SHEDDING ANY NEW LIGHT? THE WTO'S LATEST RULING IN THE US-CHINA SOLAR BATTLE

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ABSTRACT

The World Trade Organization (hereinafter "WTO") panel report in United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products *(hereinafter* "US — Safeguard Measure on PV Products"*) could have far-reaching implications on the future of WTO jurisprudence and the interface between climate-related values and trade-related ones. For the first time, a panel determined that a Member's imposition of a global safeguard was consistent with the WTO rules governing the safeguard regime.*

A review of the panel decisions in US — Safeguard Measure on PV Product *raises a few questions: Does the departure from the seemingly unfulfillable requirements established in the previous jurisprudence solve "the safeguards mess"? Has the panel provided guidance for Members seeking compliance with the regulatory*

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requirements for the application of a safeguard measure? Why did the panel deviate from the previous jurisprudence and halt the string of adverse rulings against Member's seeking to defend the application of safeguards? Will the panel's legitimization of safeguards protection open the floodgate to a new wave of protectionism?

In answering these questions, this article argues the panel's rulings in US — Safeguard Measure on PV Products *fail to establish a sound legal framework disciplining the use of safeguard measures. Furthermore, the article argues that the panel decision does not provide much-needed interpretive guidance on the key issues of safeguard measures that have remained ambiguous or even controversial, such as causal link and non-attribution requirement. More broadly, at a time when the world is racing to mitigate climate change, lowering the thresholds for the invocation of safeguards will likely be hijacked by trade protectionists and hinder the diffusion of climate-friendly technologies. In a post-pandemic era marked by rising protectionism, it is crucial that the WTO and its Dispute Settlement Body strike a delicate balance between respecting Member's policy autonomy to use safeguards in a WTO-consistent manner and preventing such measures from being abused and jeopardizing environmental sustainability interests.*

KEYWORDS: *safeguards, WTO, US-China trade war, solar*

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I. INTRODUCTION

In February 2018 the United States (hereinafter "US") imposed a safeguard measure under Section 201 of the US Trade Act on imports of certain crystalline silicon photovoltaic cells, whether or not partially or fully assembled into other products (including, but not limited to, modules, laminates, panels, and building-integrated materials) (hereinafter "CSPV products"). In September 2021, and following China's request for the establishment of a panel in the World Trade Organization (hereinafter "WTO") dispute settlement, the panel ruled in *United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products* (hereinafter "*US — Safeguard Measure on PV Products*") upheld the legality of the US safeguard.[1] This ruling is significant, as it is the first panel report to find a challenged safeguard consistent with the General Agreement on Tariffs and Trade 1994 (hereinafter "GATT") Article XIX and Agreement on Safeguards. Although China appealed the panel's decision, it remains highly uncertain how this will unfold given the stalemate at the Appellate Body.[2]

The significant difficulty or near impossibility of a challenged safeguard measure surviving WTO scrutiny has been well documented in the legal scholarship.[3] Views regarding what factors are attributable to such a dilemma differ, while some criticize the contextual ambiguity of the WTO rules and the confusing interpretations made by the panels and the Appellate Body others point at the failure of Members to adhere to the WTO requirements. What is clear is that legal gaps exist in the rules governing the safeguards regime, and that the WTO adjudicating bodies have developed a rather restrictive approach toward the application of safeguards.

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[1] *See generally* Panel Report, *United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products*, WTO Doc. WT/DS562/R (circulated Sept. 2, 2021) [hereinafter *US — Safeguard Measure on PV Products*].

[2] Bryce Baschuk, *China Appeals WTO Ruling over Trump Era Solar Panel Tariffs*, BLOOMBERG (Sept. 21, 2021, 1:15 AM), https://www.bloomberg.com/news/articles/2021-09-20/china-appeals-wto-dispute-over-trump-era-s-solar-panel-tariffs#:~:text=China%20appealed%20a%20World%20Trade,panels%20imported%20from%20Chinese%20manufacturer.

[3] *See generally* Alan O. Sykes, *The Safeguards Mess: A Critique of WTO Jurisprudence*, 2(3) WORLD TRADE REV. 261 (2003) [hereinafter Sykes, *The Safeguards Mess*]; Alan O. Sykes, *The Fundamental Deficiencies of the Agreement on Safeguards: A Reply to Professor Lee*, 40(5) J. WORLD TRADE 979 (2006); Alan O. Sykes, *Protectionism as a "Safeguard": A Positive Analysis of the GATT "Escape Clause" with Normative Speculations*, 58 UNIV. CHI. L. REV. 255, 298 (1991) [hereinafter Sykes, *Protectionism as a "Safeguard"*]; Alan O. Sykes, *The Persistent Puzzles of Safeguards: Lessons from the Steel Dispute*, 7(3) J. INT'L ECON. L. 523 (2004) [hereinafter Sykes, *Persistent Puzzles of Safeguards*]; Yong-Shik Lee, *Safeguard Measures: Why Are They Not Applied Consistently with the Rules? Lessons for Competent National Authorities and Proposal for the Modification of the Rules on Safeguards*, 36(4) J. WORLD TRADE 641 (2002); Kent Jones, *The Safeguards Mess Revisited: The Fundamental Problem*, 3(1) WORLD TRADE REV. 83 (2004); Douglas A. Irwin, *Causing Problems? The WTO Review of Causation and Injury Attribution in US Section 201 Cases*, 2(3) WORLD TRADE REV. 297 (2003).

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Governments and commentators remain divided on whether the interpretative approach endorsed by the WTO panels and Appellate Body is appropriate or warranted, and even whether the safeguard rules are fit for the purpose of the WTO as a trade-liberalizing institution.

Safeguard measures operate as an institutional device of an "escape clause", allowing a member to suspend a concession it previously negotiated without violating or abrogating the terms of the WTO agreement, subject to certain conditions.[4] Since safeguards can be applied regardless of the existence of any unfair trade practices, abusive use of safeguards could undermine the delicate balance of the rules-based multilateral trading system. At the same time, an excessively restrictive interpretation of the safeguard rules which renders them almost unfulfillable could incentivize Members to increase the use of other trade-restrictive measures, such as anti-dumping duties or extra-legal measures. This explains why some commentators favor easing restrictions upon the use of safeguard measures and recognizing them as a "potentially desirable component" of trade liberalizing agreements.[5] Here, Sykes notes that instead of judging safeguards with conventional welfare economics, a proper perspective views safeguards as a temporary solution to rising political pressure against liberal trade commitments that carries a comparatively modest political cost on trading partners.[6] How to discipline the use of safeguard measures to channel protectionist pressure is crucial for WTO Members and the adjudicating bodies.

The panel decisions in *US — Safeguard Measure on PV Products* deviate from a string of adverse rulings received by every Member defending the imposition of a global safeguard since the establishment of the WTO. With far-reaching implications, the panel report raises several interesting questions: Did the panel provide guidance on how Members can comply with the regulatory requirements for the application of a safeguard measure? Does the panel's departure from the previous jurisprudence provide a solution to "the safeguards mess"? Is increasing the operationality of safeguards protection a way to rejuvenate the WTO by recognizing them as a necessary price paid for greater openness on average and lure Members away from using arguably more trade-restrictive anti-dumping and countervailing duties (hereinafter "CVDs")? Will safeguards become a convenient device, politically and legally, for protection-seeking interests to deal with imports?

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[4] For a comprehensive discussion of escape clause in an international agreement, see B. Peter Rosendorff & Helen V. Milner, *The Optimal Design of International Trade Institutions: Uncertainty and Escape*, 55(4) INT'L ORG. 829, 830 (2001).

[5] *See* GARY CLYDE HUFBAUER & HOWARD F. ROSEN, TRADE POLICY FOR TROUBLED INDUSTRIES 59-61 (1986); Sykes, *Protectionism as a "Safeguard"*, *supra* note 3, at 298.

[6] Sykes, *The Safeguards Mess*, *supra* note 3, at 263.

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In addressing these research questions, this article is structured as follows. Part II discusses the background to the dispute, including the US domestic safeguard investigation on imported solar products, and provides a broader picture—the protection received by the US solar industry over the past decade. Part III critiques the WTO rules governing safeguards and the existing jurisprudence before delving into the panel decision in *US — Safeguard Measure on PV Products.* Part IV elaborates on the implications of the panel report from three perspectives—the US solar industry, the WTO, and the environment. Part V concludes.

II. BACKGROUND

The US solar industry has received various forms of trade protection over the past decade, including safeguards, anti-dumping duties, and countervailing duties.[7] Dating back to 2011, the then largest solar manufacturing firm in the US—Solar World—filed anti-dumping and countervailing petitions against Chinese solar imports.[8] The US investigating authority confirmed that Chinese manufacturers had dumped cut-price solar products into the US market and received subsidies from the Chinese government. This triggered the imposition of hefty anti-dumping duties ranging from 31% to 250%, and CVDs from 14.78% to 15.9% on Chinese solar cell and modules in 2012.[9] Later, the US administration further increased the rate of anti-dumping and CVDs to target firms in China and Taiwan in order to prevent the former from circumventing the tariffs by sourcing solar components from the latter.[10] More recently, a group of US solar firms made another petition for the imposition of anti-dumping and CVDs on companies in Malaysia, Thailand, and Vietnam.[11] Pending more

[7] *See Fact Sheet: Section 201 Cases: Imported Large Residential Washing Machines and Imported Solar Cells and Modules*, U.S. TRADE REPRESENTATIVE (Jan. 22, 2018), https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2018/january/section-201-cases-imported-large.

[8] *See Fact Sheet: Commerce Finds Dumping and Subsidization of Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules from the People's Republic of China*, U.S. DEP'T OF COM. INT'L TRADE ADMIN. (2012), http://ia.ita.doc.gov/download/factsheets/factsheet_prc-solar-cells-ad-cvd-finals-20121010.pdf. In 2014, the anti-dumping duties on Chinese solar exports were adjusted to range from 28% to 44%.

[9] *Id*. For a detailed account of the US-China trade conflicts in the solar sector, see generally Mandy Meng Fang, *A Crisis or an Opportunity? The Trade War Between the US and China in the Solar PV Sector*, 54(1) J. WORLD TRADE 103 (2020).

[10] Diane Cardwell, *U.S. Imposes Steep Tariffs on Importers of Chinese Solar Panels*, N.Y. TIMES, (June 3, 2014), https://www.nytimes.com/2014/12/17/business/energy-environment/-us-imposes-steep-tariffs-on-chinese-solar-panels.html.

[11] In August, 2021, a group known as the American Solar Manufacturers Against Chinese Circumvention (A-SMACC), alleging that Chinese manufacturers have been bypassing trade restrictions by routing products through the named countries, filed the petition. *See* Daniel Wolf, *Solar Deployment and U.S. Trade Policy: A Brief Review*, AM. COUNCIL ON RENEWABLE ENERGY (Oct. 12, 2021), https://acore.org/solar-deployment-and-us-trade-policy-a-brief-review/.

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information from the petitioners, the US Department of Commerce delayed a decision on whether to impose new tariffs.[12]

In 2017, the US applied safeguards against imported solar following a petition to the US International Trade Commission (hereinafter "ITC") from two solar companies—Suniva and Solar World—under Section 201 of the Trade Act of 1974.[13] The USITC reached an affirmative determination that increased solar cell and module imports constituted a substantial cause of serious injury to the domestic industry.[14] Then-President Trump recommended the application of additional duties on imported solar cells and modules to protect import-injured domestic industries. The safeguard measure took the form of a 2.5 gigawatts (GW) tariff-rate quota over four years currently (set to expire in February 2022) with the imposed duty rate subject to a schedule of progressive liberalization.[15] However, a proclamation signed by then-President Trump raised the planned tariff rate from 15% to 18% for 2021 because the previous exclusion of bifacial modules had impaired the remedial effect of the original safeguard measures.[16]

Since the initiation of the US safeguards investigation, a sharp split emerged among the US solar energy industry.[17] While the manufacturing industry have resolutely supported the use of trade restrictions, a coalition of stakeholders in the downstream and upstream segments has firmly opposed the decision. As further discussed in the following sections, solar distributors, installers, producers of critical inputs for solar panels, and other industry participants have benefited from access to low-priced imports. For this reason, the Solar Energy Industries Association (hereinafter "SEIA")

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[12] *Id.*

[13] The US International Trade Commission [hereinafter USITC] is an independent, quasi-judicial agency with broad investigative responsibilities on international trade matters.

[14] *See* Crystalline Silicon Photovoltaic Cells (Whether or not Partially or Fully Assembled into Other Products), Inv. No. TA-201-75, USITC Pub. 4739 (Nov. 13, 2017).

[15] The tariff increases in the first, second, third and fourth year are set to be 30%, 25%, 20% and 15%, respectively. Solar imports from countries that did not constitute 3% of US supply were excluded from the tariffs. For instance, Brazil, India, Indonesia, South Africa and Cambodia were excluded from the tariff increase. Various non-traditional solar panel sizes, modules using interdigitated back contract technology were exempted from the safeguards. Bifacial modules were removed from the exemption in 2020 by the Trump Administration. *See* Kelly Pickerel, *Here Are All the Expected Testimonies for Wednesday's ITC Hearing on Solar Panel Tariff Extension*, SOLAR POWER WORLD (Nov. 1, 2021), https://www.solarpowerworldonline.com/2021/11/here-are-all-the-expected-testimonies-for-wednesdays-itc-hearing-on-solar-panel-tariff-extension/.

[16] Proclamation to Further Facilitate Positive Adjustment to Competition From Imports of Certain Crystalline Silicon Photovoltaic Cells, 85(201) Fed. Reg. 65, 639 (Oct. 16, 2020).

[17] Emma Foehringer Merchant, *Solar Tariffs Boosted US-Produced Modules, But Industry Remains Split on Their Future*, GREENTECH MEDIA (Feb. 10, 2020), https://www.greentechmedia.com/articles/read/solar-tariffs-put-wins-on-the-board-for-u.s-produced-modules-but-industry-remains-split-on-their-future.

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recently submitted a brief to the USITC urging the Biden Administration to phase out the safeguards on imported solar cells and modules.[18]

After China requested consultations with the US concerning the safeguard measure and the two parties failed to resolve the dispute, a WTO panel was established on 15 August 2019 to consider complaints made by China. China argued before the panel that the USITC violated its obligation under Article XIX:1(a) of the GATT and Articles 2.1, 3, and 4.2(b) of the Agreement on Safeguards (hereinafter "AS").[19] Specifically, China's four substantive claims are as follows:

1. The US failed to establish, before the application of the measures at issue, that the increases in imports were the result of "unforeseen developments" and were the "effect of obligations incurred";
2. The US failed to establish the required "causal link" between the increased imports and the serious injury found to exist;
3. The US failed to ensure that injury caused by other factors was not attributed to increased imports; and
4. The US provided non-confidential summaries to interested parties with such delay that the parties were not provided with an adequate opportunity to exercise their right to present a defence, and because the actual public summaries were not sufficient to permit interested parties to reasonably present a defence.

III. THE WTO RULES GOVERNING THE SAFEGUARDS REGIME AND THE PANEL DECISIONS IN *US — SAFEGUARD MEASURE ON PV PRODUCTS*

As temporary trade barriers, safeguards have the effect of restricting international trade and increasing the level of protection afforded to troubled domestic industries. The WTO rules governing the safeguards regime can be found in the GATT Article XIX and the AS, which establish an "inseparable package" of rights and disciplines.[20] In situations of emergency, members have the conditional right to limit market access and obtain import relief using tariff increases or imposition of quotas. In this sense, the WTO rules governing the safeguard regime operate as exceptions, particularly to the GATT Article II and XI.[21]

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[18] *SEIA Urges Biden Administration to Phase Out Section 201 Tariffs*, SOLAR ENERGY INDUS. ASS'N (Nov. 1, 2021), https://www.seia.org/news/seia-urges-biden-administration-phase-out-section-201-tariffs.

[19] Panel Report, *US — Safeguard Measure on PV Pro*ducts, *supra* note 1, ¶ 3.1.

[20] SIMON LESTER ET AL., WORLD TRADE LAW: TEXT, MATERIALS AND COMMENTARY 579 (3d ed. 2018).

[21] Panel Report, *United States — Definitive Safeguard Measures on Imports of Certain Steel Products*, ¶ 10.10, WTO Doc. WT/DS248/R, WT/DS249/R, WT/DS251/R, WT/DS252/R,

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The availability of a safeguard mechanism assures WTO Members that they can act quickly to help industries adjust to import surges, providing them with flexibility they otherwise would not have in opening their markets to international competition.[22] However, in the absence of unfair trade, safeguards measures can be used to cater to narrowly-defined special interests at the expense of both domestic and global economic welfare. It is, therefore, crucial to define the appropriate scope of the right to take safeguards measures while also ensuring that such measures are not applied against fair trade beyond what is necessary to provide extraordinary and temporary relief.[23] The key to setting the parameters for Members' actions is clarifying the legal conditions in the safeguard rules that govern when and how such trade restrictions may be adopted.

Over the decades, the popularity of safeguards among Members has waxed and waned.[24] Before the establishment of the WTO, countries rarely invoked the safeguard provision largely because of the widespread use of voluntary export restraints (hereinafter "VERs").[25] Although the early 2000s saw an increase of safeguard initiations after the elimination of VERs under WTO law, the absolute number of safeguard measures remained small, especially when compared to that of the other two forms of trade remedies—anti-dumping and countervailing duties.[26]

Article XIX of the GATT is broadly drafted while the AS (negotiated during the Uruguay Round) sets forth more specific requirements for the application of safeguard measures. Read together, Article 2.1 of the AS and Article XIX of the GATT provide that a safeguard measure applies to a product which, as a result of "unforeseen development" and the effect of WTO obligations, including tariff concessions, is being imported in increased quantities causing or threatening to cause "serious injury" to domestic producers of "like or directly competitive products." The criterion is cumulative, therefore, Members seeking to impose a safeguard measure must fulfill these prerequisites to be WTO-consistent.

WT/DS253/R, WT/DS254/R, WT/DS258/R, WT/DS259/R (adopted Dec. 10, 2003) [hereinafter Panel Report, *US — Steel Safeguards*].

[22] J. Michael Finger, *Safeguards: Making Sense of GATT/WTO Provisions Allowing for Import Restrictions*, *in* DEVELOPMENT, TRADE AND THE WTO: A HANDBOOK 195, 197 (Bernard Hoekman et al. eds., 2002); BERNARD HOEKMAN & MICHEL KOSTECKI, THE POLITICAL ECONOMY OF THE WORLD TRADING SYSTEM: THE WTO AND BEYOND 119 (2d ed. 2001).

[23] Appellate Body Report, *United States — Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea*, ¶ 83, WTO Doc. WT/DS202/AB/R (adopted Mar. 8, 2002) [hereinafter *US — Line Pipe*].

[24] *See* Chad P. Bown, *Trade Remedies and World Trade Organization Dispute Settlement: Why Are So Few Challenged?*, 34(2) J. LEGAL STUD. 515, 525 (2005).

[25] Patrick Messerlin, *Need for Coherence Among the WTO's Escape Clauses*, *in* CHINA'S PARTICIPATION IN THE WTO 51, 59 (Gao Henry & Donald Lewis eds., 2005).

[26] Chad P. Bown, *Why Are Safeguards Under the WTO So Unpopular?*, 1(1) WORLD TRADE REV. 47, 51 (2002).

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Concern that the safeguards protections failed to work under the constraints imposed by the WTO adjudicating bodies arose after the first few WTO disputes involving safeguards.[27] To many commentators, the panel and Appellate Body decisions are economically and logically incoherent and leave Members with little guidance as to how to ensure compliance with the rules.[28] Sykes views the root cause of the "problem" largely to be because the adjudicating bodies have heavily relied on textual interpretation while in his view the treaty text is ambiguous and dissatisfactory.[29] The scholarly debate, which largely revolves around whether the WTO safeguards rules should be interpreted strictly to serve as a necessary check on possible abusive use of such measures, lingers.

Before discussing the substantive rules governing the safeguards regime, it is useful to refer to the issue of standard of review, which is regarded as a "touchstone" of the WTO dispute settlement system.[30] The degree of deference paid by the panel to the findings and conclusions of national investigating authorities plays an important role in effecting the defensibility of a challenged safeguard measure.[31] The more deference is given, the higher chance a challenged safeguard measure has to survive the WTO scrutiny. It is important to note that the AS envisages domestic measures based on a treaty-mandated investigation conducted at the national level with WTO-mandated procedural requirements.

While the AS is silent on the issue of the standard of review, Article 11 of the Dispute Settlement Understanding (hereinafter "DSU") provides that, "a Panel should make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements". An "objective assessment" consists of two aspects—a formal one inquiring whether the authority has evaluated "all relevant facts" or the scope of facts considered by authority, and a substantive one inquiring whether the authority has given "a reasoned and adequate explanation for its determination."[32] However, the broad terms of the standard of "objective assessment" provide limited guidance on the nature and intensity of the review which panels should apply to safeguard measures.[33] The phrase "objective assessment" can be applied to cover a range of quite different

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[27] Arevik Gnutzmann-Mkrtchyan & Simon Lester, *Does Safeguards Need Saving? Lessons from the* Ukraine — Passenger Cars *Dispute*, 16(2) WORLD TRADE REV. 227, 228 (2017).
[28] *See, e.g.*, Sykes, *Persistent Puzzles of Safeguards*, *supra* note 3, at 524.
[29] *Id.* at 538.
[30] Jan Bohanes & Nicolas Lockhart, *Standard of Review in WTO Law*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL TRADE LAW 379, 379 (Daniel Bethlehem et al. eds., 2009).
[31] Lee, *supra* note 3, at 643.
[32] *Id.* at 643-44.
[33] Clause-Dieter Ehlermann & Nicolas Lockhart, *Standard of Review in WTO Law*, 7(3) J. INT'L ECON. L. 491, 495 (2004).

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analytical situations without any prescription on the degree of deference that should be accorded to a domestic authority's findings.[34] What is clear is that neither *de novo* review nor total deference is permitted under the WTO standard of review, according to the established jurisprudence.[35] The adjudicating bodies must, therefore, strike a delicate balance between affording investigating authorities a margin of discretion and uniformly applying WTO law.[36]

The following section discusses all the substantive claims raised by the complainant in *US — Safeguard Measure on PV Products*.

A. Unforeseen Developments

Article XIX:1(a) of the GATT provides:

> If, as a result of unforeseen developments and of the effect of the obligations incurred by a contracting party under this Agreement, including tariff concessions, any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers in that territory of like or directly competitive products, the contracting party shall be free, in respect of such product, and to the extent and for such time as may be necessary to prevent or remedy such injury, to suspend the obligation in whole or in part or to withdraw or modify the concession.

The core requirement of this provision is that imports increased "as a result of unforeseen developments and of the effect of the obligations incurred". The omission of "unforeseen developments" from the text of the AS has led to a debate as to whether the clause forms a legal prerequisite in the safeguard application.[37] The panel rulings in *Korea — Dairy* and *Argentina — Footwear* discarded the requirement of formal compliance with Article XIX:1(a), but both were overruled by the Appellate Body.[38] As a

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[34] Bohanes & Lockhart, *supra* note 30, at 383.

[35] Panel Report, *Dominican Republic — Safeguard Measures on Imports of Polypropylene Bags and Tubular Fabric*, ¶¶ 7.7-.8, WTO Doc. WT/DS415/R, WT/DS416/R, WT/DS417/R, WT/DS418/R (adopted Feb. 22, 2012) [hereinafter *Dominican Republic — Safeguard Measures*].

[36] Ehlermann & Lockhart, *supra* note 33, at 509.

[37] MICHAEL J. TREBILCOCK & ROBERT HOWSE, THE REGULATION OF INTERNATIONAL TRADE 228 (2d ed. 1999).

[38] The panel's finding in *Korea — Diary* that formal compliance with Article XIX (1) was not required was overruled by the Appellate Body. *See* Appellate Body Report, *Korea — Definitive Safeguard Measure on Imports of Certain Diary Products*, ¶ 80, WTO Doc. WT/DS98/AB/R (adopted Jan. 12, 2000) [hereinafter *Korea — Diary*]. The Appellate Body in *Argentina — Footwear* (EC) held that WTO Members cannot lawfully impose safeguards unless they satisfy the unforeseen

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result, the existence of "unforeseen developments" amounts to a legal obligation on the part of the Member applying a safeguard measure; a demonstration of unforeseen developments must be made before the application of a safeguard measure.

However, the conceptual vagueness and ambiguity of Article XIX have given rise to several interpretive problems, including what constitutes "unforeseen developments," when the developments induced import increase should be unforeseen, and how to demonstrate "unforeseen developments". Providing meaning to a provision that has remained static for decades and in a changing set of circumstances is understandably difficult.[39] Take the renewable energy sector as an example, which is characterized by the rapid pace of technological development and innovation—could any import surge have been foreseen given the passage of time since the conclusion of the Uruguay Round? It is not hard to see why the textual requirements of "unforeseen developments" have gradually become less straightforward and more difficult to understand and apply.

As a leading precedent on safeguards in the GATT, the Hatter's Fur case presented a detailed discussion of "unforeseen developments," defining the phrase to mean "developments occurring after the negotiation of the relevant tariff concession which it would not be reasonable to expect that the negotiators of the country making the concession could and should have foreseen at the time when the concession was negotiated."[40] In this case, the change in fashion that affected the competitive situation of the US industry and the extent of that change was accepted by the working party as "unforeseen" by the US authorities.[41] As criticized by some commentators, this decision rendered the scope of "unforeseen developments" overly broad to cover any market-related development.[42] The discussion is somewhat moot as this interpretation has not been followed.

Throughout the WTO era, the legal standard used to determine what constitutes an unforeseen development for an importing Member has been determined to be partly objective and partly subjective.[43] Here, objectivity means the standard varies depending on the context and the circumstances and focuses on what had not been foreseen or expected by the Members. The Appellate Body stated: "unforeseen developments" refer to "unexpected

development, by virtue of the explicit link to Article XIX in the Safeguard Agreement. *See* Appellate Body Report, *Argentina — Safeguard Measures on Imports of Footwear*, ¶ 88, WTO Doc. WT/DS121/AB/R (adopted Jan. 12, 2000) [hereinafter *Argentina — Footwear*].

[39] Sykes, *Persistent Puzzles of Safeguards*, *supra* note 3, at 527.

[40] *Report on the Withdrawal by the United States of a Tariff Concession Under Article XIX of the General Agreement on Tariffs and Trade*, ¶ 9, GATT Doc. GATT/CP/106 (adopted Oct. 22, 1951) [hereinafter GATT Report, *US — Fur Felt Hats*].

[41] *Id.* ¶ 8.

[42] Gary Sampson, *Safeguards*, *in* THE URUGUAY ROUND: A HANDBOOK ON THE MULTILATERAL TRADE NEGOTIATIONS 136, 139 (J. Michael Finger & Andrzej Olechowski eds., 1987).

[43] Panel Report, *US — Steel Safeguards*, *supra* note 21, ¶ 10.42.

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circumstance which has led to a product being imported in such increased quantities and under such conditions as to cause or threaten to cause serious injury to relevant domestic producers."[44] An important question in practice is, of course, what can and what cannot be expected, which is impossible to specify with precision and has to be left to the discretion of the adjudicating bodies in each separate case. Similarly, the degree of the unlikelihood of development as to allow for a safeguard is hard to define. In the light of the extraordinary nature of safeguard measures, the perceived probability for a development or a negative shock to the domestic industry must be very low to trigger a safeguard.[45] On the other hand, subjectivity also exists in the standard for "unforeseen developments," focusing on what cannot be conceptualized in the light of the context.[46] This relates to the distinction drawn by the Appellate Body between the terms "unforeseen" and "unforeseeable," the latter of which has a narrower scope and, thus, requires a higher threshold.[47] Whether "unforeseeable" events should be included in the standard, and if so, how to establish an appropriate benchmark to determine the unforeseeability remains unclear.[48]

Another issue of relevance is the point at which the import surge should have been unforeseen. Horn and Mavroidis see at least two options here.[49] One is to use the contract date as the time at which the external event should have been foreseen.[50] However, the longer the period between signing WTO agreements, the more likely it is that unforeseen developments will take place. The scope of "unforeseen" events will expand and the identification of "unforeseen developments" is likely to be easier along with the gradual decline of trade barriers, notably tariffs.[51] What was "unforeseen" when the contracting parties negotiated their first tariff concessions differs from what can be considered to be unforeseen today. The other option is to refer to the time when action is necessary to avoid serious injury to the domestic industry.[52]

Concerning the question of how to demonstrate "unforeseen developments," the requirement for investigating authorities is to set forth

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[44] Appellate Body Report, *Argentina — Footwear*, *supra* note 38, ¶ 91; Appellate Body Report, *Korea — Dairy*, *supra* note 38, ¶ 84.

[45] Henrik Horn & Petros Mavroidis, *US — Lamb: United States — Safeguard Measures on Imports of Fresh, Chilled or Frozen Lamb Meat from New Zealand and Australia: What Should Be Required of a Safeguard Investigation?*, 2 WORLD TRADE REV. (SPECIAL ISSUE) 72, 85 (2003).

[46] This was recognized in GATT by the *US — Fur Felt Hats* decisions, which characterized unforeseen developments as "developments . . . which it would not be reasonable to expect that the negotiators of the country making the concession could and should have foreseen at the time when the concession was negotiated." *See US — Fur Felt Hats*, *supra* note 40, ¶ 9.

[47] *See* Appellate Body Report, *Korea — Dairy*, *supra* note 38, ¶ 84.

[48] FERNANDO PIÉROLA, THE CHALLENGE OF SAFEGUARDS IN THE WTO 145 (2014).

[49] Horn & Mavroidis, *supra* note 45, at 88.

[50] *Id.*

[51] Sykes, *Persistent Puzzles of Safeguards*, *supra* note 3, at 550.

[52] Horn & Mavroidis, *supra* note 45, at 88.

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findings and reasoned conclusions on "all pertinent issues of fact and law."[53] In other words, the imposing Member needs to demonstrate the adequacy of the national authorities' explanations of the circumstances where such developments were not foreseen. The lack of adequate reasoning will undermine Members' chance in meeting the standard for decisions on safeguards. The obligation to set forth the rationale for safeguard determinations and provide a coherent and logical explanation in that regard has been what the Appellate Body found fault with defending Members in several high-profile safeguard disputes.[54] Therefore, the lack of proper demonstration of the existence of "unforeseen developments" by the national authorities in the past WTO disputes limited the opportunity of the panel and Appellate Body to assess the adequacy of the explanation.

In *US — Safeguard Measure on PV Products*, the USITC addressed the issue of "unforeseen development" in a supplemental report, in response to a request raised by the United States Trade Representative (USTR).[55] Since the AS does not dictate the precise format of the "report" that the competent authorities of a Member must publish following their investigation, the supplemental report is perceived as part of the relevant published report within the meaning of the AS Article 3.1.[56] In the report, the USITC identified a series of events that the US negotiators could not have foreseen at the time that the US acceded to the GATT 1947/the WTO or when it agreed to China's WTO accession and, thus, constituted "unforeseen developments" within the meaning of Article XIX:1(a):

1. China would implement a series of industrial policies, five-year plans, and other government support programs favouring renewable energy product manufacturing, including CSPV products;
2. The effect of such industrial policies, plans, and support programmes would lead to the development and expansion of capacity to manufacture CSPV products in China to levels that substantially exceeded the level of its internal consumption;

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[53] Appellate Body Report, *United States — Safeguard Measures on Imports of Fresh, Chilled or Frozen Lamb Meat from New Zealand and Australia*, ¶¶ 21-23, WTO Doc. WT/DS177/AB/R, WT/DS178/AB/R (adopted May 16, 2001) [hereinafter *US — Lamb*].

[54] For instance, in *US — Steel Safeguards*, the Appellate Body did not question the existence of "unforeseen developments" or the developments might have caused the import surge. Rather, it ruled that USITC failed to provide a logical explanation of how such causation actually occurred. *See* Appellate Body Report, *United States — Definitive Safeguard Measures on Imports of Certain Steel Products*, ¶ 482, WTO Doc. WT/DS248/AB/R, WT/DS249/AB/R, WT/DS251/AB/R, WT/DS252/AB/R, WT/DS253/AB/R, WT/DS254/AB/R, WT/DS258/AB/R, WT/DS259/AB/R (adopted Dec. 10, 2003) [hereinafter Appellate Body Report, *US — Steel Safeguards*].

[55] *See* Terence P. Stewart & Elizabeth J. Drake, *How the WTO Undermines U.S. Trade Remedy Enforcement*, ALL. FOR AM. MFG. 3 (2017), https://www.brown.senate.gov/imo/media/doc/WTO_Undermines_US_Trade_Report.pdf.

[56] Panel Report, *US — Safeguard Measure on PV Products*, *supra* note 1, ¶ 7.20.

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3. This increased capacity would be largely directed to export markets such as the United States and would take advantage of the existence of programmes implemented by the US government to encourage renewable energy consumption;
4. The United States' use of authorized tools, such as anti-dumping and countervailing duty measures on imports from China, would have limited effectiveness and instead lead to rapid changes in the global supply chains and manufacturing processes in order to facilitate US imports of non-covered products from China and Chinese Taipei, and later US imports from Chinese producers' affiliates in other countries.

China counterargued that countries' attempt to seek economic development and energy security was "hardly unforeseen" and the imposition of anti-dumping and countervailing duties would lead to increased imports from other countries.[57] The US underscored it was "the scale of the effort, the speed with which it boosted Chinese production, the overcapacity that is created and the degree to which these effects spilled into other countries where Chinese producers expanded their operations that were unforeseen."[58]

The panel sided with the US regarding the existence of "unforeseen developments" for mainly two reasons.[59] First, China's measures led to the rapid increase of domestic CSPV capacity which exceeded significantly domestic consumption. Second, the imposition of anti-dumping and countervailing duties led to rapid changes in the global supply chains and manufacturing processes, and as a result a significant increase in the global capacity of CSPV production. On this basis, the panel rejected China's claim that the USITC failed to appropriately identify the existence of "unforeseen developments" under GATT Article XIX:1(a).

B. Increased Imports

The application of safeguard measures is tied to the increase in imports. While GATT Article XIX:1(a) contains a similar requirement, the AS Article 2.1 elaborates as follows:

> A Member may apply a safeguard measure to a product only if that Member has determined . . . that such product is being imported into its territory in such increased quantities, absolute or relative to domestic production, and under such conditions as to cause or threaten to cause serious injury to the domestic industry that produces like or directly competitive products.

[57] *Id.* ¶ 7.21.
[58] *Id.* ¶ 7.24.
[59] *Id.* ¶¶ 7.25-.28.

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A safeguard measure is sought to address a situation of "serious injury, or threat thereof," which is attributable to certain types of imports. Not any increase of imports suffices to establish "unforeseen developments," since it may have been well understood at the time of signing the agreement that such developments would take place, perhaps even as a result of the agreement. National investigating authorities should identify and explain the connection between unforeseen developments and the effect of the obligations incurred and increased imports. It is particularly important to distinguish the unforeseen developments from the increased imports.

Both the GATT Article XIX and AS Article 2.1 require that the investigated product must have been imported "in such increased quantities." Article 4.2 further states that the rate and amount of the increase in imports of the product concerned in absolute and relative terms are both relevant, but, in the words of Sykes, the text "failed to provide clear guidelines to the seemingly simple requirement."[60] For instance, the points in time that are to be compared or the length of the period to be investigated are not defined or set out. Moreover, and contrary to what is the case in the Anti-dumping or Subsidies Agreements, there is no *de minimis* standard for import increases under the AS.

Thus, the discretion of giving meaning to the requirement of "increased imports" fell upon the WTO adjudicating bodies. *Argentina — Footwear* was the first WTO dispute to look into this requirement. The Appellate Body in this case insisted that the increase in imports must have been "recent enough, sudden enough, sharp enough, and significant enough, both quantitatively and qualitatively,"[61] meaning a mere increasing trend over the investigation period is insufficient.[62] However, the degree of recentness, suddenness, sharpness, and significance has not been clarified.[63] There are no absolute standards as regards how sudden, recent, and significant the increase must be to qualify as an increase within the meaning of Article 2.1.[64] Whether the threshold for the "increased imports" requirement should be understood in quantitative and/or qualitative means also remains unanswered. That being said, we can observe a high degree of deference paid by the WTO adjudicating bodies to the determination of the national investigating authorities concerning the increase in imports.[65] For instance, the panel in *US — Line Pipe* decided that national authorities may choose a methodology to determine the increase in imports as they deem fit as long as the

[60] ALAN O. SYKES, THE WTO AGREEMENT ON SAFEGUARDS: A COMMENTARY 120-23 (2006).
[61] Appellate Body Report, *Argentina — Footwear*, *supra* note 38, ¶ 131.
[62] *Id.*
[63] Sykes, *Persistent Puzzles of Safeguards*, *supra* note 3, at 541-42.
[64] Appellate Body Report, *US — Steel Safeguards*, *supra* note 54, ¶ 358.
[65] Sykes, *supra* note 60, at 127-34.

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methodology was not "inherently biased" or would have precluded the investigating authorities from "performing a reasonable evaluation of the facts in the investigation."[66]

The USITC in *US — Safeguard Measure on PV Products* argued that imports increased as a result of China's industrial policies, five-year plans, and other government support programs that led to a significant and rapid expansion of China's capacity and production for CSPV products.[67] The USITC also contended that the overall increase in global CSPV capacity and the rapid reorganization of the global supply chain followed the imposition of anti-dumping and countervailing duties resulted in increased imports of CSPV products.[68] China disagreed with the requisite connection between increased imports and the "unforeseen developments" and identified Korean products as the single largest contributor to the imports increase in the US.[69] However, the panel pointed out that Chinese CSPV products constitute a consistently significant source of overall imports in the US market.[70] Furthermore, an increasing amount of the US CSPV imports were made up of products from China and Taiwan not covered by anti-dumping or countervailing duties and products manufactured by Chinese producers' affiliates in third countries. With this straightforward analysis, the panel rejected China's claim that the USITC failed to appropriately demonstrate that imports increased "as a result of unforeseen developments."

In demonstrating that imports increased "as a result of the effect of the obligations incurred", the US argued the duty-free treatment of CSPV products was related to its WTO obligations, which prevented it from raising its tariffs on CSPV products.[71] The panel recognized the US' inability to raise tariffs rates beyond the bound rate in reaction to an increase in imports and rejected China's claims. Therefore, the US met the requirements of Article XIX:1(a) of the GATT and the AS Article 3.1.

C. Serious Injury, Causal Link, and Non-Attribution Requirement

The mere existence of an unforeseen import surge resulting from a trade concession does not suffice to trigger the use of safeguards. The import surge must also cause or threaten "serious injury" on the domestic industry that produces like products, which is the core motivation of a safeguard investigation and the ultimate reason for the imposition of a safeguard.[72] A

[66] Panel Report, *United States — Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea*, ¶ 7.203, WTO Doc. WT/DS202/R (adopted Mar. 8, 2002).
[67] Panel Report, *US — Safeguard Measure on PV Products*, *supra* note 1, ¶¶ 7.24, 7.37.
[68] *Id.* ¶ 7.39.
[69] *Id.* ¶ 7.31.
[70] *Id.* ¶¶ 7.39-.45.
[71] *Id.* ¶¶ 7.55-.56.
[72] PIÉROLA, *supra* note 48, at 183.

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causal link must be established between increased imports and serious injury, as required by the AS Articles 4.2(a) and 4.2(b):

> (a) In the investigation to determine whether increased imports have caused or are threatening to cause serious injury to a domestic industry under the terms of this Agreement, the competent authorities shall evaluate all relevant factors of an objective and quantifiable nature having a bearing on the situation of that industry, in particular, the rate and amount of the increase in imports of the product concerned in absolute and relative terms, the share of the domestic market taken by increased imports, changes in the level of sales, production, productivity, capacity utilization, profits and losses, and employment.
>
> (b) The determination referred to in subparagraph (a) shall not be made unless this investigation demonstrates, on the basis of objective evidence, the existence of the causal link between increased imports of the product concerned and serious injury or threat thereof. When factors other than increased imports are causing injury to the domestic industry at the same time, such injury shall not be attributed to increased imports.

As important components in the attempt to restrain and prevent abuse of safeguard mechanism, these requirements give rise to rather severe interpretative problems due to the vague language. The AS defines "serious injury" in an almost tautological manner—"a significant overall impairment in the position of a domestic industry."[73] There is no *de minimis* standard for the test of "serious injury," although the Appellate Body ruled that the standard of "serious injury" is characterized as "high" and "exacting."[74] Article 4.2 does list relevant factors that investigating authorities need to evaluate, which means the failure to analyze one or more of these factors in the safeguard investigation will not pass WTO scrutiny.[75] Not every relevant factor is required to reflect industrial decline, nevertheless, the overall picture may demonstrate "significant overall impairment."[76] The Appellate Body's application of the "serious injury" standard without any precision adds to the confusion regarding what conditions will support a finding of serious injury or threat thereof.

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[73] *See* Agreement on Safeguards art. 4.1, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1994, 1869 U.N.T.S. 154 [hereinafter AS].
[74] Appellate Body Report, *US — Lamb*, *supra* note 53, ¶ 124.
[75] Appellate Body Report, *Argentina — Footwear*, *supra* note 38, ¶ 121.
[76] *Id.* ¶ 139.

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On the issue of causation, the underlying logic was straightforward—increased imports are causally responsible for the injury, although the criterion here is problematic from an economic point of view.[77] A higher level of imports could be attributable to a range of factors, such as an increase in foreign productivity, a growth in domestic demand, or a deterioration of domestic productivity. When it comes to allowing imports increase induced by any factor to be a legitimate basis for a safeguard, the treaty text is questionable. The causal link was interpreted to be a relationship of cause and effect such that "increased imports" contribute to "bringing about", "producing" or "inducing" serious injury.[78] There is a need to demonstrate a "genuine and substantial" relationship of cause and effect between "increased imports" and "serious injury."[79] However, neither the Agreement nor the jurisprudence has endorsed a specific methodology on which the determination of a causal link between increased imports and "serious injury or threat thereof" should be made.[80] The lack of a clear and consistent methodology for domestic competent authorities to use becomes the cause of concern.[81] Numerous leading trade law scholars have argued this prerequisite should be more precisely and narrowly defined.[82]

The established jurisprudence has shed limited light on the causation requirement by developing evidentiary conditions and methodological considerations. For instance, the panel in *Argentina — Footwear* concluded that meeting the causal link requirement normally involved demonstrating that "an upward trend in imports coincides with a downward trend in the indicators portraying the condition of the domestic industry."[83] Absent such a relationship, a very compelling analysis had to be provided as to why data showed causation.[84] In addition, simply demonstrating increased imports and injury occurrence is not sufficient. A "sufficiently clear" contribution by increased imports to serious injury must be identified by the authorities,

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[77] Economic theory suggests that the volume of imports is not determined exogenously, they are the result of a wide range of decisions made by governments, producers, and consumers. *See* Horn & Mavroidis, *supra* note 45, at 93; Sykes, *Persistent Puzzles of Safeguards*, *supra* note 3, at 529.

[78] Appellate Body Report, *United States — Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities*, ¶ 67, WTO Doc. WT/DS166/AB/R (adopted Jan. 19, 2001) [hereinafter *US — Wheat Gluten*].

[79] *Id.* ¶ 69.

[80] Panel Report, *Korea — Dairy*, *supra* note 38, ¶ 7.96; Panel Report, *US — Steel Safeguards*, *supra* note 21, ¶¶ 10.294, 10.296; and Panel Report, *Ukraine — Definitive Safeguard Measures on Certain Passenger Cars*, ¶ 7.296, WTO Doc. WT/DS468/R (adopted July 20, 2015).

[81] *See* Catherine E. Gascoigne, *The Determination of Causation in the Application of Trade Remedies*, 20(1) WORLD TRADE REV. 56, 58 (2021).

[82] Sykes, *Protectionism as a "Safeguard"*, *supra* note 3, at 291; Horn & Mavroidis, *supra* note 45, at 97.

[83] Panel Report, *Argentina — Safeguard Measures on Imports of Footwear*, ¶ 8.229, WTO Doc. WT/DS121/R (adopted Jan. 12, 2000).

[84] *Id.* ¶ 8.238.

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although the former does not need to be the sole cause of the latter.[85] Even if factors other than increased imports are found to contribute to the situation of the domestic industry at the same time, the causation requirement may still be met. The Agreement does not require that increased imports be "sufficient" to cause serious injury, nor does it require they "alone" be capable of causing or threatening to cause serious injury.[86]

The following test is nested in Article 4.2(b)—distinguishing and separating the effects of imports from the effects of other factors, which has become known as the "non-attribution" requirement. The purpose of the process is to ensure harm induced by other known factors is not attributed to the harm caused by imports.[87] In the presence of multiple several factors causing injury simultaneously, a determination about the injurious effects caused by increased imports can only be made if the injurious effects caused by all the different causal factors are detangled.[88] The WTO adjudicating bodies have divided the test into two sections: first, to distinguish the injurious effects caused to the domestic industry by increased imports from that caused by other factors; second, to attribute injury caused by increased imports separately from other factors. However, unlike the WTO rules governing the anti-dumping and countervailing duties regimes, the AS does not include an illustrative list of "other factors" of injury.[89] Investigating authorities are also expected to provide a reasoned and adequate explanation rather than a mere assertion.[90] For instance, an examination of the relative causal importance of the different causal factors does not meet the standard since it fails to provide any meaningful explanation of the nature and extent of the injurious effects of other factors.[91]

Although the Agreement does not mandate quantification of various injury factors to meet non-attribution requirements, the panel stated that quantitative analysis may be "desirable, useful, and sometimes necessary depending on the circumstances."[92] The absence of quantitative analysis is likely to invite arbitrariness in investigating authority's determination as well as WTO adjudication. However, as cautioned by Irwin, the entire exercise of

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[85] Appellate Body Report, *US — Wheat Gluten*, *supra* note 78, ¶ 67.

[86] The panel in *US — Lamb* and *US — Wheat Gluten* interpreted the relationship between increased imports and serious injury or threat thereof to be "necessary and sufficient" and the former alone were capable to causing or threatening to cause serious injury. However, the decision was reversed by the Appellate Body in *US — Lamb*. *See* Appellate Body Report, *US — Lamb*, *supra* note 53, ¶¶ 170-71.

[87] Appellate Body Report, *US — Wheat Gluten*, *supra* note 78, ¶ 69.

[88] Appellate Body Report, *US — Lamb*, *supra* note 53, ¶¶ 178-79.

[89] *See* Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 art. 3.5, Apr. 15, 1994, 1868 U.N.T.S. 20; Agreement on Subsidies and Countervailing Measures art. 15.5, Apr. 15, 1994; Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14.

[90] Appellate Body Report, *US — Wheat Gluten*, *supra* note 78, ¶ 158.

[91] Appellate Body Report, *US — Lamb*, *supra* note 53, ¶¶ 183-85.

[92] Panel Report, *US — Steel Safeguards*, *supra* note 21, ¶ 10.341.

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apportioning injury to various factors as required by the WTO rules becomes "semantic" since the separation and distinction of sources of injury play no substantive role in the proceedings.[93] That being said, the failure to separate, distinguish and assess the nature and extent of the injurious effects of factors other than increased imports that were causing injury to the relevant domestic industry will be rejected by the WTO adjudicating bodies.[94]

In *US — Safeguard Measure on PV Products*, the USITC pointed out a variety of factors concerning the condition of the domestic industry to illustrate serious injuries—significant idling of domestic production facilities; significant unemployment and underemployment; the inability of a significant number of firms to operate at a reasonable level of profit, generate adequate capital to finance plant and equipment modernization and maintain existing research and development (hereinafter "R&D") expenditures; declines in sales, market share, and other operating indicators, and adverse price conditions.[95] In demonstrating the causation between increased imports and serious injuries, the US presented several subsidiary findings, including declining prices and market share; deteriorating financial conditions, and poor operating indicators. Somehow, China did not challenge the serious injury determination but made claims only about the causal link.[96] China contended that the US failed to construe an "overall coincidence" between increased imports and the indicators of serious injury considering the prevalence of significant positive injury trends during the investigation period. Therefore, the US must present a "compelling" explanation to link increased imports to the negative injury factors, which according to China was not delivered due to the US' failure to account for key conditions of competition in its market.[97]

The Panel started by addressing whether the USITC provided "a reasoned and adequate explanation linking increased imports to the negative injury factors."[98] The first matter at issue concerns the conditions of competition in the US market, in particular market segmentation and the substitutability of domestic and imported CSPV products. China argued it was key conditions of competition instead of increased imports that attributed to the US industry's inability to capitalize on growth in the domestic market.[99] To be specific, the US domestic industry remained relatively small, and their focus lied in the residential and commercial segments while the utility segment has experienced explosive growth. The panel took the USITC's view that the domestic industry had "significant

[93] Irwin, *supra* note 3, at 309.
[94] Panel Report, *US — Steel Safeguards*, *supra* note 21, ¶ 10.408.
[95] Panel Report, *US — Safeguard Measure on PV Products*, *supra* note 1, ¶ 7.64.
[96] *Id.* ¶ 7.66.
[97] *Id.* ¶ 7.80.
[98] *Id.* ¶ 7.85.
[99] *Id.* ¶ 7.89.

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unused capacity" and was prevented from "meaningfully increasing its capacity to become more competitive" by increased imports.[100] Although the US industry had limited participation in a portion of the utility segment, this would not alleviate the ability of increased imports to adversely impact the US industry as a whole.[101] In terms of the substitutability between domestic and imported products, the panel agreed with the US' determination that the two were "high substitutable" based on the price competition, despite the existence of product differentiation within the market such as, for instance, technological differences.[102]

The panel moved on to examine the relationship between increased imports and the specific negative injury factors that existed during the investigation period—"adverse price conditions, lost market share, deteriorating financial performance, and plant closure." Firstly, whether factors other than price were the most important factors behind purchasing decisions and non-price factors contributed more to declining prices for CSPV products became the focal point in assessing the relationship between increased imports and adverse price conditions in the US market.[103] The high substitutability between imported and domestic CSPV products and the sensitivity of market competition to price testified to the importance of price in affecting solar consumers' decision-making.[104] Non-price factors, such as declining costs, increased efficiencies, and technological progress, as contended by China could not explain the adverse price conditions suffered by the US domestic industry.[105] Secondly, regarding lost market share, China pointed out that the US authorities did not account for prevailing conditions of competition appropriately.[106] For instance, the US domestic capacity could only meet a small fraction of the ever-increasing demand for CSPV products;[107] the US industry only participated in the utility segment on a limited basis, and the US domestic products had quality deficiencies. By rejecting all China's claims, the panel ruled that the US domestic industry lost sales to low-priced imports and suffered from the declining market share.[108] Thirdly, the panel recognized that the establishment of the linkage between increased imports and deterioration of financial performance largely flowed from the previous two injurious factors.[109] Given that the overall financial condition of the US domestic industry being "dismal and declining"

[100] *Id.* ¶ 7.91.
[101] *Id.* ¶¶ 7.100-.101.
[102] *Id.* ¶¶ 7.104-.106.
[103] *Id.* ¶ 7.119.
[104] *Id.* ¶ 7.120.
[105] *Id.* ¶¶ 7.121-.125.
[106] *Id.* ¶ 7.133.
[107] *Id.* ¶ 7.135.
[108] *Id.* ¶ 7.136.
[109] *Id.* ¶¶ 7.145-48.

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was not challenged by China in the "serious injury" determination, the panel decided that the deterioration of the US domestic industry's financial performance resulted from increased imports. Lastly, in respect of plant closure, the panel approved the connection between the US domestic industry's poor financial circumstances and plant closures given that most closures occurred at the time when financial conditions were worst during the start of the investigation period.[110]

The following step is to investigate the relationship between increased imports and several seemingly positive factors of serious injury, i.e., increases in the domestic industry's capacity, production, and shipments; employment; and capital expenditures, R&D expenses, and value of production assets. While China criticized the US' dismissal of the existence of these factors, the US argued the totality of the evidence illustrated "a significant overall impairment" suffered by the domestic industry, which cannot be undermined by the existence of positive factors of serious injury.[111] China's decision to not challenge the USITC's serious injury determination was taken as agreement with the conclusion that these improvements were "not representative of the domestic industry" as a whole. Moreover, significant numbers of producers in the US were unable "to generate capital, maintain existing R&D expenditure levels" or "develop next-generation products."[112]

Lastly, the USITC's assessment of the "allegedly injurious effects of factors other than increased imports" was challenged by China from two aspects. On the one hand, China elaborated on three manifestations of "alleged missteps"—"the alleged decision of the domestic industry to focus on the commercial and residential segments and to avoid competing in the utility segment"; "alleged quality and product-type issues"; and "alleged service and delivery issues."[113] The USITC's failure to adequately assess the nature and the extent of the injurious effects of the alleged missteps by the domestic industry and improperly dismiss these factors became the focal point. On the other hand, China identified "other alleged non-import factors" as follows, "declining government incentive programmes"; "declining raw material costs"; and "the need to attain grid parity with other sources of electricity."[114] Whether the USITC exercised non-attribution requirement by ensuring the injurious effects of those factors were not attributed to increased imports gave rise to disagreement between the two parties. The panel categorically rejected all of China's claims that the USITC acted inconsistently with AS Article 4.2(b) without providing much reasoning.

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[110] *Id.* ¶ 7.154.
[111] *Id.* ¶ 7.162.
[112] *Id.* ¶¶ 7.186-.187.
[113] *Id.* ¶ 7.198.
[114] *Id.* ¶¶ 7.241-.243.

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IV. REFLECTIONS ON THE PANEL DECISIONS IN *US — SAFEGUARD MEASURE ON PV PRODUCTS*

The panel decision in *US — Safeguard Measure on PV Products* demonstrates that it is not impossible for a Member to successfully defend the application of safeguard measure in the WTO dispute settlement process. The decision, however, raises questions on interpretation and the future of safeguard protection.

The first question to ask is: has the panel developed a coherent application of the preconditions for safeguard measures to guide Members as to an appropriate methodology for imposing safeguards that would pass WTO standards? The stability and credibility of the multilateral trading system increases the more precisely it can define the set of circumstances under which an escape clause can be available to exonerate Members' violation of certain trade obligations.[115] Although the WTO rules governing safeguards offer clearer criteria for key phrases, such as "serious injury," "threat of serious injury," and "domestic industry" compared to the GATT agreement, the persistent puzzles of the "unforeseen developments" and the non-attribution requirements remain. [116] The panel report in *US — Safeguard Measure on PV Products* did nothing to dispel the lack of clarity regarding the characteristics of a WTO-consistent safeguard that would survive a dispute settlement challenge for reasons as follows.

The panel developed its legal analysis by largely following the USITC's findings and determinations and focusing on the treaty text. Unlike in previous disputes, the panel seemed hesitant or even reluctant to draw upon the references of prior decisions and largely avoided discussing lengthy quotations and interpretations developed in the Appellate Body.[117] The lack of sufficient legal reasoning leaves complex issues unaddressed or underexplored. For instance, the panel provided inadequate analysis so to the shift from excessively stringent enforcement of "unforeseen developments" requirement to a different but much more lenient interpretation, which seems to be the result of simply repeating what was in the USITC report. What remains unanswered is whether the standards of "unforeseen developments" requirement as established in the previous jurisprudence are no longer applicable. Moreover, the panel did not fully consider or clearly define what qualifies as a "reasonable and adequate" explanation in demonstrating "unforeseen developments" or exercising non-attribution requirements.

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[115] Krzysztof J. Pelc, *Seeking Escape: The Use of Escape Clauses in International Trade Agreements*, 53 INT'L STUD. Q. 349, 351 (2009).

[116] *See generally* KYLE BAGWELL & ROBERT W. STAIGER, THE ECONOMICS OF THE WORLD TRADING SYSTEM (2002).

[117] Jesse Kreier, *The Solar Safeguards Panel Report—Some First Reactions*, INT'L ECON. L. & POL'Y BLOG (Sept. 2, 2021, 12:12 PM), https://ielp.worldtradelaw.net/2021/09/the-solar-safeguards-panel-report-some-first-reactions.html.

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Whether quantification of various injury factors is useful or necessary to avoid arbitrariness in distinguishing and separating multiple factors was left open. Acknowledging some issues, in this case, were highly fact-specific, it is perhaps hard to apply the panel's approach in a different case where facts are largely different. However, the case is a missed opportunity for the panel to add much-needed clarifications to the vaguely drafted provisions and provide affirmative guidance to Members. From a broader perspective, the textual ambiguity and lack of interpretative clarity will serve to further undermine the predictability and certainty of the multilateral trading system.

The second question to address is: can the panel's interpretative approach ensure the use of safeguard measures only to the extent necessary? As "extraordinary remedies" permitted by the WTO in emergencies to restrict imports from other Members in the absence of any allegation of unfair trade practices, safeguards should be maintained exceptional and temporary. There is a natural tension between defining an appropriate and legitimate scope of the right to apply safeguards measures and ensuring the application of such measures against fairly traded goods is not beyond what is necessary to provide extraordinary and temporary relief.[118] The risk of abusing safeguards as a form of contingent trade protection can be curbed if Members are prohibited to deviate from trade obligations except in exceptional circumstances. However, a loosening of the criteria and conditions for safeguards will incentivize members to abuse the system in mainly two ways: invoking safeguard measures in non-exceptional circumstances and maintaining such measures to the extent no longer necessary to remedy the injury.

In the present case, the panel's decisions might raise the concern that vested interests will become entrenched and safeguards measures maintained for the maximum length of period and may be hard to remove. Although the renewal of safeguard measures is subject to domestic review, a lenient interpretation of safeguard rules by the WTO adjudicating body can, nevertheless, encourage the permanence of such measure. As a matter of fact, in August 2021, two US solar manufacturers—Auxin Solar and Suniva—filed a petition with the USITC to extend the existing solar safeguards through 2026.[119] After investigation, the USITC confirmed the necessity to continue the use of import relief to prevent or remedy serious injury to the US industry and there is evidence that the domestic industry is making a positive adjustment to import competition.[120] Although the final decision

[118] Appellate Body Report, *US — Line Pipe*, *supra* note 23, ¶ 83.
[119] *USITC Says Relief Continues to Be Necessary for U.S. Industry Producing Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products*, U.S. INT'L TRADE COMM'N (Nov. 24, 2021), https://www.usitc.gov/press_room/news_release/2021/er1124ll1852.htm.
[120] *Id.*

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resides in the authority of US President Biden, the positive confirmation made by the domestic investigating authority reflects the growing reliance on safeguards as a means to shield foreign competition.

The third question to raise is: why did the panel pay a higher degree of deference to the investigating authority's determinations in *US — Safeguard Measure on PV Products*? The matter becomes whether this signals a shift closer towards complete deference in the standard of review for WTO panels to adjudicate trade remedy disputes. Simply stated, there is a stark contrast between how the panel deferred to the factual and legal determinations made by the USITC in *US — Safeguard Measure on PV Products* from the previous jurisprudence. Was the panel's sudden and drastic decline in the degree of intrusiveness or invasiveness into the US domestic safeguard investigating authority's decision somewhat politically motivated?

It is common knowledge that the US hostility towards the Appellate Body and the dispute settlement system as a whole partly stems from the WTO decisions made relating to challenges to US-imposed trade remedies.[121] The US has criticized past panels and the Appellate Body findings on safeguards as "confusing, unclear and difficult to follow" with free trade bias or bias against trade remedies, as well as going beyond the DSU mandate by adding to or diminishing the rights of Members.[122] Compared to the last time a US measure was challenged in dispute settlement—for steel safeguards—when it lost on every measure at issue, the present dispute featured a complete victory for the US, even in areas that have traditionally presented almost insurmountable hurdles. What is curious is that the panel did not even on one occasion express any disagreement or skepticism with the USITC's findings. While it is not possible to second-guess the panel's motivations, it can be stated that the level of deference to the domestic authority's report is unusually high. It might not be unreasonable to speculate that to some extent the panel factored into the US' rising dissatisfaction with the WTO dispute settlement, particularly in the adjudication of trade remedies, and accordingly granted a much higher level of deference to the US decision. There is a risk in doing so, however, as complete deference to Members' domestic authority and decision-making process risks jeopardizing the rules-based trading system on which the WTO is built. A fine balance between the autonomy of WTO Members and the need for effective enforcement of the WTO law lies at the core of the standard of review applied by panels and the Appellate Body.

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[121] Jennifer Hillman, *Three Approaches to Fixing the World Trade Organization's Appellate Body: The Good, the Bad and the Ugly?*, INST. OF INT'L ECON. L. GEO. UNIV. L. CTR. (2018), https://www.law.georgetown.edu/wp-content/uploads/2018/12/Hillman-Good-Bad-Ugly-Fix-to-WTO-AB.pdf.

[122] *See generally* U.S. GEN ACCT. OFF., WORLD TRADE ORGANIZATION: STANDARD OF REVIEW AND IMPACT OF TRADE REMEDY RULINGS (2003), https://www.gao.gov/assets/gao-03-824.pdf.

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The last, yet the most substantial question is what implications the panel's decision in *US — Safeguard Measure on PV Products* creates. The answer is formulated from three different yet interrelated perspectives—the solar PV industry, the WTO, and the environment. In an increasingly intertwined world, a WTO decision which seemingly focuses entirely on trade-related issues can create repercussions on non-trade values. It is essential to assess the panel's decision from a wide range of aspects to provide an evaluation as unbiased and comprehensive as possible.

First, we can look at the implications of safeguard measures on the US solar industry. The purpose of the safeguard measure is to improve the competitiveness of the injured domestic manufacturing industries and the welfare of their workers. However, as the evidence shows, the manufacturing firms petitioned for the safeguard protection had filed for bankruptcy, followed more recently by several smaller-sized ones.[123] This casts doubt on the effectiveness of the safeguard measure in providing breathing space and facilitating a positive adjustment for the US domestic solar industry.

In addition, the solar PV value chain has further integrated and expanded over the past decade, which comprises the upstream production of polysilicon, the midstream manufacturing of wafers, solar cells, and modules, and the downstream deployment, such as installation, sales, distribution, and maintenance.[124] Although midstream manufacturing is the focus of the measure at issue, assessing the implications of the panel decision on the US solar industry cannot ignore other segments, particularly the downstream one.[125] Relying on solar cells and modules as inputs, the downstream segment has to face the rising cost due to the tariff increases on imported products and slow down the deployment.[126] In addition, research shows that the downstream segment has the potential to create more employment opportunities with higher value-added than the midstream manufacturing.[127] The SEIA estimates a total loss of 62,000 jobs and USD 19 billion investment between 2017 to 2021, despite an increase of around 2,000 jobs in the manufacturing segment.[128]

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[123] The two large US solar firms—Suniva and SolarWorld filed for bankruptcy after the imposition of the solar safeguards. Several other solar manufacturing firms such as Sungevity, and Real Goods Solar also went bankrupt recently. *See Another Solar Company Goes Bankrupt*, SOLARPONICS SUSTAINABLE ENERGY SYS. (Feb. 26, 2020), https://www.solarponics.com/renewable-energy-news/another-solar-company-goes-bankrupt-real-goods-solar/.

[124] Bob Carbaugh & Max St. Bown, *Industrial Policy and Renewable Energy: Trade Conflicts*, 5(1) J. INT'L & GLOB. ECON. STUD. 1, 3 (2012).

[125] Mandy Meng Fang, *Old Wine in a New Bottle? Green Industrial Policy and the Use of Safeguards in the Solar Sector*, 55(4) J. WORLD TRADE 573, 583 (2021).

[126] *Id.*

[127] *See* COUNCIL ON ENERGY, ENV'T & WATER & NAT. RES. DEF. COUNCIL, LAYING THE FOUNDATION FOR A BRIGHT FUTURE: ASSESSING PROGRESS UNDER PHASE 1 OF INDIA'S NATIONAL SOLAR MISSION (2012), https://www.nrdc.org/sites/default/files/layingthefoundation.pdf.

[128] *The Adverse Impact of Section 201 Tariffs: Lost Jobs, Lost Deployment and Lost Investments*, SOLAR ENERGY INDUS. ASS'N (Dec., 2019), https://www.seia.org/sites/default/files/2019-12/SEIA-

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It is important to assess the costs incurred by the use of safeguard measures on imported solar products and evaluate whether benefits are outnumbered in this case. Who would benefit from the import restriction, who would lose, and by how much? Although the WTO rules only require an investigation of injury to domestic industries that compete with imports at issue, the interests of non-competing industries or even individuals that would be undermined should carry weight.[129] The policy process by which the government decides to impose safeguards needs to account for the interests that benefit from trade liberalization and those that bear the costs. In this case, the US administration was fixated on national economic interests that stand to gain from import restrictions while even ignoring the flip side that has to bear the costs. Protecting the manufacturing sector at the cost of the downstream development and the solar industry as a whole runs counter to the theory of economically sensible international trade policy, which provides greater benefits to members of the society than costs.[130]

Second, we can evaluate in what ways the panel's review of the US authority's determination to impose safeguards implicates the WTO as a trade liberalizing institution. The lack of operationality of safeguards as a form of escape clauses can be problematic considering its role to contribute to enhancing the efficiency of trade agreements and reducing the number of adjustment costs.[131] Therefore, the panel's decision has the effect of providing a fresh reading to the otherwise seemingly unfulfillable safeguard conditions and resurrecting the legitimacy of the safeguard mechanism under the WTO dispute settlement. Making the application of a temporary and non-discriminatory safeguard easier than a more trade-restrictive and discriminatory anti-dumping duty may be more desirable for the multilateral trading system.[132]

However, leniently interpreted safeguard rules could potentially open the floodgate to uninhibited use of safeguards and trigger a new wave of trade protectionism that runs counter to the core values of the WTO. A move toward the protection of the domestic industry initiated by one country can

Tariff-Analysis-Report-2019-12-3-Digital_0.pdf.

[129] Although some countries, such as Canada, and the EU have established administrative procedures to conduct "public interest" test of trade remedy measures, the clauses are characterised as negative ones, because both of them require proof that the imposition of trade remedies are not in the public interest. Therefore, the standard of the non-imposition of trade remedy measures is high and difficult to comply with. *See* Adinada Sinnaeve, *The 'Community Interest Test' in Anti-Dumping Investigations: Time for Reform?*, 2(4) GLOB. TRADE & CUSTOMS J. 157, 161 (2007).

[130] J. Michael Finger, *GATT Experience with Safeguards: Making Economic and Political Sense of the Possibilities that the GATT Allows to Restrict Import* 13 (The World Bank Trade, Dev. Rsch. Grp., Working Paper No. 2000, 1998).

[131] Horn & Mavroidis, *supra* note 45, at 79-80.

[132] Brett Williams expressed this idea in a blog post in the International Economic Law and Policy (IELP) Blog. *See* Brett Williams, Comments to *The Solar Safeguards Panel Report - Some First Reactions*, INT'L ECON. L. & POL'Y BLOG (Sep. 2, 2021, 12:12 PM), https://ielp.worldtradelaw.net/2021/09/the-solar-safeguards-panel-report-some-first-reactions.html.

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be contagious and incentivize another to adopt similar or even identical actions.[133] For instance, India quickly emulated the US trade policy and imposed a safeguard measure on solar cells and modules since 2018.[134] The likelihood that a favorable WTO panel ruling will ignite Members' interest in pursuing safeguard remedies against foreign competition cannot be overlooked. Moreover, the emergence of increasingly adaptable supply chains that restricts the effectiveness of countermeasures such as country-specific trade remedies can necessitate the rising popularity of safeguards,[135] besides the mounting practices in which accounting figures for the dumping margins can be manipulated to be *de minimis*.[136]

Facing a likely proliferation of safeguards, what actions can adversely-affected Members take under the WTO is another important factor to consider. Some may argue compensation from imposing Member, such as lowered barriers on other products is available for Members affected by safeguards.[137] However, this option is rarely feasible because identifying which products on which to further reduce tariffs can generate additional domestic political pressure.[138] Therefore, compensation under the WTO safeguard regime usually takes the form of suspension of equivalent concessions by aggrieved members which, nevertheless, can be economically detrimental.[139] Because raising trade barriers will inflict damage on Members themselves without recovering the market access lost due to the safeguard measure.

Alternatively, Members can also formally challenge the safeguard action through a WTO dispute, which carries the benefit of restoring import market access if the complainant prevails. However, empirical research suggests that Members which are not diversified in the safeguard-affected exports tend to

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[133] *See* Douglas A. Irwin, *The False Promise of Protectionism: Why Trump's Trade Policy Could Backfire*, 96(3) FOREIGN AFFS. 45, 47 (2017).

[134] GOV'T OF INDIA, *Safeguard Investigation Concerning Imports of "Solar Cells Whether or not Assembled in Modules or Panels" into India—Final Findings—Proceedings Under the Customs Tariff Act, 1975 and the Custom Tariff (Identification and Assessment of Safeguard Duty) Rules, 1997—Reg.* (July 16, 2018), https://www.dgtr.gov.in/sites/default/files/Solar-Final_Finding-English_0.pdf.

[135] Joshua E. Kurland, *Dusting-off Section 201: Re-Examining a Previously Dormant Trade Remedy*, 49(2) GEO. J. INT'L L. 609, 673 (2018).

[136] Youngjin Jung & Ellen Jooyeon Kang, *Toward an Ideal WTO Safeguards Regime—Lessons from U.S. — Steel*, 38(4) INT'L LAW. 919, 931 (2004).

[137] Article 8(1) of the AS require members using safeguards to maintain "a substantially equivalent level of concessions." A member whose exports are subject to another's safeguard measures may not exercise its right to suspend concessions until three years, provided that the measure was taken as a result of an absolute increase in imports and that such measure conforms to the provisions of the WTO rules, according to Article 3 of the AS.

[138] Bown, *supra* note 26, at 51.

[139] Robert E. Hudec, *Broadening the Scope of Remedies in the WTO Dispute Settlement*, WORLDTRADELAW.NET 22 (2000), https://www.worldtradelaw.net/document.php?id=articles/hudecremedies.pdf.

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be more reluctant to bring a WTO dispute.[140] In this case, given that China has already diversified its solar exports and become less reliant on the US for the export market, the country can initiate the WTO challenge without concern that it might not be able to deflect lost exports to third markets. [141] However, the embedded and emerging weaknesses of the system—lack of a timely remedy, [142] the prospective nature of the remedy, [143] and the Appellate Body crisis[144]—casts doubt on the effectiveness of restricting illegitimate safeguards.

Third, viewed from the perspective of environmental protection and climate change mitigation, the ramifications of the panel's decisions appear to be dire. The development and deployment of solar energy have the potential to bring significant socioeconomic and environmental benefits.[145] Endorsing the use of safeguards on solar products will add to the cost of solar energy, which runs counter to the goal of reducing the cost of solar energy and facilitating the diffusion.[146] Even the mere prospect of safeguard action could have a chilling impact on the solar market by weakening the stability and predictability.[147] Developers and consumers in the downstream segment that are price-sensitive tend to withhold projects in the face of tariff

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[140] Bown, *supra* note 24, at 525.

[141] The US is no longer in China's top ten solar module export markets. *See Analysis of Chinese Modules Exports in 2019*, INFOLINK (Mar. 3, 2020), https://www.infolink-group.com/en/solar/feature-china-exports/analysis-of-2019-china-module-exports.

[142] The time taken to complete the dispute settlement process, and the lack of a fast-track approach, means any safeguard—even those of dubious legality—can remain in effect for as long as three years without being properly disciplined by the WTO. *See* William J. Davey, *Sanctions in the WTO: Problems and Solutions*, *in* THE LAW, ECONOMICS AND POLITICS OF RETALIATION IN WTO DISPUTE SETTLEMENT 360, 361 (Chad P. Bown & Joost Pauwelyn eds., 2010).

[143] An adversely affected Member cannot claim full restitution even when the Dispute Settlement Body adopts a Panel or Appellate Body report in its favour. *See* Understanding on Rules and Procedures Governing the Settlement of Disputes art. 21(3), April 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401. For critical analysis of the WTO remedy system, see generally Joost Pauwelyn, *Enforcement and Countermeasures in the WTO: Rules Are Rules—Toward a More Collective Approach*, 94(2) AM. J. INT'L L. 335 (2000).

[144] The US' refusal to appoint new WTO Appellate Body members has grown from a concern to a crisis as the number of members fell below the threshold necessary to consider an appeal at the end of 2019. *See Members Urge Continued Engagement on Resolving Appellate Body Issues*, WORLD TRADE ORG. (Dec. 18, 2019), https://www.wto.org/english/news_e/news19_e/dsb_18dec19_e.htm.

[145] *See* INT'L RENEWABLE ENERGY AGENCY, THE SOCIO-ECONOMIC BENEFITS OF SOLAR AND WIND ENERGY (2014).

[146] Research shows that the US safeguard measure alone added at least USD 0.05/watt to the engineering, procurement, and construction projections for each protect. *See* Yuri Horwitz, *Federal Policy Can Drive the Solar Industry . . . But Still May Fall Short*, PV MAG. (Oct. 28, 2021), https://pv-magazine-usa.com/2021/10/28/federal-policy-can-drive-the-solar-industry-but-still-may-fall-short/.

[147] Gary N. Horlick, *The E15 Initiative Strengthening the Global Trade System: Trade Remedies and Development of Renewable Energy*, INT'L CTR. FOR TRADE & SUSTAINABLE DEV. & WORLD ECON. F., at 4 (2013), https://e15initiative.org/wp-content/uploads/2015/09/E15-Clean-Energy-Technologies-Horlick-FINAL.pdf.

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increases.[148] What makes matters even worse is when the domestic manufacturing capacity in solar cells and modules could not even meet the domestic demand, leading to a severe supply shortage that further hinders the transition from fossil fuel to clean energy.[149] Amid a time when the global supply chain in the solar sector is undergoing disruptions induced by the pandemic and the cost of labor and raw materials on the rise, how to bring down the price of solar energy is more crucial than ever.[150] It is perhaps not for the WTO, but for the US to evaluate whether achieving one goal (boosting the capacity for a narrow range of solar manufacturing activities) would undermine what the US government may deem even more important—climate change mitigation and low-carbon transition.

V. CONCLUSIONS

The operationality of safeguard measures as a trade defense mechanism has been revived by the panel in *US — Safeguard Measure on PV Products*. While shedding new light on the applicability of safeguards, the panel's decisions in many ways fail to establish a sound legal framework governing the use of disciplined safeguard measures with sufficient interpretive guidance. The lingering issues such as the establishment of a link between "unforeseen developments" and "imports increase," and the exercise of non-attribution requirement remain imprecise. Therefore, compliance with the regulatory requirements for the application of a safeguard measure is yet clearly defined.

The implications of the panel's decisions are by no means limited to the dispute but potentially far-reaching, which this article assessed from three different perspectives—the US solar industry, the WTO, and the environment. First, protecting the US domestic solar manufacturing firms with import restrictions has impaired the interests of other segments in the solar industry, particularly the downstream deployment. Even so, it remains highly questionable that domestic manufacturers can regain competitiveness from such protection. Prevailing in the panel stage, the US administration might be incentivized to take more similar actions in the solar sector or even the renewable energy sector. Second, resurrecting the practicality of safeguards by itself is not problematic for the WTO given its role to enhance the efficiency of trade agreements and prevent Members from using more trade-restrictive measures. However, the abusive use of safeguards by the US

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[148] Gavin Bade, S*olar Trade Woes Cast a Pall over Biden's Climate Goals*, POLITICO (Sept. 28, 2021, 4:30 AM), https://www.politico.com/news/2021/09/28/biden-solar-manufacturing-climate-dilemma-514428.

[149] *Id.*

[150] Dan Murtaugh & Maxwell Adler, *Solar's Growth Stumbles Just as the World Needs It Most*, BLOOMBERG (Oct. 25, 2021, 8:00 AM), https://www.bloomberg.com/news/articles/2021-10-25/solar-energy-growth-rate-slows-with-supply-chain-shortages-rising-panel-prices.

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or any other Member will severely undermine the core values of the WTO as the rules-based multilateral trading system. Third, the imposition of safeguards will add to the cost of solar energy and slow down its penetration as a solution to carbon emissions. Given the obstacles to properly putting a price tag on carbon emissions remain formidable, reducing the price of solar energy is one of the most effective climate change solutions that any form of trade restrictions can potentially impair.

Since the outbreak of COVID-19, an increasing number of countries around the globe have made carbon-neutrality pledges and promises of "building back better/greener."[151] As one of the most promising vehicles to reduce carbon emissions and achieve decarbonization, solar energy is expected to receive a large amount of investment from governments and other stakeholders.[152] This is likely to intensify global competition in the solar sector and provoke the use of trade protectionist instruments to enhance the competitiveness of domestic industry against foreign counterparts. Against this background, lowering the thresholds for invoking safeguards is likely to be hijacked by trade protectionists and hinder the agenda to facilitate the diffusion of climate-friendly technologies. Striking a delicate balance between respecting Member's policy autonomy to use safeguards as a legitimate defense and preventing such Measures from being abused to jeopardize trade liberalization and environmental interests is more crucial than ever in the post-pandemic era.

[151] As of writing, 137 countries have committed to carbon neutrality, as tracked by the Energy and Climate Intelligence Unit. *See* NET ZERO SCORECARD, https://eciu.net/netzerotracker (last visited Jan. 6, 2022).

[152] For instance, the US Build Back Better Act includes USD 555 billion for clean energy and climate-related investments. *See President Biden Announces the Build Back Better Framework*, WHITE HOUSE (Oct. 28, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/10/28/president-biden-announces-the-build-back-better-framework.

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