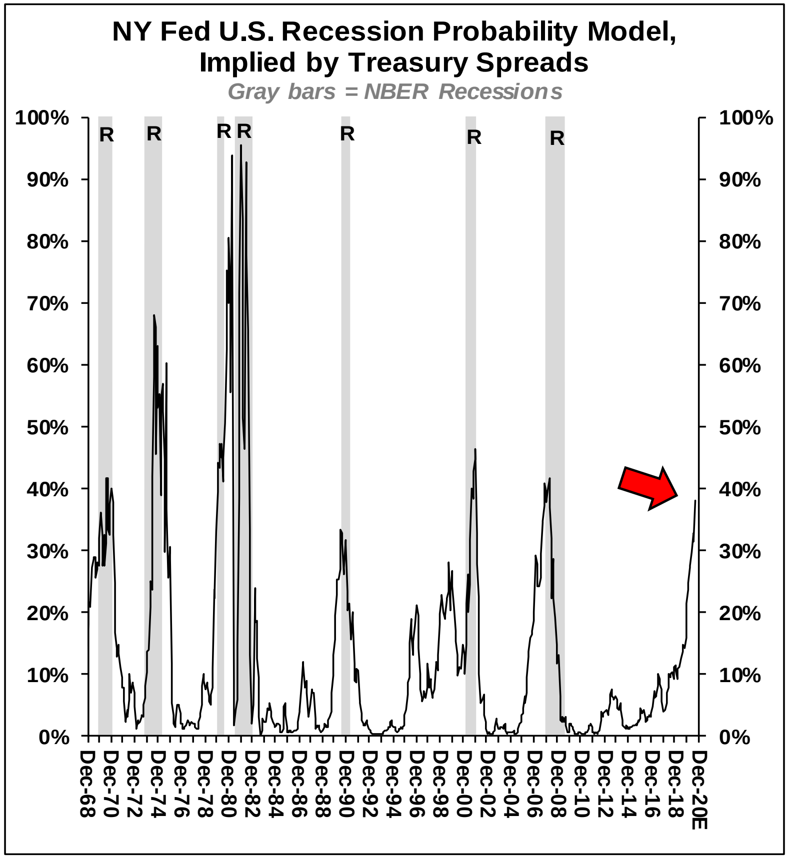
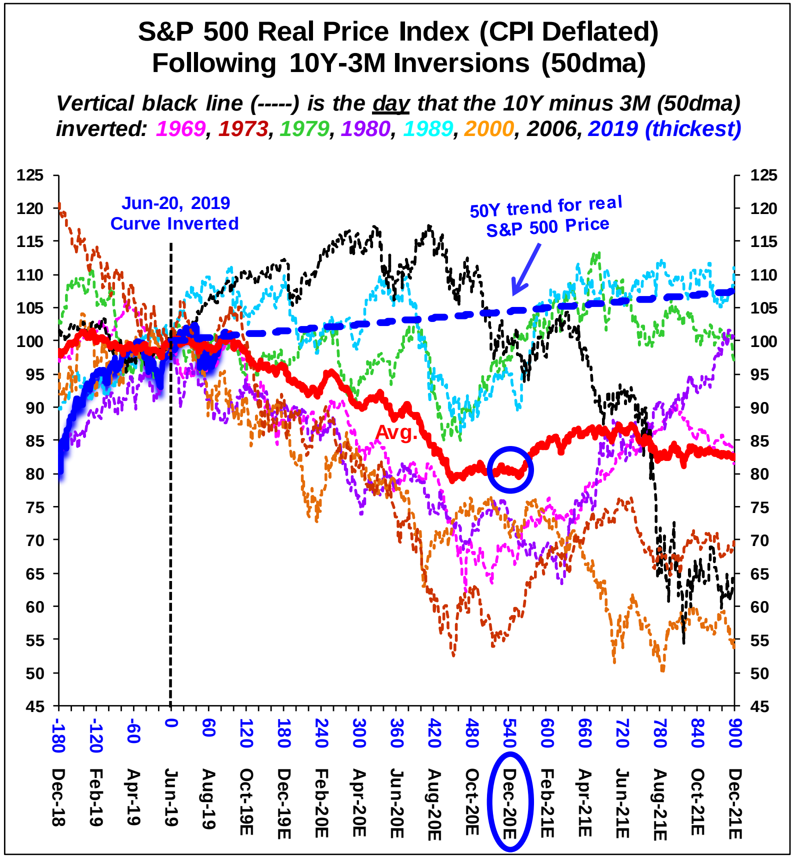
On the other hand, probability of a 2020 recession (curve-based) reduces the S&P 500 fair value to 2,791. The NY Fed yield curve-based recession probability is 38% (left chart), and following 10Y-3M inversions (50dma) the S&P 500 may fall (20)% by the Dec-2020 (right chart, red line and blue circles). Thus, we can reduce the S&P 500 fair value (see prior page) by a *probability-weighted* (7.6)% (38% x -20%), or from 3,021 to 2,791 (3,021 - 7.6%). Taking an average ((3,021+2,791)/2) produces our 2,900 S&P 500 target.





Source: Bloomberg data, Federal Reserve Bank of New York, Stifel estimates.

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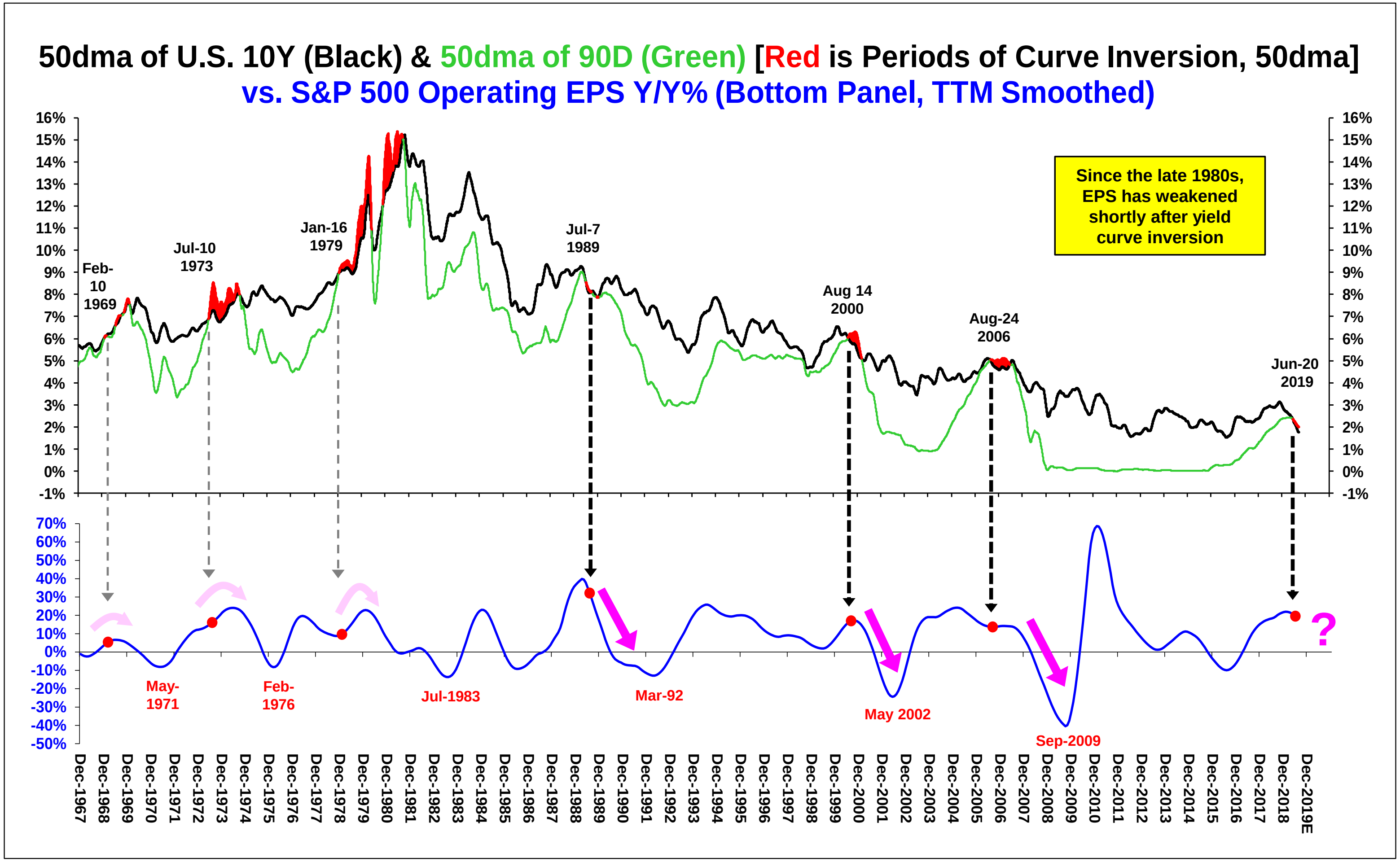
In our view:

In just an *average* recession, S&P EPS would drop from $155[1] now to $135 in 2020E and $118 in 2021E

Source: U.S. Department of Transportation, Stifel.

(1) Note that we use Standard & Poor's (S&P) Operating EPS (source Standard & Poor's). The S&P current consensus for 2019 is $161.56. For comparison, the I/B/E/S Refinitiv current 2019 S&P 500 EPS mean estimate is $164.43.

The interval from inversion to S&P 500 EPS weakness (see arrows) has shortened since the late-1980s. **The lead from inversion (50dma) to weak EPS was *longer* before the late-80s and *much* shorter since, likely caused by debt, over-capacity and logistics which accelerate the realization of EPS weakness.**



Source: Bloomberg data, Standard & Poor's data, Stifel estimates.

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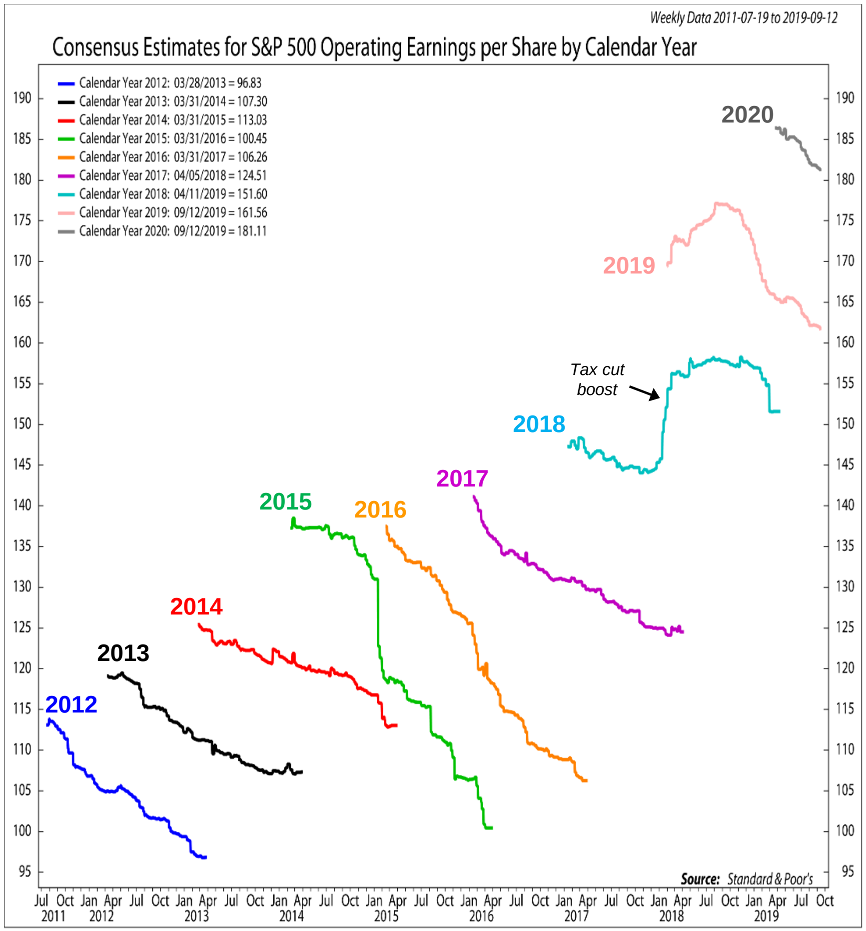
In just an *average* recession, S&P 500 EPS would fall from $155 now to $135 in 2020E and $118 in 2021E. Consensus EPS normally declines (left chart), but in an *average* 2020 recession as implied by the 10Y-3M curve (50dma) EPS would fall -13% by Dec-2020 (from $155 Jun-2019) and -24% by Dec-2021 (right chart).



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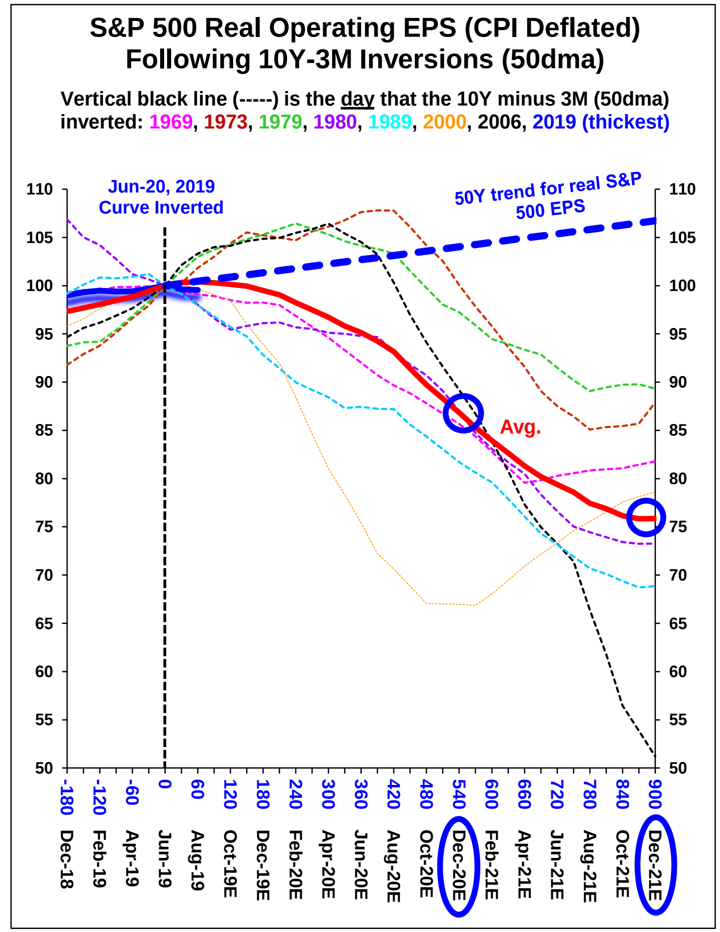

Source: Bloomberg data, Stifel estimates.

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The S&P 500 should soon signal whether yield curve inversion foreshadows a mid-2020 recession. **Rather than look at the way the S&P 500 often peaks *after* curve inversion, we look at the 50dma of the curve and also separate the inversion timing question into two parts: (1) Does curve inversion (50dma) pre-date recessions? (2) How far in advance of a recession does the S&P 500 price roll-over? The 10Y-3M (50dma) inversion on 6/20/19 implies a recession *around* May 2020 (left table), and the S&P 500 leads recessions by *about* 6-7 months (right table), so it seems to us that the risk is 4Q19.**

Recessions After 10Y-3M Yield Curve Inversion (50dma of Inversion)

"DATE OF INVERSION" refers to the date the *50dma* of 10Y minus 3M yield curve *first* inverted	Official (NBER) start date* of Recession following inversion	Months from 50dma of 10Y-3M inversion to Recession start	Recession end date	Months from first inversion to Recession end
10-Feb-69	Dec-69	10.7 mos.	Nov-70	21.6 mos.
10-Jul-73	Nov-73	4.7 mos.	Mar-75	20.7 mos.
16-Jan-79	Jan-80	12.5 mos.	Jul-80	18.5 mos.
28-Nov-80	Jul-81	8.1 mos.	Nov-82	24.1 mos.
07-Jul-89	Jul-90	12.8 mos.	Mar-91	20.8 mos.
14-Aug-00	Mar-01	7.5 mos.	Nov-01	15.6 mos.
24-Aug-06	Dec-07	16.2 mos.	Jun-09	34.2 mos.
20-Jun-19	May-20E	10.5 mos.	Apr-21E	21.5 mos.
	Mean	10.4 mos.		22.2 mos.
	Median	10.7 mos.		20.8 mos.

* NBER data for the peak and trough of the U.S. business cycle (i.e., the recession dates) is given as the end of the month (e.g., Jan-31, 1980 in the table above).

S&P 500 Price Movement prior to U.S. NBER Recessions

S&P 500 After Mar-4, 1957, prior was S&P Composite

Immediate** Pre-Recession S&P 500 Peak Date	S&P 500 Trough Date	S&P 500 Peak to Trough %	NBER U.S. Business Cycle Peak Date	NBER Business Cycle Trough Date	Immediate** Pre-Recession Peak Before the Business Cycle Peak
29-Nov-68	26-May-70	-36.1%	31-Dec-69	30-Nov-70	-13.1 mos.
11-Jan-73	3-Oct-74	-48.2%	30-Nov-73	31-Mar-75	-10.6 mos.
13-Feb-80	27-Mar-80	-17.1%	31-Jan-80	31-Jul-80	0.4 mos.
28-Nov-80	12-Aug-82	-27.1%	31-Jul-81	30-Nov-82	-8.1 mos.
16-Jul-90	11-Oct-90	-19.9%	31-Jul-90	31-Mar-91	-0.5 mos.
1-Sep-00	9-Oct-02	-48.9%	31-Mar-01	30-Nov-01	-6.9 mos.
9-Oct-07	9-Mar-09	-56.8%	31-Dec-07	30-Jun-09	-2.7 mos.
	Average Decline	-36.3%		Average Lead Time	-5.9 mos.
	Median Decline	-36.1%		Median Lead Time	-6.9 mos.

** The "Immediate Pre-Recession" peak price has not necessarily been the highest price in the year before the starting date for a U.S. recession, but rather the point of S&P 500 price roll-over at which a recession began to be discounted in equities and a decline of 15+% (rounded) began. For example, on 9/1/2000 the S&P 500 closing price was 1,520.77 but that was not the high in the year before the Mar-2001 recession (which was the 3/24/2000 close of 1,527.46). Our view is that the market decline *reflective of* impending recession occurred closer to the event, which was the the 9/1/2000 price after which the S&P 500 rolled over.

Source: Bloomberg data, NBER Recession Dates, Stifel estimates.

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In our view:

We see the 10Y yield pop fading, since it may just reflect *past* China stimulus which has had no follow-up

Source: U.S. Department of Transportation, Stifel.

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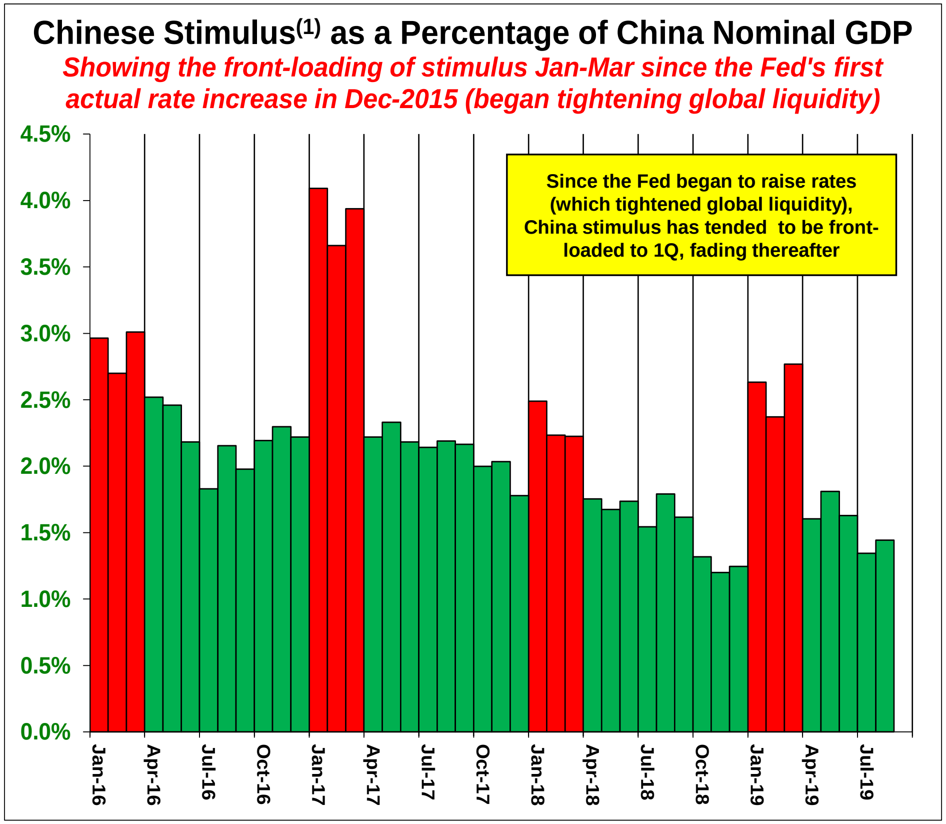
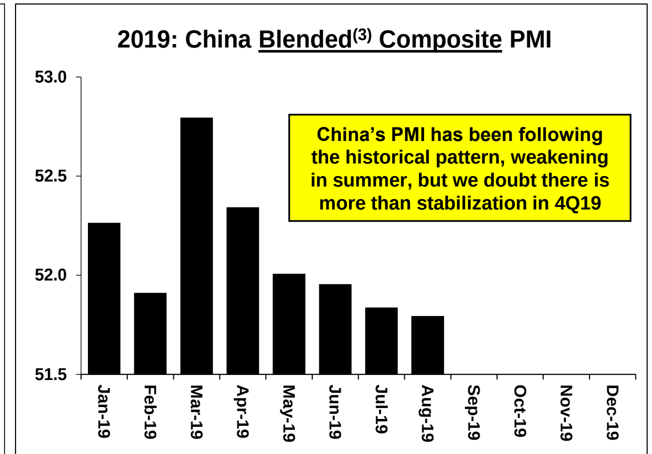
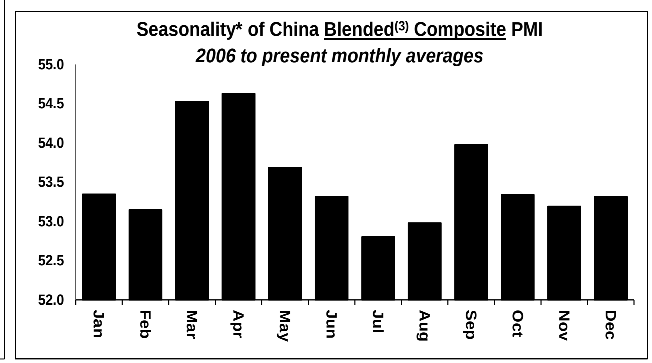
Just as Fed drives global liquidity, China drives non-U.S. GDP, and China stimulated 1Q19 (but less since). **China 1Q19 stimulus[1] was strong *but seasonally normal* and has since *faded* (left chart). Following the 1Q16 Shanghai Accord[2], China did a burst of 2016 and 2017 stimulus that lifted world GDP. But in *this* cycle China has been de-risking debt and the authorities only seem willing to apply *just enough* stimulus to stabilize *China itself.* Although China's PMIs[3] are bottoming, we expect no major lift-off (right charts).**



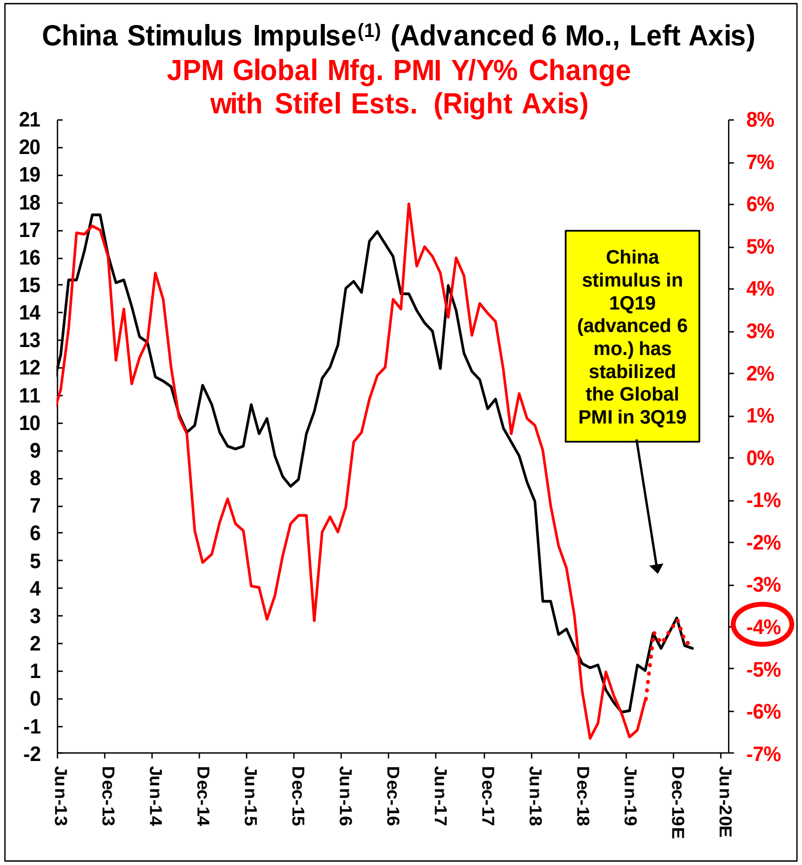


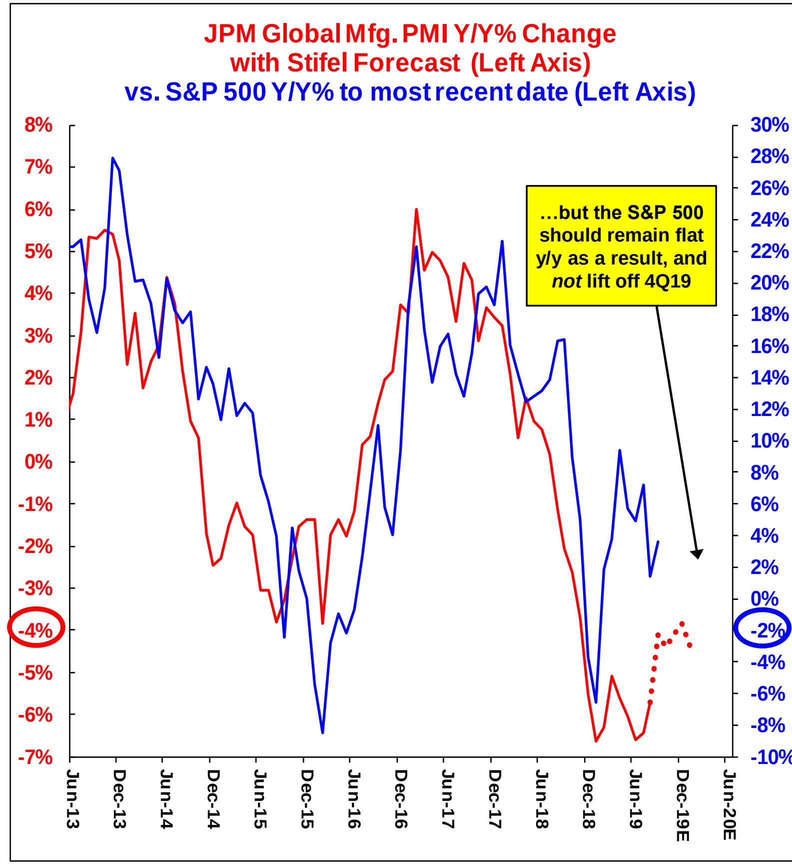


Source: China State Statistics, Bloomberg, Stifel estimates.

(1) We show the 3-month moving average of the month-over-month change in China stimulus as a percentage of China nominal GDP. Stimulus is: Financing (bank & non-bank lending, excluding Special Government Bonds to prevent double-counting, and also excluding equity issuance) plus all local government bond issuance (to account for Local Government Financing Vehicles).
(2) The "Shanghai Accord" is an unofficial agreement rumored at the 1Q16 G20 meeting in which the Fed throttled back tightening (weakening the dollar) and China agreed to stimulate GDP with credit.
(3) China blended composite PMI is weighted by the Primary + Secondary Industries as a percentage of GDP (for PMI Manufacturing) and Tertiary Industry (for PMI Services).

China's stimulus (adv. 6 mo.) should stabilize the global PMI in 3Q19, but the S&P 500 may just be flat y/y. **China stimulus[(1)] lifts global GDP with a 6M lag, and their 1Q19 stimulus should steady the Global PMI for Manufacturing on a y/y basis in 2H19 (left chart). But for the S&P 500 the price may only be about flat (right chart) versus a memorably weak 4Q18 (which averaged 2,700) until *more* policy stimulus occurs.**





Source: Bloomberg data, Stifel estimates.

(1) China stimulus was strong but seasonally normal in 1Q19, with first quarter the most notable period for such stimulus each of the past five years. Stimulus is defined as China aggregate bank + non-bank financing net of equity issuance plus all local government bond issuance (to capture local government financing vehicle expenditures), divided by nominal GDP. Impulse, as pictured above in the left chart, left axis, is change in the rate of change (*e.g.*, from stimulus equal to 3% of nominal GDP to 4% of nominal GDP is +1, *etc.*). For current (3Q19) Chinese Nominal GDP, we have switched to using the consensus forecast on Bloomberg *(Ticker: ECFC)* of China Real GDP YoY%, which is 6.2% and a CPI YoY% of 2.4%.

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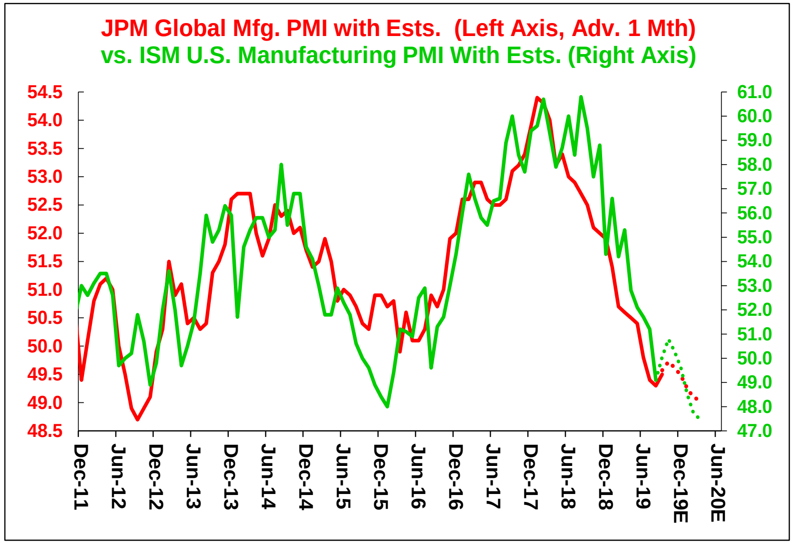
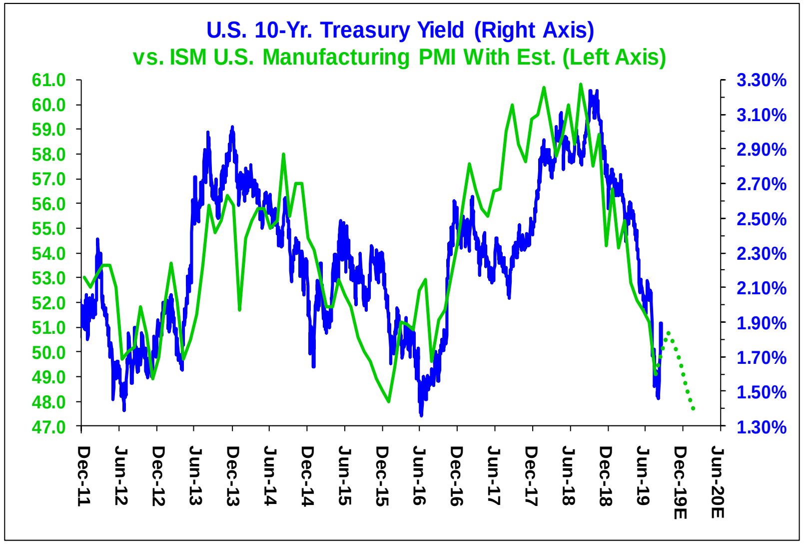
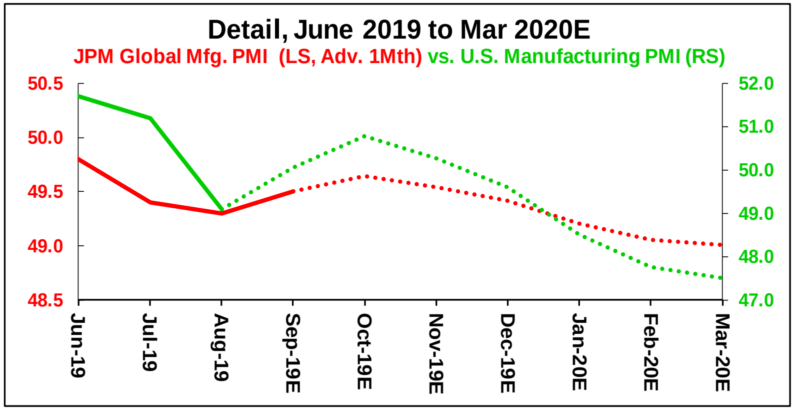
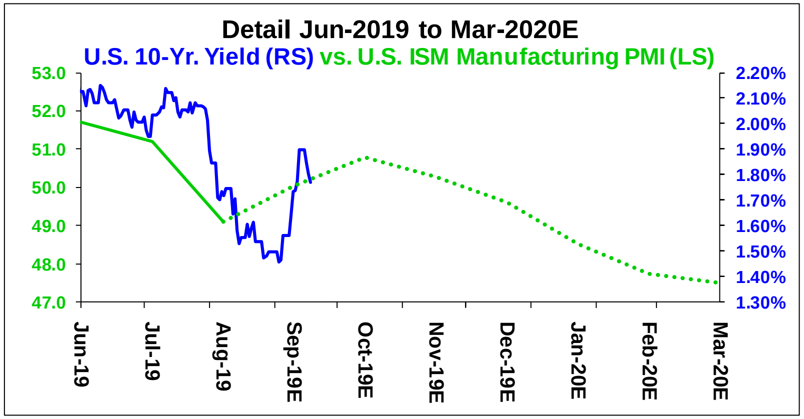
China's 1Q19 stimulus probably played a part in lifting the U.S. 10Y yield in 3Q19, but we see that *fading*. Chinese stimulus leads the Manufacturing PMIs by six months (described on prior page), and that may have created a late 3Q19 "pop" for the U.S. PMI Manufacturing *and the* 10Y yield. We see that fading in 4Q19.









Source: Bloomberg data, Stifel estimates.

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In our view:

The Fed "put option" may expire worthless for investors, since the Fed has *already* made recession errors

Source: U.S. Department of Transportation, Stifel.

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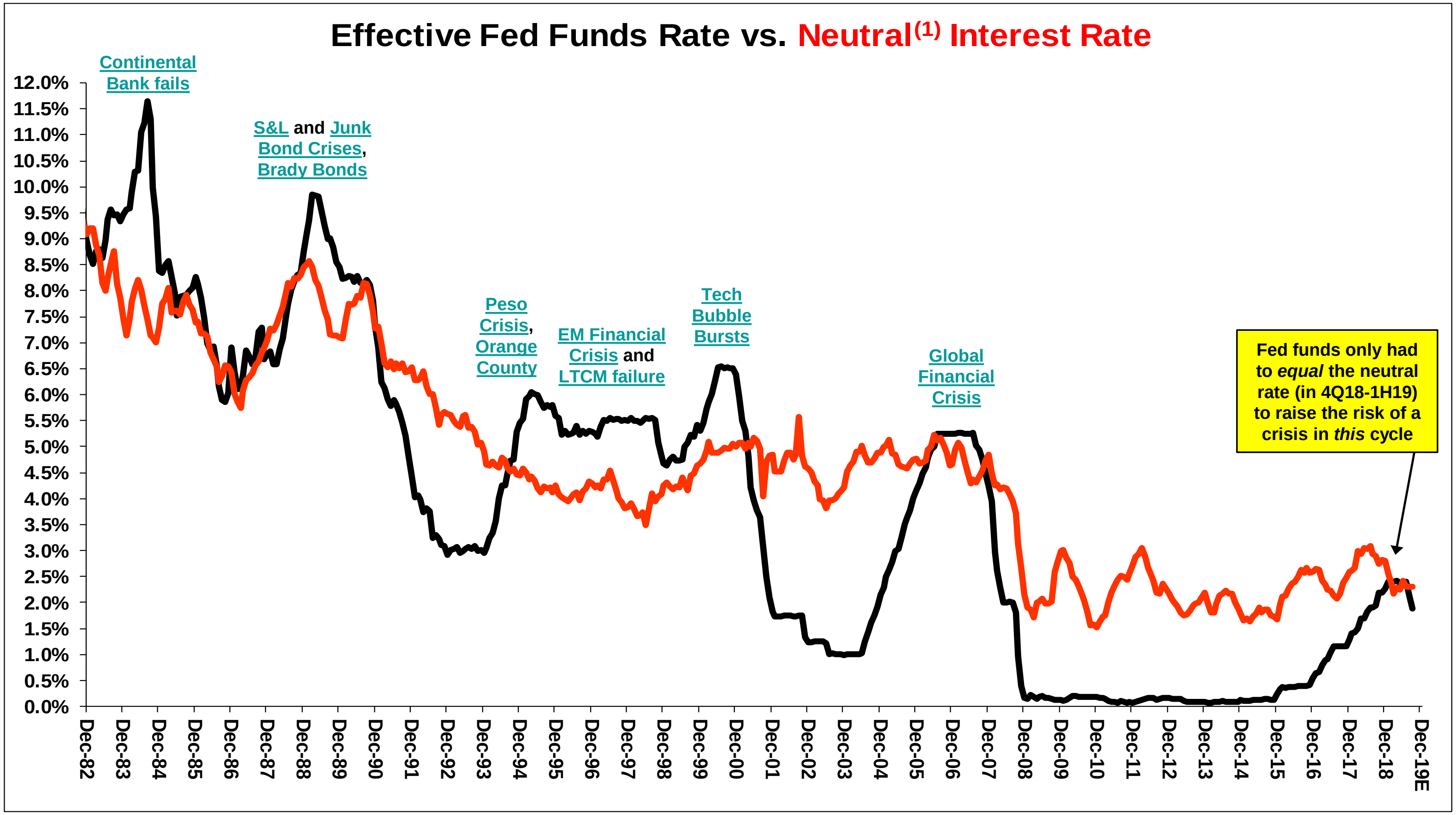
The Fed's blind spot: crises and recessions occur at progressively lower "spreads" to the neutral rate. **The blind spot for the Fed throughout 2018 was thinking that neutral was a "safe" level for rates. The Fed must now move well *below* neutral (even if the neutral rate rises) if they hope to forestall a recession.**



Source: Bloomberg data, Stifel estimates.

(1) The neutral *nominal* rate (red line) is the rate at which GDP is on-trend with inflation at target. For neutral we use Laubach & Williams (NY Fed, here) 1-sided estimate of natural rate (Bloomberg USNREST1) to which we add Core PCE inflation SA y/y% for a neutral nominal rate. We project the neutral rate to the present month using RStudio, with Stifel forecasts for Core PCE (1.6% in 2019E) and real GDP (2.1% in 2019E), the WTI crude oil strip ($55 Dec- 2019E), our view of Fed Funds (1.6% Dec-2019E) and import inflation (correlation to CRB RIND, 449 Dec-2019E).

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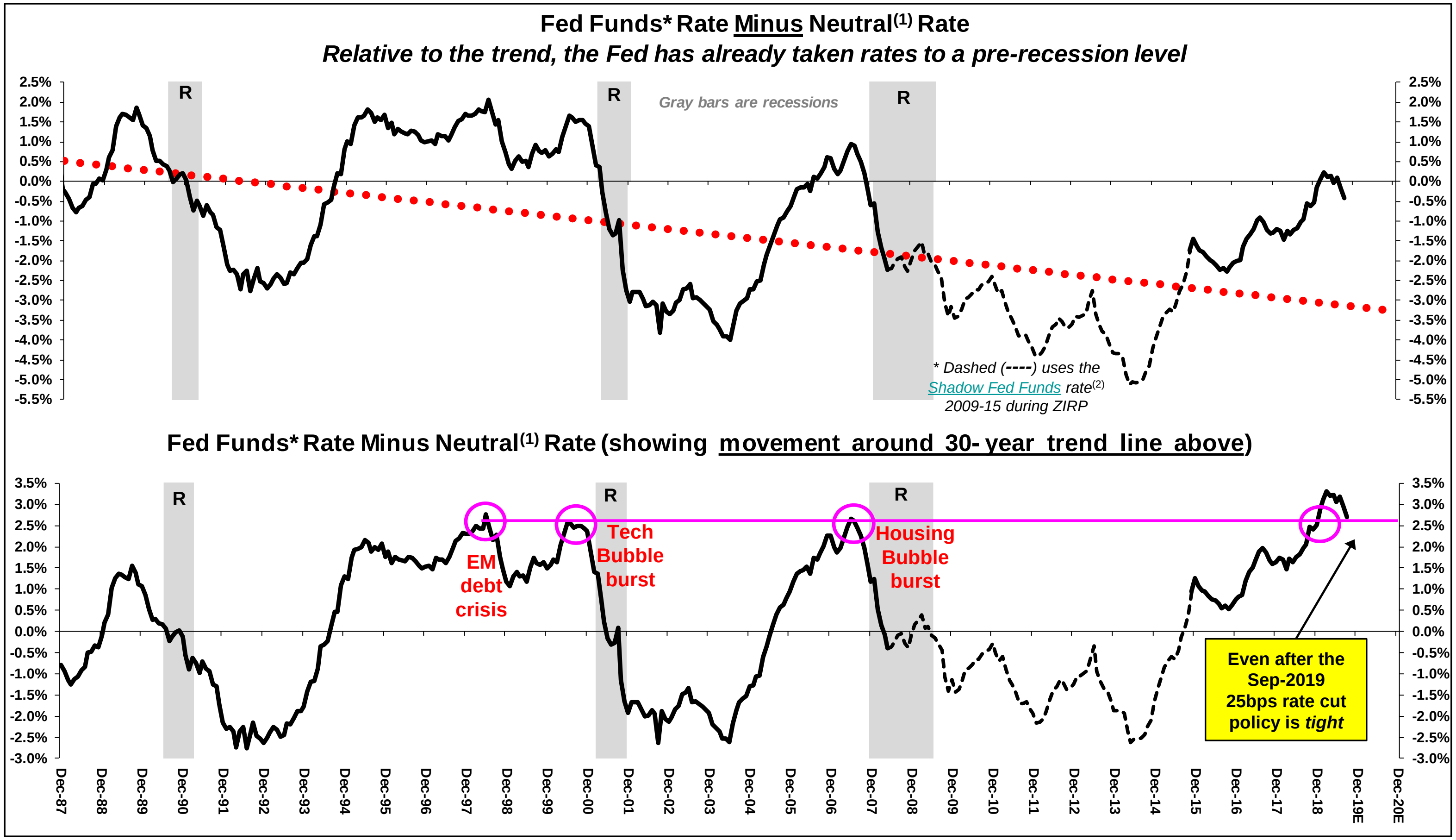
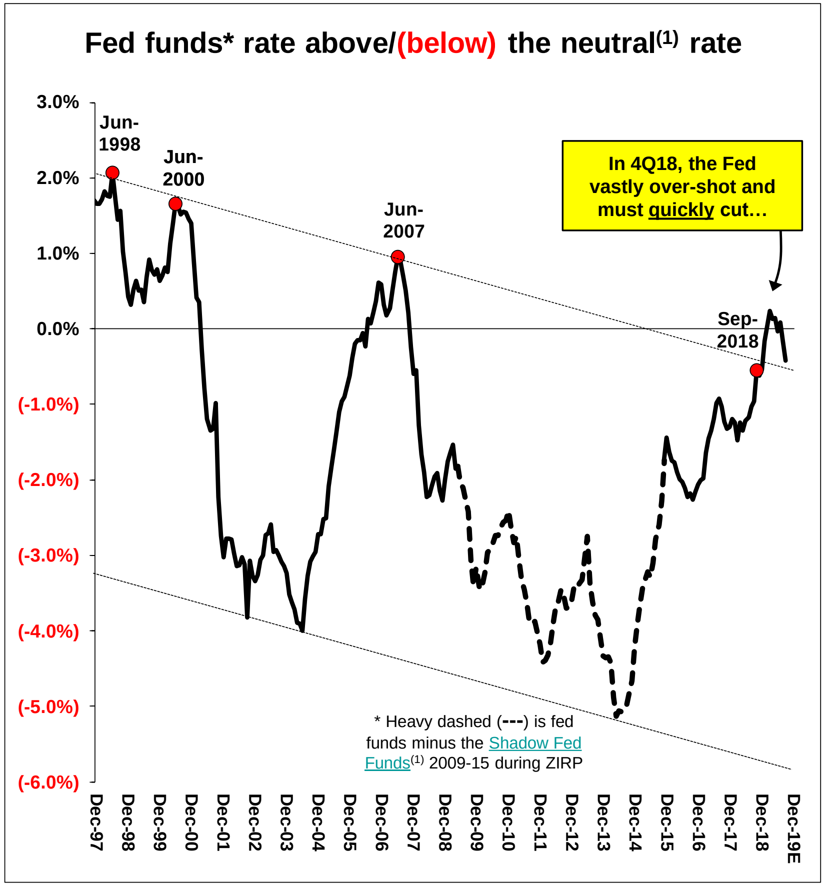
Too late to avoid recession? Even after the Fed's Sep-2019 rate cut the policy setting remains *too tight*. Fed funds minus neutral(1) has trended down (top clip) due to deflation drivers (globalization, debt, new technologies). De-trending the "spread" (bottom clip) shows that even after the Fed's Sep-2019 rate cut (included in the chart below) the de-trended fed funds minus neutral spread remains *at an historical peak*.

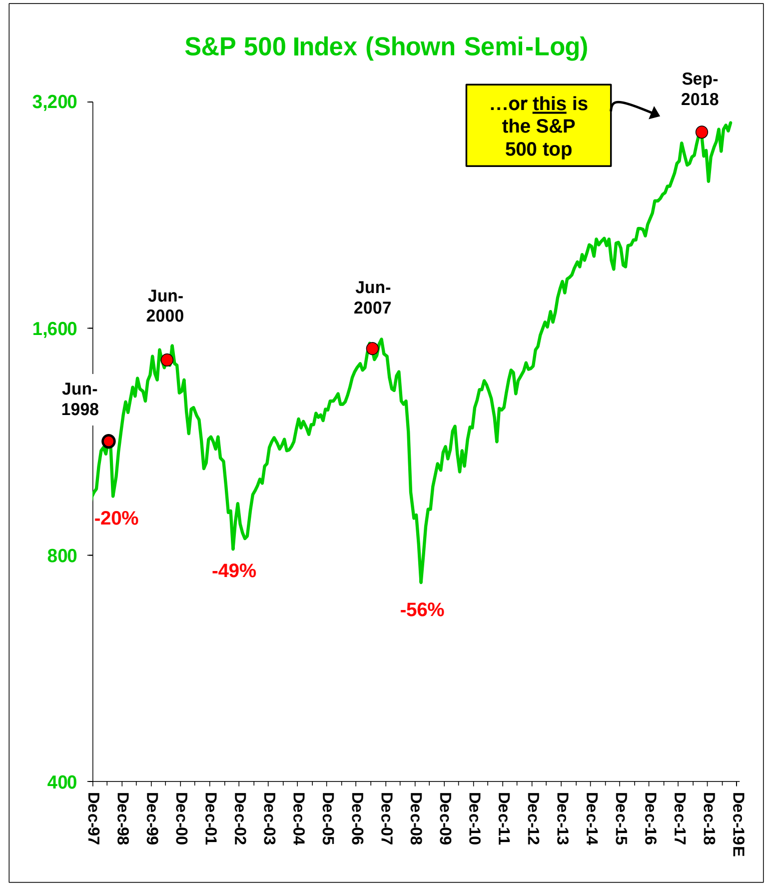


Source: Bloomberg data, Stifel estimates.

(1) Neutral real rate is Laubach & Williams (NY Fed, here 1-sided estimate of natural rate of interest from Bloomberg USNREST1) to which we add Core PCE inflation SA y/y% for a neutral nominal rate.
(2) Atlanta Fed Shadow Fed Funds (here) shows what fed funds rate *would have* been had 0% not been the floor amid QE and Zero Interest Rate Policy (ZIRP) 2009-15.

Fed funds minus the neutral rate (2 pages back, black minus red line) shows the S&P 500 *remains* at risk. Peaks in fed funds minus the neutral[1] rate (left chart) have marked every[2] equity bear market since the late-1990s (right chart). To push back on deflation from globalization, debt and new tech, the Fed inflated assets and provided a "Fed put," but that has left the Fed unable to normalize without risking recession.





Source: Bloomberg data, Stifel estimates.

(1) For neutral we use Laubach & Williams (NY Fed, here) 1-sided estimate (Bloomberg USNREST1) to which we add Core PCE inflation SA y/y% for a neutral nominal rate.
(2) The latter months of 2018 featured a bear market: From the intra-day S&P 500 high of 2,940.91 on 9/21/18 to the intra-day low of 2,346.58 on 12/26/2019 was **-20.21%**.

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In our view:

We'll stay with defensives to hedge either a 2020 recession *or* the peak of recession *fear* by 4Q19E

Source: U.S. Department of Transportation, Stifel.

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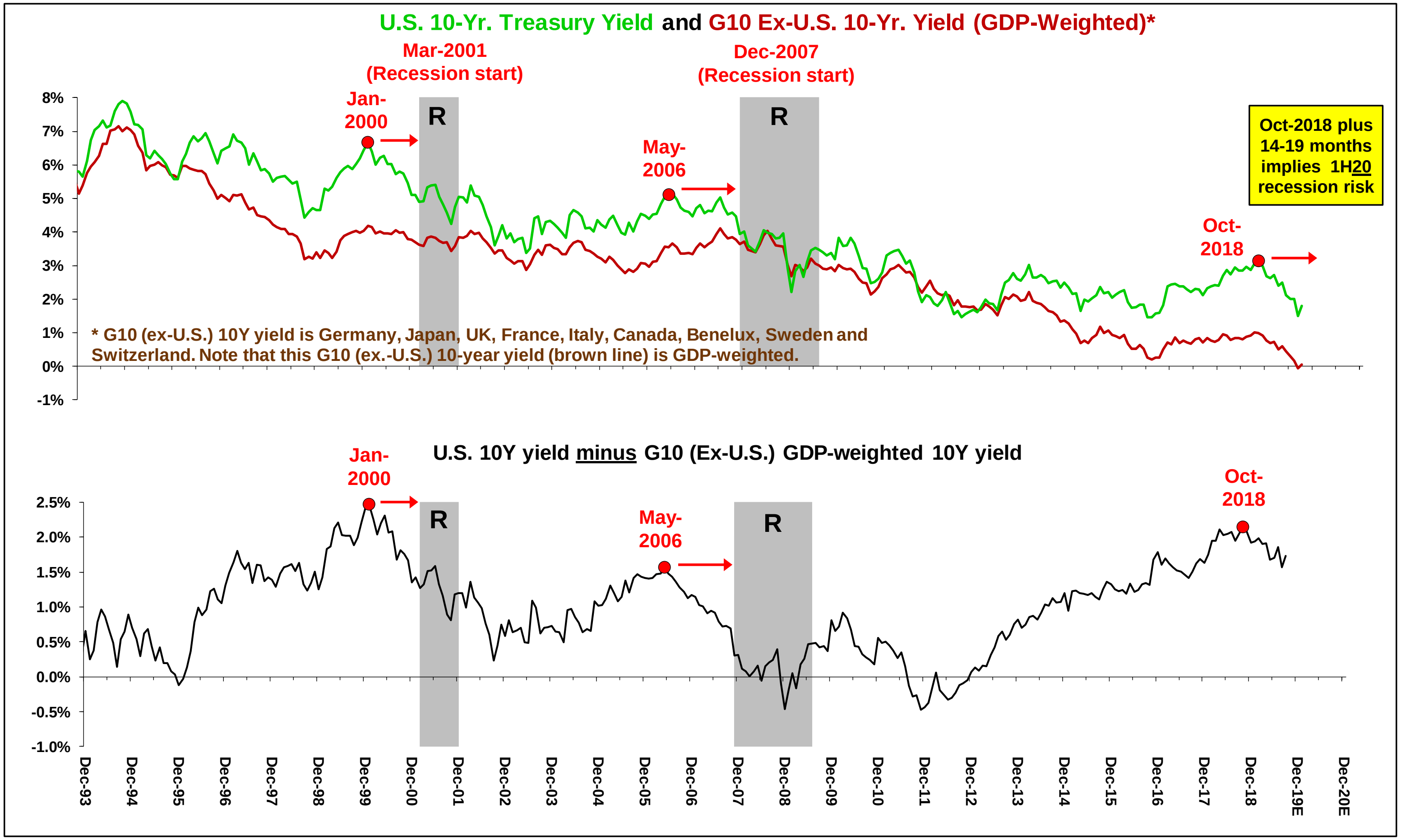
Some investors believe a low 10Y yield supports stocks, but what if the low yield indicates recession? The 10Y yield outside the U.S. is 0% (top, brown line) because foreign central banks are almost out of ammunition (and as a group at a negative yield). The peak of the U.S. minus non-U.S. 10Y has led the past two recessions 14-19 months (arrows) and peaked in Oct-2018, implying 1H20E recession risk.



Source: Bloomberg data, Stifel estimates.

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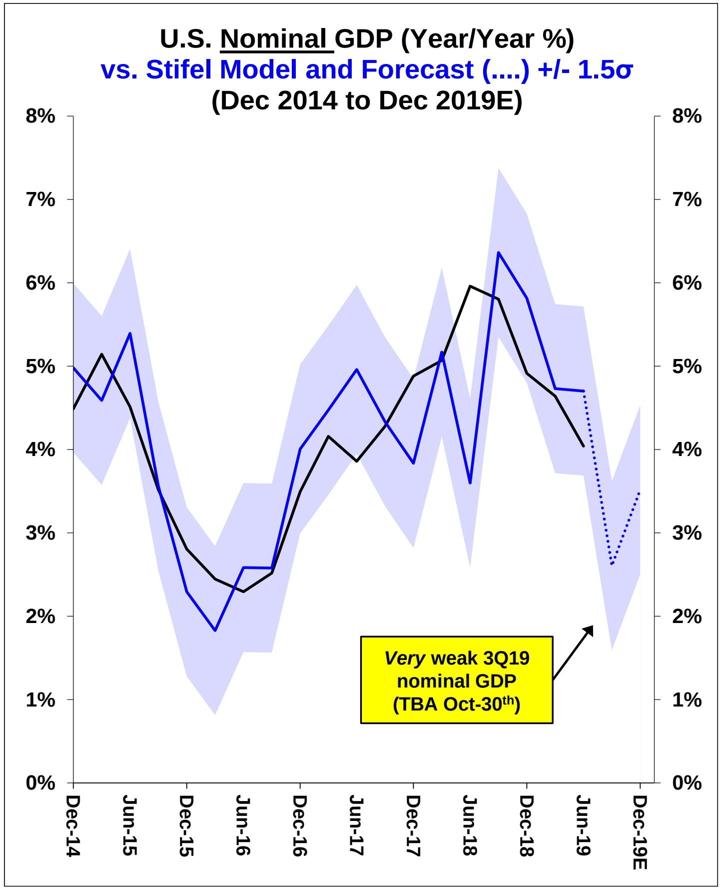
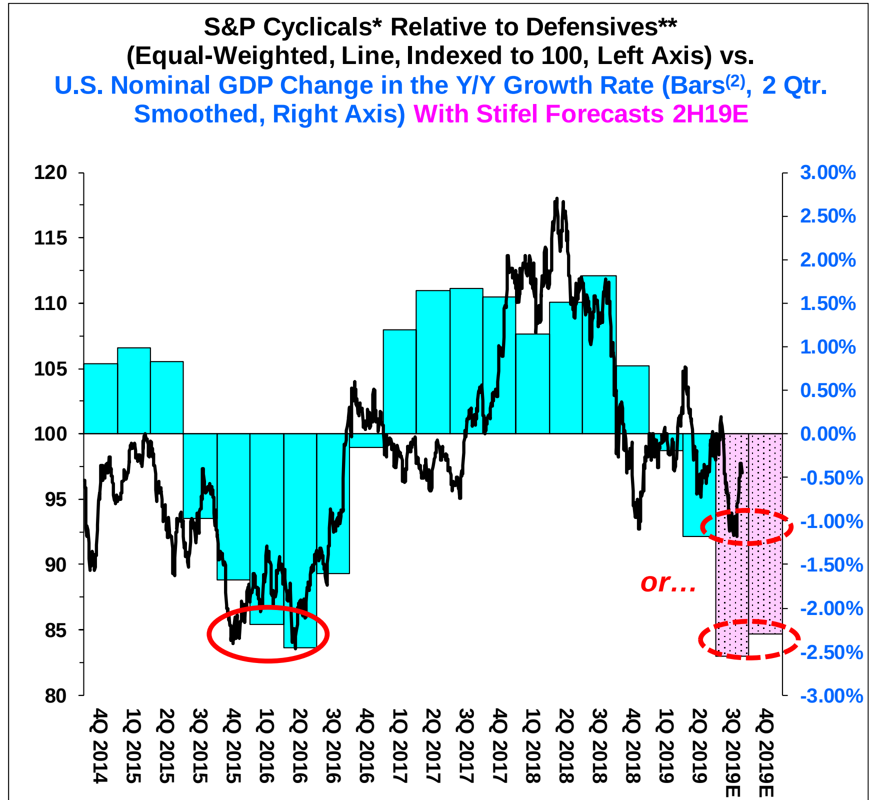
Weak 3Q19E U.S. *nominal*(1) GDP should continue supporting Defensives vs. Cyclicals for a bit longer. With weak U.S. nominal GDP in 3Q19E (left chart), we would expect S&P 500 Cyclicals to *at least* double-bottom vs. Defensives (right chart, red circles). It is also possible Cyclicals vs. Defensives are forming a head & shoulders (see black line, right chart), implying a much lower bottom if a 2020 recession occurs.





* Cyclicals: Industrials, Materials, Financials, Energy, Technology, Consumer Discretionary
** Defensives: Consumer Staples, Healthcare, Utilities, Real Estate

Source: Bloomberg data, NBER Recession Dates, Stifel estimates.

(1) We believe the policy goal since the late-1990s has been nominal GDP ("NGDP," real GDP + inflation) due to persistent deflationary pressure (debt, over-capacity, demographics, technology.
(2) The bars in the right chart are sequential change in rate of growth for nominal GDP; for example from 5% to 3% is -200bps, with the chart depicting the two quarter average of this change.

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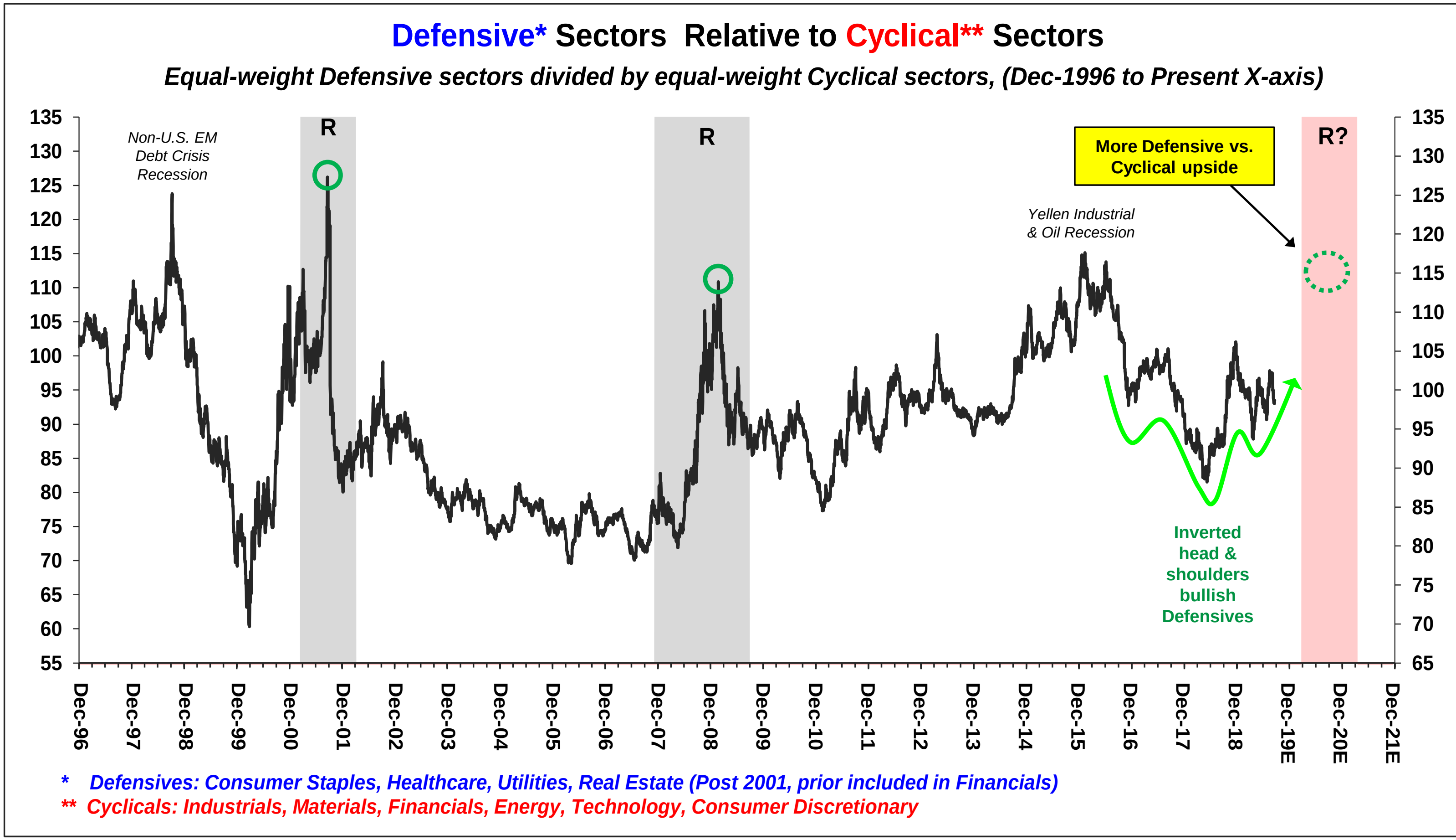
S&P Defensive sectors *are* expensive, but until "mid-recession" they historically beat S&P Cyclicals. Defensives relative to Cyclicals(1) typically do not peak until the middle of recessions, whether in the U.S. or overseas (*i.e.*, recessions outside the U.S. that do not result in U.S. recessions). The chart below also depicts an inverted head & shoulders since 2015, which indicates further Defensive vs. Cyclical upside.



Source: Bloomberg data, Stifel estimates.

(1) Equal-weighted total return indices of the four Defensive sectors listed relative to the equal-weighted relative total return of the six Cyclical sectors listed.

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In our view:

Topics: Is "Value" bad for the S&P 500? Is a trade truce too late? $78 Brent? ERP myopia? 5 flat years ahead?

Source: U.S. Department of Transportation, Stifel.

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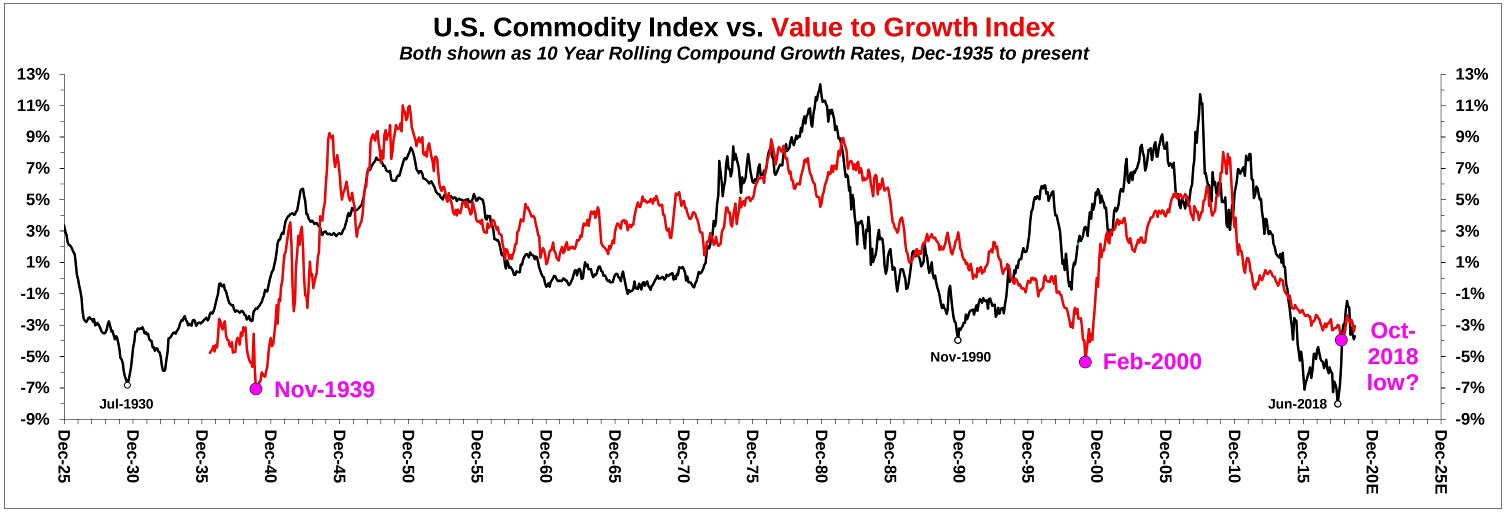
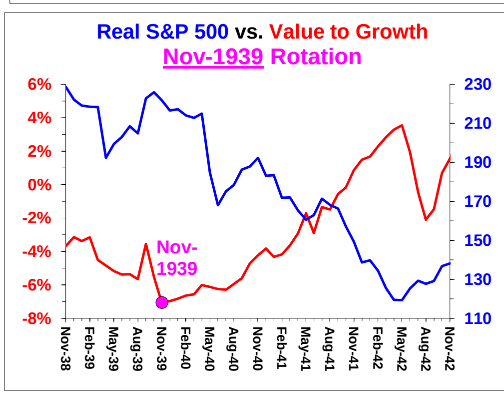
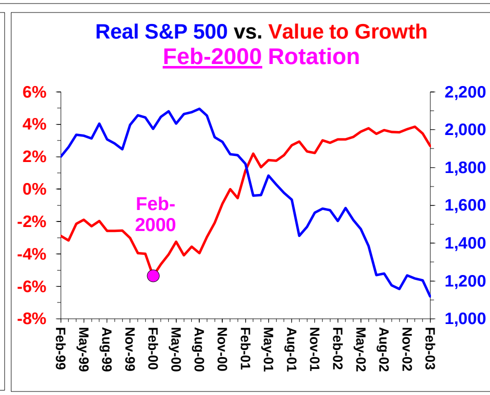
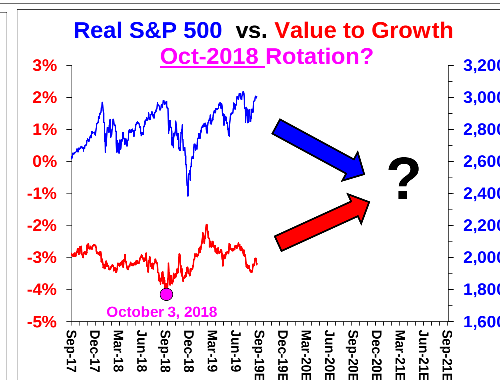
If a *major* Value vs. Growth rotation occurs, then that has been *negative* for the S&P 500 in the past. Value has recovered from the current level only twice the past century (top chart), and both times the S&P 500 (blue lines, lower charts) *halved within two years*. This may not even be "the" low for Value, since commodity prices only recently bottomed and they led the past two rotations by ~10 years.









Source: Commodities are an equal-weight (1/3rd each) PPI Energy, PPI Farm Products and PPI Metals (Ferrous & Non-Ferrous) excluding precious (1925-1956), Thomson/Reuters Equal-Weight (CRB-CCI) Index (1956-1994), and T/R Core Commodity Index (1994-Present). Value vs. Growth links the French series (here, data here) 1926-77 and the Russell indices 1978 to present.

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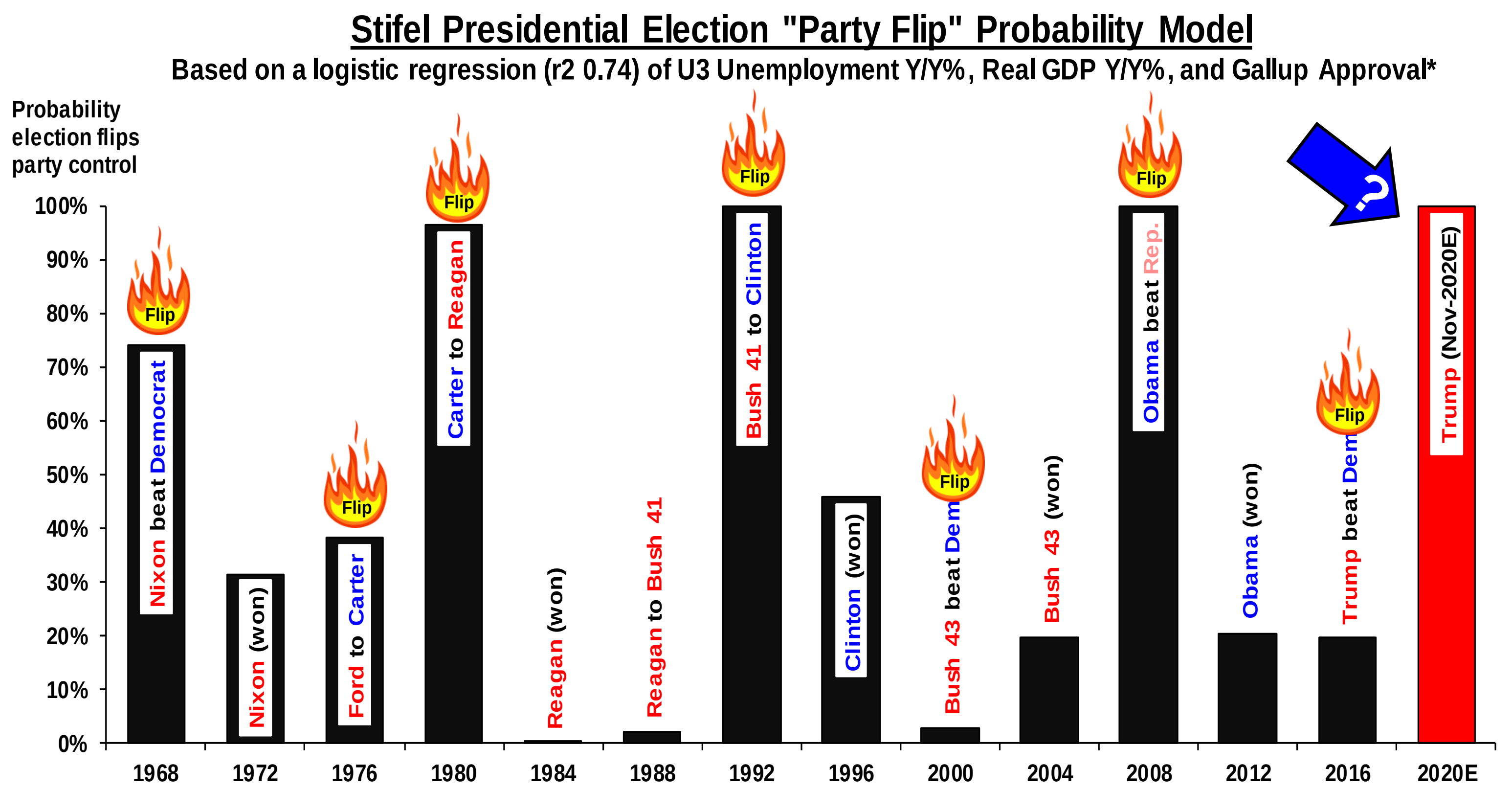
Fearing recession, President Trump may push a weak *"buy soybeans, get semis"* truce. But is it too late? Our Stifel Presidential Election "Party Flip" model is below, with annotations for elections that transitioned to the opposite political party. Normal incumbent advantage may be lost in a 2020 recession, resulting in a party flip (R→D). For that reason, President Trump likely puts trade on the "back burner."



* *Nov-2020 Gallup approval of the previous sitting president regardless of whether they were running. For Nov-2020E, we use real GDP and U3 unemployment forecasts as of Nov-2020E based on the average of past recessions following 50dma 10Y-3M inversions.*

Source: Bloomberg data, Gallup data, Stifel estimates.

STIFEL

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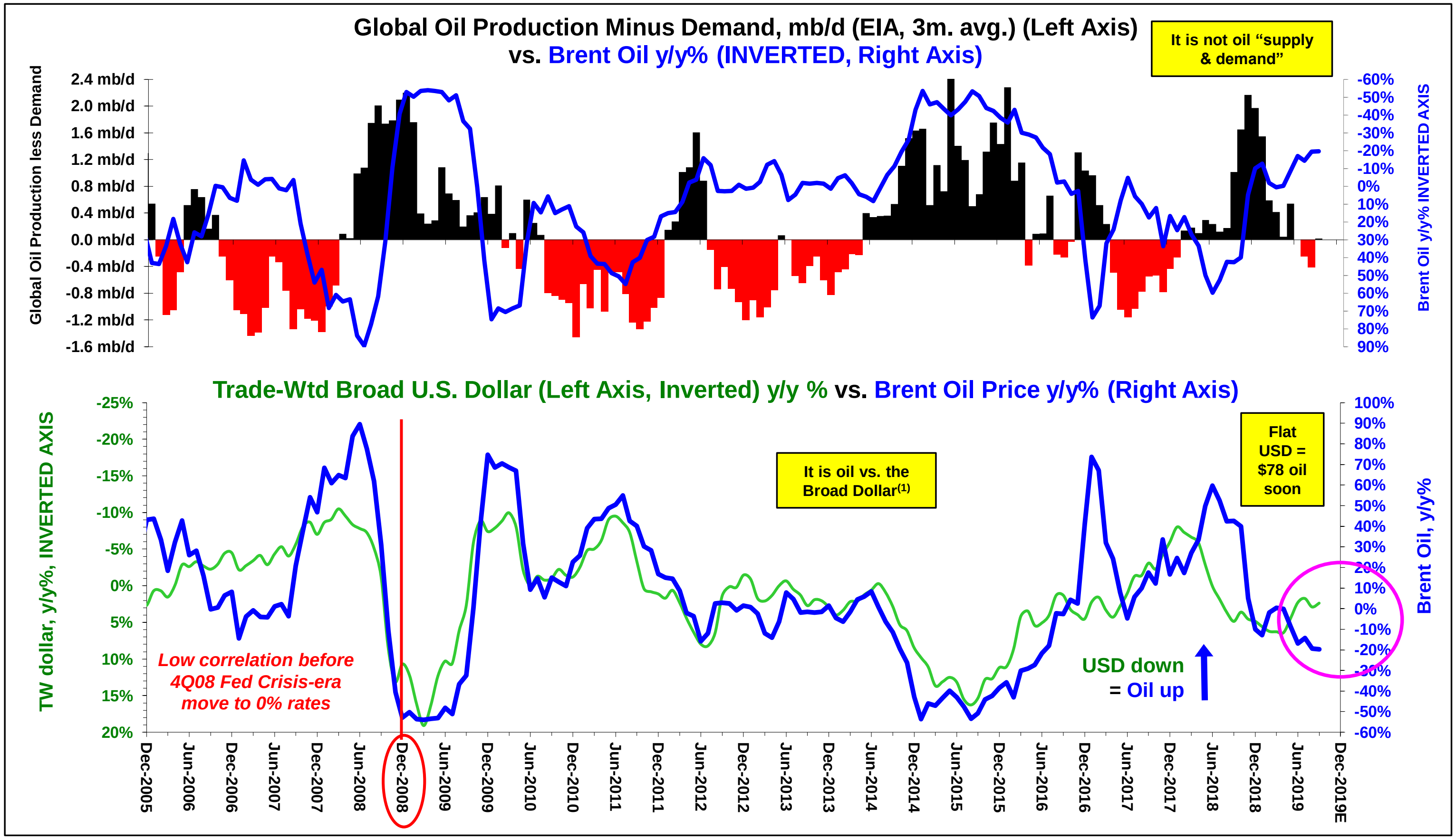
The Brent oil vs. Broad dollar gap may close, with oil rising to ~$78/bbl. thus weighing on consumers. OPEC attempts to support oil have only a modest effect on price. Since the 2008 Crisis it is the Broad[(1)] Dollar which most closely correlates (inversely) with oil, we believe due to low real rates equalizing oil *and* money[(2)]. If the dollar stays flat then oil may *also* rise to 0% y/y, or flat with $78 in Sep-2018.



Source: Bloomberg data, EIA, Stifel format and estimates.

(1) The Broad dollar is 51% EM currencies, with China alone 16% of the total.
(2) Low U.S. real rates have put oil and money on a level playing field (neither pays a real return, so they are equivalent).

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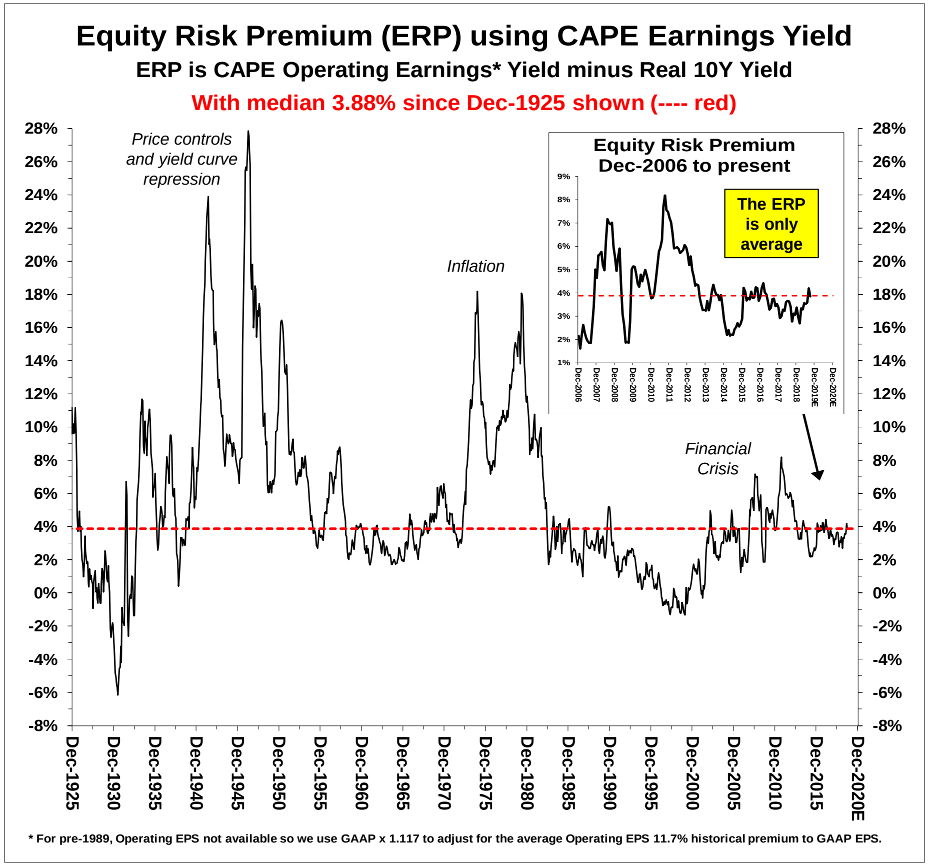
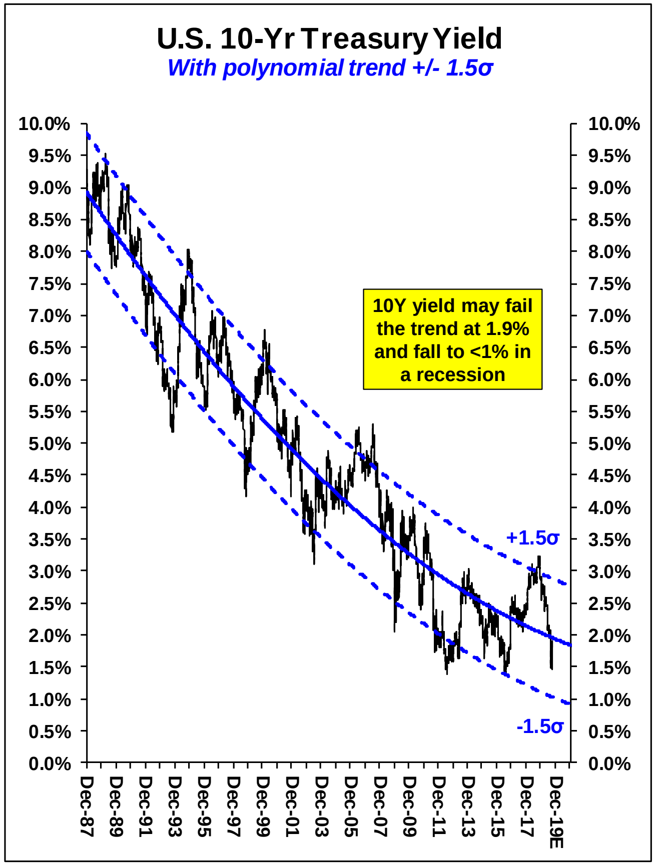
Bulls cite a "high" Equity Risk Premium (ERP), but in reality the ERP is only *average* and can go higher. CAPE ERP(1) is not "high," which would imply a high earnings yield (EPS/price) and thus a low P/E versus the risk free 10Y Treasury. In reality, the ERP level today is just *average* (left chart). More troubling would be the 10Y yield failing the polynomial trend near 1.9%, perhaps indicating recession risk (right chart).





Source: Bloomberg Operating EPS 1989 to present. Before 1989, S&P/Shiller/Yale GAAP EPS data which we gross up 11.7% to match the historical GAAP/Operating difference, Stifel estimates.

(1) CAPE Equity Risk Premium (ERP) is Earnings Yield on trailing 10-year real EPS minus the real (CPI-U) 10-year yield. Earnings Yield is EPS/Price, which is the P/E ratio upside down.

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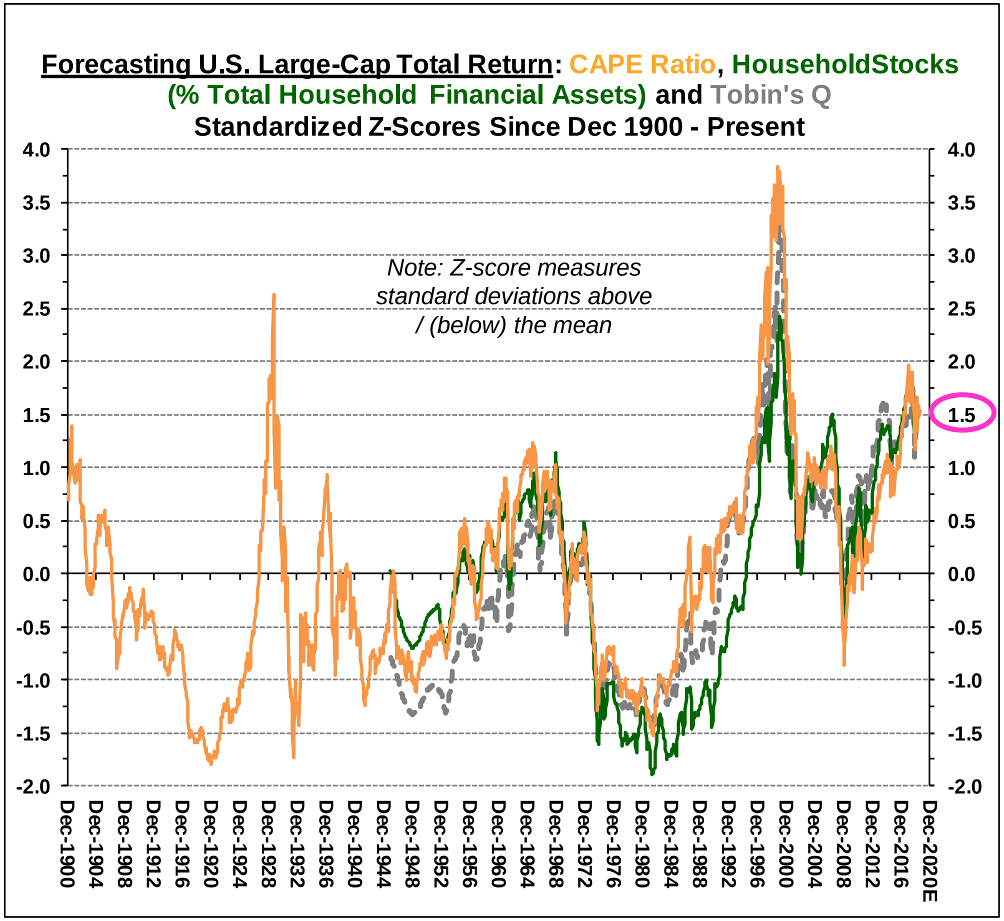
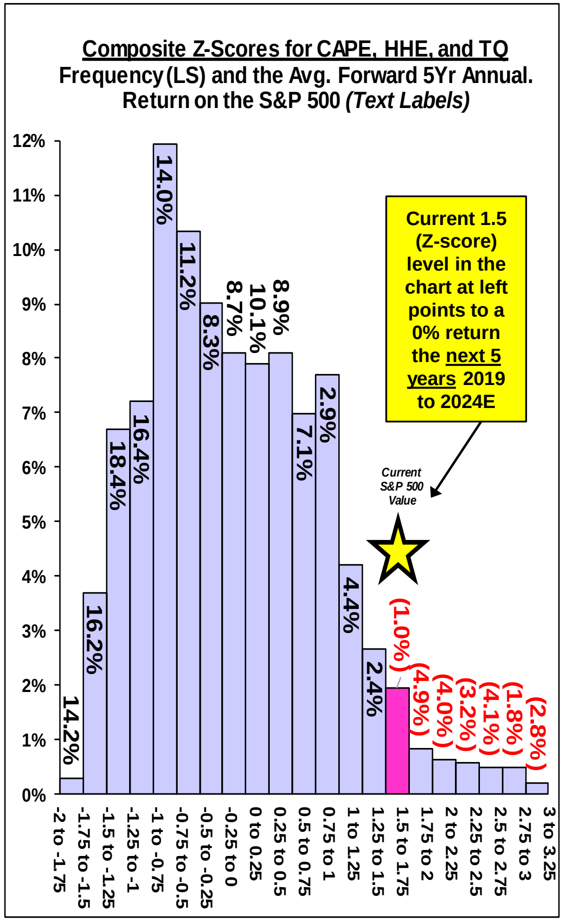
Based on equity valuation & percent of household portfolios, the S&P 500 may have topped for 5 years. Our model[(1)] using CAPE, Tobin's Q and Household stock shows the S&P 500 is over-valued/owned (left), with a -1.0% S&P 500 compound annualized total return for the 5 years 2019 to 2024E (right).





Source: S&P 500 total return Bloomberg data, S&P historical Shiller (Stifel Operating adjustment[(2)]), U.S. National Accounts (Flow of Funds tables b.103 and b.101), Stifel estimates.

(1) We use a "flow" variable (CAPE) , "stock" variable (Tobin's Q), and a "sentiment" variable (Household stock ownership, Flow of Funds b.101) to forecast the S&P 500 10 years ahead.

(2) After 1989, Bloomberg S&P 500 Operating EPS. Before 1989, S&P/Shiller/Yale GAAP EPS data converted to estimated Operating EPS using the historical average Operating/GAAP differential.

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