

HARDInomics

Monthly Report

Analysis focused on your industry and your markets

March 17, 2020

The Triggering Event Has Arrived

By Mr. Anirban Basu

For several years, economists have been warning about growing economic fragility. Even as job growth persisted, unemployment sank to multi-decade lows, and stock market booms, economists pointed to a host of omens suggesting that the economic expansion's time was limited.

Among the indications was a yield curve that inverted last year, unemployment that had sunk below its natural rate, bouts of financial market volatility, and measures suggesting that while consumers were confident about the economy's current performance, they were increasingly nervous about the future. At the heart of this fragility is an enormous level of indebtedness - indebtedness largely attributable to efforts by policymakers to maintain ultra-low interest rates even as global and national economies continued to expand in recent years.

In nominal terms, consumer indebtedness has never been higher in the U.S. Never has corporate debt been so elevated, the result in part of continuous stock repurchases designed to push share prices higher even as more debt was loaded onto balance sheets. The national debt is presently screaming toward \$23.5 trillion.

Coupled with this fragility has been elevated asset prices. While it is wonderful for investors when stock prices reach record highs seemingly on a daily basis, that performance creates vulnerability. What can go up can come down. Price-earnings ratios suggest that U.S. equity markets had become richly valued, setting the stage for what we have observed in recent weeks. Volatility is staggering.

As concerned as many economists had become regarding these various sources of fragility, none of us could point to a likely triggering event that would jolt the economy from growth to lack thereof. We now have that triggering event - COVID-19 - which stands to fundamentally alter how Americans live in the short-term and how they protect themselves into the distant future.

As of this writing, the novel coronavirus has made itself known to the public health data, but not in underlying economic data with the noteworthy example of various stock indices. To date, there have been more than 127,000 confirmed cases globally and in excess of 4,700 deaths. Nonetheless, recently released economic data tell a tale of an economy still performing at lofty levels. In February, the nation added 273,000 net new jobs after adding 277,000 the prior month. Unemployment dipped back down to 3.5 percent, effectively a 50-year low.

2020

COVID-19 disruption stunts growth mid-year

2021

Recovering as year progresses; Real GDP recovers to 2% area

2022

Growth moderates after interest rates normalize

But everyone understands that eventually the public health crisis will insinuate itself into economic data. Construction may hold up better than many segments due to the presence of backlog, which has been elevated. With the exception of instances in which construction workers are told not to show up to work, ongoing construction should represent a bulwark of stability in an economy that will otherwise hit the proverbial brick wall.

It is quite possible that the U.S. economy is already in recession. HARDI members and other stakeholders should expect a recession that is short and vicious, with certain industries (e.g. travel, hospitality, events, energy) hammered by their idiosyncratic circumstances and financial markets reeling. These are the industries in which layoffs will rise most sharply, but that in turn will trigger layoffs in retail trade and a host of other industries that depend at least in part upon the confidence people have in their economy.

Circumstances facing distributors could be much different. For certain distributors, including those that relate to the nation's construction industry, supply chain interruptions attributable to the novel coronavirus could drive up the price attached to many items presently in warehouses/fulfillment centers, rendering aggregate inventory more valuable.

While the claim that cash is king sounds correct under the circumstances—circumstances associated with growing evidence of credit markets seizing up and emerging concerns that many Americans will soon be unable to pay their rent or other obligations—perhaps it would be more accurate to say that inventory is king. China is responsible for a quarter of global manufacturing. Ports across the United States are already reporting substantially reduced cargo volume due to diminished shipments from China and other parts of the world.

A recent survey conducted by the Institute for Supply Management noted that 75 percent of companies are reporting disruptions in their supply chains as a result of the ongoing crisis. Moreover, it states that 16 percent have already revised their projected revenues downward by an average of 5.6 percent. ISM CEO Thomas Derry said, "For a majority of U.S. businesses, lead times have doubled, and that shortage is compound by the shortage of air and ocean freight options to move product to the United States."

Factories in China have remained closed or operated at below-capacity levels for weeks now. As of March's initial week, 41 ships had canceled cargo deliveries to the Ports of Los Angeles and Long Beach between Mid-February and early April. In other words, supply chain interruptions will persist for weeks to come, rendering inventory management especially important. Distributors need to fully understand the nature of scarcity and customers' willingness to pay before parting with precious inventory. This may be especially true of technologies that relate directly to the crisis or may appear to, including technologies such as ultraviolet disinfection systems.

Dear HARDI Members,

The Monthly HARDInomics is a macro view to support the quarterly regional reports that include reviews of each state. Last summer we compared the slower growth expected in 2020 to "economic flu season" because like the flu, it would not impact all states at the same time or severity. The metaphor is now a pivotal variable to the pace and trajectory of economic activity in 2020.

The economic data from 2020 will always be referenced by COVID-19. Business is battling a global pandemic that has interrupted supply, a national emergency interrupting demand for an unknown length of time, and March Sadness. By the end of this month we will have some hint of the damage and duration of the disruption. Preparing for cooling season will be very challenging if we have more than 100K confirmed cases and growing. If we have less than 50K confirmed cases and the spread is moderating like has been accomplished in China and South Korea, then operations should be recovering next month at this time and getting ready for a busy May. -- Brian Loftus

For more information on HARDI benchmarking services, visit:

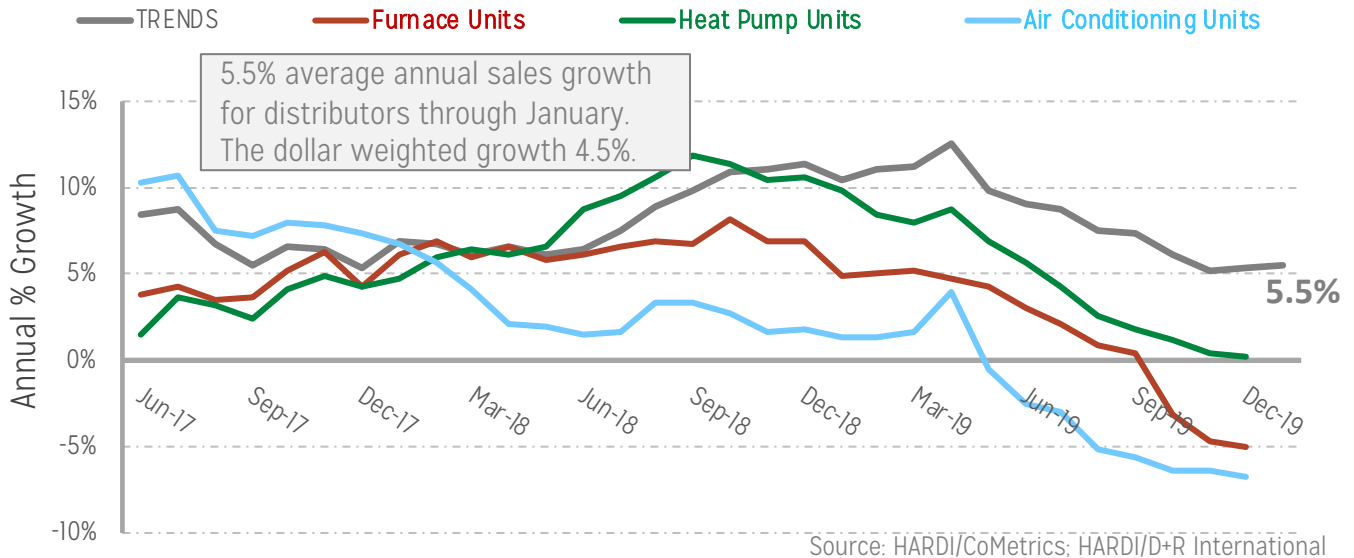
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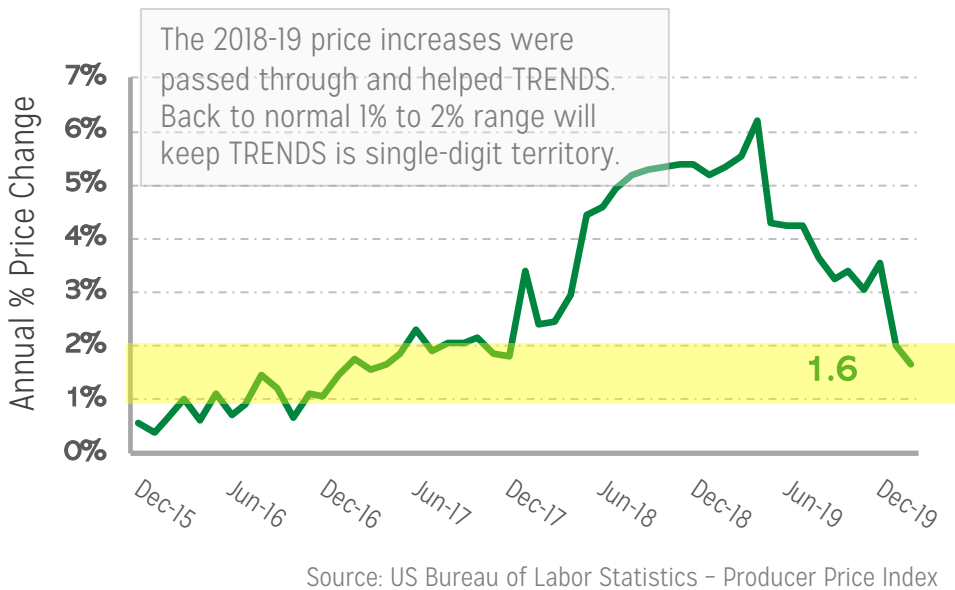
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Industry Performance

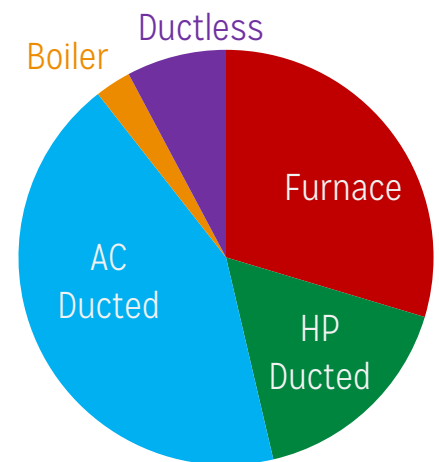
HARDI TRENDS and Unitary Market Report



HVACR Equipment Prices



11 mill units thru Dec19



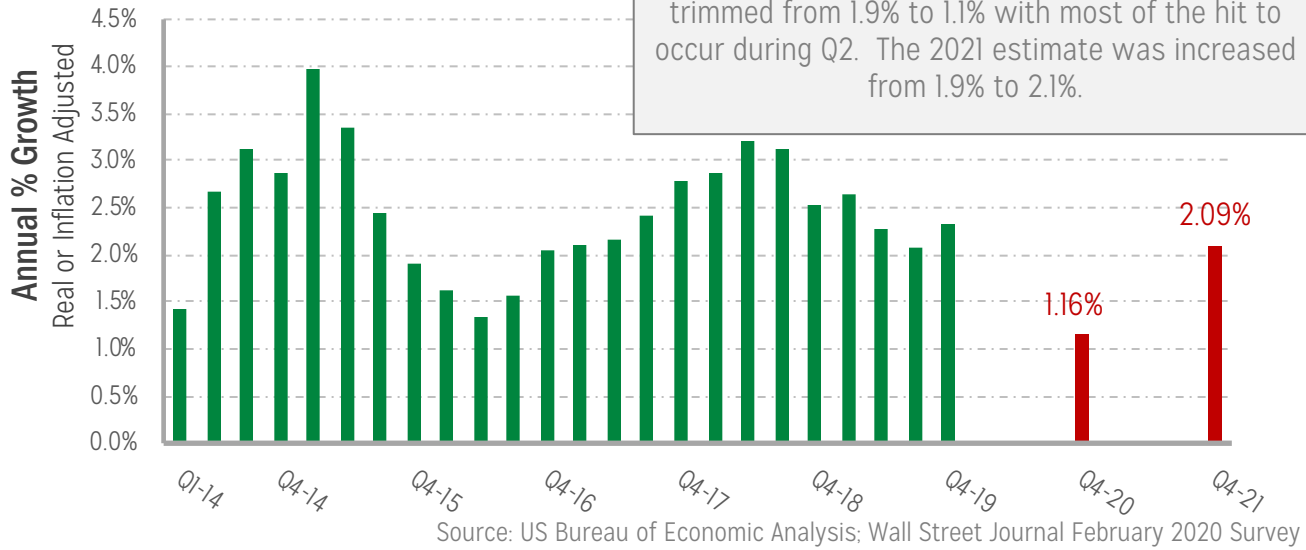
Source: HARDI/D+R International

Above normal temperatures in 2018 pushed the unit sales growth rate of equipment from roughly 5.5% in 2017 to more than 7% at one point during 2H-18. The grey line in the top chart is the TRENDS average annual sales growth by HARDI distributors that was pushed to 12% by the equipment demand and the price increases that were passed through. TRENDS has eased toward 5% again due to the challenging comparisons and uncooperative weather.

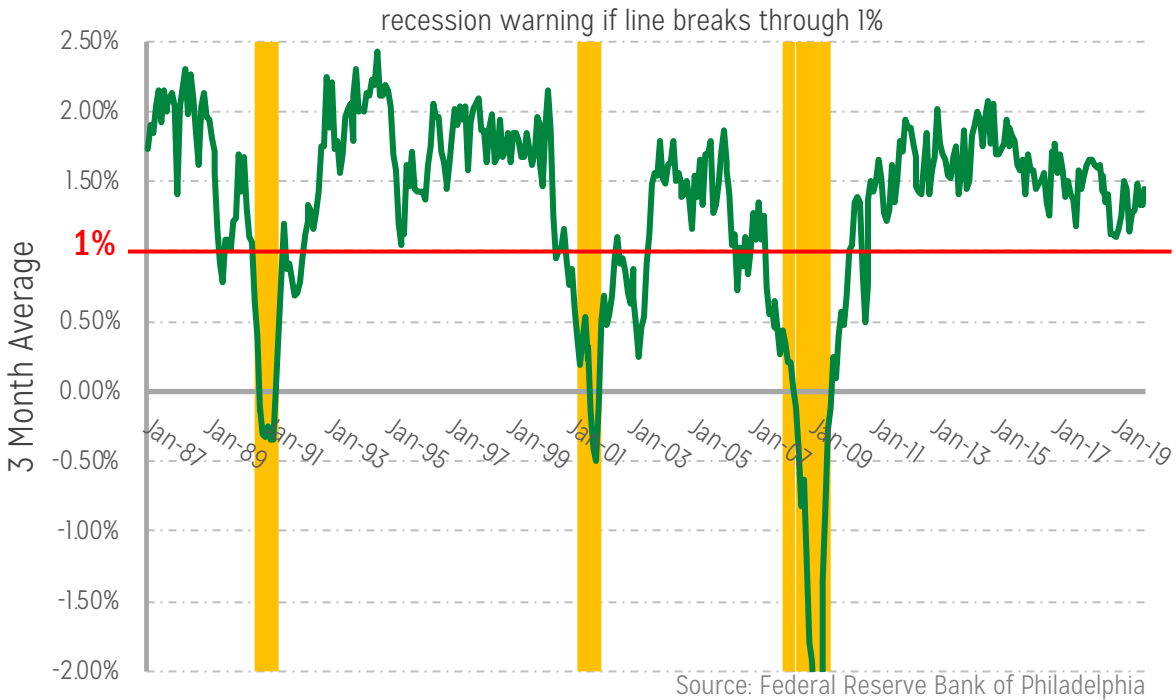
The annual sales growth rates for the three primary equipment lines deteriorated during the second half of 2019. The 3/12 line for furnace sales, 30% of equipment units, is the weakest of the group. The most potent variable for annual sales growth is early season heat, and 2020 growth will be helped by relatively easy comparisons. The first quarter is seasonally light but the COVID-19 business interruptions will extend the industries' annual Q1 hibernation.

GDP & Outlook and Indicators

GDP Growth and Forecast



Leading Index for the United States

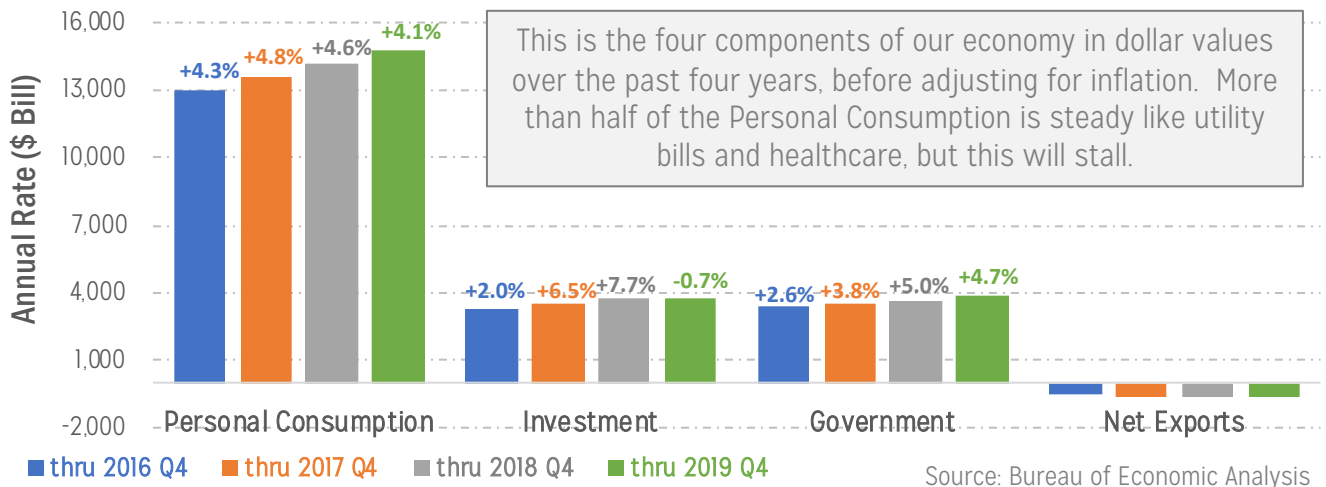


The threat or risk of the COVID-19 wave crossing our country is like coastal communities preparing for a hurricane. Business and school interruptions are the initial damaging winds that could get worse if supply chain disruptions hit our shores. Most of us are in various stages of bracing for this to visit our localities, see how long it remains and the extent of the havoc left in its wake.

Most of the economists in the WSJ Monthly Forecast Survey have trimmed their 2020 growth outlook from 2% to 1%. That begins with the second quarter being negative, then various rates of improvement from Q3 to Q4. Let's hope that is the case, but if COVID-19 is like a hurricane then this summer would be like passing through the eye of the storm before we are hit again when cooler temperatures return. A recession is a significant decline in economic activity spread across the economy, lasting more than a few months. We are entering a recession as hurricane COVID-19 moves across our country. The LEI and other data will look very different very soon.

GDP Continued

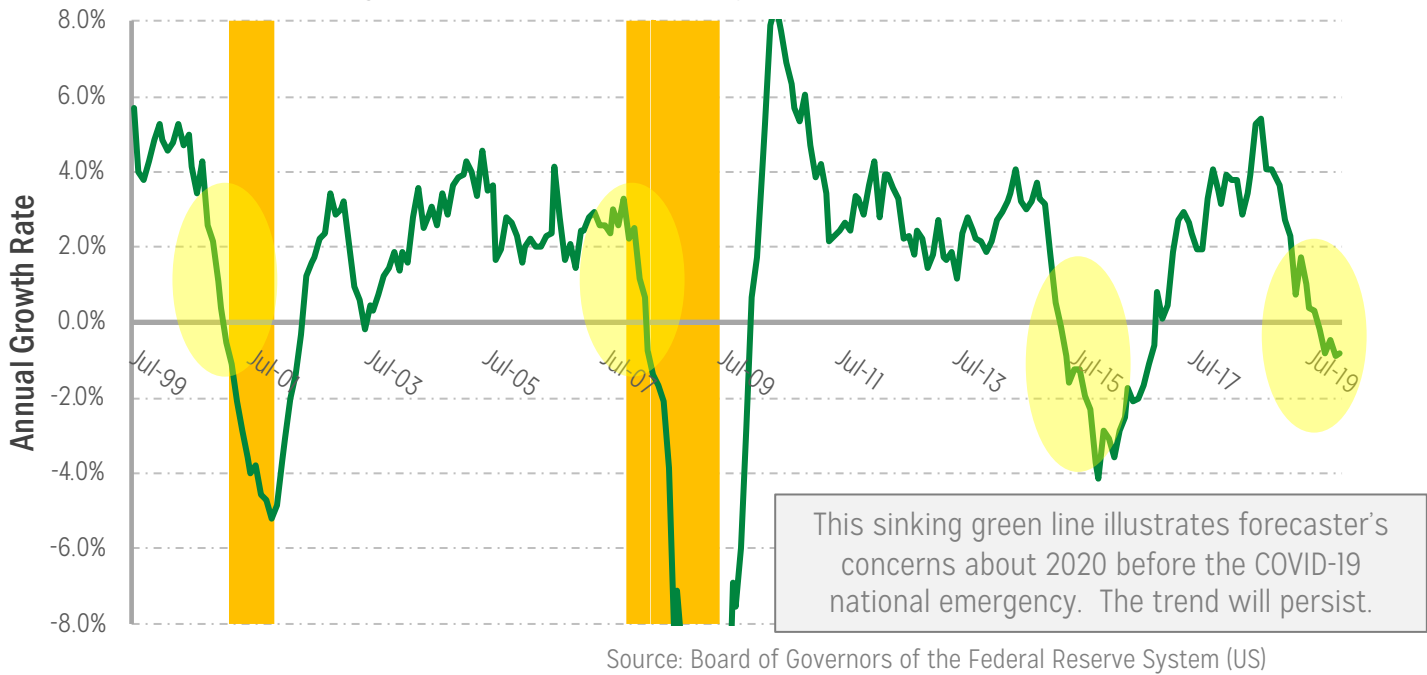
The Components of Our \$22 Trillion Economy



Industrial Production

20 Years of Industrial Production and Recessions

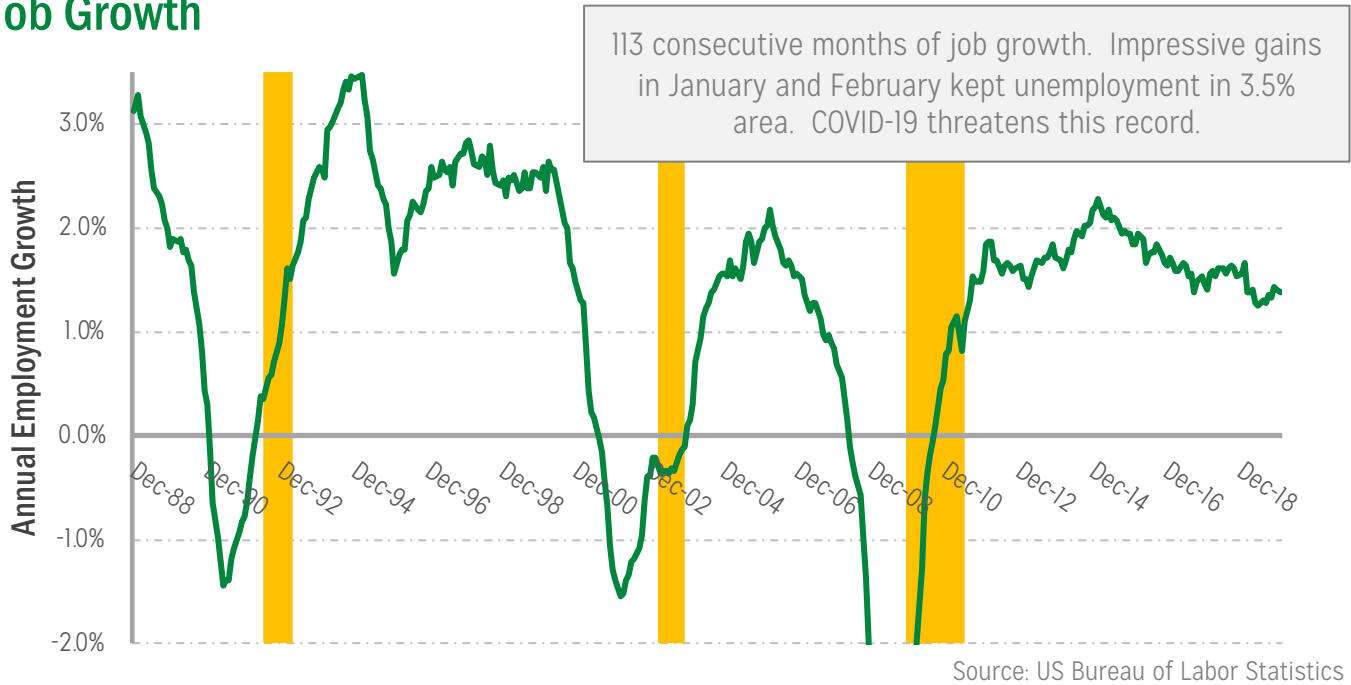
Declining industrial production frequently leads or coincides with recessions



Our economy is approaching \$22 trillion at a 4% nominal pace, down from the 5% to 6% pace in 2018. The growth of Personal Consumption Expenditures [PCE], more than two-thirds of GDP, was being supported by the strong jobs market and high consumer confidence, while investment spending was flat/down in 2019 after good growth in 2017 and 2018. Business investment will remain under pressure and PCE will be cut following the national emergency.

The green line in the second chart is the growth rate of the Industrial Production Index [IP] which measures manufacturing, mining and utility output. We expected that green line to remain under pressure due to Boeing 737 MAX production, the coronavirus disrupting supply chains, and the weaker oil prices. A month later and the outlook is much weaker. There is not always a recession when IP falls, like during 2015, but IP is weak when there is a recession and it is going to get weaker from here. The big question now is the duration.

Job Growth



Consumer Confidence

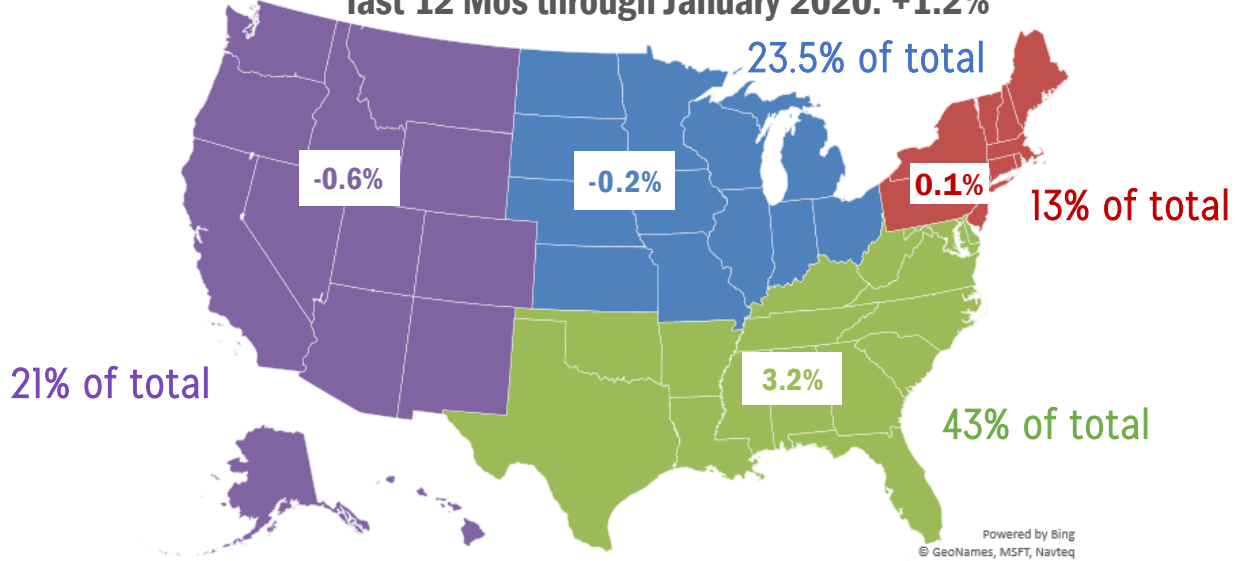


113 consecutive months of job growth averaging near 200K since October 2010 accelerated to more than 270K new jobs in January and February. Frequently it has been exogenous events like COVID-19 that cause that green line of annual job growth in the first line to roll over. Any near-term correction will be offset by census taker jobs, but the record is threatened.

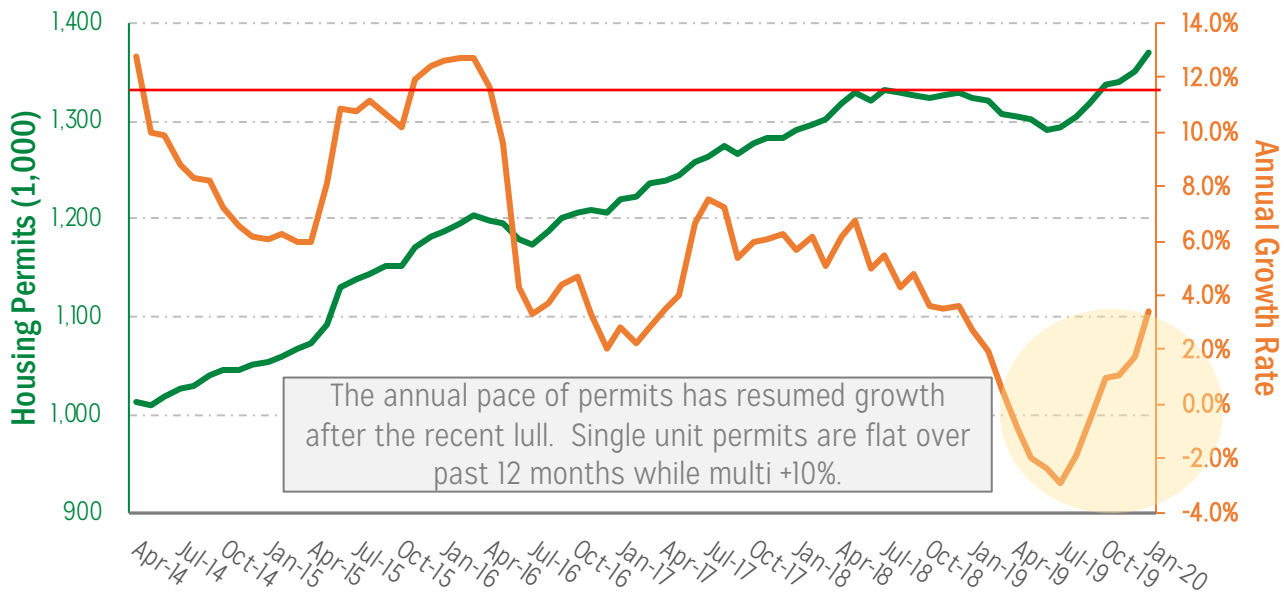
The green line in the second chart is a three-month moving average of the University of Michigan Consumer Sentiment index. This Confidence indicator does not provide long lead times to economic activity. You see the line drop sharply before the past three recessions. Exogenous events disrupt hiring plans and consumer's plans, like attending the March Madness tournament. Weak consumer confidence will frequently lead to weak existing home sales that can inspire equipment replacement activity. Confidence will be hurt as the incomes for millions of Americans is cut unexpectedly. That green line for confidence will likely drop below 90. We hope COVID-19 will not be stubborn enough to weigh heavy on that line for very long.

Housing

Existing Home Sales from National Assoc of Realtors last 12 Mos through January 2020: +1.2%



New Resi Permits



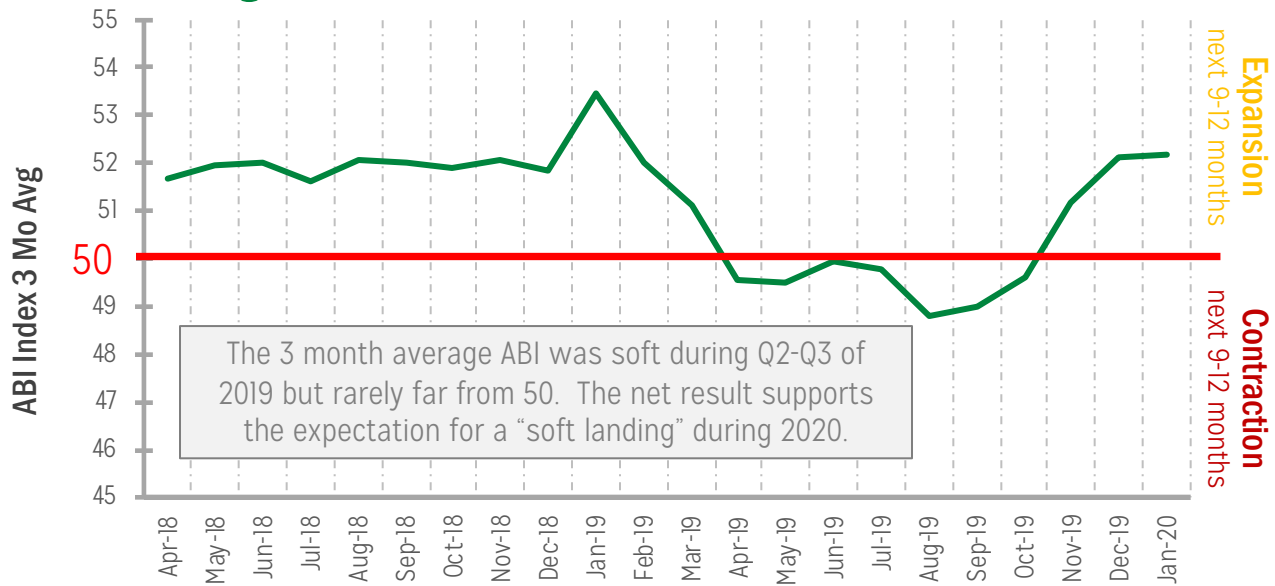
Source: U.S. Census Bureau

Existing home sales peaked during the summer of 2017 at 5.53 million annual rate after mortgage rates reach 3.5% area during the back-half of 2016. The pace drifted lower for two years as mortgage rates increased. The rate decline during 2019 turned the tide. The annual rate of sales is up slightly for past 12 months but still below recent peak. The COVID-19 inspired stock market decline has slashed down payments for some while the lower mortgage rates will inspire others. The 5.5 million-unit pace seems unlikely during this selling season but after the interruptions over this year, exceeding that is a solid bet during 2021 with rates this low.

The red line in the second chart illustrates where new resi permits peaked in 2018 along with mortgage rates. The annual pace has recovered thanks to a surge of multi permits since last summer. Activity per state with RNC equipment demand will be summarized in the quarterly HARDInomics regional reports next month.

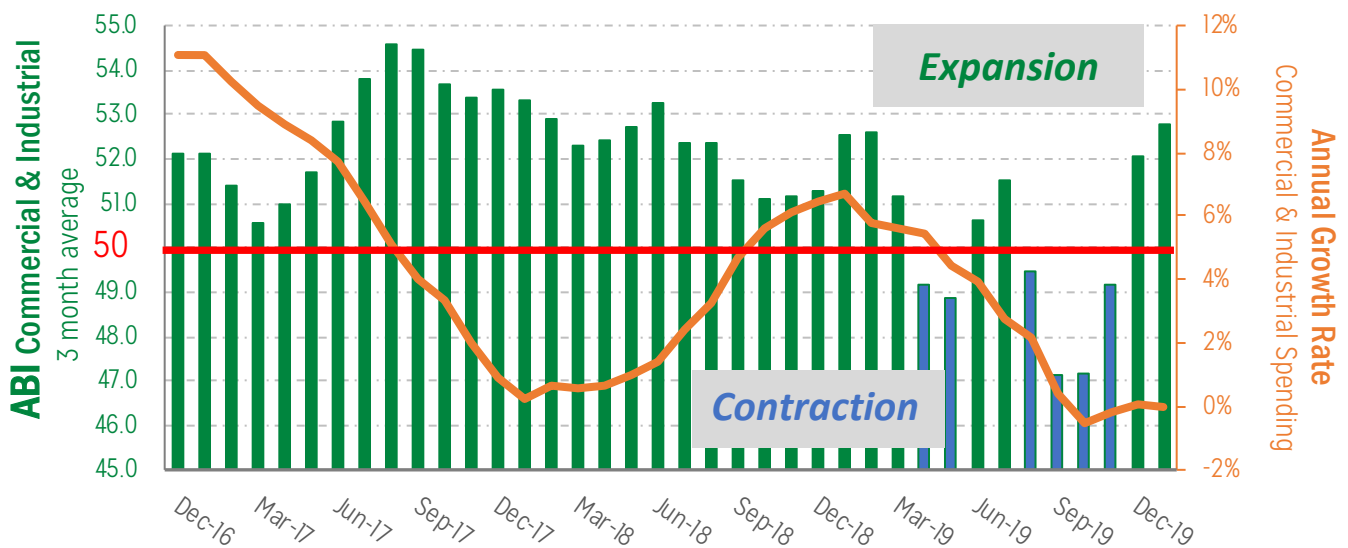
Non-Residential Construction

Architecture Billings Index



Source: The American Institute of Architects

Commercial & Industrial Construction Spending and ABI

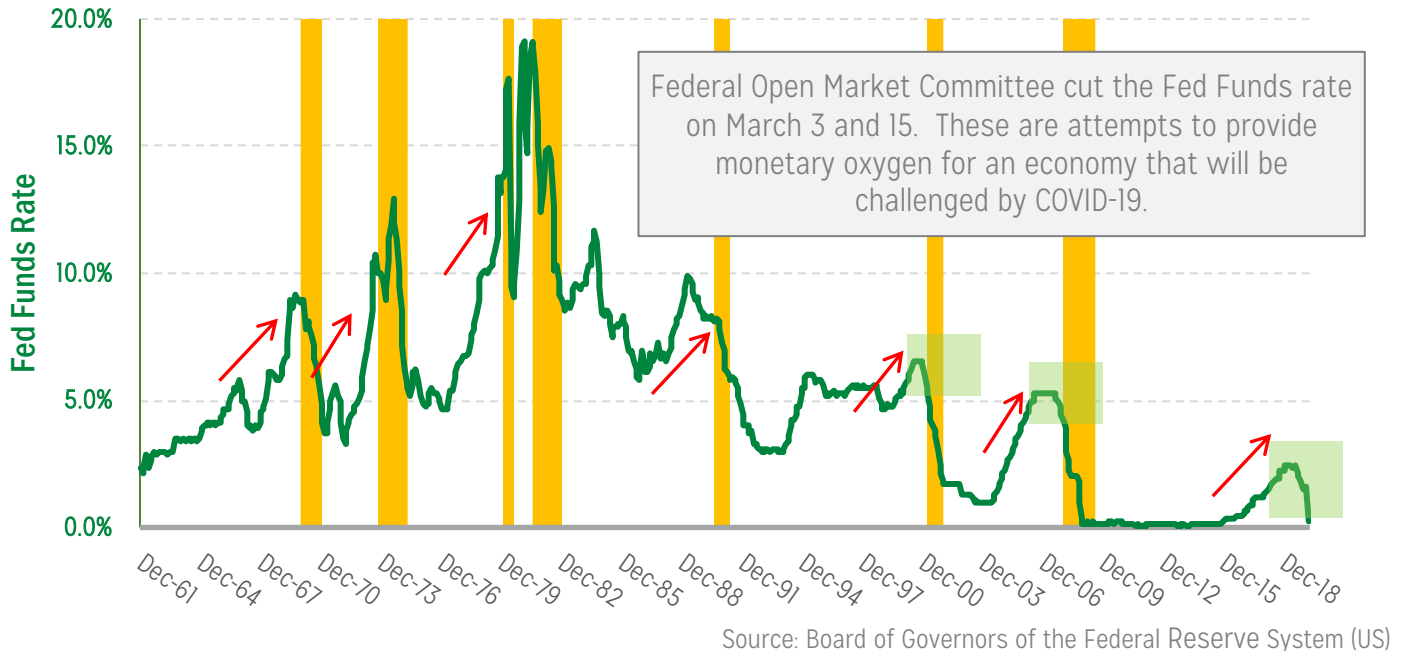


Source: US Census Bureau and American Institute of Architects

The green line in the top chart is the three-month average of the monthly Architecture Billings Index. The ABI leads non-residential construction expenditures by 9 to 12 months, so the dips below 50 during 2019 is a concern for HARDI members in 2020. The Q4-19 return above 50 supported the “soft landing” outlook, and the value of design contracts at the beginning of the year was quite strong. For a COVID-19 perspective, the ABI dropped from 52 to 40 after the attacks September 11, 2001 and was back to 52 within six months with little dent to non-resi construction.

The green bars in the lower chart are for when the ABI Index for Commercial and Industrial construction spending [lodging, office, commercial and manufacturing facilities] indicates a favorable 9-12 month outlook while the blue bars are more cautious. The orange line is the growth rate of spending on those properties over the past 12 months. Commercial Construction is the largest slice at more than 30%, and the softest with spending down by 10%. Office and Manufacturing construction spending are 30% each and growing mid single-digits, as is lodging that is only 12% of C&I spending. The net result is flat spending that will not be helped by the COVID-19 disruptions.

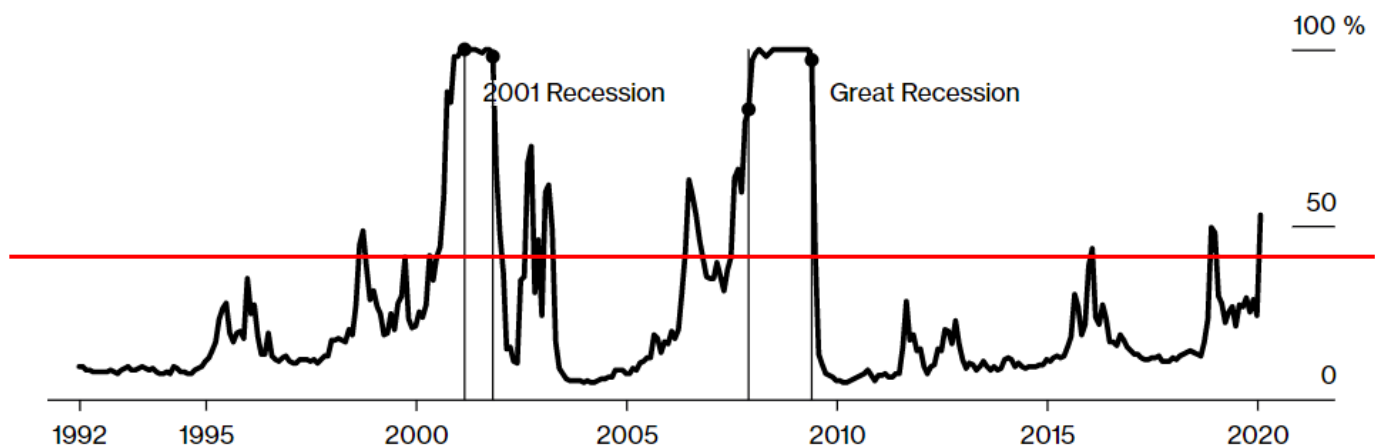
Fed Funds increasing have preceded the past 6 recessions



Recession Probability Next 12 Months: 53%

Risks Mount

Probability of U.S. recession within 12 months



Source: Bloomberg Economics

The top graph of the historic Fed Funds rate illustrates the consistency of fed funds increases ahead of the yellow areas that represent recessions. The green boxes illustrate rate cuts within six months of the beginning of the two recent recessions. There were three rate cuts in 2019, then two cuts this month in response to the “evolving risks to economic activity” with the spread of COVID-19 .

The yield curve inverted in August of 2019, so we replaced that indicator with Bloomberg Economics’ Recession Probability Indicator. This indicator started the year with 25% probability in January then 28% in February before the recent turmoil. The rapid global spread of infections led to the rapid collapse of financial markets into bear market territory. The resulting disruption of activity will conspire to push this model higher but that does not have to be the forecast. If it moved this quick one-way then it can quickly recover also. For the economy this could be an exogenous hiccup instead an enduring economic illness.