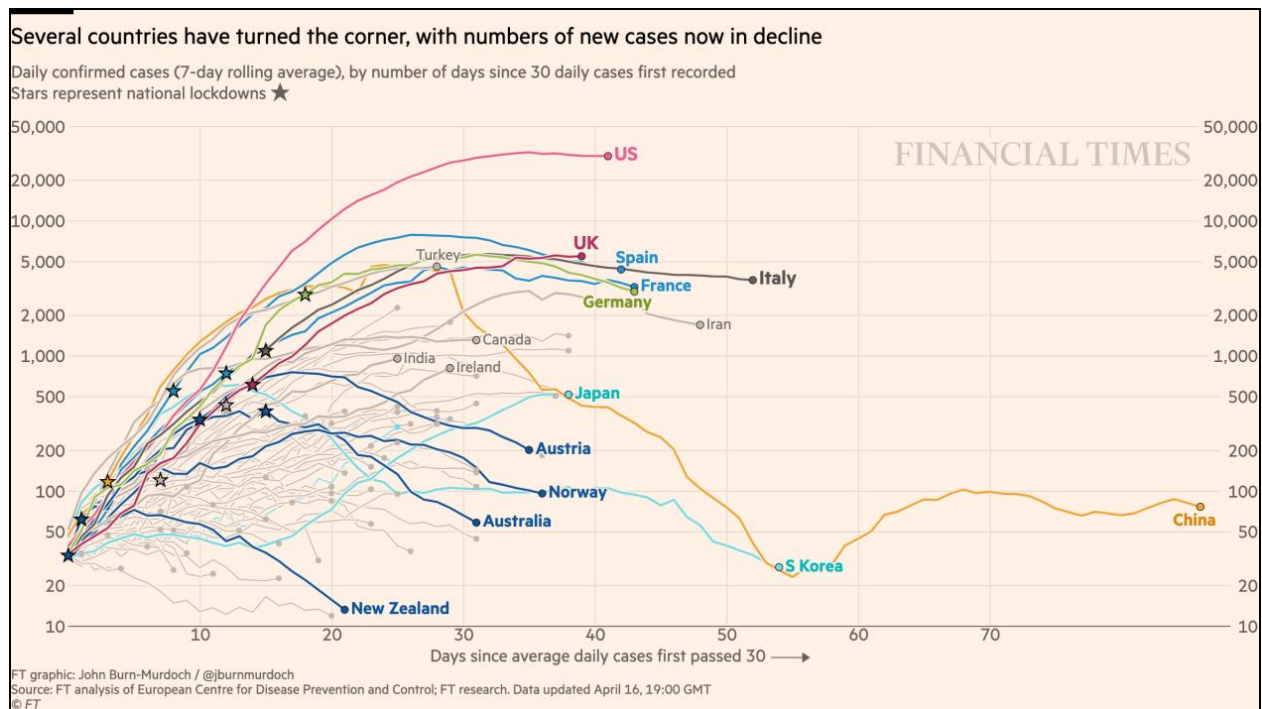


Looking for something to read? See our [Reading List](#); these books, separated by category, are ones we find interesting and insightful. We will be adding to the list over time.

[Posted: April 17, 2020—9:30 AM EDT] Global equity markets are generally higher this morning. The EuroStoxx 50 is up 3.8% from its last close. In Asia, the MSCI Asia Apex 50 closed up 2.2% from the prior close. Chinese markets were higher, with the Shanghai Composite up 0.7% and the Shenzhen Composite up 0.3%. U.S. equity index futures are signaling a higher open.

Good morning and happy Friday! Equities are rebounding this [morning](#) on a positive drug trial. China's GDP turns negative. We update the [COVID-19](#) news. Here are the details:

COVID-19: The [number of reported cases](#) is 2,169,022 with 146,071 deaths and 522,264 (yes, that's down from yesterday) recoveries. Here is the *FT* chart:



There is a clear bend in the U.S. curve, which is good news.

The virus news:

- U.S. equity futures rallied overnight on reports that a clinical trial for Gilead's (GILD, 76.54) [remdesivir](#) was effective in treating COVID-19 patients.
 - The [reports came from a Chicago hospital](#). Remdesivir was [initially developed to combat Ebola](#); it is an anti-viral, meaning it attacks the virus itself.
 - First, it is always good news when some drug works. Second, we are still a long way from remdesivir becoming a widespread treatment. The Chicago report was a clinical trial; it was used alone. The gold standard for drug testing is the double-blind study, where sick patients are either given the drug or a placebo. Neither the patient nor the doctors administering the drug know what a patient is receiving.
 - The reports on what occurred in Chicago are glowing (hence the nearly 3% jump in equity futures), but without a double-blind study we may be merely observing a fluke.
 - It is also worth noting that remdesivir won't prevent one from being infected by COVID-19; however, if it works, it may reduce the severity of the infection and save lives. A rough comparison is with Tamiflu; it doesn't prevent one from getting the flu but it can make the symptoms less severe. Remdesivir appears to be much more potent than Tamiflu but the usage is similar.
- There is a myriad of treatment options being investigated. The [U.S. is helping fund the vaccine effort](#).
- The [counting effort](#) has become a source of uncertainty as well:
 - Spain's death toll will [likely be revised higher](#) due to undercounting of nursing home resident deaths. The death count is having a political impact in [Spain](#) and [Italy](#).
 - New York raised its total as well, [counting more who died outside of hospitals](#).
 - [Wuhan doubled its death toll](#) after reviewing the data. There have been growing doubts about the death toll (cremations seemed to far exceed death reporting) and even this increase is likely an undercount.
- As we noted yesterday, we still don't know enough about the virus. In Wuhan, serological testing has begun. The [initial reports suggest](#) the city, which was hard hit, is still well below herd immunity levels. Meanwhile, the [U.S. Navy is nearly finished testing the sailors on the U.S.S. Theodore Roosevelt](#). About 13% have tested positive and of those 60% were asymptomatic. This would suggest a very wide dispersion in how people are affected and that silent carriers can spread the disease outside of social distancing.
- The U.K. has [extended social distancing measures](#) for another three weeks.

The policy news:

- The U.S. has [unveiled its plan](#) for reopening the economy after the shutdown. There were no huge surprises. It's a [standard issue set of guidelines](#) that gives [state and local governments](#) the authority to make their own plans.

- [In California](#), some of the larger cities and counties are preparing to slowly reopen.
- Another development we continue to watch is that [groups of states](#) are planning their reopening in concert.
- The [EU unveiled its plan for reopening](#); it is similar to the U.S., except it uses nations instead of states.
- [There is a growing backlash against the sheltering orders](#). If this grows and governors cannot enforce them, there is a risk of a second wave of infections and deaths during the summer.
- It is looking like the [mortgage servicers will be the next to need a bailout](#). As borrowers are unable to pay either their mortgage or rent, the servicers are required to pay the bondholders. Many of them lack the capital to do this for very long. If the bailout is coming, the [quasigovernment firms may not be the source of funds](#).
- The small business bailout program has exhausted its funds. [Replenishment is caught in a political fight](#).

The economic news:

- Although it comes as no great surprise, [China's Q1 GDP](#) fell 6.8% [from last year](#), and -9.8% from Q4, for an annualized decline of 34%. This is the first decline in China's GDP since it began reporting on a quarterly basis. During the "Great Leap Forward," which ran from 1958 to 1960, China experienced a -27.3% drop in GDP in 1961.



- One interesting tidbit; [excavator sales are jumping in China](#) on expectations that there will be a jump in stimulus spending on public works.
- As we reported yesterday, there is a [looming bottleneck](#) developing in the meat industry as the processors close due to worker infections. This is leading to shortages in stores and involuntary herd expansion for farmers and ranchers.
- There has been [a remarkable adjustment by manufacturers](#) to repurpose assembly lines for medical supplies.

The market news:

- Airlines who took bailout funds are being [forced to maintain routes](#) even as passenger counts dwindle. And, there is a [chance that we have seen the end of the airlines' ability to put more passengers on planes](#).

The foreign policy news:

- The origin narrative of COVID-19 is [increasingly looking like it may have escaped from a Chinese bioweapons lab](#). Initial reporting pointed at China's "wet markets," where wildlife is sold for food, but that idea is [becoming increasingly suspect](#). [U.S. intelligence agencies](#) have been investigating the lab origin for a while. It does not appear that COVID-19 is a bioweapon; genetic reports indicate that a weapon designer would have made it differently. Instead, the idea is that [poor security practices](#) led to a leak of a bat virus that crossed the species barrier. China has had problems with biosecurity before—it was [evident in the SARS epidemic](#). At this point, the [intelligence agencies have not been able to determine with confidence](#) that a leak caused this pandemic. They may never be able to reach a high standard of proof. But the standards of proof in the court of global public opinion are lower. U.S./China relations were already on tenterhooks; [COVID-19 is likely to further freeze the relationship](#).
 - [China's standing is even suffering in Africa](#), where it has been a large investor and [lender](#).
- There are reports [within China of a surge of xenophobia](#); it appears the relationship tensions flow both directions.
- We reported yesterday that Japan was helping fund companies that wanted to leave China. There is [increasing evidence of Japan's withdrawal](#) from the Chinese economy.
- How bad is it? It's [so bad that Venezuelans who have fled the country are going back!](#) At the same time, oil-rich [Venezuela is running out of gasoline](#).
- [French President Macron warns that the EU may unravel](#) if it doesn't work together to help nations hit hard by the virus.
- [Brazil's President Bolsonaro has fired his health minister](#). The president has strongly opposed social distancing, while Luiz Henrique Mandetta, his health minister, had been pushing for such measures.
- [Drug smugglers have apparently been hiding shipments](#) in medical imports.

Odds and ends: [Argentina has made a restructuring offer](#) for its debt. It is [looking for a three-year grace period](#) from lenders. The [Navy is accusing Iran of harassing Persian Gulf shipping](#). [Russian oil firms are fighting over the allocation of production cuts](#). Despite everything, the [Johnson government in the U.K. refuses to ask for a Brexit extension](#).

U.S. Economic Releases

There were no economic releases prior to the publication of this report. The table below lists the economic releases scheduled for the rest of the day.

| Economic Releases | | | | | | | |
|---------------------------------|---------------|-----|-----|--|----------|-------|--------|
| EDT | Indicator | | | | Expected | Prior | Rating |
| 10:00 | Leading Index | m/m | Mar | | -7.2% | 0.1% | ** |
| Fed Speakers or Events | | | | | | | |
| No speakers or events scheduled | | | | | | | |

Foreign Economic News

We monitor numerous global economic indicators on a continuous basis. The most significant international news that was released overnight is outlined below. Not all releases are equally significant, thus we have created a star rating to convey to our readers the importance of the various indicators. The rating column below is a three-star scale of importance, with one star being the least important and three stars being the most important. We note that these ratings do change over time as economic circumstances change. Additionally, for ease of reading, we have also color-coded the market impact section, which indicates the effect on the foreign market. Red indicates a concerning development, yellow indicates an emerging trend that we are following closely for possible complications and green indicates neutral conditions. We will add a paragraph below if any development merits further explanation.

| Country | Indicator | | | Current | Prior | Expected | Rating | Market Impact |
|---------------------|---------------------------------|-----|--------|------------|------------|----------|--------|------------------------------|
| ASIA-PACIFIC | | | | | | | | |
| China | FX Net Settlement - Clients CNY | m/m | Mar | 81.6 Bil | 5.1 Bil | | ** | Equity and bond neutral |
| Japan | Industrial Production | y/y | Feb | -5.7% | -4.7% | | ** | Equity bearish, bond bearish |
| | Tertiary Industry Index | m/m | Feb | -0.5% | 0.8% | -0.5% | ** | Equity and bond neutral |
| | Capacity Utilization | m/m | Feb | -1.8% | 1.1% | | ** | Equity bearish, bond bearish |
| Europe | | | | | | | | |
| Eurozone | EU27 New Car Registrations | m/m | Mar | -55.1% | -7.4% | | *** | Equity bearish, bond bearish |
| | Construction Output | m/m | Feb | -1.5% | 3.6% | | ** | Equity bearish, bond bearish |
| | CPI | y/y | Mar | 0.7% | 0.7% | 0.7% | *** | Equity and bond neutral |
| | CPI Core | y/y | Mar | 1.0% | 1.0% | 1.0% | *** | Equity and bond neutral |
| Italy | Trade Balance EU | m/m | Feb | 1016m | 830m | | ** | Equity bullish, bond bearish |
| | Trade Balance Total | m/m | Feb | 6085m | 542m | | ** | Equity bullish, bond bearish |
| Russia | Money Supply Narrow Def | w/w | 10-Apr | 11.82 Tril | 11.57 Tril | | * | Equity and bond neutral |
| AMERICAS | | | | | | | | |
| Mexico | Manufacturing Sales | m/m | Feb | 0.5% | -0.2% | 0.1% | ** | Equity bullish, bond bearish |

Financial Markets

The table below highlights some of the indicators that we follow on a daily basis. Again, the color coding is similar to the foreign news description above. We will add a paragraph below if a certain move merits further explanation.

| | Today | Prior | Change | Trend |
|-----------------------------|------------------|--------------|-----------------|-------------|
| 3-mo Libor yield (bps) | 113 | 118 | -5 | Down |
| 3-mo T-bill yield (bps) | 12 | 13 | -1 | Neutral |
| TED spread (bps) | 101 | 104 | -3 | Up |
| U.S. Libor/OIS spread (bps) | 8 | 8 | 0 | Up |
| 10-yr T-note (%) | 0.64 | 0.63 | 0.01 | Neutral |
| Euribor/OIS spread (bps) | -22 | -25 | 3 | Neutral |
| EUR/USD 3-mo swap (bps) | -41 | -41 | 0 | Down |
| Currencies | Direction | | | |
| dollar | Up | | | Neutral |
| euro | Down | | | Up |
| yen | Flat | | | Up |
| pound | Down | | | Down |
| franc | Flat | | | Up |
| Central Bank Action | Current | Prior | Expected | |
| RBI Reserve Repo Rate | 3.750% | 4.000% | | On forecast |

Commodity Markets

The commodity section below shows some of the commodity prices and their change from the prior trading day, with commentary on the cause of the change highlighted in the last column.

| | Price | Prior | Change | Explanation |
|-----------------------------|---------------|-----------------|-------------------|----------------------|
| Energy Markets | | | | |
| Brent | \$28.32 | \$27.82 | 1.80% | Possible Output Cuts |
| WTI | \$18.49 | \$19.87 | -6.95% | |
| Natural Gas | \$1.68 | \$1.69 | -0.18% | |
| Crack Spread | \$15.11 | \$13.44 | 12.38% | |
| 12-mo strip crack | \$7.74 | \$7.38 | 4.88% | |
| Ethanol rack | \$1.15 | \$1.15 | -0.06% | |
| Metals | | | | |
| Gold | \$1,685.57 | \$1,717.70 | -1.87% | |
| Silver | \$15.13 | \$15.50 | -2.37% | |
| Copper contract | \$234.95 | \$230.55 | 1.91% | |
| Grains | | | | |
| Corn contract | \$ 329.00 | \$ 326.25 | 0.84% | |
| Wheat contract | \$ 527.50 | \$ 530.50 | -0.57% | |
| Soybeans contract | \$ 848.50 | \$ 845.75 | 0.33% | |
| Shipping | | | | |
| Baltic Dry Freight | 726 | 706 | 20 | |
| DOE inventory report | | | | |
| | Actual | Expected | Difference | |
| Crude (mb) | 19.2 | 11.6 | 7.6 | |
| Gasoline (mb) | 4.9 | 7.2 | -2.3 | |
| Distillates (mb) | 6.3 | 1.4 | 4.9 | |
| Refinery run rates (%) | -6.50% | -2.20% | -4.30% | |
| Natural gas (bcf) | 73.0 | 65.0 | 8.0 | |

Weather

The 6-10 and 8-14 day forecasts currently call for warmer-than-normal temperatures for most of the country. Wet conditions are expected for most of the country, with dry conditions in California.

Asset Allocation Weekly

Confluence Investment Management offers various asset allocation products which are managed using “top down,” or macro, analysis. We report asset allocation thoughts on a weekly basis, updating this section every Friday. Note that this report is also offered as a separate document on our [website](#).

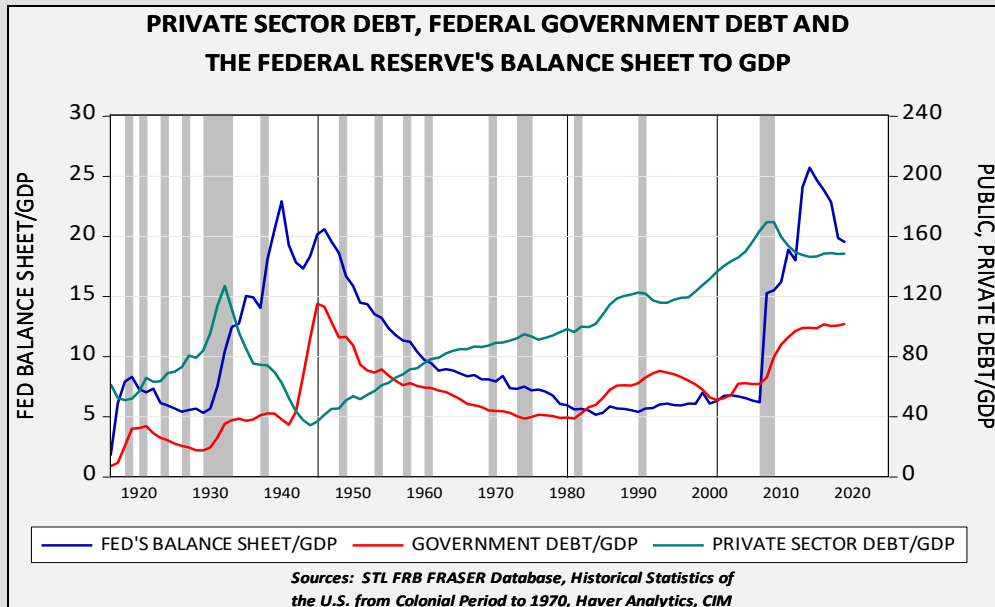
April 17, 2020

The Federal Reserve’s aggressive expansion of its balance sheet has been in response to fears of systemic risk. The experience of the 2008 Great Financial Crisis has made it clear that systemic risk can occur from a myriad of different parts of the financial system, so the Fed has broadened its support to include a significant expansion of credit risk, including corporate credit, both investment-grade and below-investment-grade, municipal debt, commercial paper along with mortgage and Treasuries. Although the Fed did similar actions in the depths of the 2008 Great Financial Crisis, the current policy actions are far more aggressive than what was seen in the last decade, both in the level of the balance sheet expansion and the breadth of assets being purchased. The Fed’s balance sheet is currently \$6.083 trillion, a new record high.

Although the FOMC’s actions have been in response to concerns over systemic risk, there is a structural backdrop as well. Private sector debt in the U.S. is elevated and is probably unsustainable at current levels. The sustainability of debt levels is more art than science. Although there are obvious ways to measure debt service costs and one can compare historical levels, there is a psychological element to the lending and borrowing process. If confidence is high, lenders are anxious to “put money to work” and borrowers have high hopes that their borrowing will be beneficial. For example, Americans believed that home prices would continue to rise from 1995 to 2005 and lending that now looks reckless seemed reasonable at the time. But, once confidence in home prices waned, there was a scramble to reduce exposure to the sector that culminated in the 2008 Great Financial Crisis.

We have seen a decline in private sector debt¹ since 2007; however, the slow growth seen during this expansion likely reflects the fact that we haven’t seen enough debt liquidation. We saw a similar situation in the 1930s.

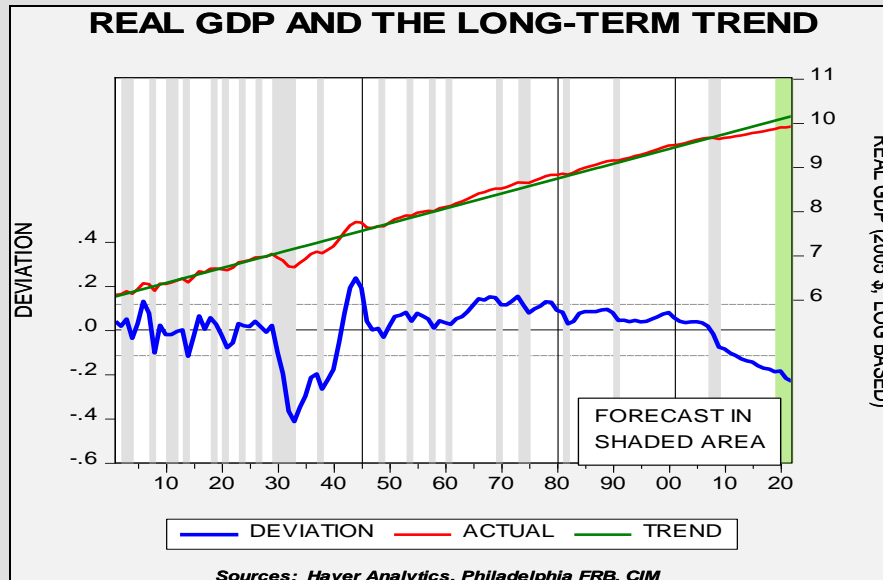
¹ We define private sector debt as household debt plus non-financial corporate debt; the financial system debt is excluded because much of that debt is to the non-financial components and thus including it would be double counting.



When private sector debt becomes excessive, there are two paths of resolution. The first is to allow the debt to be liquidated through bankruptcy. At a microlevel, this path is perfectly reasonable. After all, if a borrower and a lender took risks, they should bear the burden of their mistakes. However, at a macrolevel, this path of resolution tends to create systemic risk.² One party's debt is another party's asset. If the debt is resolved at a loss, the asset falls in value too. The process can lead to deep and widespread collateral damage. For example, in 1928 there were 26,401 commercial banks in the U.S.; by 1934, this number had declined to 15,913. The decline in asset values and the loss of bank deposits tend to lead to bank failures and the hoarding of cash that can cause a deflationary spiral. Politically, allowing a debt restructuring to occur "naturally" has become a non-starter.

Therefore, if the private sector debt overhang isn't resolved by liquidation and asset price declines, the other option is to socialize the debt. The debt is shifted to the public sector balance sheet and resolved over time. Referring to the above chart, the Fed's balance sheet began to rise aggressively after 1932, with only a modest increase in the government's debt. Although the expansion of the Fed's balance sheet helped end the initial phase of the Great Depression, private sector debt continued to decline, which we would argue shows a continued lack of confidence by borrowers and lenders.

² This [process was described by Irving Fisher](#) in 1933.



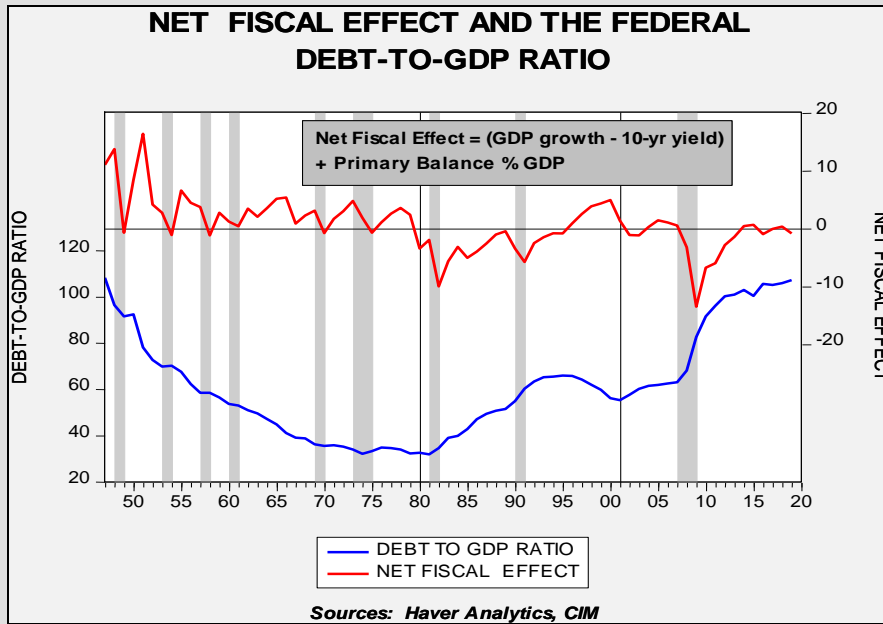
This chart shows real annual log-transformed GDP starting in 1901. We regress a time trend through the data. Despite the Fed’s efforts, GDP remained below trend, suggesting the full impact of the debt liquidation tied to the Great Depression had not been resolved. The full resolution wasn’t accomplished until the rise of government spending for WWII, along with the further expansion of the Fed’s balance sheet. The combination led to a decline in private sector debt to below 40% of GDP. The decline in private sector debt laid the groundwork for the postwar recovery. It took nearly 15 years, a massive expansion of the Fed’s balance sheet and WWII spending to fully resolve the private sector debt overhang that developed prior to the 1930s.

However, the private sector debt didn’t disappear—it was transformed into public sector debt and that debt overhang needed to be resolved. That resolution was executed by financial repression and regulation. It is important to note that government debt issued in the currency that government controls is different that private sector debt. The former doesn’t actually need to be paid off; it merely needs to be serviced. Servicing government debt is a function of the relative size of that debt to the economy. The formal process is called the Net Fiscal Effect. This process is a formula:

$$\text{Net Fiscal Effect} = (y/y\% \text{ nominal GDP} - \text{government interest rate}) + \text{primary balance as \% of GDP}$$

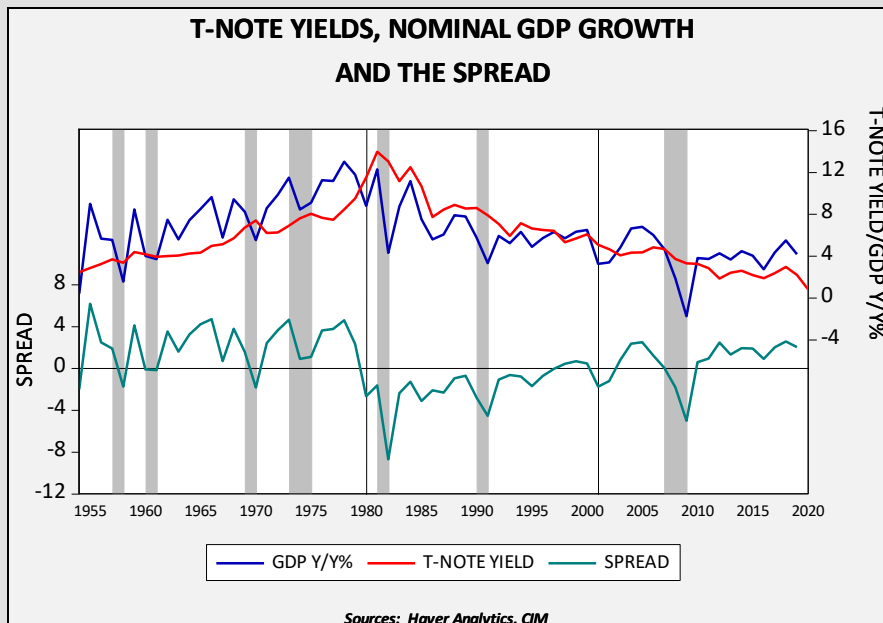
If nominal GDP rises faster than the rate of interest the government pays on the debt plus primary balance,³ then the overall government debt/GDP ratio will fall. Here is a chart:

³ The primary balance = government revenue/GDP - (government spending - interest paid)/GDP. In other words, it’s net government spending less interest payments.



This chart shows the net fiscal effect on the upper line (we use the 10-year T-note yield as a proxy for borrowing costs). From the end of WWII into the early 1980s, the net fiscal effect was positive, and the government debt/GDP ratio steadily declined.

If policymakers follow the Great Depression/WWII path, we would expect a gradual rise in long-term interest rates.



This chart shows the 10-year T-note yield, the yearly change in nominal GDP and the difference between the two series. The postwar period to the early 1980s was a secular bear market for bonds. That may not happen this time around, or it may be slower to evolve. The Fed may

engage in yield curve control, preventing Treasury rates from rising. The aging population could reduce inflation fears; it is important to note that the [Millennial generation may be scarred by the last two decades](#) and may behave like the Depression/War generation. That would mean less spending and risk taking. But it would be reasonable to expect that a gradual reflation is likely; after all, it supports the net fiscal effect.

What should investors do in this environment? We will discuss this issue at much greater length in an upcoming WGR series but here is how we are dealing with this development in our Asset Allocation strategies:

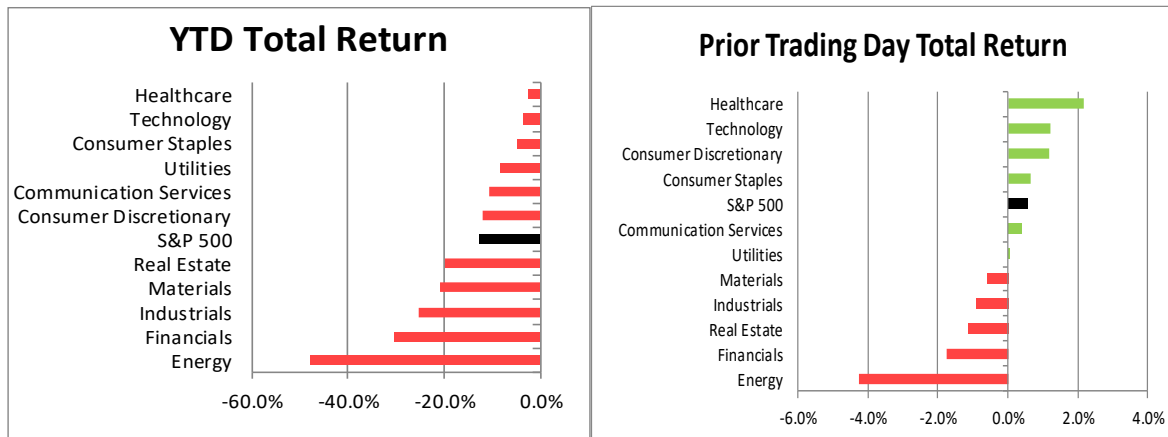
1. We have deployed bond ladders using ETFs. Bond laddering is an effective way to deal with gradually rising interest rates. We use a mix of corporate and Treasuries in the ladders.
2. We have added allocations to precious metals across all portfolios.
3. Historically, equities have been a good inflation hedge; however, we may see a period of adjustment in the next decade as investors deal with rising inflation. This may entail multiple contraction. Although it is too early to reduce equity exposure for this event, we are cognizant of future development.

Addressing the private sector debt overhang through socializing it to the public balance sheet is a rare event. This one will be a challenge for investors, but it can be managed. However, what has worked for the past 40 years (equity investing via blind indexing, holding long duration bonds, etc.) probably won't work for the next four decades.

Past performance is no guarantee of future results. Information provided in this report is for educational and illustrative purposes only and should not be construed as individualized investment advice or a recommendation. The investment or strategy discussed may not be suitable for all investors. Investors must make their own decisions based on their specific investment objectives and financial circumstances. Opinions expressed are current as of the date shown and are subject to change.

Data Section

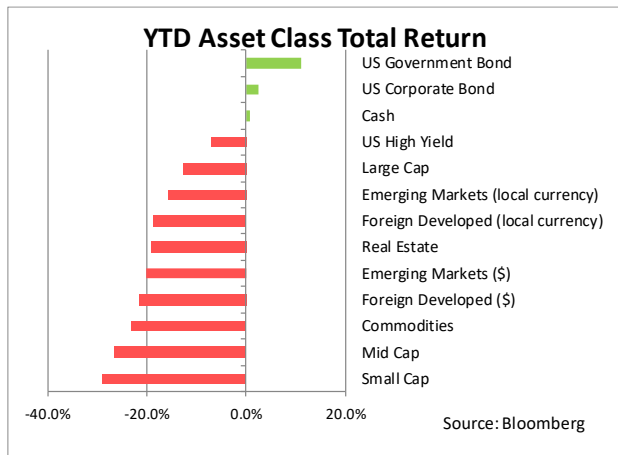
U.S. Equity Markets – (as of 4/16/2020 close)



(Source: Bloomberg)

These S&P 500 and sector return charts are designed to provide the reader with an easy overview of the year-to-date and prior trading day total return. Sectors are ranked by total return; green indicating positive and red indicating negative return, along with the overall S&P 500 in black. These charts represent the new sectors following the 2018 sector reconfiguration.

Asset Class Performance – (as of 4/16/2020 close)

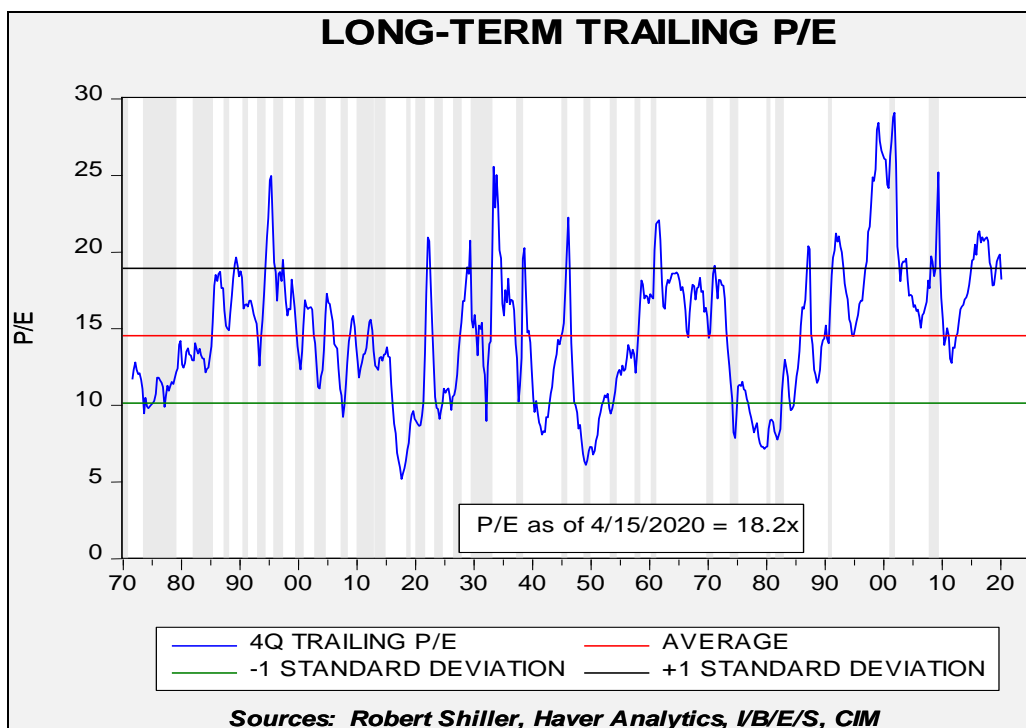


This chart shows the year-to-date returns for various asset classes, updated daily. The asset classes are ranked by total return (including dividends), with green indicating positive and red indicating negative returns from the beginning of the year, as of prior close.

Asset classes are defined as follows: Large Cap (S&P 500 Index), Mid Cap (S&P 400 Index), Small Cap (Russell 2000 Index), Foreign Developed (MSCI EAFE (USD and local currency) Index), Real Estate (FTSE NAREIT Index), Emerging Markets (MSCI Emerging Markets (USD and local currency) Index), Cash (iShares Short Treasury Bond ETF), U.S. Corporate Bond (iShares iBoxx \$ Investment Grade Corporate Bond ETF), U.S. Government Bond (iShares 7-10 Year Treasury Bond ETF), U.S. High Yield (iShares iBoxx \$ High Yield Corporate Bond ETF), Commodities (Bloomberg total return Commodity Index).

P/E Update

April 16, 2020



Based on our methodology,⁴ the current P/E is 18.2x, up 1.1x from last week. The rise in the P/E was caused by the recovery in the S&P and falling earnings estimates.

This report was prepared by Confluence Investment Management LLC and reflects the current opinion of the authors. It is based upon sources and data believed to be accurate and reliable. Opinions and forward-looking statements expressed are subject to change. This is not a solicitation or an offer to buy or sell any security.

⁴ This chart offers a running snapshot of the S&P 500 P/E in a long-term historical context. We are using a specific measurement process, similar to *Value Line*, which combines earnings estimates and actual data. We use an adjusted operating earnings number going back to 1870 (we adjust as-reported earnings to operating earnings through a regression process until 1988), and actual operating earnings after 1988. For the current quarter, we use the I/B/E/S estimates which are updated regularly throughout the quarter; currently, the four-quarter earnings sum includes two actual quarters (Q3 and Q4) and two estimates (Q1). We take the S&P average for the quarter and divide by the rolling four-quarter sum of earnings to calculate the P/E. This methodology isn't perfect (it will tend to inflate the P/E on a trailing basis and deflate it on a forward basis), but it will also smooth the data and avoid P/E volatility caused by unusual market activity (through the average price process). Why this process? Given the constraints of the long-term data series, this is the best way to create a long-term dataset for P/E ratios.