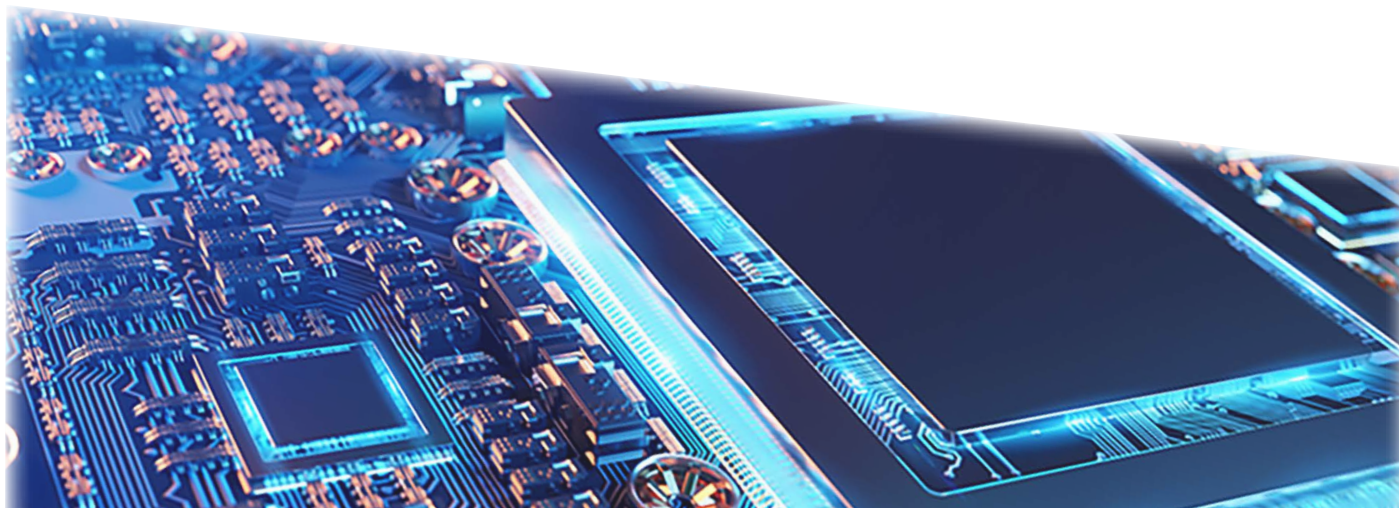


TAIWAN-PRC CRISIS: WHAT CROSS-STRAIT CONFLICT COULD COST EUROPE

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The escalating tensions between Taiwan and China pose significant economic and strategic challenges to the European Union, such as the inaccessibility of Taiwanese inputs, market, and capital. This issue brief aims to examine Europe's economic stake in the peace and stability of the Taiwan Strait. By outlining EU-Taiwan's economic ties and emphasizing European interest in the self-governing island, this issue brief highlights the potential costs of a cross-strait crisis in Europe and what actions Europe needs to take. It additionally examines two scenarios of an armed conflict: a blockade and an all-out war. In its conclusion, the issue brief provides a perspective of Europe's stake in cross-strait peace and stability.

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Introduction

Three days after Taiwan's President Lai Ching-te took office officially, China conducted a series of military drills around the self-governing island named "Joint Sword 2024a". Similar to the military drills conducted after former U.S. House Speaker Pelosi visited Taiwan, these exercises were conducted near Taiwan's major port areas, hinting that any declaration of independence from Taiwan will result in a war. Recent developments offer hints as to what a possible blockade of the trade-dependent island could look like if China decides to take action and escalate the situation beyond the current tensions. Taiwan is becoming an increasingly valuable trading partner for Europe, having emerged as

a vital actor in essential supply chains, and a possible contingency in the Taiwan Strait will have tremendous and severe repercussions on the European Union's (EU's) economy.

Nowadays, Taiwan is touted as the birthplace of semiconductor production, which has become critical for Europe's industry and ambitions of a digital and greener future. Modern devices and machines, from cellphones to cars, greatly depend on various technological inputs. One of the most important of these inputs is semiconductors. Taiwanese semiconductor foundries, such as the world-renowned Taiwan Semiconductor

Manufacturing Company (TSMC), are critical to the production of microchips. Likewise, European comparative advantages of semiconductor manufacturing inputs greatly value Taiwan as a top customer for their specialized products, further increasing the importance of Taiwan to Europe. Altogether, Europe and Taiwan have a symbiotic economic relationship, and both parties are interested in further securing and strengthening it.

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Overview of Europe-Taiwan Economic Relations

Benefits of buying and gaining investments from Taiwan

In 2022, bilateral trade between the EU and Taiwan surpassed €102 billion worth of goods and services.¹ Top European traders included major economies such as Germany, the Netherlands, France, Italy, Belgium, and Spain. As a result of large trade volumes, Taiwan is the EU's 12th largest trading partner.² Moreover, analysts highlight that 40 percent of the EU's annual trade passes through the Taiwan Strait as the area is the primary shipping lane for European cargo to and from other major trading partners such as China (€858 billion in 2022), Japan (€196 billion in 2022), and South Korea (€148 billion in 2022).³ Hence, Taiwan is a valuable trading partner and can be considered a gateway to the rest of East Asia, something that will be affected by increased tension in the Taiwan Strait.

Diving deeper into the general EU-Taiwan trade

In 2022, bilateral trade between the EU and Taiwan surpassed 102 billion euros worth of goods and services. Top European traders included major economies such as Germany, the Netherlands, France, Italy, Belgium, and Spain.

statistics, notable Taiwanese goods exported to the EU include integrated circuits (ICs) and electronic components (23 percent), transport equipment (10.7 percent), and electronic data processing and office equipment (10.6 percent).⁴ Additionally, three major European industries that are dependent on Taiwanese inputs, most importantly ICs and electronic components, are automobiles, telecommunications, and green technology. During the onset of the pandemic, several European economies that had major stakes in car production for their GDP makeup were Slovakia (5 percent), Czechia (4.9 percent), Hungary (4.6 percent), Germany (4.5 percent), Romania (3 percent), and Sweden (2.7 percent).⁵ Amid the rise of electronic vehicle production and the trend of smart cars, the industry is expected to increase demand for ICs in the coming years.

Telecommunications are another important European industry that relies on Taiwanese exports. In 2022, Europe had the highest share of unique mobile subscribers as a region at 90 percent of the total EU population, showcasing the interconnectivity rate of European citizens.⁶ Although 99.8 percent of the region's population has a mobile network connection, only 11 percent are benefiting from the 5G network.⁷ With the EU's ambition for the industry and around €250 billion worth of support for various related initiatives, it is expected that the number of 5G users will rise to 87 percent by 2030 for a more connected and efficient Europe.⁸ Taiwan will be instrumental in these efforts as

it is responsible for producing 90 percent of the world's most advanced semiconductors, implying Europe's greater dependency on Taiwan's foundries.⁹ Needless to say, the transition to 5G will be slowed down or halted during a conflict or blockade of Taiwan.

Other than improving connectivity, the region is aiming for a more sustainable future amid its green transition.¹⁰ Currently, renewable energy sources make up the majority of the region's energy output at 39.4 percent, while fossil fuels follow closely at 38.7 percent and nuclear power in third place at 21.9 percent.¹¹ However, most EU member-states continue to use non-renewable energy as their main source. Hence, the region is set to finance around €600 billion worth of investments for the European Green Deal in the coming years.¹² Among the most widely used green energy technologies, wind turbines and solar panels are dependent on semiconductor inputs, thus increasing the importance of Taiwan's exports.¹³ Given these points, Taiwanese inputs are critical for various lucrative and robust European industries and for securing the region's sustainable digital and green future.

The total of Taiwan's investments in Europe as of 2023 is at €12.6 billion. Although initial investments around the service sector were worth millions of euros,

there has been a progressive and positive trend since the beginning of the Tsai Ing-wen administration in 2016, where billions of euros have been pouring into manufacturing; which makes up the majority of Taiwanese investments in Europe.¹⁴ Amid the EU's goal of reviving its semiconductor production capacity, recent Taiwanese investments have been directed towards joint ventures to establish foundries, such as TSMC's €3.5 billion for the European Semiconductor Manufacturing Company.¹⁵ Another example is Taiwan's investment in Lithuania's Teltonika which seeks to build semiconductor technology capabilities with more than €10 million.¹⁶ On balance, Taiwan's investments in Europe benefit the region's medium to long-term goal of reviving its semiconductor production and innovation.

Benefits from selling to and investing in Taiwan

More than just a source of inputs, European industries value Taiwan as a major customer for their products, which include non-electrical machinery (32.7 percent), transport equipment (15.5 percent), and chemicals (15.4 percent).¹⁷ For Europe "Taiwan is the main destination market for EU machines for the production of semiconductors and integrated circuits."¹⁸ From 2017 to 2020, 78.6 percent of EU exports to Taiwan were related to semiconductor production inputs, such as lithographers, silicon wafers, and various chemicals and gases.¹⁹ In 2019 alone, it cornered 40 percent of European goods needed for semiconductor manufacturing.²⁰ Taiwan is a major buyer of other related machines and machines for boules/wafers. For instance, Taiwan was Austria's fourth largest trading partner as its exports to the self-governing island amounted to €242 million worth of semiconductor manufacturing equipment.²¹ In 2020, European firms connected to semiconductor manufacturing were valued at €110 billion, wherein major companies such as ASML, Siltronic, and Air Liquide made up the bulk of the contribution. In particular, ASML, known for its unique EUV lithographers, will be delivering its latest lithographer to TSMC at the cost of €350 million per unit.²² Likewise, Germany's Soitec SA and Siltronic regard Taiwan as among its major customers for silicon wafers, which ICs are printed on.²³

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Investments are also a major interest for the EU in Taiwan as billions worth of capital are located on the self-governing island. Similar to their trade portfolio, the quality of investments is connected to the semiconductor industry. According to the Taipei Representative Office in the EU and Belgium, there is a total of more than €54 billion worth of European investments in Taiwan as of 2023.²⁴ Most recent is ASML's 2023 investment worth more than €280 million, which is meant to expand its sales operations, technological support and training to Taiwan's semiconductor industry.²⁵ Merck also has been undergoing an investment program since 2022 which seeks to finish by 2029 at the latest with a total amount of €500 million for securing its supply chain of silicon wafers to Taiwanese foundries.²⁶ Likewise, Air Liquide has invested over €500 million in Taiwan to secure its delivery of gases to top semiconductor companies.²⁷

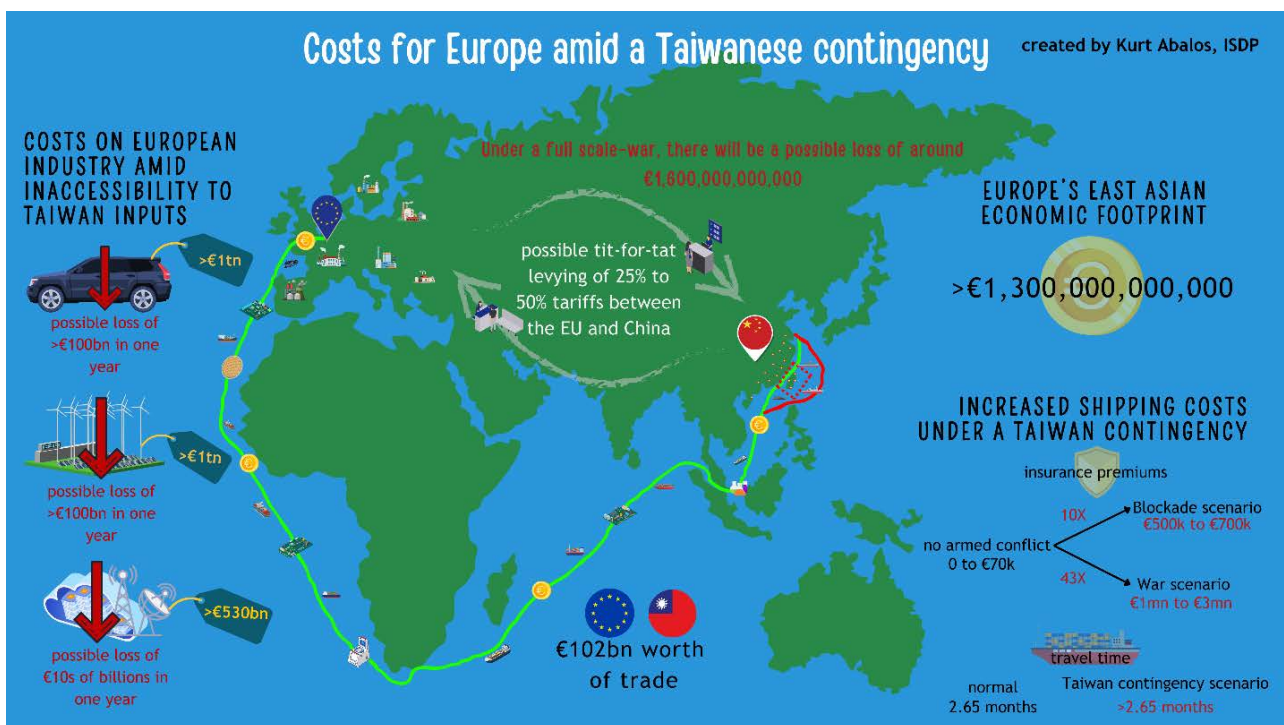
Europe's Costs in Cross-Strait Crisis

Given the importance of EU-Taiwan relations, it is important to analyze the negative impacts that the EU could experience under any disruption scenario in its connection to Taiwan. With the EU-Taiwan economic relationship worth billions of euros, any trade disruption will have great negative consequences.

Taiwan blockade scenario

Although there is little to no historical precedence of a full blockade of the Taiwan island, China's military drills provide a glimpse into such a scenario. Both the post-Pelosi visit drills and the "Joint Sword 2024a" drills showcase China's military strategy against Taiwan and the potential costs for Europe.²⁸ In both instances, several exercises in effect surrounded the island and its major seaport zones with some even entering Taiwan's territorial waters. Should there be sustained and continuous military activities near commercial and trade lines, European shipping to and from Taiwan and the rest of East Asia will be directly affected as ships will experience sea border checks or forced rerouting. Regardless of what an actual blockade may look like, a heavily regulated and guarded sea border will significantly impact Europe's supply chains to and from Taiwan, which should force the EU to react.²⁹

When considering the implications of such actions, the immediate and gravest consequence is the loss of Europe's connection to Taiwan. As outlined previously, Europe's economic connection to the self-governing island includes its reliance on Taiwan's inputs and market. For instance, European industries that rely



on Taiwanese exports will experience a graver chip shortage, when compared to its experience during the COVID-19 pandemic.³⁰ Europe's automobile manufacturing industry saw a 13 percent contraction, where Germany lost almost 20 percent of its production and more than 25 percent in Italy's case. Throughout the chip shortage, Europe's automotive industry lost almost €100 billion as major companies could not finish the assembly of cars, given Taiwan's leading position in producing advanced semiconductors.³¹ Likewise, the EU's digital and green transition initiatives, which have around €850 billion worth of EU investments, will be jeopardized as semiconductors from Taiwan are critical for green technology and computers, among many others.³²

Although there are no exact estimates of how much was lost in Europe's green technology manufacturing industry, some analyses suggest that the losses were similar to Europe's automobile industry as both industries use similar amounts of semiconductor inputs.³³ Likewise, Europe's telecommunication industry saw tens of billions of euros lost during the chip shortage.³⁴ In addition to losing access to Taiwanese inputs, European semiconductor industries will not be able to sell their inputs to one of their top customers (Taiwan), adding more losses for the EU's economy. Hence, Europe's disrupted supply line to Taiwan will affect its robust manufacturing and medium-term ambitions.

The EU will also face rising shipping costs to Taiwan and the region. A benchmark to understand the dynamics of rising costs is the current conflict in the Red Sea. As Houthi rebels continue to target cargo ships in the area, the popular waterway's instability has prompted companies to reroute ships around the African continent or pay higher insurance premiums.³⁵ Insurance deals for armed conflict are additional, which increases the overall shipping cost and prices for consumers.³⁶ Currently, companies that continue to use the Red Sea experience a rise in premiums worth as much as ten-fold, from 0.07 percent of the ship's value to 0.5-0.7 percent. Similarly, a blockade of Taiwan would raise the cost of European cargo traveling to

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and from East Asia due to rerouting operations and increased insurance premiums, causing inflation and additional costs throughout the region.

Other than trade, billions of euros of European investments on either side of the Taiwan Strait will be jeopardized. Amid heightening tensions, many investors and financiers grow more concerned by every instance of escalation. Should there be a blockade, the situation is expected to begin the hedging of investments by selling off shares in China and Taiwan to limit their losses.³⁷ Likewise, Europe's plan to revive its semiconductor foundries, via the Chips Act, will be jeopardized as Taiwanese investments and expertise, critical for the industry's development, will be stalled or diverted to address pressing issues of a potential blockade. In a prolonged scenario, Taiwanese semiconductor companies may rethink their foreign investments as they will need to focus their resources on rebuilding their industry amid their limited operations.

Altogether, it is evident that trade will be severely limited, or even halted, should China enforce an actual blockade of the island, resulting in great economic loss for the EU. Amid the inaccessibility of Taiwan's critical inputs as well as hindering a gateway into East Asia, Europe's industry, market, and investments will be jeopardized. Europe may also apply tariffs on Chinese goods to express their opposition.³⁸ Moreover, a blockade of Taiwan may escalate into a war scenario given the many unknown variables and

possible misunderstandings involved, such as potential collisions, armed confrontations, etc.³⁹

Military conflict scenario

Should China conduct a full-scale war scenario, Taiwan's industrial capacity for critical goods will be a main target and will be completely closed off from trade, while its surrounding waters will be greatly compromised for international ships to use. The EU may react to China's actions by levying greater economic sanctions in support of Taiwan, possibly imposing as much as 50 percent tariffs on Chinese exports to Europe, prompting a trade war with China.⁴⁰ Europe will also feel greater constraints on its trade with Japan and South Korea as the Taiwan Strait is compromised, prompting rerouting efforts around Taiwan, nearing the Pacific, and increasing the risk of to and from the region, not least by increased congestion in maritime traffic.

Similar to a blockade scenario, Europe will experience inaccessibility to Taiwan, hindrances to the region, and investment losses, albeit to a greater degree. Several analysts see that the EU will be among the major economies that will be most affected amid a war over Taiwan, losing around 10 percent of its GDP in the first year.⁴¹ Most of the economic contraction is attributed to the loss of Taiwanese semiconductors for European industries, such as automobile manufacturing, digital technology, and green technology, followed by financial

and trade shocks. Moreover, Taiwan's industry may suffer great losses and will take much time to recover, prolonging the effects of war and delaying reconstruction.

Returning to the adverse effects of shipping prices under a blockade of Taiwan, a total war would entail more significant insurance costs for shipping. Using Ukraine's experience, ship insurance has reached as much as 3 percent of the total value of the ship after a cargo ship was hit by a missile.⁴² Prior to the incident, the ship's insurance was around 1 percent, a far cry from 0.7 percent of the Red Sea's premium price. Therefore, a war in the Taiwan Strait may prompt insurance companies to raise premiums for cargo ships to the Ukrainian rates or even higher, which would translate to a huge increase in the price of goods.

For investors, a war scenario would be the worst-case scenario as they would want to exit the region more urgently. Unlike previous Chinese leaders, investors regard the Xi administration as uncompromising and would want to distance themselves from the region should there be an invasion of Taiwan.⁴³ Likened to a blockade scenario, investors would prefer to sell their assets to stem further losses, but to a greater degree.

Regardless of the actual result of full-scale war, Europe will pay a hefty price given its connection to the Taiwanese economy and East Asia as a whole. Like a blockade, Europe will lose its connection with the self-governing island and its region, and will experience more significant consequences as uncertainty and unpredictability exponentially grow in a war.

Conclusion

The EU and Taiwan's economic relationship is not only lucrative and symbiotic, but it is critical for Europe's medium to long-term future. Despite Europe's significant reliance on Taiwan's exports, most importantly semiconductors, for major sectors of the region's economy, the democratic island is dependent on Europe's semiconductor inputs, such as silicon wafers, lithographers, chemicals, and many others. Moreover, bilateral investments are meant to strengthen the supply

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chain and delivery of products and aid in Europe's vision of reviving its semiconductor manufacturing capacity. Taiwan's geostrategic location also affects Europe's more than a trillion worth of euros connection with the rest of East Asia. Given these points, Taiwan is an essential partner for Europe as it is a supplier, buyer, and financier. However, despite the high degree of interdependency, Taiwan's precarious situation jeopardizes the status-quo that Europe benefits from.

The deterioration of cross-strait relations poses a great threat to Europe's interests reflected in its economic ties with Taiwan and the rest of East Asia. As China continues to conduct 'gray zone' activities and other actions that negatively impact stability in the strait, risks and potential costs are increasing, jeopardizing Europe's lucrative connection and medium and long-term ambitions. Should either an embargo or a full-scale war become a reality, it is evident that Europe will suffer unprecedented consequences that will affect generations. Hence, Europe must continue to observe, assess, and respond to negative developments in cross-strait relations, as Taiwan's hundreds of billions of euros worth of inputs, market access, and investments are integral to the EU's trillions of euros worth of manufacturing industry and ambitions for a more digital and greener future. Additionally, Europe needs to press more effectively upon China regarding the consequences for China if a blockade or war happens and to ensure that a peaceful status quo environment is secured. Arguably, the weakness in the response and communication to Russia during its invasions of Georgia in 2008, and Ukraine in 2014 and its occupation of Crimea led Russia to believe that the consequences of a full-scale invasion of Ukraine in 2022 would be acceptable. This cannot be allowed to happen in the cross-straits scenario; hence, Europe needs to act more vigorously to prevent further instability.

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