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April 20, 2020

The Monthly Letter covers three topics this month. First, we review the status of corporate debt in That Coming Bond Storm: Part III. With corporations having piled on debt without saving for a rainy day over the past decade, it appears the Bill Is Coming Due. Second, we return to our Great Game of Power series. With the Coronavirus epidemic, it became apparent that the US possessed significant shortfalls in its ability to address the health crisis. With the origins of the virus more and more looking manmade in China, the whole healthcare supply chain will come under scrutiny for National Security reasons, as the US prepares to deal with future epidemics. This National Security debate likely will extend to all areas of the economy, as the new Cold War heats up and the US-China rivalry accelerates. Third, as always, we close with brief comments of interest to our readers.

The Coming Bond Storm Part 3: The Bill Comes Due

"*Balance Sheets Don't Matter Until They Matter.*"

Old Wall Street Saying

For corporate management over the economic cycle since 2009, corporate cash flow served the mantra of "shareholder value". This focus led public company executives to buyback copious amounts of stock, shrinking their floats in the process. On average, shares outstanding fell by 2%+ per year for the S&P 500. Thus, if a company's underlying Revenue and cost structure supported 6% Net Income growth then the company's Earnings Per Share (EPS) grew at 8%+ per year, for example. And, if a company's management followed this diligently for a period of time, say 5 years, then a company's EPS grew 47% instead of 34%. This mass shrinkage of the public float coupled with the "alignment" of management with the shareholders through massive stock options, stock appreciation rights, and an alphabet soup of compensation programs disproportionately focused on the share price, led management to focus on driving the stock price upward at the expense of company growth, capital investment, and the balance sheet. As a side benefit, the value of management compensation exploded upward and overstated the performance of management in driving a company's fundamental growth.

Unfortunately, these actions led to a variety of behaviors with significant consequences for the long term shareholder. First, corporate management's fundamental metrics of revenue growth, earnings growth, capital investment, and delivering returns on the incremental capital invested became less important.

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Thus, management became less accountable for growing a company, driving market share, and investing in the company's future than in growing the share price. Second, by significantly underinvesting in capital investment, two significant consequences result. The first is that a company's capital employed stops growing. In other words, the company shrinks its capital base. This enables company management to increase the reported return on investment. Stock valuations are related to a company's return on capital. Thus, by driving return on capital upward through underinvestment, a company's management could drive the valuation of the stock upward. The other significant consequence of underinvesting in core capital is Depreciation as a percent of a company's core cash flow fell. This led to Operating Income rising faster than the fundamentals would dictate. An example will make clear how this works:

Year	***1***	***2***	***3***	***4***
Revenue	*$100.00*	*$105.00*	*$110.25*	*$115.76*
Cash Costs at 60%	*$ 60.00*	*$ 63.00*	*$ 66.15*	*$ 69.46*
Operating Cash Flow	*$ 40.00*	*$ 42.00*	*$ 44.10*	*$ 46.30*
Depreciation at	*30%*	*29%*	*28%*	*27%*
Stated Depreciation	*$ 30.00*	*$ 30.45*	*$ 30.87*	*$ 31.25*
Operating Income	*$ 10.00*	*$ 11.55*	*$ 13.23*	*$ 15.05*
Operating Income Growth		*15.5%*	*14.6%*	*13.8%*
If Depreciation at 30%	*$ 30.00*	*$ 31.50*	*$ 33.08*	*$ 34.73*
Depreciation Difference	*$ 0.00*	*$ 1.05*	*$ 2.21*	*$ 3.48*
Adjusted Op. Income	*$ 10.00*	*$ 10.50*	*$ 11.02*	*$ 11.57*
Adjusted Growth		*5.00%*	*~5.0%*	*~5.0%*

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So, while a company's management might report double digit Operating Income growth, the fundamental performance of the company in terms of Revenue and Operating Cash Flow did not change from single digit growth. Thus, a company management could overstate the growth rate in income by underinvesting in the company. This would further enhance the valuation of the company's stock as valuations also are impacted by the growth rate in earnings. And data from JP Morgan indicate that while the S&P 500's EBITDA as a Percent of Sales, the proxy for Operating Cash Flow, remained constant over the past 20 years, Operating Income as Percent of Sales grew, as Depreciation to Sales fell.

Of course, these benefits occurred without the massive leveraging of public corporations whereby company's not only repurchased stock with cash flow but with additional debt in order to shrink the public shares as quickly as possible. When an economy grows, this is not an issue. However, when a recession occurs, as part of the normal economic cycle, and profits fall, the additional debt put in place to buy back stock as opposed to funding productive assets, which can service the debt, becomes a lodestone. As Adam Smith stated in 1776:

> "*The stock which is lent at interest is always considered as a capital by the lender. He expects that in due time it is to be restored to him, and that in the mean time the borrower is to pay him a certain annual rent for the use of it. The borrower may use it either as a capital, or as a stock reserved for immediate consumption. If he uses it as a capital, he employs it in the maintenance of productive labourers, who reproduce the value with a profit. He can, in this case, both restore the capital and pay the interest without alienating or encroaching upon any other source of revenue. If he uses it as a stock reserved for immediate consumption, he acts the part of prodigal, and dissipates in the maintenance of the idle, what was destined for the support of the industrious. He can, in this case, neither restore the capital nor pay the interest, without either alienating or encroaching upon some other source of revenue, such as the property or the rent of land.*"

Chapter IV: Of Stock Lent At Interest
Book II: Of The Nature, Accumulation, and Employment of Stock
The Wealth of Nations

Public companies now face the dilemma of Adam Smith's "Prodigal". The bogeyman, in the form of a sudden recession, stands at the door. And corporate managements must scramble to preserve their companies in the face of sudden cash flow shortfalls and exploding debt spreads as they ate the seed corn through share buybacks.

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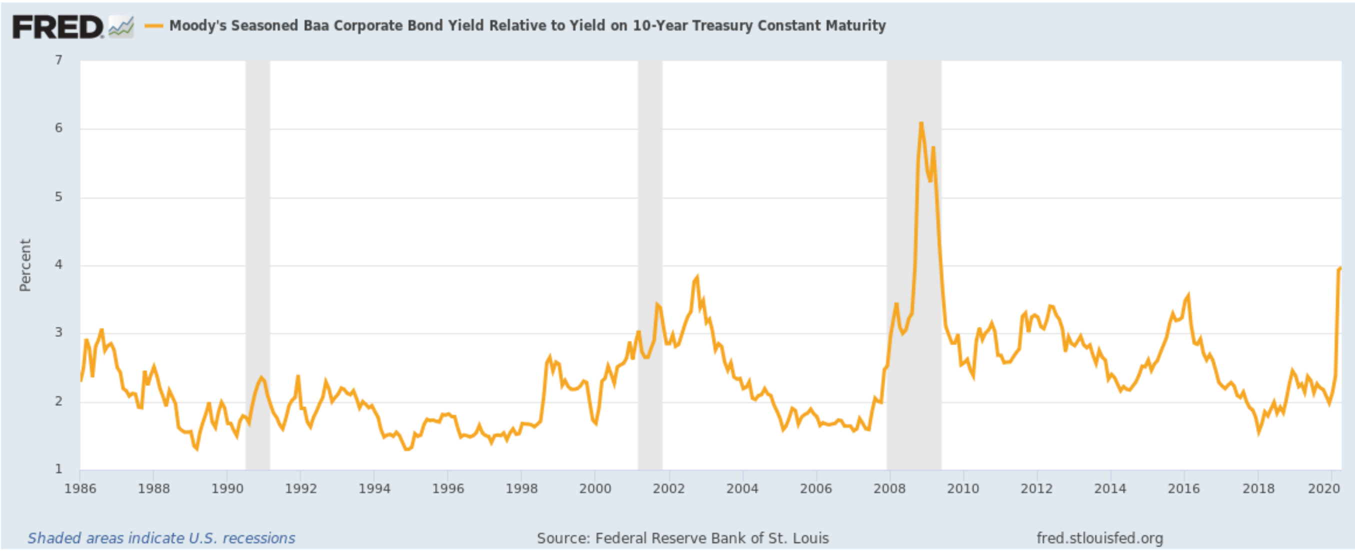
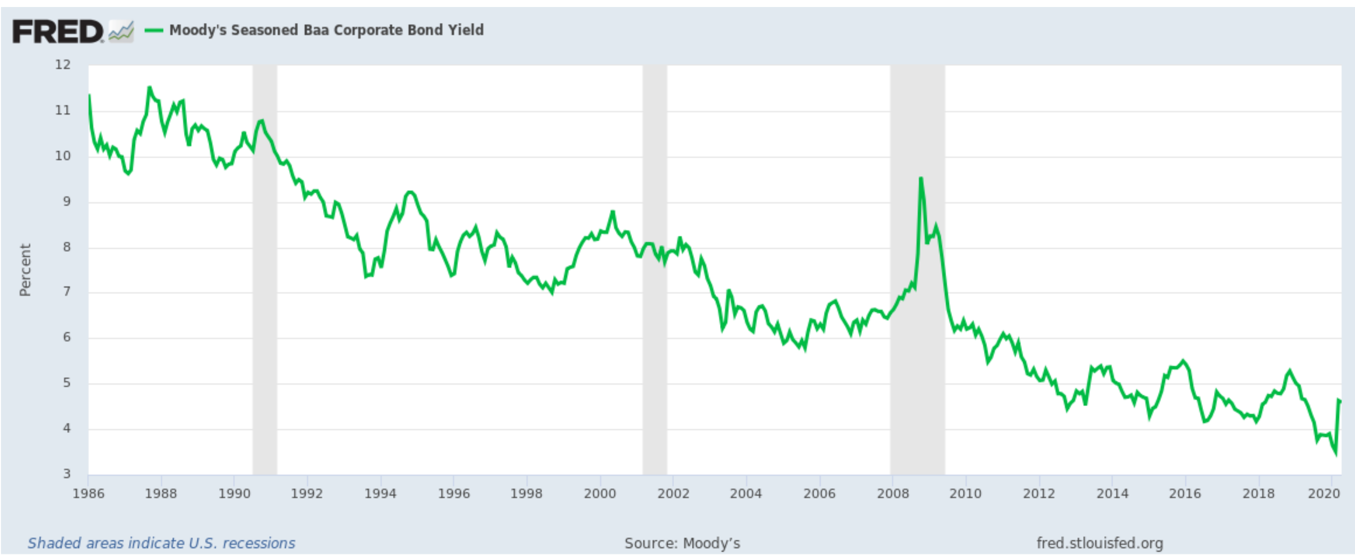
For those corporations with reasonable balance sheets, costs have risen, but not out of sight. The following charts from the Federal Reserve make this clear. While a chart of the spread between BAA Bonds, which are strong investment grade securities, appears worrisome:



The absolute BAA Bond Yield is below where it stood several years ago:



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And, from a long term perspective, rates remain quite reasonable:

Even for those companies barely investment grade, sitting at BBB Ratings, life continues apace. Spreads have shown a similar increase:

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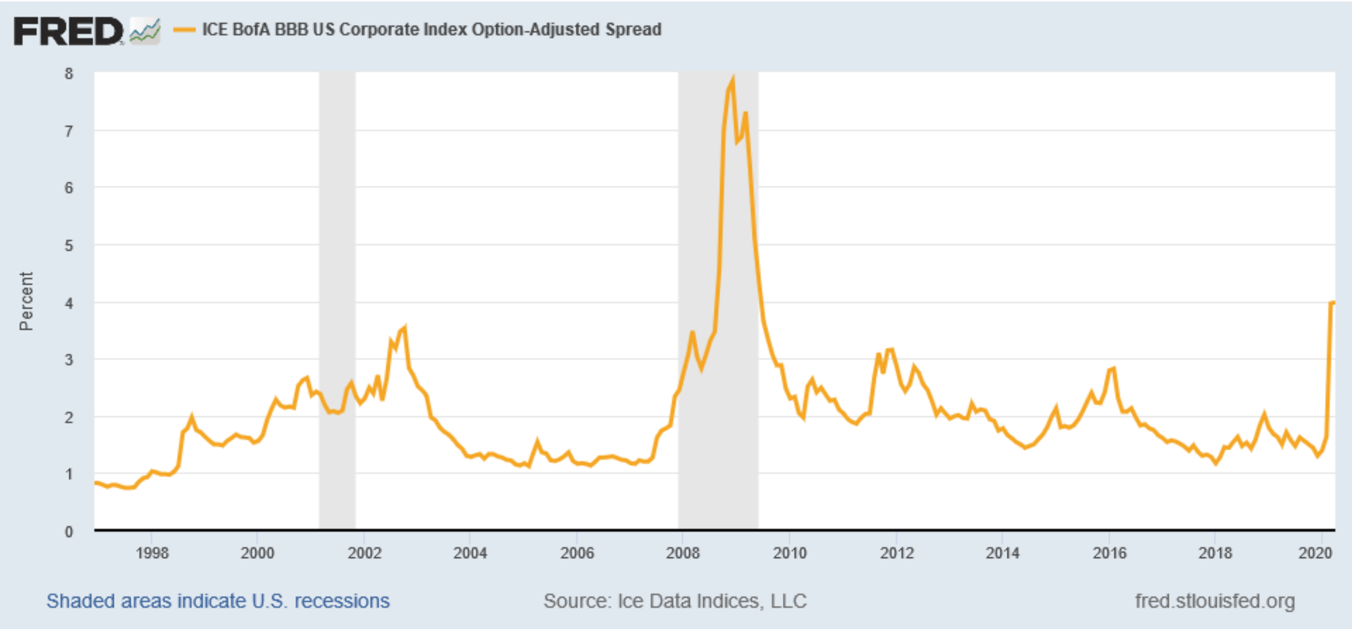

And rates continue to remain reasonable:

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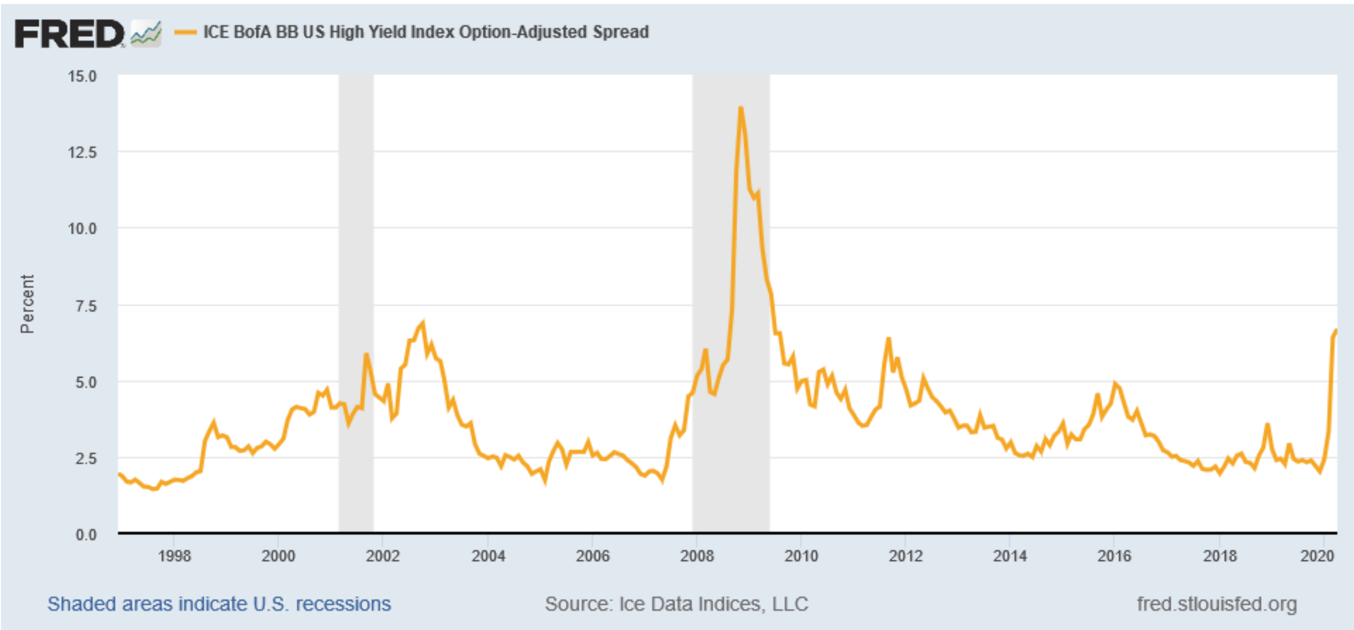
However, for the below investment grade, such as BB Rated debt, while spreads have shown a similar lift:



Yields are back to 2010 – 2011 levels:

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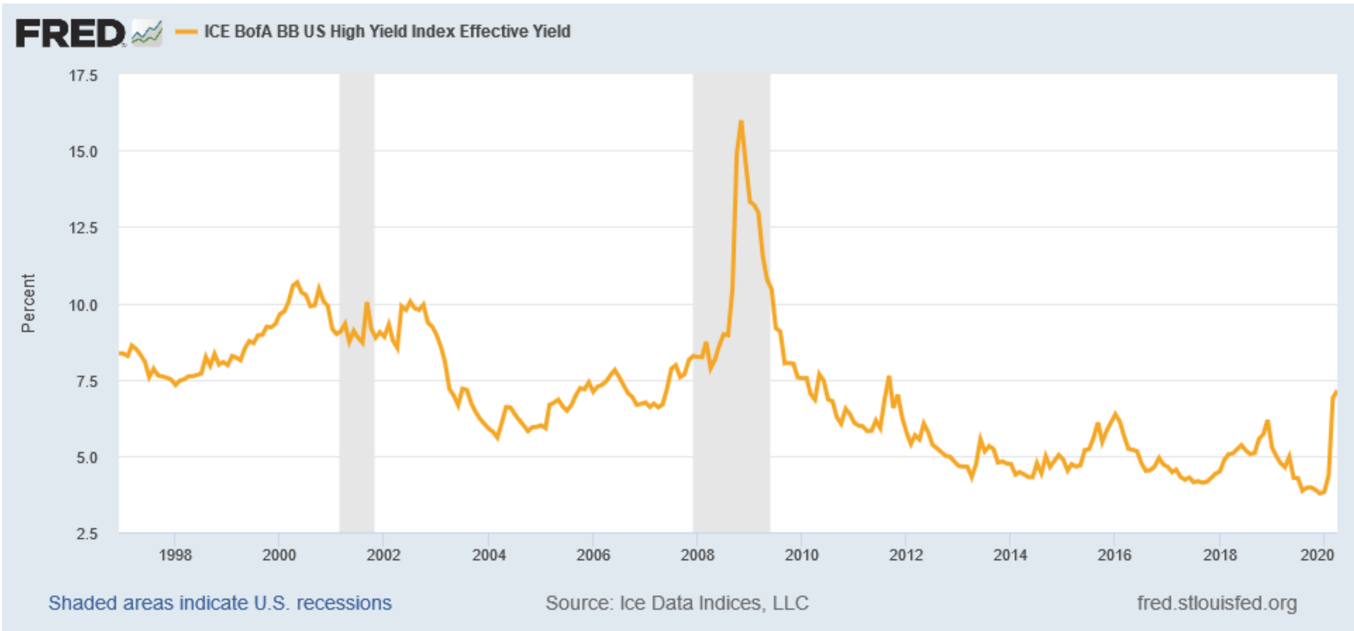
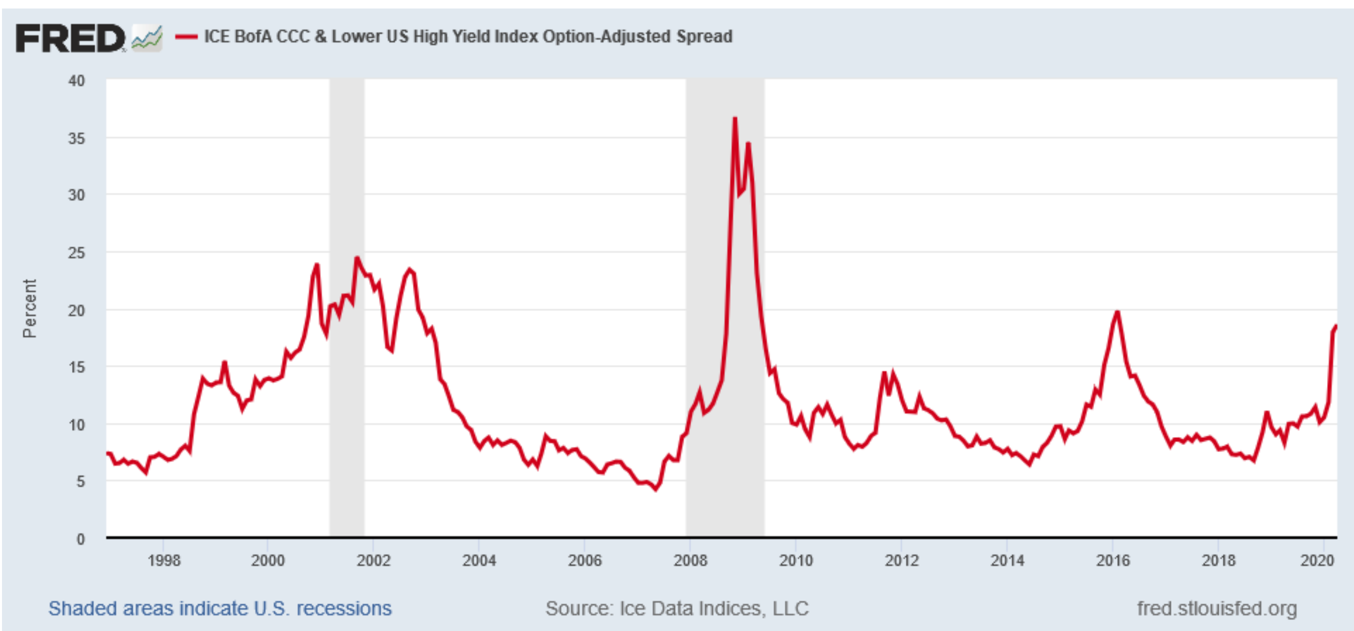


While for lower grade credits, such as CCC or below, spreads to Treasuries now exceed 18%:



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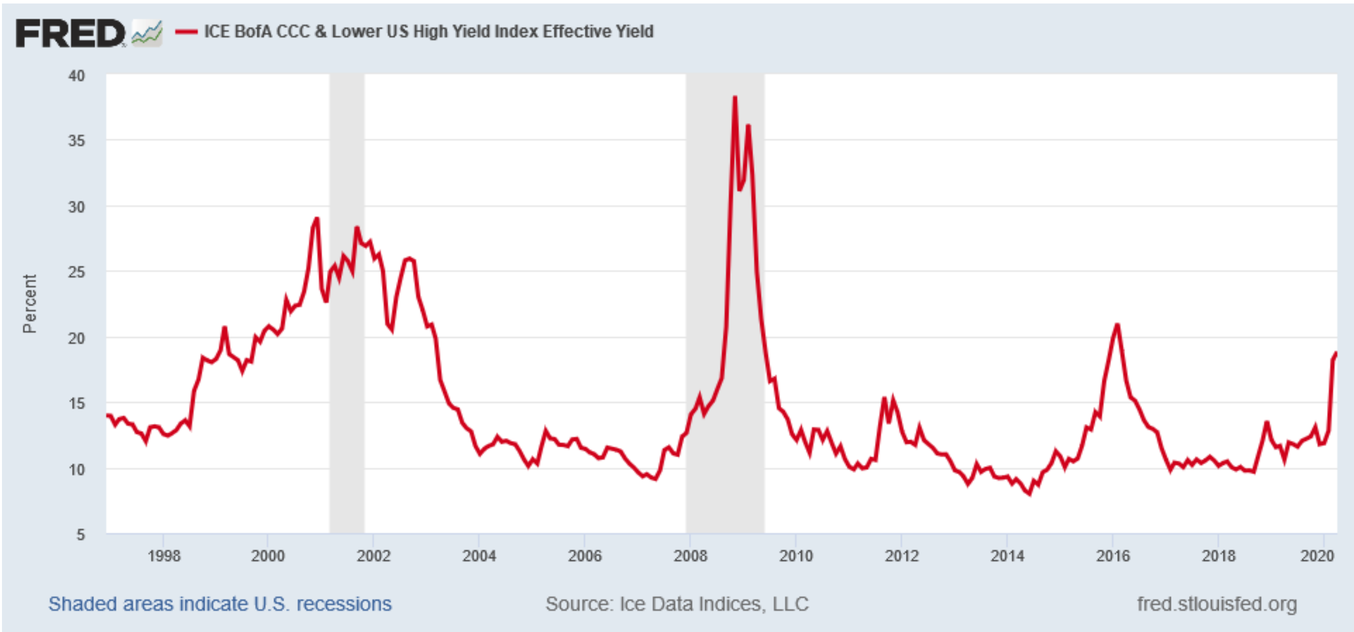
With absolute interest rates approaching 20%:



So, High Yield Debt, or what is prosaically known as Junk Debt, performed as expected. And companies, such as WeWork, stand at risk as they customarily do during a recession.

However, for the economy as a whole, the real risk stands in the BBB Debt. BBB Debt totaled $670 billion in 2008 and made up only 33% of publicly outstanding debt for public companies. In contrast, as of December 31, 2019, there existed over $3.0 trillion of BBB Debt, almost 4.5x as much as in 2008 despite an economy which grew less than 50% in nominal terms. Furthermore, it now comprises over half of all publicly traded debt. As of March 31, 2020, BBB Debt traded at a yield below 4.75%. Should it fall one notch to below investment grade, such as BB, the interest rate would jump to almost 7.00%. And should the global economic recession turn out more than a blip, lasting more than 6 months, then a portion of the BBB Debt stands at risk for further downgrade into true High Yield Debt of CCC or lower. Thus, a number of companies could find access to credit markets cut off and the interest rate on their debt rising to almost 19.00% or more. This would potentially bankrupt a number of firms, creating further disruption in the economy.

In addition to the $3.0 trillion in BBB Debt, there exists $1.2 trillion or more of "Leveraged Loans" in the banking system. These loans typically possess characteristics of BB or below public debt. Thus,

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they stand at similar risk of downgrade with company cutoff to the capital markets. And on top of these loans, there exists a large amount of lending through the "Shadow Banking" system. This system aggregates the myriad of private lenders that filled the gap after Dodd Frank accelerated the move away from bank lending. Due to the restrictions on bank leverage and loans from the Dodd Frank legislation, these lenders make up the majority of the lending to corporations today. In many cases, corporations cannot pay the interest on these non-traditional loans.

With a recession upon the country, the excesses of the past decade have become exposed. One of the principle excesses stands in the immense leverage corporations put in place to buy back $4.2 trillion of stock instead of saving for a rainy day and investing in the future of the company. With Congress well aware of these actions by corporate management over the past decade, legislation will likely follow the recession. This would serve a similar purpose to Dodd Frank to prevent companies from taking actions that endanger the country and put the average voter at risk. However, just as in 2008 for the banks, it will not undo the excesses of the last decade. And, just like in 2008 for the banks, corporations will bear the brunt of the fallout from their use of debt as The Bill Comes Due. (Data from the Federal Reserve and JP Morgan coupled with Green Drake Advisors analysis. For those wishing to review in further depth our prior analysis, Part 1 may be found in the Monthly Letter dated May 31, 2018 titled: *The Coming Bond Storm Part 1: That 1980s LBO Game Again, Repurchasing to the Poorhouse, & Love That Covenant Lite*. While Part 2 may be found in the Monthly Letter dated December 31, 2018 – *The Coming Bond Storm Part 2: Leveraged Lending, Covenant Lite, and The Coming Credit Cycle*.)

The Great Game of Power: The Coming National Security Debate – Just In Time or Just In Case

> *"The military threat is but one menace to our freedom and security. We must not only deter aggression; we must also frustrate the effort of the Communists to gain their goals by subversion. To this end, free nations must maintain and reinforce their cohesion, their internal security, their political and economic vitality, and their faith in freedom.*
> *…*
> *Our efforts to defend our freedom and to secure a just peace are, of course, inseparable from the second great purpose of our government: to help maintain a strong, growing economy – an economy vigorous and free, in which there are ever increasing opportunities, just rewards for effort, and a stable prosperity that is widely shared."*

President Dwight D. Eisenhower
Second Inaugural Address
January 6, 1955

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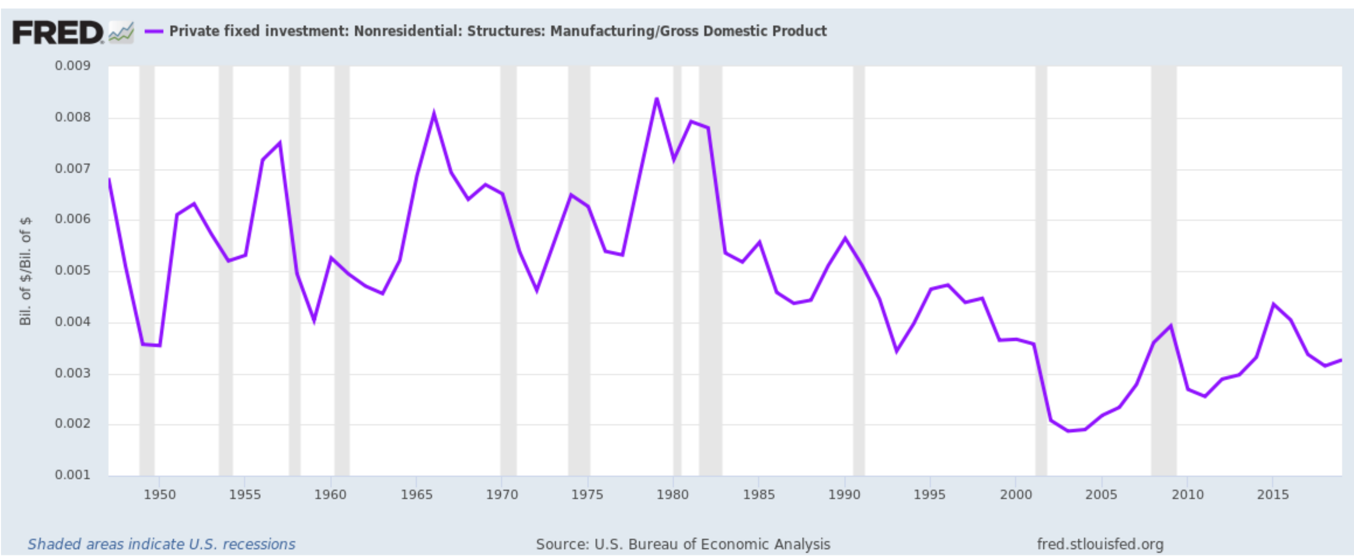
For the past 30 years, under the North American Free Trade Agreement (NAFTA) and then the World Trade Organization (WTO), U.S. companies moved production first to Mexico and then overseas to Developing Countries. This served two purposes. First, it lowered the costs of production as companies avoided environmental and government regulations in the US. In addition, the cost of constructing plants fell as foreign governments subsidized the location of these plants in their countries in order to build up their industry. Lastly, labor costs dropped significantly as corporations performed global labor arbitrage, replacing US workers with low cost labor elsewhere. Second, corporations obtained access to previously closed economies, enabling them to expand the market for their goods and to continue to grow their companies at a more rapid pace. This growing global footprint allowed them to become less dependent on the U.S. and Europe by diversifying their revenue base across the world. In addition, it improved these multi-national corporations' global competitive position.

While all these actions led to positive results for individual companies, it led to a poor result for the United States. As a result of these collective actions, encouraged by the government through mechanisms like NAFTA and the WTO and through the non-enforcement of technology export rules, capital formation related to manufacturing in the United States collapsed:



Furthermore, as a result of the collapse in manufacturing investment, equipment investment took it on the chin once the WTO came into being, encouraging plant relocation overseas and the creation of global, as opposed to national, supply chains:

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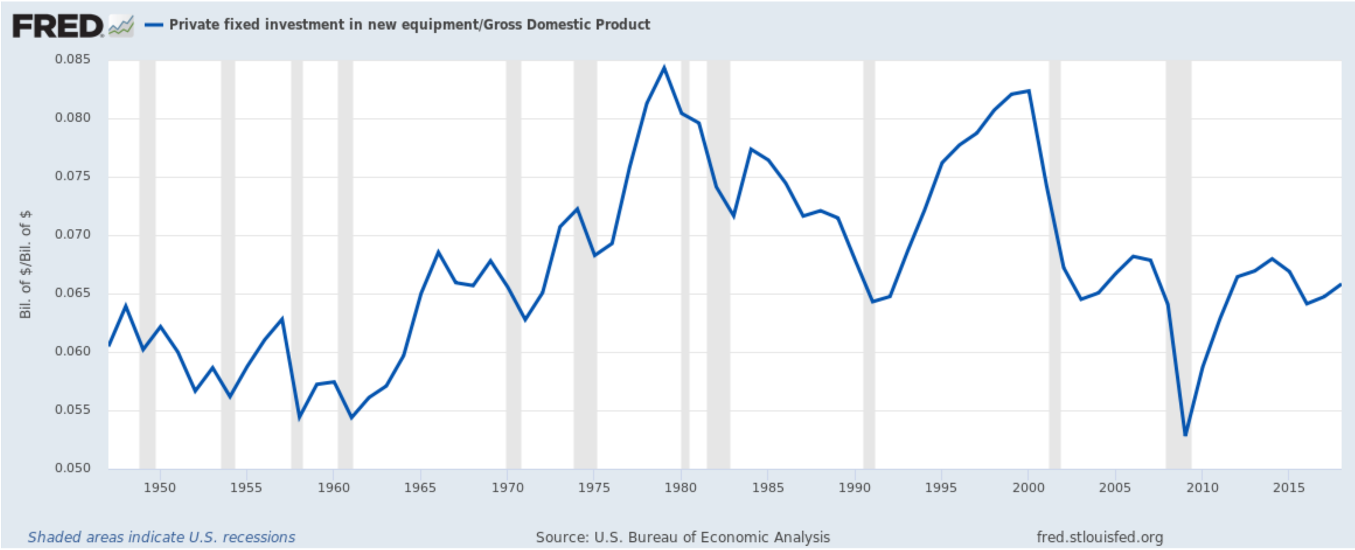
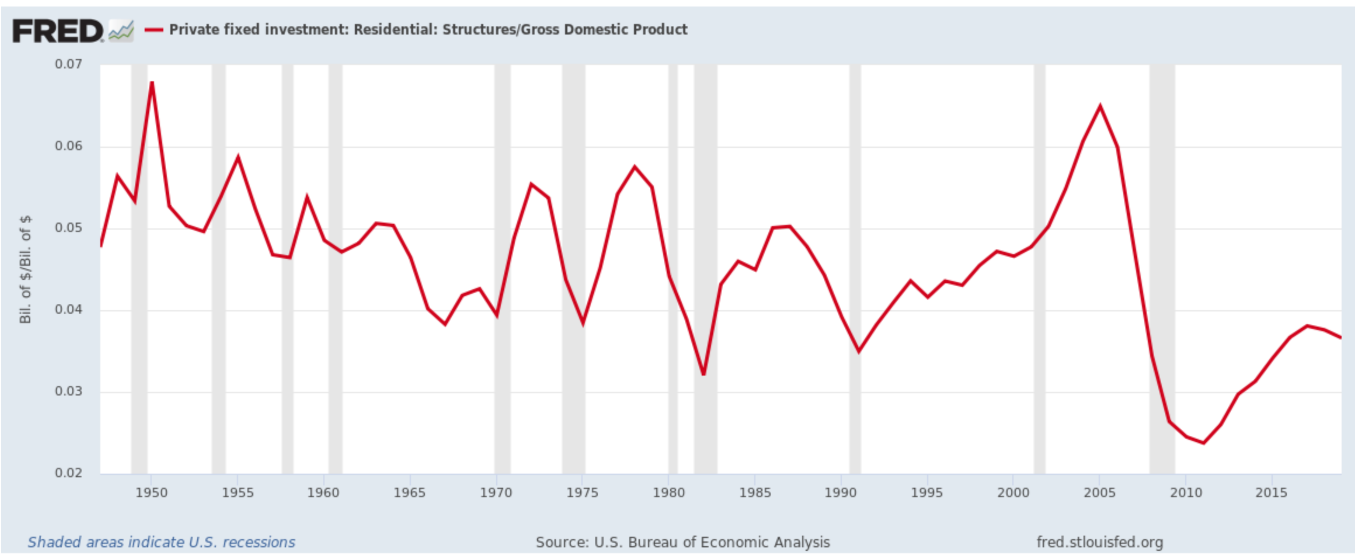


To offset this lack of investment, the government, in the early 2000's, encouraged excess investment into Housing to offset the manufacturing shortfall and prevent Manufacturing Productivity from collapsing:



This worked for a while, but when the inevitable collapse in Housing Investment occurred, it led to a collapse in Manufacturing Productivity as well:

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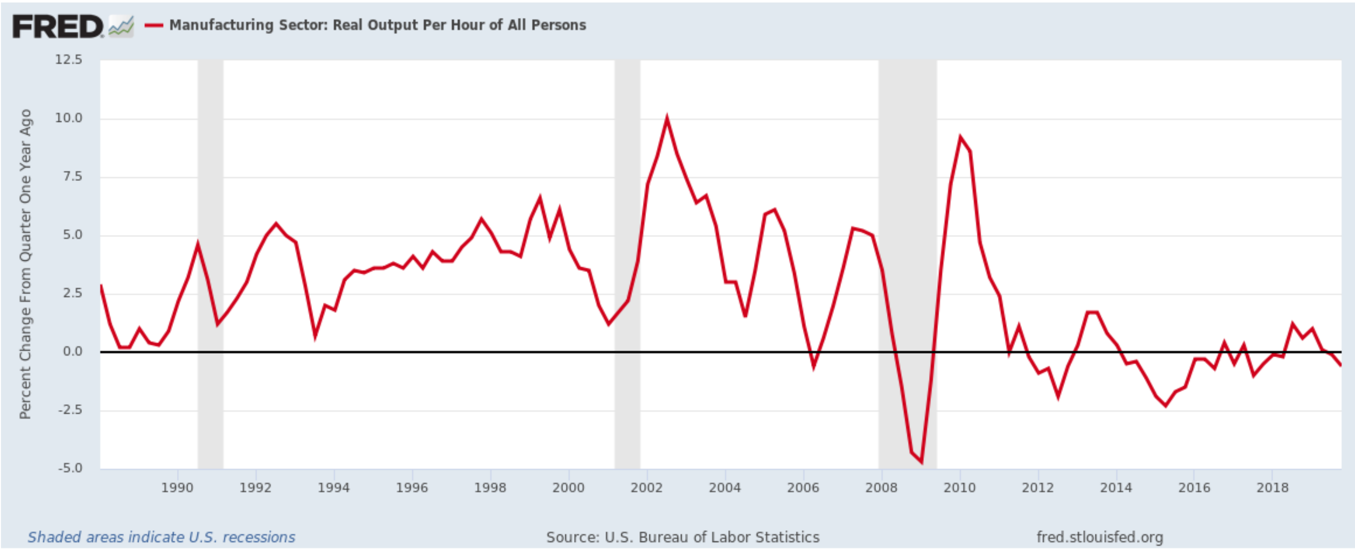

And, excluding the normal recessionary jump, Manufacturing Productivity averaged less than zero this past economic cycle as U.S. plants continued to produce fewer and fewer goods and more goods continued to be produced overseas.

Today the U.S. produces only half the goods it consumes and, for some critical areas, such as computer and electronic products, this amounts to less than 30%. This compares to the 1990s when the U.S. produced more than 80% of the goods it consumed and over 90% of all technology goods. According to the Department of Commerce, U.S. manufacturing value add totaled just 53% of the content of all manufactured goods in 2015, the latest date for which there is real government data, and just 28% for computer and electronic products.

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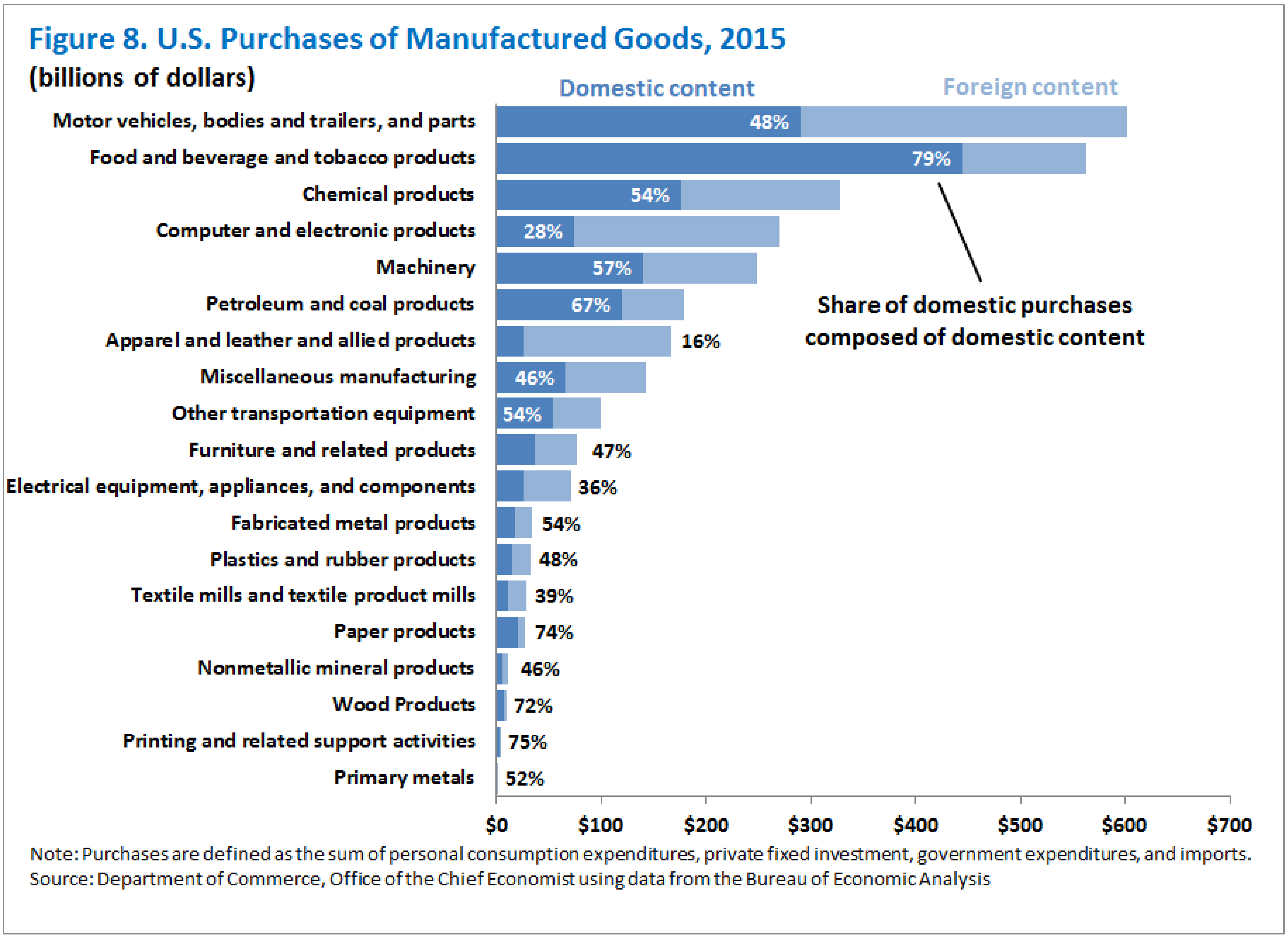

Please see their report at: https://www.commerce.gov/sites/default/files/migrated/reports/2015-what-is-made-in-america_0.pdf . Traditionally, prior to the 2000s, the U.S. maintained its manufacturing base for National Security reasons. But, with the "end of the Cold War", large corporations convinced the government that opening the economy to foreign made goods in Developing Economies in exchange for "access" to their markets would benefit US production of goods. Of course, the opposite occurred as documented above.

None of this becomes an issue if there are no disruptions to the availability of goods and inputs from abroad and National Security does not become an issue. However, with the rise of China as a global rival to the U.S. and the Return of the Cold War, where goods get produced becomes an issue. And this

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issue reared its ugly head during the ongoing Coronavirus epidemic. Somehow, the U.S. found itself short of face masks, medical supplies, testing supplies, critical medicines, and chemicals needed to produce various medicines as the global supply chain shut down. In particular, it became apparent how vulnerable the U.S. stood in a National Emergency should China shut its exports down. And shut them down it did through an Emergency Decree on March 31 to "regulate" the quality of the products. This led to a shortage of masks, gowns, ventilators, chemical reagents, … around the world. In addition, numerous products produced by China did not meet the specifications of those products. For example, The Netherlands recalled 600,000 Chinese masks with faulty filters. Canada received 1 million N95 Masks that did not pass inspection. The words of President Dwight D. Eisenhower from his Second Inaugural Address appear to have been forgotten:

> *"An industry capable of rapid expansion and essential materials and facilities swiftly available in time of emergency are indispensable to our defense. I urge, therefore, a two-year extension of the Defense Production Act and Title II of the First War Powers Act of 1941. These are cornerstones of our program for the development and maintenance of an adequate mobilization base."*

The U.S. and other countries stood vulnerable as they allowed their medical and pharmaceutical supply infrastructure to migrate overseas to developing nations without the regulatory infrastructure and quality control these products require. In response to this national emergency, the U.S. Congress allocated billions of dollars to create infrastructure on an emergency basis in the U.S., a very expensive way to address the problem.

And while the current emergency occurred over an epidemic, given recent events overseas, this easily could morph to an international confrontation between China and the U.S. While the world media remains focused on the COVID 19 epidemic, action heated up in the South China Sea. Over the past few weeks, China not so quietly sank a Vietnamese fishing boat in Vietnam's waters. Chinese military ships entered Malaysia's territorial waters to trail its oil exploration vessels. And China increased its harassment of Indonesian fishing vessels in Indonesia's waters. Furthermore, China just announced its sovereignty over several islands that belong to The Philippines and Vietnam, over both countries protests.

In belated recognition of the U.S. vulnerability in a future emergency, Senator Marco Rubio proposed the Fair Trade with China Enforcement Act, which is receiving bipartisan support. This Act clamps down further on technology and IP exports and goes after China's Made in China 2025 policy by requiring the Commerce Department to list all products which are the focus of this policy. With China running a blatantly mercantilist economic policy by subsidizing key technology industries, such a bill stands long overdue. For example, Chinese LCD manufacturers continue to lose money. Yet, these

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same companies continue to spend billions of dollars to construct new plants, as the Chinese government covers their losses. This stands in contrast to South Korea and Japan where the companies must stand on their own. With Chinese companies able to sustain losses indefinitely and with infinite government capital available to put in place new capacity, China continues to focus on its policy goal of dominating this industry globally by putting foreign rivals out of business and/or making them incapable of investing in new capacity. Should such policy make the front page of the paper, U.S. and Western government action to rein in China globally would follow. Not only would governments identify such policies immediately, but they would put in place counter policies to prevent the importation of these goods and any good that contained the subsidized item. For those who believe such policies would fail, one need only look at the Steel Industry. Once the U.S. put in place large tariffs on steel from China and other developing countries, Chinese steel prices magically levitated to global levels from prices clearly below the cost of their raw material, Iron Ore. As a result, U.S. steel companies became profitable and able to add capacity to meet current and future U.S. demand. Europe took similar action.

Should the U.S. and other Western nations focus once more on National Security and the need for domestic production, things will change dramatically. Global Supply Chains will come under scrutiny to assess vulnerability in a future National Emergency. And closing these vulnerabilities will force significant amounts of manufacturing back to the U.S., especially in areas such as Technology. For companies that benefitted from globalization and Just In Time supply chains, this will come as a rude shock. And with Congress already moving to close loopholes, even before a true National Security Debate, it seems just a matter of time until Just In Time becomes Just In Case.

(Data from public company reports, the Federal Reserve, and the Commerce Department coupled with Green Drake Advisors analysis. For additional details on this coming National Security debate, please see the following articles: *The Rise of Economic Nationalism: Global Competition and The Fight for National Advantage Or Why Is All Global OLED Capacity Being Built in South Korea, China, and Taiwan* published on May 31, 2017; *The Great Game of Power: Trade Networks & The Rise of Mercantilism, The Re-Emergence of The Cold War, & The Return of the Yellow Peril* published on December 31, 2017; *Currency Wars, Trade Wars, The Fight for Economic Growth & The New Cold War* published on April 30, 2018; *The Carrot & The Stick Part II: The Ascendance of the National Interest* published on November 30, 2018; and *The Great Game of Power: Cold Wars, Proxy Wars and The Path Well Trodden* published on December 31, 2019.)

Dragon BNBs, Keep on Trucking, and the Muscular Genes

Finally, we close with brief comments on Dragon BNBs, Keep on Trucking, and the Muscular Genes. First, Air BNB reports that its business in China has begun to recover from the epidemic there.

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However, its volumes still stand down 50% from where they stood one year ago. For those who want to understand what is really occurring in China, we suggest they follow Dragon BNBs among other statistics. Second, with the economy shut down, trucking continues on as critical goods still need to be moved for consumers to consume. Freight volumes rose 1.4% overall in Q1 2020 compared to Q1 2019, with consumer staples offsetting declines elsewhere. As trucks move 71% of all goods in the country, we say Keep On Trucking. And Third, Pfizer recently announced some early stage results for its gene therapy for Muscular Dystrophy. According to a recent study, gene therapy appears to halt the progress of this devastating disease. Should this prove true, science will finally defeat a disease that has withstood the test of time creating Muscular Genes and providing one more step on the stage 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