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## Assessing the Potential of Punitive Measures in Deterring Economic Coercion: Advocating for the Efficacy of Anti-Coercion Instrument

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**Abstract:**

**Purpose:** Given a series of economic coercion employed by countries, such as Russia and China, the importance of tackling economic coercion has been voiced. Because of malfunction of WTO, the regulation had been left behind until the enactment of Anti Coercion Instrument (ACI) by the EU. Whereas most researches on economic coercion propose to deter economic coercion by refusal, which does not specify any threats and retaliatory measures, ACI is designed to deter it by punishment with retaliatory measures. The legislation of ACI is thus remarkable in tackling deterrence of economic coercion in a manner in which no state has ever achieved. In order to argue the effectiveness and feasibility of deterrence, this paper applies a theoretical framework of nuclear deterrence proposed by Morgan (2003) to deterrence of economic coercion, mainly focusing on credibility and unacceptable damage. Therefore, the purpose of this paper is to argue the effectiveness and feasibility of economic coercion by punishment that no state has ever achieved.

**Design/Methodology/Approach:** This paper is mostly based on open source, such as spokes person's remarks of Ministry of Foreign Affairs, and import/export data of Customs.

**Findings:** It is hard for the EU to guarantee the credibility towards China when it employs retaliatory measures against China's economic coercion. As to unacceptable damage that is a necessary condition of deterrence, the EU will have to demonstrate its political resolve more than the United States did.

**Practical implications:** Based on cases studies of China's economic coercion, although China is known to protest its core interests, it is unveiled that China could be more sensitive to cost than it had been anticipated.

**Originality:** This paper argues the effectiveness and feasibility of Anti Coercion Instrument, which just came in force in the end of December 2023. This paper thus has the feasibility of deterring economic coercion by punishment.

**Keywords:** Economic coercion, deterrence by punishment, economic security, EU policy.

**JEL classification:** P0, P1.

**Paper type:** Research paper.

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## **1. Introduction**

The end of cold war made the world incline towards liberalism, based on an assumption that international cooperations would make the world safer and richer than ever. This trend was accelerated by the birth of Internet, permitting us to economically grow through trade in cooperative and correlated manners. This is how globalisation has evolved and the interdependence amongst countries has been created at the same time.

Although this interdependence has contributed to the mutual growth, it is on the other hand vulnerable to other countries because the economy is influenced by others' activities. It is now difficult to refuse that interdependence is sometimes weaponised to coerce other states. In this context, economic coercion has been one of the most employed foreign relations tools as an alternative to the military.

Given the importance of economic coercion, Reynolds and Goodman (2023) list economic coercion by China as follows; Japanese fishing boat captain arrest (2010); Norwegian case in response to Liu Xiaobo Nobel Prize (2010); Philippine Scarborough Shoal (2012); THAAD deployment in South Korea (2016); Mongolian case in response to Dalai Lama visit (2016); Australian case in response to calling for Covid-19 investigation (2020); Canadian case in response to Meng Wanzhou extradition (2018); and Lithuanian case (2021).

Those cases illustrate the respective country's economic dependence on China, particularly, in the Japanese fishing boat case, economic coercion succeeded in crystallising China's demand to release the Chinese captain.

Despite these cases, the international community fell behind in regulating economic coercion. It has been pointed out that WTO is unable to tackle economic coercion (Cha, 2023). Given the gravity of cases such as those of Japan and Australia, the international community has realised the imminent necessity to tackle this issue.

The G7 Hiroshima summit in 2023 was remarkable in mentioning deterrence of economic coercion. In the Joint Statement, it was proposed to establish the platform for economic coercion, stating "we (G7) will deepen our strategic dialogue against malicious practices to protect global supply chains from illegitimate influence, espionage, illicit knowledge leakage, and sabotage in the digital sphere" (G7 Hiroshima, 2023).

As the imminent necessity to tackle economic coercion has been voiced in the international community, the manners in which it deters are assumed to be denial, designed to reduce the perceived benefit by augmenting the cost of attack. As Reynolds and Goodman (2023) argue, deterrence of economic coercion by denial has the superiority over that by punishment, such as effect on consumers, tackling

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the informality brought by economic coercion, and no risk of moving up the escalation ladder (Reynolds and Goodman, 2023).

While, deterrence by denial is designed to lower the possibility of success for the attacker, it is not designed to deter employing economic coercion because a coercing state will lose nothing when it fails. This suggests that even if it is unlikely to succeed, a state might implement economic coercion, aiming for signalling unless it is not inflicted unacceptable damage. In this situation, deterrence by denial would not work.

In this context, although it is difficult to achieve, the necessity of deterrence by punishment has been discussed. For example, it is argued that friend shoring and reshoring do nothing to deter China from employing economic coercions (Cha, 2023).

Unlike friend shoring, a strategy of “flipping the script” is proposed to deter and counter economic coercions in a collective response, which intends to cover up each country's vulnerability and increase the trade share with China, including critical items, such as iron and semiconductors (Cha, 2023). This is a proportionate measure and can inflict damage against an attacker to deter the first attack.

It is thus worth noting that the EU has discussed Anti-Coercion Instrument (hereafter, ACI) is remarkable in deterring economic coercion by punishment and will be an important touchstone for other governments to see if deterrence by punishment against economic coercion really works, overcoming the difficulties mentioned above, such as the escalation ladder and proportionality.

In this paper, the structure is as follows: section 2 states literatures on economic coercion/ sanction to clarify the scope of research and to introduce a framework to explain the effectiveness of economic coercion; section 3 introduces ACI and argues the EU's credibility to China, which is one of the main conditions in which deterrence would work as Morgan (2003) asserts; section 4 argues unacceptable damage for China, analysing the past cases of China's economic coercion, and specifying choke points and its applicability to ACI; section 5 mentions uncovered topics, such as lithium, and some discussions that relates to deterrence such as extended deterrence. It also mentions conclusion to discuss if the ACI would work nor not, and if so in what conditions ACI would work.

It entails mentioning that ACI does not intend to enact for any specific attackers. It is fact that the EU has been coerced by China, the United States, and Russia. ACI is thus designed to deter attackers in general.

However, given the number of economic coercion by China as well as their significance not only for the EU but also for the entire globe, it seems reasonable to confine the research scope to China.

## 2. Literature Review

In developing a basic theory of economic coercive power, Baldwin (2020) suggests *economic statecraft*. In its definition, economic statecraft as governmental influence attempts to rely primarily on resources that have a reasonable semblance of a market price in terms of money (Baldwin, 2020). As Baldwin (2020) acknowledges, economic statecraft focuses on means rather than ends. Furthermore, it is obvious that whereas the concept of economic statecraft is broad, including economic sanction and economic inducement in a single concept, the outcome forced by other countries cannot be explained.

In exerting economic influence on others, it is important to determine whether it would actually be effective and could obtain acquiescence from the target. In order to tackle this problem, Drezner (2003) develops a concept of economic coercion. Drezner (2003) defines economic coercion as “*the threat or act by a sender government or governments to disrupt economic exchange with the target state, unless the target acquiesces to an articulated demand*” (Drezner, 2003). In this paper, economic coercion is defined above.

Hufbauer *et al.* (2009)’s research has been considered to be foundational to empirical research on economic sanctions and has been well referred as a basic comprehension of economic sanctions. Hufbauer *et al.* (2009) analyse 174 cases of 204 episodes with 14 variables, which helps a broader and comprehensive understanding of economic sanctions.

It is obvious that the success of economic sanctions depends on the policy goals on which a sanctioning state set. In order to overcome this issue, Hufbauer *et al.* (2009) classify them into five categories, change target-country policies in a relatively modest and limited way, change the target country’s regime change, dispute a military adventure, impair the target country’s military potential, and change target-country policies in another major way.

In overall conclusions, the success ration of all type of economic sanctions is 34%, which consists of the followings: modest policy change is 51% (n=43); regime change is 31% (n=80); disruption of military adventures is 21% (n=19); military impairment is 31% (n=29); and other major policy changes is 30% (n=33).

This result suggests that the half of economic sanctions for modest policy change could be successful, whereas that for disruption of military adventures only succeeds with 21%.

As to regression analysis of each variable without adjusting region and interaction of variables, variables for cost on the target and regime type of the target are significant for policy result, sanction contribution, and success ratio. Variables for trade volume between the target and sanctioning state and for post-cold war are significant for

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policy result, whereas that for relations and the relative economic size between the two are insignificant for the success ratio.

Based on the points stated above, it can be said that the more economic sanctions inflict cost on target, the more likely the target acquiesce to a sanctioning state's demand. Additionally, trade volume is one of the determinant factors in the success of economic sanction.

By contrast, Pape (1997) provides a conterargument as to why economic sanctions do not work as anticipated against Hufbauer *et al.* (2009)'s research. Pape (1997) casts doubt on whether the scale of economic damage for the target correlates with the successful ratio of economic sanctions, utilising the database by Hufbauer *et al.* (2009).

Pape (1997) mentions that in the "defined" high economic impact category the success rate is 25%, whereas in the low category the rate is 6%, which seems the success ratio correlated with economic impact. However, Pape (1997) points out following two points, in OLS the correlation between the financial damage and the success ratio is not statistically significant, and the boundary between high and low is suspicious.

In the Hufbauer *et al.* (2009)'s analysis, the GNP loss by economic sanction by 4.6% is threshold between the "high" and "low" financial damage. If the boundary line between low and high categories were moved only from 4.6 to 5.2 percent, the high category would contain no successes at all (Pape, 1997).

Rather than focusing on the degree of economic damage by economic sanctions, Pape (1997) focuses on the target of economic sanctions, arguing that economic sanctions cannot be regarded as military force with remaining challenges, one of which is that modern states are not fragile, rather are capable of withstanding economic sanctions. This implies the rally-round-the-flag effect would work with the weakest state, which makes sucess difficult for economic sanctions.

Barros and Sikora (2022) argue the possibility that political resolve could be a driver to cooperate with the opposite party in a multiple area and to strengthen economic ties with Indo-Pacific countries. According to Foreign Minister Landsbergis, Lithuanian origin products across the Indo-Pacific more than four times exceeded the volume of exports to China in the first half of 2021 (Barros and Sikora, 2022). This demonstrates that economic sanctions against Lithuania yielded the opposite effect as China had anticipated.

Lim and Ferguson (2022), on one side, argue two complexities of economic sanctions as well as coercion: firstly, a sanctioning state wants to maintain the deniability of implementing economic sanctions that might run counter against international rules, which incentivises it to informally impose sanction. This

informality prevents a sanctioned state from responding due to a policy framework, which is *regulatory availability*; secondly, for sanctioning state, informality leads to *opportunism* of domestic private sector to seek to continue doing business with target state even when economic sanctions are implemented. Due to this informality, the state cannot order the domestic private sector to stop doing business with the target state, which will mitigate the effect of economic sanctions as well as coercion.

Suzuki (2023) argues conditions in which economic statecraft would be successful, one of which vulnerability; if state A highly depends on state B, for example, it can be said that the state is vulnerable to the other. In this situation, economic sanctions implemented by state B would be likely to succeed by leveraging vulnerability. This can be demonstrated by cases.

For example, in China's economic coercion to Japan in 2010, although the scale of economic coercion was not massive, China coerced to suspend exporting rare-earth that was indispensable for Japanese manufactures. For China, this was successful in leveraging Japan's vulnerability, whereas for Japan its "choke point" was threatened, which drove Japan to acquiesce to China's demand.

Based on the literature above, it is arguably questionable if economic damage on the target could be relevant to the success of economic sanctions. Even though Hufbauer *et al.* (2009) argue economic damage on the target is significant in regression analysis, their research scope fails to cover mitigating effect by alternative trading partners. Barros and Sikora (2022) argue the importance of political resolve. As argued, Lithuania was successful in expanding economic ties with Indo-Pacific countries even under economic sanctions, which was arguably driven by political resolve.

More importantly, because ACI is designed for deterring economic coercion by punishment, it would be crucial if retaliatory measures from the EU would be effective. Even though the EU can be exempted from regulatory availability, as Lim and Ferguson (2022) argue, opportunism would be a hurdle for the EU. In order to prevent it, it would matter the implementing capability of the EU that implements ACI and forces the private sector to comply with it.

Notwithstanding, as will be argued in the following chapters, this implementing capability is hard to attain. Moreover, as Suzuki (2023) points out, it is imperative for the success of economic statecraft to leverage choke points. In the following chapters, I argue the basic structure of ACI and if it is possible to deter economic coercion with retaliatory measures by arguing credibility and unacceptable damage.

### **3. ACI and Credibility**

As mentioned above, it is evident that the EU has been concerned about economic coercion. Nonetheless, it is worth noting that the EU had not had a legal basis for

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tackling economic coercion until ACI is enacted. Even though the EU has already enacted Blocking Statute, which is designed for the protection of damaged countries by extraterritorial sanctions, it cannot cover economic coercion.

In this context, it was necessary for Blocking Statute to transform itself into something more effective and the necessity of ACI was voiced. The aim of ACI is thus to protect the interests of the Union and its Member States by enabling the Union to respond to economic coercion.

ACI consists of 20 articles. In Article I, it is stipulated that “it lays down rules and procedures to ensure the effective protection of the interests of the Union and its Member States from economic coercion by a third country.” And “this Regulation establishes a framework for the Union to respond to economic coercion with the objective of deterring economic coercion or obtaining the cessation of economic coercion, whilst enabling the Union, as a last resort, to counteract economic coercion through Union response measures (EU 2023/2675).”

As concrete measures of the implementation, they are proposed in Annex I, most of which are trade restrictions ((1), (2), (3), (5)). It is remarkable that restriction on access to the financial market is stipulated ((8)). This implies that the EU might leverage their financial market for deterrence and the financial sector might be damaged for the sake of other coerced sectors. Additionally, restrictions on the protection of intellectual property is stipulated as well ((7)). Once it is triggered, it is plausible that most business operating in the EU would be influenced.

Even if the EU enacts ACI, it would remain questionable if ACI really works. In implementing ACI, it is highly plausible that it is the private sector that takes a concrete action. Unless they move, ACI would be worthless, resulting in failure of deterrence. It is thus necessary to understand stances of the private sector on ACI to specify hurdles in implementing ACI. Based on the necessity, on April 16, 2021, the Commission held a stakeholder meeting regarding ACI. It also held two feedback periods concerning ACI from stakeholders each from February 17, 2021 to March 17, 2021 and from December 10, 2021 to April 1, 2022.

Remarkably, most of the stakeholders agree on the concept of ACI. For instance, Eurometaux, which consists of non-ferrous heavy metal producers, is in favour of the concept, stating that “our sector strongly welcomes this Anti-Coercion Instrument as an autonomous mechanism of the EU to deter and counteract coercive practices (Eurometaux, 2022)”, albeit they would jeopardise being cut material supply as a retaliation from China when they are involved in ACI. This could represent the perception from non-ferrous heavy metal industry that the benefit stemming from the ACI outweighs the cost.

By contrast, some entities take a negative stance against implementing the ACI. BMW is one; they state that “we are not convinced that the existence of the

instrument alone will be a sufficient deterrent and would expect this instrument, should it become law, to be tested after coming into effect. (BMW, 2022).”

Furthermore, because of the reliance on the global supply chain for production as well as requirements on CO2 emissions, they also state “introducing the ACI in the EU may well make full compliance impossible in the future (BMW, 2022).” This claim is insightful when contemplating the hurdles of implementing ACI, which are the reliance on the global supply chain and the burden of full compliance.

Before arguing the effectiveness of ACI, it is necessary to touch upon what are necessary conditions of deterrence. Morgan (2003) asserts “the essence of deterrence is that one party prevents another from doing something the first party does not want by threatening to harm the other party seriously if it does (Morgan, 2003).”

In practice, it is intended to inflict cost outweighing the expected benefits. Furthermore, deterrence depends on the attacker’s perception that is not necessarily subject to logic, which eventually creates uncertainty about attacker’s preference. Since retaliatory measures would not materialise unless deterrence fails, it is required to let attacker think it is worthless to attack.

Morgan (2003) proposes six key elements, the assumption of a very severe conflict, the assumption of rationality, the concept of a retaliatory threat, the concept of unacceptable damage, the notion of credibility, and the notion of deterrence stability (Morgan, 2003). As Morgan (2003) states, “credibility quickly became one of the two central concerns and problems in the theory and practice of deterrence.”

Credibility is an abstract concept. Morgan (2003) briefly defines credibility as “the quantity of being believed (Morgan, 2003),” which suggests that credibility is not absolutely quantified, rather it is relatively determined corresponding to one’s perception. In order to have credibility, Morgan (2003) argues it is necessary to have the opponent conclude that you had the resolve to carry out your threat (Morgan, 2003).

Although resolve is an indispensable factor in deterrence, its existence alone might be insufficient to deter. As for deterrence of economic coercion that involves in private sector, it is worth mentioning that the actor is not unitary, rather both the state and the private sector would play different roles in deterring economic coercion because actors demonstrating their political resolve and those incurring cost are not identical.

This suggests if an actor (company) is incapable of implementing measures, it is hardly possible to implement concrete measures as the EU, which results in failure of deterring economic coercion. Incapable actors would undermine credibility of ACI. This is the point in which resolve alone is insufficient, and capability should be added to enhance credibility.



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Based on the argument that the actor is not unitary in economic coercion and they are the states and the private sector, capability means differently for each actor. As for the state, capability means law enforcement. The private sector that is subject to regulations with retaliatory measures would not comply with them without state's law enforcement capability because in that situation it is logical to think to lose nothing even when it breaches the regulations.

It is thus indispensable for the state to hold law enforcement capability. As for the private sector, on the other hand, capability means implementation capability. In the case of export control, for example, exporting companies will have to catch up with every regulation amendment not to violate it. Due to the rising complexity of export control, the cost of compliance will increase. This suggests the possibility that even though they are willing to comply with the regulation, the breaches might occur in an unintentional manner.

In contemplating credibility of ACI as a tool for deterring economic coercion, credibility can be divided into four; state's political resolve; private sector's resolve; law enforcement capability of state; and implementation capability of private sector. In this section, I first argue the EU's credibility to China in a fact-based manner, then argue China's perception towards the EU, which is not necessarily based on facts.

Since the economic coercion towards Lithuania, the EU has conveyed its political resolve to defend its value and to take action in a series of economic sanctions against Russia. For example, on February 28, 2022, the EU decided to expand the targeting list, including businessmen in the banking and oil sectors, stating "those who enable the invasion of Ukraine will pay a price for their actions (European Council, 2022)."

In addition, on April 8, 2022, the EU adopted the fifth round of sanctions, prohibiting to purchase, import and transfer coal and other solid fossil fuels into the EU if they originate in Russia or are exported from Russia (European Council, 2022). Regarding the fifth economic sanction, Josep Borrell, High Representative for Foreign Affairs and Security Policy, stated "the aim of our (EU's) sanctions is to stop the reckless, inhuman and aggressive behaviour of the Russian troops and make clear to the decision-makers in the Kremlin that their illegal aggression comes at a heavy cost (European Council, 2022)."

In economic sanctions against Russia, the EU expressed its resolve and actually imposed sequent sanctions. Regarding ACI, a commissioner expresses to endorse the concept of ACI and to reject economic coercion by third countries. While the concept of ACI is endorsed, it is not mentioned to what extent the EU could sacrifice the cost of implementing ACI, which suggests even though the EU has signalled its political resolve through economic sanctions against Russia, there is a room for ameliorating.

As mentioned above, most of the private sector involved in ACI agrees on the concept of ACI. In this sense, the state (EU) and the private sector seem to have reached a consensus on implementing ACI. However, given the fact that the private sector is tasked with maximising its profit, it is likely that they will not be cooperative due to financial loss.

As ACI does not stipulate financial compensation, it will make sense for the private sector not to comply with ACI for the sake of profit maximisation. According to a report by Kearney, Applied Materials and Lam Research, they have already revised their revenue forecasts in the wake of new US export control towards China announced in October 2022.

If they cannot export to China due to the regulation, Applied Material estimates a \$250 to \$550 million decrease in Q4 net sales which falls in the range of 4 to 10% of their top-line revenue, whereas Lam Research has warned of \$2 to \$2.5 billion in lost sales over the course of 2023, roughly 13 to 17% of their total revenue (Kapoor *et al.*, 2022).

Additionally, it is worth mentioning that ACI does not stipulate penalty when non-compliance occurs. Given the estimated financial burdens and profit maximisation orientation, it is highly likely that private sector will not comply with ACI, even though they endorse the concept of ACI.

It would be imperative to implement policies as important as to enact them. Particularly, unlike other EU policies, ACI would involve the private sector in implementing. In order to avert inactions by the private sector frightened financial loss caused by retaliatory measures, it will be required that the EU hold law enforcement capability to implement policy.

Although the EU is of course a legislative authority, it does not cover all law enforcement in each country. For example, when a firm in an EU country breaches export control, it is the national authority that is in charge of the breach and imposes fine. It is a fact that although the EU monitors how policy goes, national authorities play a larger role in implementing EU policies.

Scholten (2017) rightly states that the direct enforcement of EU law has been traditionally kept at the national level (Scholten, 2017), due to the respect for national sovereignty. Bauer and Bromley (2019) point out that standards for the trade of military goods are legally binding in the entire EU, yet the means of implementation are left for each Member State (Bauer and Bromley, 2019).

As mentioned above, it is anticipated that most of the measures in which ACI relies on would be export control, which suggests that discussions regarding law implementation of export control can be applied to ACI in the same manner.

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The EU has supporting mechanisms for private sector. For example, the Dual Use of Coordination Group (DUCG) is designed to exchange information between public and private sectors. In addition, the European Data Protection Board (EDPB) has a consultation mechanism, whose Article 36 stipulates a consultation period up to eight weeks and written advice to data controllers and processors where supervisory authorities are of the opinion that infringement of the regulation occurs.

In the two cases of consultation mechanism described above, they are not designed to directly deter violations, rather they are expected to indirectly reduce them through information exchange and prior consultation. In ACI, since the scope of application has not been stipulated, it would be likely that the private sector will require information and consultation with authorities to comply with ACI. In this sense, even though this mechanism does not deter violations by penalty, it is anticipated to enhance capability of compliance.

It is plausible that when ACI is triggered, the private sector would be forced to cut off economic exchange with the target country. According to Annex 1, while some non-export control measures are proposed, such as access restriction to capital and financial markets (8) and imposition of restrictions on the protection of intellectual property rights (7), the measures are mainly presupposed to be export control ((1), (2), (3), (4)). This suggests that the private sector plays a significant role in implementing ACI and its implementation capability is important as well.

As discussed below, the implementation capability of the private sector is insufficient to guarantee to let China think that the private sector in EU would comply with ACI. Complying with export control is inevitably burdensome for the private sector. European Commission (2015) points out the administrative burden of complying with export control. In their interview research, it is illustrated that the administrative burden is considered heavy and time-consuming, which is mainly due to additional information often requested by the authorities.

It also states “on average these (chemical) companies obtain a licence in 3-4 months (European Commission, 2015).” Concern from the private sector has been accordingly voiced. For example, BMW expressed concern about legal adjustment, mentioning “introducing the ACI in the EU may well make full compliance impossible in the future (BMW Group, 2022).”

Furthermore, although the exact number of export control cases cannot be verified, an increase can be confirmed in qualitative data. For instance, Yuki Sakurada, from Nishimura Asahi, one of the major law firms in Japan, states given the expansion of export control by the United States, not only major firms, but also SMEs have strived to strengthen export control (Nishimura Asahi, 2023). Though he mentions the Japanese cases, it can be same in the EU because of this trend being global. It can thus be deduced that implementation capability of the private sector for ACI cannot be regarded as sufficient.

As discussed above, although the EU has faced some difficulties in ensuring credibility, the EU has expressed its political resolve in a series of economic sanctions on Russia. Nonetheless, what really matters for deterrence is whether China really believes ACI would work. As mentioned in the previous section, deterrence depends on the perception of potential attacker.

Meanwhile, it is hardly possible to substantiate perception, it is often the case that the spokesperson of the Ministry of Foreign Affairs of China expresses their stance through regular daily press conferences. Tracking these regular press conferences and facts would allow one to estimate their perception on specific issues.

In order to estimate China's perception on the resolve of the EU for implementing ACI, the Lithuania case seems ideal because this is a relatively recent event, which is a good example of demonstrating the recent political resolve of the EU and of how China currently perceives it.

On November 18, 2021, Lithuania established the Taiwan Representative Office in Vilnius, which was regarded as a formal diplomatic relationship between the two states. This is a remarkable event for not only both countries but the international community because of the risk Lithuania took.

The bilateral relation had gradually changed in an inconspicuous manner. For example, in 2020 China made efforts to deepen its cooperation with Lithuania in the China-Central and Eastern European Countries Framework (Ministry of Foreign Affairs of Republic of China, 2020), accelerated by the Belt and Road initiative. On May 24, 2021, however, Lithuania decided to withdraw from the Framework, calling the Chinese initiative divisive. Though China did not particularly make a comment on the withdrawal of Lithuania, it could have been regarded as halting the relationship between the two.

In August 2021, Lithuania announced it would establish a Taiwan Representative Office in its capital. China vehemently opposed this announcement, stating "the determination of the Chinese government and people to achieve the reunification of the motherland is unshakable, and the red line of safeguarding national sovereignty and territorial integrity cannot be touched (Ministry of Foreign Affairs of Republic of China, 2021)." And it also stated "we (China) urge the side to immediately correct its wrong decision, take practical measures to eliminate the negative impact, and not to go further down the wrong path (Ministry of Foreign Affairs of Republic of China, 2021)."

A few months later, On October 30, 2021, the spokesperson for China commented that the European side should adopt a correct position and avoid disrupting the sound development of relations with China (Ministry of Foreign Affairs of Republic of China, 2021). China took several retaliatory measures, such as rejection of custom applications and invalidation of diplomatic cards after the establishment of the

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Taiwan Representative Office. It is worth mentioning that China did not mention EU's influence as they trigger the retaliatory measures.

Based on the dynamics between the two countries and the rhetoric from China, it can be inferred that China opposed to the establishment of the Office by Lithuania and retaliated Lithuania without considering the EU's influence. Furthermore, it is worth mentioning that the EU had not made official comments regarding the China's aggressiveness towards Lithuania, despite Chinese official comments having been published.

The EU failed to demonstrate its political resolve at that time, which virtually allowed China to coerce Lithuania. It is thus obvious that China would not care about retaliatory measures stipulated in ACI, which means credibility is not assured.

Additionally, it is worth noting as well that there is a case that the EU imposed sanctions on China for human rights violations. On March 10, 2021, the EU published a report, conveying its intention to impose sanctions on human rights violations, whereas China did not make any comment on this report.

Followingly, on March 22, 2021, the EU decided to sanction eleven individuals and four entities, including Chinese ones (Council of the EU, 2021). Two days later, the spokesperson for China additionally made a comment, stating "this move, based on nothing but lies and disinformation, disregards and distorts facts, grossly interferes in China's internal affairs, flagrantly breaches international law and basic norms governing international relations, and severely undermines China-EU relations. ...It must end the hypocritical practice of double standards and stop going further down the wrong path. Otherwise, China will resolutely make further reactions (Ministry of Foreign Affairs of Republic of China, 2021)." Despite these comments that frightened the EU, the EU never ceased to impose sanctions on China.

The foregoing means that even though China is not frightened of influences from the EU, it is a fact that the EU actually imposed a sanction on China, despite being threatened with retaliation. Based on the discussions above, it is possible that China would think the EU could take retaliatory measures, as demonstrated in March 2021.

However, given facts that China actually economically coerced Lithuania and the EU did not make any comment on this coercion before China actually did, it is conceivable China does not appreciate the EU's credibility to implement ACI. Even though China appreciates it, it is not enough to deter China.

#### **4. Unacceptable Damage**

As Morgan (2003) argues, unacceptable damage relies on rationality. Unacceptable damage is designed to outweigh the expected benefit of the attack, leading to an eschewal of the attack with based on a rational cost/benefit analysis. It is, however,

not obvious how an attacker would calculate the cost because it depends on the attacker's perception. It is thus possible for the attacker to ignite initiate an attack regardless of rational cost/benefit analysis.

Russia's invasion into Ukraine is an illustrating example. On February 24, 2022, Russia initiated a special operation towards Ukraine, which was virtually essentially an invasion. Russia has been massively sanctioned by Western countries. According to an estimation by the World Bank, Russia's GDP dropped by 2.1% and 300 billion euro asset of the Russian Central Bank has been blocked (European Council, 2023). Nevertheless, Russia decided to conduct the operation and has not ceased it so far. This illustrates that there could be cases where a cost/benefit analysis does not work.

The foregoing, however, does not necessarily mean rationality does not work. It is possible that rationality does not indicate only pure cost/benefit analysis, rather, an attacker may have a different preference that wherein cost is deprioritised for the sake of political goals. Therefore, the attacker could not care about the costs, based on its own preferences. This aligns with Morgan's (2003) argument on the importance of understanding the opponent's cost benefit calculation, stating "it does not provide instructions on just how to gain such an understanding" (Morgan, 2003).

Therefore, it is crucial to know the preferences of potential attackers, which may be that political resolve outweighs the monetary costs.

China has, indeed, put emphasis on political issues. Goldstein (2020) argues under Xi, China has devoted more attention and resources to ensuring that it has the capabilities to defend the core interests. It is well known as followings: 1) state sovereignty; 2) national security; 3) territorial integrity; 4) national reunification; 5) China's political system established by the Constitution and overall social stability; and 6) basic safeguards for ensuring sustainable economic and social development.

However, what should be asked is to what extent China would protect its core interests and how much sacrifice China could make. In economic coercion, it is basically intended to achieve political goals with economic means, which suggests that by quantifying political goals in monetary terms, it is possible to estimate how much the attacker could sacrifice for political goals.

This can be regarded as the *minimum* cost for the political resolve on a specific issue, which means if the EU retaliates to coerce China in the name of ACI in response to China's economic coercion but inflicts less than the minimum cost, China would not acquiesce to EU's demand and deterrence would fail, because for China the cost is acceptable.

In order to assess the *minimum* cost of the political resolve for specific issues, I analyse past cases of economic coercion by China, from which can be deduced based on facts how much China could actually bear the cost for political goals. Yet,

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this quantification of course fails to cover some issues. For example, it is hardly possible to precisely capture the cost of economic coercion for the coercer due to the timeframe and invisible costs.

Conversely, this means that estimated costs described on the following section are the *minimum* cost that China shouldered in implementing economic coercions. Again, this is not designed to identify unacceptable damage, rather to estimate the minimum cost in order that ACI would work. In the following section, I analyse 4 cases to quantify the monetary costs of political resolve for each issue.

### **Case 1: UK**

On December 13, 2019, Mesut Özil, a famous player in one of the most prestigious football teams in the UK, Arsenal, tweeted a content criticising the government of China regarding human rights issues in Uyghur. Human rights issues are not the core interest China holds, yet China expressed concern and retaliated against the tweet.

In the following days, on December 15, 2019, China's nationalised TV broadcaster, CCTV, removed English Premier League football match programmes, including Arsenal's from its schedule after the tweet, which was regarded as a retaliation. CCTV bid the rights to broadcast the game for 564 million pounds over three years (Phillips, 2019). Reportedly, however, since China did not pay the half money, the contract expired in 2020 (Mahadik, 2022).

Although China had already paid the half, 282 million pounds, it suspended broadcasting even during the contract period. On August of 2022, CCTV resumed broadcasting the English Premier League. The cost that China actually shouldered, 282 million pounds, could be considered as one that China sacrificed for its economic coercion.

### **Case 2: Australia**

On May 2020, China halted beef imports from Australia as a retaliatory measure against Australia's claim that an independent research on the origin of Covid-19 should be conducted. Due to the measure, Australian beef exports to China dropped by 34% in 2020 compared to the previous year (Smith, 2021).

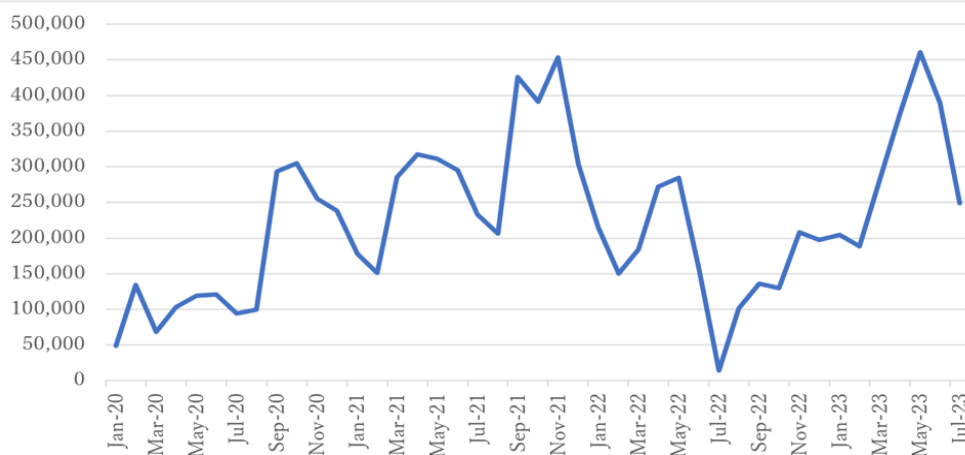
At the same time, the value of US beef exports to China increased by 260% (U.S Department of Agriculture, 2021). It is thus predictable that even though China initially intended to pay the cost of coercing by halting import of Australian beef, eventually China hardly shouldered the cost, because it was mitigated by the increase of US beef import.

China imposed 80.5% tariffs in total on Australian barley in May 2021 (Barrett and Trompiz, 2021). It is a fact that in 2022 China's import of barley dropped by 42.3%, which seems to be influenced by its own tariff measure.

However, as Figure 2 shows, although it is discernible there seem to be seasonal differences of import volume, it seems unclear if the trade volume had been influenced by the tariff measure.

**Figure 2.** Monthly data on China's import of barley (US dollar base)

fig.2 monthly data on China's import of barley (US dollar base)



Source; "Value table of major imported commodities (进口主要商品量值表)," General Administration of Customs of People's Republic of China

**Source:** Value table of major imported commodities. General Administration of Customs of People's Republic of China.

In addition, Figure 3 shows the yearly data. Interestingly, it seems that import volume in 2021 was exceptionally high compared to the previous 5 years. Due to the particularity of 2021, the import volume in 2022 dropped by 42.3% compared to the previous year.

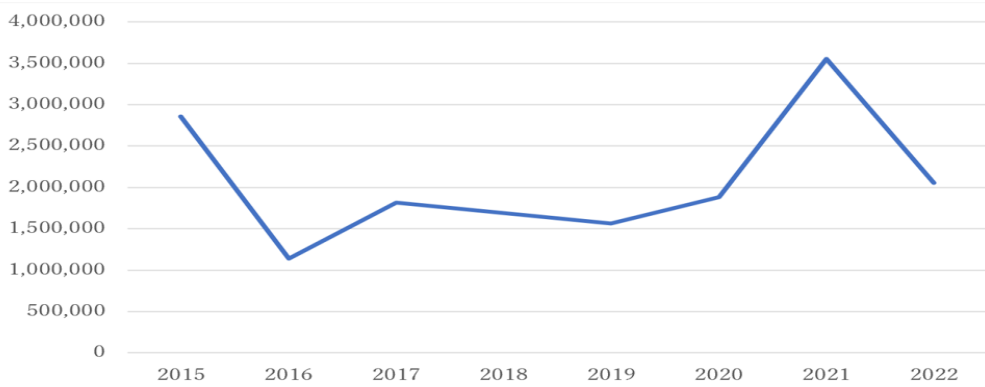
China reduced import of copper concentrate from Australia, which eventually reached zero at the end of December 2020 (Daly and Chow, 2021). Yet, copper import from Australia did not influence the total volume of import, as Figure 4 shows, China has gradually augmented its import volume of copper even during the trade suspension with Australia.

The three items argued above illustrate that though China suspended import on specific items, China is capable of increasing the total trade volume by means of alternative trade. It is thus evident that China did not expend monetary costs for the political resolve in the Australian case.



**Figure 3.** Yearly data on China's import of barley (US dollar base)

fig.3 yearly data on China's import of barley (US dollar base)

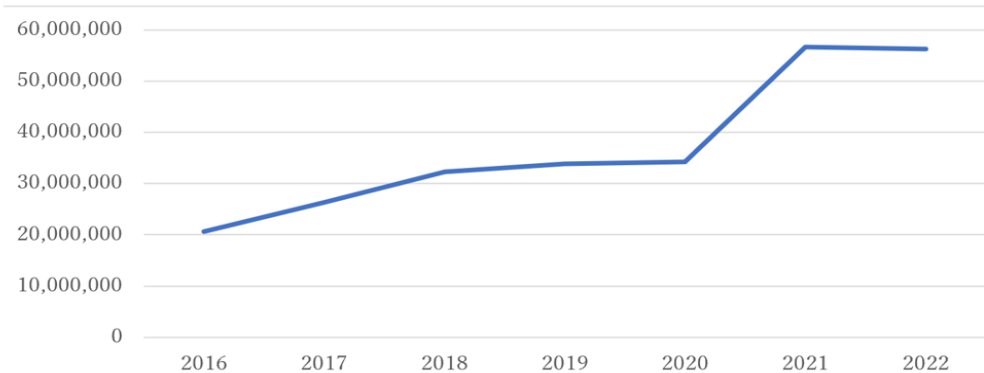


Source; "Value table of major imported commodities (进口主要商品量值表)," General Administration of Customs of People's Republic of China

*Source: Value table of major imported commodities. General Administration of Customs of People's Republic of China.*

**Figure 4.** Yearly data on China's import of cooper (in US dollar base)

fig.4 yearly data on China's import of cooper (in US dollar base)



Source; "Value table of major imported commodities (进口主要商品量值表)," General Administration of Customs of People's Republic of China

*Source: Value table of major imported commodities. General Administration of Customs of People's Republic of China.*

### Case 3: South Korea

On July 2016, the United States and South Korea announced that they would deploy the THAAD system in South Korea. The THAAD is a defence system, which does not threaten China. China, on the other hand, perceived the THAAD as a threat to

China, as it would reduce the missile capability of China. In this context, in 2017, China took retaliatory measures against South Korea in response to the deployment.

First, after the THAAD announcement, several K-pop star tours were cancelled in subsequent months. Second, in March 2017 Chinese authority ordered travel agencies to halt package tours to South Korea. Third, in April of the same year, Lotte stores, one of the largest conglomerates in South Korea, were ordered to halt operations in China by Chinese authorities, for violating safety requirements.

These measures could have obviously inflicted costs on South Korea's economy. It is discernible that ordinary citizens in China were forced to restrain from some activities, such as attending K-pop tours. It is, however, clear that the government of China did not bear the cost in implementing retaliatory measures against South Korea, which could be regarded as having been cost-free for China.

#### **Case 4: Norway**

On October 8, 2010, a Nobel Prize was awarded to Liu Xiaobo for his long and non-violent struggle for fundamental human rights in China. Since he has been a dissent for the government of China, this award angered Beijing, which triggered retaliatory actions. As a substantial measure, China inconspicuously suspended importing Norwegian salmons (Lewis, 2011). As a result, Norway's export of salmon to China dropped by 59 in 2011, compared to the previous year (Higgins, 2012).

Kolstad (2020) estimates the effects of Chinese sanctions on Norwegian salmon export to China with a synthetic control approach. According to this estimation, Norwegian salmon exports to China dropped by at least 125 and at most 176 million US Dollar between 2011-2013. In Kolstad's (2020) paper, the loss of trade volume is not mentioned, yet it can be estimated 9,500 tons to 13,400 tons.<sup>2</sup>

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<sup>2</sup>According to an official statistic from the General Administration of Customs of the People's Republic of China, sea food is categorised into two; raw fish (食用水产品) and frozen fish (冻鱼), which is unable to identify the import volume of salmon. Therefore, in order to bridge the Kolstad (2020)'s estimation in US dollar and the quantity (tons) together, which is comparable, I refer to two articles listed below to calculate what 1 ton equates to US dollars; "Norway's salmon exports to China up 67 pct in 1H by volume," Xinhua, July 5, 2023, <https://english.news.cn/20230705/aaa2ed7f18d64a56b227071749b06392/c.html>; Louis Harkell, "China's seafood imports surge to \$19bn in 2022 despite COVID lockdowns," China Fisheries & Seafood Expo, April 12, 2023, <https://chinaseafoodexpo.com/chinas-seafood-imports-surge-to-19bn-in-2022-despite-covid-lockdowns/>. Then, based on each article, the tons/price ratio can be calculated as follows: 10,720 tons/ 125 million dollars; and 8,317 tons/125 million dollars, which are averaged to obtain 9,518 tons/ 125 million dollars, then rounded to 9,500 tons/ 125 million dollars. The ratio 13,400 tons/ 176 million dollars was calculated in the same manner.

The import volume of salmon in China cannot be verified, though, it is estimated around 500,000 tons annually (Hayes, 2013). Reportedly, Russian salmon exports to China in 2011 increased by approximately 98,000 tons (IntraFish, 2012,) at the same time as when Norwegian exports reversely dropped. Based on the above, it can be predicted that China was hardly damaged by triggering its economic sanction towards Norway by mitigating the damage by increasing Russian import.

As summarised in Table 1, it is obvious that China has hardly paid the cost of triggering economic coercion, mostly mitigated by trading partners. In the following section, we argue what these cases stand for in deterring China's economic coercion as intended by ACI.

**Table 1.** Summary of estimated damage incurred by China by implementing of economic coercions

Table.1 Summary of estimated damage incurred by China by implementing of economic coercions

	UK	Australia			South Korea			Norway
Sanctioned items	Football games	Beef	Barley	Cooper	K-pop tour	Lotte store	Travel to SK	Salmon
Estimated damage for China	282 million £	Offset by the US	Cannot be confirmed	Cannot be confirmed	unconfirmed	Around 13,000 employees temporarily unpaid	Around 10 million people affected by the halt	Offset by Russia

**Source:** Value table of major imported commodities. General Administration of Customs of People's Republic of China.

As shown above, although Baldwin (2020) argues that the cost of economic coercion tends to be burdensome for the target corresponding with its resolve, it can be deduced that China has not been virtually burdened cost by its economic coercions.

This can be interpreted as follow: China is sensitive to cost more than it has been anticipated. This is in accordance with what Zhang (2019) argues in the Norwegian case that China is highly calculative and risk-averse. As mentioned above, while China has been thought to aggressively defend its core interests and outweigh them over economic benefits, this interpretation implies the opposite.

On one side, it is worth noting that there have been several items that China did not include import control despite inflicting immense damage on the target. For example, China did not include iron ore despite its import amount being 103.5 billion Australian \$ in 2022 (Department of Foreign Affairs and Trade, Australian Government, 2023), whereas the amount of coal import was around 14 billion \$ in 2019 (Birtles, 2022). Additionally, China did not implement trade restrictions against South Korea in the THAAD case.

These facts imply the following two points: first, China kept them as the “last resort” for economic coercion. If the target acquiesced before implementing trade restrictions, that would be quasi-optimal for China because it does not shoulder immense cost in implementing economic sanctions with acquiescence from the target. In this sense, it might not be wise to trigger such an immense measure at the first stage; secondly, China could not have been afforded to shoulder the costs that these items would have brought.

These items would have brought unaffordable damages to the targets, simultaneously it would be the same for China. Given this importance even for China it was not realistic that China imposed restrictions on these items.

Due to the impossibility of testing the causal relations between the excluded items and China’s intent, it would be impossible to reject the possibility of last resort. However, given the cost-aversion-oriented nature as argued above, it would be more plausible that China could not have been afforded that cost than keeping them as last resort.

This is precisely what could be unacceptable damage for China. By analysing excluded items despite their massive importance for trade, it could be possible to estimate unacceptable damage for China.

In order to specify the unacceptable damage for China, we refer to trade statistics to find the trade volume of items. Each trade statistic is as following: the General Administration of Customs of the People’s Republic of China; Korea Customs Service; and Australian Bureau of statistics. In order to be comparable, the degree should be standardised to US dollar. Statistics of China and South Korea have been represented in US dollar, whereas Australian one has been in Australian dollar. In this paper, Australian dollar is converted into dollar with 1 US dollar=1.43 Australian dollar, calculated by 5 years average.

As to item category, the original data is comparable in most parts, yet some of them are not. For example, in Australian statistics alumina is included in Aluminium category, whereas in Chinese statistics, it is excluded. It is worth mentioning that despite the importance of lithium being voiced, it is out of scope given the lack of data in official statistics. Fortunately, data of integrated circuit is comparative between South Korean statistics classified in HS code and Chinese ones (集成电路).

### **Case 5: Australia**

Given the importance of Australia as a commodity supplier, materials supplied by Australia are important for China as well, it has been pointed out that “the PRC is less likely to target Australia’s mining or energy sectors because the economic pain

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for China is large” (Hunter *et al.*, 2023). Due to a limited number of countries that can produce them, the importance for China will remain in a long term.

Indeed, China did not include aluminium and iron when it implemented economic sanctions on Australia. For example, in 2018, prior to the economic sanction, China imported 2,701.4 million US dollars of aluminium, of which Australia’s export accounted for 30.6%, whereas in 2022, during the economic sanction, it accounted for 15.4%.

Even if China had reduced the Australian import share by half, it is thought of as being the result of China almost doubling entire import of aluminium between 2018 and 2022 (2,701 million dollars to 6,752 million dollars). Evidently, the value of Australian exports itself has increased in absolute terms (827 million dollars to 1,041 million dollars).

As to iron, China’s total import was 75,539 million dollars in 2018, of which Australia accounted for 43.1%. In 2022, on one side, it accounted for 54.8%, even under economic sanctions, which suggests that though China conducted trade restrictions on some items, such as coal and barley, China continued to import iron from Australia, rather the import volume and share increased.

Mining materials depend on geography, which suggests the producer countries are given. As to aluminium, the material, bauxite, are found in countries below: Guinea (25%); Australia (20%); Vietnam (12%); Brazil (9%); and Jamaica (6%) (Japan Organization for Metals and Energy Security, 2018), which suggests that China is not a produce country, but it is the largest consumer. On one side, iron is found in the following countries: Australia (29%); Russia (17%); Brazil (14%); China (9%); and India (6%) (Japan Organization for Metals and Energy Security, 2018). Even though China is a producer, it is an importer as well, given the massive domestic demand that outweighs its production.

To overcome this limitation, China has strived to partner with producing countries. For example, China has partnered with Guinea to explore Simandou, one of the biggest iron areas (Moriyasu, 2023). Meanwhile, it is said that iron from Simandou is high quality with few impurities, and the total production is expected to be low. Furthermore, exploring there entails constructing infrastructure that makes production affordable. Again, lithium is out of scope of this research, but Chinese firms have commenced operations in Latin America (Hyodo, 2023).

Based on the above, it can be inferred that mining materials, particularly aluminium and iron would be unacceptable damage for China given that China did not cease importing even during the trade restrictions. It should be remarked that, although China has strived to mitigate its dependence on Australia, partnering with producer countries, such as Guinea, it is predicted to be insufficient due to the limited capacity

and because it will take long time to construct infrastructure. It is thus concluded that these choke points will remain unacceptable damage for the long term.

### **Case 6: South Korea**

As discussed above, China implemented economic sanctions against South Korea in response to the deployment of THAAD system. Possibly, it is understood that China implemented in a gradual manner, keeping the most effective tool, or semiconductor, as a last resort. In terms of effect, it is logical to restrict import on the most traded items, i.e. integrated circuits, or semiconductors. According to an estimation, Integrated circuits accounted for 30.5%, marking the highest share in the bilateral trade in 2021 (The Observatory of Economic Complexity, 2023).

In 2018, China imported integrated circuits with 312 billion US dollar, of which South Korea accounted for 14.8%. It should be noted that China did not implement trade restrictions on integrated circuits, which is unable to compare the before/after effect of economic sanctions; however, despite export control to China by the US administration in 2022, China augmented the import to 381 billion US dollar, of which South Korea accounted for 12.8%.

Unlike commodities, the quality or technology does matter with semiconductors. If it is low quality, China would not feel it unacceptable to be sanctioned, and would alternatively trade with TSMC or other foundry companies that can offer and produce chips. Regarding quality, South Korea cannot sufficiently retain China as a unique partner because basically Samsung, the South Korean giant, is a foundry company that produces chips as an OEM.

Samsung is privileged in terms of massive investments on production facilities, yet it does not process its core technology coming from design companies. Since the production of semiconductors requires massive costs and equipment, even if South Korea does not have core technology, it can take advantage of the production. In order to enhance this advantage, the government has announced to invest an unprecedented 450 billion US dollars by 2030 (Jaewon, 2023).

Yet, there are some points that might diminish its advantages. First, Samsung has been left behind of TSMC in OEM production. Accordingly, the OEM shares in April to June of 2023 were 59.6% (for TSMC) and 12.3% (for Samsung) (Hosokawa, 2023). Furthermore, Samsung made deficits in major semiconductor fields, such as DRAM (44.1 billion yen), NAND (298.1 billion yen), and non-memory chips (77.2 billion yen) in the third quarter of 2023 (Hosokawa, 2023).

Second, China has tried to overcome this disadvantage, by leveraging economic power. It has been said that China has offered high salaries to hire semiconductor engineers. This reflects a proper market mechanism, in which no one cannot intervene. Unofficially, however, China employed opaque economic espionage.

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For example, in June 2023, ex-executives of Samsung were arrested on charges of leaking a drawing of a semiconductor factory to China (Hosokawa, 2023).

Based on the above, South Korea's integrated circuits could be unacceptable damage for China to some extent given the bilateral trade. Nonetheless, the advantage of South Korea in the semiconductor field has relied on massive investment and facilities, all of which can be theoretically caught up with money. Furthermore, there are negative points for South Korea that diminish its advantages. It is thus concluded that integrated circuit could be unacceptable damage for China now, but it may not last long.

#### **4.1 Application to ACI**

As discussed above, it may be possible that some items constitute unacceptable damage to China, which would help deter economic coercion by China. However, not all of those items are available for the EU. Therefore, it is necessary to argue to what extent the EU can avail itself of the above-mentioned unacceptable damage and reshape the scope of implementing ACI. In order to apply the discussions above to ACI, it is necessary to focus on semiconductors like South Korea.

Although the EU has been left behind in the semiconductor market, compared with other countries, ASML, a Dutch giant, is the only company that succeeded in producing the EUV lithography system that is required for nano-edge cutting. This means that when China wishes to produce its own advanced chips, it is inevitable to obtain an EUV lithography system from ASML. Since ASML has monopolised this area, this could be a choke point for China, and thus be unacceptable damage.

However, as argued in the South Korea section, China has now leveraged its economic power to catch up with production facilities by hiring engineers with high salary offers and economic espionage. Even if the United States and its allies have conducted export control against China, they cannot completely prevent China from acquiring the technology due to hiring and smuggling the equipment.

In cases where choke points cannot be employed, it is worth arguing whether large-scale cost, such as the United States threatened in the trade war with China, would be possible. As described above, China may be risk-aversion and cost-sensitive more than previously thought. It is thus thought that large-scale economic damage would be effective when choke points cannot be employed.

The hurdle in which the EU implements a 92-billion-euro (100 billion dollar) tariff is slightly lower than the United States, given that the EU's import volume from China in 2022 was 619 billion euros, whereas that of the United States was 536 billion dollars (Eurostat). However, it is plausible that the cost burden allocation of each country would be disproportionate, calculated by weighted average, wherein Netherlands accounted for 22.4% and Germany did 21.0%, whereas Lithuania,

which triggered China's economic sanction, did only 0.3% in 2022. This implies a critical issue, free-riders.

In this scenario, smaller countries like Lithuania, as they hardly bear the cost, would be incentivised to challenge China in pursuit of profit maximisation. It is however predicted that, given this trade share and items, it would be impossible to prevent free-riders from emerging.

Remarkably, in July 2023, the German government released "Strategy on China", in which is designed for "de-risking", rather than "decoupling", and stipulates "companies must take geopolitical risks sufficiently into account in their decision-making. The costs of concentration risks must be more strongly internalised on the part of companies so that state funds do not have to be tapped into in the event of a geopolitical crisis" (the Government of the Federal Republic of Germany, 2023). This suggests that the cost incurred by companies involved in ACI would not be compensated.

While the EU has not yet expressed its political resolve for triggering ACI, judging from the statement in "Strategy on China," it is conceivable that Germany would lean towards risk-aversion, which would be a hurdle in expressing the EU's resolve. In addition to the free-rider issue, a plausible German attitude towards cost would make it quite hard to reach a consensus, which is necessary since the EU has laid down a unanimous vote system regarding foreign affairs and military decisions.

In conclusion, in order for ACI to work, in the short term, the EUV lithography system monopolised by ASML, could be unacceptable damage for China. In the long term, on the other hand, it is unlikely that the EUV lithography system would remain the choke point for China because China has strived to catch up with the technology in official and unofficial manners.

Concerning large-scale damage, as practiced by the United States, although the burden of the EU as a whole is less than that of the United States, given the free rider issue and Germany's plausible risk-aversion, it would be difficult for the EU to take action.

## **5. Discussion and Conclusions**

Through this paper, we argue if ACI will work as deterrence against China and mainly focus on credibility and unacceptable damage.

With respect to credibility, it is hard for the EU to assure credibility towards China. Regarding the EU's political resolve, it has been signalled through official statements, which contributes to enhancing credibility. For private sector, even though they agree on the concept of ACI, they are concerned about the financial compensation. It is predictable that the private sector would bear costs when ACI is



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triggered, although the financial compensation is not stipulated in ACI. Therefore, the EU is now capable of demonstrating its political resolve to confront economic coercion targeting EU entities, yet it is required to also demonstrate its resolve for the financial compensation.

By contrast, as to capability for the EU and private sector, it is possible to indirectly contribute to law enforcement capability by prior consultation mechanism, such as EDPB does. However, concerns have been voiced about full compliance with ACI. Given an increasing number of export control, it is likely that compliance will increase more than ever, which causes non-compliance with ACI in an unintentional manner.

For China, even though the EU has signalled its political resolve, it is not credible enough for China to think that the EU would retaliate when it is economically coerced. It is predictable that the EU is incentivised to implement ACI in order to avert inaction that undermines its credibility, though it is unclear if China will appreciate it. It is thus concluded that the EU's credibility that it would retaliate when necessary is insufficient to deter China's economic coercion.

Concerning unacceptable damage, based on an assumption that China did not include some items because they were unacceptable damage for China, plausible unacceptable damages were induced. In the Australian case, aluminium and iron are induced as unacceptable damage for China because China did not include them in sanction list, both of which continued to see increases in their trade volumes even under the sanctions, and thus can be understood as unacceptable damage. In the South Korean case, integrated circuit is induced as unacceptable damage for China.

However, it is worth noting that China did not conduct trade restrictions in the South Korea case, which means, unlike the Australian case, it might have been possible to include integrated circuit in sanction list if China had imposed economic sanctions on South Korea. It can thus be induced that aluminium, iron, and integrated circuits (semiconductors) would be unacceptable damage for China.

In terms of application to ACI, it is hardly possible for the EU to leverage commodities due to geographical limitations. By contrast, since ASML has nearly monopolised the EUV lithology system market, it is possible for the EU to employ it as an unacceptable damage. It is nevertheless predicted that it would be difficult to maintain this choke point, because China conducts opaque economic espionage, as demonstrated by former executives of Samsung.

Remarkably, based on each case of economic coercion by China, it can be asserted that China is risk-aversion-oriented, as China had virtually bore no cost in implementing economic coercion. Due to this risk-aversion nature, the EU might be able to inflict unacceptable damage on China by a disproportionate scale of trade measure, even though it cannot employ choke points.

Nonetheless, as Article 11 stipulates that “Union response measures shall be proportionate and not exceed the level of injury to the Union” (EU 2023/2675), it seems difficult to inflict disproportionate damage, which is an obstacle at the present for unacceptable damage. Therefore, under the legal framework of ACI, the EU can employ the EUV lithology system, though it is unclear if it would work as unacceptable damage and how long this superiority would last.

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