



The impact of technological progress on the taiwan issue: the current state and development scenarios

Abstract

This article examines the influence of Taiwan's rapid technological advancement, particularly in the field of semiconductor manufacturing, on the dynamics of geopolitical relations between Taiwan, the People's Republic of China (PRC), and the United States of America. It argues that Taiwan's emergence as a central hub in global supply chains has significantly increased its strategic relevance to U.S.-China relations. This development produces a dual effect since it intensifies the competition of the world's powers and concurrently serves as a deterrent to open conflict, positioning Taiwan as both a potential flashpoint and a stabilizing factor in the Indo-Pacific region. In the 21st-century international system, technological capability is a principal determinant of nations' power, security, and global influence. Taiwan's dominance in semiconductor production not only sustains its domestic economic growth but also renders it indispensable to global technological interdependence. Consequently, the prominence of Taiwan amplifies the strategic implications of any potential cross-strait confrontation, particularly given the PRC's repeated assertions of sovereignty over Taiwan. Furthermore, Taiwan's technological advantage raises critical questions regarding its deterrence capacity and the broader effects of U.S. export controls on China's access to advanced technologies. Methodologically, the study applies a structured analytical framework incorporating SWOT-analysis to assess the strengths, weaknesses, opportunities, and threats that are faced by both Taiwan and the PRC. This approach promotes a systematic understanding of how technological innovation, economic leverage, and military capability intersect in shaping strategic behavior. The findings indicate that Taiwan's technological progress enhances its strategic value, constrains China's geopolitical ambitions, and consolidates U.S. influences in the region. However, the analysis also highlights that an escalating technological rivalry generates new systemic risks, revealing a precarious balance between deterrence and escalation in cross-strait relations.

Keywords

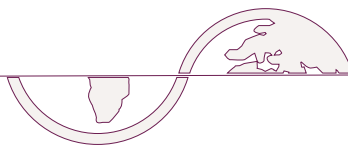
Taiwan, China, USA, Taiwan issue, technological progress, national security, SWOT-analysis

Abstrakt

Niniejszy artykuł analizuje wpływ szybkiego rozwoju technologicznego Tajwanu, szczególnie w dziedzinie produkcji półprzewodników, na dynamikę geopolitycznych stosunków między Tajwanem, Chińską Republiką Ludową (ChRL) i Stanami Zjednoczonymi (USA). Autorka artykułu argumentuje, że gdy Tajwan stał się centralnym węzłem w globalnych łańcuchach dostaw, jego strategiczne znaczenie w ramach stosunków USA-Chiny znacznie wzrosło. Zjawisko to ma podwójny skutek: nasila rywalizację mocarstw, a jednocześnie działa jako czynnik powstrzymujący otwarty konflikt, sytuując Tajwan zarówno jako potencjalny punkt zapalny, jak i czynnik stabilizujący w regionie Indo-Pacyfiku. W systemie międzynarodowym XXI wieku potencjał technologiczny jest głównym czynnikiem decydującym o sile, bezpieczeństwie i globalnych wpływach państw. Dominacja Tajwanu w sektorze produkcji półprzewodników jest nie tylko źródłem wzrostu gospodarczego kraju, ale także niezbędnym elementem globalnej współzależności technologicznej. W konsekwencji znaczenie Tajwanu przekłada się na strategiczne implikacje potencjalnej konfrontacji po obu stronach cieśniny, zwłaszcza biorąc pod uwagę powtarzanie przez ChRL deklaracje o zwierzchności nad Tajwanem. Co więcej, przewaga technologiczna Tajwanu rodzi kluczowe pytania dotyczące potencjału odstrasżającego i ogólniejszego wpływu amerykańskiej kontroli eksportu na dostęp Chin do zaawansowanych technologii. Pod względem metodologicznym opracowanie sięga po ustrukturyzowany model analityczny uwzględniający analizę SWOT w celu oceny mocnych i słabych strony oraz szans i zagrożeń, przed którymi stoją zarówno Tajwan, jak i ChRL. To podejście pozwala uchwycić w sposób systematyczny jak innowacje technologiczne, wpływy ekonomiczne i potencjał wojskowy współkształtują zachowania strategiczne. Uzyskane wyniki wskazują, że postęp technologiczny Tajwanu zwiększa jego wartość strategiczną, ogranicza geopolityczne ambicje Chin i konsoliduje wpływy USA w regionie. Analiza podkreśla jednak również, że eskalacja rywalizacji technologicznej wprowadza nowe zagrożenia systemowe, ujawniając kruchą równowagę między zapobieganiem a eskalacją w stosunkach po obu stronach cieśniny.

Słowa kluczowe

Tajwan, Chiny, USA, sprawa Tajwanu, postęp technologiczny, bezpieczeństwo narodowe, analiza SWOT



Problem statement

The influence of technological progress on the relations between the world's leading powers, particularly China and the U.S., is currently becoming an especially significant issue. This is caused by strategic competition, expansion of spheres of influence, and the desire to dominate at the regional and global levels. Tensions in Washington-Beijing relations are noticeably increasing. The Taiwan issue is relevant in this context, and the study of Taiwan's technological development helps understand its impact on economic interaction and geopolitical stability in the region (Lai, 2024) and capture the distinctive features of U.S.-China relations in the high-tech sphere.

The world's most developed countries are rapidly transitioning to an information society model, where advanced technologies determine not only the political, economic, and social position but the military potential of states. Due to Taiwan's strategic significance in the global supply chain, especially in the production of semiconductors and electronics, its technological progress is directly related to ensuring the national security of many states around the world (Shivakumar & Wessner, 2022). Having historically gone from being a full member of the United Nations to defending its right to recognition, Taiwan has become one of the most progressive democracies in East Asia. Thanks to its vigorous information and technological progress and rapid economic growth, Taiwan has received the unofficial title of an "Asian Tiger."

However, whether Taiwan's technological progress can prevent a war between mainland and insular China and whether the trade restrictions imposed by the U.S. on the export of semiconductors to the PRC will aggravate the international security crisis and initiate a new Cold War remain open questions. Periodic visits by U.S. government representatives to Taiwan, the economic war between the U.S. and the PRC, the confrontational rhetoric of the PRC leader regarding the possible use of force to reclaim the "separated province" by 2027, the authorization of non-military deployment of the army, and the lack of direct military security guarantees from the U.S. in the event of an attack on Taiwan cause concern in the international community as the risk that the conflict will soon escalate is increasing. Therefore, it is important to develop forecasts and strategies to minimize this risk and ensure readiness if the conflict does spiral into an acute phase.

Most research recognizing Taiwan's technological progress as a factor in U.S.-China relations has been carried out by the U.S. National Security Commission on Artificial Intelligence (Hertog & Gerland, 2023). Significant contributions in this field have included Chris Miller's *Chip War: The Fight for the World's Most Critical Technology* and the analytical papers of the Center for Strategic and International Studies at Georgetown University in Washington (Kwan, 2022). Analysts and political observers from the U.S. Institute of Peace, which was established by the U.S. Congress, have also thoroughly studied this issue (Arcuri & Lu, 2022). Besides, the current agenda in this area is covered by world-renowned magazines such as *Bloomberg* (Wu, 2024), *The New York Times*, and *The Wall Street Journal*.

However, the subject has not received sufficient attention in the European research community, and the salient role of Taiwan's advanced technologies in the development of the Taiwan issue is mentioned indirectly at best. This dearth of studies makes our research relevant.

Purpose and Objectives

The purpose of the article is to study the current state and future prospects of the influence of technological progress on the Taiwan issue. In order to achieve this goal, a series of research tasks must be completed. They include:

- establishing the causes and sources of the emergence of the Taiwan issue in international relations;
- determining the level of readiness of the PRC and the Republic of China for confrontation in the Taiwan Strait;
- analyzing latent processes of world politics related to the Taiwan issue;
- studying the evolution of the defense strategy of the Republic of China;
- constructing scenarios for the further development of the Taiwan issue; and
- offering conclusions and recommendations for the development a short-term strategy of the Republic of China to secure its national interests in the international arena.

Presentation of the Main Material

The Taiwan issue is one of the most fraught and relevant geopolitical dilemmas in the context of global politics and security in the Asia-Pacific region. Studying the current situation of the PRC and the Republic of China, as the main sides to the conflict, is of critical importance to understanding potential developments in



the region, including the possible consequences and likelihood of conflict escalation.

To assess the actual situation for Taiwan in its conflict with the PRC, we conducted a SWOT-analysis. Because there are no direct U.S. military guarantees for Taiwan and the two countries are not part of any military alliances together, the SWOT-analysis makes it possible to assess the real status of Taiwan's capabilities in the conflict with the PRC, showing Taiwan's strengths and weaknesses, determining opportunities and threats, outlining internal and external factors that may affect the stability and policy of both states, and emphasizing the interconnection between domestic policy and foreign policy strategies.

By comparing the basic SWOT matrices of the PRC and Taiwan, it is possible not only to establish the current capacities of both states but also to assess how prepared they are for escalation and response to conflict. This will help understand potential directions of relations between the PRC, Taiwan, the U.S., and their regional allies, also showing how this affects the security of the Asia-Pacific region.

The SWOT-analysis matrices (Tables 2.1 and 2.2) include latent processes of world politics related to the Taiwan issue.

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. The second-largest economy in the world as of 2025. The world's factory (China's GDP, 2024). 2. The second most populous country in the world (Hertog & Gerland, 2023). 3. The third most equipped army in the world, and the largest by the number of personnel (China's political, 2025). Possesses nuclear weapons. 4. High level of infrastructure development. 5. High level of patriotic population. 	<ol style="list-style-type: none"> 1. Authoritarian regime, total media censorship, ideological persecution (China's political, 2025). 2. Economic recession. 3. Significant dependence of the industry on foreign patents and resource supplies (Wu, 2024; Ting-Fang, 2023) 4. Separatist sentiments in Hong Kong and Tibet. Ethnic cleansing against Uyghurs. 5. High level of corruption. Corruption scandals in the military sphere. Corruption in the ruling elite of the CCP (McDonell, 2024). 6. Latent formation of an internal opposition to the ruling CCP regime and Xi Jinping.
Opportunities	Threats
<ol style="list-style-type: none"> 1. A highly developed external market for goods and services. 2. A large number of debtor states among the developing countries in Africa (Bozhey, 2019). 3. The PRC is the main strategic rival of the U.S. on the world stage, which helps attract allies with corresponding political goals. 4. Political influence in the UN. A developed network of diplomatic relations and promotion of the "One China" policy. 5. Dynamic development of a new system of international relations between the U.S. and the PRC as the most influential centers. 	<ol style="list-style-type: none"> 1. Territorial conflict with the Republic of China over Taiwan and adjacent islands. 2. Confrontation with the U.S. over support for Taiwan (Kwan, 2022). 3. Border disputes with India over Tibetan territories (Vohra, 2024). 4. Border disputes with the Philippines over Scarborough Shoal. 5. Economic restrictions on semiconductor imports from the U.S. (Vohra, 2024).

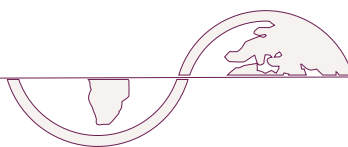


Table 2.1

SWOT-Analysis of the PRC’s Capabilities in the Modern Period

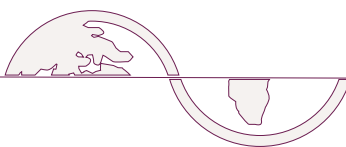
The results of the SWOT-analysis indicate that China’s main advantages stem from its considerable economic development, which serves as a universal tool for achieving many internal and foreign policy goals, as well as for furthering national interests at the international level.

Confrontation with the U.S. over its military support for Taiwan

and the blocking China’s semiconductor imports causes severe tensions between the countries. Misunderstandings and incidents in the South China Sea trigger the formation of an anti-China coalition. This, in turn, bolsters Taiwan’s capacity for resistance in the event of a full-scale invasion by increasing the likelihood of receiving support from China’s rivals.

Table 2.2

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Strong high-tech economy. High standard of living. 2. World leader in the production of advanced semiconductors, critically important for the global information, technology, and electronics industry (Crawford & Jarrell, 2021). 3. High level of infrastructure development, defense systems, and modern armed forces under constant modernization. 4. Strong national identity. Democratic order. 5. Geostrategic island location complicates a potential PRC invasion. 	<ol style="list-style-type: none"> 1. Significant dependence of the economy on trade with the PRC. 2. Significant dependence of the economy on semiconductor exports (Wu, 2024; Wu Debby, 2024). 3. Periodic natural disasters (Wu Debby, 2024) 4. Low birth rate and an aging population, negative population growth. 5. Ambiguity of the official declaration of independence (Lai, 2024).
Opportunities	Threats
<ol style="list-style-type: none"> 1. Growing economy and an external market of worldwide strategic importance for global supply chains (Crawford & Dillard, 2021). 2. Active expansion of the anti-China coalition through cooperation with regional rivals of the PRC. 3. Increasing support from the U.S. and its allies; wxtensive extensive unofficial relations through a wide network of representations. 4. Military support from the U.S.; confrontation between democracies and authoritarian states. 	<ol style="list-style-type: none"> 1. Territorial conflict with the PRC. 2. Proximity to the PRC’s shores makes shelling from the mainland possible. 3. Diplomatic isolation (<i>de jure</i>) resulting from the PRC’s claims and its “One China” policy. Key allies, Japan and the U.S., do not recognize Taiwan’s independence. 4. Geographic distance from allies in Europe; High risk of blockades and supply cutoffs if the conflict escalates.



SWOT-Analysis of the Capabilities of the Republic of China (Taiwan) in the Modern Period

The results of the SWOT-analysis indicate that Taiwan's main advantages lie in the strategic significance of producing advanced technologies, particularly semiconductors, which are part of the global supply chains of most technology companies in the world (Crawford & Jarrell, 2021). However, the two states are remarkably interdependent due to economic and industrial factors, as well as their mutual involvement and critical importance to the global market.

If the conflict escalated, Taiwan's economy would also suffer major losses because of its considerable dependence on exports. The military power of the PRC incomparably exceeds Taiwan's defensive capacity; however, the high-tech equipment of Taiwan's defense complex may enable it to withstand attack until the arrival of backup from its allies though the risk of encirclement is high. Given this, securing U.S. support is a primary existential issue for Taiwan.

A belt of potential and actual opponents of Chinese influence has arisen around China. If the Taiwan crisis exacerbated, these opponents would support the U.S. position in the China-Taiwan confrontation. The belt consists of Japan (a historic irreconcilable opponent and ideological antagonist), South Korea (a strategic rival), Taiwan (an existential adversary, the "separated province," whose capture is China's strategic goal), the Philippines (a strategic rival in the South China Sea region), Vietnam (a rival for influence in the South China Sea area), Malaysia and Indonesia (both being potential U.S. allies in a confrontation with the PRC). In view of the above, global interest in stability in Taiwan can be said to be significantly increasing. This is due to the fact that any disruptions in the supply of strategic resources, whether caused by military conflicts or by natural disasters, may have far-ranging global consequences. This highlights the importance of sustained diplomatic efforts and international cooperation to ensure peace and stability in the region.

Politics is traditionally considered to require transparency and openness; however, many significant political processes and decisions unfold beyond public and academic visibility. In the context of relations between the PRC and the U.S. regarding Taiwan, the primary task is to assess how prepared the PRC is to pursue a military resolution or a peaceful settlement of the conflict. Processes in China's social sphere may to a considerable degree

either stimulate and hasten a large-scale military clash or slow down its development.

The inductive method made it possible to identify latent processes in the PRC's socio-political sphere, which suggest that an internal opposition to the ruling CCP regime and Xi Jinping is arising. The active transition from an authoritarian to a totalitarian regime in the PRC increases the probability that Xi Jinping, as head of the state, the governing party, and the armed forces, will attempt to seize Taiwan if he is uncertain of being re-elected in 2027. This would satisfy major ambitions of and have a pronounced reputational importance to any leader of the PRC.

The legitimacy of the CCP and Xi Jinping's power currently rests on ideological, coercive, and economic foundations. If one of these pillars collapses as a result of internal protests, corruption in the party, public resistance, or economic sanctions and the decline of markets and living standards, a chain reaction may be triggered leading to extreme consequences. Should this occur, an attack on Taiwan would accelerate such developments.

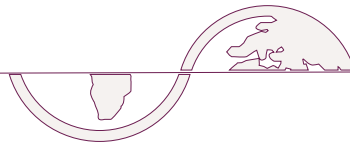
However, an armed conflict combined with an economic recession would prompt heightened protests and spark opposition movements. This would most probably cause serious economic losses and internal instability.

To analyze the broader international context of U.S. and PRC policies on the Taiwan issue, inductive and deductive analyses were simultaneously carried out. They confirmed the hypothesis that complex latent processes contribute to deepening the crisis in the Taiwan Strait under modern conditions. As destabilizing factors in international relations are on the increase, conflicts between democratic and authoritarian states are intensifying.

The modern international system is undergoing a profound transformation, which will in long-term lead to bipolarity, with centers in the U.S. and the PRC. This redrawing is accompanied by an escalation of old conflicts, the emergence of new points of confrontation, and the redistribution of influence among powerful states.

While China calls on the global community to refrain from official contacts with Taiwan, the world's leading powers are aware of their dependence on Taiwan even if they do not officially recognize the Republic of China (Crawford & Dillard, 2021).

Taiwan, which China officially views as its separated rebellious province, attracts attention and interest from numerous unofficial partners in virtue of its production of ad-



vanced computer chips. A special place among semiconductor manufacturers in Taiwan is held by Taiwan Semiconductor Manufacturing Co., the world's largest factory and the main supplier of chips for Apple Inc. smartphones, Nvidia, artificial intelligence companies, and the high-performance computing sector (Crawford & Dillard, 2021; Arcuri & Lu, 2022). However, this does not make Taiwan the only important player on the semiconductor market. The U.S. maintains the leading position, especially in chip design and electronic software, holding key patents for technologies and the right to revoke their use. The Dutch company ASML Holding NV exerts an effective monopoly on the production of equipment for manufacturing the most advanced chips. Japan is also an important supplier of equipment, chemicals, and silicon wafers. Yet, with the steady rise in demand for increasingly complex, smaller, energy-efficient, and powerful chips, TSMC continues to stand out, incomparably excelling other high-tech companies (Crawford & Dillard, 2021).

The most sensitive area for the use of Taiwanese microchips in the context of any nation's national security is their use in precision military devices and artificial intelligence technology, which has become a strategic, cutting-edge resource and can serve depending on application as a tool for sustainable development or a powerful weapon.

Semiconductor production is an extremely precise process, scaled to hundreds of times beyond human perception, operating at the nanometer level roughly ten times larger than an atom and the process itself can take months in a vacuum under continuous supervision by specialists (Wu, 2024).

State support programs for the high-tech sector, which was designated as a strategic industry in the 1970s, and improvements in academic and educational training of specialists saw Taiwan supply its factories with highly qualified personnel and surpass key competitors by 2020 (Crawford & Dillard, 2021). Among the main factors that determine Taiwan's leadership in the semiconductor industry is the ability to hire highly skilled workers at relatively low wages as compared to countries such as the U.S., Japan, and South Korea, where a qualified workforce tends to earn two to four times as much. The semiconductor industry in Taiwan employs 2.5% of the working population and is effectively the country's most profitable industry, which enables companies to offer good pay and attract many qualified engineers. In contrast, in the U.S., Japan, and South Korea, the semiconductor industry is less profitable than other sectors, so graduates of tech-

nical schools choose more financially rewarding specialties, and companies there cannot hire as many skilled staff.

For a long time, Taiwanese companies freely did business with mainland China, but the combination of China's large cheap labor force, Hong Kong's financial power, and Taiwan's supply of high-tech microchips could, in the long run, make the PRC a leading global technological superpower strong enough to absorb Taiwan and become a serious U.S. competitor.

An independent commission established by the U.S. Congress determined that China's dominance in semiconductor production or a sudden restriction of access to advanced microchips, could pose a threat to U.S. national security and significantly increase any opponent's chance of victory in military conflicts. At the moment, the USA is particularly vulnerable in the production of the most advanced high-performance microchips critical for the development and application of artificial intelligence technologies, which have radically transformed the military sphere (Crawford & Dillard, 2021).

As Taiwan's main military and political ally and the holder of key patents for its semiconductor production, the U.S. exerts considerable influence on Taiwanese chip manufacturers. Since 2019, companies using U.S. technologies in chip manufacturing have been banned from trading with Huawei; in this way the U.S. deprived TSMC of one of its major clients (Crawford & Dillard, 2021).

In the following years, the U.S. strengthened export restrictions on chips to prevent China from acquiring advanced technologies that could enhance its military potential, especially in the AI sector (Shivakumar & Wessner, 2022). Thus, without direct military confrontation, the U.S. efforts to limit the technological development of the PRC have resulted in China being only able to meet about 17% of its total microchip demand.

Despite the significant reorientation in the PRC's latest five-year plan from soft-tech to hard-tech sectors, and concerted investment in high-tech R&D for semiconductors and precision manufacturing, the imbalance between demand for and supply of advanced microchips is still critical.

In spite of strict restrictions on importing the chip-making equipment, TSMC managed to secure temporary licenses in 2022–2023 to continue operations at its plants in Nanjing (China) and applied for a permanent permit from the Bureau of Industry and Security (Ting-Fang, 2023).

Because of increasing national security concerns and



supply chain disruptions caused by the pandemic, the governments of the U.S., Europe, and Japan encouraged TSMC to expand geographically (Crawford & Dillard, 2021). The company is currently building new facilities in Japan and the U.S.; however, these factories will not produce the most advanced AI chips.

The U.S. still depends on Taiwan's manufacturing capacities for the production of the most advanced semiconductors that support critical defense algorithms. Details of the use of specialized microchips in U.S. military equipment are classified, but it is known that about 90% of the most advanced chips are manufactured in the Republic of China. Meanwhile, U.S.-made semiconductors remain one or two generations behind the cutting edge.

As of 2024, Taiwan accounted for 80–90% of the production of the world's most advanced chips, and there is currently no real alternative to this source (Crawford & Dillard, 2021). The lack of alternatives raises global concerns and causes commitment to maintaining stability and security in Taiwan. This state of affairs and the world's technological dependence on Taiwanese producers gave rise to the concept of the "Silicon Shield" (USIP, 2024). Jan-Peter Kleinhans, head of the Technology and Geopolitics Project at the Berlin-based think tank Stiftung Neue Verantwortung, has described Taiwan as "perhaps the most critical single point of failure" for the entire semiconductor industry.

At the consumer level, the semiconductor shortage was acutely felt between 2020 and 2022, when demand for new "smart" electronic devices rose sharply due to the COVID-19 pandemic while manufacturing and logistics experienced delays caused by quarantine restrictions (Crawford & Dillard, 2021). At that time, global producers felt their deep dependence on uninterrupted supply chains from Taiwan.

However, there are dangers against which the Silicon Shield cannot defend and by which it might even be destroyed. Any changes in Taiwan's logistics and energy infrastructure would have consequences for the supply of advanced microchips. Any production interruption might disrupt the process that requires several weeks of isolation in a vacuum, especially for the most advanced microchips (Wu, 2024).

In April and May 2024, a series of powerful earthquakes struck Taiwan. A major quake of magnitude 7.2–7.7 occurred in the east of the island, near the city of Hualien. It was the strongest quake in 25 years, killing seven people, injuring more than 700, and causing significant infrastructure damage. Earthquakes are frequent in Taiwan as it is located at the boundary of two tectonic

plates. Although key manufacturers resumed operations within two days, some facilities were evacuated from the eastern coast (Wu, 2024).

The rising demand for microchips is expected to offset financial losses from the earthquake and to limit its potential impact on the industry (Wu & Debby, 2024). However, the same cannot be said for the consequences of a possible military conflict between Taiwan and the PRC, which might cause global economic losses of around \$10 trillion, according to estimates. This corresponds to approximately 10% of global GDP and far exceeding the damage from the Covid pandemic and the global financial crisis.

Thus, the concept of the Silicon Shield ensures the importance of peace in Taiwan, which is vital for the technological progress of the entire world, and directly links the security of the Republic of China to the security of its key ally, the U.S. (USIP, 2024). Given the current realities and Taiwan's status, no significant strategic discrepancies between the U.S. and the Republic of China are expected, regarding restrictions on microchip export to the PRC and the stability of supply chains for the U.S.

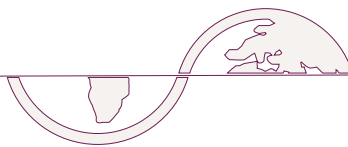
Having applied scenario analysis to open-source information, we constructed possible scenarios for the development of the situation in Taiwan Strait.

The Negative Scenario

Undoubtedly, the worst-case scenario for the Republic of China in the context of the Taiwan issue in international relations is a full-scale invasion by the PRC.

Wars are preceded by specific events that herald their approach. There are diverse and complex political, military, economic, and diplomatic factors that may indicate that a full-scale war in the Taiwan Strait is looming. A redeployment of troops to strategic positions is the clearest indicator. A buildup of Chinese military exercises and capabilities in the vicinity of the Taiwan Strait and in the region has long been observed.

There is a steady increase in aggressive rhetoric. Official statements regarding sovereignty and territorial claims can also serve as markers of approaching conflict. This is particularly important in the context of a possible official referendum on Taiwan's independence. Although the newly elected president of Taiwan advocates maintaining the status quo, this issue could enter political discourse and have various consequences, as the ruling party no longer holds a parliamentary majority.



Instability or changes in political leadership on one or both sides that result in more aggressive or nationalist policies can also heighten tensions.

A sharp deterioration in diplomatic relations with the U.S., suspension of dialogue, or severance of diplomatic ties might also indicate escalating tensions although this remains unlikely. Notably, there have been no official high-level contacts between the PRC and the Republic of China in recent years.

The mutual imposition of sanctions or trade restrictions between the conflicting parties or by international players may reflect increasing international support for or opposition to one side. This is vividly seen in the current trade war between the U.S. and the PRC; restrictions on the production and sale of microchips are directly tied to the countries' military capacities and are therefore a clear signal to China (Shivakumar & Wessner, 2022).

The establishment or activation of military alliances and defense agreements, as well as the transfer of military equipment and other support to one side may increase the likelihood of conflict.

Heightened propaganda and information campaigns to mobilize public opinion in support of military actions or portraying the other side as the enemy may also signal preparations for conflict (Arcuri & Lu, 2022).

The emergence and enhancement of this set of factors will indicate a rapidly increasing risk of a military invasion by the PRC. The PRC's full-scale invasion of Taiwan would make the situation critical not only for the parties directly involved in the hostilities but also for the entire world. It would have global consequences, with its estimated financial cost to the global community being indeed devastating, as mentioned above. If occupied, Taiwan's potential losses would be catastrophic, resulting in a complete destruction of its state sovereignty and a forced assimilation of its population.

It is also quite probable that, before his third presidential term ends in 2027, Xi Jinping can plan a special operation to forcibly annex Taiwan (Akita, 2024). For this purpose, the Chinese intelligence services would arrange a "legal" pretext the PRC's military intervention in Taiwan. The scenario of "a special operation within the state" would be facilitated by China's deliberate authorization of the use of the army for non-military purposes.

Increasing crises in China's socio-economic life can be expected to prompt the decision to attack Taiwan. As head of the state and the armed forces, Xi Jinping can seek to strengthen his

authority and legitimacy by "solving" the most complex problem in China's foreign policy.

In the Chinese armed forces failed to overcome Taiwan's defenses before allied forces arrived, China would find itself in a prolonged conflict with an international coalition defending Taiwan, including the U.S. and its regional allies. States involved in territorial disputes with China in the South China Sea might also join the confrontation. In this event, martial law would probably be imposed in both the PRC and Taiwan, and their economies would fall into decline. As they are closely linked to the global market, this would trigger a new global economic crisis (Rhodes & Mackintosh, 2022)

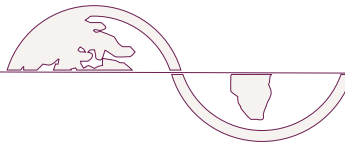
The potential annexation of Taiwan would strengthen China's position in the South China Sea (Rhodes & Mackintosh, 2022), undermining the U.S. reputation as a security guarantor in the Asia-Pacific region and making the U.S. lose its main lever of pressure on the PRC. Using Taiwan as a military outpost, China could control key maritime trade routes that connect South Korea and Japan with Europe, India, Africa, and the Middle East.

The Positive Scenario

The PRC will refrain from reintegrating Taiwan by force in the short term because of insufficient troop readiness for invasion, the lack of combat experience, and corruption scandals in the People's Liberation Army. Given this, the PRC will be forced to postpone any invasion indefinitely.

Change in PRC leadership and a rotation of political elites to reduce socio-political tension might be most positive, albeit unlikely, factor. This could redirect China's external policy from confrontation with Taiwan to resuming negotiations.

The potential economic cost of occupying Taiwan has significantly increased, so the likelihood of armed seizure is low. An attack on Taiwan would make China face immediate and extensive Western sanctions. The imposition of economic sanctions similar to those applied against Russia could drastically slow China's economic growth, and if the country's GDP increased by less than 4.15% annually, half of Chinese banks would face bankruptcy (Rhodes & Mackintosh, 2022). This could trigger a chain reaction leading to a series of bankruptcies among major developers and private-sector firms, plunging the country into a deep financial crisis. Such risks are critical for the PRC leadership since government legitimacy rests on improving



citizens' wellbeing.

The Most Probable Scenario

The recent corruption scandals in the People's Liberation Army have reduced the probability of Chinese aggression against Taiwan in the near future. The anti-corruption measures are expected to intensify, including an expansion of oversight bodies and exposure of new high-profile corruption cases. Xi Jinping, who is at the helm of the main anti-corruption agency, will probably continue to identify and remove his hidden opponents under corruption charges to strengthen party loyalty and secure his own re-election for a fourth term in 2027 (McDonnell, 2024).

The fact that the PRC is experiencing an economic crisis and struggling with deepening recession is an important factor in this context (Rhodes & Mackintosh, 2022). Given that its economic difficulties are mounting, which adds complexity and urgency to its domestic priorities, China is unlikely to launch a military invasion of Taiwan any time soon. China will not risk compromising its profitable economic ties with its main trading partners, the U.S. and the European Union, while the close integration of the Chinese economy with global markets limits its ability to resist international sanctions.

Taiwan will refrain from proclaiming independence to avoid provoking China into military action. Analogously, China will refrain from redrawing the regional status quo to avoid economic and political repercussions like those faced by Russia.

Visits by high-ranking U.S. officials to Taiwan are likely to continue, without triggering Chinese military action.

In an attempt to reduce its economic dependence on China, Taiwan seeks to strengthen its economic and technological ties with Japan and South Korea, promoting a diversification of the regional market. Cooperation between Taiwan and Hong Kong will increase as a compromise path to sustaining dialogue with the PRC while military support from and technological cooperation with the U.S. will ensure high combat readiness of Taiwan's armed forces. As a result of this interplay of factors, the regional status quo will remain unchanged in for now.

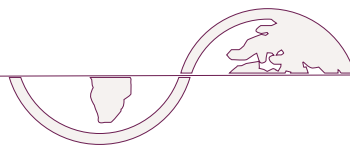
The U.S.-China relations will continue to combine competition, conflict, and active economic interaction (Shivakumar & Wessner, 2022). The U.S. is likely to maintain its export restrictions on microchips to China, citing Chinese sales of dual-use technologies to Russia. However, negotiations between the PRC

and the U.S. may bring about a partial lifting of the semiconductor export restrictions to prevent market crises and disruptions in Taiwan, the key chip producer and China's main supplier. Nonetheless, such an easing would come with a stricter oversight of the use of technological equipment and coordination of the companies accessing these technologies and their end buyers (Ting-Fang, 2023). This approach would slow China's technical and informational development, giving the U.S. short-term advantages.

For its part, China plans to overcome its economic difficulties by building a coalition of developing, economically weaker countries inhabited by much of the world's population to integrate them into its economic orbit and conduct transactions in yuan. Dialogue with Taiwan may be reasonably expected to reopen, as indicated by Xi Jinping's recent meeting with the former Taiwanese President Ma Ying-jeou.

Conclusion

1. In the diplomatic sphere, it is critically important to make efforts to find common approaches with the United States regarding Taiwan's defense strategy. It is necessary to substantiate in detail and analyze the limited potential of the "porcupine" defense strategy in the context of its application in Taiwan.
2. In the military sphere, the development of AI-based maneuverable drones and the modernization and reinforcement of air defense systems should be considered, rather than limited-range missile systems. The possession of technologies unavailable to mainland China will be a special advantage.
3. In the socio-political sphere, maintaining the status quo and resuming dialogue are chief priorities, since the longer peace lasts, the more thorough the preparation for a possible war will be. The PRC is not interested in destroying one of its key trading partners as long as it brings profit; therefore, it is also important to unblock microchip sales to China, though with some restrictions.
4. In the production sphere, Taiwan must preserve its key advantage, the "Silicon Shield." Even if partner countries encourage key microchip manufacturing companies to expand production geographically to Japan, the U.S., and Europe, it is necessary to keep the status of the key and largest supplier of the most advanced AI chips at a critically high level of Taiwanese production.
5. The risk of war is always a complex balance of potential be-



benefits and risks for the aggressor. The key task for Taiwan is to increase the risks and potential losses for the PRC and for the world's key actors. The greater the importance of the Republic of China to the global economy and to the information, technological, and defense sectors of the world's countries, the more committed they will be to the protection and support of the Republic of China. Therefore, the main tasks are to establish a reliable, secure information communication system with key allies and to launch information campaigns to put events in the Taiwan Strait in the focus the international community and mobilize its support for Taiwan. The information component and speed of response are vital to sustain Taiwan's defense until allied support arrives.

References

- Akita, Hiroyuki; 2024, Nikkei Asia. China wants ability to invade Taiwan by 2027, U.S. admiral says: веб-сайт. April 24. Retrieved from: <https://asia.nikkei.com/Editor-s-Picks/Interview/China-wants-ability-to-invade-Taiwan-by-2027-U.S.-admiral-says>
- Arcuri, Gregory & Lu, Samantha; 2022, Taiwan's Semiconductor Dominance: Implications for Cross-Strait Relations and the Prospect of Forceful Unification. CSIS. March 22. Retrieved from: <https://www.csis.org/blogs/perspectives-innovation/taiwans-semiconductor-dominance-implications-cross-strait-relations>
- Bozhev, Ventsislav; 2019, The Chinese String of Pearls or How Beijing is Conquering the Sea. DRM Telegram. авр. 26. Retrieved from: <https://drmjournal.org/2019/08/26/the-chinese-string-of-pearls-or-how-beijing-is-conquering-the-sea/>
- China's GDP expands 5.2% in 2023; 2024, The Voice of Vietnam-VOV World. January 17 Retrieved from <https://vovworld.vn/en-US/news/chinas-gdp-expands-52-in-2023-1264309.vov>
- China's political system BBC Retrieved from: <https://www.bbc.co.uk/bitesize/guides/z9yfrdm/revision/2>
- Crawford, Alan & Dillard, Jarrell; 2021, A shortage of auto chips has exposed TSMC's key role in the supply chain. Bloomberg. January 25. Retrieved from: <https://www.bloomberg.com/news/features/2021-01-25/the-world-is-dangerously-dependent-on-taiwan-for-semiconductors>
- Hertog, Sara & Gerland. Patrick; 2023, China as the world's most populous country. UN DESA Policy Brief. No. 153. Retrieved from: <https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-no-153-india-overtakes-china-as-the-worlds-most-populous-country/>
- Kwan, Rhoda; 2022. China begins live-fire military drills around Taiwan. NBC NEWS. Aug. 4. Retrieved from: <https://www.nbcnews.com/news/world/china-begins-live-fire-drills-taiwan-pelosi-visit-rcna41461>
- Lai, William; 2024. Taiwan just chose a president China loathes. What now?. BBC. 13 January. Retrieved from <https://www.bbc.com/news/world-asia-67920530>
- McDonnell, Stephen Xi; 2024, BBC NEWS. Jinping's never-ending hunt for corruption in the Communist Party. 12 February. Retrieved from: <https://www.bbc.com/news/world-asia-china-68213161>
- Rhodes, William & Mackintosh, Stuart; 2022. CNBC. Op-ed: The four big threats to China's economy. Apr 27. Retrieved from: <https://www.cnbc.com/2022/04/28/op-ed-the-four-big-threats-to-chinas-economy.html>
- Shivakumar, Sujai & Wessner; Charles; 2022, CSIS. Semiconductors and National Defense: What Are the Stakes? June 8. Retrieved from: <https://www.csis.org/analysis/semiconductors-and-national-defense-what-are-stakes>
- Ting-Fang, Cheng; 2023, TSMC seeks permanent U.S. approval to supply China chip plant. October 13. Retrieved from: <https://asia.nikkei.com/Business/Tech/Semiconductors/TSMC-seeks-permanent-U.S.-approval-to-supply-China-chip-plant>
- USIP; 2024. Silicon Shield': Looking Beyond Semiconductors. January 25. Retrieved from: <https://www.usip.org/publications/2024/01/silicon-shield-looking-beyond-semiconductors>
- Vohra, Anchal; 2024, China Is Quietly Expanding Its Land Grabs in the Himalayas Retrieved. FP. February 1. Retrieved from: <https://foreignpolicy.com/2024/02/01/china-is-quietly-expanding-its-land-grabs-in-the-himalayas/>
- Wu, Debby; 2024, TSMC Facilities to Resume Production Overnight After Quake. Bloomberg. April 3. Retrieved from <https://www.bloomberg.com/news/articles/2024-04-03/tsmc-evacuates-production-lines-after-major-taiwan-quake>