Stay focused despite alarmist news flow: 2,750 for S&P 500 by Apr-30, 2020

Summary

Our 3/19/20 (S&P 500 2,409) report "We see an S&P 500 relief rally to 2,750 (+15%) by April 30, 2020" remains our view, and we watch inflation, volatility, credit and currency. We see U.S. COVID-19 diagnosed cases peaking later in April (then dissipating in summer, possibly returning winter 2020-21), with stocks rising in advance of the near-term virus top. The S&P 500 historically looks four months out, and currently discounts declining EPS (we provisionally estimate $130 EPS in 2020E vs. $142 prior) and weak GDP through early August, but Equity Risk Premium is now attractive if deflation is avoided. As the market looks to U.S. economic improvement in August and thereafter, reflation vs. deflation will determine market leadership, so we watch Defensives vs. Cyclicals (we prefer the latter), Growth vs. Value (the time for the latter is coming), and deflation indicators gold vs. oil and 10Y yields.

Key Points

Our 3/19/20 (S&P 500 2,409) report " We see an S&P 500 relief rally to 2,750 (+15%) by April 30, 2020" remains the view, and we are closely watching inflation, volatility, credit and currency (pg. 2)

Stocks should continue moving with virus data: We see U.S. COVID-19 diagnosed cases peaking later in April, and stocks may react positively to the case growth rate cresting (pp 3-7)

- New global COVID-19 cases above / (below) resolved cases (resolved = cured or dead) has moved opposite the S&P 500 since early Feb-2020 and may peak as new cases slow ***(p. 4)***
- We estimate* U.S. COVID-19 attributed deaths peaking at a fraction of the U.S. 1957-58 and 1969 flu pandemic level (population-adjusted), and since greed and fear both form destructive bubbles that over-amplify narratives, we believe it is possible that lasting damage by late-2020 and beyond to U.S. capital markets and the economy may occur as this "fear bubble" bursts ***(pp 5-7)***

The S&P 500 looks four months ahead, and now discounts weak GDP to August 2020E, by which time we see improvement (plus SARS-CoV2 may have faded seasonally); Equity Risk Premium already discounts weak EPS (we provisionally see $130 in 2020, $142 prior), but avoiding deflation is the principal question for valuation that supersedes earnings (pp 8-14)

- The S&P 500 leads economic recovery by ~4 months, and the recent S&P 500 bounce is an encouraging sign that by Aug-2020 U.S. GDP may begin to mend with "bad data getting less bad" **(pg. 9)**
- S&P 500 Operating EPS of $130 in 2020E that only slowly bottoms in 2021E is our new provisional EPS view pending more data (versus $142 in 2020E prior view), but Equity Risk Premium may now reflect weak EPS and be attractive *if deflation is avoided* **(pp 10-11)**
- The yield curve saw COVID-19 ten months ago? The 10Y-3M yield curve (50dma smoothed) inverted 6/20/19, and warned of *both* an economic and EPS recession by spring 2020 **(pp 12-14)**

Reflation vs. Deflation will determine market leadership: Watch Defensives vs. Cyclicals, gold vs. oil and 10Y yield (pp 15-21)

- We won't fight the Fed since all "money" is fiat (paper) and the monetary and fiscal response using paper tends to be "whatever it takes," but markets *do* need a higher 10Y yield and a lower Core Defensive / Cyclical sector ratio to see a higher market price ***(pp 16-18)***
- Gold divided by oil (GOR) is extremely elevated, indicating severe deflation pressure (and bombed-out, cheap S&P Energy), but GOR may have peaked; the S&P 500 tends to bottom when GOR peaks ***(pp 19-21)***

Special Topics *(pp 22-44)*

Topic (1) Our S&P 500 model points to a mid-single digit annualized total return (incl. dividends) for a decade 2020-2030E ***(pp 23-28)***

Topic (2) Policy actions to reflate the economy may facilitate a stock market shift from Growth to Value leadership ***(pp 29-34)***

Topic (3) But...Value rotation may imply a 6-month lead to a top, after which the real S&P 500 may fall 50% in 2 years ***(pp 35-40)***

Topic (4) S&P 500 Seasonality...may be back, and indicates 3,100 for the S&P 500 by Apr-30, 2020 (not our forecast) ***(pp 41-44)***

**** Our COVID-19 estimates are based on analysis of current trends in the US and other countries, and that estimates of actual levels, growth rates and timing of inflection points will likely change as more data become available and the situation continues to unfold.***

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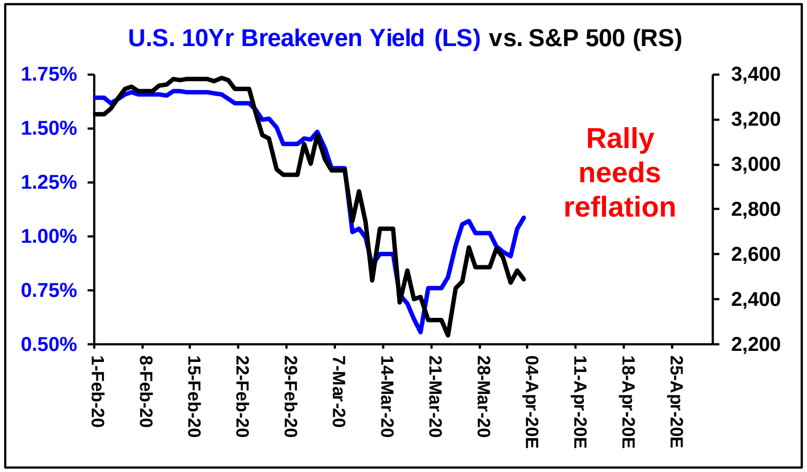
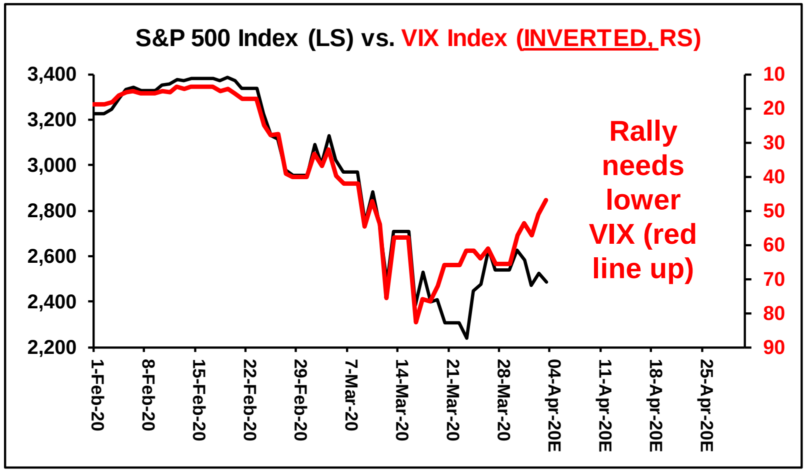
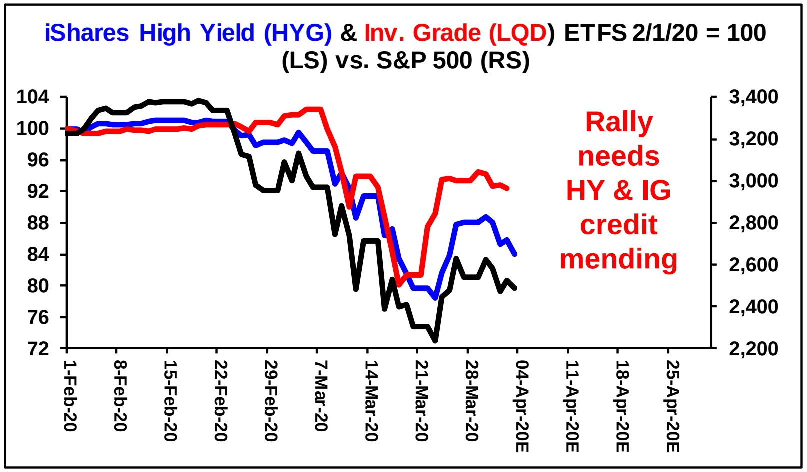
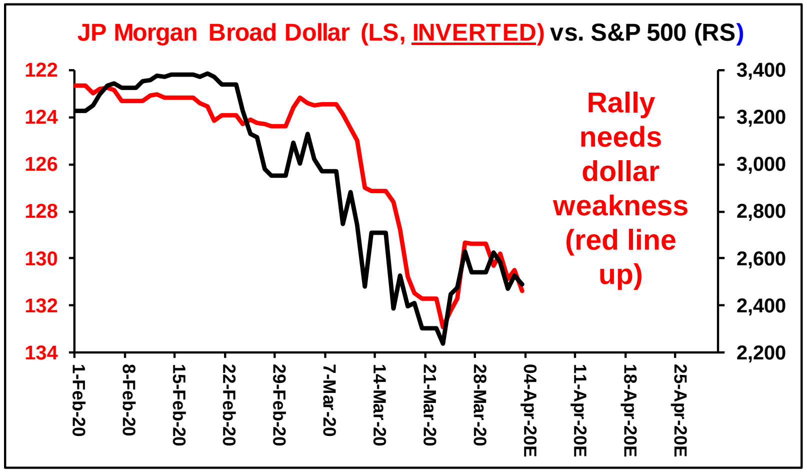
In our 3/19/20 (2,409) report "We see an S&P 500 relief rally to 2,750 (+15%) by April 30, 2020" we called for a *fast* relief rally, we watch inflation, volatility, credit and currency









Source: Bloomberg data, Stifel.

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In our view:

Stocks are moving with virus data:

We see[1] U.S. COVID-19 *diagnosed* cases peaking later in April, and stocks likely react positively to cresting case *growth*[2]

Source: Stifel.

(1) Our COVID-19 estimates are based on analysis of current trends in the US and other countries, and that estimates of actual levels, growth rates and timing of inflection points will likely change as more data becomes available and the situation continues to unfold.

(2) Including change in the rate of change, the second derivative, *e.g.,* 15% daily growth falling to 10% daily growth is positive.

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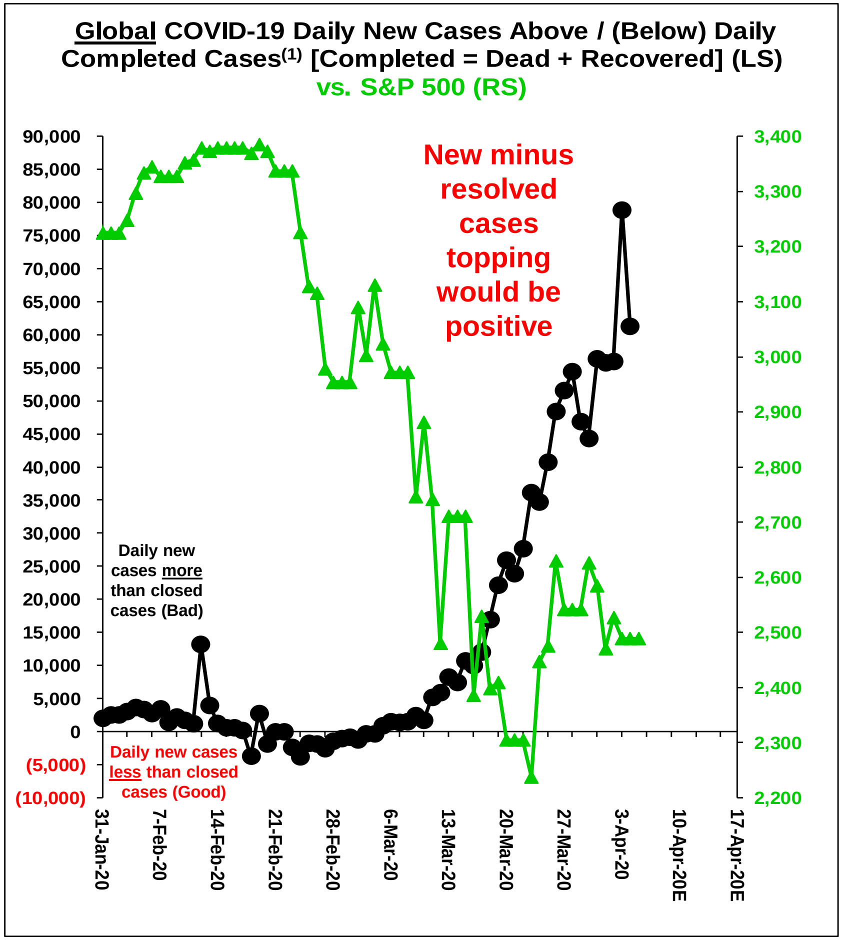
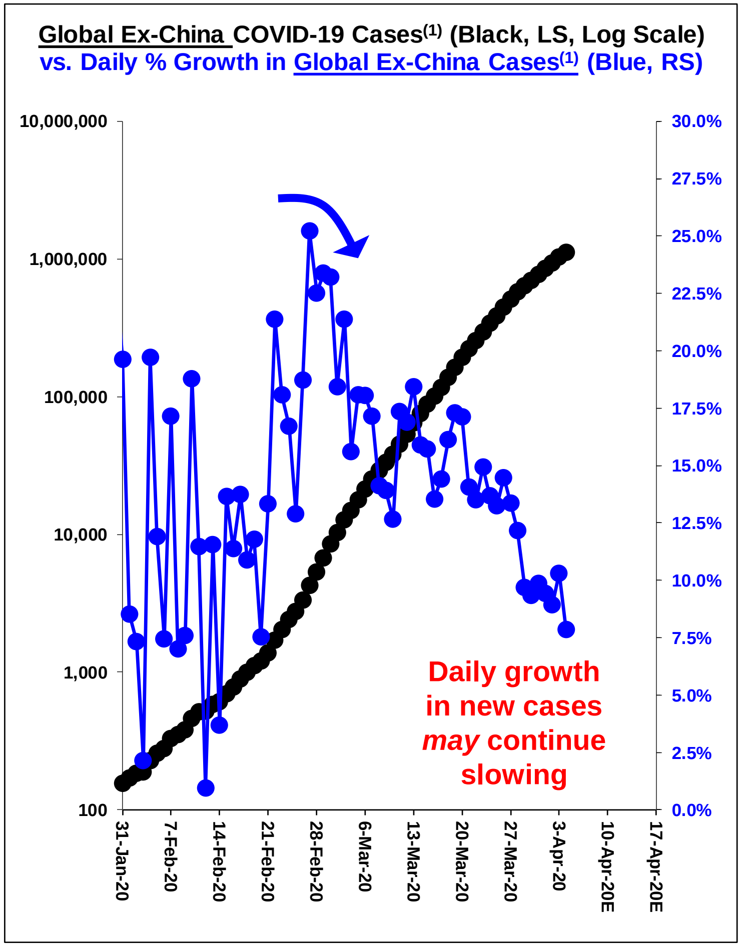
The S&P 500 appears to move opposite new COVID-19 cases above or (below) resolved cases (left chart, resolved = cured or dead), and new case growth may slow (right)





Source: Bloomberg [NCOV GO], https://www.worldometers.info/coronavirus/, Stifel estimates.

(1) Case data is through the latest day, although China (where reported cases are peaking, anyway) reports data overnight in U.S. time zones

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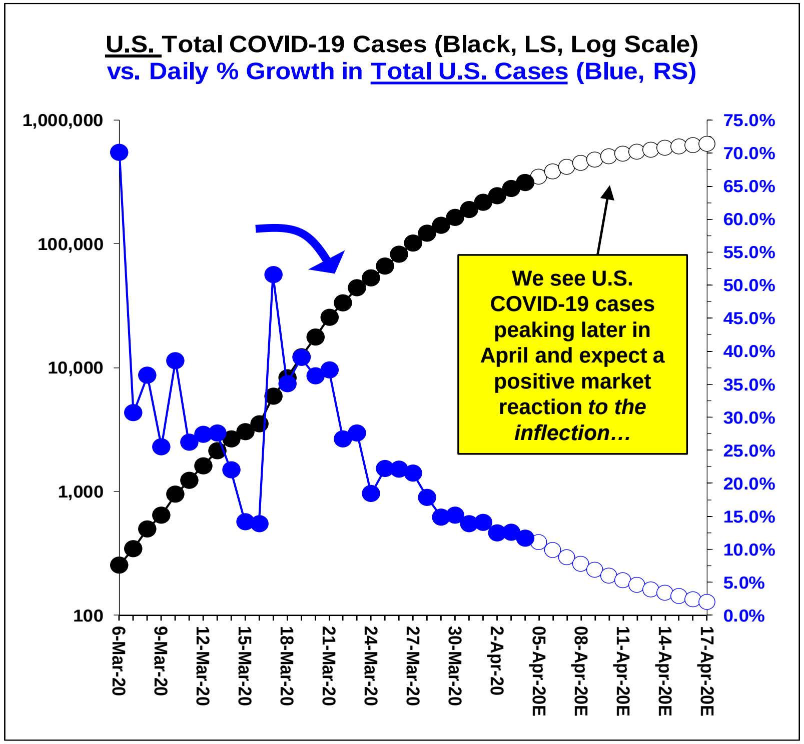
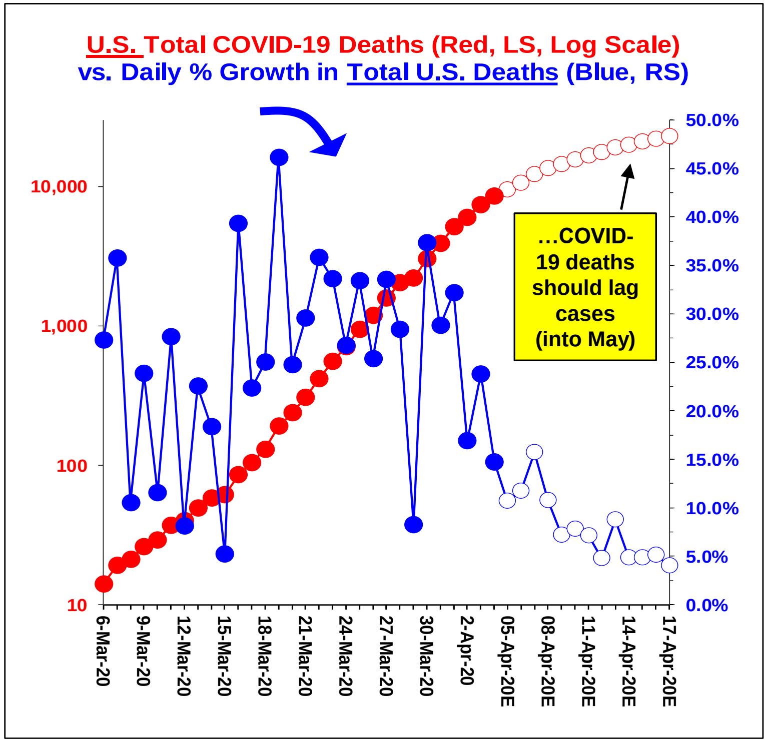
We see U.S. COVID-19 attributed deaths peaking at a fraction[1] of the U.S. 1957-1958 and 1968 flu pandemics (pop.-adj.), and since greed & fear *both* form destructive[2] bubbles through excessive reactions that *over-amplify* narratives, we are concerned that lasting damage to the capital markets and economy may occur as this *"fear bubble" bursts*





Source: Bloomberg [NCOV GO], https://www.worldometers.info/coronavirus/, Stifel estimates.

(1) **As of this writing, U.S. COVID-19 cases are 321,337 with deaths 9,128**. In the modern era (antibiotics, equipment) the **1957-58 "Asian Flu"** type-A H2N2 pandemic caused ~116,000 U.S. deaths (CDC) (or 0.000674% of the 1957 U.S. population, **equivalent to 220,690 deaths today**) and the **1968 "Hong Kong Flu"** type-A H3N2 caused ~100,000 U.S. deaths (CDC) (or 0.000486% of the 1968 U.S. population, **equivalent to 161,410 deaths today**), but neither virus resulted in an economic shut-down on par with the SARS-CoV2/COVID-19 response. Other comparisons are: 2009 "Swine Flu" H1N1/09 pandemic ~13,000 U.S. deaths, and for magnitude each year U.S. unintentional falls cause 36,338 deaths, unintentional poisoning 64,795 deaths, motor vehicles 40,231 deaths and firearm homicides 14,542 deaths (CDC).

(2) The investment risk we see in COVID-19 is not first round GDP demand-side or supply-side effects, but rather second round bankruptcies followed by a tertiary round of increased government involvement in business combined with rising dependency and erosion of capitalism, all of which are historically unfriendly to capital, *et al.*

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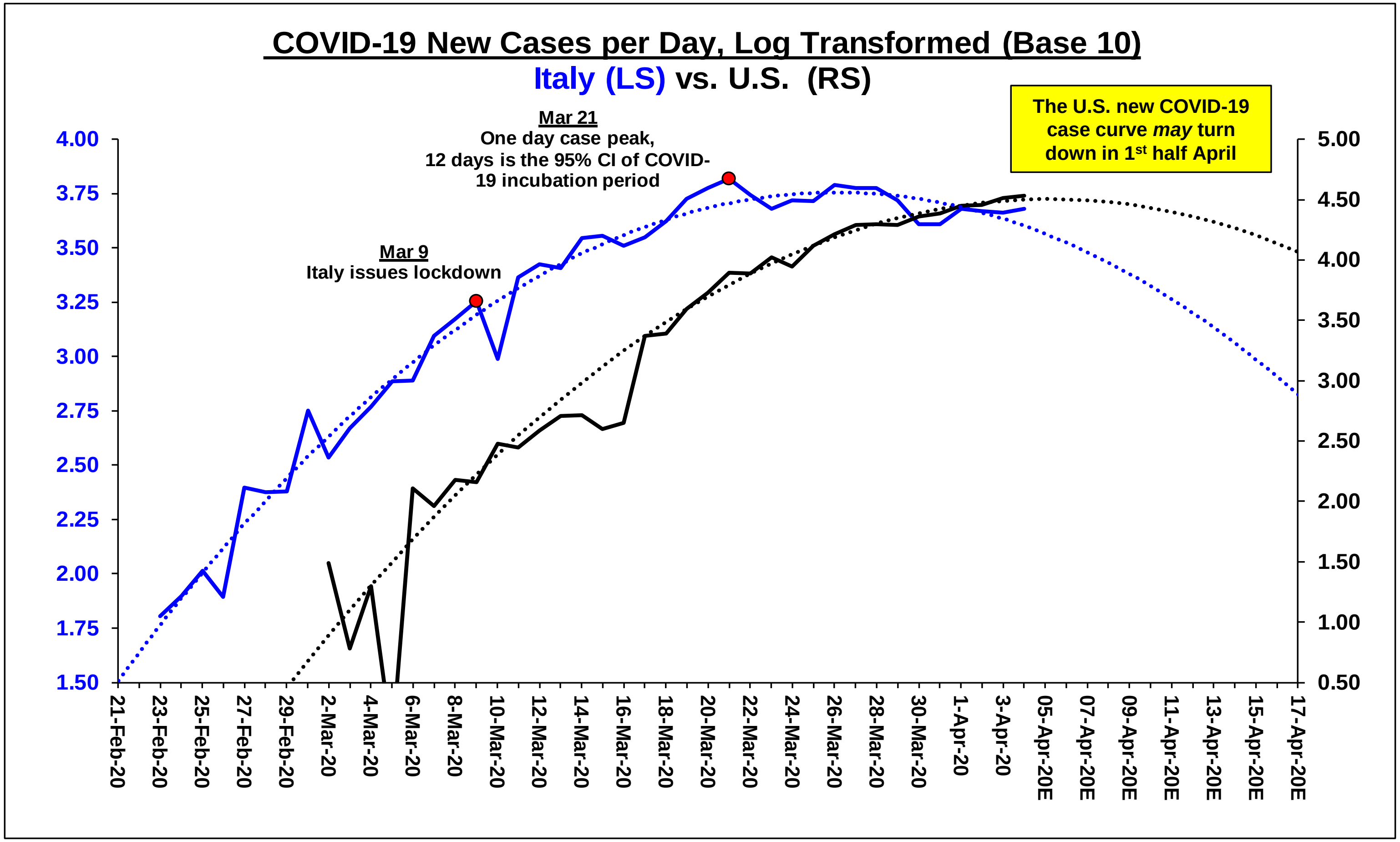
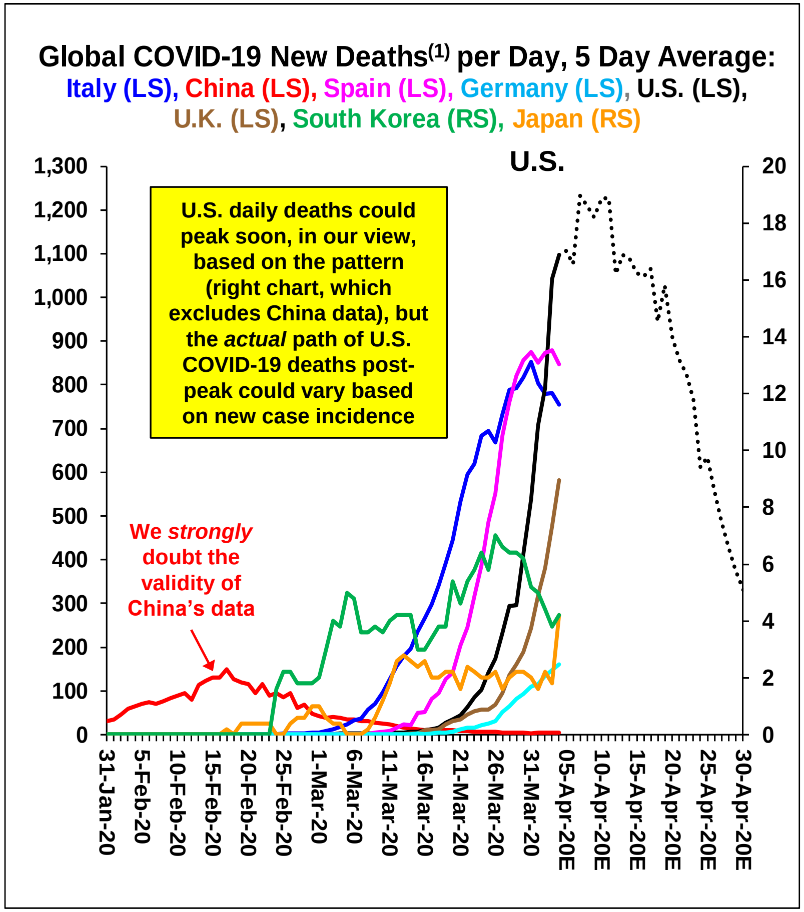
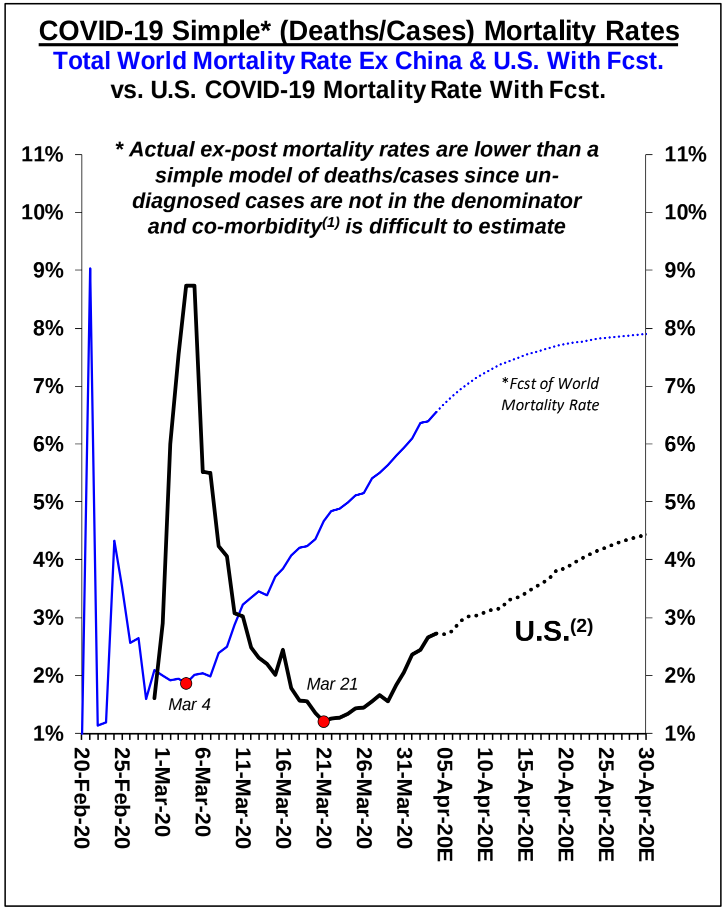
Italy's lock-downs flattened the polynomial curve for COVID-19 new cases per day, and *assuming no change in the current polynomial pattern* (log transformed), U.S. new COVID-19 cases per day may peak in the 1st half of April, in our view



Source: Bloomberg [NCOV GO], https://www.worldometers.info/coronavirus/, Stifel estimates.

We believe the daily change in U.S. COVID-19 attributed[1] deaths *may* peak in lagged[2] effect to the world ex-China (left), with cases/deaths following a similar lag (right)





Source: Bloomberg [NCOV GO], https://www.worldometers.info/coronavirus/, Stifel estimates.

(1) Each person who dies with COVID-19 in their body is deemed to have died from COVID-19, but since many who die from COVID-19 had other serious conditions (renal, respiratory, circulatory, *etc.*) the question of cause of death is blurred by not knowing whether the death was caused by COVID-19 *or the other conditions*.

(2) COVID-19 world mortality ex-China & U.S. bottomed Mar-4 and we re-index that to the U.S. low Mar-21 to forecast the way in which U.S. mortality may evolve.

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In our view:

The S&P 500 looks four months ahead, and now discounts weak GDP to August 2020E by which time we see improvement (plus, SARS-CoV2 may faded seasonally[(1)]); Equity Risk Premium already discounts weak EPS (we provisionally see $130 in 2020, $142 prior), but *avoiding deflation is a more important question than EPS*

Source: Stifel estimates.

(1) Recently prepared scientific papers (available in most cases on the SSRN network, some awaiting peer review) indicate COVID-19 might follow a seasonal respiratory illness pattern, with cases falling as specific humidity and surface temperatures rise: "***Temperature, humidity, and latitude analysis to predict potential spread and seasonality for COVID-19***," (Sajadi, Habibzadeh, Vintzileos, Shokouhi, Miralles-Wilhelm, Amoroso), "***Will coronavirus pandemic diminish by summer?***" (Bukhari, Jameel), "***High Temperature and High Humidity Reduce the Transmission of COVID-19***" (Wang, Tang, Feng, Lv), "***Preliminary evidence that higher temperatures are associated with lower incidence of COVID-19, for cases reported globally up to 29th February 2020***" (Bannister-Tyrrell, Meyer, Faverjon, Cameron).

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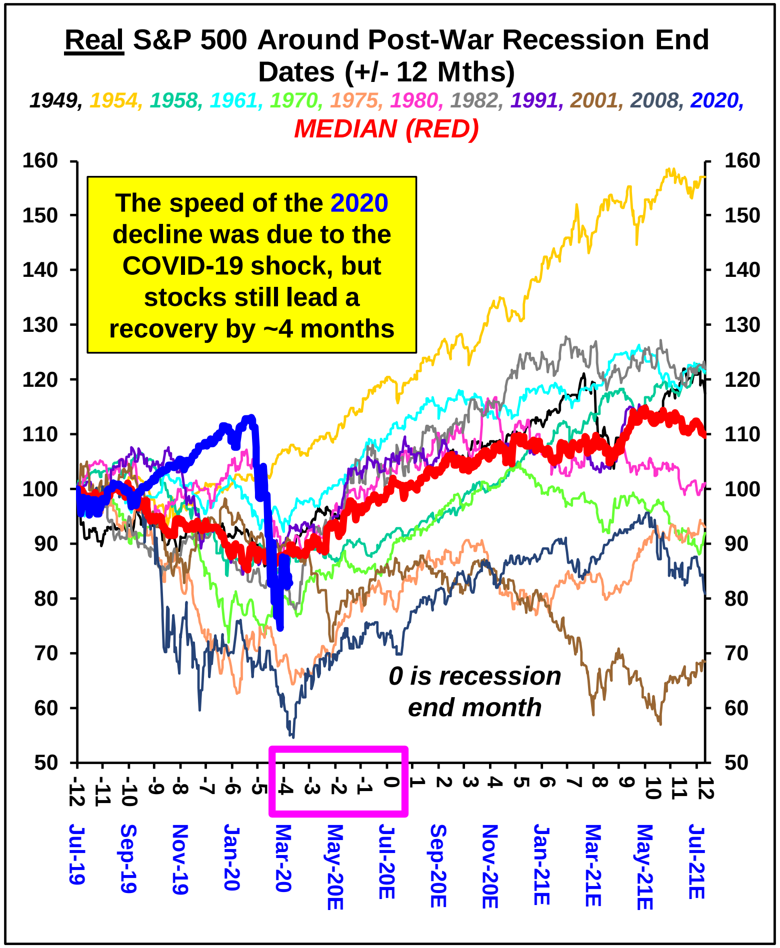
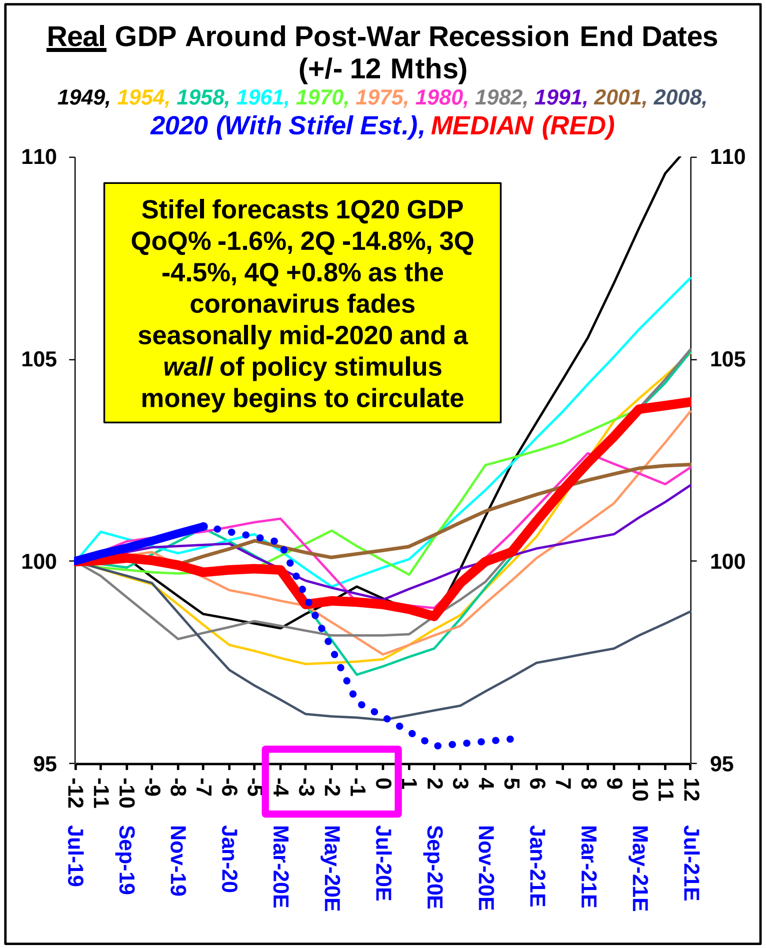
The S&P 500 leads economic recovery by ~4 months (left chart), and the recent S&P 500 bounce is a sign that by Aug-2020E U.S. GDP may *begin* to mend (right chart)





Source: Bloomberg data, NBER business cycle dates, Stifel estimates.

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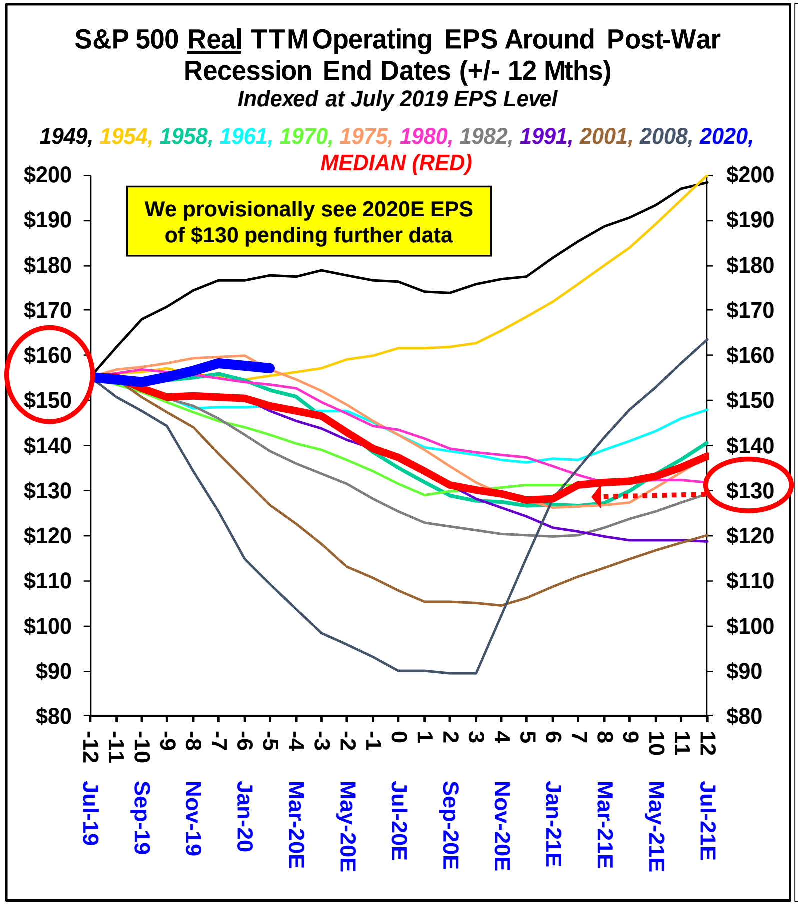
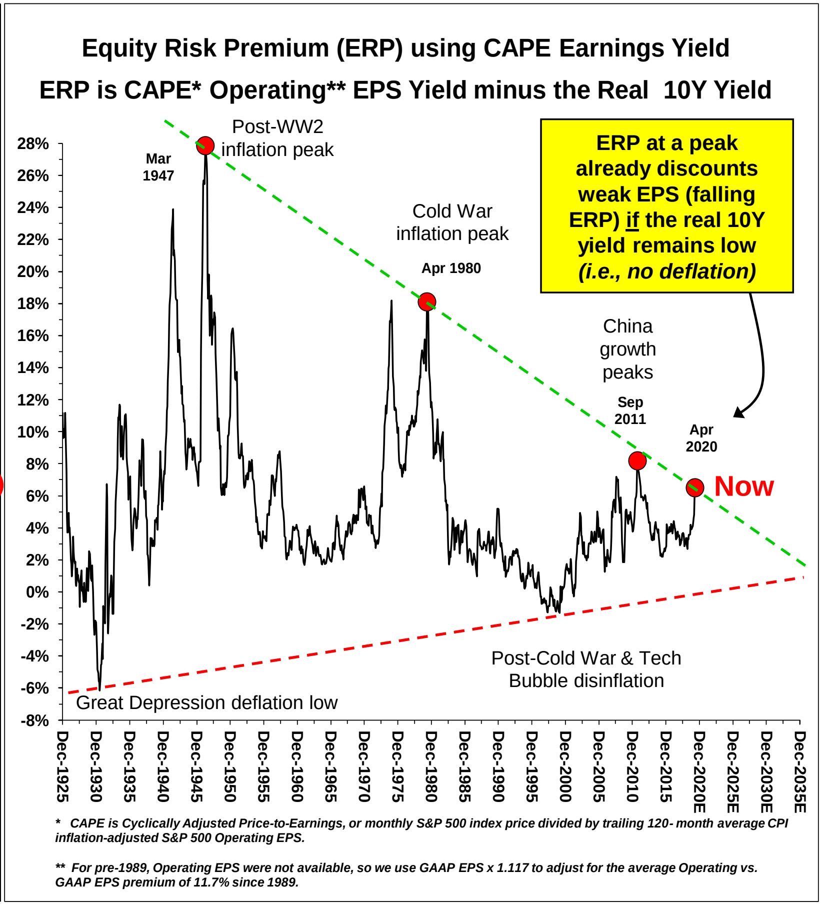
S&P 500 Operating EPS of $130 in 2020E is our new *provisional* view (pending more data) versus $142 in 2020E prior (left), but what matters is Equity Risk Premium(1) may already reflect weak earnings (if ERP peaked) and be attractive (right) if *deflation is avoided*





** CAPE is Cyclically Adjusted Price-to-Earnings, or monthly S&P 500 index price divided by trailing 120-month average CPI inflation-adjusted S&P 500 Operating EPS.*

*** For pre-1989, Operating EPS were not available, so we use GAAP EPS x 1.117 to adjust for the average Operating vs. GAAP EPS premium of 11.7% since 1989.*

Source: Bloomberg data, NBER business cycle dates.

(1) S&P 500 Earnings Yield minus the Real 10Y yield, or [(S&P 500 Operating EPS ÷ S&P 500 price) minus Real 10Y Treasury Yield].

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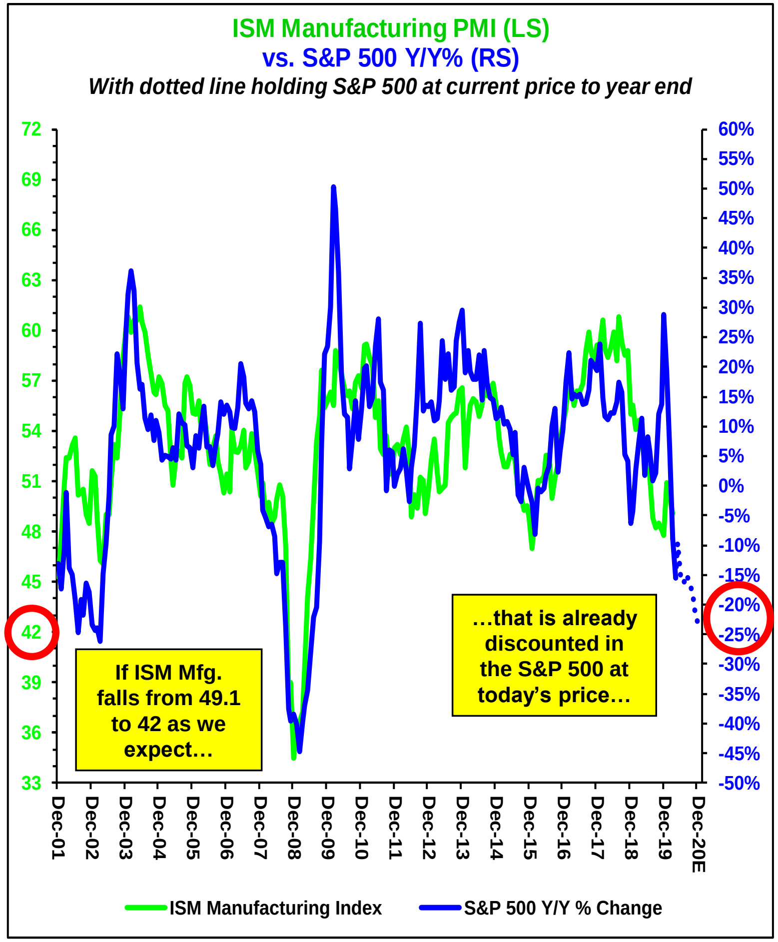
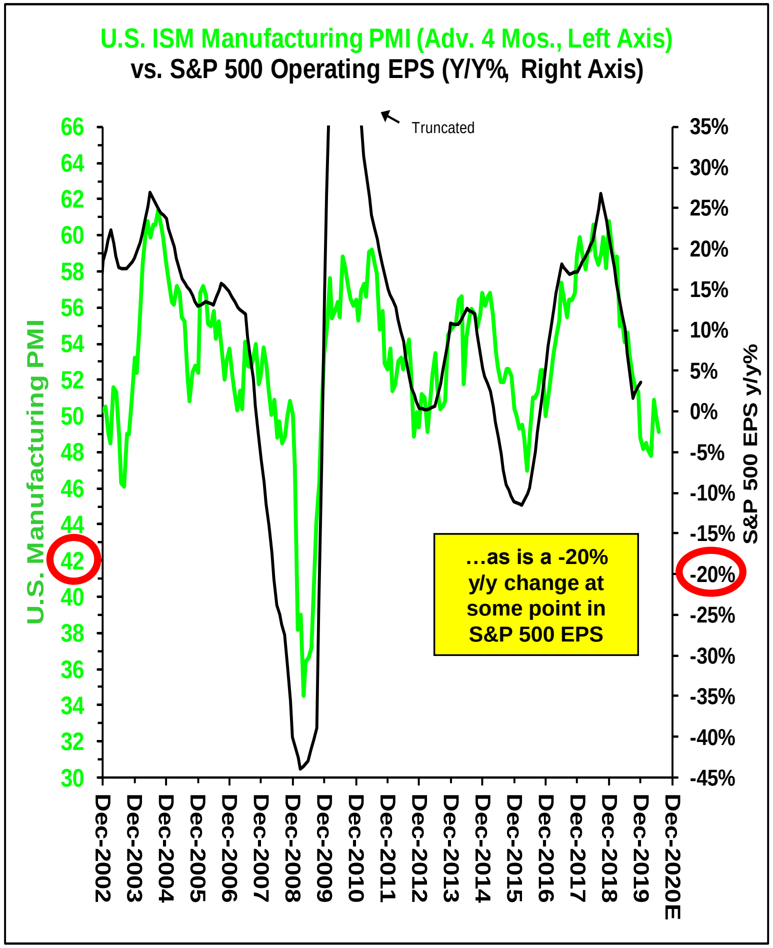
The most cyclical component of the U.S. is manufacturing, and the ISM Manufacturing may soon drop to 42[1] (49.1 latest), indicating (20)% y/y for S&P 500 EPS in mid-2020





Source: Bloomberg data, S&P Dow Jones Data, Stifel estimates.

(1) In-line with ISM Manufacturing New Orders of 42.2 in Mar-2020A.

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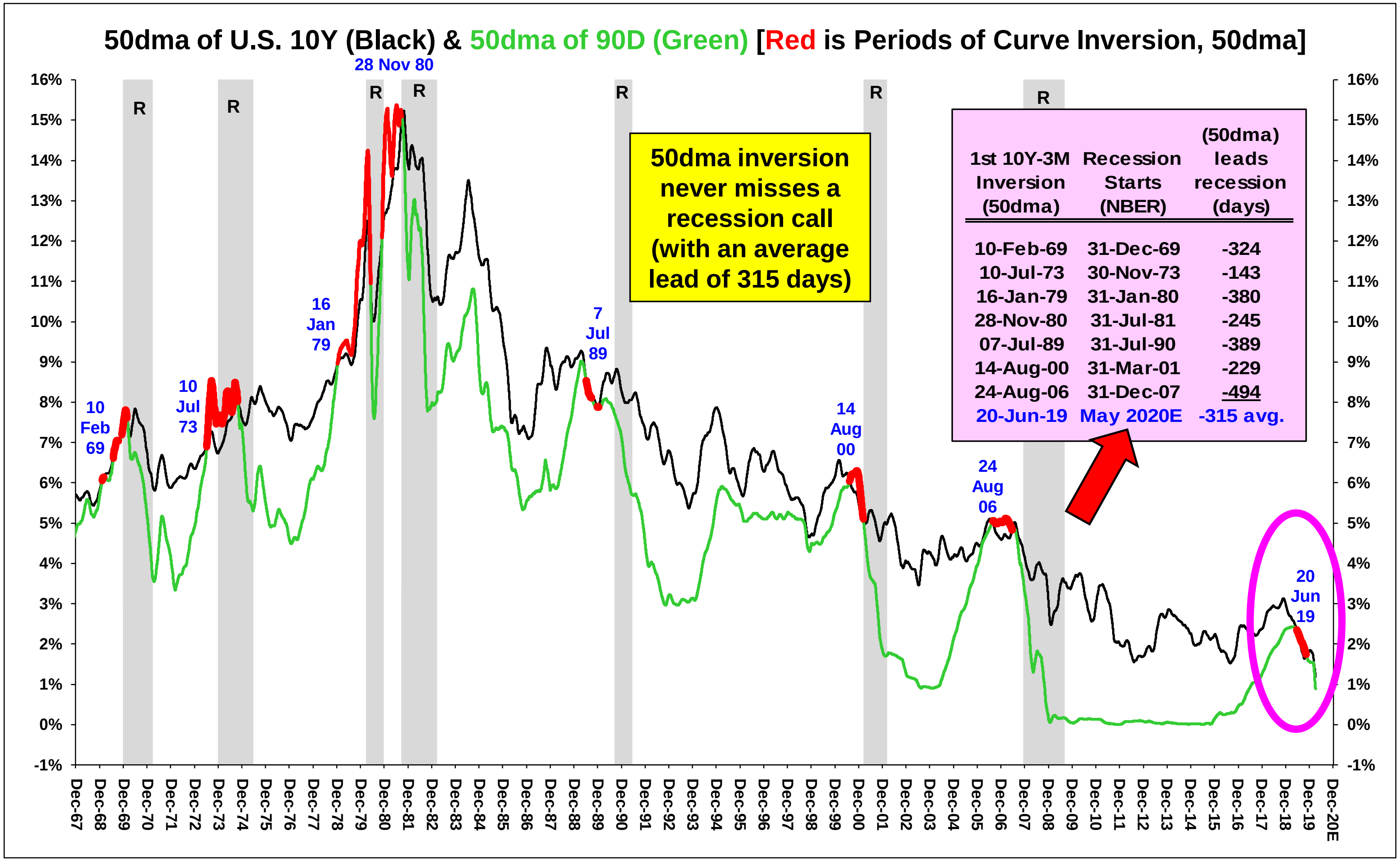
The yield curve saw COVID-19 ten months ago? The 10Y-3M yield curve (*50dma*(1) *smoothed,* red) inverted 6/20/19 (circled), and warned of a recession by spring 2020



Source: Bloomberg data, Stifel estimates.

(1) The term "dma" is "day moving average." The 50dma is the 50-day moving average (trailing 50 day average) of the 10Y yield minus the 50dma of the 3M Treasury.

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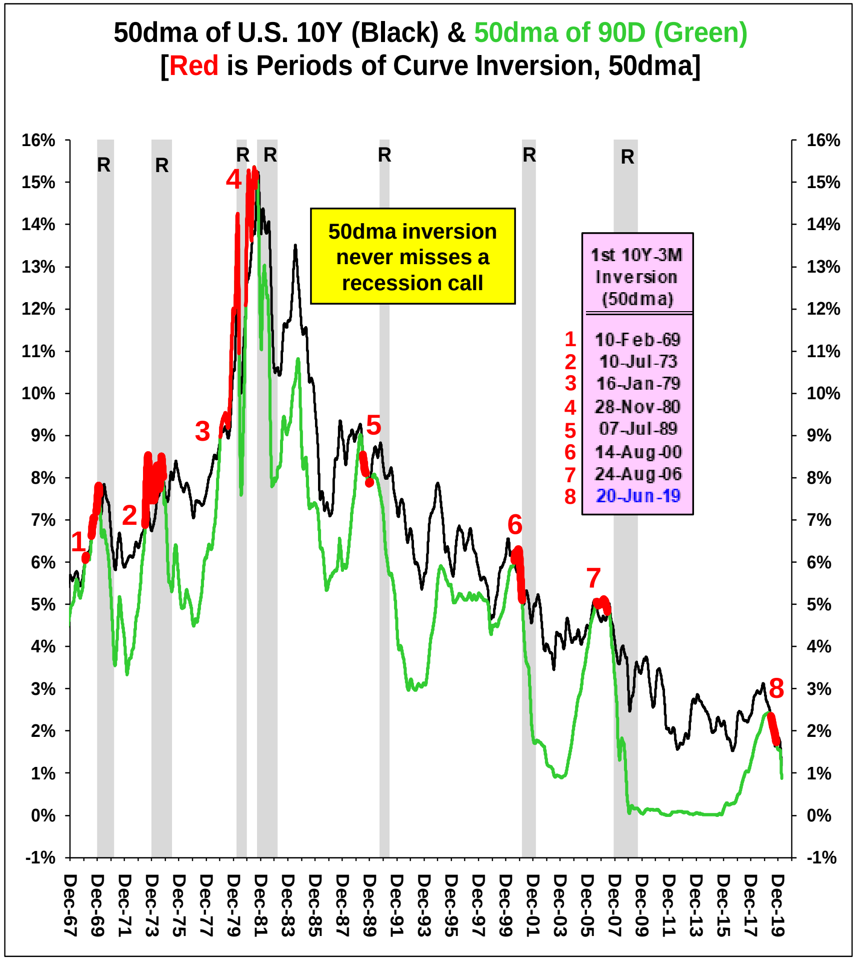
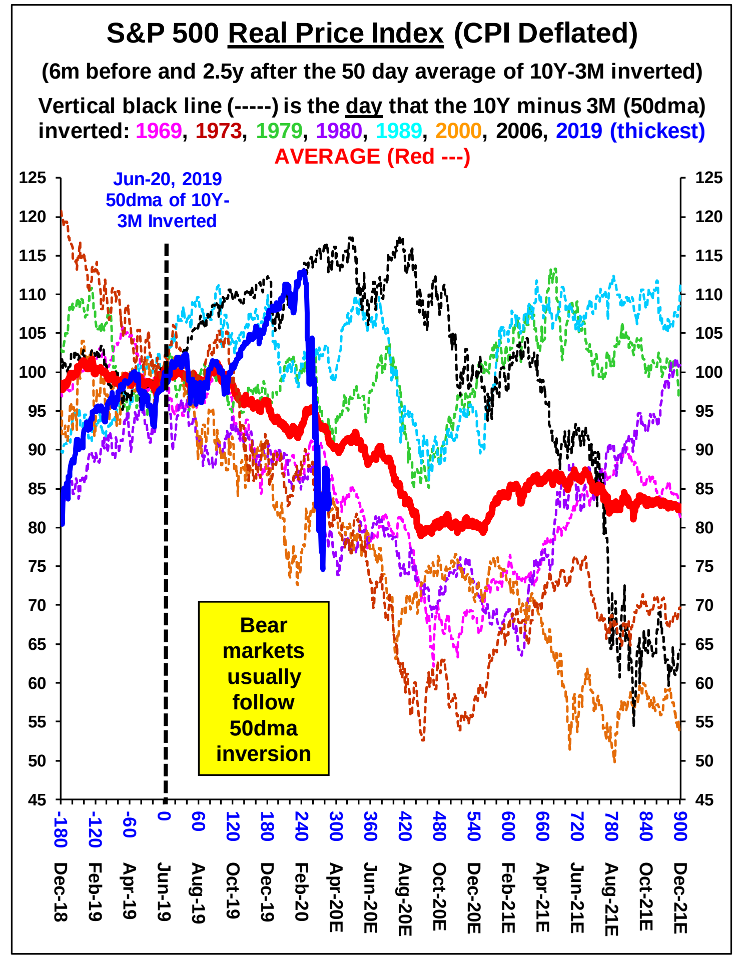
The abrupt 2020 S&P 500 bear market dropped to the lower end of historical yield curve-predicted levels, and we forecast a relief rally *within a bottoming process*





Source: Bloomberg data, Stifel estimates.

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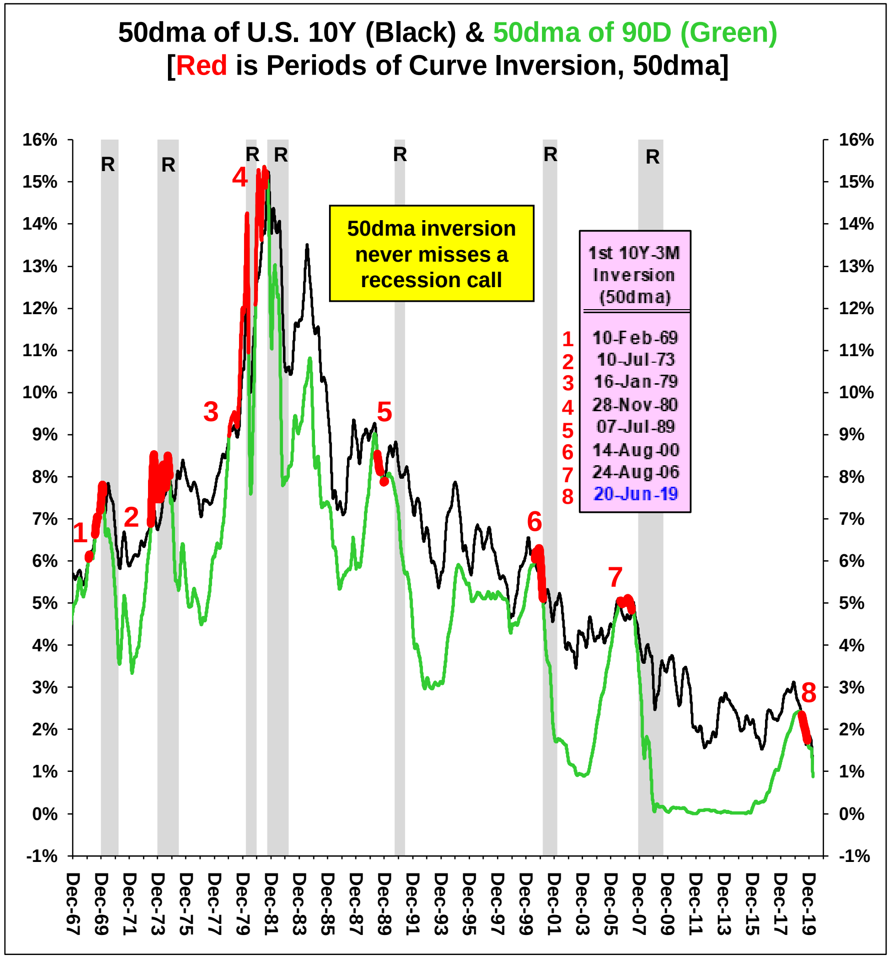
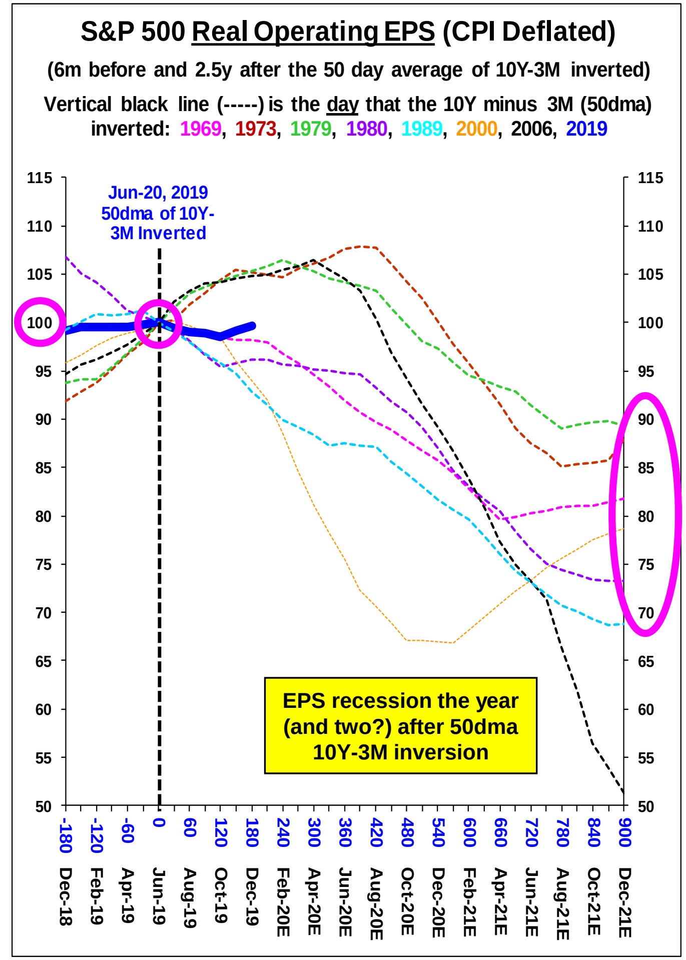
The 10Y-3M yield curve first inverted 6/20/19 (50dma basis) and foresaw a drop for S&P 500 EPS of -20% (+/- 10%) in 2020E and then flat/slightly lower in 2021E





Source: Bloomberg data, Stifel estimates.

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Reflation vs. Deflation will determine market leadership:

Watch Defensives vs. Cyclicals, gold divided by oil and the 10Y yield

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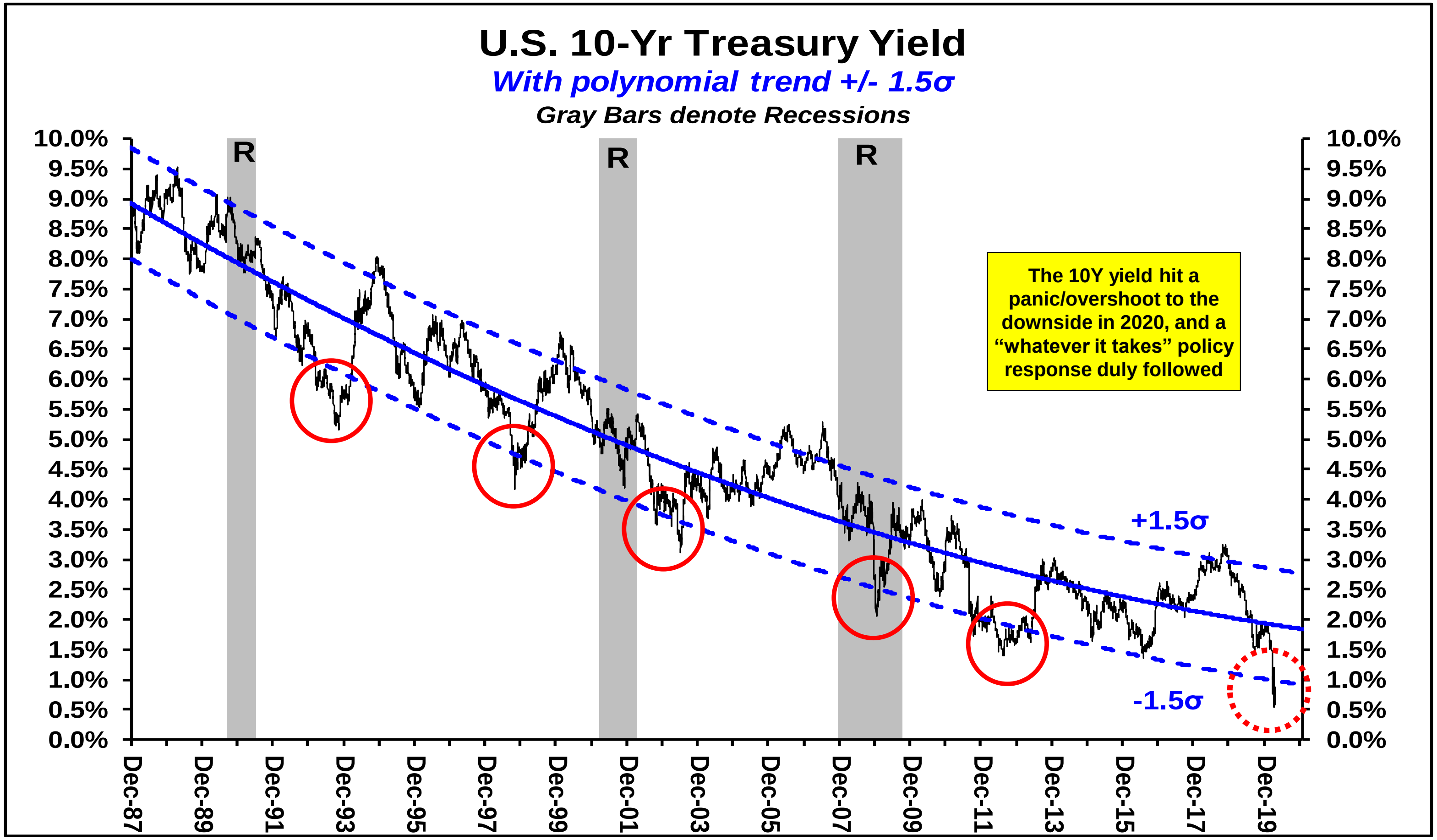
We won't fight the Fed since all "money" is fiat (paper) and the monetary and fiscal response *using paper* tends to be "*whatever it takes,*" but markets *do* need a higher 10Y yield via the inflation component (10Y minus TIPS is "10Y break-even inflation")



Source: Bloomberg data, Stifel format.

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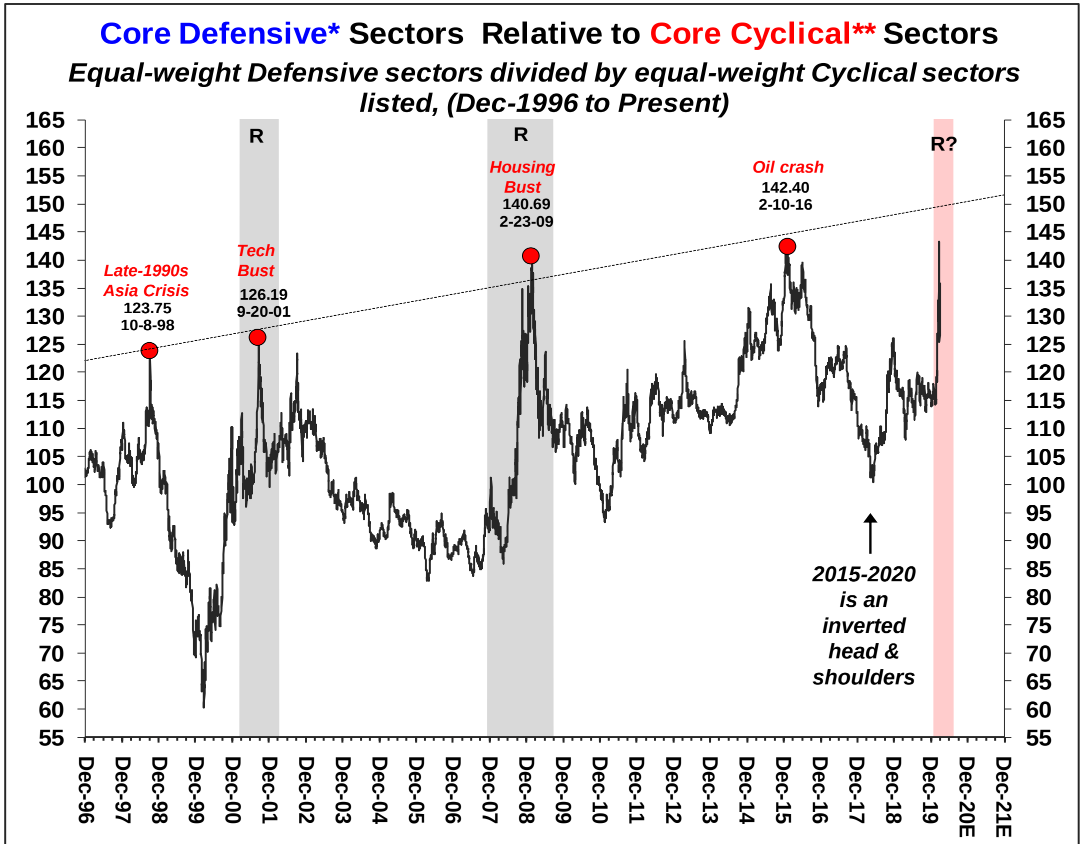
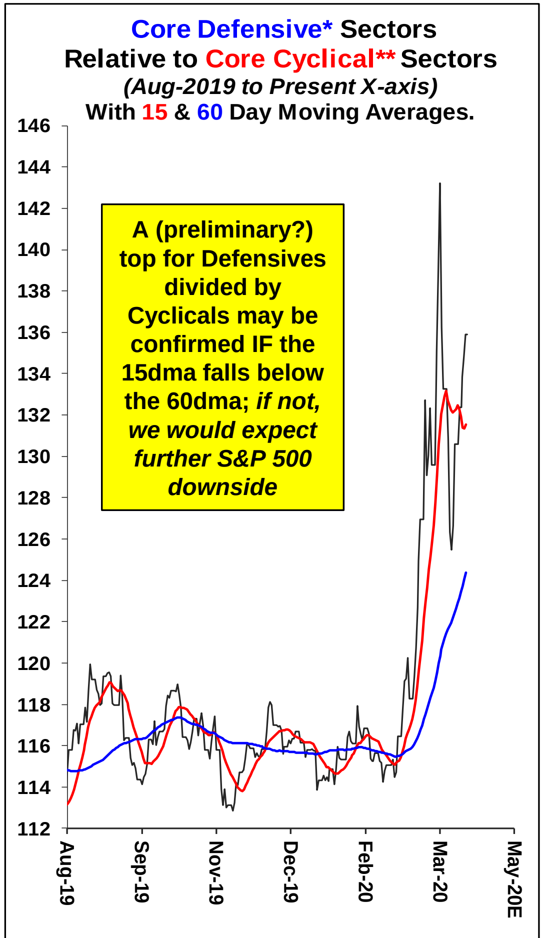
Core(1) Defensives relative to Core Cyclicals have peaked four times (red dots, left chart) in 25 years, have recently surged, and accurately signal S&P 500 lows (next page)



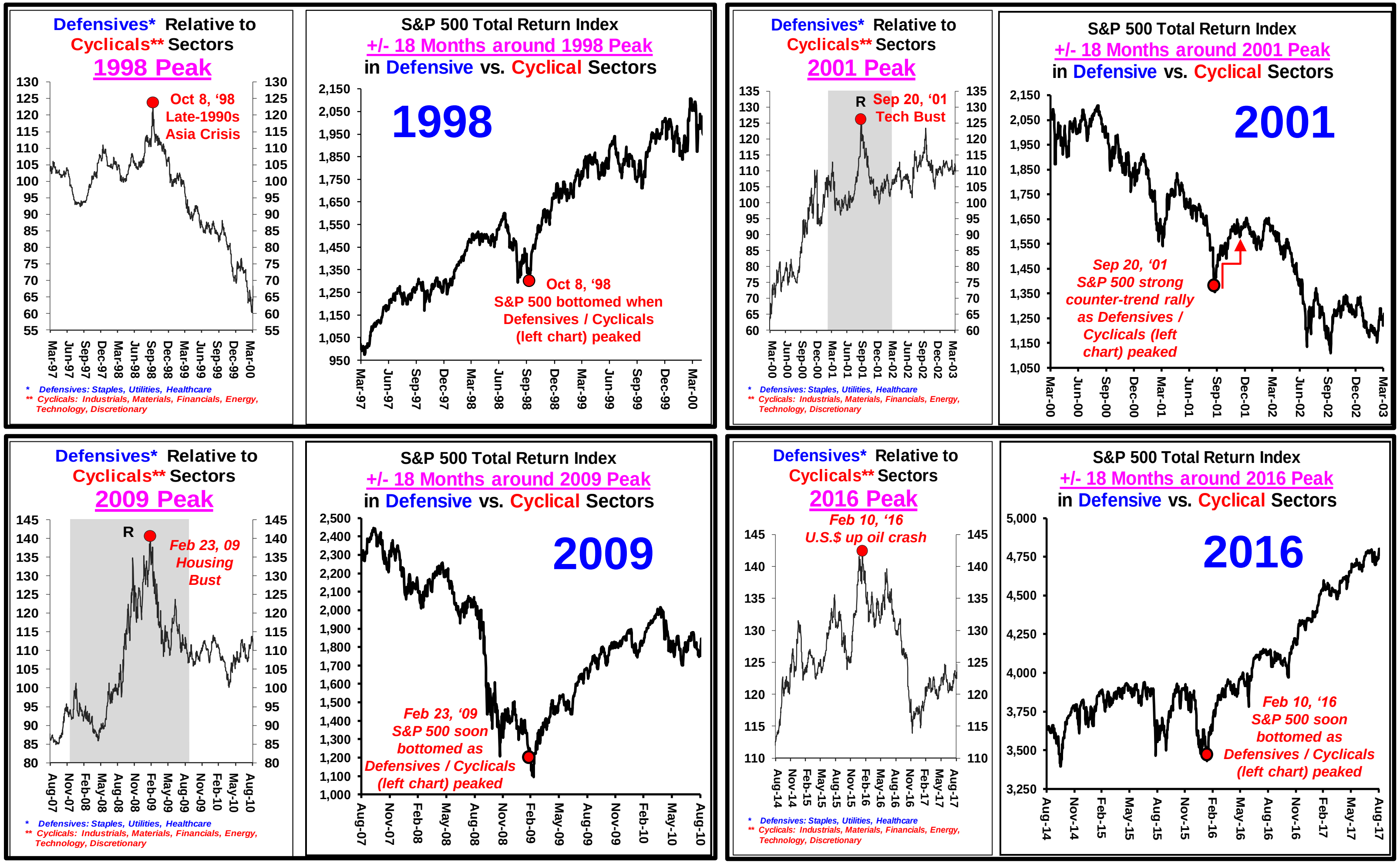
* Core Defensives: Consumer Staples, Utilities, Healthcare
** Core Cyclicals: Industrials, Materials, Financials, Energy, Technology, Consumer Discretionary
(Note: This excludes Communications Services & Real Estate(1), the former blends both categories, & the latter was created in 2016, post the creation of our study)



Source: Stifel estimates.

(1) Our prior version of this included REITs in Defensives, but prior to 2016 in that chart REITs were part of Financials, a Cyclical sector. **We removed REITs from the analysis.**

When Defensives / Cyclicals peaked ('98, '01, '09, '16) the S&P 500 bottomed/bounced



Source: Stifel estimates.

(1) We exclude the newest S&P sector (GICS1), Communications Services, which includes internet, media and entertainment as well as yield-sensitive telecoms, and exclude Real Estate, which prior to 2016 were part of Financials, a Cyclical sector, and after 2016 would (partially, they are still cyclical) be included in Defensives.

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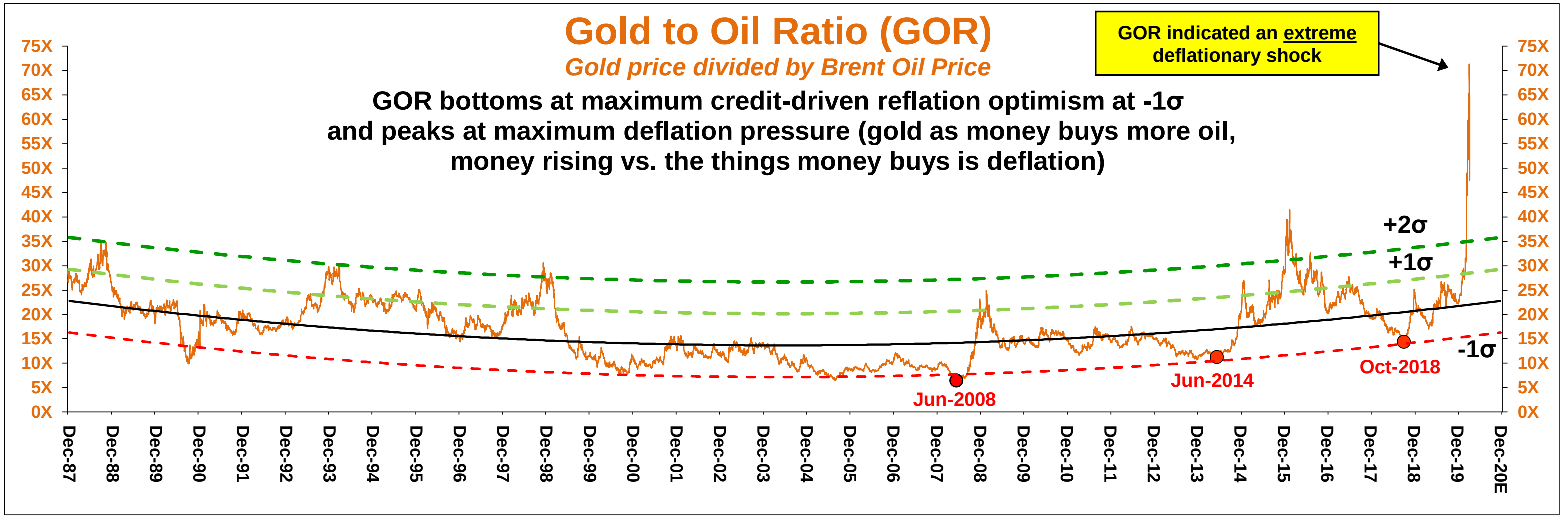
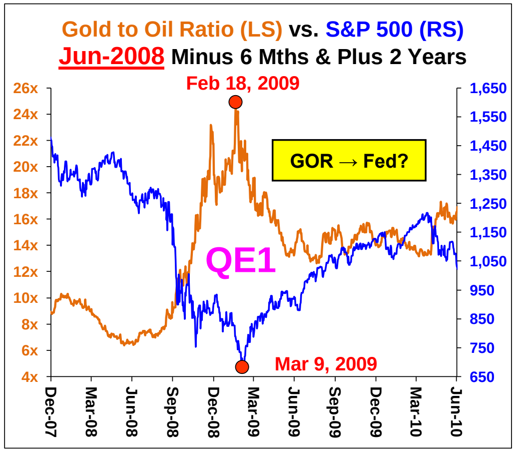
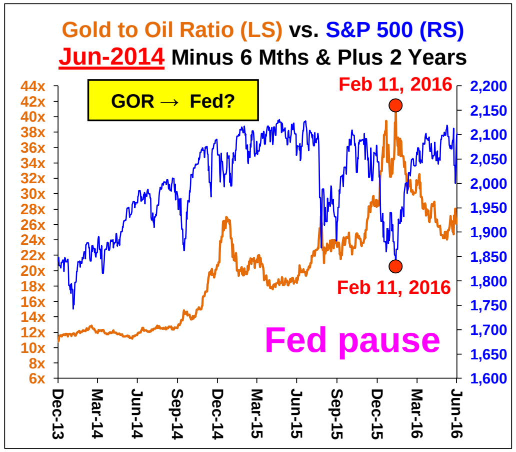
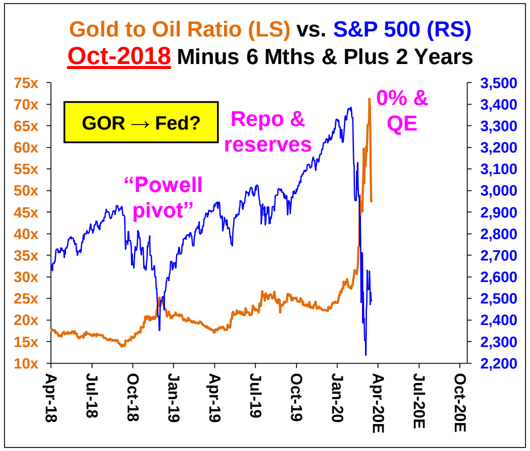
Gold divided by Brent oil (GOR) is extraordinarily elevated, indicating severe short-term deflationary(1) pressure, and the S&P 500 tends to bottom *when GOR peaks*









Source: Bloomberg data, Stifel format.

(1) Gold-to-Oil ratio rising means gold as money is buying more of the things that money buys (like oil), which is the very definition of deflation. The reverse is reflation.

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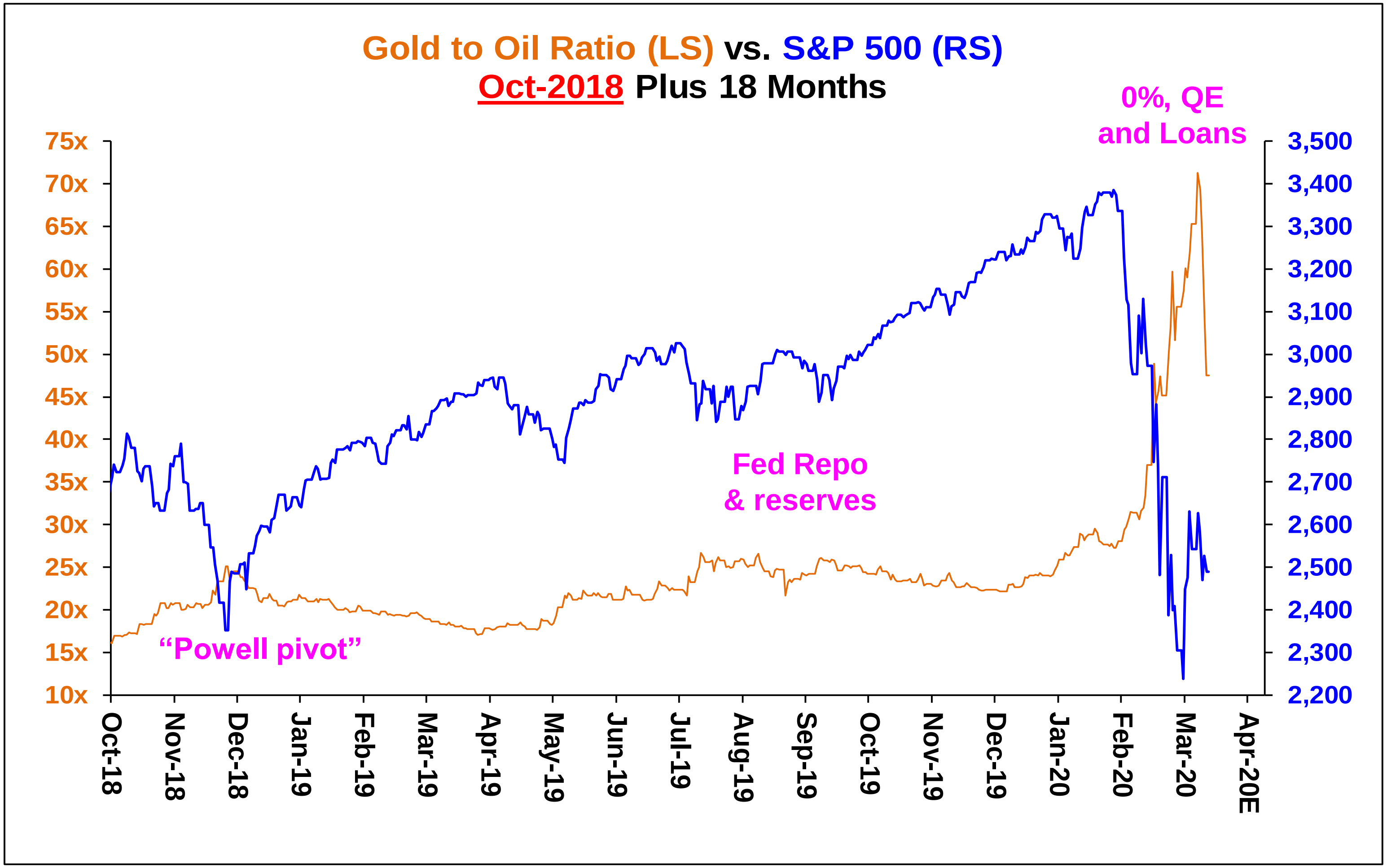
Gold divided by Brent oil (GOR) recently shows signs of having peaked (which is positive for the stock market) after having been at a severe deflation[1] level



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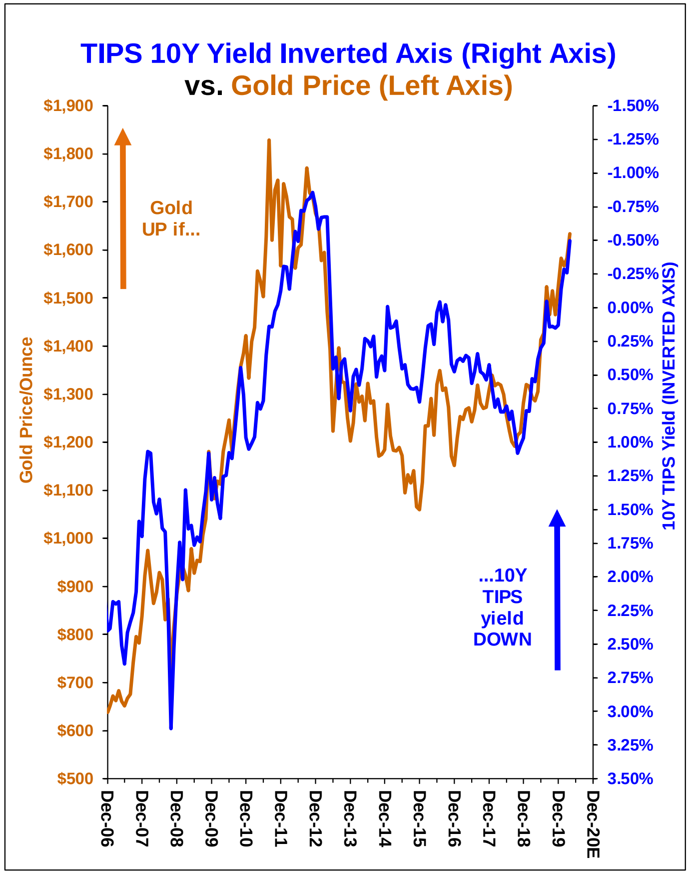
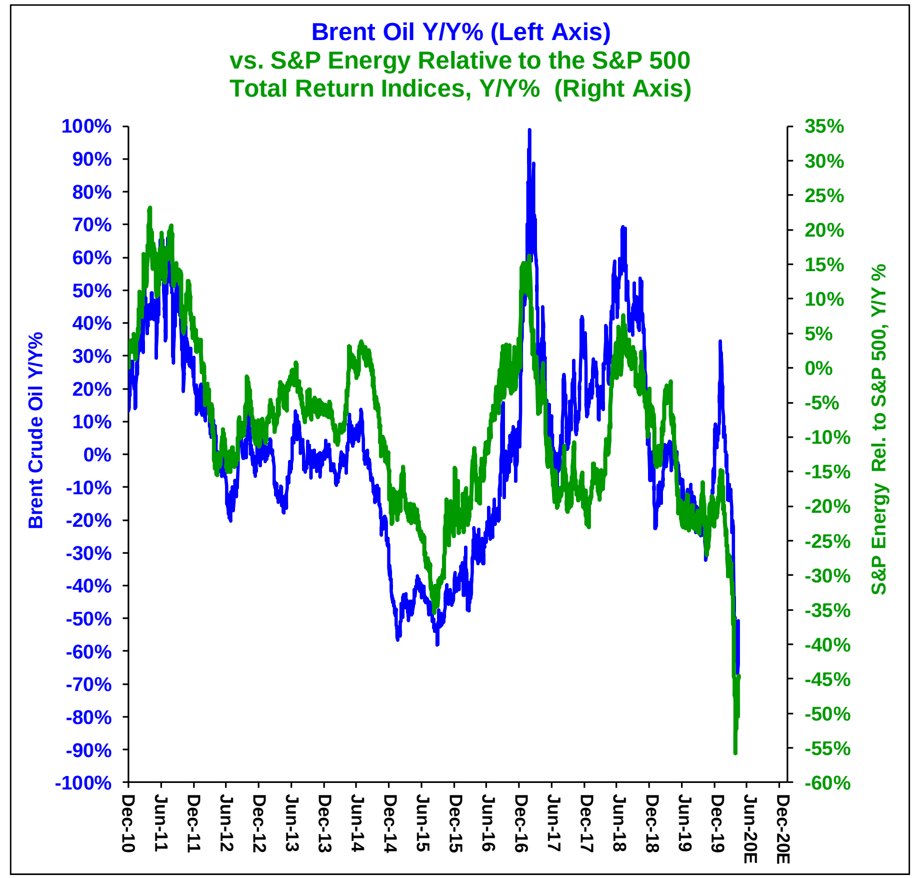
Gold rises when the real yield (after inflation) on the 10Y (the 10Y TIPS yield) declines (left chart) and we *do not* forecast further short-term TIPS yield downside, thus gold may pause; we do see a rebound for oil, however, and Energy stocks (right chart)





Source: Bloomberg data, Stifel format.

(1) Since the 2008 Crisis, low real rates have caused oil and the (Broad Trade-Weighted) dollar to correlate inversely because at negative/low U.S. real rates oil and money are on a level playing field (neither pays a real return).

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In our view:

Special Topics

Topic (1) Our S&P 500 model points to a mid-single digit total return (incl. dividends) for a decade 2020-30E (23-28)

Topic (2) Policy actions to reflate may facilitate a shift from Growth to Value leadership in the stock market (29-34)

Topic (3) If Growth to Value rotation begins, it may imply a 6-mo. warning to the start of a -50% real S&P 500 drop (35-40)

Topic (4) S&P 500 Seasonality actually indicates a price of *3,100* for the S&P 500 *by Apr-30, 2020* (not our view) (41-44)

Source: Stifel.

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In our view:

Topic (1)

Our model indicates an S&P 500 annualized total return (price + dividends) of ~5%/year +/- 1% from 2020-2030E, and *also* indicates that in Apr-2025E (5 years from now) the S&P 500 is only likely to be ~3,070 (vs. the 2/19/20 high of 3,386)

Source: Stifel.

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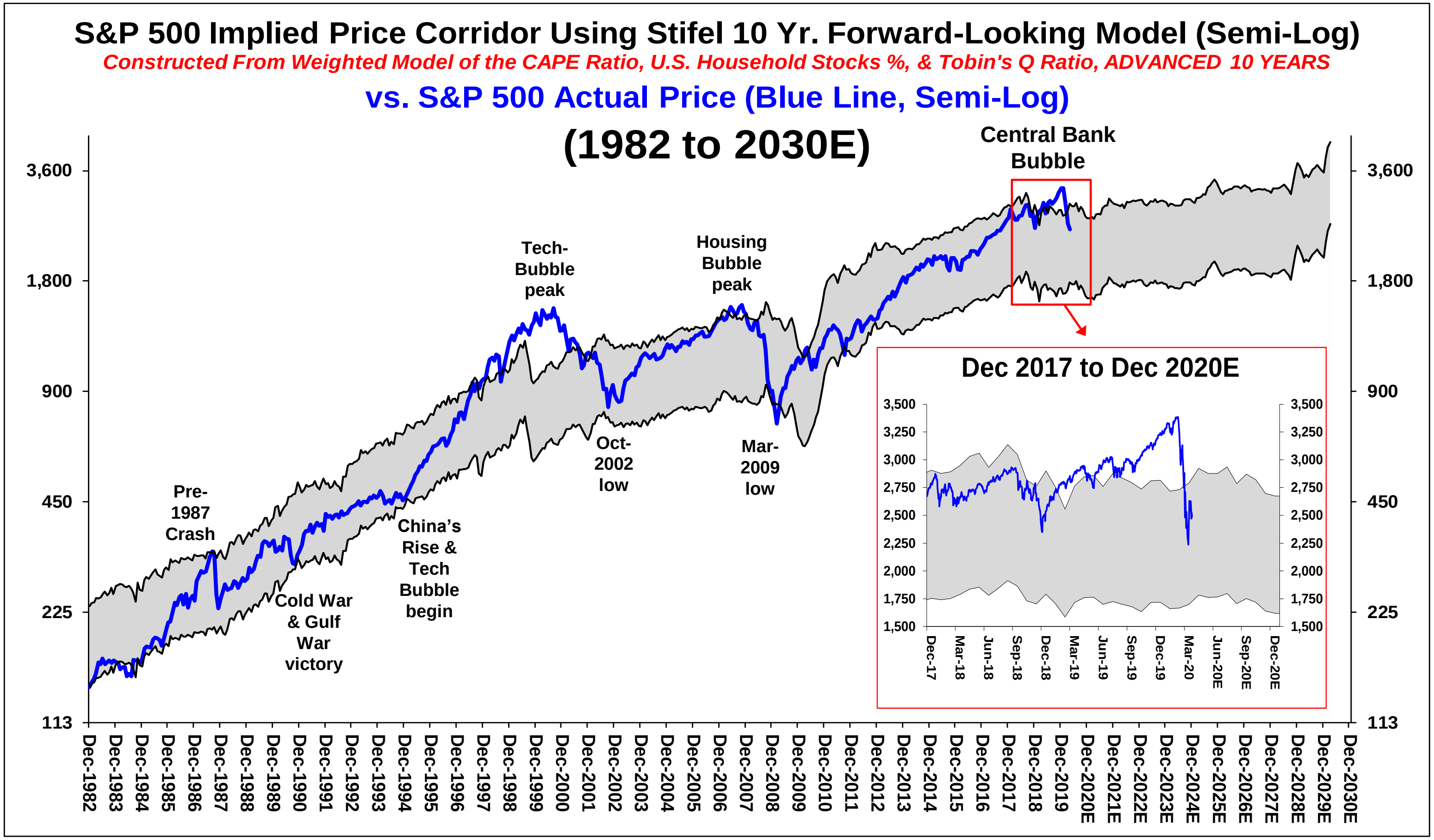
Our S&P 500 price model(1) looks 10 years ahead and projects a weak stock market in the 2020s as reciprocal "payback" for the strong decade 2009-19 post-Crisis



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

(1) Our model is based on Shiller's CAPE, Tobin's Q price/replacement book and household stocks % of household financial assets (U.S. Flow of Funds) *advanced 10 years*. ***By its nature, this model is far more useful for predicting the next 10 year annualized total return than any point along the way.***

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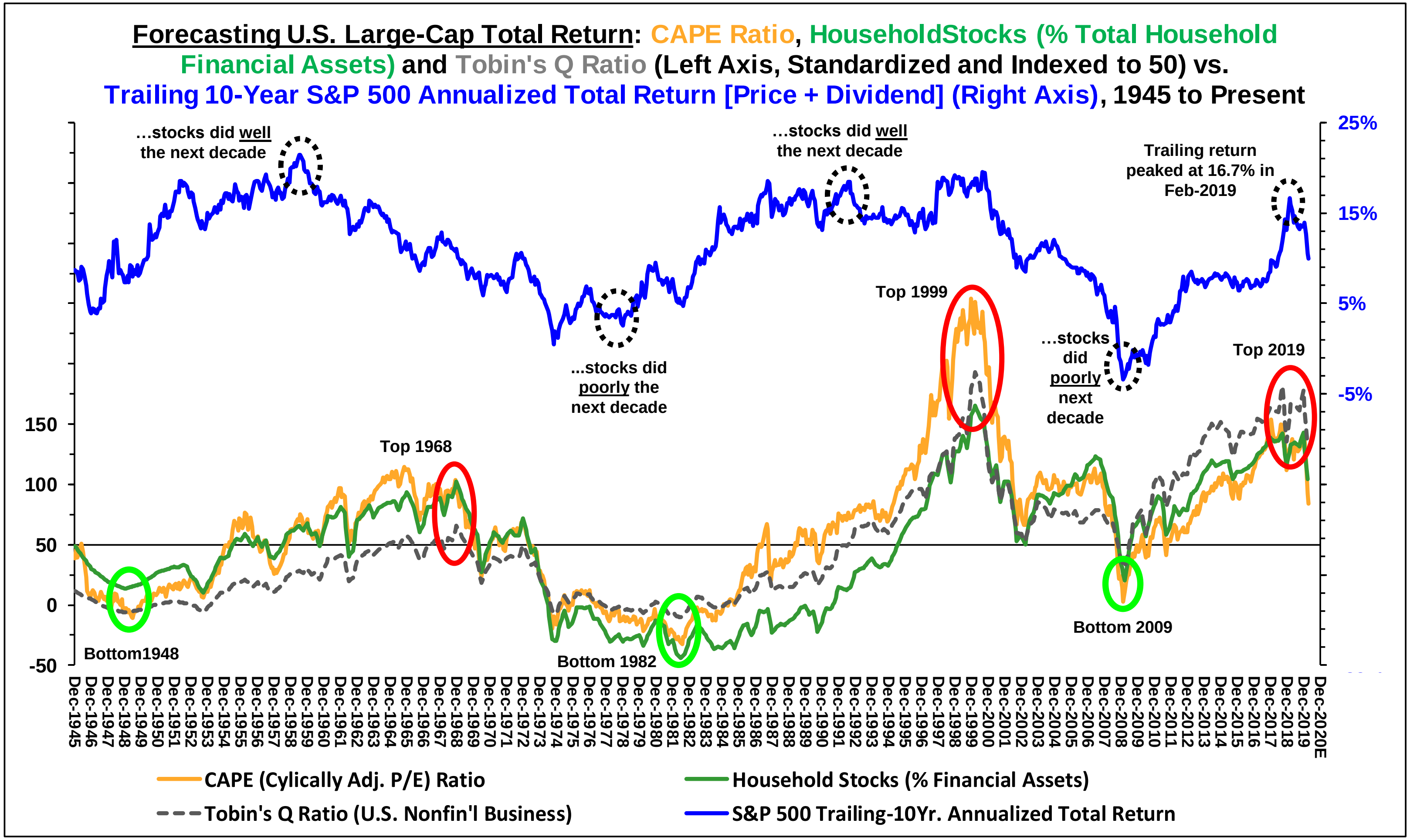
Three market measures[1] of valuation and stock ownership project S&P 500 return the *next* 10 years: the red circle highs (bottom) indicate low future blue line (top) returns



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

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

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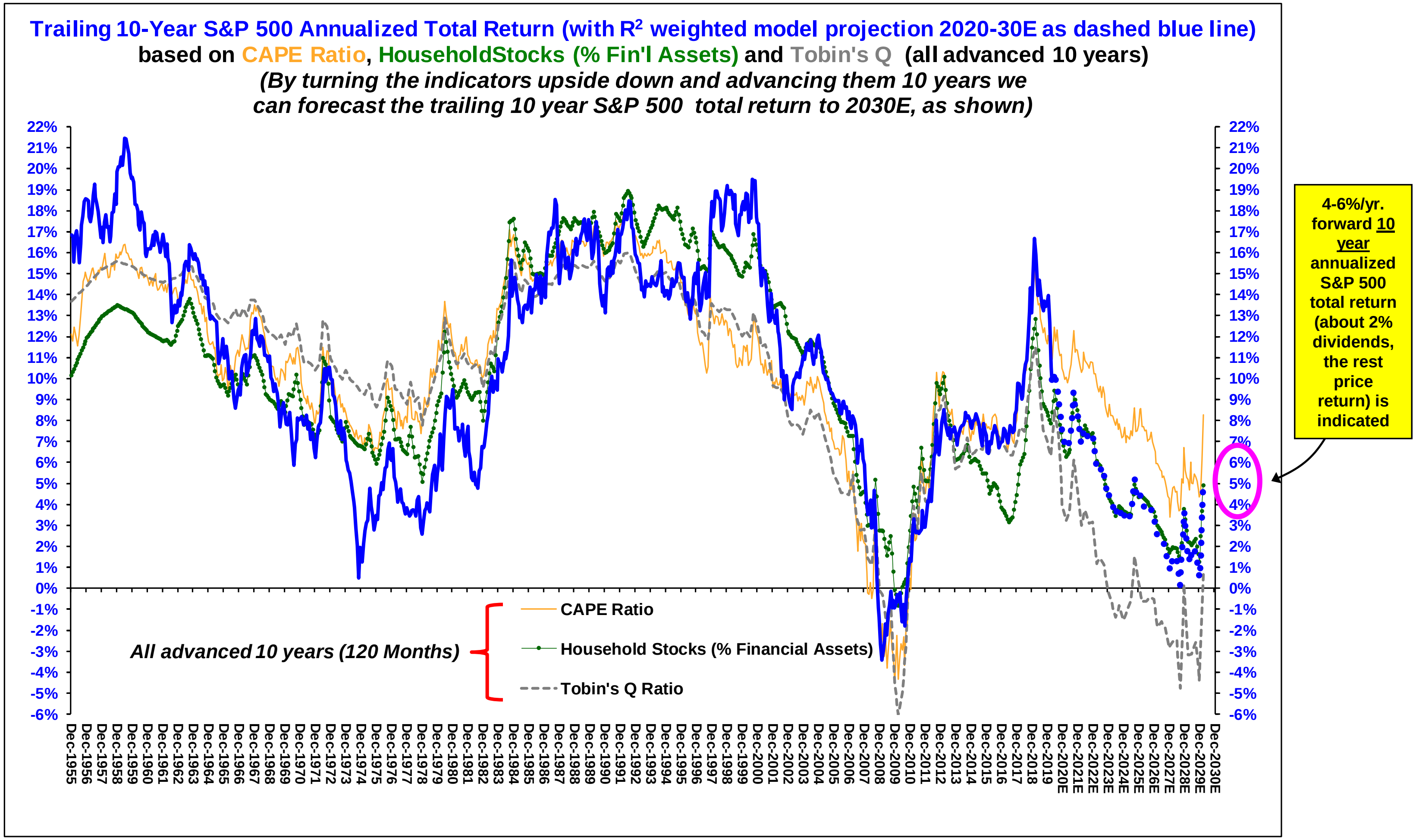
Flipping & advancing 10 years those factors (prior page), the result is a 4-6% per year S&P 500 compound annual total return (price + dividends) the next 10 years (circled).



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

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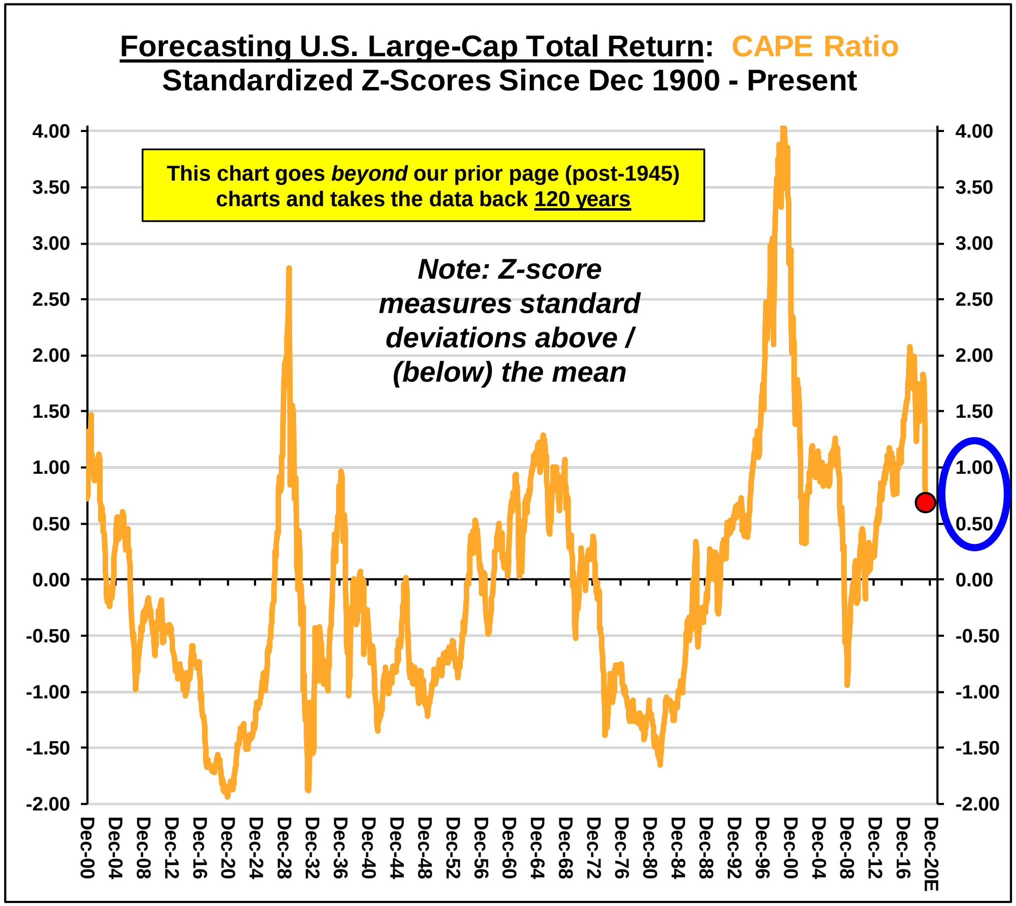
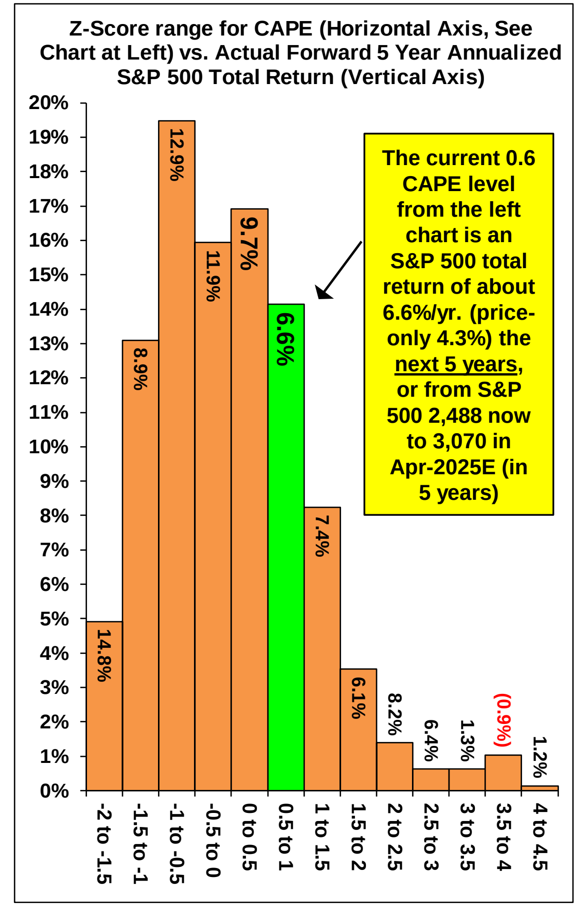
If the S&P 500 *does* reach a price of 3,000 in 2020-21, *lighten positions*: 120 years of CAPE[(1)] indicates the S&P 500 will be only ~3,070 by Apr-2025E (*5 years from now*)





Source: Stifel estimates.

(1) CAPE is P/E on trailing 10 year inflation-adj. average EPS; Bloomberg Operating EPS 1989-present and pre-1989 S&P/Shiller/Yale GAAP EPS data are grossed up 11.7% to match the historical GAAP/Operating difference. By its nature, our model is more useful for predicting the next 10 years rather than shorter 5-year periods.

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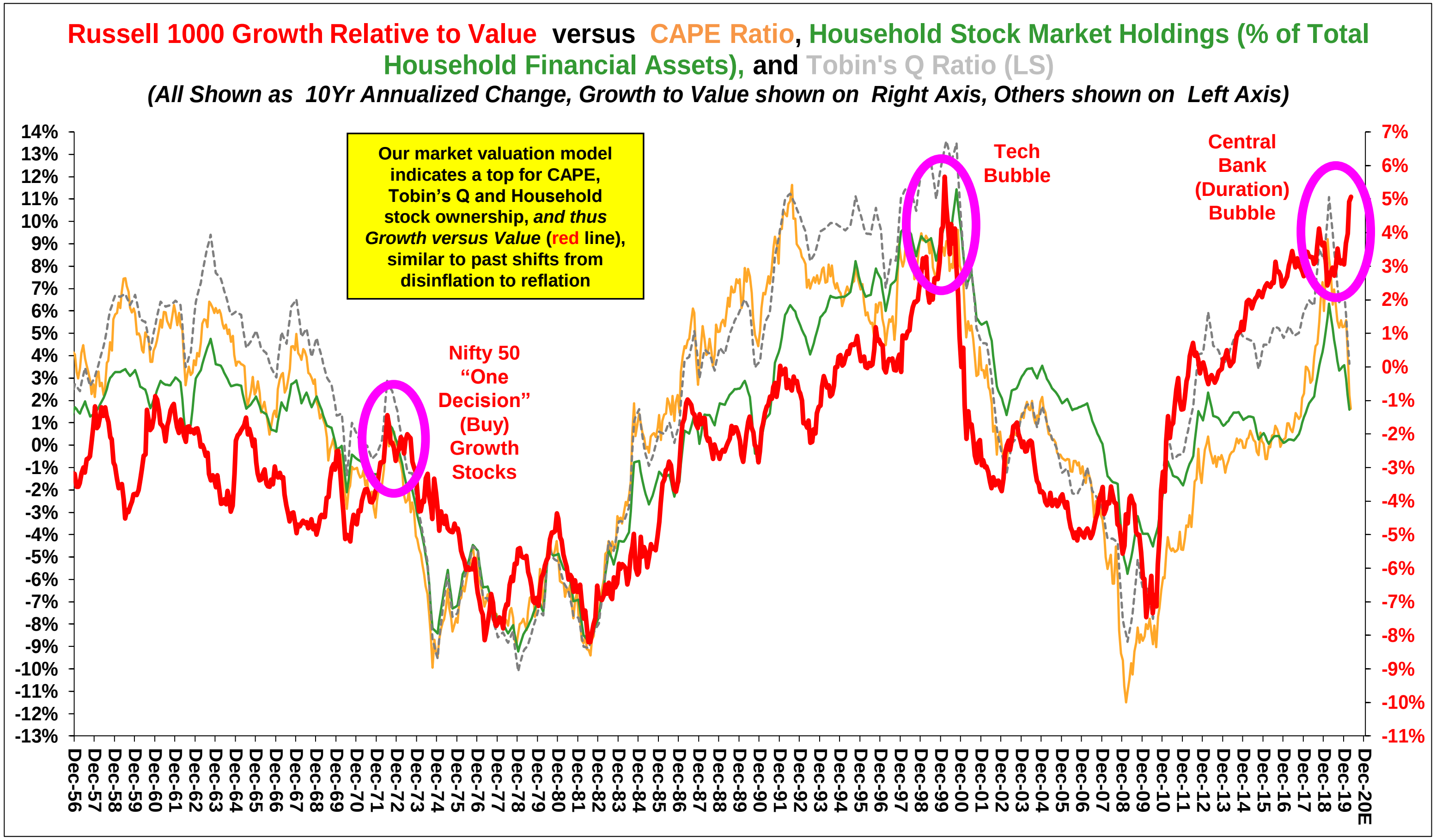
Our model(1) also indicates Growth vs. Value may soon peak in a shift from the current environment of disinflation/U.S.$ strength to a one of reflation/U.S.$ weakness



Source: Bloomberg, S&P Shiller EPS (Stifel Operating adjustment) for CAPE, U.S. Flow of Funds (b.103 and b.101) for Tobin's Q and Household Stocks , Stifel estimates.

(1) A "flow" variable (CAPE) , "stock" variable (Tobin's Q), and "sentiment" variable (Household stock ownership, Flow of Funds) may forecast S&P 500 10 years ahead.

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In our view:

Topic (2)

Policy actions to reflate may actually *depress*(1) long-term GDP growth and thus S&P 500 long-term returns (amid a Growth to Value(2) equity rotation)

Source: Stifel.

(1) We show in this section that the incremental nominal U.S. Nominal GDP per $1 of additional non-financial debt (government + corporate & business + consumer) has been falling in a linear trend, interspersed with recession plunges for over 50 years. More U.S. government debt would, presumably, lower potential nominal GDP (necessitating even more debt in the logic of government). The S&P 500 10-year compound annualized total return with dividends reinvested recently peaked at 16.7% in Feb-2019 and we expect (our models indicate) about one-third of that level for annualized total return in the 10 years from the current month to the corresponding month ten years from now in 2030.

(2) We believe Growth-to-Value rotation requires a sharp increase in U.S. broad money supply, concomitant dollar weakness (which invariably leads to commodity strength), and "populist" labor and fiscal policy with profligate fiscal spending funded directly or indirectly by the monetary authority (Federal Reserve).

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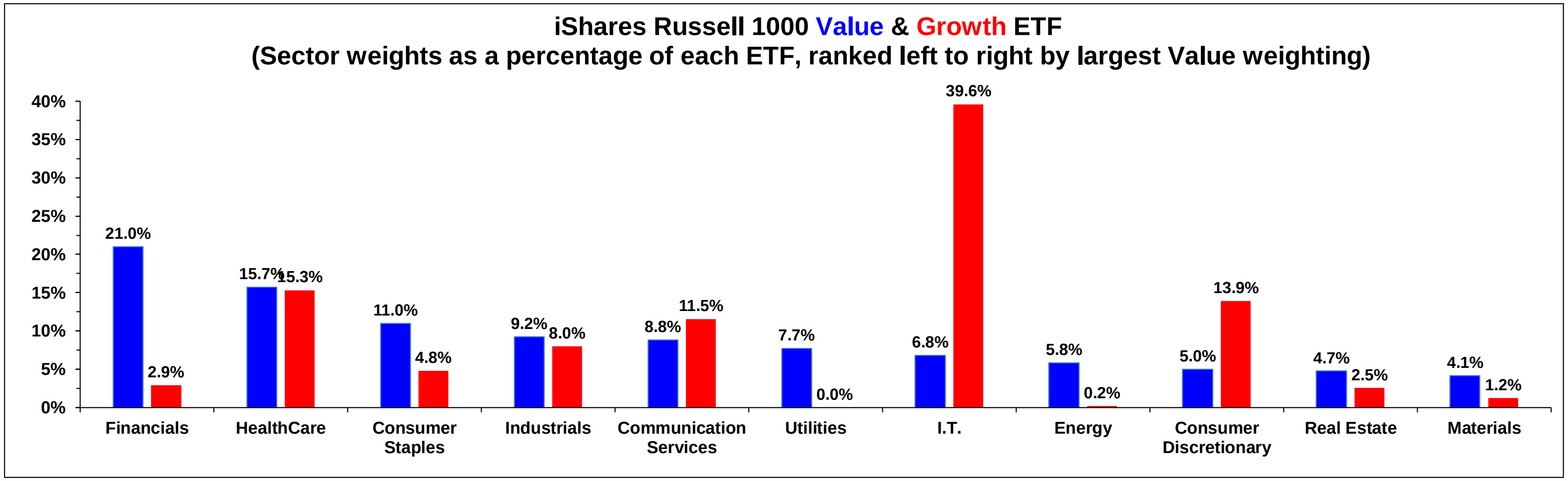
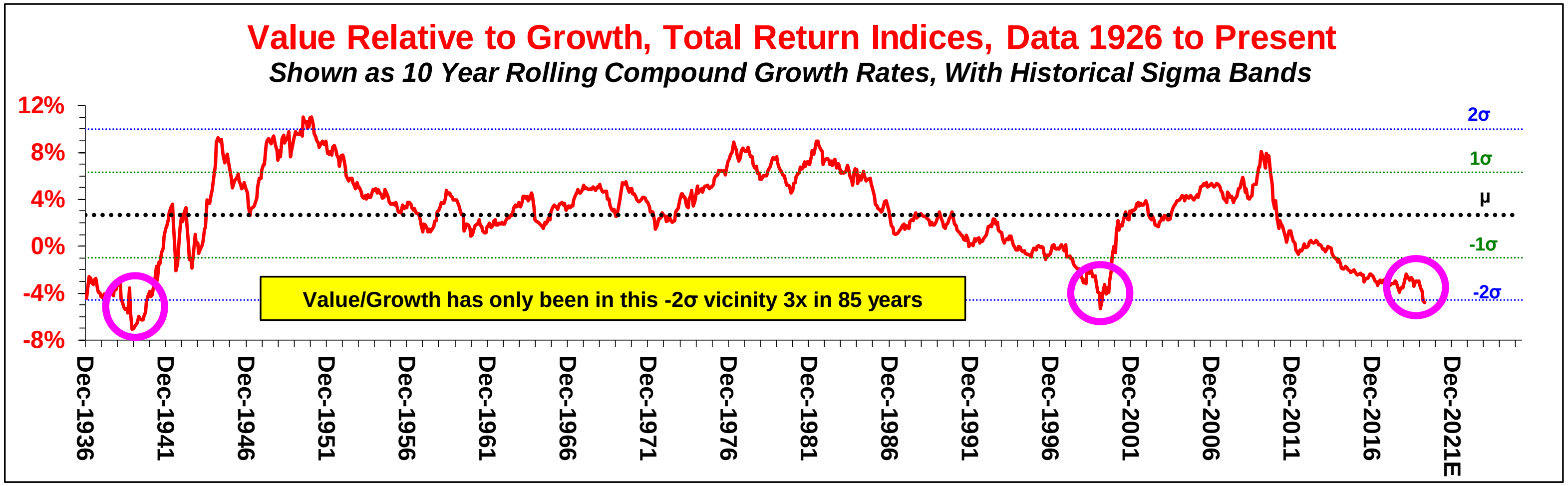
A *proxy* for Value/Growth is Financials/Technology, and Value/Growth is near century lows





Source: Bloomberg data, iShares data latest prices, Stifel estimates. Value vs. Growth links the Fama/French (Dartmouth/Tuck web-hosted) series (details here, data here) from 1926-77 and the Russell 1000 Total Return Index 1978 to present.

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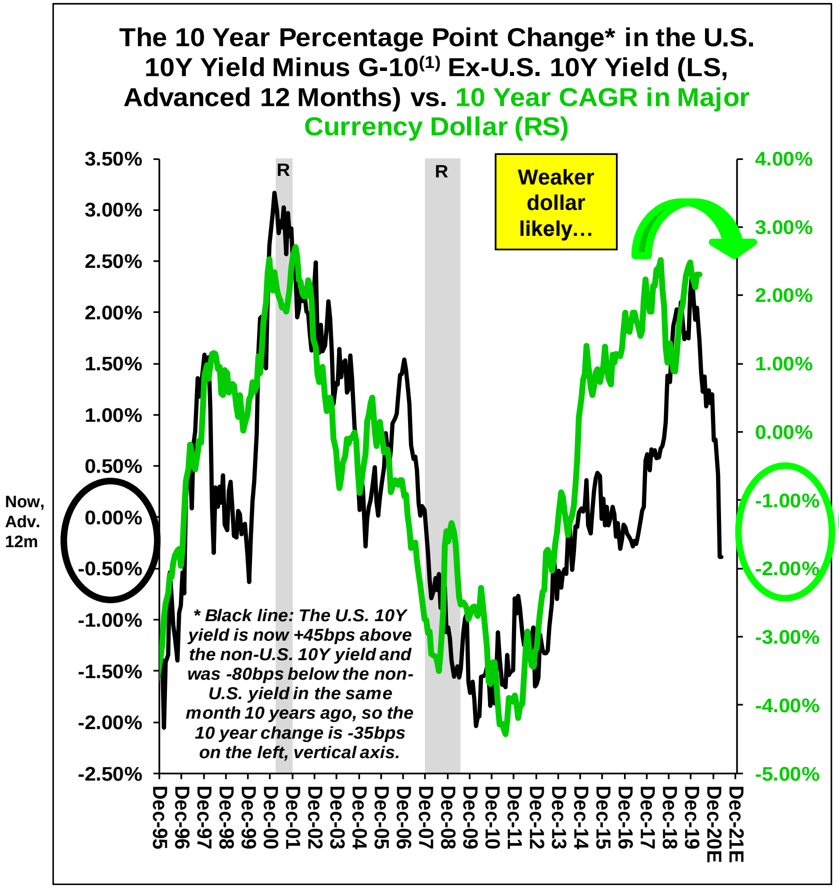
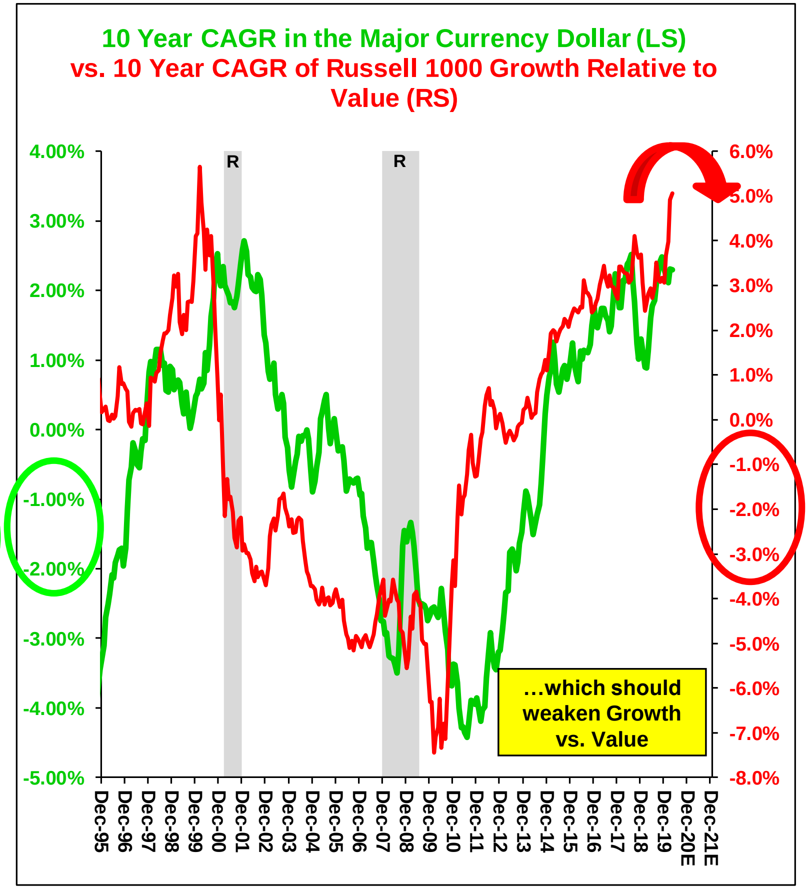
Growth leadership (vs. Value) is associated with powerful bull markets and a strong dollar, but collapsing U.S. minus foreign yield differentials (left chart) indicate a weak dollar (and weak stocks 2021+) with a transition to Value leadership, possibly for *years*

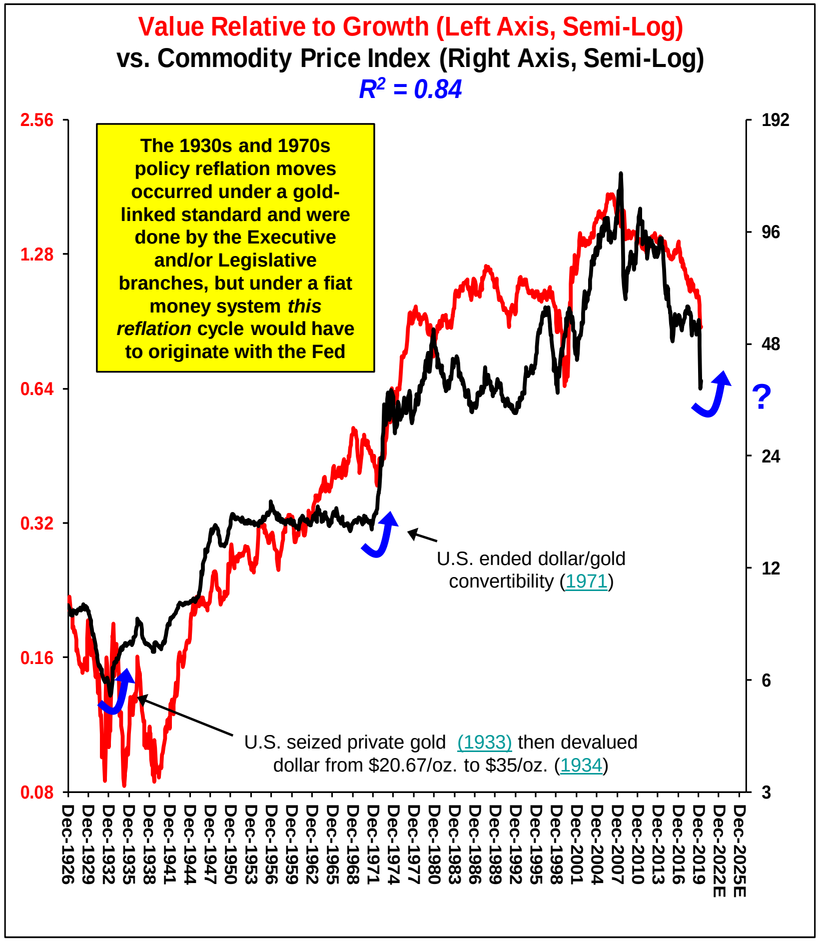


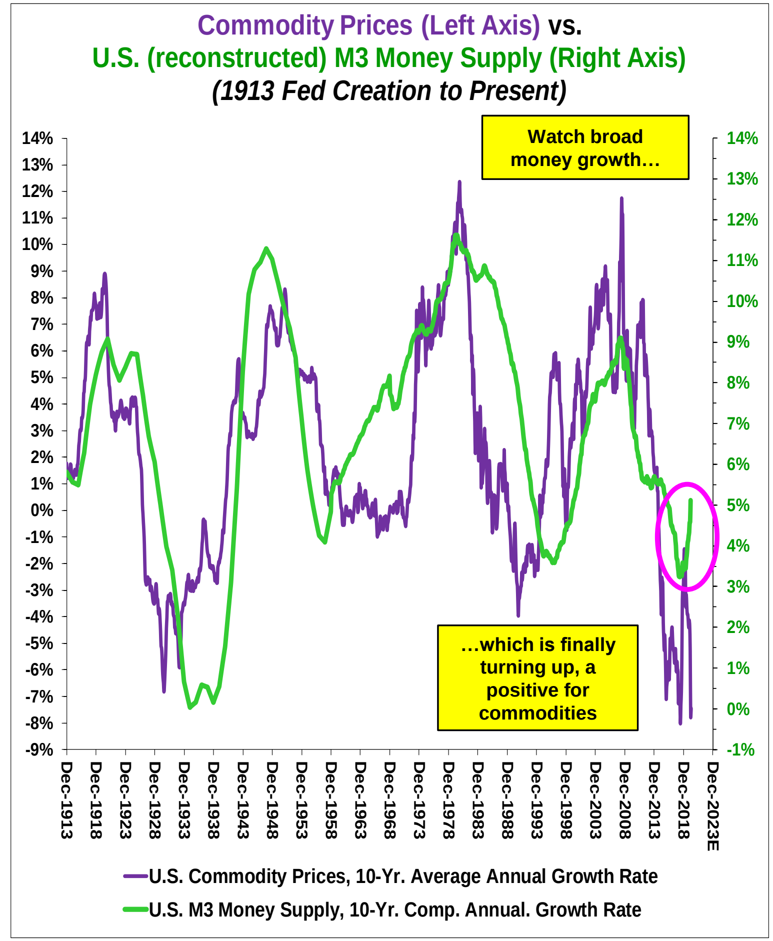


Source: Bloomberg data, Stifel estimates.

(1) G-10 ex-U.S. is Germany, Japan, the U.K., France, Italy, Belgium, Canada, the Netherlands, Switzerland and Sweden (excludes the U.S.).

If U.S. money supply is reflated by *policy*, dollar debasement helps Value over Growth





Source: U.S. Commodity index is an equal-weighted (1/3rd ea.) PPI Energy, PPI Farm Products and PPI Metals (Ferrous and Non-Ferrous) excluding precious metals (1926-56), Thomson Reuters Equal Weight (CRB-CCI) Commodity Index (1956-94), and Thomson Reuters/Core Commodity CRB Index (1994-Present). Value vs. Growth links the Fama/French (Dartmouth/Tuck web-hosted) series (details here, data here) 1926-77 and the Russell 1000 Total Return Index 1978 to present. For M3 money supply, in the period 1904-1958 (1904 is the starting point for a 10 year average beginning with the year 1913 in the chart at right, with 1913 the year of the Federal Reserve's creation), M3 is from "Monetary Statistics of the United States" (Columbia Univ. Press, 1970), U.S. Fed M3 (1959-2005) and post-2006 we recompile M3 by adding M3 components to M2.

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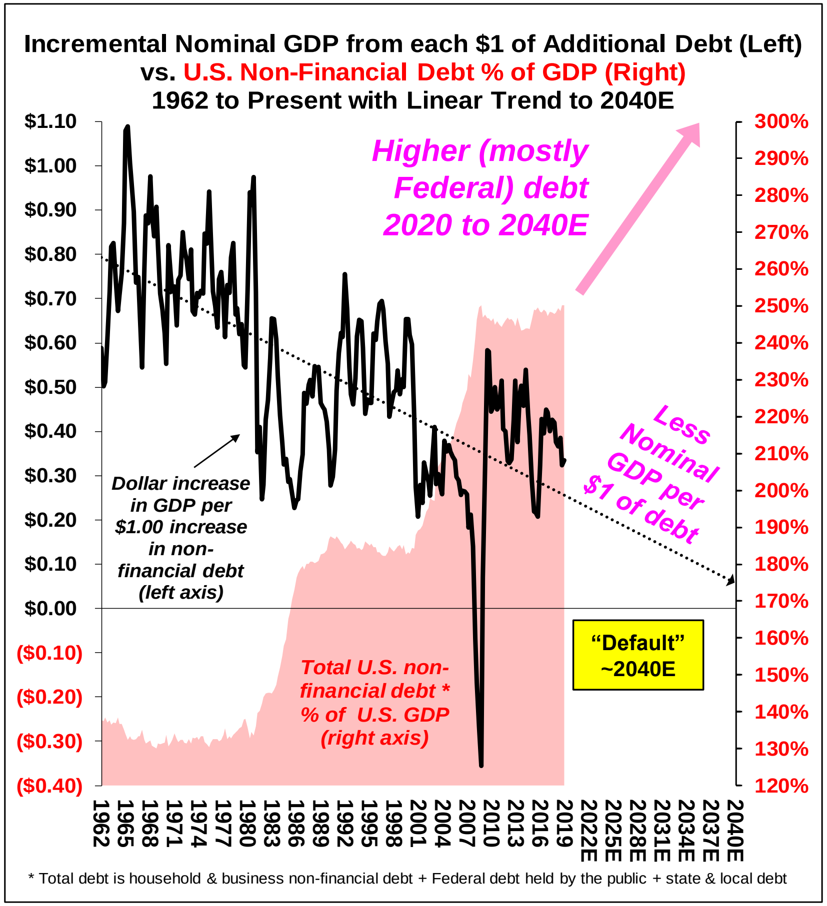
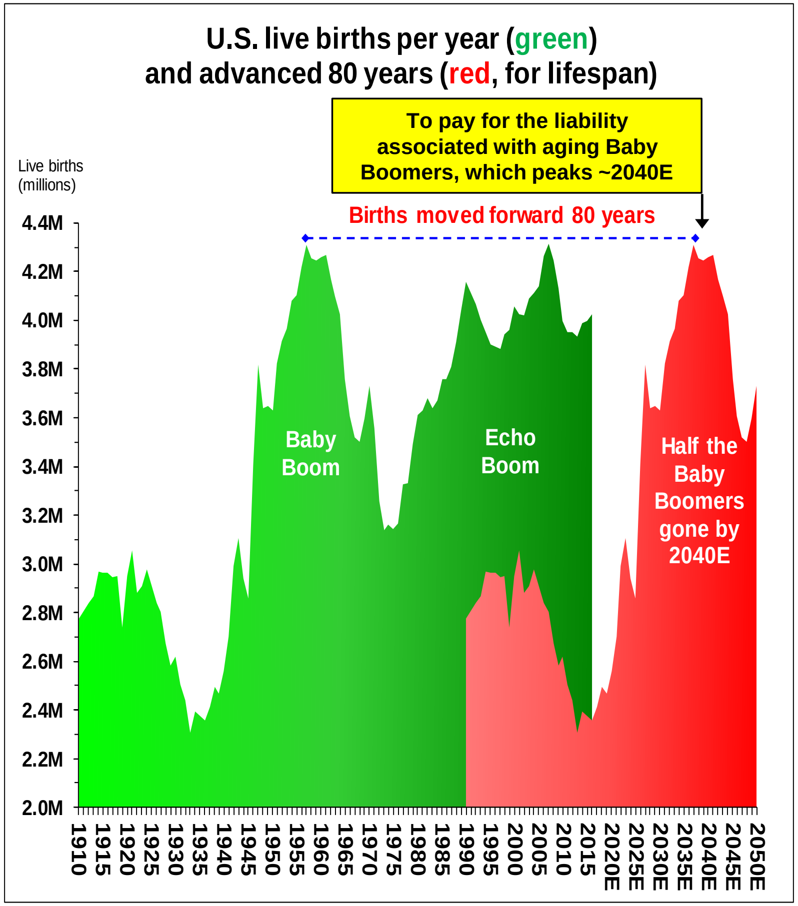
Given rising demographic liabilities and declining efficiency of the debt used to fund those liabilities, a risk we see is a new U.S. law in the 2020s that modifies the Fed Reform Act of 1977 with a forced fiscal monetization requirement (loss of Fed independence)





Source: Federal Reserve Flow of Funds and Bloomberg data. U.S. Census Bureau, Stifel estimates.

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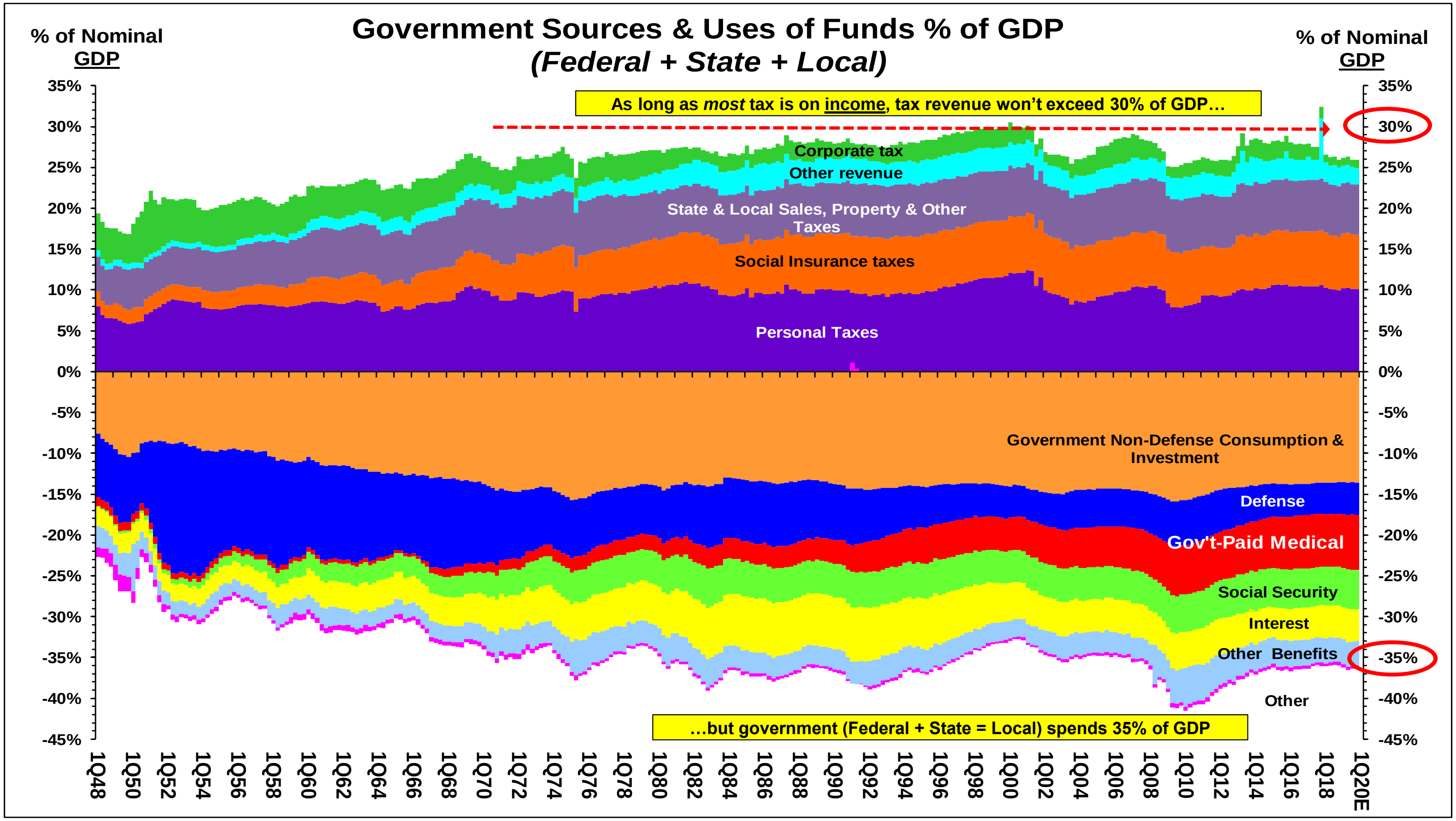
Path to money growth: Unable to pass a regressive national sales tax or a Constitutional(1) wealth tax, we see a future Congress taking the easy way out – *forced Fed monetization*



Source: BEA, CBO, Bloomberg data. Stifel format and estimates.

(1) A Federal wealth-type tax would probably be ruled un-Constitutional, and even if applied it would likely have to be assessed based on state population (Article I, Section 9, Clause 4 of the U.S. Constitution, "capitation clause") In either case, it may still be an un-Constitutional taking of property without just compensation (Article [V] Amendment 5 "takings clause"). We would, however, expect disallowance of stepped-up basis at date of death and higher estate taxes by the mid-2020s.

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In our view:

Topic (3)

If Value relative to Growth *does* rise in mid-2020, it may give a <u>6 month warning</u> to an S&P 500 peak (*e.g.*, ~Sep-2020E, possibly 4 months before COVID-19 returns[1] with seasonal weather), after which time a ~2 year <u>-50%</u> inflation-adjusted S&P 500 decline may begin

Source: Stifel.

(1) Recently prepared scientific papers (available in most cases on the SSRN network, some awaiting peer review) indicate COVID-19 <u>might</u> follow a seasonal respiratory illness pattern, with cases falling as specific humidity and surface temperatures rise **<u>(then, presumably, returning in winter 2020-21E)</u>**: "***Temperature, humidity, and latitude analysis to predict potential spread and seasonality for COVID-19***," (Sajadi, Habibzadeh, Vintzileos, Shokouhi, Miralles-Wilhelm, Amoroso), "***Will coronavirus pandemic diminish by summer?***" (Bukhari, Jameel), "***High Temperature and High Humidity Reduce the Transmission of COVID-19***" (Wang, Tang, Feng, Lv), "***Preliminary evidence that higher temperatures are associated with lower incidence of COVID-19, for cases reported globally up to 29th February 2020***" (Bannister-Tyrrell, Meyer, Faverjon, Cameron).

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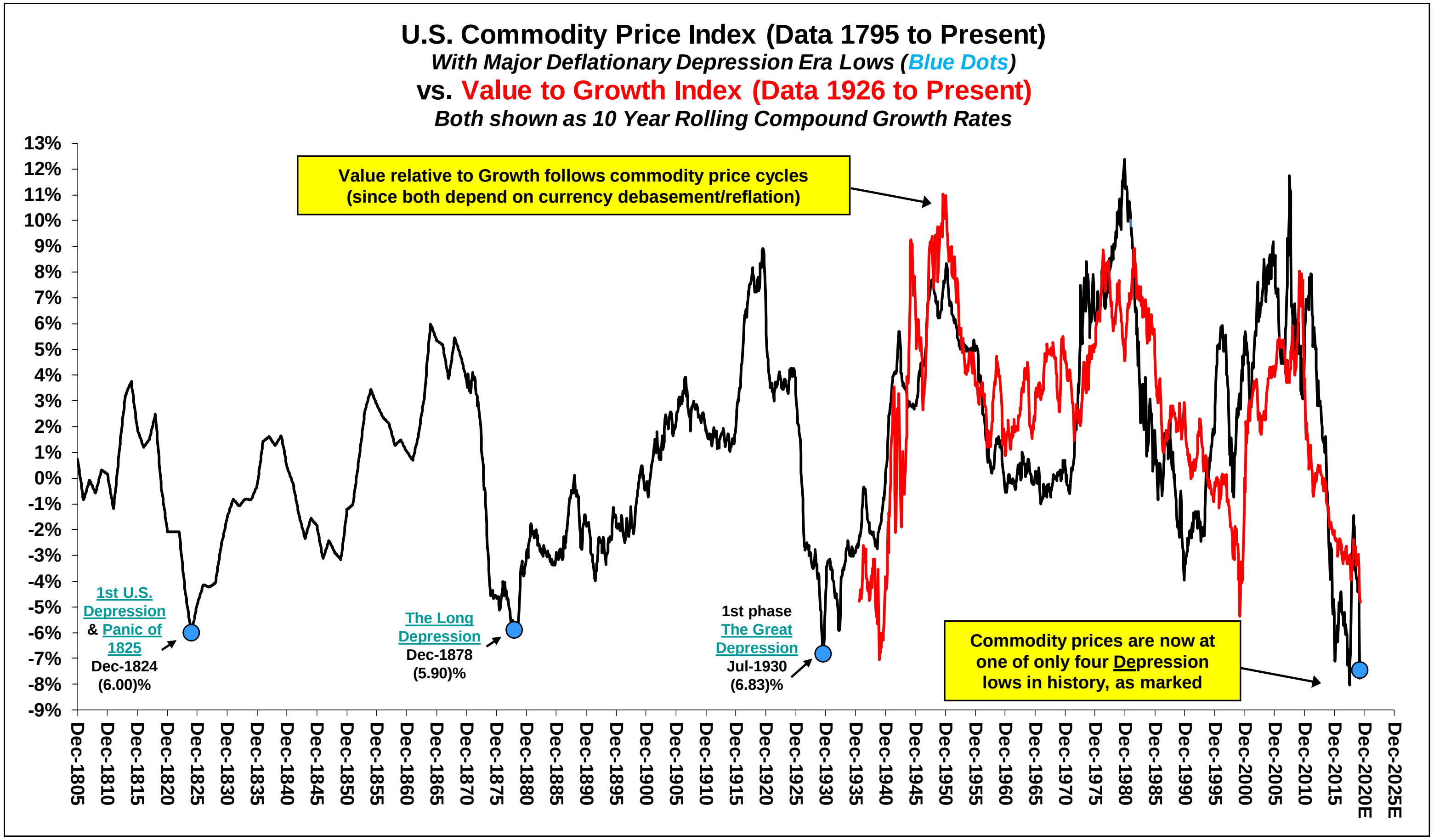
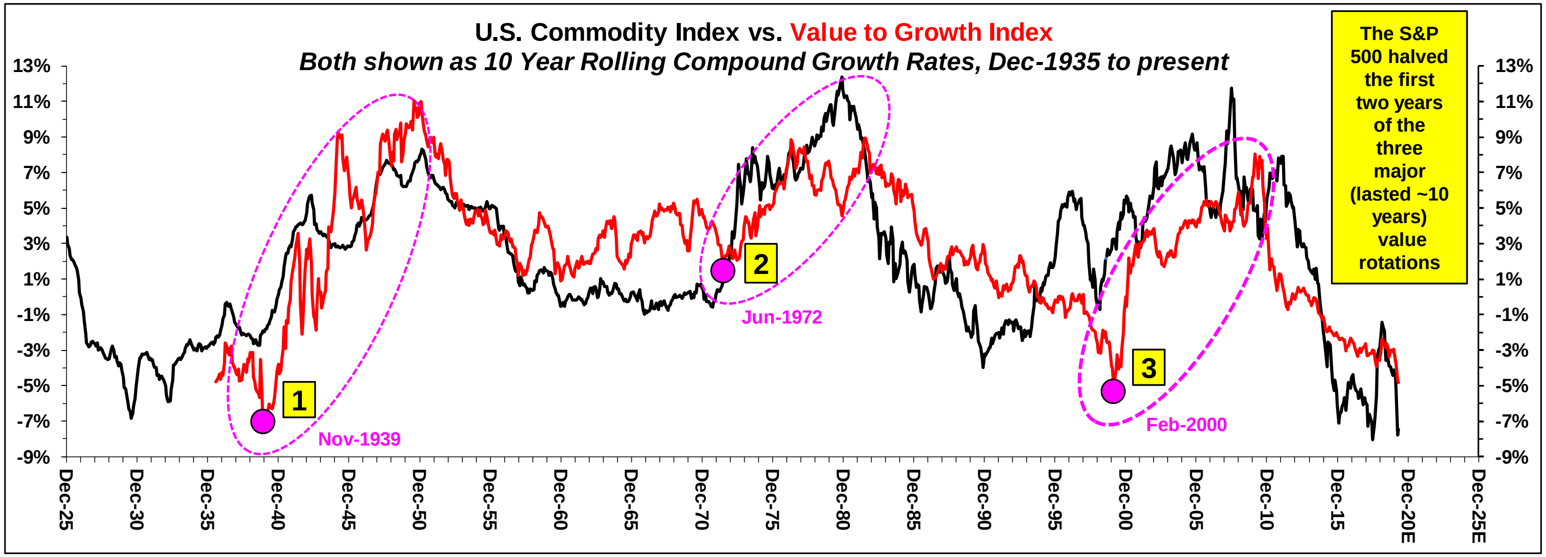
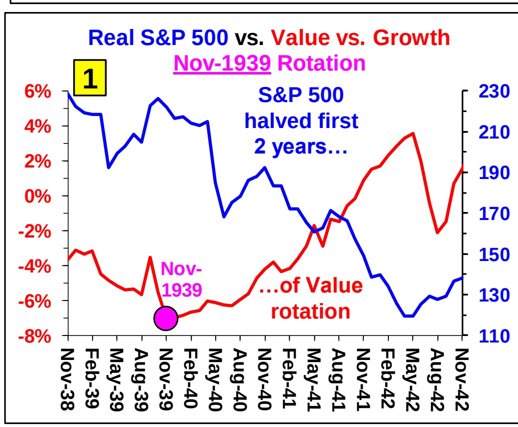
Commodities and Value move together, as both require reflation (currency debasement), and we note commodities *and* Value are both at 200 year *Depression* levels

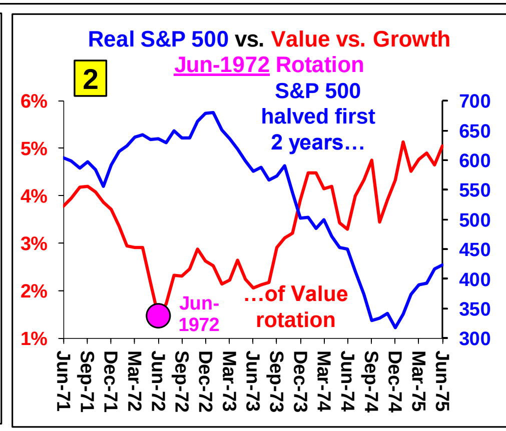


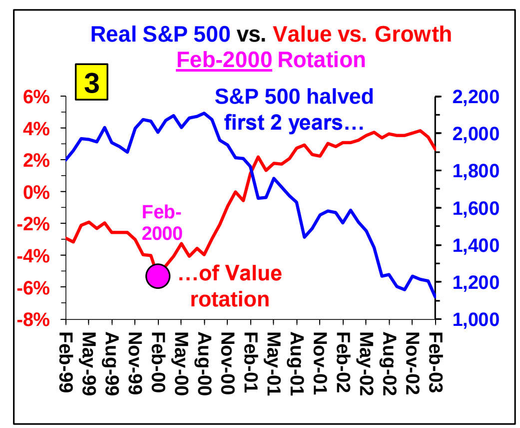
Source: For a U.S. commodity index we use the Warren & Pearson Commodity Index (1795-1912), WPI Commodities (1913-1925), an equal-weighted (1/3rd each) PPI Energy, PPI Farm Products and PPI Metals (Ferrous and Non-Ferrous) excluding precious metals (1926 to 1955), Thomson Reuters Equal Weight (CRB-CCI) Commodity Index (1956-1994), and Thomson Reuters/Core Commodity CRB Commodity Index (1994-Present). Value vs. Growth links the Fama/French (Dartmouth/Tuck web-hosted) series (details here, data here) from 1926-77 and the Russell 1000 Total Return Index 1978 to present.

In all three prior major (decade long) Growth to Value rotations the past 100 years (as changes led to reflation), the S&P 500 halved the first 2 years









Source: Stifel estimates, see prior exhibit.

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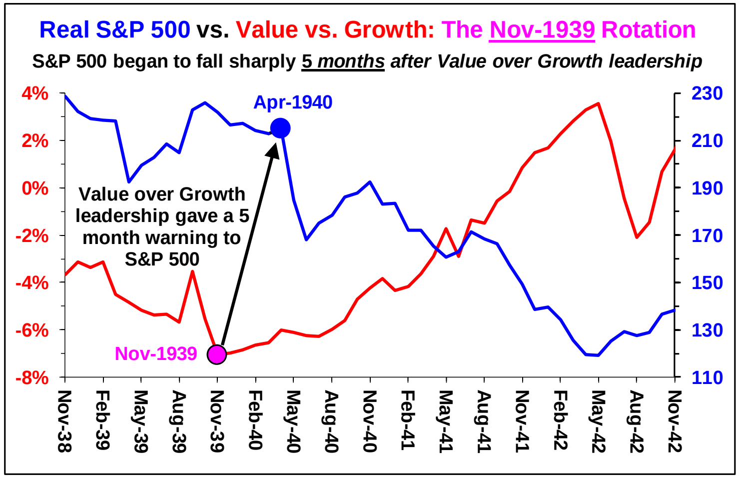
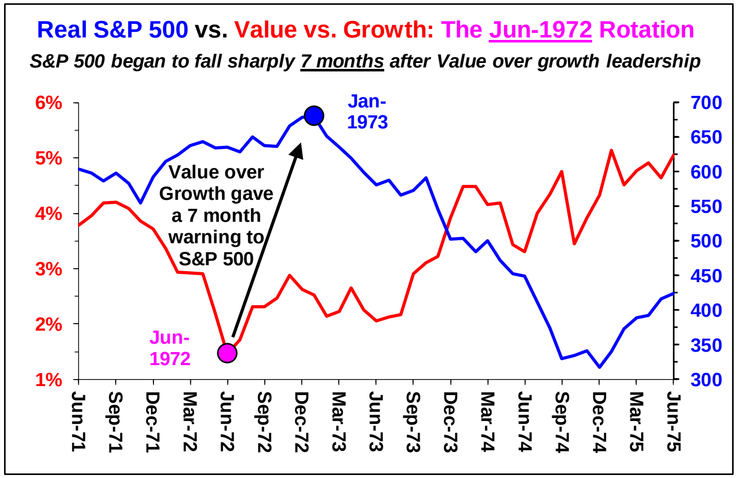
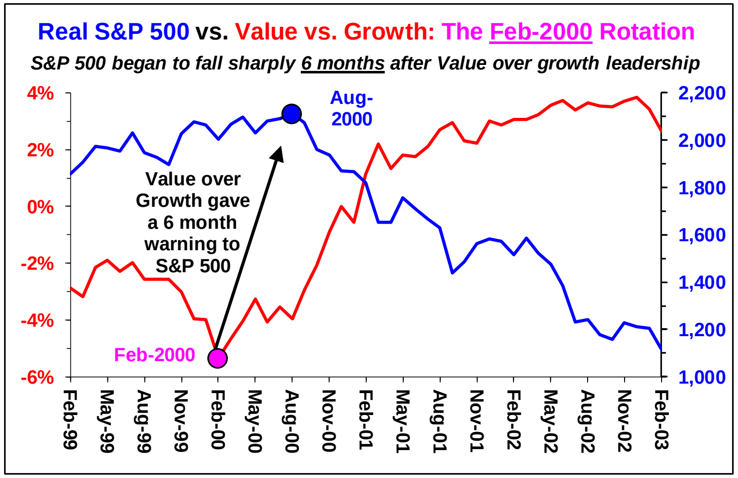
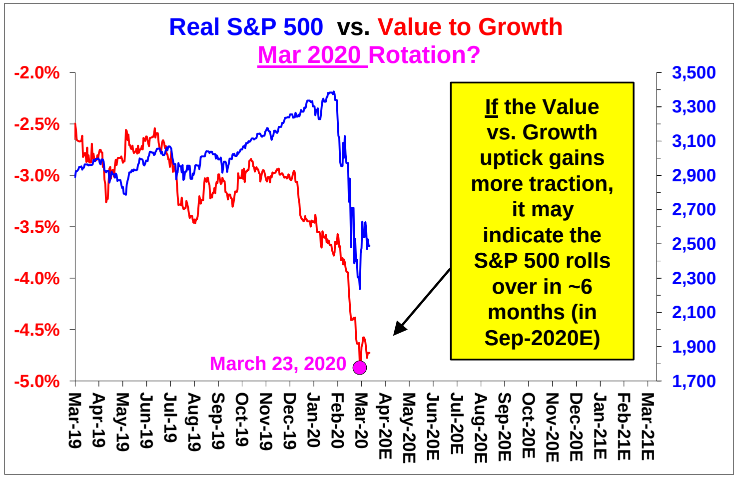
Major (decade-long, prior page) Growth-to-Value rotations have given about a six month lead time to the start of real declines of ~(50)% for the S&P 500 in the first 2 years of such rotations, so *watch leadership* from the Mar-2020 (bottom, right)









Source: Stifel estimates, see exhibit two pages prior.

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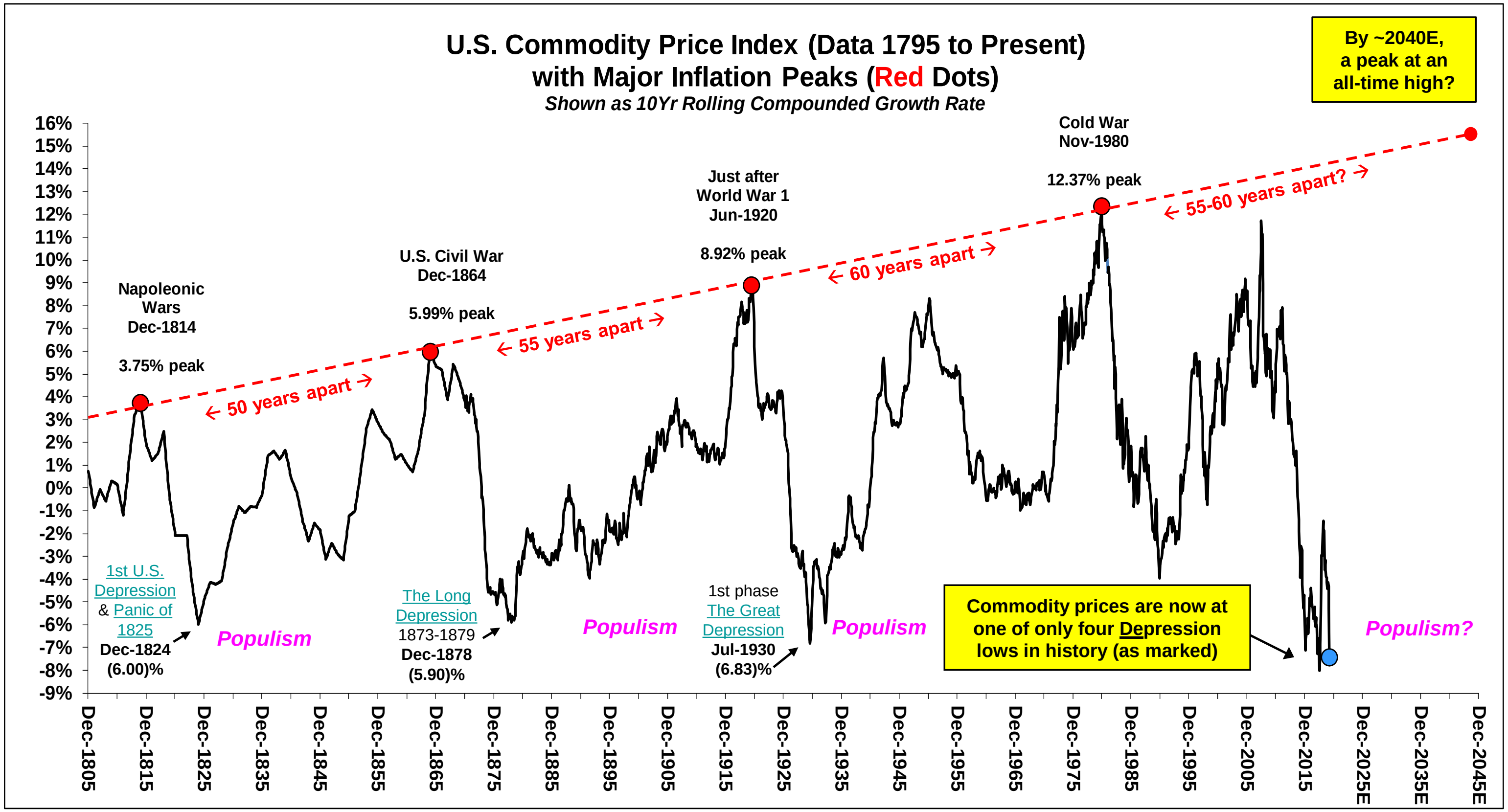
Commodity peaks occur every 55-60 years in "Super Cycles(1)" that start low and grow *over several decades,* implying the highest commodity peak *ever* by ~2040 (60 years after 1980 peak), likely coincident with a war; all super-cycles begin with Depression lows for commodities (1824, 1878, 1930, 2020) and lead to populism



Source: Warren & Pearson Commodity Index (1795-1912), WPI Commodities (1913-25), an equal-weighted (1/3rd ea.) PPI Energy, PPI Farm Products and PPI Metals (Ferrous and Non-Ferrous) excluding precious metals (1926-56), Thomson Reuters Equal Weight (CRB-CCI) Commodity Index (1956-94), and Thomson Reuters/Core Commodity CRB Index (1994-Present).

(1) Kondratiev waves peak every ~55 years, indicating the next peak is 2036-2040E (55-60 years after the 1980 prior peak).

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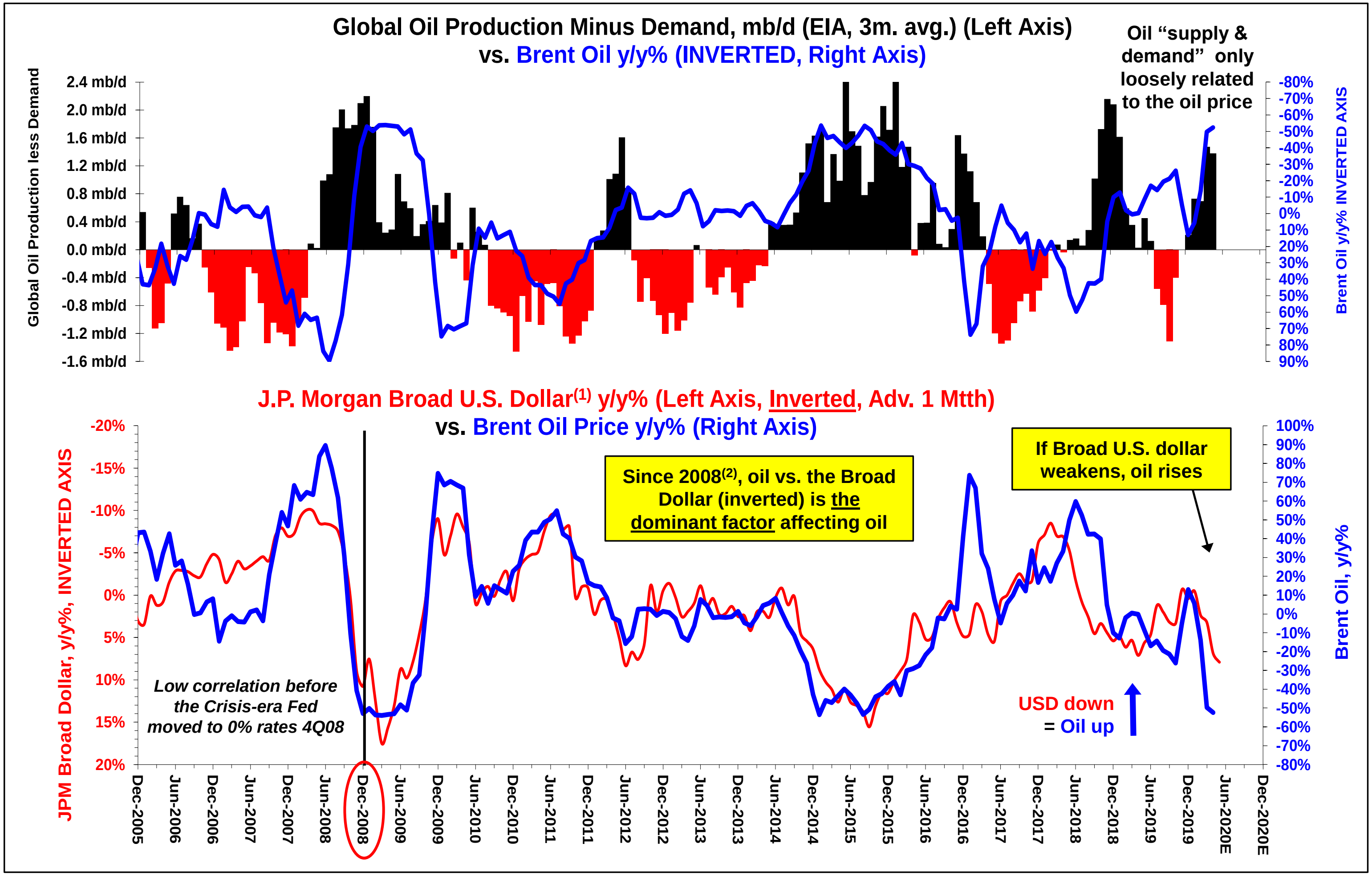
If the Broad[1] dollar index weakens, oil would likely rise (due[2] to low real rates)



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

(1) The Broad dollar is about one-half Emerging market currencies and one-half Developed market currencies.
(2) Crisis-era low U.S. real rates since 2008 have lowered oil hedging costs and equalized (at zero) the real return of oil and money, so they have since correlated inversely.

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In our view:

Topic (4)

S&P 500 seasonality as an investment factor (with the 6 months Nov-1 to Apr-30 stronger than the 6 months May 1 to Oct-31) may be poised to return, and actually indicates close to 3,100 for the S&P 500 *by Apr-30, 2020* (not our view)

Source: Stifel.

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The S&P 500 is seasonal, with the six months Nov-1 to Apr-30 cumulatively 36x higher for return than the prior six months May 1 to Oct-31; reasons include: discounting in winter(1) GDP rising by the spring, and the way in which most years *do not* feature a recession (or, a recovery begins) prompting a 4Q-1Q "relief rally"

S&P 500 "Seasonality" in the past seven decades

An initial lump-sum of $10,000 (no further contributions) invested in 1950 in the S&P 500 has been far more rewarding the 6 months Nov-1 to Apr-30 than in the other 6 months May-1 to Oct-31

Year	S&P 500 May 1 to Oct. 31	S&P 500 Nov. 1 to Apr. 30	Year (Cont.)	S&P 500 May 1 to Oct. 31	S&P 500 Nov. 1 to Apr. 30	Year (Cont.)	S&P 500 May 1 to Oct. 31	S&P 500 Nov. 1 to Apr. 30	Year (Cont.)	S&P 500 May 1 to Oct. 31	S&P 500 Nov. 1 to Apr. 30
1950	**$10,000**	**$10,000**	**1969**	$21,421	$58,757	**1988**	$27,877	$254,942	**2007**	$54,422	$1,136,330
1951	$11,373	$11,875	**1970**	$20,422	$50,151	**1989**	$30,329	$288,035	**2008**	$57,409	$1,026,835
1952	$12,022	$12,433	**1971**	$21,271	$63,633	**1990**	$33,931	$284,624	**2009**	$40,598	$939,268
1953	$13,018	$12,824	**1972**	$19,588	$73,791	**1991**	$31,770	$357,553	**2010**	$48,735	$1,086,388
1954	$13,385	$15,171	**1973**	$20,597	$71,752	**1992**	$33,761	$383,679	**2011**	$49,095	$1,264,111
1955	$15,406	$18,562	**1974**	$21,194	$60,945	**1993**	$34,594	$409,020	**2012**	$45,604	$1,425,598
1956	$17,546	$21,626	**1975**	$17,770	$73,729	**1994**	$37,300	$399,524	**2013**	$46,588	$1,631,224
1957	$16,843	$22,119	**1976**	$18,504	$85,805	**1995**	$39,663	$441,347	**2014**	$51,780	$1,767,608
1958	$15,432	$23,865	**1977**	$19,116	$83,895	**1996**	$45,398	$502,089	**2015**	$56,036	$1,845,320
1959	$18,592	$27,196	**1978**	$18,382	$90,364	**1997**	$49,521	$575,976	**2016**	$56,467	$1,853,328
1960	$18,877	$26,157	**1979**	$18,152	$101,467	**1998**	$57,031	$705,523	**2017**	$58,759	$2,100,200
1961	$18,863	$32,508	**1980**	$18,673	$108,895	**1999**	$56,798	$863,012	**2018**	$64,106	$2,180,399
1962	$20,125	$31,367	**1981**	$22,983	$116,181	**2000**	$58,352	$925,104	**2019**	**$66,284**	**$2,393,311**
1963	$17,769	$39,393	**1982**	$21,664	$114,196	**2001**	$57,751	$813,471			
1964	$19,149	$42,961	**1983**	$25,631	$143,722	**2002**	$49,320	$832,256			
1965	$20,767	$45,802	**1984**	$26,057	$143,841	**2003**	$40,925	$869,521			
1966	$21,880	$45,837	**1985**	$27,693	$159,234	**2004**	$47,318	$924,066			
1967	$19,617	$54,642	**1986**	$29,850	$201,256	**2005**	$48,721	$954,362			
1968	$19,906	$57,714	**1987**	$31,454	$241,616	**2006**	$51,287	$1,046,356			

Nov-1 to Apr-30 return cumulatively 36x more than May 1 to Oct-31

Source: Stifel estimates.

(1) In the Northern Hemisphere, where most of world economic activity occurs.

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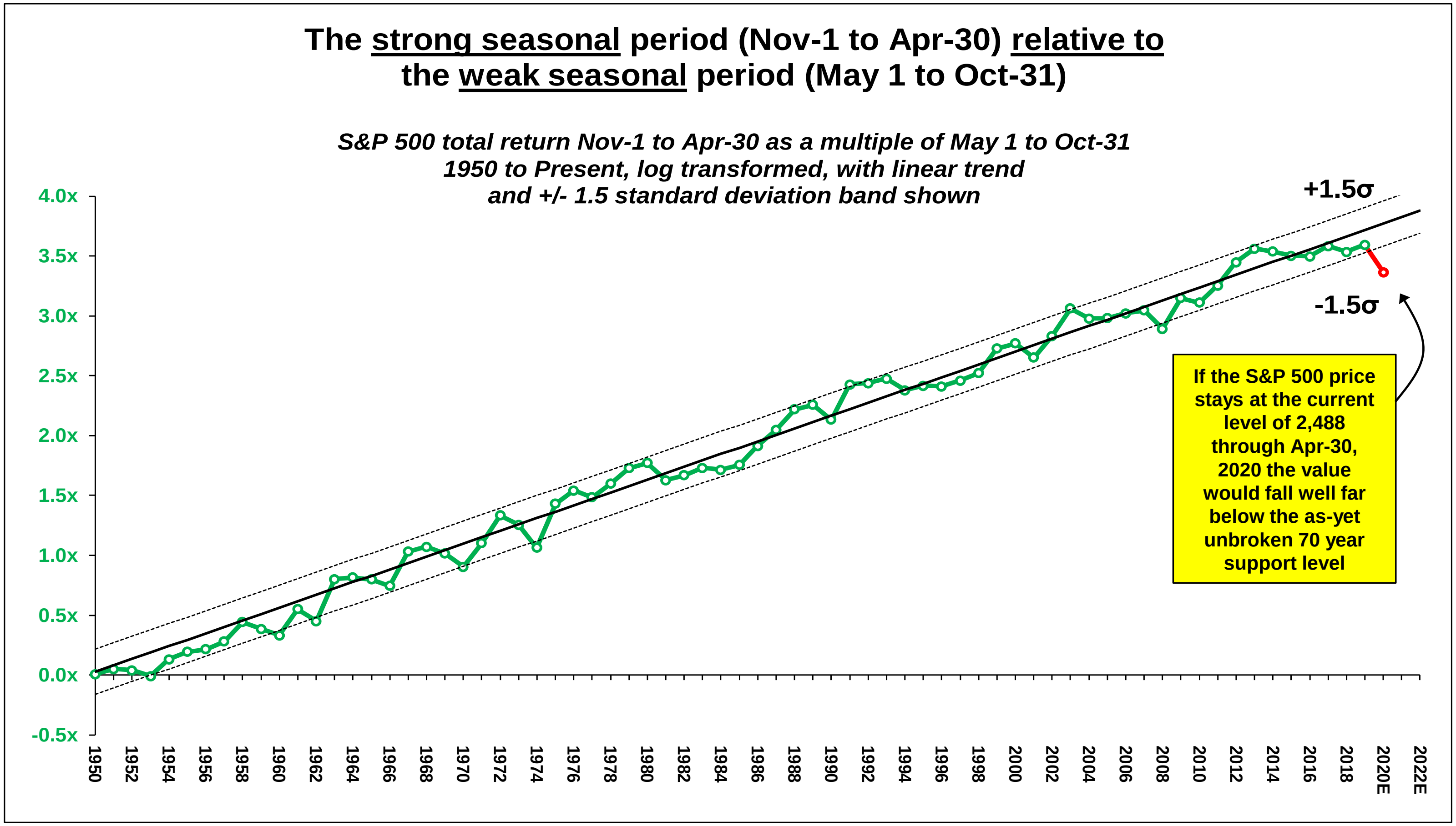
If the S&P 500 remains at the current level of 2,488 to Apr-30, 2020 it would break *far* below a +/-1.5σ trend that has *existed 70 years*, even in major[1] crises, and with the seasonal *factor* fading the past 6 years (since 2013, top, right) it may be poised to return



Source: Stifel estimates.

(1) Examples of crises and shocks that have occurred since 1950 which never meaningfully broke the -1.5 standard deviation support in the chart above: the Asian Flu 1957 (~116,000 U.S. dead), the Hong Kong Flu 1968 (~100,000 U.S. dead), the 1973-74 Oil Crisis/recession, the 2008-09 Global Financial Crisis.

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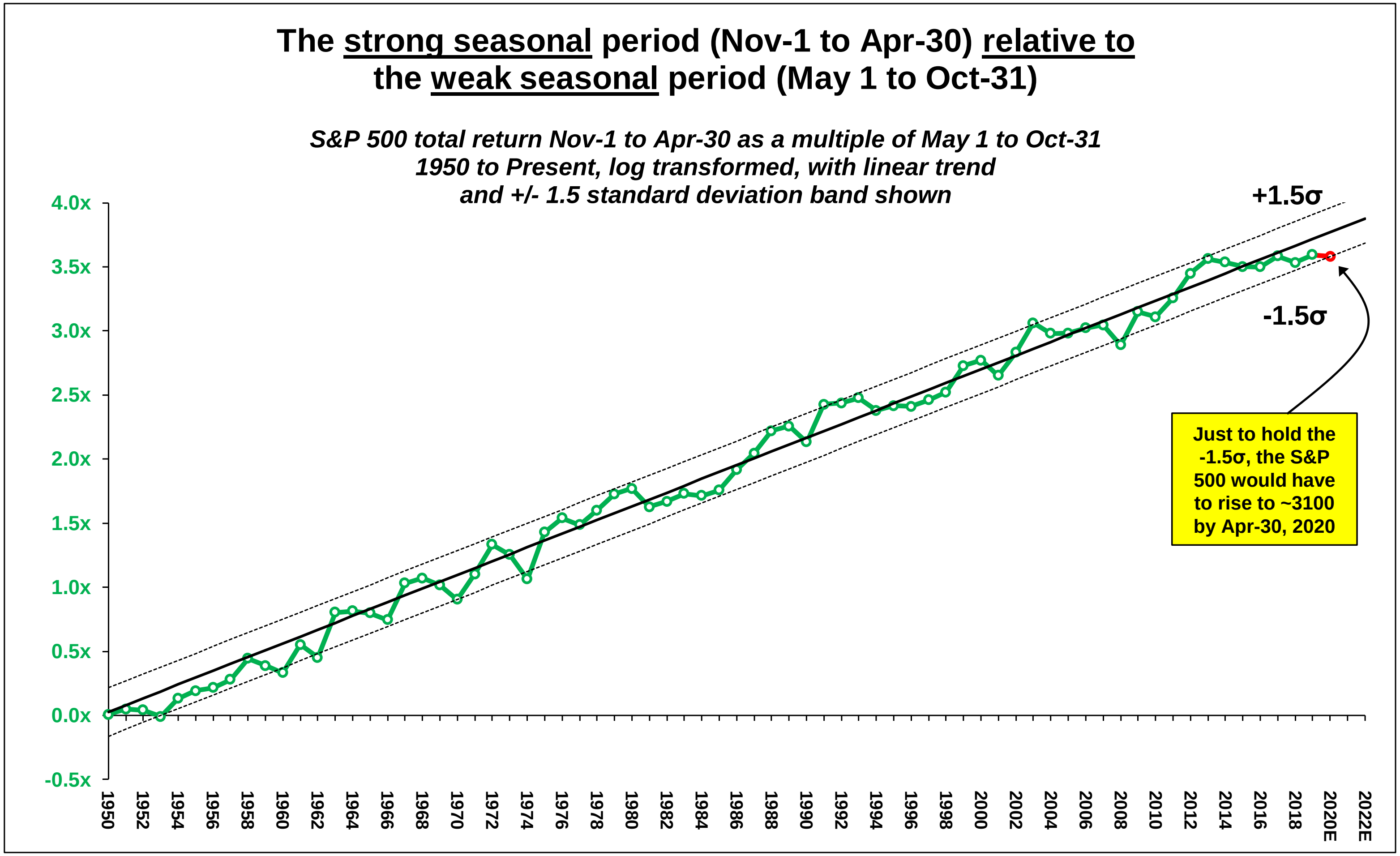
By the numbers, if the S&P 500 rises to 3,100 by Apr-30, 2020, it would just *hold* the 70-year support line at -1.5σ in the chart below (but we "only" target 2,750 Apr-30, 2020)



Source: Stifel estimates.

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Our investment rating system is three tiered, defined as follows:

BUY -We expect a total return of greater than 10% over the next 12 months with total return equal to the percentage price change plus dividend yield.

HOLD -We expect a total return between -5% and 10% over the next 12 months with total return equal to the percentage price change plus dividend yield.

SELL -We expect a total return below -5% over the next 12 months with total return equal to the percentage price change plus dividend yield.

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