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The Monthly Letter covers three topics this month. First, we return in a third installment to the topic of the conflict between what large corporations' interests and the United States' interests. These interests have stood in conflict for almost 20 years. Yet, only now is the United States acting to protect its interests. As it moves to do so, this will have significant implications for large companies and their operations around the world. Second, we review the rise of Environmental, Social, and Governance as significant factors across the investment landscape. They continue to grow in importance and, by the end of the next decade, likely will stand as normal parts of any investment valuation. And Third, as always, we close with brief comments of interest to our readers.

What's Good For GM Is Not Good For America, Part 3: Whack-A-Mole, National Security, and The Coming Domestic Content Legislation

> "*National advantage resides as much in clusters as in individual industries. The presence of world-class buyer, supplier, and related industries in a nation triggers self-reinforcing benefits in upgrading competitive advantage in industry.*"

Chapter 12: Government Policy
The Competitive Advantage of Nations
By Michael E. Porter, 1990

For Corporate America and most of the companies in the Global 1000, the current trade spat between the U.S. and China remains a logistical question. If, as a company, production cannot locate in China, where else in the world can it locate to maintain the same production cost structure, same access to foreign markets, and same transportation costs. The answer to this question depends on individual country labor costs, land and transportation availability, and tax incentives as well as a host of other factors. For the short term, at least, it appears that Vietnam and Malaysia are the big winners of the current corporate relocation out of China. New manufacturing plants continue to appear in former rice paddies across Vietnam, funded often by Chinese capital. Technology plants continue to arise in Malaysia, as companies take advantage of its workforce and logistical infrastructure. Other winners appear Indonesia, Thailand, The Philippines, and Taiwan. For all these countries, the lottery came early. For example, this movement out of China created an acceleration in Taiwan's growth due to a massive rise in Investment to build plant there as opposed to Mainland China. And for Corporate America and the Global 1000, these actions enable them to maintain their current global competitive positions, cost structures, earnings, cash flows, capital investment levels, and returns.

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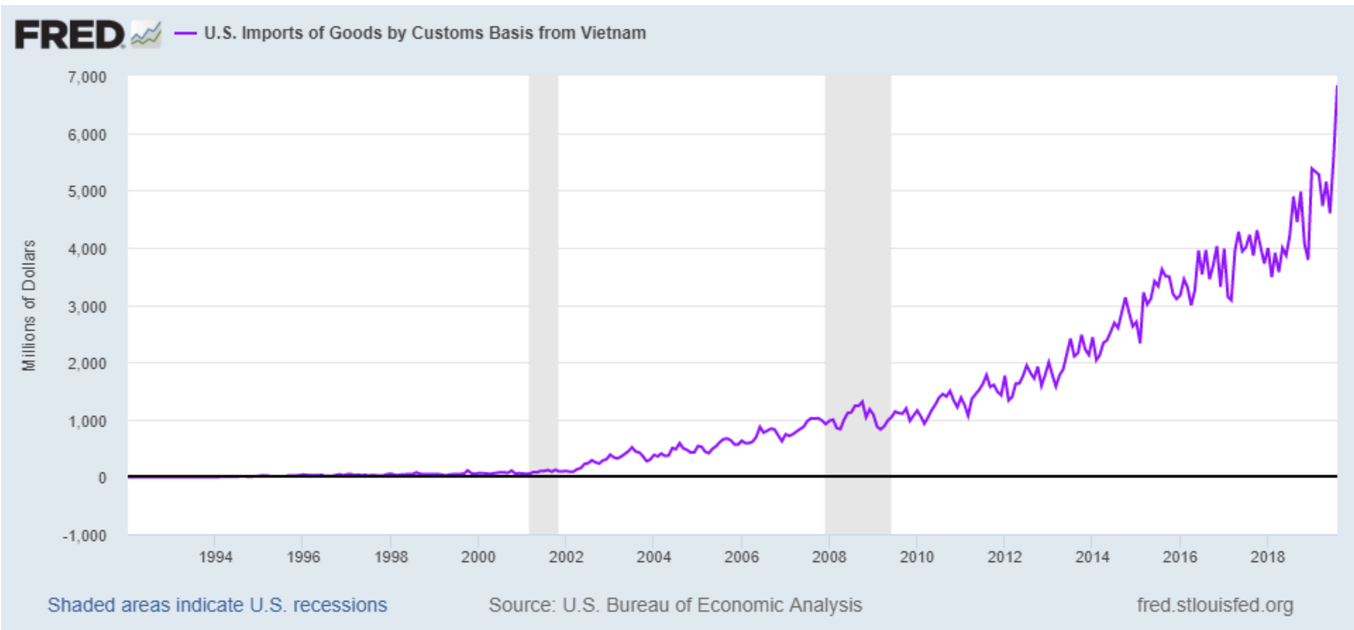
However, from a United States perspective, this appears a giant game of Whack A Mole. For those unfamiliar with this amusement park game, the goal is to hit the Mole when he pops up before he scoots back into his labyrinth of tunnels and pops up through another opening. In this case, replace "Mole" with Factory or Assembly Plant and replace "Opening" with Country. Thus, lost in the noise of the US-China trade dispute, the U.S. sent a warning to Vietnam concerning its trade surplus with the U.S., as the Vietnamese trade surplus continues to grow at a rapid rate.



Monthly Imports of Goods From Vietnam, U.S. Census Bureau data.

For the US to solve its issue with China only to see the same issue arise with Vietnam, Malaysia, and other Asian nations, represents no solution at all. The goal, ultimately, from a U.S. perspective, continues to focus on the following: re-domestication of industrial plant to once again supply the domestic market with domestic production. And while Chinese consumption may catch up to the U.S, the U.S. consumer market still remains the largest market for mid to high end consumer goods in the world due to its much higher standard of living. Given the numerous studies that demonstrate Investment drives Productivity and Productivity drives long term economic growth, reclaiming production of its own consumption, which would drive Investment, stands a clear national priority.

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Furthermore, from a U.S. government perspective, there stands a major National Security issue that the country must address. In order to maintain the U.S. strategic position in the globe, protect its interests abroad, and ensure its ability to wage war when necessary, the country must maintain its industrial base and technological competitiveness. This just makes common sense. And with technology leadership, the control of space, and the ability to produce the necessary goods likely to dominate the outcome of the next war, ceding these industries to other nations would relegate the country to an inferior global strategic position. If the U.S. allowed this to occur, it could lead to other nations dictating terms of economic and strategic engagement, enabling large global strategic rivals, such as China and Russia, to gain the upper hand around the world.

When we combine Whack-A-Mole with National Security, What's Good For GM Is Not Good For America, as optimizing a corporate footprint around the globe, to maximize the corporation's position, now conflicts, in many cases, with the goals of the United States in growing its economy and maintaining its global strategic position. In other words, there clearly stands in one corner of the ring, the U.S. Government, and in the other corner of the ring, the Global 1000, as their interests are opposed. And they both have come out swinging. The U.S. Government led with a left jab, imposing tariffs on China, and the Global 1000 parried and countered with a left hook, moving factories to other Asian countries, as they acted to protect their interests. With both opponents now circling each other, looking for an opening to land the next blow, the logical next move by the U.S. government will be a feint, pretending to fire another left jab in the form of more tariffs against other countries, but then landing a kick to the groin, with a move toward Domestic Content Legislation or requirements for domestic production in key industries and their supply chains. And to ensure the effectiveness of this policy, it will finish the bout with a knockout right cross, punishing companies that do not comply with large fines and/or embargoing their goods produced abroad.

With corporations moving supply chains around Asia, little of consequence will occur for the moment. Corporations will incur some minor costs and little re-domestication of supply chains will occur. Furthermore, the "prevailing wisdom" in the financial markets indicates there exists little the U.S. government can do to change this outcome, with companies continuing to grow their overseas operations. However, in reality, there exists a significant number of legal tools, already approved by Congress, that the country could lever to change the terms of global engagement, if it chose to do so. These include:

1. Trade Expansion Act of 1962, Section 232 – This allows the government to act when imports affect National Security. (Recently used for steel and aluminum. Potential action on Autos sits here.)
2. Trade Act of 1974 – This falls into two categories. Section 201 authorizes the ITC to investigate the threat of injury from imports and the President to impose four year safeguards. Section 301

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allows the U.S. Trade Representative to act against countries "unreasonably, unjustifiably, or discriminatorily restricting or burdening U.S. commerce." (Section 201 recently used for washing machines and solar cells.)

3. International Emergency Economic Powers Act of 1977 – This allows the government to freeze foreign assets and impose sanctions on foreign nations in "international emergencies". (Recently used by both the Obama and Trump Administrations against Russia and Iran.)
4. Export Control Reform Act of 2018 – This impacts the ability of foreign nationals to participate in research in "foundational" or "emerging" technologies. This was enacted as part of the reform and update of CFIUS to prevent the export of new technologies to other parts of the globe.
5. Trading with the Enemy Act of 1917, as amended 1933 – This empowers the President to oversee and restrict any and all trade between the United States and its enemies in wartime or in peace.

And when these laws intersect with a large goods trade deficit, a desire to accelerate U.S. economic growth, and the need to stand toe-to-toe with a traditional global rival in China, anything becomes possible. While What's Good For GM Is Not Good For America continues to rule the day, the forces to change the status quo, in National Security and Domestic Content, continue to gather. And once they gather in sufficient force, they will align to assault the fortified position of corporations today, leveling the WTO battlements, changing the playing field back to the GATT, and, once more, emphasizing the traditional mores by which countries govern their actions. (Data from the U.S. Census Bureau, Federal Reserve, and public sources coupled with Green Drake Advisors analysis.)

The Mainstreaming of ESG: Opportunities Ahead In A Green New World

> "*A true conservationist is a man who knows that the world is not given by his fathers but borrowed from his children.*"
>
> Quote from John James Audobon, 1841

From its origins in the 1960s via books, like Rachel Carson's Silent Spring published in 1962, or through movements, like Pete Seeger's the Hudson River Clearwater Sloop Inc. founded in 1966, and through incidents such as the Houston Ship Channel catching fire in November, 1959, leading to the fire on and explosion of the tanker Amoco Virginia, which was loading product at a dock on the ship channel, the Environmental movement grew rapidly from a fringe movement to mainstream. It led the U.S. Congress to enact the National Environmental Policy Act of 1969, President Richard Nixon to establish the Environmental Protection Agency in 1970, and the U.S. Congress to pass further environmental legislation including the Clean Water Act of 1972. Each one of these actions set new

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precedents for the importance of environmental considerations across all aspects of the United States, whether business, government, or social. Now, 50+ years later, these environmental considerations intertwine across the fabric of the country and have been combined with Social and Governance aspects to form a new movement transforming business and society once more in the United States and across the globe.

To provide perspective on the impact of these forces on a global basis today, one need only observe the amount of capital that now falls under the rubric of Environmental, Social, and Governance (ESG) Assets. While only ~$800 billion in financial assets directly fall under an active ESG mandate, over $31 trillion in assets include some form of ESG integration or factors in their management. With ~$74 trillion in assets managed by the top 400 asset managers globally, this represents over 40% of assets managed globally by these entities. Such penetration exerts tremendous pressure on corporations and their managements as these factors come to provide significant inputs into how the valuation of both public stocks and private companies are computed. On the negative side, of course, sit liabilities such as clean-ups, scrubbers, filtration equipment, retooling of existing processes, … However, on the positive side sit opportunities to address numerous issues identified such as carbon emissions, water stress, packaging material, … that can create significant wealth for companies that bring innovative solutions to these issues.

Environmental solutions sit at the heart of this movement and cut across a broad diversity of approaches and technologies. Numerous technologies have now hit critical thresholds on a price-performance basis, leading to these products scaling the traditional adoption curve. For example, Electric Vehicles (EVs) and Solar Power now possess mass market adoption. As these products continue to come down the cost curve, due to technology improvements and manufacturing scale up, they will continue to gain share on a global basis over the next decade. In addition to these existing technologies, new technologies await regulatory approval and/or capital to see broad deployment in the U.S. and Europe. For example, DSM N.V. developed a new enzyme to add to cow feed that reduces cow emissions of methane by 40% without impacting production of milk. It sits before European regulators awaiting approval. Or, for example, Pure Cycle Technologies licensed Procter & Gamble recycling technology. It developed the technology into a commercial technology, with a $300 million plant now under construction in Ohio. This technology recycles plastic packaging from household products into good-as-new plastic at a fraction of the cost of today's recycling technologies, making it competitive with plastic produced from raw materials. This novel, recycling technology will help municipalities looking to dispose of local trash in the U.S. as well as aid companies in meeting strict new cradle to grave recycling regulations in Europe. Other obvious opportunities will occur in infrastructure for charging EVs, storage for Solar Power, new lighter weight materials to meet vehicle mileage requirements, …

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On the Social side of the equation, numerous opportunities sit areas such as Human Capital and Social Opportunities. These areas include education, training, safety, privacy and data security, and access to finance among their sub-components. In numerous areas in the United States, there exist opportunities to provide education and training to company employees and to train new workers or existing workers looking to gain new skills. Privacy and data security exploded as an issue over the past 5 years, providing huge opportunities for technology and consulting companies to create novel ways of addressing these issues or to enable existing companies to meet new regulations. In finance, numerous entities now focus on providing access to capital to groups that hitherto could not access capital whether through crowd funding vehicles, capital raising entities, or through charitable organizations providing below market loans or hitherto non-existent loans. New safety regulations created opportunities in many mundane areas. For example, regulations forced industry to move away from silicon abrasives to grind and polish surfaces to eliminate toxic chemicals in the air produced by these materials, enabling new companies to enter the industry.

Lastly, Governance issues continue to impact corporations. Poor Corporate Governance now exposes companies to shareholder pressure as well as lawsuits and liability. For example, composition of public boards now faces heightened scrutiny. Companies that do not demonstrate appropriate attention find themselves the subject of unwanted attention. In addition, if these boards do not implement appropriate risk controls, board members can now find themselves personally liable for risks that could not be imagined a decade ago. And, for example, regulators are now all over governance policies around data security and data privacy. Both the Federal government and States continue to put pressure on companies to create Governance policies around these areas. These pressures only seem likely to rise over time and to expand to private companies as well.

With the Mainstreaming of ESG, no investment will stand unscathed. Those companies that do not meet these standards will find themselves at a disadvantage in the competition for capital in the future. While those that do, may find cheap capital available. Furthermore, those companies that do not embrace ESG may find their products and services become obsolete as newer products embracing ESG proliferate to a generation more in tune with these values. For companies that can meet these demands, there stand Significant Opportunities Ahead. And for investors, it appears the world of investing will become a Green New World. (Data from public companies and IPE coupled with Green Drake Advisors analysis.)

Deep Freeze, Staying Warm, and Cyborg Organs For The Bionic Human.

Finally, we close with brief comments on Deep Freeze, Staying War, and Cyborg Organs For The Bionic Human. First, if a difficult wet spring was not enough for U.S. farmers, an early fall blizzard may have delivered the coup de grace. This storm may put the end to whatever hopes farmers possessed

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to salvage a late start to the growing season. The storm dumped 24" to 30" of snow from North Dakota and Minnesota in the North down to Colorado in the South. It basically froze crops in place, ruining the harvest of corn, soybeans, potatoes, and other crops. While the damage has yet to be tallied, it will definitely impact grain prices and everything that uses grain as an input, including chickens, pigs, cattle, … With this Deep Freeze in place, investors should watch for the ripple effects as the impact spreads to other parts of the economy. Second, insulation manufacturers appear ready to raise prices once more. With Housing Permits on the rise for single family homes and Starts soon to follow, demand for insulation should stay strong more than absorbing the new capacity the industry plans to bring online this coming year. As a result, the cost of Staying Warm appears headed up. And Third, scientists at the School of Engineering and Applied Sciences at Harvard University have grown a "Cyborg" Human Organ in a dish. They combined human stem cells with flexible, stretchable electronics to create a 2D surface. They then differentiated the stem cells into heart cells and transformed it into a 3D Heart Structure. This process enabled the scientists to monitor organ development and function. They plan to apply this to various organ types as another way to build organs, study diseases, and screen pharmaceuticals. We see this as another 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