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June 30, 2020

The Monthly Letter covers four topics this month. First, we provide our Global Economic Review. The Global Economic Cycle, which was reaccelerating in January, became interrupted by the COVID-19 epidemic. Governments literally shut down their economies to prevent the spread of the disease, as government healthcare agencies treated the disease as akin to Ebola. This action, while successful in slowing disease spread, contradicted all prior government actions during disease epidemics since World War II, such as the Hong Kong flu or SARS, which were allowed to run their course with reasonable precautions to limit the impact on the overall population. Only now are the economic consequences and healthcare consequences becoming apparent as mass unemployment and foregone preventive care extract a major toll on the Global Economy and the overall health of the population. With governments realizing that they cannot keep their economies shut forever without bankrupting them, reopening in a methodical manner now stands as a priority. As the Global Economy restarts, Global Growth should accelerate naturally in H2 2020 with the impact of government stimulus actions adding fuel to the fire starting late in 2020 and running through 2021. Second, we take a look at the potential for inflation over the intermediate term. With the government printing presses running all out, it appears only a matter of time before inflation makes a center stage appearance. And data, such as English Monetary Growth at the highest level since 1528, supports this outcome. Third, we review the U.S. Equity Markets. Valuations continue in the Top 5% of all valuations over the past 150 years. Due to this valuation, since late January 2018 we recommended a cautious posture based on the statistical relationship between these valuation levels and long term returns. Actual Price Returns in the Equity Markets, since then, continue to validate this statistical relationship. Even with the S&P 500 at 3100, standing within 4% of its record 2019 Year End levels and 8% of its record level in January as of June 30, the tech dominated index, which benefitted disproportionately from the government shutdowns, compounded at just 3.20% over the past 2 Years and 5 Months. Broader Equity Market price index measures, such as the Russell 3000 or Wilshire 5000 provided lower or negative Returns. Given a continuance of elevated valuations, long term investors should expect low U.S. Equity Market Returns over the intermediate term. And Fourth, as always, we close with brief comments of interest to our readers.

Global Economic Quarterly: Now Exiting the 1960s and Entering the 1970s, A New Decade and A New Economy

For those who wish to understand where the global economy sits, imagine the late 1960s. Things appear going well, but tensions are brewing beneath the surface. The gold standard, which anchored the value of the U.S. Dollar and the global monetary system since World War II, stands under attack. Social unrest runs rampant, with riots in the streets. Proxy Wars continue around the world. The Hong Kong flu epidemic is just over. And the Global Economy stands in recession. In response, the U.S. Federal

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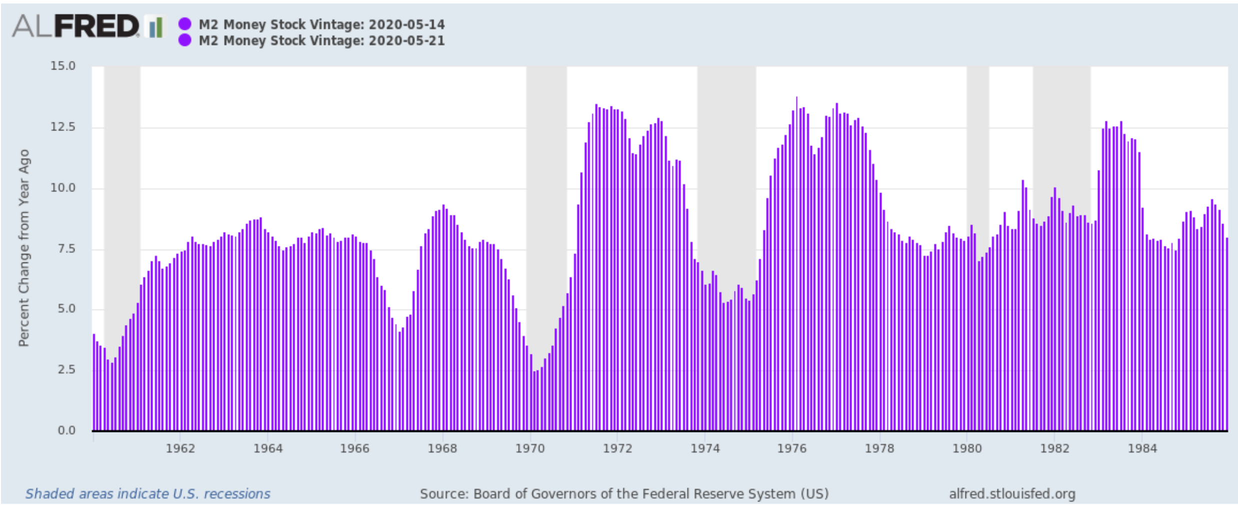
Reserve ramps Monetary stimulus to the economy. M2 growth accelerates from 2.5% in early 1970 to almost 13.5% by mid-1971. Inflation follows with a lag forcing the Federal Reserve to tighten monetary policy starting in early 1973 and not ending until mid 1974, creating another recession in late 1973 that will run until the beginning of 1975.



Fast forward to today. The Federal Reserve grew the Monetary Base from $832 billion in 2008 to almost $4.2 trillion in 2015. It then tightened from 2016 – 2019, shrinking the Monetary Base to just $3.2 trillion or by almost 25%. As in past periods of monetary tightening, this led to a recession. In response, the Federal Reserve exploded the Monetary Base this year, with the Monetary Base growing from $3.2 trillion in October 2019 to over $5.2 trillion today. In other words, in just 7 months, growth exceeded 60%.

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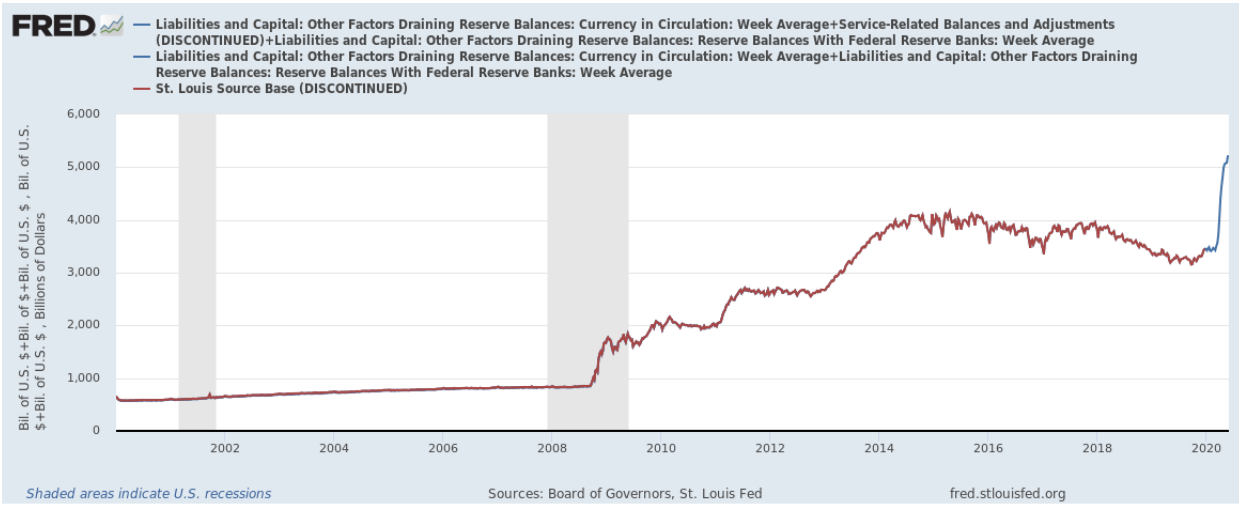

If we were to smooth this growth from 2015 to today, it would average just 4.4%. However, in exploding Money then contracting it then exploding it again, the Federal Reserve created ripples in the real economy with significant repercussions. And these repercussions, as in the past, would have occurred with or without the current epidemic, which just exacerbated their actions. (Those with a keen eye could discern that the Monetary Base bottomed in late 2019 and was already expanding before the current emergency liquification of the economy.) With the normal lag, these actions should accelerate the real economy.

If we add to these actions of the Federal Reserve, actions overseas by other Developed Economies' Central Banks, money growth continues to explode for these countries as well. The European Central Bank (ECB) just announce another €500 billion injection into the European economy. This stands on top of €750 billion in former stimulus, bringing their total to €1.25 trillion ($1.4 trillion). The Bank of Japan (BOJ) doubled the size of its corporate bond and commercial paper to ¥20 trillion and announced it would buy an unlimited amount of government bonds. The Bank of England announced liquidity measures equal to almost 15% of GDP so far ($430 billion). The Bank of China eased Required Reserve Requirements and will allow the Shadow Banking system to grow for the first time in many years. Furthermore, China's Total Social Financing will grow over 13.5% this year.

On the Fiscal side, the numbers are just as large. the European Union announced a €750 billion ($850 billion) stimulus package. The Japanese government announced a $1 trillion stimulus. China's government deficits will total over 15% of GDP this year. The US already put in place over $3 trillion in spending with potentially more coming down the pike. The UK budget deficit will total over 16% of

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GDP. India recently announced a 10% of GDP stimulus. In a word, countries cumulatively will stimulate their economies at 2x – 3x the levels relative to GDP during the 2008 – 2009 Recession.

Country	***Stimulus As % of GDP***
United States	*15%+*
European Union	*21%+*
United Kingdom	*15%+*
Japan	*19%+*
India	*12%+*
China	*8%+*

In fact, when coupled with Central Bank actions, Total Liquidity Plus Fiscal Stimulus could approach 25% of Global GDP. With numbers these massive, the positive impact on the Global Economy just remains a matter of time.

Dragon Chains

While the economy in China appears to have returned to steady growth mode, on a year-over-year basis, after a brief dip earlier this year, underlying economic statistics show a more mixed picture. And when the massive amounts of government stimulus get taken into consideration, there exist real questions as the true strength of economic growth. Furthermore, with Foreign Direct Investment beginning to slow, low labor cost advantages gone or greatly diminished, and global supply chains relocating outside the country, economic growth in China finally may have begun the long expected, inevitable deceleration over the long term to a sustainable level of growth.

To understand the scale of the government actions, one need only look at the various components and add them up. First, China cut taxes to support the economy, with tax cuts equivalent to 1.6% of GDP. Second, the central government supported the issuance of RMB 3.5 trillion in Local Government Bonds, equivalent to 3.5% of GDP, and RMB 1.0 trillion of additional Special COVID-19 Bonds, equal to an additional 1.0% of GDP. In addition, the government announced additional spending across a number of categories, including infrastructure, equal to another 1.5% - 2.0% of GDP, depending on what assumptions are made. This brought the Augmented Government Budget Deficit to 15.1% of GDP and overall direct government spending to over 35% of GDP. This excludes spending in government controlled businesses which comprise anywhere from another 20% to 30%+ of the economy, depending on who is doing the counting. And in support of this spending, Total Social Financing is expected to

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grow 13.5% year over year despite growth likely ending up below 5% for the year, continuing the rise in Debt to GDP and fueling over 100% of growth.

For those who need a reminder that China continues a command economy, a brief digression to the country's economic data stands in order. An interesting starting point is the trade statistics. For May, exports fell just 3.3% year-over-year while imports magically descended 16.7%. This enabled China to grow its Merchandise Trade Surplus to over $63 billion that month and bring its 3 month average to ~$43 billion. We would note that China's merchandise trade surplus magically averages $40+ billion, despite various countries efforts to rein in the country's exports for years. Infrastructure investment accelerated as well. It now stands up over 8% year over year. New government incentives for autos drove auto sales up 14.7% year over year. However, in the areas outside the government's control, the data look less rosy. International Tourism remains down over 50%. Domestic flights remain relatively empty. Hotels continue to show only modest recoveries in occupancy. Coal Consumption remains down 9% to 10% year over year. And chemical production stands down year over year. So, in the data the government cannot control, things look decidedly more mixed, if not negative.

This latter point makes sense given the state of the global economy. While it continues to recover from the shock of late Q1, it remains in recovery mode, well below year ago levels. And with China dependent on trade for a significant portion of its economy, this drag will not disappear anytime soon. And even when it does, fundamental economic growth will now depend on domestic consumption, as the relocation of supply chains away from China coupled with trading partners, such as India, disengaging for political reasons, this investment to consumption transition will likely create a drag given the relative size of the two. With clear changes in how the economy must function, these factors will act as Dragon Chains, preventing the economy from achieving its prior growth trajectory.

The Sun Also Sets

For Japan, life under the Prime Minister Abe looked like a mini-version of old fashioned pump priming. The government issued currency, borrowed more, and, most importantly, spent more. And the Bank of Japan financed the spending by buying all the government debt issued to fund this. However, economic reality continued to interfere with these bold new plans. Competition from China and other Asian nations put a crimp on Japan's exports. Demographics also created a large drag. And, ultimately, taxes needed to rise to pay for all that government largess. Despite the government's best efforts, Japan entered a recession in Q4 2019, well before the hit from the epidemic, with Real GDP falling year over year. Current economic projections show this year over year fall continuing through the end of 2020, despite what is expected to be a bounce from the bottom in Q3 and Q4. All-in-all, Japanese GDP in Q4 2020 will stand 4% - 5% below year ago levels.

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For Japan, this will erase several years of economic growth and will bring into question the policies followed by the current government. These policies, while reviving the economy short term through higher government spending, did not solve Japan's fundamental problem. This relates to the country's global competitiveness for its export oriented economy in an era in which multiple new country competitors, to further their economies, attempt to wrest key end markets away while subsidizing their industry and protecting their home markets. One should note that this combination of policies mimics those followed by Japan during its economic rise from the 1960s to the 1990s. Thus, Japan must drink its own medicine, but handed out at the hands of competitors. With the government not yet addressing its fundamental problems, the country now stands as one in which The Sun Also Sets, leaving its leaders with no good political options.

Elephant Rides

India's attempt to deal with the global epidemic, through a lockdown, did not fare well. Industrial Production collapsed and the economy with it. As an example of the impact, Electricity consumption declined 24% year-over-year in March and April. Realizing its error, the Elephant of Southeast Asia, after coming to a screeching halt, reversed course, reopening as rapidly as it could. Also, to avoid bankrupting the millions of small businesses in the country, the government announced a Rs 3 trillion ($40+ billion) working capital enhancement scheme with free loans worth up to 20% of a company's working capital. In addition, the government implemented debt moratoriums for borrowers. It is estimated that 31% of private bank loans and 39% of public bank loans currently fall under this category. Lastly, the government announced a 10% of GDP stimulus program. This represents an additional 5%+ of GDP in spending on top of the 4.9% of GDP actions already taken. (In dissecting the announced plan, only half of it represents additional actions to be taken.) With Indian economic growth already slowing to just 4.4% of GDP year-over-year in Q4 2019, India registered its slowest year of Nominal GDP Growth since 1972 in F2020, with Nominal GDP Growth of just 7.2%.

One way India typically addresses slow growth comes through the currency. The Elephant's Real Effective Exchange Rate stands near the highs recorded in 2011 and 2007, according to BIS (Bank for International Settlements) data. After each time it reached these levels, the currency fell over 15% in real terms, aiding economic growth. With India's currency down 5% in 2020 and the worst performing currency in Asia this year, the currency likely will continue under pressure as the government searches for options to reignite growth. With the changes in policy coming rapidly, Elephant Rides are likely to get bumpy over the next few years.

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Tiger Growls

For the countries of Southeast Asia, the epidemic led to a mixed bag of results. For some economies, such as Thailand, which are heavily tourist dependent, it turned into a nightmare. Tourism collapsed, with calendar 2020 visits expected down 70%, even with a rebound in the second half of the year. Reflecting this impact on the economy, car sales fell 51% year-over-year in May. For other countries, such as Indonesia, there never occurred a lockdown, merely a closure of the borders. Thus, Indonesia followed Sweden's example, eschewing a closure of its economy and the associated costs. As a result, its economy, despite a difficult Q2, is projected to grow ~1% in 2020. With only 11 deaths per million population and a relatively young demographic, it chose a small social cost, which might not show at all in the annual deaths, instead of a massive economic one. Other countries, such as Malaysia, closed their economies temporarily and are now reopening. Malaysia's economy is forecast to shrink by 3.5% this year, as a result. In response to the virus and its impact, Malaysia's government, like many around the globe, announced a massive stimulus, equal to 20% of GDP. This should ensure the economy reaches a stable growth footing by later this year. The Philippines did something similar. However, despite the lockdown, cases continue to rise in the country. Interestingly, the death rate did not rise in conjunction, indicating that the relatively young population continues to provide the best immunity possible to the virus. The government also announced a large stimulus recently, equal to 9% to 10% of GDP. Other countries in Asia, such as Korea, Singapore, and Taiwan show similar stories. The only major difference between these countries originates in Taiwan, where a major reshoring initiative continues to undergird that economy. With these Asian economies showing flesh wounds with quick healing ahead, Tiger Growls will soon be heard once more.

Party Interrupted

For Brazil, the Party stands Interrupted as the band took a break. With the virus spreading rapidly, Brazil's retail sales and industrial production took a major hit in April and May, down over 20% year-over-year. This drop occurred due to both the Brazilian economy suffering from the initial shock of COVID, but other Latin American economies, such as Chile, Columbia, and Peru, facing similar challenges. For Brazil, this impact occurred after the economy had already fallen in Q1, year-over-year, as China, one of its major trading partners, shut down. Despite the continued growth in cases in late Q2, the government moved to reopen the economy with a similar view as many other Emerging Economies. The economy cannot stand the cost of shutdown. In addition, to offset the costs of the epidemic, the government announced stimulus measures that will bring the budget deficit close to 10% of GDP, as in many other countries around the world. And the Central Bank lowered rates aggressively. In addition, with the currency value cut in half, Brazilian agriculture and industry became hypercompetitive on a global basis, which will play out as the globe recovers. Despite this, with the Party Interrupted, there likely will occur no revelry until 2021, when the economy shows a true recovery.

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Lions Tamed

For Africa, the disease represents a real threat. Without the health facilities that exist in the Developed Economies, the virus coupled with the collapse in commodity prices, such as oil, will produce a severe impact on these economies. For example, prior to the virus, Nigeria's expected economic growth for 2020 stood at 2% - 3%. Now, the economy is expected to contract at least 3% if not more for the year. (See the following World Bank article: https://www.worldbank.org/en/news/press-release/2020/06/25/nigerias-economy-faces-worst-recession-in-four-decades-says-new-world-bank-report .) Other nations on the African continent face similar hits to growth. Kenya, the largest economy on Africa's East coast, was originally expected to grow 6% in 2020. Recent projections now expect only 1% growth at best, with the potential for a contraction of over 1%. (Please see the following recent article on Reuters: https://af.reuters.com/article/idAFKCN22B0SG-OZABS .) Tanzania will show a similar drop, from ~7% to just 2% growth this year. Ethiopia now will grow less than 3% compared to initial projections of 6% to 7%. Other countries such as Ghana, Zambia, and South Africa will show similar hits. And, while the overall region's economy should show resiliency similar to Asia, economic growth in individual countries will take a hit of anywhere from 4% to 6% this year, depending on the country. With such an outcome, we see the Lions Tamed by the virus, at least over the short term.

The Old Man: Along Came A Virus

For Europe, the hits keep coming. After a debt crisis with Greece, narrowly avoiding a split with Italy so far, and having the UK leave, Along Came A Virus. The simple way to understand the impact on Europe is the following chart of European Industrial Production:

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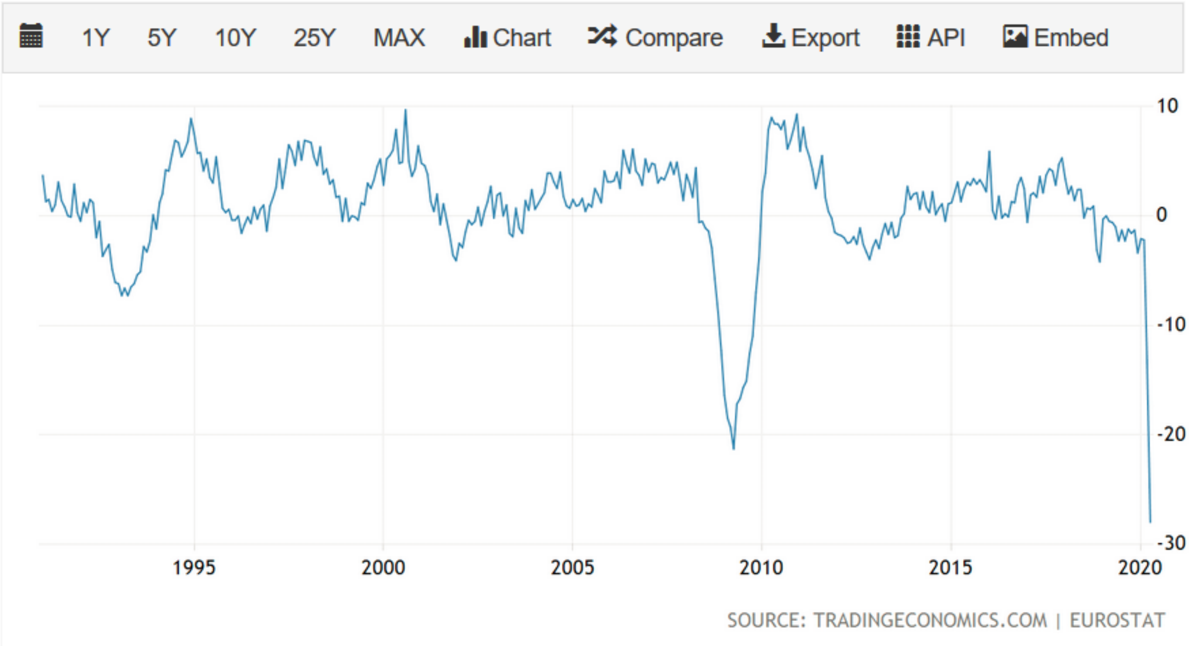
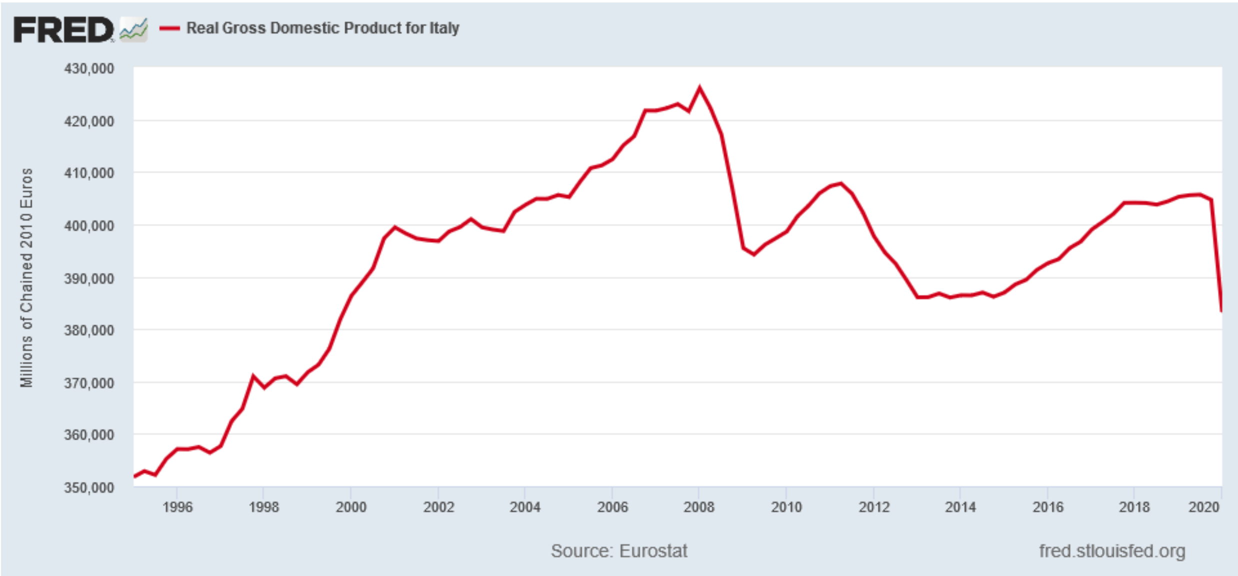


As the above chart demonstrates, Industrial Production already stood in a downtrend prior to the hit from the virus. And the magnitude of the downdraft now exceeds that of the 2008 – 2009 Financial Crisis. Despite actions by the ECB and the European Union to massively support Europe's economy, it is expected to shrink almost 7% this year. Another glorious outcome in a long period of subpar growth for the economic block since the currency union occurred.

This poor growth will continue to create rising strains within the union. The reason why is simple to understand. For some countries, such as Italy, the whole EU experiment over the past 20 years turned into a disaster. And economic growth massively underperformed growth rates prior to the merger in 1999. For a country like Italy, GDP stands below where it stood in 1999, when the country became part of the block:



At the other end of the spectrum stands Germany. They became one of the prime beneficiaries of the currency union, as it held down its currency value enabling its economy to grow while other economies in the block struggled:

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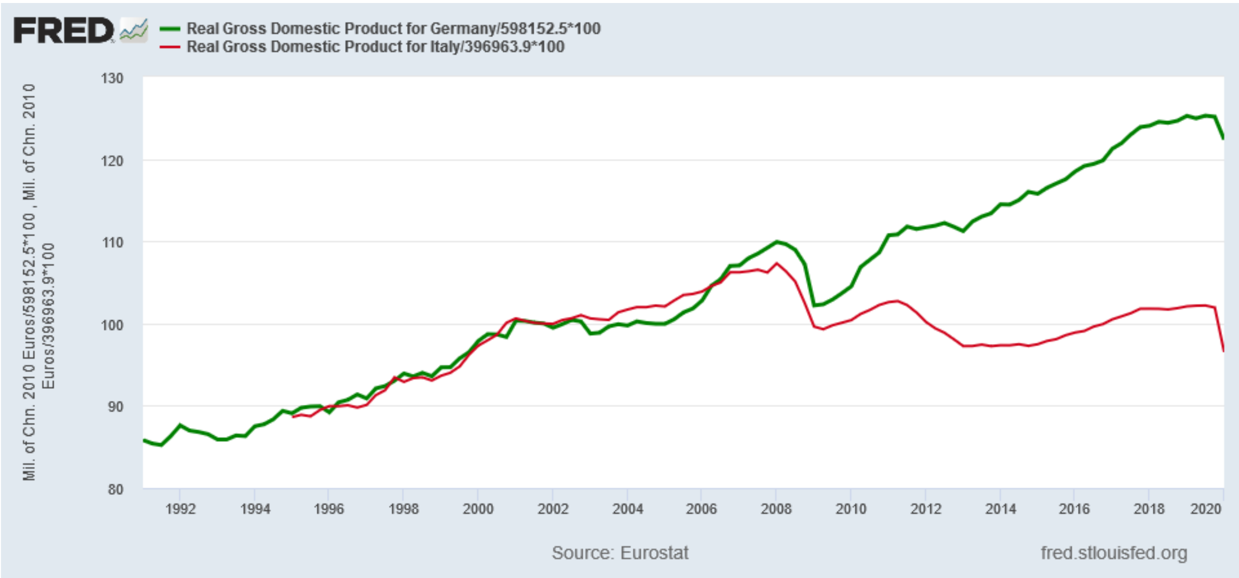
The contrast between Germany and Italy illustrates the fundamental force tearing the EU apart. Germany's GDP stands almost 27% above where it ended 1999 as of Q1 2020. And Italy's GDP stands 4% below that level. The following chart illustrates this stark difference in outcomes:



For the EU to remain as one and not return to its prior political arrangement as just a trading union, known as the European Common Market, this difference in economic performance must close. And to do so, a path to closure must exist that does not exist today. Should the current state of affairs continue, countries like Italy, in a purely rational action, will exit the European Union and recreate their local currencies, in this case the Lira. In fact, in preparation for this potential move, Italy already created the BOT, a pseudo-currency, which is the Lira in all but name. It merely needs to expand the uses of this new legal creature to become a true currency. And if Italy exits, so will Spain and Portugal, with other countries, such as Greece, considering their options. For the EU, Along Came A Virus that highlighted and exacerbated the fundamental economic issues and which may precipitate the breakup long predicted by many.

Beginning a New Climb

For the United States, the recession looks very familiar. It appears a short sharp recession with GDP recovering to prior levels within 6 quarters. (Please see *The Phone Stopped Ringing*, April 16, 2020.) This would put the US economy at new heights in Q2 2021. This timeline, interestingly, coincides with the timeline for a vaccine, which likely will arrive in Q1 2021 with much of the populace vaccinated by

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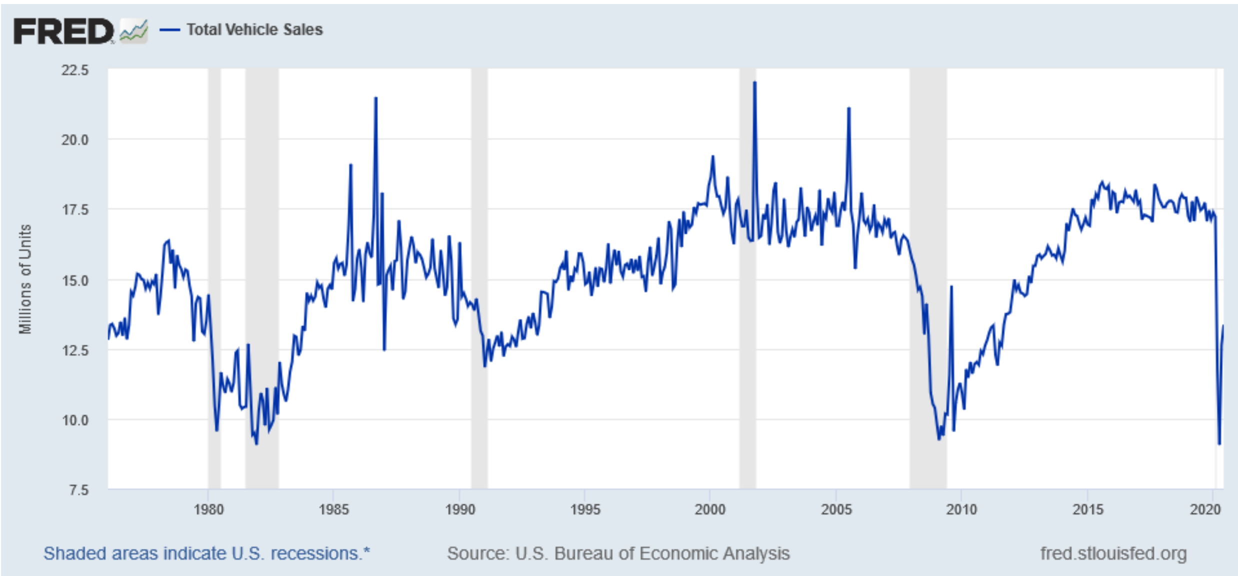
the end of Q2. Thus, areas held back by fear of contact until then, such as hotels, airlines, restaurants, sporting events, concerts, …, will experience a massive snapback in the first half of next year, normalizing the last portion of the economy to exit the recession this time.

A look at some of the economic indicators demonstrates how normal this recession appears. First, auto sales took a drop similar to 2008:



And it is rebounding in a similar way to then and prior short sharp drops. If one then looks at Housing Starts data, something similar appears:

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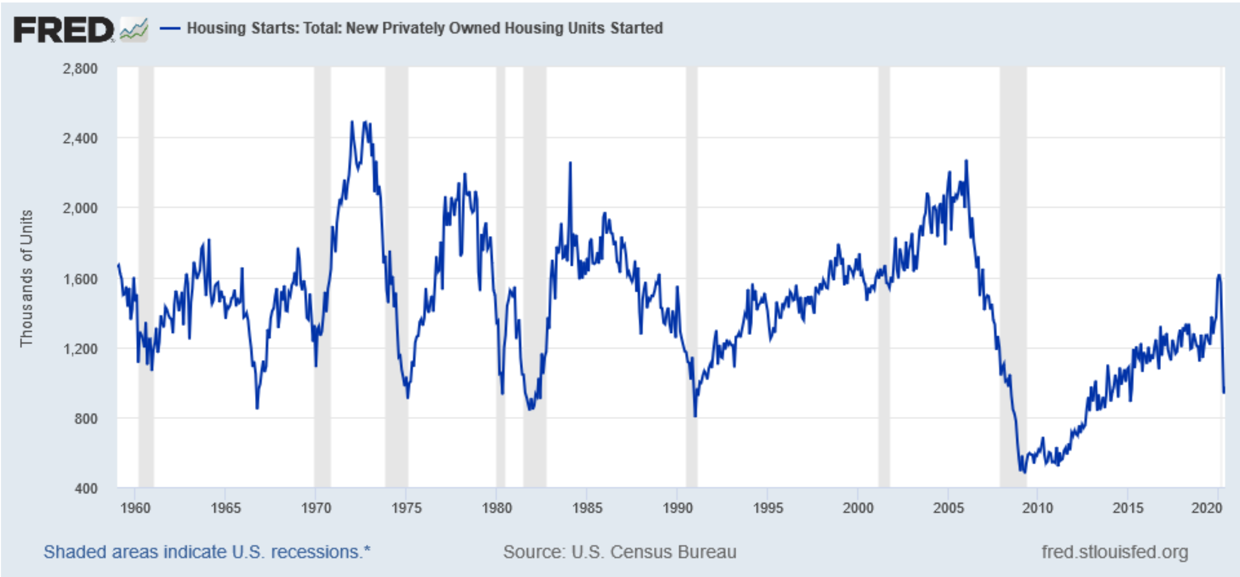
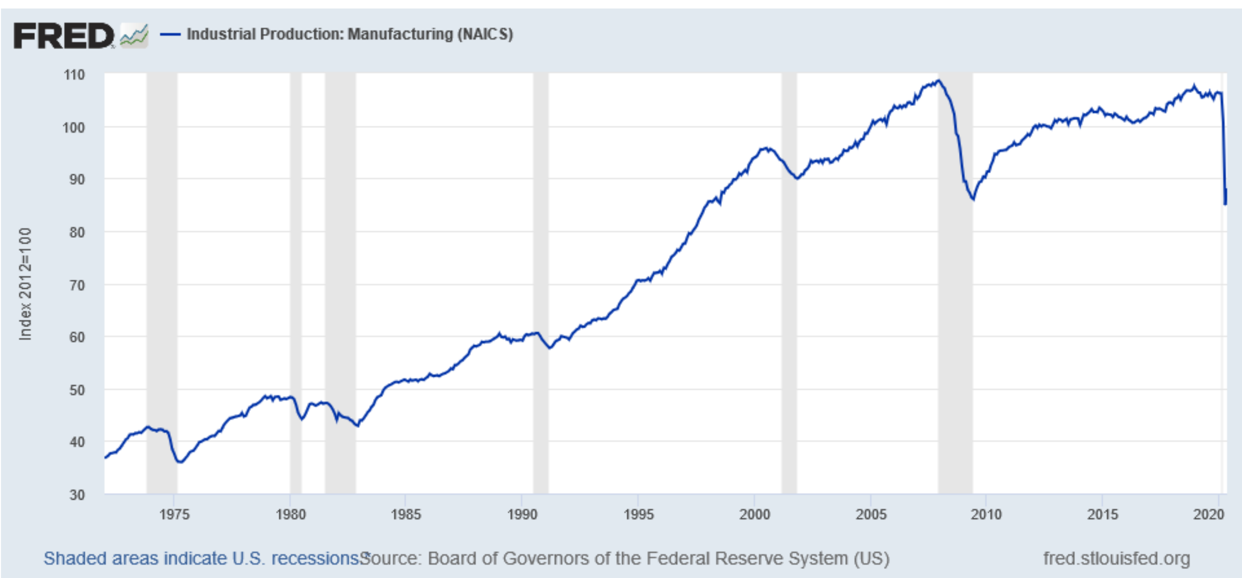


The data looks like prior downturns from the 1960s, 1970s, and 1980s. Industrial Production paints an awfully similar picture:



And lastly, the Manufacturing PMI, indicates a classic recession pattern:

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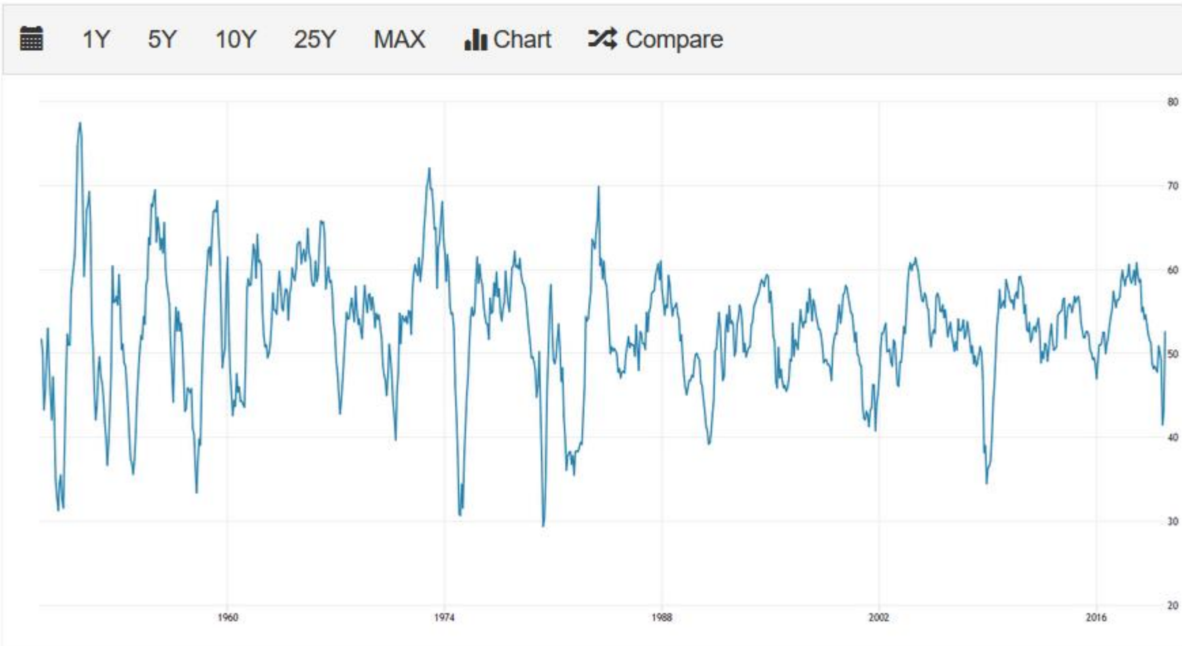

Chart Courtesy of tradingeconomics.com.

The manufacturing sector experienced its typical sharp drop followed by a sharp rebound, as occurred in most recessions since World War II.

While the media is filled with news about the Coronavirus, it ignores all the classic signals presented by the economic data indicating that, for the U.S., this appears just another typical recession. And, unlike the media, the equity markets recognize this reality, having recovered much of their dip from earlier this year. With other leading indicators, such as money growth, continuing to demonstrate rapid recovery, the data should continue upward in the classic sharp initial stages of recovery. And with the U.S. seemingly on track to reach new heights by Q2 2021, America is Beginning A New Climb. (Data from the Federal Reserve, Eurostat, World Bank, and other public sources combined with Green Drake Advisors analysis.)

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Inflation: The Campfire Stands Primed and Ready

> "*Lenin is said to have declared that the best way to destroy the Capitalist System was to debauch the currency. By a continuing process of inflation, governments can confiscate, secretly and unobserved, an important part of the wealth of their citizens. By this method they not only confiscate, but they confiscate arbitrarily; and, while the process impoverishes many, it actually enriches some. The sight of this arbitrary rearrangement of riches strikes not only at security, but at confidence in the equity of the existing distribution of wealth. Those to whom the system brings windfalls, beyond their deserts, and even beyond their expectations or desires, become 'profiteers', who are the object of the hatred of the bourgeoisie, whom the inflationism has impoverished, not less than of the proletariat. As the inflation proceeds and the real value of the currency fluctuates wildly from month to month, all permanent relations between debtors and creditors, become so utterly disordered as to be almost meaningless and the process of wealth-getting degenerates into a gamble and a lottery.*"

The Economic Consequences of the Peace
Chapter VI: Europe After the Treaty
By John Maynard Keynes, 1919

The positive economic impact of government stimulus coupled with central bank money printing stands clear in 2020, as it offsets the impact of a government mandated shutdown of the economy. Given reopening and the massive forced savings of consumers accumulated during the shutdown, as the economy reopens and consumers can spend these unwanted savings, the economy will play catchup and likely snap back much faster then commonly perceived. Thus, economic growth will likely accelerate as the year progresses with activity accelerating late this year as the economy prepares for the availability of a vaccine and a return to normal. Unfortunately, as the economy regains steam next year, the negative intermediate term aspects of all this stimulus will rear their ugly heads as the massive additions to money in circulation, hidden by the downturn, will become clear in an upturn.

In a recession, economic activity shrinks. As a result, people buy fewer things and the demand for money falls. Thus, money circulates less or, what in economese is stated in the following terms so it sounds sophisticated, "Monetary Velocity Slows". Here is what the latest long term chart of Monetary Velocity for MZM, the broadest aggregate of money in the US Economy, looks like:

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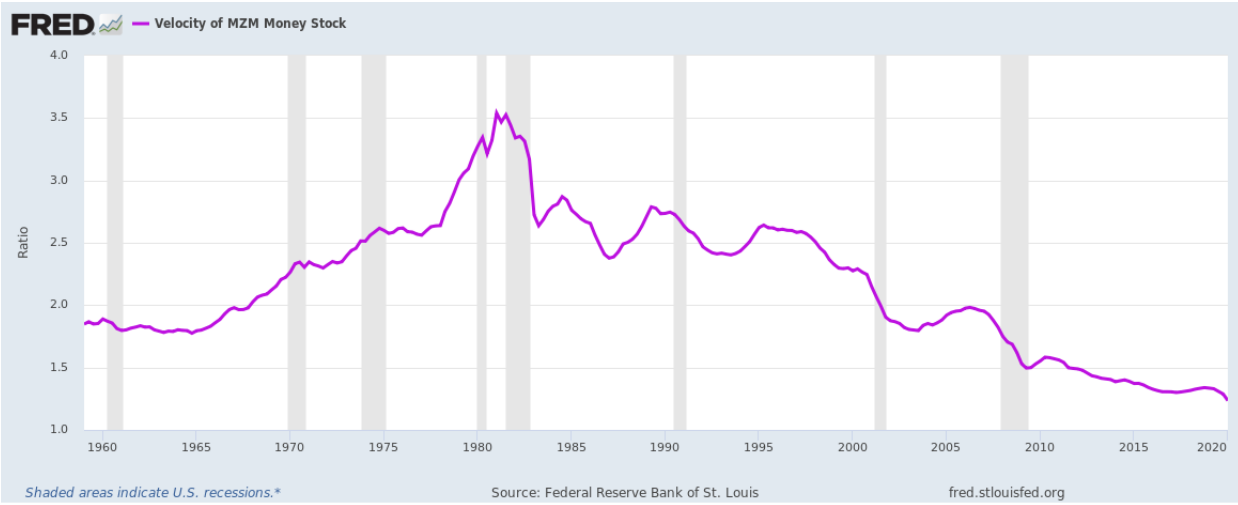

As is clear from the chart, "Monetary Velocity" slows during a recession and typically picks up afterward, as economic growth recovers. This year, Velocity took a dip down, as is normal in a recession. And next year, it should rise as things return to normal. The well-known equation for Money and how it circulates in the economy is:

*M*V = P*Q*

M = Money
V = Velocity
P = Price
Q = Quantity

If we were to use this to examine the recent changes in Money and their projected impact on the economy, here is what we would find:

M = +60% or 1.6x its prior level
V = -7.5% or 0.925x its prior level
Or:
MV = 1.1985x its December 2019 Level

In other words, the aggregate of the two has risen significantly. And, as in any equation that purports to approximate the real world, it should balance. Now, let's examine the other side of the equation: PQ. We will start by examining consumer savings followed by spending. Based on recent government data,

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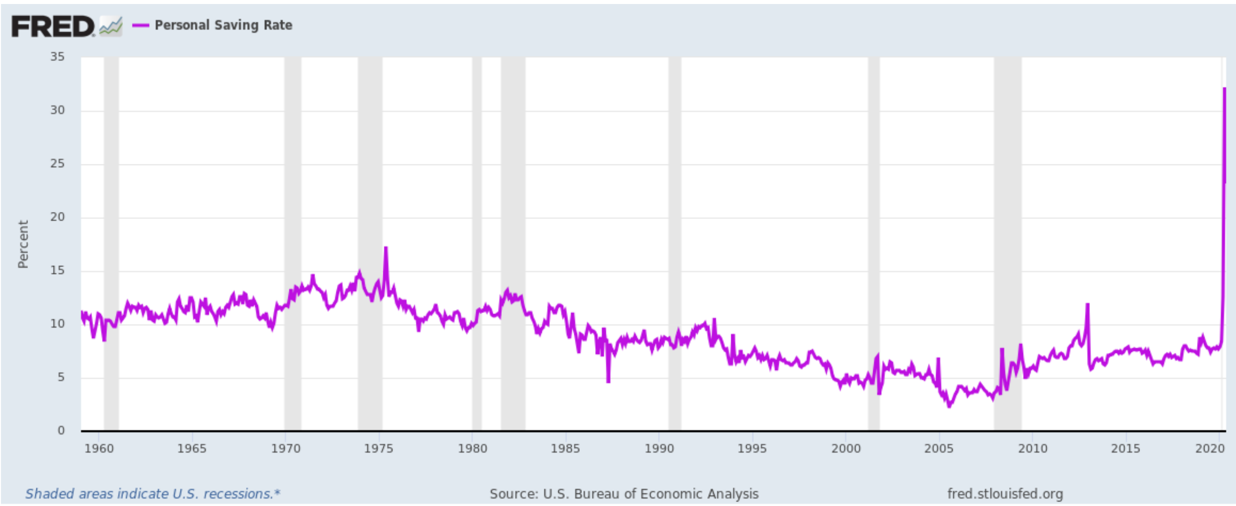
the US Savings Rate hit 32% in April and dropped back to 23% in May. As the following chart demonstrates, this contrasts with the norm for the past several decades when the US Personal Savings Rate averaged 7% - 8% :



In other words, the Savings Rate spiked to 4+x normal in April as the government forced consumers to stay home. And now, as reopening advances, it has fallen to just 3x normal. If one were to think about this from a non-economic viewpoint, the consumer was forced to save as all the places she or he normally spent money were closed and travel became restricted. The money literally went into the bank. And now, as reopening allows the consumer to start to spend money as normal, money began to stop flowing into the bank account and instead began to flow into the real economy. The following data released by Mastercard on June 24, shows the shape of the spending recovery:

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					NEW		
	Week ending May 7	**Week ending May 14**	**Week ending May 21**	**Week ending May 28**	**Week ending June 7**	**Week ending June 14**	**Week ending June 21**
Switched Volume 1	(12)%	(12)%	(8)%	(8)%	(6)%	(3)%	(1)%
United States	(6)%	(6)%	(3)%	(1)%	(1)%	3%	5%
Worldwide less United States	(19)%	(17)%	(14)%	(13)%	(10)%	(8)%	(5)%
Switched Transactions 2	(12)%	(10)%	(7)%	(7)%	(5)%	(2)%	1%
Cross-Border Volume 1	(43)%	(45)%	(45)%	(44)%	(42)%	(43)%	(41)%

1 Mastercard-branded programs only; on a local currency basis
2 Total number of transactions switched by Mastercard

As the above table makes clear, core card spending volumes recovered in the US over the past two months and now stand up on a year over year basis. The data also demonstrate that cross-border volumes, which drive travel, hotels, restaurants, … still remain over 40% below year ago levels. The following chart makes clear this divergence:

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1. Through June 21st MTD
Note: Cross-border volume growth is calculated in a manner as defined in our Supplemental Operational Performance Data

So, as indicated in the above data, while stay-at-home spending exploded upward, all other spending collapsed, leaving overall spending some 40% below normal, as “Card Present” transactions remain down over 70% year-over-year.

This brings us back to PQ in the above equation. If MV stands up ~20% and the Quantity of goods stands much lower, Price, according to the equation, should stand up significantly. But inflation continues to collapse. So, how to reconcile these two opposing forces. One way would be if the money went under the mattresses of the consumer. And this appears exactly what occurred:

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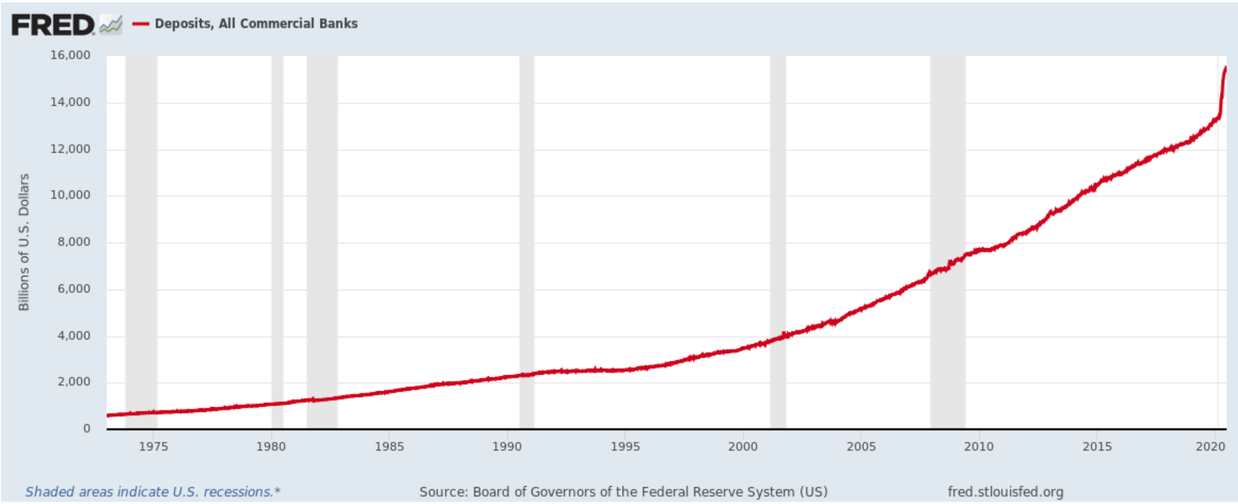
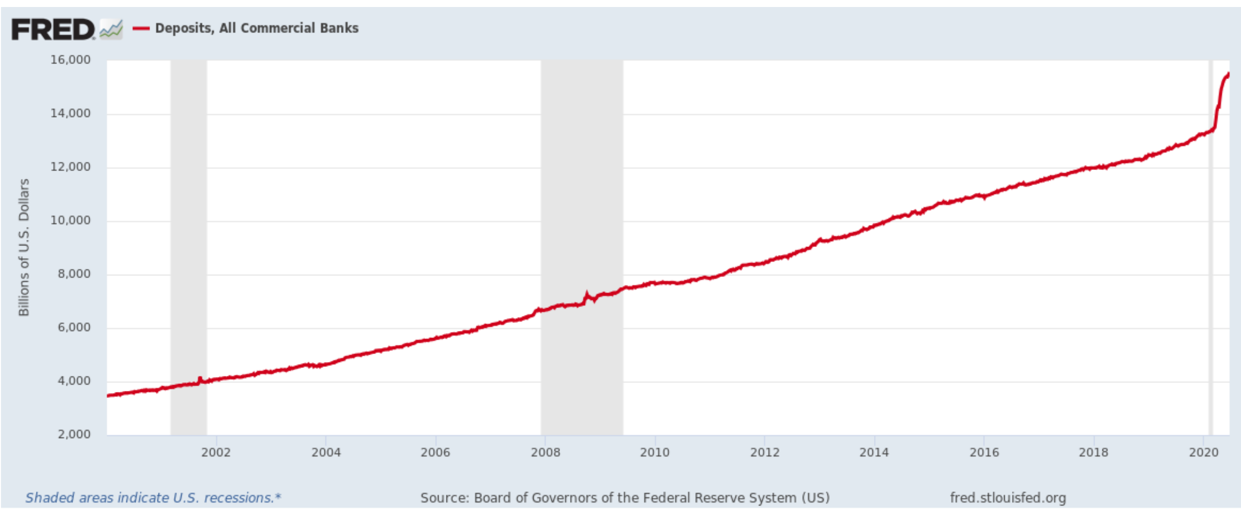


And if we examine just the past 20 years, the chart looks as follows:



In other words, the consumer took ~$2.3 Trillion and put it under the mattress in the form of bank deposits that pay ~0% interest. And this all happened from February to June. If the Consumer acted in this manner over 12 months, there would appear almost $7 Trillion in additional savings or 33% of the GDP produced in the U.S. in 2019. And if we take $2.3 Trillion out of the amount of Money in the above equation, the effective change in M in the above equation is zero. Thus, with Money effectively flat and Velocity down, the inflation results all make sense.

The real question is what happens when the economy reopens and all this money comes into play. Other data, which breaks down the savings data by income level, show the savings have mainly occurred among the Top 25% of wage earners. These earners represent a disproportionate portion of spending in areas such as travel, restaurants, retail, … With the epidemic shutting down this portion of the economy, they have been unable to spend. However, as the economy opens up, they will want to resume as much of their normal lives as possible. And once a vaccine comes to market in Q1 2021 and the population can reach some form of herd immunity, spending in this key cohort likely will make up for lost time. In other words, a tsunami of spending will hit the economy starting in late Q1 2021 or in Q2 2021 as consumers will once more feel comfortable in their favorite restaurant, watching their local sports team live, and attending a movie.

Now let us return to the equation above. With much of the $2.3 Trillion moving back into the real economy, the effective change in M above will turn strongly positive. At the same time, V, the rate at which money circulates in the economy, will start moving upward. Thus, MV should rise strongly. On the other side, there will occur a recovery in the amount of goods and services transacting in the economy or Q should rise nicely. But with a sudden surge in demand, pricing should begin to recover for these goods and services. For example, prices for key commodities related to the global economy already have begun to move upward strongly. Should the global economy really recover, these prices should rise even more. Couple this with the amount of money created and rising global protectionism, then inflation should move upward, in a similar fashion to what occurred in the early 1970s.

Given the likely sequence of events and a similar position of the economy to that of the late 1960s and, before that, the late 1930s, while Inflation remains quiescent currently, it should begin to awaken from a long slumber. With the Federal Reserve massively expanding the Money Supply, The Campfire Stands Primed and Ready with plenty of combustible fuel. All it needs is a match in the form of resumed consumer spending. And, once it ignites, it should throw off quite some warmth with spectacular flames. (Data from the Federal Reserve coupled with Green Drake Advisors analysis.)

The Equity Markets: The Roller Coaster To Nowhere & To Dream The Impossible Dream

"*Sell in May and Go Away.*"

Old Wall Street Saying

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"*To dream the impossible dream*
To fight the unbeatable foe
To bear with unbearable sorrow
To run where the brave dare not go
To right the unrightable wrong
To love pure and chaste from afar
To try when your arms are too weary
To reach the unreachable star"

The Impossible Dream
Man of La Mancha
Lyrics by Joe Darion, 1966

For investors in the equity markets, what a wild ride over the past two and a half years. It reminds me of my trips to Space Mountain at Disneyworld in my youth. First, the rollercoaster is inside a building, so, it is pitch black during the ride. In other words, you can't see which way you are headed. Then, after the ride climbs you slowly and steadily to the top of the building, it heads downward at breakneck speed, twisting and turning in unpredictable ways, as it makes its way back to terra firma. For today's investors, it appears the Equity Markets have adopted a page out of Space Mountain. After moving up steadily from February 2016 to a high of almost 2,900 in January, 2018 on the S&P 500, the index plunged in February, only to recover and plunge once more, hitting a low of 2,588 in March. It then rose steadily to a marginal new high of 2,930 in August, only to plunge to 2,351 on December 24, providing investors a wonderful Christmas present. Then with a Fed backstop, it rose steadily through 2019, not stopping until Feb19, 2020, peaking at a high of 3,386, only to plunge to a low of 2,237 on March 23, just one month later. The index then rose steadily to a peak of 3,232 on June 8, only to pull back to 3,100 by June 30. All in all, from January 26, 2018 until June 30, 2020, the S&P 500 provided a total price return of 7.90% or a Compound Annual Growth Rate of just 3.20%. If we add in dividends of 1.9% over the time period, Total Return on the S&P 500 averaged ~5.1%, a far cry from the long term return of 9%. With lots of volatility and not much price progress, investors appear to be riding the Roller Coater to Nowhere.

Much of that Roller Coaster to Nowhere stems from the valuation of the markets. The internal dynamics and valuations look much like those of 1999 and 2000, as the following chart shows:

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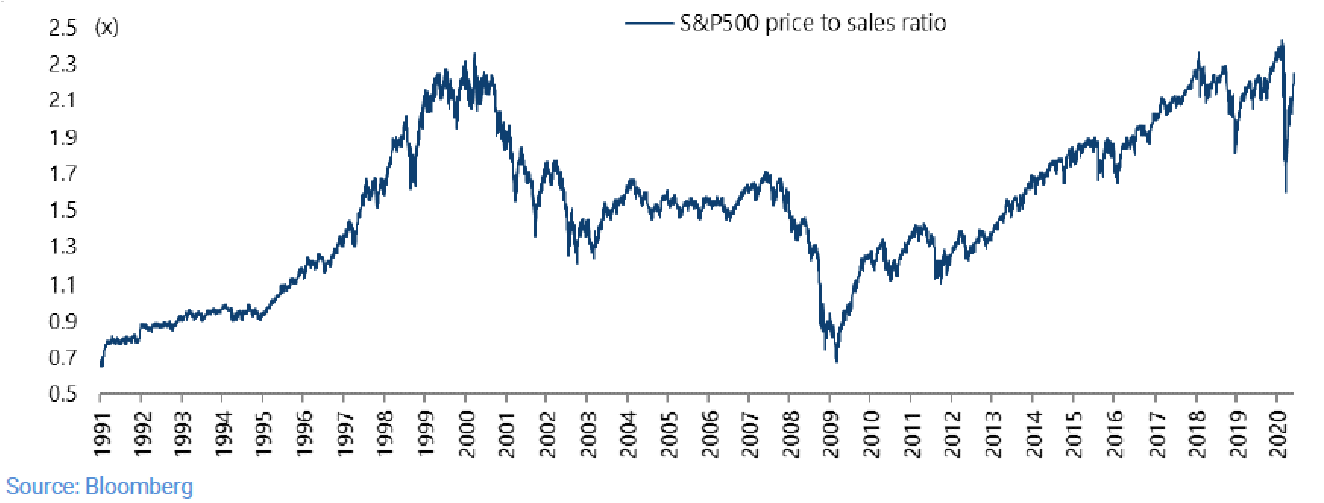

Chart courtesy of Bloomberg.

While stocks went to fabulous valuations during those years, this was followed by a painful period in which valuations corrected and the darlings of that era, such as Microsoft, took almost 13 years to return to and exceed their prior highs. Some darlings, such as Cisco, have yet to do so. (Please see *Equity Markets: 1999 – 2000 Again or The New Nifty 50* published February 15, 2020; *The Equity Markets: A Visit to the 1990s and A 1960s Springtime At The Bourses*, published on January 31, 2019; and *Shades of 1999: Initial Public Offerings or Indications of the Public's Optimism* published April 30, 2019.) And the experience exiting that era mimicked the experience of investors who went through the period of the late 1960s to early 1970s, when the Nifty 50 dominated performance. Companies such as Procter & Gamble were the darlings back then. It took P&G, after the peak in late 1972 and the infamous 1973 – 1974 bear market, until late 1985 to consistently exceed the peak stock price of that era. This equates to a similar 13 year period.

The fundamental issue now, as periodically is the case, comes from the valuation of stocks. Investors get enthused with Dreams and these Dreams can grow to the sky. Robert Shiller's CAPE (Cyclically Adjusted Price Earnings Ratio) provides an unambiguous signal that we are in one of these eras, such as in 1999 – 2000 with the Tech Bubble, and this indicator continues to flash bright red warning signs:

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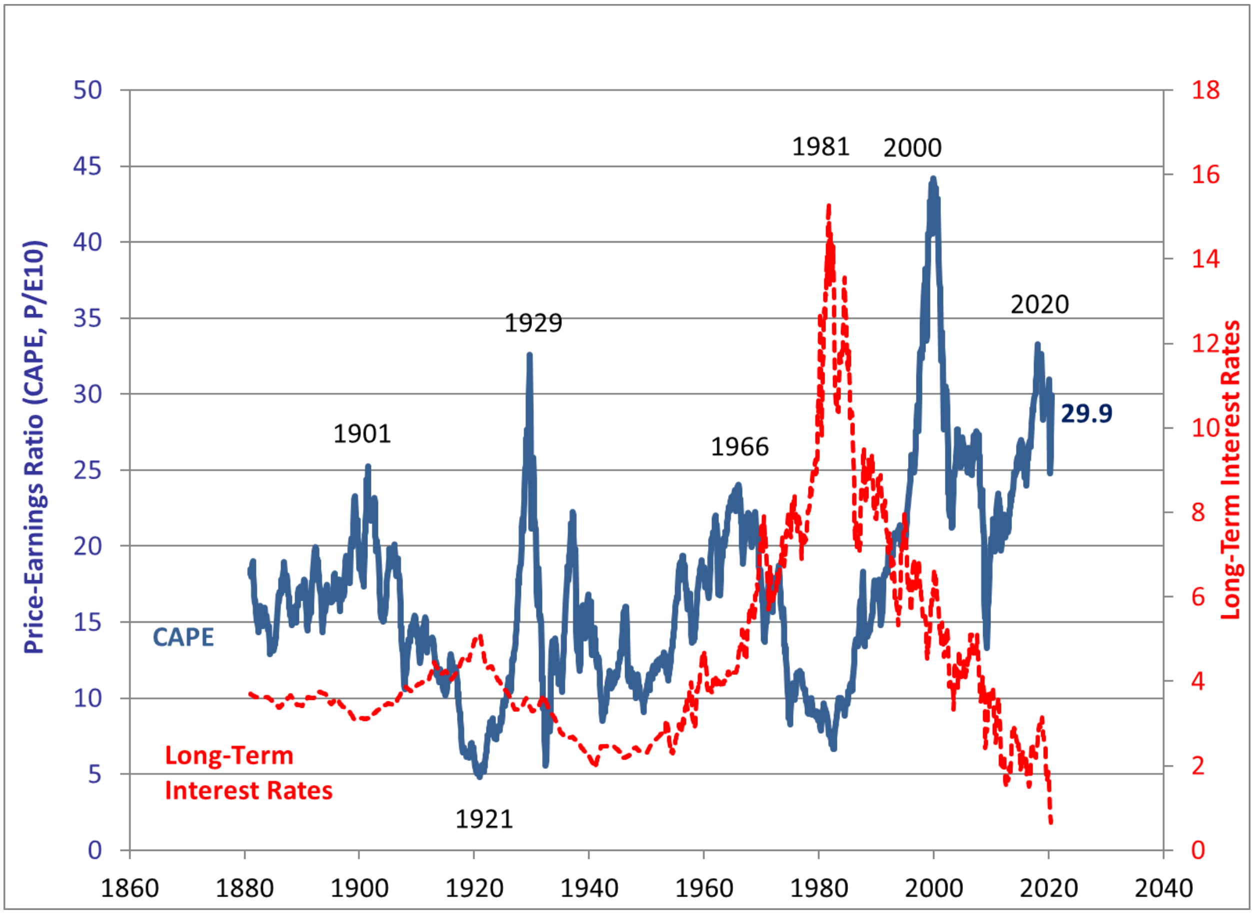

Chart courtesy of Robert Shiller. Please see http://www.econ.yale.edu/~shiller/data.htm .

Valuations today clearly stand at levels that produce mediocre nominal returns over time and potentially poor or negative real returns. And investors memories are short, so they tend to extrapolate their experience of the recent past.

Amazon stands the leading darling of this era. Despite missing earnings estimates for the past several years and having 3 years of essentially flat earnings, investors continue to treat Amazon as if it can do no wrong. Its stock continues to hit new highs as the following chart demonstrates:

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Chart courtesy of Yahoo Finance. Please see https://finance.yahoo.com/ .

Based on estimated earnings for this year from a number of Wall Street firms, Amazon's projected Adjusted Earnings per share will reach ~$36.50, slightly below last year's reported Adjusted Earnings of ~$37.00. This is despite revenue growing over 25% this year or by more than $65 billion. We note this concept of "Adjusted Earnings" excludes some expenses that both the accounting profession and SEC seem to think matter in presenting their official GAAP Earnings, such as when they file their earnings statements with the SEC or issue their Annual Report. (GAAP stands for Generally Accepted Accounting Principles.) Now, Amazon's GAAP Earnings estimates for 2020 stand at ~$19.00 per share, which is almost 50% below the numbers the company prefers to present. And according to Wall Street, their earnings in 2021 will magically jump to ~$54.00 in Adjusted Earnings and $34.00 in GAAP Earnings. Whether next year's projections sit in the ball park or floating in space, the stock currently trades at $3,185 per share. Using Adjusted Earnings for 2020, the P/E (Price to Earnings Ratio) for the stock merely stands at 86.1x earnings. Using GAAP Earnings, this number reaches 167.6x, a truly remarkable number given that Amazon will generate almost $350 billion in revenue this year. And, with a market capitalization of ~$1.6 trillion, the company trades at 4.6x revenue. Valuations such as this clearly mirror the 1971 – 1972 and 1999 – 2000 eras.

And if one thinks Amazon stands the exception, one would think wrong. A quick look at Zoom's valuation reveals similar aspects. Zoom's stock trades at $269. According to the analyst community, Zoom will earn $1.25 - $1.50 in "Adjusted Earnings" this year, as the pandemic propels their business forward. With the pandemic going away by next year, earnings in 2021 will remain flat according to most analysts. In addition, GAAP Earnings will only equal $0.75 - $1.00 this year. The market

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capitalization is $76 billion on just $1.8 billion in projected revenue this year. So, applying similar metrics to Zoom as to Amazon results in the following statistics: P/E = 192.1x Adjusted Earning and/or the P/E = 298.9x GAAP Earnings. Further, the equity trades at more than 42x Revenue.

Tesla also provides a study in valuation. With the stock trading at $1,394, its market capitalization of $258 billion now comfortably exceeds that of Toyota at $170 billion. The company will earn ~$4 in Earnings in 2020 and $8 in 2021. They will do Revenue of $29 billion this year. Based on this data, Tesla trades at a P/E of 348.5x this year's estimates and only 174x next year. Furthermore, it trades at 8.9x Revenue. In contrast, Toyota trades at 7.5x 2020 Earnings and 0.6x Revenue. And while Tesla stands as a leader in Electric Vehicles (EVs), Toyota will rollout many EVs over the next 2 years.

Given these valuations, private companies continue to seek liquidity for their owners. Palantir just made a private filing with the SEC to go public. According to the company, they will generate $1 billion in revenue this year. While no earnings data is publicly available, some reasonable guesses could be made based on currently public software companies. For example, Amazon Web Services possesses a 27% operating income margin. SAP possesses a 20% operating margin. Microsoft possesses a 34% operating margin. All these companies possess scale at multiples of Palantir's revenue. However, taking the midpoint of these margins gives 27%. This means Palantir would earn close to $270 million in operating income. Assuming just a 20% tax rate, Net Income would equal $216 million for 2020. Based on leaks in the press, the company will seek to price its Initial Public Offering (IPO) at over $20 billion. Such a valuation would mean the stock will trade at a P/E of 92x and over 20x Revenue.

For investors, Dreams dominate today as investors look to these companies as the One Decision Stocks of 2020 similar to the list that Morgan Grenfell created in the 1960s that became the Nifty 50. With today's Dreams now trading like the Nifty 50, imagining a repeat performance over the next 5 years seems easy to do. However, as history teaches, such eras are fleeting. And, when they come to an end, the tears of investors pour forth voluminously as they bewail a bygone time. For investors To Dream The Impossible Dream of an encore performance will bring back the words of that immortal song as the era comes to an end in a repeat performance of the 2001 – 2003 bear market or the 1973 – 1974 wipeout. And, when this comes, investors will repeat to themselves over and over the line: "To bear with unbearable sorrow," as the Dreams come to an end and a new reality forces its way into the markets. (Data from Yahoo Finance, Seeking Alpha, company financial reports, and public sources coupled with Green Drake Advisors analysis.)

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Serving Up Memories, To RV or Not To RV, and The Bionic Human

Finally, we close with brief comments on Serving Up Memories, To RV or Not To RV, and The Bionic Human. First, server demand continues to explode driven by the use of video-conferencing services due to the pandemic. The top 4 internet service providers cap ex rose over 40% year over year. This growth concomitantly carried along everything that goes into a server, including memory chips. As a result, demand for memory is projected to rise 15% in 2020 and over 20% in 2021. We see the market Serving Up Memories. Second, demand for new RVs has collapsed and now resembles data from 2009. After that collapse, the industry saw a massive recovery. While the consumer answers no today when asked, To RV or Not To RV, we see that changing as the economy recovers and the industry enjoys a classic recovery. And Third, scientists from Nanjing and Macau performed an amazing transformation in mice. By injecting a tissue extract into the spleen they created a matrix into which they injected liver cells. These cells then grew into a liver like structure, essentially transforming the spleen into a liver, as reported in the journal Science Advances. We see this as one more step on the path to The Bionic Human.

In Closing

Should you have any questions on how the above issues or the items discussed in our accompanying cover letter impact your family's financial position or your business's future as well as the potential actions you could take in response, please do not hesitate to contact us. We welcome the opportunity to discuss this with you.

Yours Truly,

Paul L. Sloate Chief Executive Officer & Senior Advisor	Steve Rodia President & Senior Advisor