



Legal aspect of the Value – oriented Trade Regime from the Multilateral Perspective and Policy Responses – With respect to the CBAM and IRA

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The crisis of the multilateral system has been raised for a long time. In particular, uncertainties surrounding the global trade environment are increasing such as the US–China dispute and reorganization of supply chains.

Unfortunately, the restoration of the 1995 WTO system based on multilateralism is not likely to happen in a foreseeable future. Economic powerhouses such as the U.S. and China are not hesitant to use trade policies as a tool to maximize their national interests. Against the backdrop of increasing uncertainty, non–market values such as climate change and human rights have begun to be merged with international trade. A new type of trade regime centered on countries or regions is being formed. Two concrete measures embodied with the value–oriented trade policies are the EU's Carbon Border Adjustment System(CBAM) and the U.S. Inflation Reduction Act(IRA). Although it is a bit far–fetched to compare both on the equal footing due to their structural difference, both ultimately have a common point in establishing the foundation of value–oriented trade regime. The advocates of both CBAM and IRA put forth the protection of universal values such as the environment, human rights, and democracy as a means to justify their deviation from multilateral protocols. Nevertheless, both run the risk of being exploited as a tool for their national interest. Since both can be abused as a disguised restriction on international trade prohibited under the multilateralism, it is very important to accurately diagnose their potential ramifications.

This paper will review the policy and legal issues of both measures and examine their compatibility with the WTO rules from a multilateral perspective. Based on the analysis, policy proposal for both government and private sector will also be reviewed.

Keywords : Value–oriented trade regime, Multilateralism, GATT/WTO, CBAM, IRA, Protectionism, Distortion of competition

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I. Introduction; the rise of value-oriented trade policy

By conventional definition, it has been taken for granted that environment is a non-economic and was a secondary factor in the realm of the global trade. However, non-market values are taking center stage of trade policies especially led by economic powerhouse like the U.S, and EU. Regardless of its ambiguity, the value-oriented trade policy is also taking the shape of a new type of protectionism.

The EU, which has been renowned for its devotion in environmental regimes to cut emission for a long time, is set to launch the full-scale implementation of CBAM effective January 1 next year.

The Biden administration, which has long advocated worker friendly stance, announced that it would link environmental and labor issues to trade, and intends to deliver this through the enactment of IRA. As non-market values are making inroads into the realm of global trade, Korea's export-oriented growth strategy faces new challenges.

Therefore, it's worth reviewing the legal aspect of value-oriented trade policies by selectively focusing on the Carbon Border Adjustment Mechanism(hereafter, CBAM) and Inflation Reduction Act(hereafter, IRA) respectively.

II. Multilateralism, and competition condition

Market multilateralism is philosophically predicated on human nature. Each individual has different resources, and has managed to achieve development through mutual interaction on the market. The beauty of market multilateralism lies in here. Interaction on the market, albeit motivated by self-interest, cultivate different components of scattered resources into the driving force of growth. Free market, materialized on multilateralism, is a brainchild in that it has been encouraging individuals to engage in, and contribute to value creation for the sake of society. In present days, multilateralism has come

to be aligned with global trade system. Multilateralism has paved the way for the idea of reciprocity between nations as it gave birth to the World Trade Organization (hereafter, WTO), a multilateral body handling the rules of international trade. Nevertheless, unhampered market runs the risk of failures such as environmental externalities, or radical polarization. The voice calling for complementary fine-tuning of market began to be heard. The advent of value-oriented trade policy could be understood in that regard. The identity of value-oriented trade agenda remains somewhat ambiguous as it takes different shapes. To illustrate, combination of trade and environment, labor, human rights all seem to have a relevance. However, value-driven measures may turn into a type of disguised restrictions on free trade. The CBAM and IRA are two symbolic value-oriented regimes that blatantly run the risk of erecting trade barriers.¹⁾ The concern stems from a possible distortion of competition conditions, and explains why Korea needs to take both measures

into consideration given its overly export-centered economy.²⁾ This is especially true as Korean economy is set to navigate through the digital transition where the process of incubating trade-conducive setting holds the key.

III. Brief Background of CBAM and IRA

CBAM, rectifying asymmetrical climate policies

- On June 22, 2022, the European Union(hereafter, EU) Parliament finalized the approval of the amendment of the Emissions Trading System(hereafter, EU-ETS), and CBAM. Both are expected to play a critical role in setting the legal framework in implementing the 'Fit-for-55' package³⁾ under the European green deal. Accordingly, the EU is set to cut down the volume of carbon emissions by 55% by 2030.⁴⁾ CBAM is a comprehensive scheme to prevent carbon leakage and at the same time to set the stage for concrete efforts to

1) Such as eco-friendliness, clean energy, stabilization of living standards through inflation control, and alleviation of global polarization

2) Korea's trade dependence, which is the sum of exports and imports divided by gross domestic product, is more than three times that of the United States and more than twice that of Japan.

3) EU's stated goal to cut down net-greenhouse gas emissions by at least 55% by 2030

4) EU carbon border adjustment mechanism Implications for climate and competitiveness, Authors: Jana Titievskaia and Henrique Morgado Simões with Alina Dobreva Members' Research Service PE 698.889 - July 2022

mitigate climate change. However, the risk of veiled trade barriers lurks beneath the surface. As a history of trade dispute shows, environmental measures could stokes up controversy, and in the same vein, CBAM is not an exception.⁵⁾

- To understand the overall picture of the CBAM, one should get familiarized with the concept of “carbon leakage”. Although climate change is a global problem that needs a global solution, each country has its own regulatory means to greenhouse gases, and missteps have been unavoidably made in coordinating policies. Even if carbon emission is reduced on a particular region, it would be fruitless if the same amount of greenhouse gas increases on the other side. The concept of carbon leakage refers to emissions being displaced than reduced as a consequence of regulatory discrepancy between regions. Environmental degradation caused by carbon emission is akin to the tragedy of the commons.⁶⁾ Due to the transboundary nature of industrial pollution,⁷⁾ every country agrees it’s in their common interest to cut down the amount of emission, but simultaneously, each

country operate production facilities to boost economic growth, discharging tones of emission equivalent to the volume of carbon leakage. Thus, carbon leakage is an embodiment of collective irrationality emerging from the individual rationality that its self-regulatory mechanism failed to address. From the perspective of individualism, emission outsourcing seems perfectly rational. However, from the global(collective) viewpoint, such off-shoring strategies to exploit regulatory loophole could wreak havoc on the sustainability of EU’s emissions-reduction endeavors. Producers, and firms involved in carbon emission discharging, would feel tempted to take advantage of the gap between the EU and non-EU countries as the latter tend to have a loose regulations, and even producers inside the EU could have a motivation to relocate their carbon fuming facilities outside the EU. Hence, entered the CBAM to fix the carbon leakage problems. It was designed to mandate importers to purchase certificate in alignment with the EU-ETS.⁸⁾ Theoretically, the CBAM is to be applied with an intent to correct problems of market failure(carbon leakage) by

5) 2021년 국가 온실가스 배출량, 6억 7,960만톤 예상(환경부 보도자료, 2022-06-28)

6) Climate Change: A Tragedy of the Commons? By Pedro Schwartz, The Library of Economics and Liberty

7) Trail smelter case (USA, Canada).

8) in case there is a prepaid price from the country of origin, the same amount will be deducted in conjunction with the free allocation of ETS (<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0564&id=9>)

internalizing external cost (environmental damage due to carbon leakage). Thus, it is expected to give rise to a significant impact on many Korean producers as they are heavily involved in carbon emission across the entire production process.⁹⁾

IRA, the manifestation of unilateralism

- If the CBAM is to build a new trade regime based on the environmental agenda, the IRA has come to stage tinted with a political motivation. It also contains an eco-friendly clause as one of its pillars, but is ultimately close to the U.S. domestic measure characterized by a huge amount of fiscal spending.¹⁰⁾ The IRA officially aims at curbing inflation as its name suggests (Inflation Reduction), but in reality, is somewhat paradoxical as it could escalate inflation through an extensive scale of fiscal expenditure. Its birth dates back to the 2020 U.S. presidential race. At the time, Joe Biden, then democratic presidential nominee, announced an ambitious policy titled

“Build Back Better (hereafter, BBB)” to revive the sagging U.S. economy in the aftermath of COVID-19 pandemic. The core idea of the BBB was to lay the foundation for the revival of the U.S. manufacturing sector, and job creation, promotion of workers' rights.¹¹⁾ From the start, the policymakers, and drafters of IRA were presumed to have no inkling of in reviving faltering multilateralism. Naturally, the value-oriented aspect under the BBB was designed to roll out, albeit unwittingly, the formation of trade barriers so as to step up the state-sponsored job creation or agendas in line with democratic-party-aligned voters. In particular, Biden did not hide his intention to revoke tax-credits or subsidies if firms or corporations act in accordance with market efficiency such as operating offshore production facilities.¹²⁾ The IRA is interwoven with strong political motivation and unlike CBAM, which has the characteristics of a legal framework, it has a hybrid nature of legislation and fiscal initiative.

9) According to Article 46 of the Framework Act on Low Carbon Green Growth ('10.1), the Act on Allocation and Transaction of Greenhouse Gas Emissions ('12.5) was enacted and has been in effect since January 1, 2015. Workplaces with high greenhouse gas reduction capacity can reduce more and sell excess cuts among government-allocated emissions to the market, and workplaces with low reduction capacity can buy emissions rights instead of direct cuts, which can reduce costs.

10) <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it>

11) <https://www.whitehouse.gov/build-back-better/>

12) THE U.S. HAS ADDED MANUFACTURING JOBS ACROSS THE COUNTRY DURING THE BIDEN ADMINISTRATION (<https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?id=B4CBB163-3B49-4A0B-AAF4-60C97A3DA5B6>)

Relevance in comparison between CBAM, and IRA

- Both CBAM and IRA differ in their characteristics to the extent that it is a bit far-fetched to draw a comparison in terms of relevance. However, both measures constitutes a disguised protectionism, and are categorically made out of value-oriented trade endeavors. Thus, from the perspective of policymaking, it is meaningful to analyze both in a manner of responding to the new global trade environment.

IV. Legal Aspect of CBAM, and IRA

Non-discrimination in competition; the legal basis

- The key enforcement of multilateralism in the context of global trade is to create a level playing field. All relevant players of international trade, regardless of their idiosyncrasy, should be given an equal footing to tap into their capabilities in pursuant of market principle. With the introduction of GATT/WTO regime, the legal platform for mutually beneficial exchange was incorporated. It is bolstered by two basic legal axioms: the 'Most Favored Nation Treatment'(MFN) and 'National

Treatment'(NT). The MFN Treatment states that member countries of the WTO should not discriminate exporting countries, i.e. no discrimination between goods from foreign countries. The principle of National Treatment means that equal treatment must be accorded to both domestic and foreign goods, once they are turned out to be "like-product" under GATT/WTO. As countries join forces to create a binding norms of multilateral trade, both principles came to stand out for the essential philosophy compatible with unfettered market where every participant is given a fair opportunity to realize its potential. From the perspective of multilateralism, optimal allocation of resources has been made possible under free and open market where intervention is minimized.

- By the same token, if trade barrier such as tariffs are lowered for one country, it should be lowered equally for others involved in trade, and should be treated the same as domestic one. By eliminating the elements of 'discrimination', the possibility of state-sponsored 'unfair trade measure' could be banished. However, as the uncertainty looms large over trade environment, states are not hesitant to adopt politically motivated policies, and with the rise of value-oriented trade scheme; most figuratively represented by the CBAM and IRA respectively, the fabric of level-

playing field is on the verge of breaking down. Most of all, it's worth noting how value-associated trade measures could lead the multilateralism into a quagmire of competition condition, and opportunities.

legal issues surrounding CBAM

- The objective of CBAM is to address "carbon leakage". In other words, there should be no difference in bearing burden due to discrepancy of environmental regulation. Levying financial obligations on imported products on a par with the EU ETS scheme is the general characteristics of CBAM. There has risen concern over the CBAM's conformity with WTO rules. A possible violation of National Treatment(NT) of GATT Article III and Most Favored Nation(MFN) of GATT Article I stand out as CBAM's requirement for importers to purchase certificate in aligned with the EU-ETS bears a close resemblance with tariffs or taxes, which runs the risk of trade barrier.¹³⁾ As stated

above, CBAM is structured measures to impose financial burden in proportion to carbon emission generated during the production. Imposition of a carbon price on a selection of imported products is supposed to be made when the targeted products are crossing the EU border.¹⁴⁾ Therefore, the CBAM is a border measure, and constitutes a mandatory obligation in the form of tariff or internal taxes. Some might counter this, asserting that the obligation imposed at the border is simply to ask importers to hold certificate, but still it should be viewed as a financial measure equivalent to taxes or tariffs, considering that certificate¹⁵⁾ is tradable on the market and legal penalty will follow in case of failing to purchase certificate. Being tradable means that it is acceptable as a medium of exchange within certain boundary of market, and penalty, such as imposition of fine on nonperformance of an CBAM obligation, or default means it is a compulsory exercise of power by the competent authority.¹⁶⁾

13) <https://www.berkeleyjournalofinternationallaw.com/post/eu-carbon-border-adjustment-mechanism-using-trade-to-achieve-climate-goals>

14) <https://www2.deloitte.com/nl/nl/pages/tax/articles/eu-carbon-border-adjustment-mechanism-cbam.html>

15) Carbon Border Adjustment Mechanism: Questions and Answers Brussels, 14 July 2021 European Commission

16) Carbon Border Adjustment Mechanism: Questions and Answers Brussels, 14 July 2021 European Commission

CBAM and Most Favored Nation(MFN) Treatment

- The CBAM could be incompatible with the MFN Treatment in that products from countries with high carbon emissions are subject to a heavier obligation than countries with lower emissions. The MFN Treatment states that any advantage granted to the imported products of one WTO member should be equally applied to goods from all other members of WTO without any condition. The legal discussion of CBAM's compliance with the MFN Treatment should be sector specific for the sake of clarity. One of the most affected sectors in most countries are steel industry as it accounts for a wide range of products, ranging from crude steel (4digit HS 7204-05), and semi-finished products including intermediate castings such as blooms, billets, slabs, and ingots (HS 7206-07), and to final products covering flat, long products, and alloyed steels(HS 7208-29). These products are major players in heavy infrastructure industries such as construction, and automobiles.¹⁷⁾

- Since EU's MFN concession on this line of products(2digit HS 72) mostly converges to 0% (tariff-free),

CBAM pricing might be viewed as a reintroduction of tariffs on steel sector from exporters' perspective.¹⁸⁾

- Usually, trade measures taken by authorities are implemented based on the characteristics of the product per se, thus even if the production method is different, it is regarded as the like product so long as there is no difference in its characteristics.¹⁹⁾ However, in terms of environmental issues, the production methodologies are relevant as carbon emission occurs in the course of manufacturing process. CBAM's legal nature to impose financial burden is focused upon the flow of production process as the amount of carbon emission differ depending on the specific formula actually used. As CBAM counts the volume of carbon elements associated with the targeted items regardless of final characteristics of products in question, it should be classified as the Non-Product Related Processes and Production Methods(NPR PPMs). The MFN treatment of GATT Article I stipulates the uncompromising obligation to grant equal treatment "unconditionally" to like goods regardless of production process. However, CBAM inevitably puts goods imported from a specific group

17) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0564>

18) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0564>

19) European Union Law Working Papers <http://law.stanford.edu> - EU-Law-WP-63-Saigal

of countries(high carbon emitters) at disadvantageous positions compared to the like products imported from other group of countries(low carbon emitters). Apart from the termination of free allocation of ETS²⁰, charging financial burden on exporters by mandating them to purchase carbon certificate leaves room for legal controversy. First of all, the trading partners of the EU have their own environmental policies. While some countries like Korea, have adopted an emissions trading system similar to the EU ETS, the others may have no policy or may adopt a non pricing systems. When applying CBAM to the imported goods that have been through the regulatory activities in their country of origin, the EU is likely to end up using discriminatory measures by selectively levying financial burden according to the CBAM.

CBAM and National Treatment(NT)

- National Treatment articulates that, in relation to internal taxes or regulations applicable to imported products, treatment no less favorable than that accorded to domestic products of the same kind shall be granted. Since both CBAM(measure applicable to imported goods), and ETS(measure applicable to

domestic goods) are intrinsically identical in their substantial nature(CBAM was initially designed after the EU ETS, and is charged in the form of a variable tax rate reflecting ETS price), CBAM's consistency with the NT should be evaluated in comparison with the ETS.

- In order for a separate measure (CBAM) to be legally justified, the economic burden should not exceed the level corresponding to the burden applied to domestic counterparts (application of the EU ETS). The CBAM price should stay above a certain level to set carbon leakage under control, but at the same time, financial burden derived from it should at least be equal to the price paid by European counterparts under the EU-ETS. The WTO compatibility test is quite illustrative as CBAM demands exporters to purchase a set of certificate (emission permits) from a pool similar but independent from the EU ETS at prices mirroring ETS prices. However, the ETS price may vary, meaning that the actual price paid by importers at a certain point could be higher than those paid by domestic counterparts. Importers, upon knowing the incongruity with the NT, may request the competent authority to repurchase or cancellation of CBAM certificates based upon the Commission

20) European Union Law Working Papers <http://law.stanford.edu> – EU–Law–WP–63–Saigal

registries²¹⁾ but that does not guarantee the autonomous rectification in line with the WTO.

- The compatibility of NT may also come about against the backdrop of global value chain(hereafter, GVC). Even before the Covid-19 pandemic, the structure of GVC has been undergoing complex evolutionary phases. Factors like incremental use of advanced technology has radically expedited the division of value adding processes at international scale. With explosive advancement of technology, the GVC takes a different shape in operation, and some started to level accusation, blaming GVC should be held accountable for worsening climate change. The drafters of CBAM set up a number of provisions to address adverse environmental impacts of the GVC operation as importers are bound to submit data regarding carbon emissions from GVC operations. To act in compliance with the CBAM, importers should check the entire production activities. For example, data such as liters of fuel, gases emitted in transportation, or emissions from combustion engines, should all be collected, and subsequently transposition for numerical calculus should follow. Collecting those data

itself is a daunting task, especially for multinational firms with thousands of suppliers along the GVC. The EU commission seems confident in that they have created a comprehensive guide to help exporters engage in precise measurement of emission²²⁾. However, it remains to be seen if such methodology truly reflect the amount of carbon emission across complex value chains, and to be in harmony with NT under WTO. According to the Chapter II of CBAM, authorized declarants should submit no later than May 31 of every year, the volume, content of the declaration(products to be imported), the calculation of emissions contained during the previous year and the verification of the calculus methodology by a certified verifier.²³⁾ Unfortunately, such passing-the-buck policy appears to force importers to deal with data collection and follow-up submission. It constitutes an extra array of burden in that it is applied as a condition for entering the EU market, and may be highly inconsistent with the NT.²⁴⁾ The (possibly) disguised discrimination regarding the implementation of CBAM may undermine fairness in competition especially through incompatibility with NT.

21) <https://www.ashurst.com/en/news-and-insights/legal-updates/proposed-eu-regulation-of-cbam-published/>

22) <https://normative.io/insight/calculate-value-chain-emissions/>

23) <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0564&rid=9>

24) <https://harvardlawreview.org/2022/04/the-promise-and-perils-of-carbon-tariffs/>

Application of GATT XX on CBAM measures

- As a defense to stave off criticism, the EU is expected to invoke the Article XX of GATT in order to justify a possible breach of non-discrimination (MFN, and NT alike) along its operation of CBAM. Article XX of GATT deals with the legal conditions of general exceptions, and it lays out specific situations under which WTO members may be deemed to be exempted from non-discrimination rules. In the context, paragraphs of Article XX (b) and (g) are considered to be relevant as both are to be applicable in policies for environmental protection.

- In accordance with Article XX, the EU may adopt measures not congruous with the non-discrimination principles but should be necessary to protect human, animal or plant life or health (b), or to conserve natural resources that are depletable (g). As Article XX of GATT is made of two cumulative preconditions for justification of exceptions, the competent authority under the auspice of EU must carry out the following two-phase scrutiny in implementing CBAM.

- First, the CBAM should fall under at least one of two exceptions (e.g.

paragraph (b) or (g)), and then it should pass the so-called Chapeau test (the introductory paragraph of of Article XX.²⁵⁾ In other words, CBAM should not be employed as “means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail”, or “disguised restriction on international trade”.²⁶⁾

- To shed a light on the possible invocation of Article XX on behalf of EU, a simple thought experiment is helpful. EU’s trading partners (countries outside the EU) have adopted different approaches to climate change from the EU-ETS, and they may argue that their systems are equivalent to the ETS in effectiveness of suppressing carbon emission. The EU may not recognize this, and come to label these “inadequate” under the strict application of “equivalence” principle under the WTO/TBT Agreement.²⁷⁾ Thus, for the protection of environment, which is a depletable natural resource under Article XX of GATT, CBAM must be enforced, and unavoidable discrimination is validated as it constitutes a legitimate measures under Article XX of (b), and (g). However, its vindication is questionable based upon the preceding rulings of the

25) https://www.wto.org/english/tratop_e/envir_e/envt_rules_exceptions_e.htm

26) https://www.wto.org/english/tratop_e/envir_e/envt_rules_exceptions_e.htm

27) <https://harvardlawreview.org/2022/04/the-promise-and-perils-of-carbon-tariffs/>

WTO. For example, the Appellate Body of the WTO held that Article XX could not be invoked by members of the WTO as a justification to impose a strict and uniform set of requirements designed to force their trading partners to accede to the identical environmental standards²⁸⁾ as CBAM in this case.

- So far, CBAM fails to reflect the unique characteristics of each country's carbon pricing mechanism by mechanically linking the price of certificate to the EU-ETS level. Such scheme prevents countries from setting their own pricing policy in line with their own unique characteristics.

Legal issues surrounding IRA

- Although the trajectory is different from that of CBAM, the IRA also implies the possibility of distorting competition from the legal perspective. The controversy revolving around the IRA is not expected to abate as it could be viewed as a protection oriented policy, such as strengthening living standard of domestic constituents or reshuffling the structure of global supply chain in a way to reduce dependence on China.

- The IRA officially aims to curb inflation and address climate change

by investing a whopping \$437 billion in clean energy, healthcare and etc. As the President Joe Biden's \$2 trillion 'BBB Act', which was in progress more than a year after his inauguration, encountered a fierce opposition from the Congress for excessive budget, the IRA, which is an abridged version of BBB in terms of fiscal spending, was signed into a law alternatively.

- As delving into the detailed attributes of the IRA, one can find out approximately \$433 billion is to be allocated for various goals such as alleviation of greenhouse gas emission, saving energy cost, revitalizing manufacturing industry, and so on. In order to achieve lofty goals, the IRA allocated \$369 billion, which accounts for 84.4% of the total fiscal expenditure, to energy security and climate change response. The act is also designed to source \$737 billion to finance planned fiscal expenditures, and simultaneously to address the chronic deficit of the U.S. An additional policy mixes featuring tax credits are scheduled to be used as an incentive²⁹⁾. Particularly noteworthy is the Section 13401³⁰⁾, where the legal requirements for the tax credit (de facto subsidy) for electric vehicles are specified.

28) Shrimp-Turtle (1997) WTO

29) <https://www.ifans.go.kr/knda/ifans/eng/pblct/PblctView.do?menuCl=P11&pblctDtaSn=14081&clCode=P11>

30) <https://www.whitecase.com/insight-alert/new-us-climate-bill-seeks-onshore-electric-vehicle-supply-chain>

In order for consumers to get the credit in accordance with the IRA, one has to meet the eligibility conditions, which largely break down into three separate ones: ① final assembly ② critical minerals for battery ③ parts for battery.³¹⁾

- The problem is that the legal requirements for the incentives are to be limited to electric vehicles and batteries manufactured in the U.S. or countries signing Free Trade Agreement(FTAs) with the U.S. With the implementation of the IRA, the eligibility must meet the following requirement; the condition that manufacturing(production process) must be finished in North America(at least within the territory of the USMCA member countries), and the mandatory ratio of critical minerals in battery production must be met (mineral requirement), and requirements for battery parts manufactured in North America should be above a certain ratio based upon the finished goods.³²⁾

- At this point, the value-oriented characteristic of the IRA is apparent as it aims at constructing clean energy sector and addressing risk of climate change through tax-credit incentives. The enforcement measures contained in IRA are also designed to reduce energy costs,

build a clean energy economy, thereby improving environmental condition such as greenhouse gas or carbon emission.

- As the CBAM is to build an unprecedented trade regime embedded with the environmental agenda covering the huge economic bloc, the IRA may seem to be inconsequential from the perspective of trade law. The IRA might be understood as no more than the fiscal policy of a single country under the guise of law. However, IRA has significant implications for Korean economy. Korea has stepped up a strategy to keep engines of growth by focusing on technology intensive industries. As a result, constructing a series of value added supply chain is pivotal. In the context of IRA, the minimum components requirements in battery and electric vehicle in alignment with tax incentives could deal a blow to the Korean auto-industry and, a wide array of downstream industries along the supply chain. In other words, due to the export-oriented industry structure, Korean economy is exposed to a high level of sensitivity and vulnerability with the enactment of IRA. In the same vein, it is meaningful to review legal issues so to make a proper response to the uncertainty from the IRA.

31) <https://www.iea.org/policies/16277-inflation-reduction-act-2022-sec-13401-clean-vehicle-credit>

32) <https://www.whitecase.com/insight-alert/new-us-climate-bill-seeks-onshore-electric-vehicle-supply-chain>

IRA in detail; the tax credit

- The IRA is expected to have a significant impact on the Korean industry as a whole, as the Act set the sights on expanding investment and production revolving around the U.S. as well as reestablishing the GVC decoupled from China. The first 'final assembly condition' means that electric vehicles that are finally assembled in North America only are entitled to get tax credits of up to \$7,500. This condition took effect immediately upon entry into force of the IRA in August. The detailed aspect of the tax credit hints that Korean automakers are unlikely to meet the necessary requirement at present.³³⁾

- The maximum amount of tax credit is broken down into two elements. The IRA provides a benefit of \$3,750 only for minerals that are extracted and processed in the U.S. or in countries that signed FTAs with the U.S. The core mineral ratio for battery has an incremental structure where the mandatory ratio is scheduled to go up every year starting from 40% in 2023 to 80% in 2027, and after. In other words, the key minerals for batteries, such as lithium, nickel and cobalt, must be sourced from the aforementioned

region(The U.S. or its FTA partners) It implies a serious ramification over the feasibility of the IRA. To illustrate, 82% of graphite, which is one of the key minerals for battery supplies, are extracted from China. Lithium refining process is mainly carried out in Indonesia, a country that has not signed any trade deals with the U.S. Cathode and anode, another core materials, also depend heavily on China,³⁴⁾ exceeding 60% of global supplies. As for the procurement of raw materials, it would not be easy to rebuild a new GVC in short span of time given China's specific gravity. To put it roughly, the enactment of IRA could block almost all electric vehicles makers from getting tax credits due to its rigidity.

- The final condition in association with the credit under the IRA is namely 'battery parts requirement'. In case a predetermined ratio of battery parts manufactured in North America is met, the IRA grants a tax credit worth up to \$3,750 on condition that one purchased an electric vehicle. Like the mineral requirement, the mandated battery parts ratio is also scheduled to go up from 50% in 2023 to 100% in 2029 on a yearly basis.³⁵⁾

33) <https://www.whitecase.com/insight-alert/new-us-climate-bill-seeks-onshore-electric-vehicle-supply-chain>

34) 한국자동차산업협회

35) The two battery-related requirements are supposed to come into effect from January 1, 2023.

National Treatment(NT), and LCR(Local Contents Requirement) under the IRA

- The IRA provides tax credit only for electric vehicles manufactured in the U.S. or North America, which stokes up concern about its innate discriminatory applications. The IRA's legality is centered around the geopolitical issue as it actively utilize legal incentive in a way to step up push for relocation of GVC to the U.S. or at least to the proximity of U.S FTA network. Legal point of view, U.S commitment to "friend-shoring", which attempts to insulate GVC from politically driven disruption could distort the competition condition.

- To be specific, the WTO unambiguously prescribes the non-discrimination between domestic and foreign goods. The National Treatment is the epitome of non-discrimination. In light of legal background, the tax-credit provisions are likely to violate the NT in that it puts those who do not follow the conditions under IRA at disadvantage. Considering that the conditions for tax credit are contingent upon the use of domestic goods³⁶⁾, IRA's measure is highly likely to fall under the category of "import substitution subsidy", which is prohibited under the WTO. One thing worth noting is that the legal assessment must be

performed on substantial basis departed from nominal interpretation. In other words, even if the IRA does not explicitly stipulate discriminatory provisions, it should be subject to a trade dispute if actual discriminatory situation resulted from the subsequent implementation. Moreover, the WTO rules prohibit subsidies that replace imports from other countries, but three representative provisions, namely, the final assembly, critical minerals, and battery parts requirements, applied under the IRA have the purpose and effect of replacing imports of foreign products with domestic products.

- From the legal perspective, the IRA's tax credit provision based upon local production requirement could be degenerated into a political justification of Local Content Requirements (hereafter, LCR). The concept of LCR is that producers are mandated to use domestically-made goods or domestically-provided services. In the context of the IRA, the element of LCR could be extensively adopted in relation to the U.S. strategy to reorganize the structure of GVC. As uncertainty looms large, the Biden administration is moving towards the aforementioned friend-shoring, which spans across a set of supply chains such as the Indo-Pacific Economic

36) <https://www.iew.org/policies/16277-inflation-reduction-act-2022-sec-13401-clean-vehicle-credit>

Framework (IPEF), CHIP4, Semiconductor Alliance Initiative, and MSP(mineral security partnership).

- Although it is far too early to predict how LCR will be materialized within the scope of the IRA, a possible conflict with WTO's non-discriminatory rules may come to surface. The tax credit is basically geared towards a mandatory content of intermediate goods from the US above certain ratio, which could be transformed into the LCR. The LCR is detrimental on a long-term basis as it is prone to distorting trade, reducing consumer utility and causing an incremental rise of social cost. As we switch into the realm of trade law, the LCR again bears resemblance with the import substitution that are clearly prohibited by the WTO.

- Of course, the duty to uphold the National Treatment under WTO rules recognizes legal exceptions when it is employed in the context of government procurement.³⁷⁾ Specifically, in accordance with Article XX of the GATT Agreement, the justification of LCR measures could be found when they are implemented to prevent depletion of limited resources, or to promote domestic policy goals including protection of public morals. In order to apply Article XX, the U.S must procure goods in

question directly and have no commercial interest. However, the tax-credit provision covers the purchase of electric vehicles by private sectors and involves commercial interests through market activities, so that invoking the clause of Article XX cannot be justified.

V. (CBAM, IRA) Impact on Korean economy

- (CBAM) The introduction of CBAM is expected to cause a shockwave across Korea's exports, which consist of goods with a high level of carbon intensity. As mentioned earlier, the enactment of CBAM increased uncertainty over the prospect of export oriented strategy especially the operation of GVC.

- In this process, price competitiveness of Korean export would suffer as CBAM could possibly cause distortion of competition conditions. As for particular sectors, not only steel, chemicals, and transportation equipment with direct carbon intensity, but also semiconductors or electric sectors would unavoidably fall under the bracket of CBAM mostly due to the possible restructuring of GVC currently centered on China, the largest emitter of greenhouse gases³⁸⁾.

37) https://www.wto.org/english/tratop_e/gproc_e/gpa_overview_e.htm

38) The research by Rhodium Group (2019)

- ³⁹⁾(IRA) One of the most controversial part of the IRA from the angle of Korean industry is the provision granting tax credits of up to \$7,500 only for the purchase of electric vehicles that are finally assembled in North America.

- So, it takes no brainer to forecast immediate effects of the IRA on Korean industry. Automakers, represented by Hyundai, or Kia, would have hard time meeting the final assembly requirements under IRA. Their price competitiveness will be evaporated. For example, before the enactment, Ioniq5 of Hyundai was about \$5,000 cheaper than its rival's, like Model 3 Tesla, but this will be over as Korean automakers are likely to be excluded from the tax credit.⁴⁰⁾

- In North America, world's most lucrative automobile market with ever increasing demand for electric vehicles, the loss of price competitiveness might deal a serious blow to the long term prospect of Korean industry. To illustrate, the sales volume of Korean EV, which ranked the second in the U.S. market, would suffer a setback. What adds insult to injury is that more than 13,000

domestic auto related subsidiaries may find themselves in trouble.

- Unlike the final assembly requirements for electric vehicles, provisions of battery related requirements (sourcing mineral and parts) are expected to present Korean manufacturers a silver lining.

- The IRA is expected to cut down the share of Chinese battery producers. The Korean battery industry has a competitive edge especially in manufacturing secondary cell. For example, as for all-electric vehicles and PHEVs use lithium-ion batteries, Korea ranks second only behind China. In particular, Korean battery suppliers having been aggressively pushing for the US market infiltration strategies. To illustrate, LG Energy Solutions is currently operating its own production facility in Holland, and is planning to establish new ones as a joint venture with GM in Michigan, Tennessee, Ohio respectively⁴¹⁾. Given that Korean battery suppliers' expansion of manufacturing base is gaining momentum, the enactment of IRA is likely to put Korean battery firms ahead of Chinese counterpart in the U.S. market.

39) https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_2KAA510_OECD

40) Electric vehicles sold in the US by Hyundai and Kia are all assembled in Korea.

41) LG엔솔, 美 IRA 선제 대응으로 빠른 현지화 가능, 출처 : <https://www.sedaily.com/NewsView/26DJ75STLJ>

VI. Policy-wise countermeasures

Countermeasures on CBAM(Private Sector)

- (Constructing carbon database)
Korean producers, especially carbon sensitive industries, should get familiarized with the administrative and certification procedures of CBAM with a view to minimize the additional cost. It is also indispensable to establish a relevant database about the measured volume of emission.

- (Reshaping the GVC) It is highly recommended that corporate inspection on product line and supply chain should be conducted to assess the level of exposure to emissions. As CBAM is expected to influence the reorganization of global downstream value chains, Korean producers should examine and renew their carbon footprint strategies. This suggests they have to engage in an extensive level of due diligence covering suppliers evaluation, viability of sourcing materials, production methodologies, logistics functionality, and adopted technology. Since the CBAM pilot(transition period) runs to the 2026⁴²⁾, adequate response strategies such as shifting or restructuring GVC should be prepared within the designated

timeframe.

Countermeasures on CBAM (Government)

- The government must initiate a combination of policy measures amid growing uncertainty due to the enactment of CBAM. The action plan should be designed on an encompassing basis ranging from active engagement with the EU Commission to coordinating various channels to formulate a concerted response with like-minded countries. At the same time, industry specific performance evaluation, and maintenance of customized strategy should be closely coordinated through effective communication between government and industry.

- (Reinforcing response capacity)
Information regarding the type, and volume of carbon emission across supply chain is the key in that it lays the basis for an adequate response to CBAM. During the transition period of pilot scheme up to 2026⁴²⁾, the government needs to construct and operate national carbon database system to support Korean producers in adapting to CBAM setting. In particular, it is urgent to reorganize the carbon integrated management

42) Carbon Border Adjustment Mechanism - European Commission

system, such as the amount of emission by HS based items, applicable calculation methodologies mirroring EU-ETS, and performance management, so that extra financial burden borne by Korean producers could be mitigated. In the long-term basis, the capacity to process industry specific data would go a long way towards rolling out a concrete initiative to upgrade Korea's MRV(Measurement, Reporting and Verification) of greenhouse gas (GHG) system to align with EU-ETS.

- (Diplomatic response) Diplomatic approaches should be further strengthened to minimize the burden related to the enforcement of CBAM. The diplomatic aim should be focused on securing the equivalence between the Korean emissions trading system(K-ETS) and the EU-ETS in as much as possible.⁴³⁾ For this, Introducing the working mechanism of K-ETS coupled with our sector specific decarbonization processes through various diplomatic networks. If necessary, industry or corporate association should ○ Countermeasures on CBAM(Private Sector)be mobilized so as to reinforce and supplement official channels vis-a-vis intergovernmental communication.

Countermeasures on the IRA(Private Sector)

- (Defending market share) Strategic measures must be taken to secure at least the current level of market share. In actuality, Korean automakers need to speed up the expansion of production facilities, and take an active approach in upgrading current ones in boosting production capacity. For example, Hyundai Motor Manufacturing Alabama, which was incorporated in 2002 should be renovated so as to accommodate the explosive demand for EVs.

- (Strengthening GVC) Relevant performance in the face of challenges posed by the IRA might be a blessing in disguise as Korean suppliers can get a chance to renew their role in the GVC. As IRA's battery-related regulations puts an equal burden on global manufacturers alike, corporate network system should be further strengthened in a terms of constructing a working value chain. As for the conditions of key minerals and parts for battery supplies, we should not focus on diversifying a supply chain in a way to reduce dependence on China.

43) In 2021, Korea enacted the Carbon Neutral Framework Act, which institutionalized the carbon neutrality goal for 2050, and the concrete action plan was largely benchmarked after EU-ETS (<https://icapcarbonaction.com/en/ets/korea-emissions-trading-scheme>)

Countermeasures on the IRA (Government)

- As a matter of fact, the Korean government has been stepping up various countermeasures actively more than any other. It has mobilized diplomatic channels including summit meetings, consultations with the U.S. Congress. As a result, some progress has been achieved, such as the Korea-U.S. joint announcement for mutual cooperation over the implementation of IRA and the pending amendments reflecting Korean demand at both the US Senate and House of Representatives.

- (Diplomatic response) The tax credit requirements for electric vehicles under the IRA have a negative ramification on foreign suppliers, including Korean firms, the governmental response should start by stressing the illicit nature of IRA. Diplomatic channel should be mobilized in a way to remind the US of the fact that IRA may go against international trade rules including the KORUS FTA and WTO.

- (Mitigating discrimination effect) Since Korean firms are planning to make a aggressive investment, we should enter into a constant dialogue with the US via diplomatic channel to get special provisions applicable to Korean suppliers. As the Democratic Party unexpectedly performed well in the US midterm elections, the odds of IRA revision are stacked against Korea. However, as those

who are in a similar predicament like the EU, and Japan are beginning to raise the voices of concern, Korean government should take the helm in organizing outreach activities to form coalition. Diplomatically, Korea needs to deliver concern about the rigid application of the final assembly condition since it could be an outright distortion of the competition opportunity. Legally, flexible interpretation of 'final assembly' clause should be applied to Korean automakers as many of them have already keep the production process running within North America.

- (Flexible interpretation of battery clauses) When invoking the clause specifying the sourcing of critical minerals, a flexible approach must be secured. If necessary, a strategic bilateral discussion should be made with the U.S. in an attempt to clarify the mineral sourcing clause. Since Korea has been pushing for a rigorous expansion of FTA network with Central and South American countries, Korean battery suppliers have the edge in accessing rich mineral endowment in those countries. As the IRA prescribes minerals for batteries are also qualified for tax-credit so long as they are sourced from countries that have entered into FTAs with the U.S, Korean government keep up the expansion of FTA network to diversify the supply channel of critical minerals.

- (Utilizing economic network with Latin America) It is necessary to utilize the economic cooperation network with Latin America, where the volume of trade and investment is expanding⁴⁴⁾ in especially the textile, electronics, and automobile industries. In the changing trade environment coupled with the IRA driven supply reshuffling, Korea needs to capitalize on the opportunity factor in Latin America.⁴⁵⁾

- As a platform for economic cooperation, the FTA network with Latin America should be further expanded so that comparative strengths of both sides, such as Korea's technology and abundant resources of Latin America, should be utilized to the fullest. In the short run, focusing on sourcing of critical minerals such as lithium and nickel should be prioritized, and in the long run, we need to build a collaborative model in terms of GVC operation.

VII. Conclusion ; Reinforcement of negotiating capacity through manpower

- Although CBAM and IRA differ in their structural characteristics, both demonstrate how a new type of disguised

protectionism can be materialized as major players of global trade boldly link non-market values such as environment to the realm of multilateral market. Both CBAM, and IRA show the incompatibility with the multilateralism, but addressing problems through WTO system is not an effective strategy as the its Appellate Body ceases to work at the moment. To weather the gathering storm, active approach is called for based upon the close coordination between government, and industry alike.

- The value-oriented initiatives are expected to continue for a while. The veiled protectionism should be regarded as a matter of adaptation. The path dependence of multilateralism no longer remains valid as the function of WTO, which used to be hailed as 'crown jewel of multilateralism' has ground to a halt. Active engagement with likeminded partners is needed as different type of protectionism is on the rise. What counts more than anything else is to incubate the capacity to cope with mounting uncertainty. It is necessary to improve the caliber of manpower of the Trade Negotiation Headquarters of The MOTIE. The Trade Negotiation Headquarters takes up a vital role in setting the direction of trade policy and conducts

44) 對中남미 교역(억불) : 452 ('17) → 466 ('19) → 542 ('21), (산업통상자원부)

45) 22.10월 한-칠레 핵심 광물 밸류체인 협력 MOU 체결(한덕수 총리 순방 계기)

actual negotiations with countless partners. It should play a pivotal role in upholding national interests while redefining its identity as a rule setter in the context of new trade agenda. Thus, MOTIE must incubate qualified human resources armed with the impeccable

language, capability, and expertise.

- The paradigm shift is so palpable in the realm of multilateralism, and the role of government should not longer be confined to the conventional wisdom of regulatory body.

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