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TRADE WARS

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THE WAR ON TRADE AND ITS THEORETICAL IMPLICATIONS

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ABSTRACT: China in 1980 had an income per head of about 300 dollars, the US had 29,863.02 dollars. Forty years later, China is a world leader on par with the US, has a dynamic high tech industry, and the largest middle class market in the world. The US Government's reaction is to blame China for currency manipulation and intellectual property theft. It is argued that she is a vital threat to the United States both economically and strategically, that U.S. policy toward China has failed, and that Washington needs a much tougher strategy to contain it. China however has developed its own agenda in direct proportion to its new economic power and its own principle of exceptionalism. An economic war has begun. It is, first of all, a war, and the ballistics metaphorically speaking, are economic. The object of war is to defeat the enemy. The object of economic war is to bankrupt the enterprises that are gaining the markets, metaphor for territory. After two years of skirmishes, the US is losing the Chinese market while China remains as the number two trading partner for the US.

Beijing has launched a "go out" strategy designed to remake global norms and institutions. China is transforming the world as it transforms itself. This meant entering the WTO and using it for its benefit, becoming a voice for free trade at the Davos Conference, pressing the IMF to include the Yuan in the SDR basket and pressing to have the proper votes at the IMF board, amongst the most visible changes. The United States shut the WTO arbitration court and is losing the technological lead in at least five branches of production. The end result is that the trade war finally has shaken up the theoretical frameworks established after WWII and consolidated more modern views while indicating US weakness in the face of another more dynamic economy. Tariffs do not resolve these issues. New international institutions appear to be required to solve the problems posed and the ensuing crises. Theoretically it means the end of WWII institutions and the surge of new ones. These will, more likely, not be US-led in a slow and conflict-filled process.

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THE WAR ON TRADE AND ITS THEORETICAL IMPLICATIONS

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“The worst position in which a belligerent can be placed is that of being completely disarmed.”

Clausewitz

China in 1980 was a least developed country with an income per head of about 200 dollars. Forty years later, China is a world leader with the US, has a dynamic high tech industry, and the largest middle class market in the world. The US in 1980 was the undisputed world leader, with the highest GDP per capita and unquestionable technological leadership. Forty years later, it ranks as the world's number 7 economy per capita despite being still a quarter of the world economy followed by China with 17% of world GDP. In purchasing power parity terms, the Chinese economy is now more significant than the US. The difference is that while China grew at an average of 7% per annum in nominal terms since 1980, the US barely at 2%. The US Government's reaction to this is to blame China for currency manipulation and intellectual property theft. It is argued that she is a vital threat to the United States both economically and strategically, that U.S. policy toward China has failed, and that Washington needs a new, much tougher strategy to contain it. (Zakaria, 2020) In the 1980s, the US and the West blamed Japan for the same and made it appreciate the Yen to levels where it became non-competitive. The Japanese reaction was to invest inside the US and Europe, but Japan itself never recovered its high economic growth. The inadequacy of the American arguments against China has made her lose allies as the trade war ensued. (Fuchs, 2020) This paper aims to present the conceptual arguments on the trade war and its impacts on the liberal international order, multilateral institutions, international trade theory, and neoclassical integration theory. A revision of the globalisation concept and global value chains is required as these were a theorization derived from international trade theory in response to the end of the fractured world existing between 1945 and 1990. In a flat world, like the one we have seen since 1990, Cassell's law of one price should have worked, and it should have led to optimal trade relationships. It has not. Instead, world income concentration grew, and domestic growth slowed down in all but the Asian economies. The trade war serves to re-embed the American industry, disembedded in 1990 with globalisation through global value chains, but gives international trade as a whole, new embeddedness far removed from the disembedded framework described in conventional international free trade theory regulated through multilateral institutions.

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Since 1990 the U.S. administrations forged an agenda of spreading liberalism and Western influence around the world, integrating China into the global economy, and transforming the politics of the Middle East. (Lind and Press, 2020) China however has developed its own agenda in direct proportion to its new economic power and its own principle of exceptionalism.

1. What is a war

An economic war is, first of all, a war, and the means, the ballistics metaphorically speaking, are economic. The object of war is to defeat the enemy. The object of economic war is to bankrupt the enterprises that are gaining the markets, metaphor for territory. This section will attempt to convey the elements taken from the Prussian General von Clausewitz for the analysis of the Great Trade War and Sun Tzu *The Art of War*. The classical definition of war given by von Clausewitz (1832) is that it is "*an act of violence to compel our opponent to fulfil our will*. (Volume I, Book 1). "*The compulsory submission of the enemy to our will is the ultimate object*." The theoretical aim of hostilities is to disarm the enemy. The final aim of economic war is the bankruptcy of the other countries' firms gaining markets.

For Sun Tzu, in order to wage war, some general laws must be applied:

1. The Moral Law causes the people to be in complete accord with their ruler so that they will follow him regardless of their lives, undismayed by any danger.
2. The Commander must stand for the virtues of wisdom, sincerity, benevolence, courage, and strictness.
3. There must be Method and discipline, understand the marshaling of the army in its proper subdivisions, the graduations of rank among the officers, the maintenance of roads by which supplies may reach the army, and the control of military expenditure.

For an economic war to succeed then, there must be an agreement in the society of the attacking country that the ruler is correct. The president must stand for wisdom, sincerity, benevolence, and there must be a method.

Von Clausewitz argues that for a war to happen, there must be a *hostile feeling* and a *hostile view* of the enemy. He argues that it is impossible to conceive the passion of hatred without having a hostile intention against the enemy. The war aims to disarm/bankrupt the enemy through an act of violence. The dictation of the law to the other is the first effect of the war. The victor has the possibility of dictating the laws. (second reciprocal action). To win a war requires two inseparable factors: the sum of available means and the strength of the will. For Clausewitz, it is clear that war does not spring up and that both sides form an opinion of the other slowly. Time in a war is not continuous. Most of the time, there is no action, and aggressive actions occupy the smallest portion of time employed.

Sun Tzu reminds us that all warfare bases itself on deception. Hence, when able to attack the enemy, the aggressor must seem unable; when using their forces, the aggressor must seem inactive; when near, must make the enemy believe they are far away; when far away, make them believe they are near. Attack the enemy when they are unprepared, appear unexpectedly. These military devices, leading to victory, must not be divulged beforehand.

Von Clausewitz points out (Vol I, Chapter 1) that truce must be possible at all times; that it is no contradiction given war itself is a political decision, a political act, and a political instrument. War is composed of hatred and animosity, the play of probabilities

and chance, and the subordinate nature of a political instrument. Combat is, in its origin, the expression of *hostile feeling* (Volume II Chapter 2), but in great combats, the *hostile feeling* frequently resolves itself into merely a *hostile view*, and there is no innate hostile feeling residing in individual against individual.

War is the province of uncertainty. A subtle and penetrating mind is called for, to search out the truth by the tact of its judgment. The second peculiarity in War is the living reaction, and the reciprocal action resulting from there. Planning is necessary, given the considerable uncertainty of all data in War. Uncertainty creates the image of an adversary of exaggerated dimensions and an unnatural appearance. Because of this, War is the province of chance. The actor in War finds things different, with influence on his plans, or the presumptions connected with these plans.

Sun Tzu (Chapter IV) states that what the ancients called a gifted fighter is one who not only wins but excels in doing so with ease, by making no mistakes. Making no mistakes is what establishes the certainty of victory, for it means conquering an enemy that is already defeated. The skillful fighter puts himself into a position which makes defeat impossible and does not miss the moment for defeating the enemy. The consummate leader cultivates the moral law, and strictly adheres to method and discipline; thus, it is in his power to control success.

To go to war says Clausewitz (Vol. II, Chapter 2) two qualities are indispensable: an intellect which, will lead to the truth, and the courage to follow this faint light. Here we mean courage of responsibility, often called *courage d'esprit*, on the ground that it springs from the understanding; however, it is an act of feeling.

Sun Tzu on his side points out to five dangerous faults which may affect a general:

- (1) Recklessness, which leads to destruction;
- (2) cowardice, which leads to capture;
- (3) a hasty temper, which can be provoked by insults;
- (4) a delicacy of honour which is sensitive to shame;
- (5) over-solicitude for his men, which exposes him to worry and trouble

Clausewitz is indebted to a particular direction of the mind for its existence, a direction that belongs to a healthy head rather than a brilliant one. He adds, there have been men who have shown the highest resolution in an inferior rank, and have lost it in a higher position. *The worst position for a belligerent is that of being completely disarmed.*

Clausewitz in Book III, Chapter 1, defines strategy as “the employment of the battle as the means towards the attainment of the object of the War. He then adds that the destruction of the enemy’s military forces, or economic prowess in an economic war, the overthrow of the enemy's power, is only to be done through the effect of a battle or its threat.

Finally, in Book VIII, Chapter 4, Clausewitz returns to the idea that the aim of war must always be the overthrow of the enemy; this is the fundamental idea from which we set out. Nevertheless, whatever may be the central point of the enemy's power against which we are to direct our operations, still the conquest and destruction of his army is the surest commencement, and in all cases, the most essential.

According to Sun Tzu (Chapter VI) Whoever is first in the field and awaits the coming of the enemy, will be fresh for the fight and have more chances to destroy the enemies armies; whoever is second in the field and has to hasten to battle will arrive exhausted. Therefore, the clever combatant imposes his will on the enemy but does not allow the enemy's will to impose on him. The attack will be sure to succeed if done to undefended places. The defence ensures positions that are well protected. Water shapes

its course according to the nature of the ground over which it flows; the soldier works out his victory about the foe whom he is facing.

2. *The Causes of the War: Loss of Territory*

The trade war. When President Trump launched an investigation into steel imports and aluminium, when he took office, he launched the trade war. The argument is that the import of these pose a threat to national security to the United States, the same argued against Huawei and electric cars. A few months later, in August 2017, an investigation was launched by the USTC on unfair Chinese trade practices, with a particular focus on the alleged theft of US intellectual property. The war, however, has multiple tiers. At the base, there is a general trade war against all Chinese goods. Next, there is a war specifically against Huawei, the telecommunications giant. Then comes a war against the WTO and the multilateral system that supports free trade practices and punishes unilateral tariffs. On a fourth level, there is an energy war. On the fifth, there is a war on automobiles and clean energy transport vehicles. Some of these related uniquely to China, and some include China plus some European and other producers. Policies on these five levels are independent, but the war is waged in the same direction, strengthening US power in times of apparent weakness- lost world market share in general and loss of technological lead.

In January 2018, the US slapped tariffs on imported solar panels and washing machines. Then came 25% tariffs on steel and aluminium imports at 10%, affecting not only China but Mexico, Brazil, and Argentina. The escalation of the trade war came with a speech geared around unfair practices in order to generate national feeling against China. The presentation of the US as a victim of Chinese perfidy claims abuse by the other. Hidden behind the headlines were the obstacles to clean energy equipment, solar panels, into the United States, and the Chinese obstacles to oil drilling equipment, in the first round of tariffs in April 2018. Those tariffs were the expression of an energy war going on. What followed were US tariffs to the clean energy industry of China in hydroelectricity and nuclear reactors plus solar panels. In exchange, China retaliated in the automotive industry. What followed was a US upscale on electronic inputs for the telecommunications industry. The Chinese response was tariffs to rare earth, which they do not import, and electronic inputs for the electronic industry, which they import very little and have substituted by other Asian makers. It was followed by tariffs to petroleum and derivatives and ended that first set of measures with tariffs on other electronic equipment. Tariffs to foodstuffs accompanied both sides throughout the entire period. Then came a winter truce from December to March 2019. The conflict resumed, and other inputs were affected on both sides. There is now a winter truce that began in December 2019 and was put on hold as the Coronavirus epidemic hit the US.

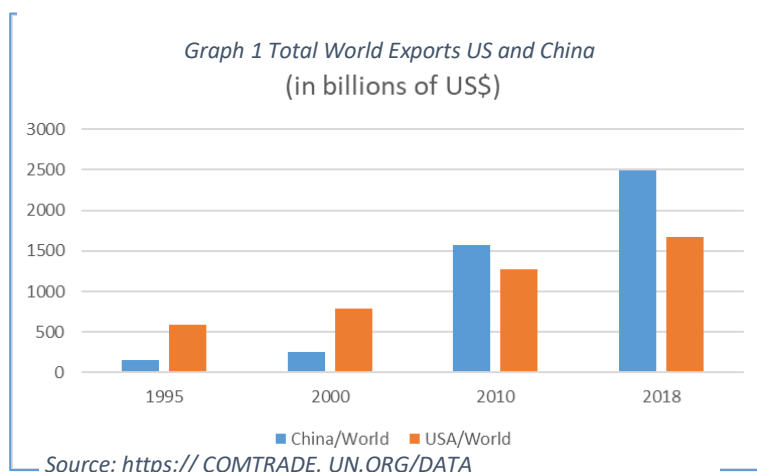
Trump's speech on the coronavirus was filled with hate to China, referring to the Chinese flu and Wuhan flu. The object is to create what Clausewitz refers to as a *hostile feeling* and a *hostile view*. The end object is that Americans will not buy Chinese goods because “they come from the enemy country that infected us.” There is consensus in the US toward an almost instinctive hostility. According to the Pew Research Center, 60 percent of Americans now have an unfavourable view of the People’s Republic, a record high since they began asking the question in 2005.(Zakaria, 2020) However imports from China grew as a share of total imports with the trade war.

There are two problems the US must face: After two years of skirmishes, the balance is as follows: China won the information technology hardware market, US exports to China remained flat during 2018, adding up to 156 bn US\$ while US purchases from China added up to 539 bn\$, almost quadruple that amount. With the war, the US bought 15% fewer goods from China from September 2019 to September of 2018. Despite US tariffs, Chinese surplus remains stable, while its imports from the US have fallen by 21.8%. While China remains the second US leading import partner, its market share grew from 13.7 to 14.1 percent; it has fallen as an export partner from third to fifth place in China's list, from 9.1 to 6.4 percent. China has switched suppliers fast while the US seems hooked to China. China's surplus with the US is enormous, and high US tariffs will not solve the problem. Global value chains are linked and make the US dependent on Chinese exports in the short term. The opposite appears to be less accurate.

| DISTRIBUTION BY MAIN TRADING PARTNERS (%) | | | | | |
|---|-------------|-------------|------------|-------------|-------------|
| China's Imports | 1 Term 2017 | 3 Term 2019 | US Imports | 1 Term 2017 | 3 Term 2019 |
| Australia | 5,69 | 6,91 | Canada | 19,71 | 19,16 |
| Japan | 9,91 | 8,81 | China | 13,72 | 14,13 |
| Korea | 9,94 | 8,78 | Germany | 13,43 | 12,54 |
| Taiwan | 8,68 | 9,19 | Japan | 6,08 | 5,64 |
| United States | 9,08 | 6,40 | Mexico | 5,01 | 5,27 |
| TOTAL | 43,29 | 40,08 | TOTAL | 57,94 | 56,73 |

Source: IMF DOTS.

The second is that Beijing has launched a "go out" strategy designed to remake global norms and institutions. China is transforming the world as it transforms itself. (Economy, 2010). This has meant entering the WTO and using it for its benefit, becoming a voice for free trade at the Davos Conference, pressing the IMF to include the Yuan in the SDR basket and pressing to have the proper votes at the IMF board, amongst the most visible changes. The United States is losing the technological lead in at least five branches of production: Telecommunications and the 5G technology; clean energy, based on solar and Eolic energy; lithium batteries based versus fossil fuel automotive industry;

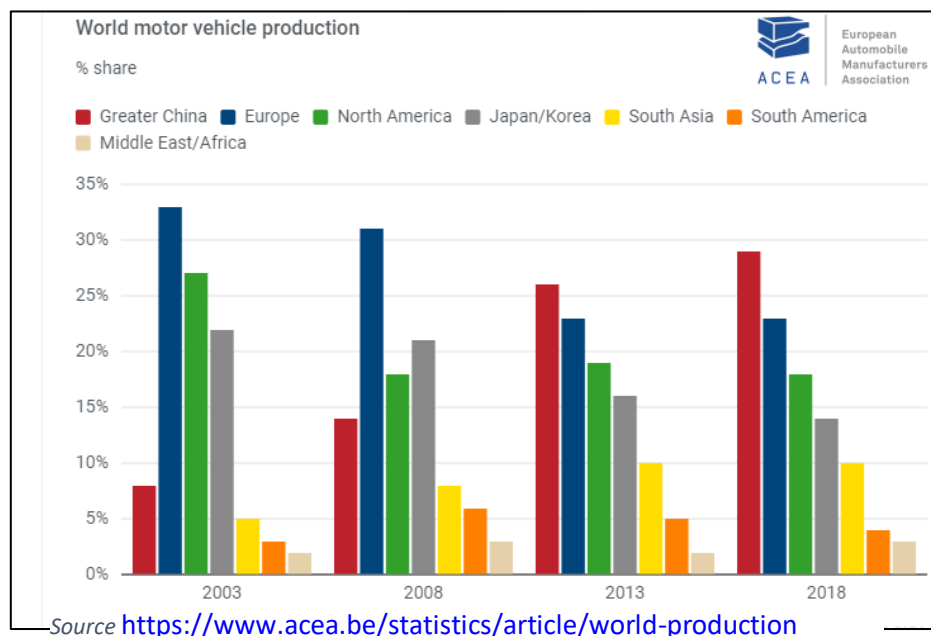


electronics and pharminochemicals. The object of the war is for the Chinese firms that produce these, to run out of business.

The question of market share, in economic terms, is what von Clausewitz refers to as the territory, in military language, essential for keeping leadership. In world trade, the US has lost global market share, and China has gained it in the XXI century. In 1995, China only had 2.13% of world exports, and the US had 13.1%. In 2018 China grew to 13.26% while the US shrunk to 8.85%. (<https://comtrade.un.org/data/>) There is an inverse dynamic between the two countries which could reflect China's meagre starting point. In nominal dollars, nevertheless, the US has lost ground to China since 1995. (<https://comtrade.un.org/data/>) Evidence shows the loss of territory in the international market in several very dynamic markets such as the automotive industry, electronics, telecommunications, pharmaceuticals, and aeronautics. Worse, it is losing territory in clean energy and sticking to fossil fuels.

The automotive industry grows basically with electric vehicles, for example, which is expanding fast with the global electric car fleet over 5.1 million units in 2018, up 2 million from the previous year, and almost doubling the number of new electric car sales. The People's Republic of China remains the world's largest electric car market, followed by Europe and the United States. Norway is the global leader in terms of electric car market share. (IEA, 2019) By the end of 2018, the global stock of electric two-wheelers was 260 million vehicles, 460 000 electric buses, light commercial vehicles (LCVs), 250 000 units' medium electric truck sales 1 000-2 000. A total of 5.2 million light-duty vehicles (LDV) chargers, (540 000 of which are publicly accessible), serving the total electric vehicle stock, complemented by 157,000 fast chargers for buses. (IEA, Executive Summary). A confirmation of the US absence in this new automotive branch is the Ford and General Motors announced in March 2020 that only 5% of their vehicle production would be hybrid or electric, between 2020 and 2026.²

Graph 2 World Car market share



² Paul Lienert, Joseph White, Ben Klayman, "Detroit's near future based on SUVs, not EVs, production plans show," Reuters, MARCH 26, 2020 at <https://www.reuters.com/article/us-autos-emissions-suvs-insight/detroits-near-future-based-on-suvs-not-evs-production-plans-show-idUSKBN21D1KW>, seen on April 6, 2020.

Not competing in the clean energy automotive market will have a substantial adverse impact on the US car manufacturing industry. Particularly since US policy, as written in the *National Security Strategy Paper of 2017* (NSSP) states that fossil fuel is the centre of the policy, "Access to domestic sources of clean, affordable, and reliable energy underpins a prosperous, secure, and powerful America for decades to come. Unleashing these abundant energy resources—coal, natural gas, petroleum, renewables, and nuclear—stimulates the economy and builds a foundation for future growth." (NSSP, 2017, 22). The consequence is that the US automotive industry is not switching to clean energy vehicles and will most likely continue losing its world market share, already affected due to price/quality concerns. The US produced in 2003, 27% of all cars made in the world while China at the time produced 8% of all cars made in the world (Acea). The reversal of the fact in 2018 is that China produced 29% of total production while the US fell to 18%. The EU fell from 33% to 23%, partially because it began producing in China instead of exporting from the EU.

Huawei. Telecom infrastructure is an area where firms from other countries overpowered the US, who had the lead up to late the XXth century. In 2018, the top telecommunication firms in the world, including Huawei, include three other Chinese firms, two Americans, two Japanese, one British, one German, one Spanish, and one Mexican. Here also there is a loss of territory compared to the 1960s. The top five firms are not American with ATT, ITT, Verizon, and Apple not being significant in 2G and 3G telecommunications infrastructure technology, less so in 5G. The problem surged with the launch of the fifth-generation (5G) of telecommunication infrastructure and equipment. The 5G equipment has new capabilities that have come to core networking, including machine learning, artificial intelligence, virtualization, and software-defined networking. It includes faster time to deployment, self-healing for improved uptime, and network slicing aimed at guaranteeing the quality of new service and new monetization opportunities for carriers and service providers³.

The war against Huawei began in 2003 when CISCO launched the first lawsuit against that firm for intellectual property theft. The issue was "that an employee had inadvertently used two percent of the 1.5 million lines of copied code that Cisco had alleged, but that it was provided by someone who was not a Cisco or a Huawei employee - and was instead on a disk passed from one Huawei to another." A Rand Report in 2005 argued that the Chinese military was amid a CISR (command, control, communications, computers, and intelligence) revolution including, "the shift to digital, secure communications via fiber-optic cable, satellite, microwave, and encrypted high-frequency radio." (Medeiros, et al., 2005; 205) The advances originate in a paradigm called the "digital triangle," with three vertices (1) China's booming commercial information-technology companies, (2) the state R&D institute and funding infrastructure, and (3) the military. The links among these three vertices are of long-standing, given that telecommunications and information technology in China initially developed under the auspices of the military, and the commercial relationships with state and military research institutes remain essential. Here lies the bottom of the problem against Huawei. The paper then argues that the Chinese strategy resembles Japan's high-level bureaucratic coordination and significant state funding. The *arriere pensée* is that this strategy was attempted by the defense-industrial system in China before and that its

³ Will Townsend, "Who Is 'Really' Leading in Mobile 5G, Part 4: Infrastructure Equipment Providers", in <https://www.forbes.com/sites/moorinsights/2019/07/19/who-is-really-leading-in-mobile-5g-part-4-infrastructure-equipment-providers/#34e678cd9130> seen on 24.3.2020.

success may be driven more by the integration of shipbuilding and IT into the global R&D and production chain than by China's technological strengths per se. (Medeiros, et al., 2005; 205).

The report points out several characteristics of the IT industry: they are genuinely commercial in orientation, seeking to capture domestic and eventually international market share. (Medeiros et al., 2005; 206). The R&D funding for defense-related work includes research institutes under the Ministry of Information Industry, the PLA General Staff Department, and other defense-industrial entities, funded by the Ministry of Science and Technology's 863 Program. The report then adds that this way, the military supports the use of civilian entities to conduct military work because they are more capable than the military—of military-technical research. The civilianization is at the heart of the digital triangle because it introduces commercial and profit-seeking motives as engines of change to improve China's overall technological level (Medeiros et al., 2005; 207).

They conclude that the process is possible through two critical technology trends: (1) the growing use of COTS (commercial-off-the-shelf) technology; and (2) the rise of China as a locus for global fabless integrated-circuit production. A fabless semiconductor company specializes in the design and sale of hardware devices implemented on semiconductor chips. They point out that the increasing sophistication of China's commercial semiconductor fabrication facilities provide the base production capacity necessary for the military to implement design ideas in a secure, domestic environment. (Medeiros, et al., 2005; 207).

The Chinese IT industry is business-oriented, and like other IT industries around the globe, the R&D is Government financed. Some investigation happens in state research and development institutes, including those affiliated with the defense industry and other military units. The Rand Report concludes that the IT sector as belonging to a new defense-industrial sector in China. (Medeiros, et al., 2005; 211)

The firms that exist that provide the PLA with commercial-off-the-shelf IT systems, such as routers, switches, and computers, which have become increasingly central to the digitization of the U.S. military. are Huawei, Zhongxing, Datang, Julong, and the Wuhan Research Institute, all of which are private companies spun off from state research institutes that enjoy national-champion preferences within the system. These have market-based working conditions and follow the business strategies of the United States, Japan, and Taiwan firms, of gaining market entry and market share from established multinationals through lower labour cost, better service, and rates of reinvestment of revenue into R&D unheard of in other Chinese industrial sectors. (Medeiros, et al., 2005; 213) The result is that between 2010 and 2017, the export sector related to IT grew by 45% versus the US that shrunk by 14%. (see table below) When taking 2000 as the base year, IT exports have grown by 1,425% while US IT exports have shrunk by 52% in the same period. The US exported three times what China did in 2000, and two decades later, it exports less than one-tenth China. The business strategy has worked well for those firms, making them the largest and best in the world. Huawei's sales jumped from US\$350 million in 1996 to more than US\$3 billion in 2002 (Medeiros et al., 2005; 219) and \$107.13 billion in 2018. IBM, in 2018 sold in total 79,5 billion dollars. IBM sold in 2004 its PC business to Lenovo, another Chinese firm because it was not making them fast enough, cheap enough to compete internationally. Since then, the computer market has changed to laptops.

According to the Rand report, Huawei's did the same as the Japanese in the 1960s and the Koreans in the 1970s: Obtain foreign technology at first, then sink significant amounts of money into original R&D to keep up with the competition. It began with reverse-engineering some American products and reinvest at least 10 percent of revenue back into R&D each year, and maintain an extensive domestic research base, including the top graduates of China's high-tech universities. The issue here was the introduction of 5G by Huawei in August 2018. This event was not only a loss of territory but also the dictation of the law to the other. China set the example of what was possible to have and how to manage it. It set the law worldwide for 5G in the middle of the trade war that started in April 2018. It was a loss for the United States because AT&T did not manage to come out ahead of China. Huawei has set the rules of operation worldwide. The response was to detain Huawei CFO in a Canadian stopover, late in 2018, and accuse her, for alleged violations of Iran sanctions when the nuclear sanctions were in place early in the century. Ms. Meng Wanzhou is the daughter of Mr. Ren Zhengfei, Huawei founder, major shareholder, and chairman. In 2018, Congress passed legislation that prohibits U.S. Government agencies and contractors from using Chinese equipment.⁴ Other measures included In May of 2019, an executive order to secure the ICT infrastructure and supply chains. The Department of Commerce included Huawei in the list, which imposes restrictions on its access to the U.S. market based on Commerce's determination that the company engaged in activities that are contrary to U.S. national security interests.⁵ USG missions to allied countries to accuse Huawei as a threat to US national security.

Huawei, the world's number 1 telecommunications firm, unlisted in any stock exchange, and number 2 manufacturer of cell phones, is the symbolic centre of all the trade wars. Information technology is now universally recognized as the core of future warfare, sometimes labelled the Revolution in Military Affairs (RMA). ((Medeiros et al., 2005; 208). The idea of the RMA is the argument for the US Government head-on approach to IT developments in China, the most important being Huawei. The USG banned companies from using Huawei networking equipment as far back as 2012, during the Obama administration. The current trade war has served to put it on the table and have its inputs included in the US Department of Commerce's Bureau of Industry and Security Entity List in May 2019. It followed an executive order from President Trump to effectively ban it from US communications networks. In April 2020 Trump banned China Telecom from operating in the US as well.⁶

The war against Huawei launched after the 5G has been even more aggressive than before. The initial US reaction was a mission sent to Australia and New Zealand to prevent their Governments from allowing Huawei and ZTE to operate 5G there. Other missions went to the United Kingdom and Germany. Soon after, in May 2019. President Donald Trump signed an executive order that banned the use of Huawei equipment in U.S. telecom networks on national security grounds, and the Commerce Department put limits on the firm's purchasing of U.S. technology. Simultaneously AT&T launched its 5G technology. The question was not if it serves or not national security, given the world is composed of 192 countries but rather, whose national security might be at stake. That is the problem for the US for coming late in the 5G game when China already sets the

⁴ <https://www.state.gov/deep-dive-how-the-u-s-is-addressing-5g-and-security/> 26 Nov 2019

⁵ <https://www.state.gov/deep-dive-how-the-u-s-is-addressing-5g-and-security/> 26 Nov 2019

⁶ Arjun Kharpal "Trump administration seeks ban on China Telecom in US citing 'unacceptable' national security risks", seen on <https://www.cnn.com/2020/04/10/trump-administration-asks-fcc-to-ban-china-telecom-in-us.html> on April 11, 2020.

rules. As retaliation for being in the winning position, the US took away Google/Android services from new Huawei phones by implementing a trade ban against the company in February 2020. It ensures Huawei cannot launch devices like the Mate 30 series in as many markets as it would have liked. The object of this move is to have the firm lose the smartphone business altogether. However, the reaction by Google was to try to recover the Huawei business as the Chinese firm develops its apps.

Almost at the same time, on February 13, 2020, the USG charged Huawei with federal racketeering and conspiracy to steal trade secrets from American companies in a Federal indictment in Eastern district, New York court. There are eight alleged affected firms. Other measures taken in March 2020 include US Government rules to cut off Huawei from global chip suppliers. Under the new measures, foreign companies that use American chip-making equipment would first need to secure a license before supplying some chips to Huawei. The impact on the small US chipmaker exporting industry is esteemed to be very large while the firm now generates its inputs.

The question with Huawei, despite the Rand Report, is if it can make a better product much faster and cheaper. The speed of innovation is the case in almost all industries and resembles de UK's profit squeeze that squashed British production firms until they disappeared. (Glyn and Sutcliff, 1972) US firms seem unable to make high-quality products at reasonable prices fast enough to compete with the next generation made abroad. At the time of the death of the product life cycle, speed of innovation is everything, and costs are the next thing.

The essence of the national security aspect of the trade war against Huawei lies in the argument of the military origins of IT in China. Therefore, the unproven argument is that these firms are a military extension. The unusual feature of Huawei is its size and not being listed in any stock market, thus belonging entirely to its workers in a coop fashion with a rotating CEO. The military origins of IT in China are not in question and holds true in the West. IT and telecommunications appear to be strongly related to military development needs throughout history. However, for example, from the military origin of COMSAT (Whalen, 2014), the first US communications satellite put into orbit in 1964, by a firm that belonged partly to the US Government to its later use, there was a leap and a breakup. COMSAT Corporation was created by the Communications Satellite Act of 1962 and incorporated as a publicly-traded company in 1963. The difference would be that Huawei is a cooperative and not publicly listed, yet.

The White House in March 2020 issued the *National Security Strategy to Secure the 5G* paper signed by the President. It starts with a statement on Chinese policy: "Malicious actors are already seeking to exploit 5G technology. This is a target-rich environment for those with nefarious motives due to the number and types of devices it will connect and the large volume of data that those devices will transmit." The paper starts by not recognising Huawei's success in launching 5G technology. It says, "The United States and like-minded countries will lead global development, deployment, and management of secure and reliable fifth-generation (5G) communications infrastructure, which includes hardware, software, and services used to provide 5G." The fact that it has not led it and 5G is in the market (Huawei P40 cell phone and the Cloud-Native 5G Architecture), and in use around the world, is not taken into account. She has lost the battle but thinks the battle is about to start. For the rest of the world already into 5G technology, the US lost that one.

Cell phone equipment The development of mobile phones began in the US in the 1970s when Motorola invented the first handheld cellular mobile equipment. That was the start of the first generation mobile telecommunications 1G. From then on, there have been five generations of cell phones; these converted into smartphones in the 3G with Android and are computers with programmes installed that also serve to transmit voice. The twist came when Nokia in 1991 introduced a lightweight handheld mobile phone with batteries; a development from previous equipment that weighed ten kilograms. Finnish Nokia all but disappeared in 2011, and also US-made Blackberry introduced in 1999. They were displaced by the US designed Android Operating System introduced into cell phones by Samsung in Korea in 2011. Since then, the market grew for Korean Samsung equipment and Chinese Huawei and Xiaomi, with one American cell phone company, Apple, that does not use Android OS. Google later purchased Android. After that, Google incorporated its products into the Android OS and the Google play store of apps. With the Android OS incorporated into cell phones, based on Linux, it can be used freely by any mobile phone manufacturer. Apple uses an OS, only for Apple iPhones, different from Android,⁷ used worldwide. The USG has forbidden the sale of Android OS to Huawei.

Laptop computers. The process of laptop computer development began in Britain with The Grid Compass designed in 1979. In 1981 Japan launched the Epson HX-20, battery-powered with a built-in printer. This was followed by Gavilan Computer Corporation, with the first "laptop" computers, as we know them now, in May 1983. That same year Radio Shack released the TRS-80 Model 100, which resembles the modern laptops of today. Compaq Computer released its first notebook PC, the Compaq LTE, in 1989 with much more power and speed than the previous ones. Apple Computers released in October 1991 its Macintosh PowerBook 100, 140, and 170—all notebook-style laptops. All were American or British, save Epson, Japanese. However, the market share of laptops flipped between 2011 and 2019, with American laptops having less than 47.5% of the world market while Lenovo increased its share, and with other non-American computers make up over half of the market.

Home entertainment devices are a derivation of record players and television sets, all in one plus the computer aspects and online mechanisms to have music and television streaming for continued home entertainment plus electronic games were American and European sets. The transformation of the equipment and the transformation of world demand and technological transformation landed in a world where the top brands are two Korean, three Japanese, three US, one German, and one Dutch. There is a sharp loss of territory here as well.

3. The theoretical implications of the trade war

From the viewpoint of conventional international trade theory, slapping tariffs unilaterally does not compensate either wage differentials nor productivity differentials. The only effect it has is to increase prices in the importing country and thus protect inefficient industries in that country. The tariffs imposed on steel, aluminium, washing machines, cars, and electronic goods, to name the most visible, protect productivity companies. These firms have proven they are no longer efficient, and in some cases, like the car industry, have been rescued by the Government repeatedly. The automotive industry is very efficient in the world, but not in the US, and tariffs do not make up for

⁷ <https://www.androidauthority.com/history-android-os-name-789433/>

that element. Do they deserve protection, or is it a matter of national security? Is the problem, China's innovation? Or the loss of US industrial productivity? Tariffs do not replace either the speed of innovation nor productivity improvements.

From a global political economy standpoint, the effect of losing market shares over the long run to new Chinese firms weakens the current leading economy and disperses economic power among other countries that also eat into that (lost) market share. To compensate for the loss of economic power, the US intervened in the WTO and dismantled its court of arbitration, arguing it always favoured others and never them. The consequence is that the US-led multilateral trading system no longer exists, and the US presents itself as the alternative for trade arbitration, becoming *part and parcel* of most arbitration cases. The effect downriver is that the US becomes the nucleus for all trade arbitration if trade contracts are in US dollars or if they refer to the US in some way. What is lost in economic power then is compensated by a forced increased role in international policing? Maybe the example of this is the detention in Canada of the Huawei CFO for a supposed violation of a US sanction on Iran a decade earlier. The message was who calls the shots, with or without reason. From a political economy angle, some economic aspects are weakening, but the institutional political aspects are not, while her enforcement power remains intact, and the US dollar remains as the leading international currency with the consequences of that.

The international liberal order built around American led multilateralism after WWII appears to be in the process of breaking up for what seems its replacement by an attempted unilateral order led by the US Government. Such unilateralism, however, is faced with the newly increasing role of China and the multipolar world emerging, with Russia as an actor of military might. The XXIst century is the end of the American century and the start of a multipolar world that will include it.

The death of multilateralism and the significance of UN agencies might resemble the death of the League of Nations after the 1938 fiasco. The demise of increasingly irrelevant UN agencies, like the Security Council, the WTO, the IMF, and now the WHO, presents the question of International Governance, despite the America First policy insistence. The weakness of the WHO might have had an impact on the spread of coronavirus yet the institution needed for future pandemics need have more binding powers.

If the compulsory submission of the enemy to the victors' will is the ultimate object of war, the US is nowhere near that goal. However, if the final aim of economic war is the bankruptcy of the other countries' firms, the fight is going strong. If Huawei tumbled, however, the Chinese government would rescue it for reasons of national security, much like the airline industry in most of the world. Neither country wants its telecommunications managed by another countries' firm for security reasons. Maybe they need not.

What is clearly at stake is who leads the clean energy revolution. It is also very distinct that the US wants to have dirty energy. The weight of the oil industry in her economy and political power structure has been influential since the 1920s, remains so, and resists any changes in the energy matrix. The trade war in this field is apparent, and so is the leader. The electric automotive industry is equally led by China and resisted by her, like electronics, cell phones, telecommunications, and aviation. Tariffs will not

compensate for the loss of dynamism of those fields in the US, nor will it balance a four times export imbalance.

The concept of globalization, as defined by Ohmae in 1990, had the end of the Nation-State in mind. The idea was increased interdependence, where the Government would become irrelevant as economic practice would lead the way in the hand of firms. All economic reforms to reduce Government and give firms more power in the domestic sphere were in that direction. The result would be a single world market where each would produce what it could more efficiently. Thirty years later, with a US-led trade war on course, this was not the expected result at all. The losers are piqued. The winners are not the expected ones. Borders do exist, and so do tariffs and trade wars. Governments exist and represent both private and national interests. Tariffs are as much about protecting weak industries as about showing how *macho* a country can be when it feels its future world role threatened. Governments in all but three countries shrunk.

With the concept of globalisation gone, the concept of global value chains is in question. How can lines of production be distributed globally if at least one main actor interferes negatively? The argument is that it is a populist strategy, but it reflects the frustrations of having generated a domestic obsolete industrial sector and massive unemployment plus income concentration, instead of having renewed it. Investing in China and Mexico was the solution to productivity problems through wage cost reduction. China learned from this experience, Mexico did not. Now the US economy has a massive industrial wasteland that it wants to recover, very similar to the UK's industrial wastelands. The number of people not included in the labour force grew, and the number of graduates that do not enter the labour force has also grown. A return to domestic value chains is the US proposal to recover its economy, much like the UK's Brexit idea. The idea of domestic value chains relaunches the concept of industrialization policies for development and opens the Chinese model as a revamped development model.

International Financial Institutions have been the international chains of transmission of economic ideology since the 1980s. Before, it was the UN agencies like UNDESA, ECLA, UNCTAD, ILO, and others. The post-1980 market ideology went with the globalisation concept following Austrian based economic principles of small government and free trade, society turning into a sum of individuals related to exchange, and financial results being most important in a society measured by the Darwinian law of the fittest. With the US having taken back the idea of free trade and having restored the idea of Government in economic activities through its multiple rescue schemes over the past thirty years, as well as in R&D funding, the question is what will the Treasury and US Congress do with the IFIs. Are they to continue to enforce the economic principles installed in the 1980s? Alternatively, will there be a change? If the US Treasury does not lead the change, this will not occur as the US would veto it, as it has in the past with smaller-scale reforms. Might we be at the end of these institutions and the beginning of others as irrelevance covers their performance as it covered the Bank of International Settlements and the League of Nations after 1938? Is a new China-led international order on the way? Global Governance needs a major shift and more binding agreements and more sound institutions. IFIs failed in having economic recovery after the 1980's debt crisis. There is less growth after 1990 than ever before for those who followed their economic prescriptions.

Zakaria (2020) argues the United States risks with its China policy encouraging Beijing to adopt confrontational policies of its own, leading the world's two largest

economies into a cold war with China likely to be much longer and costlier than the one with the Soviet Union, with an uncertain outcome.

4. Conclusions

In this paper, we have reviewed the trade war from the standpoint of the definition of war taken to the economic field. The loss of territory is the loss of market share. The introduction of new technologies ahead of time as the definition of the law by the leading actor. Evidence points in the direction of the US losing market share in the most dynamic economic sectors and countries. The point of the liberal international order established through the Bretton Woods institutions was to ensure free trade for those nations who had the technological lead and prevent unilateral protectionist reactions. This paper reviewed the unilateral introduction of tariffs by the US and specific outright prohibitions. The role of multilateral institutions is to put conditionality leading to keeping the economy open. The US, with its veto power, has not changed IFI conditionality, yet, in order to change the international rules of the game. It points in the direction of keeping the world open while the US closed up.

In terms of Ricardian international trade theory, the US appears to be losing comparative advantage. The Heckscher-Ohlin idea that product choice can prove itself to be of great advantage when led by free and open markets instead of using only the resources available inland appears is unaccounted. The more recent Porter theory that the success of any business in international trade depends on upgradable and innovational capacities of the industry seems to be holding with Chinese firms leading the way. However, Ohmae's idea that the world is flat with one market led to income concentration and slow growth in the West. US protectionism and Brexit question this idea. The functionalist idea in international relations that collective governance and interdependence between states would develop its internal dynamic as states integrated with limited functional, technical, and/or economic areas has become obsolete. The institutionalist approach that multilateral institutions set the rules of the game has become obsolete as multilateralism has been left aside by the major actor. The realist approach that States matter and define their policies according to their interests appears to hold in this new emerging multipolar world order.

The trade war finally has shaken up the theoretical frameworks established after WWII and consolidated more modern views while indicating US weakness in the face of another more dynamic economy. Tariffs do not resolve these issues. New international institutions appear to be required to solve the problems posed by the trade war and the coronavirus crisis that ensued. These will, more likely, not be US-led. The process from now till then will be slow and conflict-filled.

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