European Research Studies Journal
Volume XXIII, Special Issue 2, 2020

pp. 840-853

US-China Technological Rivalry and its Implications for the Three Seas Initiative (3SI)

Submitted 20/08/20, 1st revision 26/09/20, 2nd revision 22/10/20, accepted 25/11/20

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Abstract:

Purpose: *The article aims to explore the motivations and balance of power in the US-China technological rivalry in the semiconductor and AI sectors. The secondary goal is to explain how changes in the distribution of power between China and the US affect the behaviors and security of the 3SI.*

Design/Methodology/Approach: *The authors adopt the neorealist approach, which focuses on the analysis of structural shifts in the distribution of material power among China and the US and their influence on states' behaviors. The paper focuses on the semiconductor and Artificial Intelligence (AI) sectors as they are considered to play a crucial role in the economic development in the first half of the 21st century.*

Findings: *Microprocessors and AI are identified as the key technologies for successful internal and external threat balancing, ensuring state security in the medium- and long-term. It is also argued that systemic US-China rivalry imposes structural stresses on the international system, and this process also exerts influence on the security in the 3SI region. Governments of 3SI are prompted to reduce the scale of cooperation with China by adopting a more restrictive approach toward the 5G procurement rules, digital infrastructure, and Foreign Direct Investment. China's rising technological capabilities serve as the primary motivation behind the US efforts to create the block of democratic digital economies oriented toward balancing China's rising power.*

Practical implications: *Given the increasingly competitive nature of the international economy, it becomes imperative for state actors to promote the innovation-driven development which guarantees the advancement in Global Value Chains (GVCs) and sustained high growth rates.*

Originality/Value: *The analysis provides a concise assessment of the state of technological rivalry between the US and China as well as insights into how this process may influence regional initiatives and frameworks.*

Keywords: *USA, China, technology, security, Three Seas Initiative, AI, 5G, semiconductors.*

JEL Classification: *O33, O51, O53.*
Paper type: *Research article.*

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** Participation in the publication financed under the project implemented in the RESEARCH GRANT Program of the MINISTRY of NATIONAL DEFENSE REPUBLIC of POLAND.*
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1. Introduction

The study attempts to provide an empirical analysis of US-China technological rivalry regarding Artificial Intelligence and semiconductors, which are concordantly recognized by state agencies, academics, and practitioners as the key technologies for future digital economies. The goals also include exploring the influence of these changes on the Three Seas Initiative (3SI) member states' behaviors and security.

Authors adopt the neorealist approach, which conceptualizes states as rational, unitary actors driven by the pursuit of power and security. This overarching motivation is imposed by the system, which is organized by the principle of anarchy. Anarchy is defined not as chaos and disorder but as the lack of paramount authority that settles disputes among states. Distribution of power is defined as the most influential factor shaping a state's behaviors. Balance of Threat theory adds the perceptual and geographical component to the analysis as its major assumption is that states do not simply balance the actor's power, but they balance perceived threats (Walt, 2013).

Since the beginning of the 2010s, China's technological and economic advancements have been drawing greater attention from policymakers, think-tanks, and academics. China's economic growth and advances in global value chains (GVCs) have elevated competition for the US and European companies. These changes in the distribution of power were accompanied by a wide-ranging and intensive internal debate in the US about the nature of China's rise and the optimal way to accommodate it (Friedberg, 2015; Paszak, 2020a). Now, there is a bipartisan consensus among the American elites that China poses the most serious challenge to the United States' long-term domination. According to BoP and BoT, these developments will determine strong internal and external balancing efforts by the US to thwart or reduce

While acknowledging advances, most studies also emphasized the limitations of China’s technological transformation (Paszak, 2019; Wohlforth and Brooks, 2016; Grimes and Young, 2017) or the reliance on the absorption/forced transfers of foreign technologies (Cheung, 2016; Levine, 2020). There is already an extensive and dynamically growing body of literature dedicated to US-China strategic competition; however, despite this great interests of researchers, the issue of the impact of this phenomenon on the development of the 3SI has attracted only a little attention from the research community with the notable exception of work by Lewicki (2019) and Dziewiałtowski-Gintowt (2019). While both papers provide valuable insights into some aspects of the 3SI development in the context of US-China technological rivalry, their research objectives are different, necessitating more studies in this area.

2. US-China Technological Rivalry in the Semiconductor Sector

Semiconductors must be considered the single most significant technology for the future of Sino-American strategic rivalry as they enable other emerging technologies as AI, 5G, ICT or Quantum Computing to reach their potential (McKinsey, 2018).

Given the processes of informatization of warfare, integrated circuits are indispensable in safeguarding advantage in C4ISR systems. Without access to the 'gold standard' of semiconductors, it will be impossible to achieve the dominant position in the high-tech industry and military, as almost every device using information incorporates some type of microprocessor (SIA, 2020). It is exemplified by the continuous rise of the semiconductor sector in terms of the global market's value. As the processes of digitization of society and the development of the "Internet of Things", microprocessors will become the basis for the functioning of both individuals and entire branches of the economy (Deloitte, 2018).

According to Deloitte's calculations, the world's semiconductor industry generated $515 billion in revenues in 2019, almost 170 billion more than in 2016 (345.85 billion). The industry's main driving force is the dynamically growing economies of Asia and the Pacific, which cover approx. 76% of the global market and the key links in the ICT sector's production chains. China alone in 2019 purchased processors with a total value of USD 304 billion, which is 66 billion more than the funds allocated to the purchase of crude oil (USD 238 billion).

Despite the huge demand for this technology, the Chinese semiconductor industry is still in its infancy and is clearly inferior to its rivals in the US, Taiwan, South Korea, Japan, and Europe. According to the Semiconductor Industry Association (SIA) calculations, producers from the PRC account for 5% of the global and 16% of the domestic market, and these are mainly integrated circuits with a lower level of sophistication. The difficulties of Chinese enterprises are that, unlike less advanced industries, microprocessors' production is based on the extremely intensive use of capital and knowledge, with the simultaneous requirement of a mature technological and business ecosystem. New companies also must deal with corporations with significant advantages due to first-entry economies of scale, brand recognition, or patents.

The Chinese government responds to the worsening international conditions through a series of programs and policies that favor the development of the domestic semiconductor sector. In June 2014, the State Council published the National Integrated Circuit Industry Promotion and Development Program (国家 集成电路 产业 发展 推进 纲要), which managed to raise USD 150 billion in investment funds, which shows the importance the Chinese authorities attach to this issue. The strategy's goal was to support and create "National champions" capable of competing with Western corporations.

The second instrument of support for the sector is tax reliefs and exemptions for companies producing advanced microprocessors. For example, SMIC - currently the largest semiconductor manufacturer in China - owes its position to benefiting from tax exemptions granted for a period of 10 years and cheap loans from state-owned banks. The effectiveness of these mechanisms prompted the Chinese authorities to extend them to other promising companies. On August 4, 2020, the State Council of

the PRC issued a document entitled: Policies to Promote High-Quality Development of the Integrated Circuit and Software Industry in the New Era (新时期 促进 集成电路 产业 和 软件 产业 高质量 发展 的 若干 政策). For manufacturers of integrated circuits with a standard of at least 28 nm operating on the market for at least 15 years, it provides for a tax exemption for 10 years. Under the Made in China 2025 program, initiated in 2015, joint-venture companies aimed at transferring knowledge and know-how from foreign companies were strongly promoted.

During the 2017-2020 period, the US administration took significant steps to curtail China's advances in the sector. On the 6th of November 2020, H.R.7178 - CHIPS for America Act was introduced in House. The planned legislation aims to provide support for the semiconductor industry through a slew of measures. It includes $3 billion for the National Science Foundation (NSF), $2 billion for the Department of Energy, and $2 billion for the Defense Advanced Research Projects Agency (DARPA) for R&D purposes. CHIPS Act also proposes the creation of the National Semiconductor Technology Center, aiming to facilitate the cooperation between private actors and government agencies in microprocessor research. It plans to establish a $10 billion program to create incentives for US companies to build a sophisticated semiconductor production base in the country.

CHIPS also called for tax credits for qualified semiconductor equipment or manufacturing facility expenditures through 2027. Lawmakers proposed a 40% refundable income tax credit for qualified semiconductor equipment or investment expenditures through 2024. The tax credit will be reduced to 20% through 2026 and phased out in 2027. In many regards, these instruments are similar to public policies introduced by China to facilitate the development of its microprocessor industry.

Sanctions against Huawei also play an important role in the power struggle between the US and China as access to advanced semiconductors is necessary for the 5G devices. On the 17th of August, The US Bureau of Industry and Security (BIS) further restricted access of Huawei Technologies and its non-US affiliates on the Entity List to items produced domestically and abroad using US technology and software. Foreign semiconductor companies were prevented from selling chips developed or produced using US software or technology to Huawei without first obtaining a license. It created significant leverage over the Chinese company, which is still reliant on US technologies.

However, the Chinese market is the main destination for the US chips, and therefore the leading producers will strive to reduce the scope and depth of these restrictions. No matter the result of the US presidential elections of November 2020, the semiconductor sector will play a pivotal role in the US internal and external balancing actions. For China, the indigenous industry's development has become a developmental and strategic imperative as it remains heavily reliant on imports ($304 bln in 2019). In the coming decades, it is therefore very likely that this field will be

one of the major areas of US-China technological competition and will profoundly influence the changing distribution of economic power.

3. Strategic Rivalry between the PRC and the US for AI Domination

Both the communist elite of the PRC and the American administrations have long viewed artificial intelligence as one of the many tools suitable for developing and sustaining hard power. In the USA, this was due to the established and proven market structures and mechanisms, which have successfully stimulated the American economy and armed forces' innovation. The assumptions of the CCP that China is to make a technological breakthrough and build a modern economy resulted in the implementation in 2006 of the National Outline for Medium and Long Term Science and Technology Development Planning for 2006–2020, which aimed to transform China into one of the most innovative economies in the world. However, research on AI was not mentioned among the indicated scientific and technical priorities (Serger and Breidne, 2007).

In 2015, the State Council presented guidelines for the Internet + program to integrate the Internet with the economy and society. It also emphasized the need to develop AI technology. The same year, the 10-year "Made in China 2025" plan was adopted to make China a major player in the global high-tech market (Roberts, Cowls, and Morley, 2020). The breakthrough, however, took place in March 2016. The AlhaGo algorithm, created by DeepMind, a company owned by Google, defeated the Korean champion Lee Sedol, the second player in the Go world ranking. This fact did not attract much attention in Europe, but in China, 280 million people watched the match broadcast (Metz, 2016). As Kai-Fu Lee notes, this event triggered a real artificial intelligence fever in China (Lee 2018, p.15). Already in May 2016, the CCP adopted a national strategy based on innovation. China has been recognized as having a historic chance of gaining an advantage over the US if it becomes the technological revolution leader. It was also a response to the American project to modernize the armed forces of 2014, the so-called third offset strategy complementing the Defense Innovation Initiative. They aimed to identify and invest by the US in innovative ways to maintain and develop US military dominance in the 21st century (Louth and Taylor, 2016).

For several years, the PRC's military budget has accounted for a third of US spending. According to SIPRI data, in 2016, the US spent USD 611 billion, and the PRC - USD 215 billion (Tian 2017, p. 328). Such a significant disproportion causes the PRC - instead of directly competing with the USA - to develop asymmetric abilities to effectively deter, based on the concept of shashoujian (杀手 锏) "killer club" used since the 1990s (Lai and Rahman, 2012)). The concept of this "lethal weapon" is based on one of the principles of the Sun Zi strategy - hitting the spot where the enemy is most vulnerable. It was decided to combine Western technology with Eastern strategic thought and created, at relatively low cost, several "lethal weapons". As a result of the analysis of the USA's wars, it was concluded that in the 1990s / 20th

century, one of the most vulnerable areas to asymmetric attack was the infrastructure of American information networks. China has created an effective cyberattack in the world (Lai, Rahman 2012, p.41). The defeat by the AlphaGo algorithm of the master in the Go game, which in the Chinese tradition was the basic tool in exercising strategic abilities, made Chinese strategists aware that AI is an opportunity to break American military and technological domination and gain strategic domination (The Chinese approach, 2020).

In July 2017, the PRC State Council published the document "the New Generation Artificial Intelligence Development Plan (AIDP) (新一代 人工智能 发展 规划, 2017). It is supposed to make it possible to take advantage of AI development's strategic possibilities, build China's advantage in this area, and accelerate the construction of an innovative state and a global scientific and technological power. The document combines a pragmatic and precisely marked path of AI development, recognizing that it is a key element of the PRC's development strategy and integrates all elements of the political, military, economic, and social structures. AIDP identifies three strategically important areas for AI development - international competition, economic development, and social management.

The document states that AI has become a new subject of international competition and its development is the main strategy to increase the country's competitiveness and protect national security (新一代 人工智能 发展 规划, 2017). The document provides for the coordination of the economy and defense system and the creation of a new pattern of their deep integration and active participation in global research, development, and management of AI. AIDP recognizes the need to expand fundamental research into AI, including big data, intelligence theory, cross-media sensing, and computing theory, hybrid and enhanced intelligence theory, swarm intelligence theory, autonomous coordination and control, and optimized decision-making theory, high-level machine learning theory, brain-inspired intelligence computing theory, quantum intelligent computing theory. On this basis, a new generation of AI technology is to be created, and system platforms such as AI Open-Source Hardware and Software Infrastructure, the Intelligent Service Platforms group, or AI Basic Data and Security Detection Platforms (PRC State Council, 2017).

According to the "Deciphering China's AI Dream" report, which was one of the first in-depth analyzes of the AIDP program in the West, it emphasizes that it clearly shows the PRC's ambitions to lead the world in artificial intelligence (Ding, 2019, p. 4). In the context of rivalry with the United States, the Chinese strategy authors emphasized the rapid development of AI in the military sector. The authors of the report expect the PRC to make a breakthrough in AI military technology on this path and leapfrog the American military potential. For this purpose, the national strategy of "civilian-military integration" (军民融合/軍民融合) was implemented. It is to prepare the armed forces for actions in intelligent wars (Kania, 2019).

In the 2019 Defense White Paper, the emphasis was placed on applying cutting-edge technologies in the process of modernization of the People's Liberation Army. The documents state that "the application of cutting-edge technologies such as artificial intelligence (AI), quantum information, big data, cloud computing and the Internet of Things is gathering pace in the military field" (Paszak, 2020, p. 59-60). Science and Technology Commission of the Central Military Commission (中央军委科学技术委员会) is one of the leading actors in the process of facilitating the development of AI in the army. In 2017, China established a The Military Science Research Steering Committee (军事科学研究指导委员会) to develop cutting-edge military technologies in the latest step to modernize its armed forces. Its role is like that performed in the USA by the Defense Advanced Research Projects Agency (Analysis, 2019, p. 22). Liu Guozhi – the director of the CMC Science and Technology Commission, is a strong advocate of integrating AI with human intelligence. He claims that "Combining AI with human intelligence may be the optimal solution, and human-machine hybrid intelligence will be the highest form of future intelligence" (Guozhi, 2017).

The Chinese army wants to attain a comparative advantage in this field, developed in the USA for years by the Defense Advanced Research Projects Agency (DARPA). Already at the end of the twentieth century, Chris Hables Graj emphasized that the research was aimed at creating "a more sophisticated combination of man and machine: a model of a soldier as a cybernetic organism, endowed with the endurance of a machine and enhanced intellectual abilities of a man subordinated to the weapon system" (Gray, 1997). Jan Waszewski from more recent perspective, emphasizes that "the American army is working on a thorough transhumanist project. It aims to create soldiers who, thanks to the use of technology, will be something more than ordinary people" (Waszewski, 2015).

The Chinese army wants to explore the so-called hybrid intelligence (混合 智能), which is supposed to be a combination of human intelligence with machine intelligence. The PRC seeks "synergy between brain science, artificial intelligence (AI) and biotechnology, which is expected to have enormous consequences for the future military power" (Kania, 2019, p. 83). As part of the army's new, innovation-driven strategy, many universities and research institutions were integrated in July 2017, and the National Defense University of the Chinese People's Liberation Army (中国人民解放军 国防大学) was created.

China's AI strategy made it the main instrument of modernization and a technological and civilizational leap forward of the entire state and strategic domination over the USA. The results of this plan, implemented by the CCP, forced the US to re-interpret its AI approach. In February 2019, President Donald Trump announced a strategic initiative to develop artificial intelligence (Trump, 2019). Like the Chinese AIDP, it assumed an integral approach to AI. It was to become the main factor of economic development, increase in national security, and improve life quality. It was recognized

that maintaining the U.S. leadership in AI technologies translates into national and economic security and ensures that the United States shape the global evolution of artificial intelligence in a manner consistent with Washington's values, policies, and priorities. However, this document did not have the rank of a strategic act. However, its consequence was the acceleration of the temporary National Security Commission for Artificial Intelligence (NSCAI), established in August 2018. It was to prepare and present the necessary recommendations to ensure the US maintains its dominance in the field of AI. The Chinese reaction to these actions was the White Paper "China's National Defense in the New Era," published in July 2019 by the Council of State.

The document strongly emphasized that intelligent war is on the horizon, and the ongoing revolution in the military dimension will change the very mechanisms of victory in a future war (PRC State Council, 2019). The global pandemic has stimulated the development of AI. However, China turned out to be the main beneficiary of these processes in terms of developing artificial intelligence technologies. An excellent research field for the PRC's military sector was the opportunity to test many solutions in the fight against COVID-19. Such possibilities resulted from the high level of penetration of the military and civil sectors in the PRC. The American NSCAI, in an extensive document of 268 pages, published in October 2020 a list of 66 recommendations that boil down to the need to develop a coherent AI strategy. The emphasis should be placed on increasing technological competitiveness, broadening talented AI specialists' development paths, and accelerating cooperation with NATO allies in supporting and developing AI technologies (NSCAI, 2020).

4. US-China Technological Rivalry and the Three Seas Initiative

US-China geopolitical rivalry in the domain of advanced technologies will largely determine Central and Eastern Europe (CEE) states' security and behaviors, which are members of the Three Seas Initiative. Escalating tension in relations between the US and China, coupled with the contest for Global Value Chains (GVCs), produces both political and economic pressures. The US authorities support the initiative, as they perceive it as the potential instrument for balancing the advances of China's Belt and Road Initiative (BRI) in the region and promoting its own economic interests. 3SI countries will be prompted by the US government to effectively exclude or limit the participation of Huawei and other China technological companies in CEE markets. Strategic approaches of 3SI to China countries still vary significantly, but there is a strong pro-American bloc of states (Estonia, Latvia, Lithuania, Poland, Romania) which are likely to align with the US external balancing efforts. BoT indicates that given that these states define Russia as the primary source of threats and the US and NATO are the most credible security partners, those countries will become part of the anti-China balancing coalition.

3SI has a distinct advantage over the BRI since its member nations are part of the EU and NATO, translating into a higher level of trust among developed economies. 3SI

is inspired by the Polish geopolitical concept of Intermarium, which emerged during the inter-war period (1919-1939) and was aimed at creating a counterweight for Communist Russia and Germany (Ištok, Kozárová and Polačková, 2018). 3SI states are bordering the Adriatic Sea, the Baltic Sea, and the Black Sea and cover around 28 percent of the EU's total territory, 114 million people with GDP estimated at some USD 1.6 trillion. Founded back in 2015, the initiative seeks to boost connectivity within the region through investments in transport, energy, and digital infrastructure to overcome the geopolitical East-West axis that has long dominated the region.

Since its inception, 3SI has become the geopolitical interest of leading great powers, including the US and China. Initially, the initiative was open to cooperation with China. However, recognizing the potential of 3SI by the US administration in promoting its strategic agenda changed the framework's direction and dynamics (Lewandowski, 2020). In 2017, during the second 3SI Summit in Warsaw, Donald Trump attended, the USA decided to make a make pre-emptive maneuver and convince its 3SI governments to a less inclusive approach. Despite the interest from Beijing, there were no representatives of China at the common table. Trump's participation aimed to strengthen US influence in the region and block Chinese competitors (Kowal and Orzelska-Stączek, 2019).

3SI is also an area of competition not only in the geopolitical but also in the cybersecurity dimension. For the US, this region is also a prospective market for the ICT market, which manifests itself in the rising purchasing power of local economies. Due to the high level of tension in relations between the NATO members and Russia, the region is often a target of cyber-attack, providing a useful training ground for resisting Russia in the cyber domain. For Chinese companies, 3SI might be a potential gateway to Western Europe and an attractive market for infrastructure contracts.

However, they face tough competition from EU firms as negative political perception. The location of 3SI on the crossroads of Asia and Europe means that the development of BRI by land must always run through the region's countries (regardless of whether it is from Turkey to Hungary or Russia, through Belarus and Poland). Given the digitalization of economies, China will increasingly try to incorporate cyber and high-tech components within the BRI framework. Attractive investments in infrastructure projects might force cooperation and the adoption of Chinese solutions unless met with an equally attractive European or US offer.

In the field of ICT technologies, China will try to negotiate with 3SI countries both on bilateral and multilateral levels (EU-3SI-China or 17+1) and create a network of bilateral agreements and ties to mitigate the US diplomatic offensive. Digital Silk Road, initiated in Brussels in 2015 during the EU-China Round Table, provides the general framework for these actions (Majcherczyk, 2018). In 2012, China established a special 16+ 1 format (currently 17 +1) for cooperation with CEE countries, which also encompasses financial investments, expanding digital infrastructure, and creating digital platforms (Lucas, 2018). So far, it has not lived up to its promises, as

exemplified by the general low level of Foreign Direct Investments (FDI) and mounting trade deficit (Paszak, 2017). A more assertive US, NATO, and EU approach toward China's participation in building critical infrastructure in Europe creates another serious obstacle for its technological expansion in the region and might limit it to individual states such as Hungary.

Everything indicates that 3SI countries are aware of the geopolitical position and importance of cyber geopolitics. US-China technological rivalry does not only prompt binary strategic choices but also greater integration of the region. As part of unanimity and the development of a cooperation strategy in cybertechnology, CEE Digital Coalition was established through the Warsaw Digital Declaration. It is a coalition of companies from the digital industry of 3SI countries. Its task is to define countries' economic demands, act as a think tank for governments, and build a digital infrastructure through the research potential of 3SI countries together with their current technology base. The project also involves developing innovative solutions in the field of artificial intelligence and robotics (Warsaw Digital Declaration, 2020). It is an alternative to China and the USA's geo-economic influences in the region and emphasizes the need for cooperation in cyber CEE countries.

The states of the 3SI region are developing their own strategy of cooperation with world powers. First, they themselves have a specific, globally competitive cybersecurity potential in the form of industrial security systems based on IoT and RCADA devices, programming code security, biometrics, and identity verification (Świątkowska, 2020). Several cybersecurity tycoons in the Three Seas region can play a significant role in the future, such as PassCamp iDenfy, NISPS by ESTEQ (Lithuania), TypingDNA, East-tec (Romania), SECFENSE (Poland), Olympus Sky (Poland), Avatar (Hungary), WebTotem, Trapmine Defense (Estonia). All the above functions as cybersecurity support systems in various sectors. In addition to them, we are dealing with companies with an established international position: Avast (Czech Republic), ESET (Slovakia), Bitdefender (Romania).

Nevertheless, the United States' political influence might be a decisive factor regarding China's participation in the digital infrastructure and services in 3SI. By the end of October, joint declarations with the United States on the security of 5G networks were signed by Romania (August 20, 2019), Poland (September 2, 2019), Estonia (November 1, 2019), Latvia (February 27, 2020), Lithuania (September 17, 2020), Slovenia (August 13, 2020), Slovakia, Bulgaria and North Macedonia (October 22, 2020).

Moreover, The Czech Republic entered a dispute with Huawei and ZTE, spoiling positive relations with China (Dębiec, Groszkowski, Bogusz, and Jakóbowski, 2019). Among the 3SI countries, there is more and more awareness that Huawei is a tool of Chinese geopolitics, aiming to gain a major position in the 5G and IoT market, and then impose standards and technological solutions through the economies of scale. For most of the above-mentioned countries, the United States is the main security

partner that ensures credibility to NATO commitments. Due to the limited military and economic potential of the eastern flank countries, their maneuver scope about the 5G issue remains very limited. The increased risk of the withdrawal of US troops from Europe means that the governments of Poland, Romania, and the Baltic states do not want to risk an unnecessary dispute in relations with Washington. The only significant exception is Hungary that has developed a strategic partnership with China and maintains good relations with Russia.

Poland and the 3SI countries seem to be interested in cooperation in the field of AI with the USA. The coronavirus issue has exacerbated the distrust of the Chinese partner. It turns out that this may have been a turning point for Chinese ventures in the region. Mike Pompeo's announcement in Munich during the Munich Security Conference about pumping $ 1 billion into 3SI is realized. Microsoft will invest 1 billion in Poland to expand and strategic cooperation with the Operator Chmury Krajowej, PKO Bank Polski, and the Polish Development Fund (Pawłowski, 2020). In 2019, a strategic partnership was signed between the National Cloud Operator and Google. This shows the strong turn of Polish cybersecurity towards the USA. Cooperation with Google and Microsoft in Poland is to create a need for 150 thousand. Specialists in the field of AI, machine learning, advanced data analytics, and IoT, and consequently make Poland a digital communication hub in CEE, directly subordinate to the USA and connecting 3SI countries.

The 3SI summit in Tallinn was held together with Google's representative, Pablo Chavez, who presented the CEE Google.org Impact Challenge. The USA's very involvement in 3SI results from the geostrategic reevaluation carried out in 2019 and 2020. It relates to recognizing the potential of developing countries in CEE. Since then, the presence of American diplomacy has become more and more aggressive (Popławski and Jakóbowski, 2020).

As an area of developed and developing countries, the Three Seas region offers a whole range of larger and smaller fields of rivalry between the USA and China in terms of AI and 5G. These will primarily be "smart cities" developed in Central Europe through cooperation with the Chinese (mainly Hungary, Slovenia, Croatia) (Dziewiałtowski-Gintowt, 2019), 3 Seas Digital Highway project of a community 5G technology infrastructure, data islands or AI; development of industry 4.0 (mainly fin-tech, cybersecurity, electromobility, health-tech); e-commerce centers (smart warehouses, forwarding systems, logistics centers) (Albrycht, 2018). In Poland's case, these will be investments and developing such segments as the Internet of Things (IoT), cloud computing, and cybersecurity.

5. Conclusions

For 2010-2020 decade the CPC has undertaken broad-ranging efforts to create a world-class semiconductor and AI sectors which are identified as key for the sustaining high-growth rates and ambitious PLA modernization programs. Systemic

US-China rivalry imposes structural stresses on the international system and this process also exerts influence on the security in the 3SI region. Governments of 3SI are prompted by the US political pressure and economic incentives to reduce the scale of cooperation with China, by adopting more restrictive approach toward the 5G procurement rules, digital infrastructure as well as Foreign Direct Investment (FDI). China's rising technological capabilities serve as the primary motivation behind the US efforts to create the block of democratic digital economies oriented toward balancing its rising power. These efforts are facilitated by the deterioration of China's international image in most of the developed economies.

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