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Proactive International Law

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International law is notably reactive in nature. For the most part, international norms and institutions have been devised in response to previously observed crises and incidents—be they wars, pandemics, environmental disasters, economic breakdowns, or technological advances. This Article challenges the centuries-old reactive and past-oriented approach of international law. It suggests that while the reactive paradigm has facilitated practical solutions to the concrete problems faced by the international community, this paradigm has also led international law to become backward-looking and short-sighted, thereby hindering the discipline from acting in anticipation of long-term problems and developments.

Against this backdrop, this Article calls for a conceptual shift. It argues that the time has come to couple international law's traditional reactive paradigm with a more proactive, forward-looking approach that is geared toward the future, with a view to preventing risks and realizing opportunities well in advance. Such a shift is particularly critical given that many of the global challenges on the horizon—such as artificial intelligence, synthetic biology, environmental degradation, demographic transformations, or outer space commercialization—are more complex and diffuse than those previously encountered. Moreover, these challenges present themselves in an accelerated global environment where the rapid pace of social and technological change leaves little room for maneuvering when action is due.

This Article begins by recounting the reactive record of international law while illustrating the prevalence of the reactive approach in numerous regulatory fields, including anti-terrorism, public health, refugees, and arms control. Thereafter the Article analyzes the root causes of international law's reactive paradigm and highlights the paradigm's limitations. The Article then turns to lay the theoretical foundations for a novel approach to the evolution and functioning of the discipline, called "proactive international law." It presents the proactive approach's core elements and identifies ways to mainstream them into the international legal system, thereby making long-term—even if uncertain—problems and advancements a real regulatory priority on the international agenda.

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INTRODUCTION

International law is notably reactive in nature. For the most part, international law has developed in response to specific crises and incidents, be they wars, pandemics, environmental disasters, economic breakdowns, or technological advances.[1] Following this mode of development, international norms and institutions have primarily been devised with the purpose of offering concrete solutions to events and crises already encountered.[2] In this manner, past events have assumed a constitutive role in the evolution of international law,[3] steering the developmental trajectory of the discipline, shaping the form and substance of international rules and institutions, and defining the rights and duties of international actors.

This reactive, event-based approach to international law is not without merit. It has facilitated the adoption of practical solutions to specific problems faced by the international community and has helped confer legitimacy on international legal arrangements. Additionally, this long-standing approach has offered international law a path along which to steer its development and a means by which to generate a sense of disciplinary movement and improvement.[4]

Nonetheless, in this Article we argue that the reactive approach has conditioned international law to be backward-looking and short-sighted in nature. It has curbed international legal imagination and has led international law to take on a limited and responsive role in the regulation of international affairs, hindering the discipline from vigorously acting in anticipation of future changes and needs. In other words, the organization of international law around specific crises and incidents, and the consequent translation of events from the past or immediate present into the legal standards "against which actors in future international events will come to be judged,"[5] has shifted international law's focus away from alternative futures, leaving little room in the field for an ex-ante view and long-term planning.

The recent struggle of the international legal system in the face of the COVID-19 pandemic vividly illustrates this state of the discipline. While the pandemic might have been a surprise in terms of its timing, the possibility of a

1. On the centrality of crises and events in the development of international law, see Fleur Johns, Richard Joyce & Sundhya Pahuja, *Introduction*, *in* EVENTS: THE FORCE OF INTERNATIONAL LAW 1 (Fleur Johns, Richard Joyce & Sundhya Pahuja eds., 2011); Hilary Charlesworth, *International Law: A Discipline of Crisis*, 65 MOD. L. REV 377 (2002); Marina Aksenova, *COVID-19 Symposium: Quantum Leaps of International Law*, OPINIOJURIS (Apr. 7, 2020), https://opiniojuris.org/2020/04/07/covid-19-symposium-quantum-leaps-of-international-law; Rosemary Rayfuse, *Public International Law and the Regulation of Emerging Technologies*, *in* THE OXFORD HANDBOOK OF LAW, REGULATION AND TECHNOLOGY 500 (Roger Brownsword, Eloise Scotford, & Karen Yeung eds., 2017); Wilfred C. Jenks, *The New Science and the Law of Nations*, 17 INT'L & COMP. L.Q. 327, 328 (1968).

2. Francisco-José Quintana & Justina Uriburu, *Modest International Law: COVID-19, International Legal Responses, and Depoliticization*, 114 AJIL 687, 689 (2020).

3. Johns et al., *supra* note 1, at 3.

4. *Id.* at 2.

5. *Id.* at 4.

pandemic was not unanticipated.[6] Nonetheless, soon after COVID-19 began spreading around the world, observers questioned whether existing international law and institutions were "sufficiently prepared for what ha[d] befallen, or adequately responsive when it arrived."[7] Global guidelines and detailed manuals for responding to a pandemic were not readily available upon the outbreak of COVID-19.[8] Moreover, serious difficulties surfaced with respect to the implementation of the World Health Organization's (WHO) International Health Regulations (IHR)[9]—which is the only binding international treaty on global public health.[10] In 2005, the WHO extensively amended the IHRs. Yet, in line with international law's reactive disposition, the IHRs were revised with an eye to the past rather than the future, seeking to retroactively address the shortcomings observed in the response to the spread of severe acute respiratory syndrome (SARS) in the early 2000s.[11] In real time, however, the revised regulations, which "may have been an effective tool to cope with conventional disease outbreaks such as SARS," proved inefficient against new outbreaks like COVID-19.[12] Thus, the reactive paradigm left international law poorly positioned to cope with the anticipated threat when it eventually materialized. The costs that were ultimately imposed on the international community were not only exceedingly high, but were also unevenly distributed, hitting those less well-off the hardest.

Against this background, this Article calls for a conceptual shift. It argues that the time has come to couple the reactive, backward-looking paradigm that has dominated international law for so long with a more proactive, long-term, and forward-looking approach. The need for such a shift is particularly acute given that, looking beyond pandemics, many other emerging global challenges—such as climate change, environmental degradation, artificial intelligence, synthetic biology, food security, overpopulation, urbanization, and digitalization—are more complex and diffuse than those encountered in the past. Moreover, these challenges transpire in an accelerated environment, whereby the rapid pace of social and technological change leaves little room for effective maneuvering when action is due.[13] Such challenges require an international legal

6. Hal Brands & Francis J. Gavin, *COVID-19 and World Order*, COVID-19 AND WORLD ORDER: THE FUTURE OF CONFLICT, COMPETITION, AND COOPERATION 1 (Hal Brands & Francis J. Gavin eds., 2020).

7. Phillippe Sands, *COVID-19 Symposium: COVID-19 and International Law*, OPINIOJURIS (Mar. 30, 2020), https://opiniojuris.org/2020/03/30/symposium-covid-19-and-international-law.

8. Jaemin Lee, *IHR 2005 in the Coronavirus Pandemic: A Need for a New Instrument to Overcome Fragmentation*, ASIL INSIGHTS (June 12, 2020), https://www.asil.org/insights/volume/24/issue/16/ihr-2005-coronavirus-pandemic-need-new-instrument-overcome-fragmentation.

9. International Health Regulations, May 23, 2005, 2509 UNTS 79.

10. Lee, *supra* note 8.

11. Lawrence O. Gostin, Roojin Habibi & Benjamin Mason Meier, *Has Global Health Law Risen to Meet the COVID-19 Challenge? Revisiting the International Health Regulations to Prepare for Future Threats*, 48 J. L. MED. & ETHICS 376 (2020).

12. Lee, *supra* note 8.

13. On the phenomenon of social acceleration, see HARTMUT ROSA & WILLIAM SCHEUERMAN, HIGH-SPEED SOCIETY: SOCIAL ACCELERATION, POWER, AND MODERNITY (2009); HARTMUT ROSA, SOCIAL

regime that points to the future, with an eye to preventing the risks and realizing the opportunities embedded in global changes and developments.

From this standpoint, this Article offers a new, complementary approach to the development, creation, and operation of international law, labeled "proactive international law." At its core, this approach advocates a more active and far-sighted international regulatory perspective that expands beyond past and current events to those that might happen in the future. Based on the premise that using the past to predict the future is becoming increasingly problematic in our rapidly changing world, the forward-looking approach advanced in this Article marks a promising path that can lead to improved, more resilient international regulatory arrangements that more effectively address tomorrow's global challenges.

To gain analytical leverage in this endeavor, the Article draws upon the burgeoning literature on proactive law, a concept originally developed in Scandinavia in the domestic legal context in the late 1990s.[14] Proactive law challenges the traditional approach to law and legal practice, which rests on backward-looking and failure-oriented modalities. Rather than reacting to deficiencies and shortcomings, as traditional law usually does, the proactive law approach stresses foresightedness and self-initiation. It calls upon all actors involved in legislation, contract drafting, or other law-related processes to act in anticipation of future challenges and take control of potential problems or opportunities. Most significantly, this approach urges those actors to take more preventive and promotive actions—instead of mainly reactive ones—using the law as a lever to obstruct unwanted phenomena and accomplish desired goals.

The proactive law approach is still predominantly discussed within the context of domestic legal systems, while efforts to extend it beyond the national realm could be observed in the European Union legal framework.[15] To date, however, neither international law scholars nor practicing international lawyers have fully acknowledged the potential of proactive law for the international legal system. Elevating this approach to the international level requires, of course, necessary adjustments given the different circumstances of the international order. Nevertheless, its key concepts and insights provide useful trajectories along which to advance a new, proactive approach to international law.

Under this approach, international law should no longer predominantly focus on correcting problems ex-post while narrowly prioritizing near-term over long-term concerns. Rather, international legal actors should invest more effort in spotting potential risks when preventive action is still possible and in identifying opportunities early enough to realize their value. No less importantly, they should take initiative in view of prospective problems and advancements, thus making long-term developments—often with critical implications for the international community—a real regulatory priority on the

ACCELERATION: A NEW THEORY OF MODERNITY (2013); JUDY WAJCMAN & NIGEL DODD (eds.), THE SOCIOLOGY OF SPEED: DIGITAL, ORGANIZATIONAL, AND SOCIAL TEMPORALITIES (2016).

14. *See infra* Part III.A.

15. *See infra* Part III.A.

international agenda. In that sense, proactive international law requires international lawmakers to not simply devise legal arrangements that rely on fact patterns observed in the near past or present, but also to engage in the development of sound legal rules and practices in order to create future facts and plan a future course of conduct. And, while proactive international law recognizes that responding to and resolving past and present problems remains important, it argues that in today's more complex, interconnected, and rapidly changing world, tackling long-term challenges is clearly no less critical.

To be sure, implementing a proactive and far-sighted approach along the lines delineated in this Article is likely to pose serious challenges to international law and the various actors involved in its formation and operation. Above all, such an approach entails a paradigmatic shift in the thinking, resourcing, and conduct of all actors concerned, especially states and international organizations, along with the formulation of adequate mechanisms for using international legal infrastructures, instruments, and processes proactively. Pursuing a proactive approach further requires the makers and operators of international law to overcome a range of rational constraints and irrational biases which often impair their ability to plan for an uncertain future. Overcoming such constraints and biases, moreover, may prove particularly challenging in the international setting, where geographical, national, and cultural divisions between states and societies might weaken the sense of a joint community and shared destiny, thereby stripping international law of basic elements that can facilitate movement towards longer-term views and actions.

However, in the present conditions of globalization and acceleration, and given the cross-border challenges on the horizon, all of which require collective long-term solutions, international law no longer has the luxury to develop mainly in a reactive fashion. As nations, societies, and individuals become ever more interdependent, and "problems without passports" like climate change and pandemics increasingly challenge our collective well-being,[16] international law is being pushed further along the continuum from the "law of coexistence" toward the "law of cooperation."[17] This move entails a corresponding shift from reactiveness toward proactiveness and future-orientation in international legal thought and practice.

In this vein, this Article makes descriptive, analytical, and normative contributions. Descriptively, the Article narrates the largely reactive and backward-looking manner in which international law has developed, resulting in legal arrangements that render international law unfit for subsequent global developments. Analytically, this Article offers explanations for the prominence of the reactive approach to international law, while also pointing to the inherent limitations of this approach. Normatively, this Article outlines the organizing principles and core elements of a new proactive approach to international law that would allow this legal system to regulate trans-boundary problems, provide

16. Kofi A. Annan, *Problems Without Passports*, FOREIGN POL'Y (Nov. 9, 2009).

17. *See* WOLFGANG FRIEDMAN, THE CHANGING STRUCTURE OF INTERNATIONAL LAW (1964).

a framework for continuing cooperation, and deliver global public goods more effectively.

In making these contributions, the Article follows a dyadic structure, with its first Part focusing on the traditional, reactive path of international law, and its second Part presenting an alternative proactive trajectory. Thus, Part I recounts the conventional reactive approach to international law. Part I.A demonstrates the prevalence of the reactive approach in both the macro-level evolution of international law and the micro-level development of specific international legal regimes and arrangements. Part I.B then discusses prominent constraints and biases that nurture international law's reactive tendencies, while using classical and behavioral economic analysis as underlying theoretical frameworks. Part I.C, in turn, illuminates the various limitations associated with the prevailing reactive paradigm, which undercut the ability of international law to fulfill its ever-complicating functions in a globalized and accelerated world.

Against this backdrop, Part II lays the foundation for a new, proactive approach to international law. Part II.A begins by discussing the concept of proactive law, reviewing its origins in the domestic legal sphere, and depicting its theoretical and analytical underpinnings. Next, Part II.B explains the need to elevate this concept to the international level, while delineating the contours of the suggested framework of proactive international law. Part II.C then provides a comprehensive roadmap of the core elements of proactive international law, which should be considered and applied systematically by states, international organizations, and other international actors at all levels of international regulation. These core elements consist of future-orientation and long-termism; awareness and learning; participation and pluralism; goal-setting and monitoring; acting in anticipation, taking control, and self-initiation; decentralization, pragmatism, and soft law; collaboration and integration across policy domains; and adaptability, flexibility, dynamism, and imagination. Part II.C further considers normative and institutional strategies that may facilitate implementation of these various elements and help overcome the forces pulling towards reactiveness in international law. In carrying out this endeavor, it also points to some recent, yet limited, initiatives that conform with the proactive approach to international law and its underlying elements, thereby showing that this approach, although challenging and ambitious, is indeed obtainable. The Article concludes by alluding to both the promise and perils embodied in the proactive approach to international law.

I. REACTIVE INTERNATIONAL LAW

A. THE REACTIVE RECORD OF INTERNATIONAL LAW

The reactive tendency of international has been acknowledged by various scholars.[18] Hilary Charlesworth has famously stated that crises are the "bread

18. Charlesworth, *supra* note 1, at 391.

and butter and the engine of progressive development of international law."[19] International lawyers, she suggests, thrive in the face of crises, which imbue their work with a sense of immediacy and relevance and provide focal points for the evolution of the discipline.[20] In a similar vein, Michael Reisman has argued that crises or incidents stand at the heart of international law scholarship and teaching and should be viewed as the discipline's basic epistemic unit.[21] Along these lines, Marina Aksenova has recently observed that the main "developmental shifts" in the discipline "occur in response to crises perceived as being of concern to humanity as a whole."[22]

The major focus placed on past crises or events to which international law then responds seems to offer the discipline various properties, aptly summarized by Johns, Joyce, and Pahuja as follows.[23] First, the focus on such incidents offers "prospects for international law's continual renewal," as each incident is "cast as capable of generating that which seemed 'startlingly inconsistent' with that which had come before it."[24] Second, such a focus further offers international law substance or content, whereas events are perceived as the "raw material" to which "international law must respond," and out of which the discipline "could be made and remade over time."[25] Third, and perhaps most significantly, a focus on the event, or rather a series of events to which international law subsequently reacts, provides the discipline with a code or sequence by which to orient itself towards progress and generates a sense of disciplinary movement and improvement. By stringing events together into evolutionary narratives, a collective disciplinary past is created—one that navigates international law's favored routes in the future.[26]

In line with this reactive, event-based approach of international law, international norms and institutions have often been created with the aim of devising solutions to the specific crises and problems encountered, seeking to address observed challenges and shortcomings ex-post facto. In this way, past events have become a constitutive element of the international legal order and an integral "part of international law's evolutionary narratives."[27] They have turned into "norm-indicators" and "norm-generators" in the discipline,[28] directing its developmental path, shaping the form and substance of international rules and institutions, and defining the rights and duties of international actors. Illustrations of international law's reactive, event-based, and backward-looking

19. *Id.*

20. *Id.* at 377, 382.

21. Michael Reisman, *International Incidents: Introduction to a New Genre in the Study of International Law*, *in* INTERNATIONAL INCIDENTS: THE LAW THAT COUNTS IN WORLD POLITICS 3 (Michael Reisman & Andrew Willard eds., 1988).

22. Aksenova, *supra* note 1.

23. Johns et al., *supra* note 1, at 2–3.

24. *Id.* at 2.

25. *Id.* at 2–3.

26. *Id.*

27. *Id.* at 3.

28. These terms are borrowed from Reisman, *supra* note 21, at 7.

paradigm are consequently numerous and, as shown below, are evident in its development at both the macro and micro levels.

1. *International Law's Reactive Record: The Macro Level*

At the macro level, the reactive approach has accompanied modern international law from its very inception. From the Peace of Westphalia of 1648[29] and on through the various developmental phases that followed, international law's milestones have all been triggered by or predicated upon momentous events signifying the collapse of a previous world order. As Hal Brands and Francis Gavin have put it, efforts to construct effective normative and institutional arrangements in the international legal arena have historically emerged in reaction to instances of war, crisis, and turmoil.[30] Thus, the Peace of Westphalia ended the vicious wars of religion that had plagued Europe and led to the construction of a new system for regulating the relations between sovereign nation-states based on the balance of power among them.[31] Similarly, the next phase of development in the international legal system, beginning in 1815 and featuring a significant normative and institutional thickening of the discipline through the constitution of the Concert of Europe, among others, was generated in response to the French Revolution and the Napoleonic Wars that had consumed Europe since the 1790s.[32] What was left of the Concert system, however, ultimately collapsed with World War I, engendering in 1919 a series of efforts to rebuild world order through the development of international law and organizations,[33] a reactive sequence that repeated itself even more vigorously in the wake of World War II (WWII) in 1945.[34] Finally, in response to the collapse of the Soviet Union and the end of the Cold War, the international legal system since the 1990s has seen the proliferation of regimes, institutions, and norms—a development intensified by globalization processes and provoking wide-ranging concerns over the fragmentation of international law.[35]

29. Richard Joyce, *Westphalia: Event, Memory, Myth*, *in* EVENTS: THE FORCE OF INTERNATIONAL LAW 55 (Fleur Johns, Richard Joyce & Sundhya Pahuja eds., 2011); Leo Gross, *The Peace of Westphalia, 1648–1948*, 42 AJIL 20, 26 (1948).

30. Brands & Gavin, *supra* note 6, at 3.

31. *Id.* at 3.

32. *Id.*; Gross, *supra* note 29, at 20.

33. Brands & Gavin, *supra* note 6, at 3; Gross, *supra* note 29, at 20.

34. Brands & Gavin, *supra* note 6, at 3.

35. MALCOLM SHAW, INTERNATIONAL LAW 48–49 (8th ed. 2017).

It is against this reactive, crisis-centered, and backward-looking mode of development of international law that Philippe Sands recently concluded:

> Crisis is ever present and all around. It is, in a way, the lifeblood of international law, offering moments for reflection and decision, a journey into the past that offers possible lessons for the future. . . .Crisis nourishes us, as we muddle on, incrementally re-constructing and re-imagining, until some true disaster befalls—1815, 1919, 1945—causing the shaky edifice that stands above the not-so-firm foundations to collapse, requiring another exercise in rebuilding.[36]

International law's reactive paradigm, however, is not only apparent at the macro level development of the discipline. It is equally prominent at the micro level evolution of international law, and may be traced in its various sources and in substantive and institutional arrangements devised throughout the international legal system.

2. *International Law's Reactive Record: The Micro Level*

International law's reactive and backward-looking perspective is ingrained in its oldest source of customary norms. Customary rules in international law are based on proven state practice accepted as law. They are established incrementally in reference to previously observed state behavior as manifested in response to concrete incidents or circumstances. In other words, customs consist of rules that come from states' general practices as witnessed over a certain period of time, lasting from the past to the immediate present. As such, customs are created looking backward rather than forward, consolidating state practice and *opinio juris* as displayed over a certain period into the rules that are to be applied in the future.

Yet, international law's reactive, backward-looking approach is perhaps even more outwardly noticeable in the normative and institutional arrangements constructed in international treaty law—the main avenue through which international law has developed during the last century. It is likewise apparent in the legal arrangements set forth in other binding and non-binding instruments, such as decisions and recommendations delivered by international institutions. Owing to the reactive perspective underlying these legal arrangements, they often represent a snapshot of the concrete events or moments in response to which they were devised, thereby entrenching and lengthening the legal shadow of these past moments and events far into the future.

In this regard, the legal architecture of the U.N. Charter and the institutions established therein, which were conceived in reaction to the trauma of WWII, are highly instructive.[37] As commentators have observed, in devising the U.N.'s legal and institutional framework in the aftermath of the devastating war, "policymakers were responding . . . largely to harm that had occurred in the

36. Philippe Sands, *Crisis and Its Curators: A Preface*, *in* CRISIS NARRATIVES IN INTERNATIONAL LAW, vii, viii (Makane Moïse Mbengue & Jean d'Aspremont eds., 2021).

37. Aksenova, *supra* note 1.

past."[38] In so doing, they were attempting to remedy the defects associated with the U.N.'s predecessor, the League of Nations.[39] To a considerable degree, the arrangements that they adopted mirrored the state of the international system and power relations at the very moment of their creation, without much consideration of the future.

One notable illustration of this "legal freezing," shortsightedness, and reactiveness can be found in the special status that the U.N. Charter accords to the five permanent members of the U.N. Security Council (the "Permanent Five"). This status, which includes enduring membership in the Council as well as a veto power over its decisions,[40] reflects the privileged international position enjoyed by the Permanent Five following their victory in WWII.[41] In creating this arrangement, however, the drafters of the U.N. Charter failed to account for possible future transformations in global power relations—so much so that they shielded the special privileges of the Permanent Five from change by stipulating in the Charter that any amendment thereof would require the consent of each of the Permanent Five.[42] Unsurprisingly, it did not take long before this shortsightedness and stagnation became a major source of frustration among U.N. member states, which continues to this day.[43] Hence, the reactive legal arrangements endorsed in the postwar days are now considered anachronistic and inadequate, to the extent that they cast a heavy shadow over the functionality and legitimacy of one of the world's most prominent international institutions.[44]

Another international treaty regime created in reaction to the specific experience of WWII—and still largely dictated and confined by this experience—is the 1951 Convention Relating to the Status of Refugees.[45] The reactive and past-oriented nature of this convention is reflected, *inter alia*, in its narrow definition of the term *refugee*.[46] This definition was tailored to the specific realities of displacement during and in the wake of WWII, and thus limited the temporal, geographical, and substantive scope of the convention.[47] Temporally, the Convention only applies to persons who became refugees as a

38. *Id.*

39. SHAW, *supra* note 35, at 23.

40. U.N. Charter arts. 23, 27.

41. On the post-war power dynamics leading to this arrangement, see DIMITRIS BOURANTONIS, THE HISTORY AND POLITICS OF UN SECURITY COUNCIL REFORM 3–5 (2004); Nico Krisch, *The Security Council and the Great Powers*, *in* THE UNITED NATIONS SECURITY COUNCIL AND WAR: THE EVOLUTION OF THOUGHT AND PRACTICE SINCE 1945, 133, 135–36 (Vaughan Lowe, Adam Roberts, Jennifer Welsh & Dominik Zaum eds., 2010) [hereinafter SECURITY COUNCIL AND WAR]; Edward C. Luck, *A Council for All Seasons: The Creation of the Security Council and Its Relevance Today*, *in* SECURITY COUNCIL AND WAR 61, 79–81.

42. U.N. Charter art. 108.

43. *See* BOURANTONIS, *supra* note 41, at 7–8; JOACHIM MÜLLER, REFORMING THE UNITED NATIONS: THE STRUGGLE FOR LEGITIMACY AND EFFECTIVENESS 14–21 (2016).

44. G.A. Res. A/59/565, A More Secure World – Our Shared Responsibility: Report of the High-level Panel on Threats, Challenges and Change, at 64, 66 (Dec. 2, 2004).

45. Convention Relating to the Status of Refugees, July 28, 1951, 189 U.N.T.S. 137 [hereinafter Refugee Convention].

46. *Id.* art. 1.

47. *See* Irial Glynn, *The Genesis and Development of Article 1 of the 1951 Refugee Convention*, 25 J. REFUGEE STUD. 134, 137, 139 (2011).

result of events occurring before January 1, 1951.[48] Geographically, the Convention allows member states to limit its application to refugees coming from Europe only.[49] Substantively, the Convention restricts the definition of refugees to persons who suffer persecution for one of five reasons: race, religion, nationality, membership of a particular social group, and political opinion.[50]

For years, this narrow definition, arguably based on the assumption that "history began in 1939 and finished in 1944,"[51] denied adequate protection to people who fled their countries in circumstances different from those which prevailed during WWII.[52] While the convention's temporal and geographic limitations on refugee status were largely removed in 1967 with the adoption of the Protocol Relating to the Status of Refugees,[53] its substantive limitation has remained untouched to this day. This means that people persecuted for reasons not enumerated in the Convention, such as sexual orientation, disability, or gender, are still not explicitly entitled to refugee status.[54] The exclusion of those groups is remarkable given that persecutions of homosexuals, people with disabilities, and women—although not perceived as major instances of involuntary migration at the time—were not unfamiliar during WWII.[55] Nonetheless, the drafters of the Refugee Convention chose to address only the most notable incidents of persecution witnessed in the war to the neglect of other, less common types of persecution, although the latter could have been expected to recur in the future.

In addition to these regimes, international humanitarian law also features high levels of reactiveness in both its vision and its operation. The major developments in this field have typically transpired in the aftermath of armed conflicts, from the very elaboration of the natural law of war during the Thirty Years' War in the seventeenth century[56] through to the recent promulgation of soft-law instruments such as the 2009 ICRC Interpretative Guidance on Direct Participation in Hostilities following the growth of civilian participation in military operations since the 1990s.[57] In between, most, if not all, core

48. Refugee Convention art. 1(a)(2).

49. *Id.* art. 1(b)(1).

50. *Id.* art. 1(a)(2).

51. Glynn, *supra* note 47, at 138.

52. *Id.* at 141.

53. Protocol Relating to the Status of Refugees, Jan. 31, 1967, art. 1, 606 U.N.T.S. 267.

54. Note, however, that members of persecuted groups not mentioned in the Refugee Convention are sometimes recognized as falling under the category of "members of particular social group" and as such granted protection under the convention. *See, e.g.*, James Hathaway & Michelle Foster, *Membership of a Particular Social Group*, 15 INT'L J. REFUGEE L. 477 (2003).

55. *See, e.g.*, Geoffrey J. Gills, *The Persecution of Gay Men and Lesbians During the Third Reich*, *in* THE ROUTLEDGE HISTORY OF THE HOLOCAUST 385 (Jonathan C. Friedman ed., 2011); Yuki Tanaka, JAPAN'S COMFORT WOMEN: SEXUAL SLAVERY AND PROSTITUTION DURING WORLD WAR II AND THE US OCCUPATION (2002).

56. HUGO GROTIUS, DE JURE BELLI AC PACIS (Archibald Colin Campbell trans., 1990 [1625]).

57. INT'L COMM. OF THE RED CROSS, INTERPRETIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW (Nils Melzer ed., 2009). *See also* Michael N. Schmitt, *The Interpretive Guidance on the Notion of Direct Participation in Hostilities: A Critical Analysis*, 1 HARV. NAT'L SECURITY J. 5 (2010).

humanitarian law instruments were negotiated, adopted, and updated under the influence of yesterday's wars.[58] This reactive evolutionary sequence, based on the premise that past occurrences serve as useful indicators of the future, has often resulted in backward-looking arrangements that were ill-suited to regulate the armed conflicts that followed. Thus, for example, the application of the 1949 Geneva Conventions (except common Article 3) to only inter-state armed conflicts à la World Wars has limited the ability of these treaties to regulate the conduct of hostilities in the context of non-international armed conflicts, which became commonplace in subsequent decades. The legal arrangements in the Geneva Conventions that deal with belligerent occupation were likewise formulated with an eye to the past. They were tailored around the specific type of occupation displayed at the end of WWII, and thus did not account for other situations, such as those involving prolonged occupation, which materialized later on.

This responsive and backward-oriented approach in the area of international humanitarian law is also apparent in many arms control treaties. Those treaties, such as the 2008 Convention on Cluster Munitions,[59] have often been drafted retroactively in order to regulate the use of specific weapons that caused serious harm in foregoing conflicts, thereby leaving little leeway to govern the use of constantly emerging warfare technologies.[60] As Rosemary Rayfuse has noted, in the field of arms control, as in international law more generally, "the traditional approach . . . to the regulation of emerging technologies has been one of reaction rather than pro-action; only attempting to evaluate and regulate their development or use ex-post facto."[61] Hence, while international lawmakers have arguably made the best of a bad lot by using actual wars as occasions to regulate different aspects of warfare and armed conflicts, they have regretfully done so in a reactive manner that has allowed these concrete events to curb the political will and legislative imagination of the negotiating parties.

Another area in which the reactive, event-based, and short-sighted approach is evident is the international legal regime for the fight against terrorism.[62] This regime, at the heart of which stands a series of treaties requiring states to criminalize and suppress specific manifestations of transnational terrorism, has

58. On the evolution of international humanitarian law treaties in response to specific wars, see Amanda Alexander, *A Short History of International Humanitarian Law*, 26 EJIL 109 (2015); Mary Ellen O'Connell, *Historical Development and Legal Basis*, *in* THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW 10, 28–35 (Dieter Fleck ed., 4th ed. 2021).

59. Bonnie Docherty, *Breaking New Ground: The Convention on Cluster Munitions and the Evolution of International Humanitarian Law*, 31 HUM. RTS. Q. 934, 935, 940 (2009) (noting that the adoption of the convention was spurred by the use of cluster munitions during the 2006 war in Lebanon, "[a]fter decades of cluster munition use and widespread civilian casualties").

60. Rayfuse, *supra* note 1, at 502.

61. *Id.* at 500.

62. Ben Saul, *Terrorism as a Legal Concept*, *in* ROUTLEDGE HANDBOOK OF LAW AND TERRORISM 19 (Genevieve Lennon & Clive Walker eds., 2015). For a thorough discussion of the reactive nature of the international anti-terrorism regime, see Kimberly N. Trapp, *The Potentialities and Limitations of Reactive Law Making: A Case Study in International Terrorism Suppression*, 39 UNSW L.J. 1191 (2016).

developed in a "piecemeal" fashion,[63] with each treaty being devised "in response to a specific act of 'headline-grabbing' terrorism committed by non-state actors ("NSAs")."[64] As NSAs started using transnational terrorism in novel ways, states responded through the adoption of a new counter-terrorism convention that addressed particular manifestations of terrorism.[65]

Thus, in response to the increase in airplane hijackings and acts of violence against civil aviation committed by NSAs during the 1960s, two conventions aimed at suppressing these forms of terrorism—the Hague Convention[66] and the Montreal Convention[67]—were adopted in the early 1970s within the framework of the International Civil Aviation Organization. From that point onwards, the treaty regime governing international terrorism has followed a similar reactive path, whereby the stimulus for the adoption of each anti-terrorism convention was a high-profile terrorist act (or a series of acts), "which 'shocked the conscience of mankind' and called for action."[68] This was the case, among others, with the Hostages Convention,[69] adopted in 1979 following the Munich Olympics and IRAN/United States hostage crises;[70] the Convention concerning shipjacking adopted in 1988[71] in response to the seizure of a cruise ship by the Palestinian Liberation Front;[72] and the Terrorist Bombing Convention adopted in 1997[73] in response to a series of terrorist attacks using bombs, explosives, or other incendiary devices in the United States, Argentina, Saudi Arabia, Tokyo, Sri Lanka, and Israel.[74]

Notably, the reactive and crisis-driven approach featured in the international anti-terrorism regime has manifested itself not only in treaty-making, but also in other forms of international regulation, most notably in the promulgation of U.N. Security Council resolutions. While the problem of terrorism had occupied the Security Council for years, it was not until the mega-terrorist event of September 11, 2001, ("9/11") that the fight against terrorism assumed a central place on the Security Council's regulatory agenda. In response to this event, the Council adopted the landmark Resolution 1373 on combating international terrorism,[75]

63. John Murphy, *International Law and the War on Terrorism: The Road Ahead*, 79 INT'L L. STUD. 391 (2002).

64. Trapp, *supra* note 62, at 1191.

65. *Id.* at 1191–92.

66. Convention for the Suppression of Unlawful Seizure of Aircraft, Dec. 16, 1970, 860 U.N.T.S. 105.

67. Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, Sept. 23, 1971, 974 U.N.T.S. 178.

68. Trapp, *supra* note 62, at 1195-96.

69. International Convention against the Taking of Hostages, Dec. 17, 1979, 1316 U.N.T.S. 205.

70. Trapp, *supra* note 62, at 1196.

71. Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, Mar. 10, 1988, 1678 U.N.T.S. 221.

72. Trapp, *supra* note 62, at 1196–97.

73. International Convention for the Suppression of Terrorist Bombings, Dec. 15, 1997, 2149 U.N.T.S. 256.

74. Trapp, *supra* note 62, at 1197–98.

75. S/RES/1373(2001) (Sept. 28, 2021).

which was reiterated and expanded in dozens of subsequent resolutions.[76] As compared to pre-9/11 anti-terrorism resolutions, which were similarly adopted in reaction to concrete terrorist attacks (for example, the Lockerbie incident) but were rather modest in aspiration and limited to the imposition of temporary sanctions on specific states,[77] Resolution 1373 and its derivatives presented a far more comprehensive legal scheme by subjecting all states to wide-ranging obligations to suppress terrorist activities.[78] It is unfortunate that it took a devastating (yet not entirely unexpected) terrorist attack by Al-Qaeda to push the Security Council to make this quantum leap in its all-too-reactive counter-terrorism regulation.

Finally, another area illustrating the responsive, backward-looking approach of international law is global health governance. As noted earlier, the sole binding international instrument under the global health regime dedicated to the prevention and control of a threat such as COVID-19 is the WHO's IHRs. The IHRs stipulate the rules regulating the global response to public health threats with the potential for international spread and establish a surveillance and reporting system across WHO member states. The IHRs were originally adopted in 1969 and amended in 1973 and 1981. The IHRs' applicability, however, has been limited to only three diseases: cholera, plague, and yellow fever. Consequently, as the world faced a continuous flow of emerging and re-emerging diseases, this "principal international legal instrument for preventing, detecting, and responding to infectious disease outbreaks was increasingly seen as inadequate."[79] In keeping with international law's reactive paradigm, it was only in response to the SARS outbreak in China in the early 2000s that the IHRs went through extensive revision. As SARS was not one of the diseases covered by the IHRs, China did not inform the WHO of the emerging threat when it transpired, an element that, together with deficiencies in the national and global responses to the outbreak, illuminated the weaknesses of international law to control for infectious disease.[80] With SARS foregrounding those weaknesses, WHO member states finally responded by "updating the breadth, scope, and notification obligations under the IHR" in 2005.[81]

Yet, as the sidelining of the IHRs during the COVID-19 crisis[82] and their limited influence in the pandemic response suggest,[83] the IHRs, like the various

76. *See, e.g.*, S/RES/1390(2002) (Jan. 16, 2002); S/RES/1456(2003) (Jan. 20, 2003); S/RES/1566(2004) (Oct. 8, 2004); S/RES/1624(2005) (Sept. 14, 2005); S/RES/2133(2014) (Jan. 27, 2014).

77. *See, e.g.*, S/RES/748(1992) (Mar. 31, 1992); S/RES/1996 (Jan. 31, 1996); S/RES/1267(1999) (Oct. 15, 1999).

78. S/RES/1373(2001) (Sept. 28, 2021), art. 6.

79. Gostin et al., *supra* note 11, at 377.

80. *Id.*

81. *Id.*

82. Allyn L. Taylor, Roojin Habibi, Gian Luca Burci, Stephanie Dagron, Mark Eccleston-Turner. Lawrence O. Gostin, Benjamin Mason Meier, Alexandra Phelan, Pedro A. Villarreal, Alicia Ely Yamin, Danwood Chirwa, Lisa Forman, Gorik Ooms, Sharifah Sekalala & Steven J. Hoffman, *Solidarity in the Wake of COVID-19: Reimagining the International Health Regulations*, 396 LANCET 82 (2020).

83. Gostin et al., *supra* note 11, at 376.

international arrangements discussed above, were largely amended to correct the past failures that surfaced during the SARS epidemic, rather than tackle future global health threats against which experts had warned. Consequently, the IHRs proved inadequate against a new outbreak like COVID-19,[84] an event that brought into sharp focus their limitations, *inter alia*, in (1) notifying the WHO of public health risks;[85] (2) declaring a public health emergency of international concern ("PHEIC");[86] or (3) ensuring "meaningful cooperation . . . between states, between the WHO and states, and between the WHO and other international organizations in the context of a pandemic."[87] This state of affairs, in turn, has compromised the WHO's ability to deliver a coordinated and effective global response to COVID-19 in collaboration with other international organizations.[88] And yet these global governance institutions, as Anne Applebaum notes, "were created for exactly this kind of moment."[89]

Against this and various other manifestations of reactivity exhibited across international law, the question thus arises: What reasons underlie this long-standing reactive, short-term, and backward-looking stance? In other words, what factors can explain international law's reactive approach and its focus on events from the immediate past or present to the neglect of no less critical occurrences that might come to pass? The next Subpart addresses this question.

B. WHY IS INTERNATIONAL LAW REACTIVE?

No doubt, there are many plausible explanations for international law's reactive predisposition. Above all, reactiveness implies certainty—it is about addressing problems that are proven and defined. As such, reactiveness in international law entails building legal norms and institutions on the basis of a known past or present, rather than devising legal tools that grapple with an unknown future. While the problem of regulating in anticipation of an uncertain future is evidently a challenge for all legal systems, this problem appears more difficult in the international sphere. This is due in part to the magnitude of impending global challenges, the multitude of actors and factors that may affect the way those challenges unfold, and the large number of possible interactions between the actors and factors involved.[90] In these circumstances, it is

84. Lee, *supra* note 8.

85. Gostin et al., *supra* note 11, at 378.

86. *Id.*

87. Lee, *supra* note 8. On various factors constraining the ability of the WHO and the IHRs to deliver an effective response to global health risks like COVID-19, see Eyal Benvenisti, *The WHO—Destined to Fail?: Political Cooperation and the COVID-19 Pandemic*, 114 AJIL 588 (2020); José E. Alvarez, *The WHO in the Age of the Coronavirus*, 114 AJIL 578 (2020).

88. Sivan Shlomo Agon, *Farwell to the F-word? Fragmentation of International Law in Times of the COVID-19 Pandemic*, 72 U. TORONTO L.J. 1 (2022).

89. Anne Applebaum, *When the World Stumbled: COVID-19 and the Failure of the International System*, *in* COVID-19 AND WORLD ORDER: THE FUTURE OF CONFLICT, COMPETITION, AND COOPERATION 223, 224 (Hal Brands & Francis J. Gavin eds., 2020).

90. *Cf.* Paul Schoemaker, *Forecasting and Scenario Planning: The Challenges of Uncertainty and Complexity*, *in* BLACKWELL HANDBOOK OF JUDGMENT AND DECISION MAKING 274, 277 (Derek Koehler & Nigel Harvey eds., 2004).

particularly difficult to predict whether, when, where, and how a global pandemic, economic crisis, or technological revolution will occur and, therefore, to formulate in advance proper legal arrangements aimed at tackling uncertain future developments.

Below, we elaborate on the various ways by which this element of uncertainty about the future, along with other factors, pushes the makers and operators of international law toward a reactive mode of action that is narrowly grounded in the near past and present. In doing so, we draw on insights from two decision making models developed in the economic literature which help explain the choices of law and policy makers, including those in the international arena: first, the rational choice model introduced by classical economic theory, and second, the bounded rationality model associated with behavioral economic analysis. Both models, notwithstanding the differences between them, suggest that it is more likely for international actors such as states and international organizations to react to concrete events from the past or immediate present than it is for them to act on global developments that have yet to materialize.

1. *Rational Choice and International Law's Reactive Predisposition*

Rational choice theory in international law starts from the premise that sovereign states and other international actors are rational, self-interested agents whose decisions are devised to maximize their utility.[91] It further assumes that in an ideal world, the aggregation of the separate rational decisions of these international actors will result in the collective adoption and implementation of efficient international legal arrangements. At the same time, however, rational choice theory also acknowledges that in the real world, various collective action problems (all stemming from the inability of actors to cooperate even when such cooperation puts them in a better position than does non-cooperation) might jeopardize efficient international regulation.[92] Such problems are likely to become especially acute whenever makers of international law and policy are required to act on evolving and uncertain future challenges, and are less salient when law and policymakers tackle previously encountered problems. Collective action problems thus offer important explanations for international law's reactive tendencies.

One such collective action problem that may explain international law's reactive approach is related to the sovereignty concerns that preoccupy states,[93] still the main protagonists in the international legal system. Although states are often interested in international cooperation, they are naturally hesitant to

91. On rational choice theory in international law, see ANDREW T. GUZMAN, HOW INTERNATIONAL LAW WORKS: A RATIONAL CHOICE THEORY (2008); ERIC A. POSNER & ALAN O. SYKES, THE ECONOMIC FOUNDATIONS OF INTERNATIONAL LAW (2013); Oona Hathaway, *Do Human Rights Treaties Make a Difference*, 111 YALE L. J. 1935, 1945 (2002); Kenneth W. Abbott, *Enriching Rational Choice Institutionalism for the Study of International Law*, 2008 U. ILL. L. REV. 5; Robert O. Keohane, *Rational Choice Theory and International Law: Insights and Limitations*, 31 J. LEGAL STUD. 307 (2002).

92. POSNER & SYKES, *supra* note 91, at 14.

93. *Id.* at 18–21.

concede to new international regulation that further constrains their sovereign discretion.[94] This reluctance, however, is easier to overcome when international regulation addresses observed problems from the past or present than when it deals with uncertain future risks or opportunities. Several factors explain this phenomenon. To begin with, the regulation of evolving yet not fully determined global challenges requires states to take on international commitments that limit their sovereign discretion from a relatively early point in time and on the basis of incomplete knowledge. Moreover, such regulation is likely to require a significant degree of delegation to international institutions in order to facilitate preparation and adaptation to changing circumstances and enable a timely global response when action is due. This kind of delegation entails considerable encroachment on sovereign discretion that states might not be willing to accept so long as uncertainty prevails.[95] Another reason for states to be less inclined to compromise their sovereign discretion in the face of evolving and uncertain challenges is that the regulation of such challenges can only offer states and their constituencies distant, obscure gains. By contrast, regulation in reaction to past or present-day global problems can yield immediate, concrete benefits that make the sovereignty costs entailed by additional international commitments more justifiable and acceptable at home. Finally, from the narrow perspective of governments concerned about short-term public support and re-election, the benefits accruing from international legal arrangements devised in reaction to specific problems from the near past or present can rather readily and immediately be rewarded by domestic constituencies, thereby "compensating" somewhat for the loss of sovereignty caused by conceding to such arrangements.

The way sovereignty concerns work to cultivate international law's reactive and short-term approach is evident in the international anti-terrorism regime. Applying game theory to counter-terrorism regulation, economist Todd Sandler argues that states' decades-long failure to solve their collective action problems and cooperate to prevent international terrorism is rooted in the great weight governments place on their sovereign authority when national security issues are concerned.[96] As Sandler underscores, this non-cooperative stance on the part of states stands in stark contrast to the willingness of terrorist organizations to cooperate and build their own global networks.[97] While "terrorists take a long-term view of their struggle and consider their interactions with other groups as continual," governments "take a short-term view (limited by the election period) of the terrorist threat" and are generally reluctant to commit themselves to long-

94. Arthur A. Stein, *Coordination and Collaboration: Regimes in an Anarchic World*, *in* INTERNATIONAL REGIMES 115, 117 (Stephen D. Krasner ed., 1983); Kal Raustiala, *Sovereignty and Multilateralism*, 1 CHI. J. INT'L L. 401, 417 (2000).

95. On the sovereignty costs associated with international delegation, see Curtis A. Bradley & Judith G. Kelley, *The Concept of International Delegation*, 71 LAW & CONTEMP. PROBS. 1, 27 (2008); Kenneth W. Abbott & Duncan Snidal, *Hard and Soft Law in International Governance*, 54 INT'L ORG. 421, 436–37 (2000) [hereinafter Abbott & Snidal, *Hard and Soft Law*]; Oona A. Hathaway, *International Delegation and State Sovereignty*, 71 LAW & CONTEMP. PROBS. 115 (2008) [hereinafter Hathaway, *International Delegation*].

96. Todd Sandler, *Collective Action and Transnational Terrorism*, 26 WORLD ECON. 779, 793 (2003).

97. *Id.* at 786–87.

term cooperation with other governments on such a delicate security issue.[98] Consequently, it is only when states are required to react to a concrete, immediate terrorist threat that they are willing to act and pay the sovereignty costs attendant to international cooperation.

Another type of collective action problem that is likely to hamper future-oriented, long-term international regulatory efforts is free-riding. Free-riding is typically observed when a legal arrangement is understood to produce a global public good—a benefit or service that is non-excludable (meaning, once it is provided, no one can be prevented from enjoying it) and non-rival (its enjoyment by some does not affect the ability of others to enjoy it). When such public goods are at stake, states and other international actors may rationally try to "free ride" on others' legal commitments without incurring the costs of such commitments themselves.[99] The temptation to free ride might grow even stronger when the international legal measure under consideration is aimed at addressing a distant future challenge whose exact nature and implications are unknown and whose beneficiaries or victims are undefined. The problem, of course, is that if a significant number of actors pursue such strategic behavior, then the international legal arrangement at stake may not be adopted at all or may not be sufficiently complied with, thereby leaving all parties in a worse position than they would have been had they managed to cooperate in the face of prospective global problems and opportunities.[100]

Alongside the collective action problems mentioned above, another rational choice-based explanation for international law's reactive tendency concerns the transaction costs associated with the creation and implementation of international legal arrangements. Devising international legal frameworks in response to specific, previously encountered phenomena normally consumes less time and effort than prospectively tackling uncertain long-term global challenges—an exercise that requires extensive learning, innovative thinking, and ongoing experimentation and adaptation. From this standpoint, reactiveness in the creation and operation of international law can reduce transaction costs and offer a cost-effective approach for the discipline to follow. It allows states, international organizations, and other international actors to invest limited resources in addressing proven problems and realizing tangible opportunities of immediate utility, rather than investing significant resources in creating uncertain, distant benefits.

Still, reactiveness and short-termism may further represent a rational course of conduct from the narrow, individual perspective of international decisionmakers. The latter, be they government representatives, international organization officers, international judges, or other pertinent figures, usually do not expect to stay in office long enough to be personally appreciated for the long-term global benefits they can help create. On the other hand, these actors are

98. *Id.* at 790.

99. JOEL P. TRACHTMAN, THE ECONOMIC STRUCTURE OF INTERNATIONAL LAW 134 (2008).

100. *Id.* at 13.

often immediately acknowledged for the regulatory measures that they take in response to present international needs and concerns.

Lastly, the reactive approach to international law may serve as an important means for international decisionmakers to confer legitimacy on the legal arrangements reached and applied at the international level. This is so, above all, because these legal arrangements are grounded in, and justified by, the actual needs and real-life experiences of individuals, societies, and nations around the world. As such, these sorts of legal arrangements may also result in higher levels of compliance[101]—yet another incentive for international law and its makers to follow a reactive approach.

2. *Bounded Rationality and International Law's Reactive Predisposition*

Alongside the explanations offered above, another set of explanations of international law's reactive tendencies may be found in behavioral analysis of international law. Behavioral economists observe that in many situations, inefficient decisions do not necessarily stem from external factors such as collective action problems or transaction costs, but rather from internal cognitive biases that constrain rational thinking and distort human judgment with respect to uncertain future events.[102] Such biases, as recent international legal scholarship points out, are not limited to individual decisionmakers, but are also present among international actors such as states or international organizations, which are ultimately composed of individual persons exercising human discretion.[103] Drawing on this scholarship, this Subpart explores some of the cognitive biases that may lead those involved in the creation and operation of international law to adopt a reactive and short-term stance and to shy away from seriously tackling uncertain future threats or opportunities.

Availability bias is probably the most relevant in this respect. This bias suggests that decisionmakers tend to assess the probability of future events according to the ease with which such events come to mind.[104] This means that events for which instances are easy to recall or imagine are perceived as more probable than others.[105] While the mental availability of events sometimes

101. On the greater "compliance-pull" of legal arrangements perceived as legitimate, see THOMAS M. FRANCK, THE POWER OF LEGITIMACY AMONG NATIONS (1990).

102. *See, e.g.*, Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974); THOMAS GILOVICH, DALE GRIFFEN & DANIEL KAHNEMAN (eds.), HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGEMENT (2002). *See also* Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 Q. J. ECON. 99 (1955); HERBERT A. SIMON, MODELS OF MAN (1957).

103. Anne Van Aaken, *Behavioral International Law and Economics*, 55 HARV. INT'L L.J. 421, 439–49 (2014); Tomer Broude, *Behavioral International Law*, 163 U. PA. L. REV. 1099, 1121–30 (2015); HARLAN GRANT COHEN & TIMOTHY MEYER (eds.), INTERNATIONAL LAW AS BEHAVIOR (2021). For a critical evaluation, see Emilie M. Hafner-Burton, *Elite Decision-Making and International Law: Promises and Perils of the Behavioral Revolution*, 115 AJIL UNBOUND 242 (2021).

104. Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 4 COGNITIVE PSYCHOL. 207 (1973); Tversky & Kahneman, *supra* note 102, at 1127–28.

105. *See, e.g.*, John S. Carroll, *The Effect of Imagining an Event on Expectations for the Event: An Interpretation in Terms of the Availability Heuristic*, 14 J. EXPERIMENTAL SOC. PSYCH. 88 (1978).

reflects their actual frequency in the real world and thus serves as a proper indicator of their probability, in other cases it may be affected by familiarity, salience, recency, or other factors that have little to do with probability.[106] In these cases, availability bias may generate skewed judgments that disrupt future planning, not only by individuals but also by public regulators.[107] The latter may be affected by the availability bias either directly (if their regulatory choices are shaped by their own biased perceptions of probabilities) or indirectly (if they react to social "availability cascades" through which certain scenarios are elevated to a prominent position in public discourse).[108] As noted by risk regulation expert Jonathan Wiener, such availability cascades may help explain "why so much regulation is crisis-driven, adopted only after a crisis event spurs public outcry and mobilizes collective political action to overcome interest group opposition."[109]

When transmuted to lawmaking and regulation on the international plane, the availability bias may hinder the makers and operators of international law from fully acknowledging future global threats or opportunities that are not yet available in the public mind. It may therefore lead them to invest their regulatory efforts in responding to developments or problems that have already come into being. This tendency is evident, for example, in the reactive and event-based evolution of the international counter-terrorism regime, whereby each legal instrument was adopted in response to a high-profile, headline-grabbing terrorist attack of a particular type that captured the attention of the public and policymakers. International humanitarian law likewise has been shaped in a reactive fashion in view of the specific characteristics of preceding wars, whose dreadful images were readily available in the public mind. Similarly, the 1951 Refugee Convention was drafted with a living memory of WWII's refugee crisis. In all these cases, the creation of new international legal arrangements was triggered but at the same time constrained by sporadic events which, although important and worthy of reaction, should not have been exclusively relied upon to predict future developments and needs.

Another bias that might push international law and its operators to focus on previously encountered problems and hinder them from fully recognizing the need to address future challenges is over-optimism. Over-optimism refers to the tendency to overestimate the likelihood that good things will happen and underestimate the likelihood that bad things will occur.[110] This irrational tendency, which has been associated with overconfidence in one's ability to

106. Tversky & Kahneman, *supra* note 102, at 1127.

107. *See* Elke U. Weber, *Experience-Based and Description-Based Perceptions of Long-Term Risk: Why Global Warming does not Scare Us (Yet)*, 77 CLIMATIC CHANGE 103 (2006).

108. Timur Kuran & Cass R. Sunstein, *Availability Cascades and Risk Regulation*, 51 STAN. L. REV. 683 (1999).

109. Jonathan B. Wiener, *The Tragedy of the Uncommons: On the Politics of Apocalypse*, 7 GLOBAL POL'Y 67, 69 (2016).

110. Tversky & Kahneman, *supra* note 102, at 1129. *See also* Neil D. Weinstein, *Unrealistic Optimism about Future Life Events*, 39 J. PERSONALITY & SOC. PSYCH. 806 (1980).

control various situations and steer them in the right direction,[111] is sometimes considered beneficial for individual wellbeing because it reduces stress and anxiety.[112] When it comes to collective decision making, however, the costs of underestimating risks and overestimating the prospects of positive developments may outweigh the potential benefits. The global response to the COVID-19 pandemic illustrates this point. Although public health experts had for years cautioned against the risks of severe and widespread viral pandemics, these warnings went largely unheeded by international actors and institutions.[113] Perhaps biased by over-optimism, international policymakers downplayed the expected dangers and thus failed to put in place appropriate measures for reducing the costs ultimately suffered by the international community.

In addition to cognitive biases like availability and over-optimism, which distract international lawmakers and regulators from fully acknowledging the existence of future threats or opportunities that need to be addressed, international law's reactive and short-term approach may also be nurtured by cognitive biases that undermine the ability or willingness of those actors to take appropriate actions in the face of future challenges—even those whose existence they do acknowledge. Most prominent among these biases is the present bias. The present bias denotes the inclination of decisionmakers to prefer smaller rewards and achievements now over bigger ones later, thereby focusing on addressing immediate needs while brushing aside distant, yet no less critical, challenges that may occur in the future.[114] This inclination does not necessarily emanate from a genuine belief that future challenges need not be addressed or from the inability to appreciate the value of future rewards. Rather, it stems from the absence of self-control or "bounded willpower,"[115] which often leads decisionmakers to prioritize short-term concerns that provide a strong and concrete trigger for action. Such immediate concerns draw the attention of national and international decisionmakers at the most instinctive level, while pushing them to procrastinate the resolution of more distant global challenges based on the irrational assumption that they can always find a way to cross that bridge if and when they get there.[116]

Finally, another common bias that may account for international law's reactive and short-sighted approach is the status quo bias, which indicates the propensity of decisionmakers to adhere to the current state of affairs. The status quo bias is reflected in the tendency of law and policymakers to assume that

111. Tali Sharot, *The Optimism Bias*, 21 CURRENT BIOLOGY 941, 944 (2011).

112. *Id.*; Michael T. Moore & David M. Fresco, *Depressive Realism: A Meta-Analytic Review*, 32 CLINICAL PSYCHOL. REV. 496 (2012).

113. Brands & Gavin, *supra* note 6, at 1.

114. *See, e.g.*, George Ainslie, *Specious Reward: A Behavioral Theory of Impulsiveness and Impulse Control*, 82 PSYCH. BULLETIN 463 (1975); ROY BAUMEISTER, TODD HEATHERTON & DIANNE TICE, LOSING CONTROL: HOW AND WHY PEOPLE FAIL AT SELF-REGULATION (1994).

115. Christine Jolls, Cass Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1476–79 (1998).

116. *Cf.* An-Sofie Claeys & W Timothy Coombs, *Organizational Crisis Communication: Suboptimal Crisis Response Selection Decisions and Behavioral Economics*, 30 COMMC'N THEORY 290 (2020).

circumstances or events from the near past or present are likely to persist or reoccur in the future,[117] and thus should determine the form and substance of applicable legal frameworks going forward. Yet, this bias not only prompts decisionmakers to adopt legal frameworks that are in essence a snapshot of the concrete events and moments in response to which they have been devised, but it also leads them to stick to those frameworks and resist subsequent amendments.[118] The status quo bias is associated with other cognitive biases such as loss aversion, risk aversion, anchoring effect, and endowment effect. All of these biases describe situations in which actors show a strong attachment to past or present occurrences and conditions and are particularly reluctant to change, especially in the face of future developments shrouded in uncertainty.[119] Like these other cognitive biases, the status quo bias suggests a profound attachment to what is already known, proven, and familiar. It rests on the idea that "that which has been is that which shall be," and that the future will—and perhaps even should—resemble the past and present. The status quo bias thus has the potential to push international regulators to shape international norms and institutions in reaction to previous or existing occurrences and conditions, while disregarding the possibility of different future scenarios that may require new strategies and arrangements.

A useful illustration of the possible effect of the status quo bias on international lawmakers can be found in the reactive and stagnant arrangement surrounding permanent membership in the U.N. Security Council. As noted earlier, the drafters of the U.N. Charter seemed to take for granted that the states that ended WWII and emerged as leading powers in the post-war era should enjoy a privileged status among the world's nations and retain a key function in maintaining international peace and security for years to come.[120] Surely, the irrational, non-purposeful tendency to preserve the status quo was not the sole reason for adopting this legal arrangement. Rational, purposeful use of political power (and rational submission to such power) also played an important role. Yet, the fact that the privileged status of the Permanent Five was fortified in the U.N. Charter, along with the failure of all subsequent attempts to revise the Security Council's structure,[121] suggest that an intuitive preference for the status quo has featured strongly both in the adoption of the permanent membership

117. JOEL P. TRACHTMAN, THE FUTURE OF INTERNATIONAL LAW: GLOBAL GOVERNMENT 66 (2013).

118. *See, e.g.*, William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J. RISK & UNCERTAINTY 7, 8 (1988).

119. *See id.*; Daniel Kahneman, Jack Knetsch, & Richard Thaler, *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, 5 J. ECON. PERSPS. 193 (1991); Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 39 (1980); Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979).

120. While a few countries participating in the U.N. Charter negotiations tried to contest the granting of immense powers to the Permanent Five, the position of the latter ultimately prevailed. *See* Krisch, *supra* note 41, at 135–36.

121. BOURANTONIS, *supra* note 41; MÜLLER, *supra* note 43.

arrangement in reaction to WWII's victory map and in its preservation ever since despite profound changes in the geo-political landscape.[122]

From the above analysis it follows that rational and irrational factors constantly work in tandem so as to push international law towards a reactive course of development and functioning. Below we turn to highlight the limitations associated with this modus operandi so profoundly ingrained in the international legal system.

C. THE LIMITATIONS OF INTERNATIONAL LAW'S REACTIVE APPROACH

There are many possible explanations, then, which may account for the reactive approach long followed by the international law community. There is also no doubt that this approach has some notable merits. Among other things, it has enabled international law to secure agreement and cooperation around real-life problems, provide tailored solutions to predicaments faced by the international community, and devise international legal regimes in a way that is responsive to social and political needs.

Nevertheless, the reactive approach has some profound limitations with critical implications for international law as a governance system. To start with, under the reactive approach, the international legal agenda is effectively determined by the sporadic actors and events to which international law responds, and not by international law and policymakers themselves. The international counter-terrorism regime powerfully demonstrates this problem. While it was states and the U.N. Security Council that eventually put in place anti-terrorism legal instruments, "the terrorism suppression agenda was in fact set by the criminals themselves," whose past acts the international lawmakers sought to control and address.[123] In this sense, the reactive approach, by which international law progresses as a response to an ever-evolving stream of events, renders the discipline and its norm-creators "passive" in nature.[124]

The reactive mode of operation further promotes a relatively narrow agenda for international law and restricts the substance of its legal arrangements.[125] It creates an international legal agenda that is largely informed by yesterday's crises, often to the neglect of tomorrow's threats and possibilities. Such an international agenda also often lacks prioritization between the various short- and long-term risks and opportunities facing humanity—an exercise that is required in order to positively influence the trajectory of the international community.

In addition, by focusing on specific past events and narrowly tailoring solutions to the particular circumstances of these events, the reactive model may lead international lawmakers to miss the larger picture of the phenomena requiring regulation. It likewise increases the probability that legal arrangements

122. Luck, *supra* note 41, at 81–83.
123. Trapp, *supra* note 62, at 1191.
124. *Cf. id.* at 1203.
125. Charlesworth, *supra* note 1, at 386, 390.

will be selective and incoherent, thus further limiting international law's prospects for analytic progress[126] and the advancement of an integrated, long-range international vision.

Furthermore, owing to its responsive character, international law and its governance institutions frequently lag behind social, technological, economic, environmental, and geo-political developments. This systemic problem is particularly evident in the field of international humanitarian law, which constantly struggles to synchronize with technological and sociopolitical developments that change warfare in method and kind. It is also apparent in the international terrorism-suppression regime, where the political will to address a specific manifestation of terrorism in the international legal sphere has emerged either in response to a particularly egregious use of terrorist violence by NSAs or a sharp increase in that "type" of terrorist violence.[127] As a result of this reactive pattern, the international legal regime on terrorism suppression has constantly lagged behind the "realities of terrorist conduct."[128] The concomitant failure of international lawmakers to concentrate their efforts on "as yet unanticipated terrorist activities" has made the legal regime vulnerable and less effective in its broad aims of terrorism suppression and prevention.[129]

As the terrorism suppression example vividly demonstrates, another limitation of the reactive approach is that it hinders international law's capacity to play an effective preventive and preparatory role in the international arena. It renders international law less capable to plan in advance for future evolutions of the phenomena (such as terrorist violence or technological innovation) that it purports to regulate[130] and undercuts the discipline's ability to mitigate the potential harmful transboundary effects that it is expected to deal with. In that spirit, Rosemary Rayfuse has noted, that in the area of emerging technologies, international law's reactive form of governance, with its narrow focus on the "past and present development and deployment of technologies" to the exclusion of the "uncertain futures these technologies pose," renders the discipline uncapable of "anticipating, assessing, minimizing, and mitigating the risks posed by . . . novel technologies."[131]

The limitations of international law's reactive paradigm become all the more troubling in light of the growing complexity of modern global problems and the fact that these problems transpire in a world characterized by acceleration, where the increasing pace of life, technological development, and social change affords less leeway for effective real-time responses by the time problems arise. As a result, the reactive paradigm leaves international law and institutions ill-positioned to cope with global challenges previously seen distant once they materialize, and to secure close international cooperation to effectively address

126. *Id.* at 384.
127. Trapp, *supra* note 62, at 1203.
128. *Id.*
129. *Id.*
130. *Id.* at 1215.
131. Rayfuse, *supra* note 1, at 501.

them. In this state of affairs, the costs ultimately paid by the international community as a whole are exceedingly high. Moreover, these costs are often not evenly distributed, with the least well-off hit hardest.

While wealthier states usually have sufficient resources to cope with the high costs imposed by uncoordinated last-minute responses to global crises, poorer states usually lack such maneuvering space and therefore are more likely to be adversely affected by these crises. Moreover, in pursuing their uncoordinated last-minute responses, stronger states might impose externalities upon weaker states, thereby further exacerbating the distress of the latter. These aggravated effects of international law's reactive approach on less prosperous countries is evident in the recent experience with COVID-19 and the backward-looking IHRs that have left global health governance ill-equipped to confront the multi-faceted crisis and to secure a coordinated global response.[132]

While all countries bore the social, economic, and health costs inflicted by COVID-19, those costs were not evenly distributed around the world.[133] Even at the initial stages of the pandemic in early 2020, low- and middle-income countries were pushed aside in the universal quest for medical supplies such as gloves, face masks, respirators, and gowns. The huge global demand for supplies, alongside export restrictions imposed by many economies to safeguard access to critical healthcare products, resulted in a troubling divide—poorer countries lost out to wealthier ones in the global scramble for medical equipment necessary to combat COVID-19.[134] Similarly, the global economic downturn caused by COVID-19 has had "a disproportionate impact on low-income and emerging economies . . . as they have 'less resources to protect themselves against . . . [such a] dual . . . health and economic crisis.'"[135] These same countries were also unable to guarantee access to COVID-19 vaccines once they were released at the end of 2020, especially amidst the troubling rise of vaccine nationalism whereby high-income countries purchased and hoarded supplies in order to secure their domestic needs in conspicuous disregard of others.[136]

By 2021, however, this non-cooperative state of affairs backfired. It ultimately compromised overall global efforts to end the pandemic and achieve

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132. Shlomo Agon, *supra* note 88.

133. *OECD Supports Developing Countries in the Time of COVID-19*, OECD (May 19, 2021), https://www.oecd.org/en/about/news/announcements/2021/05/oecd-supports-developing-countries-in-the-time-of-covid-19.html.

134. Jane Bradly, *In Scramble for Coronavirus Supplies, Rich Countries Push Poor Aside*, N.Y. TIMES (Apr. 9, 2020), https://www.nytimes.com/2020/04/09/world/coronavirus-equipment-rich-poor.html; Jordan Davidson, *Rich Countries Are Buying up Medical Supplies, Leaving Poor Countries Stranded*, ECOWATCH (Apr. 10, 2020, 3:23 AM EDT), https://www.ecowatch.com/coronavirus-medical-supplies-rich-poor-2645687304.html.

135. *COVID-19 Brief: Impact on the Economies of Low-Income Countries*, U.S. GLOBAL LEADERSHIP COAL. (Aug. 12, 2021), https://www.usglc.org/coronavirus/economies-of-developing-countries.

136. Lukasz Gruszczynski & Chien-huei Wu, *Between the High Ideals and Reality: Managing COVID-19 Vaccine Nationalism*, 12 EUR. J. RISK REG. 711, 712 (2021); James Darwin N. Lagman, *Vaccine Nationalism: A Predicament in Ending the COVID-19 Pandemic*, 43 J. PUB. HEALTH 375 (2021); Ingrid T. Katz, Rebecca Weintraub, Linda-Gail Bekker & Allan M. Brandt, *From Vaccine Nationalism to Vaccine Equity—Finding a Path Forward*, 384 NEW ENG. J. MED 1281 (2021).

global economic recovery by creating the conditions that allowed for the emergence of new and more aggressive variants of the virus.[137] In this sense, COVID-19 demonstrates that no matter how successful a developed country may be in fighting a health crisis at home, the deeply interconnected state of the global community means that global crises do not end until they have been managed cooperatively on a global scale.[138] The role of international law and institutions in facilitating such a coordinated and cooperative action is critical. In the case of COVID-19, however, the ability of these global governance structures to fulfil that role was severely undermined, not least because of the reactive and backward-looking legal arrangements with which they have come to face the eminent crisis. These arrangements that have failed to prospectively and proactively account for future and distant (though expected) health threats such as the full-blown global pandemic that has befallen upon us.

It follows that the reactive, ex-post, short-term approach of international law, with its focus on past events and observed problems, shapes the thinking of international lawmakers and operators in a way that curbs international legal imagination and leads the international legal system to steer clear of addressing longer-term trends, challenges, and advancements. In other words, the reactive approach and the resulting failure to focus greater international regulatory efforts on unmaterialized and distant problems and opportunities, makes international law more vulnerable and less effective in establishing possible futures for international society.[139]

When taken together, the various limitations outlined above seriously undermine international law's ability to fulfill its fundamental role in the international community. In particular, they hinder international law's ability to regulate global problems, provide normative guidance to states and other relevant actors, and create a viable framework for co-existence and cooperation in an ever more fast-paced, complex, and interdependent world. It is against this backdrop that international law is called upon to pursue new, more proactive forms of regulation and governance that are capable of better anticipating and mitigating risks posed by emerging global challenges and exploiting the opportunities embodied in global breakthroughs and developments.

II. PROACTIVE INTERNATIONAL LAW

The various limitations of the reactive paradigm demonstrate the urgent need for a conceptual shift in international legal thinking and the development of a more rigorous, forward-looking, and proactive approach to the making and operation of international law. This Part outlines the contours and underpinnings

137. Gruszczynski & Wu, *supra* note 136, at 714–15; Lagman, *supra* note 136, at 375; Tedros Adhanom Ghebreyesus, *Vaccine Nationalism Harms Everyone and Protects No One*, FOREIGN POL'Y (Feb. 2, 2021, 1:51 PM), https://foreignpolicy.com/2021/02/02/vaccine-nationalism-harms-everyone-and-protects-no-one/#:~:text=Vaccine%20nationalism%20combined%20with%20a,there%20is%20no%20reliable%20cure.

138. *Cf. COVID-19 Brief*, *supra* note 135.

139. On this social function of law, including international law, see Philip Allott, *The Concept of International Law*, 10 EJIL 31 (1999).

of such an approach. Subpart A begins by briefly addressing the concept of proactive law as developed in other legal contexts. Then, Subpart B explains the relevance of this concept to the international legal system, and Subpart C stipulates the core elements of proactive international law as a novel and complementary approach to the evolution and functioning of the discipline. Within this framework, Subpart C also probes various normative, procedural, and institutional ways that may facilitate international law's move towards greater proactiveness and mitigate those rational and irrational constraints that stand in the way of such an endeavor.

A. THE CONCEPT OF PROACTIVE LAW

Proactive law is a developing concept.[140] It originally emerged in Scandinavia in the late 1990s as a theoretical model to improve the contracting process in business dealings.[141] Since then, the idea of a proactive approach to law has been further developed in various ways that have enriched its content and enlarged its range of application. Thus, over the years, the concept has been extended into new issue-areas,[142] including law and economics, tax law, risk management, and regulation.[143] Additionally, while the concept of proactive law originally referred exclusively to an approach to practicing law, it is now also understood as referring to the process of making law.[144] Furthermore, the concept has also transcended beyond the domestic legal context—most notably, when it was taken up in 2009 by the European Economic and Social Committee (EESC) in the form of its opinion on "The Proactive Law Approach: A Further Step Towards Better Regulation at the EU Level."[145]

The term "proactive" denotes "acting in anticipation, taking control, and self-initiation."[146] It implies the "controlling of a situation by causing something

140. Kaisa Sorsa, *Introduction*, *in* PROACTIVE MANAGEMENT AND PROACTIVE BUSINESS LAW: A HANDBOOK 11, 17 (Kaisa Sorsa ed., 2011) [hereinafter Sorsa, *Introduction*].

141. For the first publication relating to the approach, see Helena Haapio, *Quality Improvement through Proactive Contracting: Contracts Are Too Important to Be Left to Lawyers!*, *in* ASQ ANNUAL QUALITY CONGRESS PROCEEDINGS 243 (1998). For a general discussion of the proactive law approach, its background, and its application, see Peter Wahlgren (ed.), A Proactive Approach, 49 SCANDINAVIAN STUD. L. (2006); Helena Haapio (ed.), A PROACTIVE APPROACH TO CONTRACTING AND LAW (2008).

142. Gerlinde Berger-Walliser, *The Past and Future of Proactive Law: An Overview of the Development of the Proactive Law Movement*, *in* PROACTIVE LAW MOVEMENT IN A BUSINESS ENVIRONMENT 13 (Gerlinde Berger-Walliser & Kim Østergaard eds., 2012).

143. Gerlinde Berger-Walliser & Paul Shrivastava, *Beyond Compliance: Sustainable Development, Business, and Proactive Law*, 46 GEO J. INT'L L. 417, 434 (2015).

144. Tarja Salmi-Tolonen, *Proactive Business Law and the Prevention and Resolution of Disputes: Introduction*, *in* PROACTIVE MANAGEMENT AND PROACTIVE BUSINESS LAW: A HANDBOOK 33, 34 (Kaisa Sorsa ed., 2011).

145. Eur. Econ. & Soc. Comm., *The Proactive Law Approach: A Further Step Towards Better Regulation at E.U. Level*, 175 OFF. J. EUR. UNION 26 (2009) [hereinafter EESC Opinion].

146. Kaisa Sorsa, *The Proactive Law Approach: A Further Step Towards Better Regulation*, *in* CHANGING FORMS OF LEGAL AND NON-LEGAL INSTITUTIONS AND NEW CHALLENGES FOR THE LEGISLATOR 35 (Jyrki Tala & Auri Pakarinen eds., 2009) [hereinafter Sorsa, *The Proactive Law Approach*].

to happen rather than waiting to respond to it after it happens."[147] In that spirit, the Nordic School of Proactive Law, a central player in the field, defines the proactive law approach as:

> a future-oriented approach to law placing an emphasis on legal knowledge to be applied before things go wrong. It comprises a way of legal thinking and a set of skills, practices and procedures that help to identify opportunities in time to take advantage of them, and to spot potential problems while preventive action is still possible. In addition to avoiding disputes, litigation and other hazards, Proactive Law seeks ways to use the law to create value, strengthen relationships and manage risk.[148]

Proactive law thus refers to an emerging alternative legal approach to issues in business and society. It arises out of dissatisfaction with the traditional views of law and attempts to rebalance the prevailing legal logic.[149] Unlike conventional approaches, which typically perceive the law "as a constraint that companies and people . . . need to comply with . . . , an administrative burden, or—at best—a means to protect one's…interests against harmful behavior of others," proactive law regards the law as an "enabling instrument" to obstruct unwanted phenomena and accomplish desired goals.[150] It emphasizes the empowering quality of law, while also stressing its future-orientation, foreseeability, and pre-emptiveness potential.

The prime objectives of proactive law, therefore, are to prevent problems,[151] avoid being surprised by the legal implications of incidents and situations,[152] and use the law as a lever to generate value for companies, individuals, or societies at large.[153] In pursing these ends, proactive law effectively challenges traditional notions of law that rest on a failure-oriented and backward-looking approach. Instead, it urges for a paradigm shift in legal thinking and lawmaking.[154] Rather than react to failures and deficiencies as traditional law usually does, the proactive approach calls upon both public and private actors involved in lawmaking, contract drafting, or other law-related processes to act in anticipation of future changes and needs. It invites these actors to take control of potential problems, provide solutions, and engage in self-initiation.[155] As such, this approach seeks to develop concepts, theories, and tools to use legal thinking and instruments proactively.[156] In the area of contracting, for example, this approach "includes drafting contracts that foster good relationship(s) and

147. Jarl Magnusson, *Proactive Law—and the Importance of Data and Information Resources*, 49 SCANDINAVIAN STUD. L. 407, 410 (2006).

148. *See Mainpage*, NORDIC SCH. PROACTIVE L., http://www.juridicum.su.se/proactivelaw/main.

149. Berger-Walliser, *supra* note 142, at 16, 19.

150. *Id.* at 16.

151. Berger-Walliser & Shrivastava, *supra* note 143, at 435.

152. Dag Wiese Schartum, *Introduction to Government-based Perspective on Proactive Law*, 49 SCANDINAVIAN STUD. L. 35, 36 (2006).

153. Berger-Walliser & Shrivastava, *supra* note 143, at 435.

154. *Id.*

155. Berger-Walliser, *supra* note 142, at 18.

156. *Id.*

provide a roadmap for performance (instead of providing legal safeguard clauses in case something goes wrong)."[157] It also involves "agile contracts that adapt to changing situations and help to create trust among business partners."[158] In contrast to traditional contracts, which are often "reactive, focusing on legal problems and litigation," proactive contracting focuses on "capturing the goals of the business deal; assuring a shared understanding between the contract partners; and developing structures, rules, and procedures that ex-ante enable the creation and achievement of desired goals and avoidance of future problems."[159]

Proactive law, as the discussion above suggests, has its origins in preventive law,[160] a concept developed in the United States during the 1950s that advocates an ex-ante view in law and legal practice.[161] The underlying idea of preventive law is that "[i]t usually costs less to avoid getting into trouble than to pay for getting out of trouble."[162] Thus, in contrast to the traditional, backward- and failure-oriented legal approach, which at best tries to predict what a court will decide should a conflict arise, preventive law aims at predicting human behavior and anticipating and avoiding disputes, litigation, or other hazards.[163] It thereby also places considerable emphasis on conflict management and seeks to make preventive legal services available to stakeholders.[164] More generally, preventive law strives to keep the causes of problems from arising and to minimize potential costs and losses.[165] Proactive law encompasses these basic principles of preventive law (that is, anticipating and preventing undesirable problems).[166] But to the preventive aspect, proactive law adds a promotive dimension. Specifically, proactive law focuses on fostering what is desirable[167] by scanning for opportunities and taking initiative in improving conditions for businesses, people, and societies.[168]

Proactive law is therefore comprised of two aspects, both of which stress ex-ante, forward-looking action: the *preventive* and the *promotive* dimensions.[169] While the preventive (or negative) aspect is concerned with avoiding problems and disasters of various forms and extents, the promotive (or positive and constructive) dimension involves revealing and realizing

157. *Id.*

158. *Id.*

159. *Id.* at 23–24.

160. Helena Haapio, *Introduction to Proactive Law: A Business Lawyer's View*, 49 SCANDINAVIAN STUD. L. 21, 22 (2010); Magnusson, *supra* note 147, at 411.

161. *See* LOUIS M. BROWN, MANUAL OF PREVENTIVE LAW: HOW TO PREVENT LEGAL DIFFICULTIES IN THE HANDLING OF EVERYDAY BUSINESS PROBLEMS (1950).

162. *Id.* at 3.

163. Berger-Walliser, *supra* note 142, at 21.

164. *Id.* at 21–22.

165. *Id.*

166. *Id.* at 22.

167. *Id.*

168. Sorsa, *Introduction*, *supra* note 140, at 21; Magnusson, *supra* note 147, at 411.

169. George J. Siedel & Helena Haapio, *Using Proactive Law for Competitive Advantage*, 47 AM. BUS. L.J. 641, 659 (2010).

opportunities with a view to attaining desired ends.[170] That said, it is acknowledged that "many developments and situations are neither clearly negative nor positive when considered in advance." What is clear, though, is that proactive law implies awareness of future challenges and deals with a range of situations, from those that must definitely be avoided to those that should obviously be sought.[171]

As a result, proactive law assumes important qualities such as flexibility and adaptability towards an uncertain future,[172] and requires effort and action on the part of lawmakers well in advance.[173] Perhaps the most important viewpoint the proactive law approach brings to regulatory activity and policymaking is that it "calls for the legislator to take more promotive actions instead of reactive actions only."[174] This approach holds that the law should promote good behavior and prevent undesirable behavior in order to avoid heavier costs in the future.[175] In that spirit, proactive law is thus understood first and foremost as a "lawmaking strategy" to guide rule- and decisionmakers in selecting regulatory arrangements that facilitate action in anticipation of future changes , instead of merely reacting to the facts on the ground.[176]

The proactive law approach opens up the door for a wide range of research endeavors,[177] and may be applied, with relevant adjustments, to different fields of private and public law and regulation, within and beyond the national legal setting. Indeed, while proactive law originally emerged in the context of domestic legal systems and with a focus on business applications and private lawmaking, it has subsequently been extended to the public policy arena. It has also stretched beyond the domestic context with the adoption of the EESC Opinion in 2009 in an effort to improve regulatory processes and outcomes in the EU.[178] In this vein, the EESC Opinion "emphasizes the importance of new kinds of regulatory methods and attitudes on the lawmaker's part."[179] Since its introduction in 2009, it has served as the basis for several EU regulatory initiatives that evince a proactive approach.[180]

We believe that proactive law should also be the basis for a new conceptual approach to the creation, development, and application of international law. Admittedly, proactive law, with its origins rooted in the domestic legal context, cannot be uncritically transferred to the very different conditions featured in the international legal system. However, as explained below, the proactive law approach provides key concepts and insights that may help improve

170. *Id.* at 659–60; Schartum, *supra* note 152, at 37; Berger-Walliser, *supra* note 142, at 22.
171. Schartum, *supra* note 152, at 37.
172. Sorsa, *Introduction*, *supra* note 140, at 21.
173. Schartum, *supra* note 152, at 37.
174. Sorsa, *The Proactive Law Approach*, *supra* note 146, at 35-36.
175. *Id.* at 36.
176. *Id.* at 40.
177. Magnusson, *supra* note 147, at 410.
178. Siedel & Haapio, *supra* note 169, at 661–63.
179. Sorsa, *Introduction*, *supra* note 140, at 19.
180. Berger-Walliser & Shrivastava, *supra* note 143, at 453.

international regulation, especially in view of the complex global challenges on the horizon.

B. ELEVATING PROACTIVE LAW TO THE GLOBAL LEVEL

International law, we argue, is another field to which the notion of proactive law should apply. Traditional international law, as shown in Part I.A, is largely backward-looking and reactive to pre-existing problems. International legal instruments and institutions have typically been negotiated, designed, and established in the aftermath of failures and crises, with the hope that the newly adopted legal arrangements will tackle the problems observed and avoid their reoccurrence.

The problems that international law and institutions are required to address, however, are not constant but are continually evolving. Hence, addressing problems observed in the past, while important, is an insufficient form of international governance. If international law and institutions are to effectively regulate global threats and developments, they need to engage not only with what happened in the past or what is currently happening, but also with what might happen in the future. This is particularly so in our rapidly changing world, where the future is increasingly less like the past and the challenges the international community is facing or soon will be facing are growing ever-more complex.[181] Meeting those challenges through international law's reactive approach is, at best, a suboptimal option and, at worst, a disastrous one.

The COVID-19 crisis provides a useful illustration of this point. Equipped with the IHRs—as revised in 2005 in view of past conventional outbreaks such as SARS—the WHO and its member states, like other international institutions, were caught off-guard when the pandemic arrived and were not prepared to respond adequately. The pandemic and its wide impact have shown, however, that when it comes to a multifaceted global crisis, advance preparation and prevention are the only viable options for avoiding the worst possible consequences. Real-time reactive cures are impossible, insufficient, or too expensive.

Beyond pandemics, many other global problems and advancements confronting the international community—including climate change, artificial intelligence, synthetic biology, environmental degradation, food security, demographic transformations, global employment gaps, rapid urbanization, or outer space commercialization—are more complex and diffuse than those encountered in the past. Their effects spread quickly and widely across the globe, implicating the interests of all countries and levels of society, as well as the interests of future generations. Due to the scope and the long-term, intergenerational, and potentially irreversible consequences of many global challenges, they require action now in order to address long-term and,

181. Francois Retief, Alan Bond, Jenny Pope, Angus Morrison-Saunders & Nicholas King, *Global Megatrends and Their Implications for Environmental Assessment Practice*, 61 ENV'T IMPACT ASSESSMENT REV 52, 56 (2016).

oftentimes, uncertain threats and developments.[182] Many pending global challenges are also increasingly interrelated, with any development in one domain potentially reverberating in others.[183] Climate change, for example, aggravates the danger of severe food shortage, whereas the stress of global job loss caused by artificial intelligence technologies is further exacerbated by population growth intensified by bio-medical developments. The interconnected and cross-sectoral nature of impending global challenges, in turn, inevitably requires collaboration on the part of multiple actors, including governments, international organizations, corporations, and experts located in different fields. Making things even more complex is the fact that the global challenges concerned, on their potential perils and promises, transpire in an environment featured by acceleration. The rapid pace of life, technological innovation, and social change leaves pertinent actors with little time and space for maneuvering when action is due.

For these reasons, modern global challenges and developments require international regulation that points to the future with an eye to preventing relevant risks and disasters from materializing as well as to realizing opportunities stemming from technological, social, demographic, and political changes. Proactive law, through its preventive and promotive dimensions, offers a promising perspective on how a different approach to international law can result in better regulatory arrangements that not only address previous failures but also better meet forthcoming global challenges and changes.

Applying a proactive approach to international law obviously entails a paradigmatic shift in international law's mode of development and in the thinking, resourcing, and conduct of those involved in its creation and operation. Indeed, proactive international law requires international lawmakers and regulators to act in anticipation and with initiative, and to take control of future international events more vigorously instead of trying to address them retrospectively. In other words, proactive international law requires the international legal system to go beyond the development and application of legal rules to facts and events that occurred in the past, and more compellingly engage in the development and application of sound legal rules and practices to create future facts and plan a future course of conduct. As such, this approach not only demands a substantial conceptual turn in international legal thinking; it also requires the formulation of practical tools, procedures, and strategies for using international legal infrastructures, instruments, and processes proactively—an effort that is likely to confront the international legal system with considerable challenges.

Notwithstanding the critical mindset shift and the difficulties entailed, we believe international law can benefit greatly when its makers and operators in

182. DANIEL BODANSKY, JUTTA BRUNNÉE & LAVANYA RAJAMANI, INTERNATIONAL CLIMATE CHANGE LAW 3 (2017).

183. AUGUSTO LOPEZ-CLAROS, ARTHUR LYON DAHL & MAJA GROFF, GLOBAL GOVERNANCE AND THE EMERGENCE OF GLOBAL INSTITUTIONS FOR THE 21ST CENTURY 294 (2020); Jonathan B. Wiener, *Risk Regulation and Future Learning*, 8 EUR. J. RISK REG. 4, 7 (2017).

the broad sense—states, international organizations, courts, administrators, and other pertinent actors—shift their focus from the past to the future in the pursuit of a more proactive international legal system. Moreover, the international legal system is not only precisely the type of system in which the proactive approach is needed. In important respects, this system is rather amenable to the pursuit of such an approach. Put differently, despite the various forces pushing international law towards reactiveness, as discussed in Part I.B, which render a proactive turn in the discipline quite challenging, there are other features that make international law particularly suitable for the application of a proactive, long-term approach, also as compared to domestic legal systems.

To begin with, in domestic systems it is often the case that "short-term election cycles compel governments to prioritize immediate concerns such as affordable transportation and economic development over seemingly long-term problems such as climate change."[184] When operating at the international level, however, governments may, at least to some extent, be less constrained by such considerations, while external pressures exerted by other international actors (for example, third states) may essentially work to mitigate certain pressures coming from home and push governments to act more decisively on long-term global challenges.

Moreover, in the international arena there are other influential actors beyond states, most notably international organizations, which have come to play critical functions in the creation, administration, and operation of international law. Unlike states, however, these actors have no immediate constituencies on whom they depend for re-election. This allows them to invest more effort and resources in long-term goals and concerns that usually are not rewarded at the ballot box. And while international organizations are all founded and constrained by states, serving as mechanisms through which the latter further their interests, these organizations "are more than a reflection of state preferences."[185] They are also actors in their own right in the international system—exercising some level of agency in their activities and having the ability to act in a self-directed way in their operations and endeavors on the international stage.[186] These organizations, many of which are now equipped with well-oiled institutional mechanisms, may play a critical role in the move towards greater proactiveness and long-termism in the functioning of international law. Hence, our vision of proactive international law is by no means limited to states, despite the central role they have and still do occupy in the creation and operationalization of

184. BODANSKY ET AL., *supra* note 182, at 4. *See also* Michael Smart & Daniel M. Sturm, *Term Limits and Electoral Accountability*, 107 J. PUB. ECON. 93 (2013); Edward Lopez, *Term Limits: Causes and Consequences*, 114 PUB. CHOICE 1 (2003).

185. Michael N. Barnett & Martha Finnemore, *The Politics, Power, and Pathologies of International Organizations*, 53 INT'L ORG. 699, 700 (1999).

186. *See id.*; Joel E. Oestreich, *Introduction*, *in* INTERNATIONAL ORGANIZATIONS AS SELF-DIRECTED ACTORS: A FRAMEWORK FOR ANALYSIS 1 (Joel E. Oestreich ed., 2012); Ian Hurd, *Theorizing International Organizations: Choices and Methods in the Study of International Organizations*, 2 J. INT'L ORG. STUD. 7 (2011).

international law. Rather, this vision envisages an important role for various other actors involved in these processes, especially international organizations.

Against this backdrop, we set out the core elements of what we understand as proactive international law and offer some initial suggestions regarding the possible trajectories along which a more proactive international law can transpire. This account of proactive international law is deeply rooted in the literature on proactive law presented in the previous Subpart. However, it is also informed by other writings, such as those dealing with "adaptive governance"[187] or "new governance" approaches,[188] which share some of the ideas developed, in a very different context, within the framework of proactive law.

C. PROACTIVE INTERNATIONAL LAW: CORE ELEMENTS

Proactive international law represents a novel approach to the development and operation of international law, which complements the past-oriented, event-based, reactive paradigm prevailing in the field. This complementary approach strives to make international law and institutions more adept at dealing with the magnitude, speed, and complexity of future problems and long-term global trends. Seeking to ensure that the international legal system remains fit-for-purpose long into the future, the proactive approach advocates the pursuit of a more initiatory and far-sighted perspective when planning, drawing up, amending, and implementing international legal arrangements.

Admittedly, proactive international law, like proactive law more generally, is not entirely new.[189] In the international legal system, as in domestic systems, one can discern certain aspects of proactiveness, whereby the law functions not merely as a mechanism to support problem-solving retrospectively, but also as a means to tackle pending problems lying ahead.[190] Indeed, some recent international legal developments—for example, in the areas of climate change and artificial intelligence—have trended in this direction. These more proactive and future-oriented initiatives, however, are not only limited in their content and reach, but also represent the exception rather than the rule in the existing international legal system.

By contrast, under the proactive approach developed here, the goal is to truly break the reactive mold of international law. By further developing, systematizing, and generalizing the proactive dimension of international law,

187. On "adaptive governance" and its application in the context of international institutions, see Rosie Cooney & Andrew T.F. Lang, *Taking Uncertainty Seriously: Adaptive Governance and International Trade*, 18 EJIL 523 (2007).

188. For relevant literature, see, for example, Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342 (2004) [hereinafter Lobel, *The Renew Deal*]; GRAÍNNE DE BÚRCA & JOANNE SCOTT (eds.), LAW AND NEW APPROACHES TO GOVERNANCE IN THE EU AND US (2006); Kenneth W. Abbott & Duncan Snidal, *Strengthening International Regulation Through Transmittal New Governance: Overcoming the Orchestration Deficit*, 42 VAND J. TRANSNAT'L L. 501 (2009) [hereinafter Abbott & Snidal, *Transmittal New Governance*]; Joanne Scott & David M. Trubek, *Mind the Gap: Law and New Approaches to Governance in the European Union*, 8 EUR. L.J. 1 (2002).

189. Berger-Walliser, *supra* note 142, at 26.

190. Cecilia Magnusson Sjöberg, *Introduction*, 49 SCANDINAVIAN STUD. L. 1 (2006).

this approach seeks to shift the system's pendulum far towards its proactive end. As such, proactive international law denotes several core interrelated elements. In articulating these elements, we point to some normative and institutional strategies that can facilitate their implementation and assuage the rational and irrational constraints pulling international law towards reactiveness. We also provide pertinent illustrations that may give a better sense of what a more proactive international law would look like.

1. *Future-Orientation and Foresightedness*

At the most basic level, proactive international law implies future-orientation and foresightedness in the creation and operation of international rules and institutions.[191] Starting from the premise that the past no longer serves as a capable indicator of the future and thus cannot function as the primary benchmark for international legal arrangements, proactive international law urges international law and policy makers to expand their outlook far into the future—decades and even centuries ahead. More concretely, it requires them to extend their regulatory focus beyond short-term needs and give long-term global challenges at least an equal priority on the international agenda, despite their inherent uncertainty. As such, this future-oriented approach calls for the incorporation of far-sighted vision and planning into international regulatory schemes. It thus emphasizes the development of rules and procedures that may help the international community avoid possible risks and realize potential opportunities embedded in global developments in a timely manner.[192]

A notable, albeit imperfect, attempt to engage in this sort of futurism and far-sightedness in international regulation is observable in the U.N. climate change regime established in 1992. Geared towards the future, this regime seeks to address the long-term, not-yet-fully materialized threat of global warming "for the benefit of present and future generations of humankind."[193] While acknowledging the "many uncertainties in predictions of climate change," particularly with regard to its timing, magnitude, causes, and effects,[194] the international actors involved in the formation and operation of this legal regime have nonetheless recognized the need to make this long-term threat a present-day regulatory concern in the international arena.

A more recent illustration of a future-oriented international regulatory effort can be found in the Recommendation on Artificial Intelligence issued in 2019 by the Organization for Economic Co-operation and Development ("OECD Recommendation"). This soft-law instrument seeks to tackle the evolving, far-reaching effects of artificial intelligence (AI), which "are transforming societies, economic sectors and the world of work, and are likely to increasingly do so in

191. Sorsa, *Introduction*, *supra* note 140, at 141.

192. Soile Pohjonen, *Proactive Law in the Field of Law*, 49 SCANDINAVIAN STUD. L. 54, 55 (2006).

193. United Nations Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC], art. 3(1).

194. *Id.* Preamble, art. 4(g).

the future."[195] Although it recognizes that "the nature of future AI applications and their implications may be hard to foresee," the OECD Recommendation embraces a forward-looking stance, calling upon all stakeholders involved in developing or operating AI systems to "proactively engage in responsible stewardship of trustworthy AI in pursuit of beneficial outcomes for people and the planet."[196]

And so, despite the short-term and backward-looking tendencies of international law, these examples suggest that futurism and long-termism are not entirely alien to the discipline. In both instances, states and international institutions have put forward regulatory frameworks to cope with long-term challenges whose nature and impact are yet to be appreciated. A similar future-oriented mode of governance should be implemented with respect to other emerging global challenges—such as demographic transformations or synthetic biology—thereby making futurism and long-termism parts of mainstream international legal thought and practice.

2. *Awareness and Learning*

Because it is geared towards the long-term and often uncertain future, proactive international law, like proactive law more generally, is largely concerned with "addressing and—as far as possible—eliminating uncertainty, both in the sense of avoiding risks and realizing opportunities."[197] Accordingly, proactive international law requires profound awareness and understanding of future global challenges as a necessary element of any attempt by international regulators to tackle the uncertainties associated with those challenges.[198] This is particularly vital given that many prospective global challenges are seriously underestimated and poorly understood,[199] as is the case, for instance, with the rapidly changing demographics around the world or with outer space exploitation and commercialization. Also not fully explored is the condition whereby certain global challenges carry both new risks and new opportunities. Examples of this are the revolutions in artificial intelligence and synthetic biology, which are clearly double-edged swords that may simultaneously yield both positive and negative consequences for the international community.

Improved awareness and understanding of pending global problems will serve as a critical first stage in assessing their causes, probabilities, magnitudes, and consequences,[200] thereby reducing the chances of being caught by surprise once they materialize. Increased awareness around rising global challenges can also play a role in mitigating cognitive biases that may stand in the way of proactive international regulation, particularly availability and over-optimism.

195. Recommendation of the Council on Artificial Intelligence, OECD/Legal/0449 (22 May 2019), art. 1.1 [hereinafter OECD Recommendation].

196. *Id.*

197. Schartum, *supra* note 152, at 38.

198. *Id.* at 37.

199. LOPEZ-CLAROS ET AL., *supra* note 183, at 294.

200. *Id.*

As noted in Part I.B, these biases may lead international regulators to discount prospective global challenges and thus gloss over the important need to address them now despite their remoteness in time. Enhanced knowledge, channeled through appropriate learning processes, can moderate these predispositions, and improve regulators' cognizance and understanding of yet unmaterialized problems and opportunities, thereby making them more inclined to address them.[201]

Notably, while many law and policymaking structures "involve some mechanism for encouraging policy learning," [202] under proactive international law, learning plays an ongoing and particularly central role that is to be sustained through regularized procedures of knowledge production and evaluation along with the continuous enhancement of data capacity and availability.[203] In other words, within the framework of proactive international law, the learning process becomes an integral part of international regulators' tasks rather than a supplementary function that is being exercised on an ad hoc or isolated basis.[204] According to Rosie Cooney and Andrew Lang, this emphasis on constant learning is premised on the idea "that a single 'snapshot' of the world, scientific or otherwise, is inadequate to reflect a dynamic and evolving reality and to respond to continually changing information and understanding."[205] It also rests upon a recognition of the "inherently limited nature of our knowledge," our intrinsic capacity for mistakes, and the limited ability of science-based models to predict the exact forms and impacts of future problems and developments.[206] International regulators are thus required to continually revisit, reassess, and redefine pending global challenges in light of new information and experiences on a global scale.[207]

With this in mind, reflexive institutional frameworks should be integrated into international regulatory schemes in order to facilitate the iterative process of learning, evaluation, and knowledge creation, including through standardized procedures of data accumulation and analysis as well as risk and opportunity assessment. Such institutional frameworks may take, for example, the form of advisory boards, professional panels, and various sorts of subsidiary bodies entrusted with the task of providing decisionmakers with specialized scientific, technical, and other expertise.[208] Serving as hubs of knowledge generation,

201. *See* Dan Orr & Chris Guthrie*, Anchoring, Information, Expertise, and Negotiation: New Insights from Meta-Analysis*, 21 OHIO ST. J. ON DISP. RESOL. 597 (2006); Christine Jolls & Cass R. Sunstein, *Debiasing Through Law,* 35 J. LEGAL STUD. 199 (2006); Abbott & Snidal, *Transmittal New Governance*, *supra* note 188, at 526.

202. *Cf.* Cooney & Lang, *supra* note 187, at 534.

203. These elements are also present in writing on adaptive governance, *see id.*, at 537–38, and new governance approaches. *See* Graínne de Búrca & Joanne Scott, *New Governance, Law and Constitutionalism*, *in* LAW AND NEW APPROACHES TO GOVERNANCE IN THE EU AND US 1 (Graínne de Búrca & Joanne Scott eds., 2006); Lobel, *The Renew Deal*, *supra* note 188, at 395–400.

204. Cooney & Lang, *supra* note 187, at 534.

205. *Id.*

206. *Id.* at 535.

207. *Cf. id.*

208. *Cf.* LOPEZ-CLAROS ET AL., *supra* note 183, at 126.

sharing, and dissemination, such subsidiary mechanisms can help broaden and update the relevant base of data and experience on a continuous basis, thereby deepening the understanding of emerging global challenges and facilitating proactive regulation in related areas.

An instructive example in this respect can be found in the Intergovernmental Panel on Climate Change (IPCC), created in 1988 to lay down an agreed scientific basis for action to address the evolving threat of climate change.[209] The IPCC brings together experts from around the world, who produce periodical reports that systematically review and assess the best available scientific research relating to climate change.[210] Although not free from criticism,[211] the IPCC's reports have had considerable influence on international policy and law makers, serving as an important driving force for creating, expanding, and updating the U.N. climate change regime and its various treaties.[212]

Another useful example of a learning- and knowledge-enhancing mechanism, established within the U.N. climate treaties themselves, is the Subsidiary Body for Scientific and Technological Advice (SBSTA).[213] Composed of government representatives competent in relevant fields of expertise, the SBSTA is designed to support the work of the Conferences of the Parties ("COP")—the supreme decision making bodies of the U.N. climate treaties—through the provision of timely information and advice on scientific and technological matters.[214] Aimed at enabling constant learning and innovation, SBSTA has played a significant role in offering science-based knowledge and technological guidance on adaptation, emission reductions, and technology transfer.[215]

3. *Participation and Pluralism*

While the proactive approach to international law emphasizes the accumulation and analysis of knowledge as a means to gain deeper awareness of long-term global challenges and to mitigate the uncertainties associated with them, this knowledge-production and learning process is not merely a technical, science-based, and expert-driven process.[216] Rather, this process is envisaged as one that continually seeks the input, knowledge, and experience of interested

209. *See The Intergovernmental Panel on Climate Change*, IPCC, https://www.ipcc.ch.

210. *Id.*

211. *See. e.g.*, Quirin Schiermeier, *IPCC Flooded by Criticism*, 463 NATURE NEWS 596 (2010).

212. LOPEZ-CLAROS ET AL., *supra* note 183, at 126.

213. UNFCCC, *supra* note 193, art. 9.

214. *Id. See also* Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, art. 15, 2303 U.N.T.S. 148 [hereinafter Kyoto Protocol]; Paris Agreement to the United Nations Framework Convention on Climate Change, Article 18, Dec. 12, 2015, 2016 TIAS No. 16-1104 [hereinafter Paris Agreement].

215. BODANSKY ET AL., *supra* note 182, at 144.

216. *Cf.* Cooney & Lang, *supra* note 187, at 538.

stakeholders (for example, actors in the private sector or civil society) ,[217] with a view towards mapping out the broad range of concerns, possibilities, and preferences regarding evolving global developments and securing pluralist long-term thinking in areas of uncertainty within international regulation.

In this light, proactive international law invites an "active and effective participation—rather than mere consultations, of stakeholders" throughout the life-cycle of regulation,[218] from early deliberations and drafting of rules to promulgation, implementation, and enforcement.[219] It conceives of lawmaking as a "continuous dialogue and mutual learning process" by regulators and stakeholders that is geared at achieving desired goals.[220] The idea is that stakeholder participation is not only conducive to information sharing and learning, but it also enables actors to produce multiple regulatory approaches, devise creative ideas, combine the complementary competencies of public and private entities, and align their objectives to generate a shared vision.[221] Moreover, broad stakeholder involvement early in the international regulatory process is vital for building commitment and support for the successful implementation of the resulting legal arrangements.[222] Finally, a deliberative process whereby international regulators are engaged in dialogue with multiple stakeholders can promote more rational decision making and mitigate the various cognitive biases usually affecting regulators when long-term challenges are concerned.[223] Such a process requires all actors involved to explain their views to each other while relying on logical argumentation and concrete data instead of unsubstantiated claims or mere urges and intuitions.[224]

The OECD Recommendation on AI may provide a useful example of an international legal instrument that recognizes the need to involve multiple stakeholders in addressing an emerging global challenge. It calls upon governments to work closely with stakeholders from various sectors in promoting trustworthy AI and in preparing for the yet undetermined social and economic transformations that AI systems are likely to produce.[225] Remarkably, this call for multi-stakeholder participation is not merely theoretical but was actually implemented in the drafting of the Recommendation itself, which drew

217. Sorsa, *The Proactive Law Approach*, *supra* note 146, at 42–43; Berger-Walliser & Shrivastava, *supra* note 143, at 454–55. Stakeholder participation is likewise encouraged by new governance approaches, *see* de Búrca & Scott, *supra* note 203; Lobel, *The Renew Deal*, *supra* note 188, at 371–76, and adaptive governance models, *see* Cooney & Lang, *supra* note 187, at 534–35.

218. EESC Opinion, *supra* note 145, ¶ 2.6; Sorsa, *The Proactive Law Approach*, *supra* note 146, at 43.

219. Berger-Walliser & Shrivastava, *supra* note 143, at 454–55. Similar ideas are advocated in the new governance literature. *See* Lobel, *The Renew Deal*, *supra* note 188, at 373; Orly Lobel, *New Governance as Regulatory Governance*, *in* THE OXFORD HANDBOOK OF GOVERNANCE 65 (David Levi-Faur ed., 2012) [hereinafter Lobel, *New Governance*].

220. EESC Opinion, *supra* note 145, ¶ 6.12.1.

221. *See* Abbott & Snidal, *Transmittal New Governance*, *supra* note 188, at 526; Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 22–23 (1997-98).

222. *Cf.* EESC Opinion, *supra* note 145, at ¶ 6.1; Freeman, *supra* note 221, at 23–24.

223. *See* Abbott & Snidal, *Transmittal New Governance*, *supra* note 188, at 526.

224. *Cf.* Freeman, *supra* note 221, at 23.

225. OECD Recommendation, *supra* note 195, arts. 2.4, 2.5.

upon inputs from an expert group comprising members of academia, industry, civil society, trade unions, and governmental authorities.[226]

4. *Goal Setting and Monitoring*

This discussion leads us to another fundamental characteristic of the proactive approach to international law, which concerns goal setting and monitoring. Based on deep understanding of rising global challenges, international policymakers should set specific, change-oriented goals and identify the most appropriate legal means to achieve these goals.[227] This goal-setting element derives from one of the basic features of the proactive law approach, namely, the focus on law as an enabling instrument used to obstruct undesirable phenomena and accomplish desired goals.[228]

Furthermore, because proactive law is "focused on accomplishments, but particularly on accomplishments with real impact,"[229] impact assessments and constant monitoring of outcomes in order to attain a set of goals is another element underlying this approach,[230] to be followed in the international arena as well.[231] The impact assessments and monitoring processes, in turn, should take into account social, economic, ethical, and other relevant considerations, and be informed by the voices of the various stakeholders concerned.[232] In addition, the results of the impact assessment and monitoring procedures should be regularly fed back into the regulatory process, "to reassess goals, assumptions in models, and policy objectives themselves."[233] Importantly, such monitoring and feedback mechanisms may not only help to fine-tune the goals set by international regulators and the means developed to achieve them; they may also highlight relevant knowledge gaps and the limitations of the forms of knowledge production employed,[234] which is a critical element where uncertain and constantly evolving global challenges are at stake.

An interesting example of goal setting and monitoring in the context of a long-term and dynamic international regulatory framework may be traced in the U.N. climate regime. The 1992 United Nations Framework Convention on Climate Change has stipulated the regime's overarching goal, which is to mitigate climate change through the stabilization of greenhouse gas concentrations in the atmosphere.[235] The 1997 Kyoto Protocol and the 2015 Paris Agreement that followed have then broken down this general goal into more concrete, state-specific emission targets that are periodically updated

226. *Id.*, Background Information.

227. Sorsa, *Introduction*, *supra* note 140, at 21; EESC Opinion, *supra* note 145.

228. Siedel & Haapio, *supra* note 169, at 665; EESC Opinion, *supra* note 145.

229. Sorsa, *Introduction*, *supra* note 140, at 21.

230. *Id.* at 18; EESC Opinion, *supra* note 145.

231. For similar ideas in the context of adaptive governance and new governance, see, respectively, Cooney & Lang, *supra* note 187, at 524; Lobel, *New Governance*, *supra* note 219, at 67.

232. EESC Opinion, *supra* note 145.

233. Cooney & Lang, *supra* note 187, at 537.

234. *Id.*

235. UNFCCC, *supra* note 193, art. 2.

against previous benchmarks.[236] In order to ensure progression and implementation, however, state parties have gone further to authorize the COPs to monitor compliance and assess the impact of measures adopted by states in pursuance of their treaty obligations.[237] According to commentators, the COPs' monitoring activities have served to improve unsatisfactory state practices and significantly enhanced the overall effectiveness of the U.N. climate regime.[238]

5. *Taking Control and Acting in Anticipation along Preventive and Promotive Paths*

By employing a forward-looking perspective, generating knowledge and awareness, setting and aligning objectives, and creating a shared vision of impending global challenges, a proactive approach to international law may help make long-term and uncertain risks and opportunities a real regulatory priority on the international agenda. In more concrete terms, by pursuing these various elements of proactiveness, this approach may bring problems that often seem uncertain, distant, or infrequent into the international regulatory spotlight before a critical stage is reached.[239] Likewise, by following these trajectories of proactivity, new opportunities that can yield benefits for the international community can be identified in due course.[240]

Proactivity, however, implies not merely envisioning and understanding change and reducing the uncertainty associated with future global challenges and developments. Proactivity also entails creating change and taking initiative in the face of still uncertain future international events.[241] Hence, in contrast to traditional reactive international law and its operative focus on events that already have happened or are happening, under proactive international law, it will often be necessary to take action despite remaining levels of uncertainty.[242] In seeking to untangle international law's reactive knot, proactive international law will generally not postpone action until "enough" is known, but will rather attempt to take some regulatory measures at an early stage, especially in the face of immense global problems.[243] In practical terms, proactive international law thus calls on international regulators to make ex-ante, forward-looking interventions instead of waiting and reacting only when a problem arises.[244] A current example of such belated response is the ongoing deliberations on the

236. Kyoto Protocol, *supra* note 214, art. 3, Annex B; Paris Agreement, *supra* note 214, art. 4.

237. UNFCCC, *supra* note 193, arts. 4, 7; Kyoto Protocol, *supra* note 214, arts. 3, 5, 7, 9; Paris Agreement, *supra* note 214, arts. 6, 14, 16.

238. BODANSKY ET AL., *supra* note 182, at 19.

239. Schartum, *supra* note 152, at 37.

240. *Id.*

241. Sorsa, *Introduction*, *supra* note 140, at 21.

242. *Id.* For a similar idea in the context of adaptive governance, see Cooney & Lang, *supra* note 187, at 535.

243. *Cf.* Cooney & Lang, *supra* note 187, at 535.

244. Schartum, *supra* note 152, at 37.

amendment of the IHRs[245] or on the adoption of a Framework Convention on Pandemic Preparedness and Response.[246] These deliberations represent an attempt to address retroactively a major eruption like COVID-19, a long-foreseen event that international lawmakers could have arguably prepared for in advance.

When acting in anticipation of global challenges, proactive international law requires those involved in international regulation to take both preventive and promotive actions.[247] Put differently, the proactive approach calls for regulatory measures that encourage regulated state and non-state entities to prevent problems and undesirable behaviors and to support good practices, value creation, and exploitation of opportunities.[248] Problem-prevention is critical for avoiding and reducing global risks such as climate change, environmental degradation, pandemics, and terrorism. Beyond this preventive aspect, however, proactive international law also embodies the idea that the law should not only help avoid or mitigate problems, but should positively promote desirable behavior and generate value for regulated entities and society.[249] Still, while the preventive and promotive elements of proactive international law differ in their focus, they both emphasize the need for initiatory, forward-looking efforts on the part of international regulators,[250] with a view to taking control of policy problems while leaving space for self-regulation and action at the level of the regulated entities.[251]

Echoing these preventive and promotive tenets of proactiveness along with their emphases on early regulatory intervention as well as on action at multiple levels, the OECD Recommendation on AI, for example, opens with the unequivocal statement that AI technologies have both constructive and destructive potential. The Recommendation notes that, on the one hand, these technologies have "the potential to improve the welfare and well-being of people, to contribute to positive sustainable global economic activity, to increase innovation and productivity, and to help respond to key global challenges."[252] On the other hand, AI technologies may also have "disparate effects within, and between societies and economies, notably regarding economic shifts, competition, transitions in the labour market, inequalities, and implications for democracy and human rights, privacy and data protection, and digital

245. *See* World Health Org. [WHO], Strengthening WHO Preparedness for and Response to Health Emergencies: Proposal for Amendments to the International Health Regulations (2005), A75/A/CONF./7 (May 27, 2022), https://apps.who.int/gb/ebwha/pdf_files/WHA75/A75_ACONF7Rev1-en.pdf.

246. *See* World Health Org. [WHO], Working Draft, Presented on the Basis of Progress Achieved, for the Consideration of the Intergovernmental Negotiating Body at Its Second Meeting, A/INB/2/3 (July 13, 2022), https://apps.who.int/gb/inb/pdf_files/inb2/A_INB2_3-en.pdf.

247. Sorsa, *The Proactive Law Approach*, *supra* note 146, at 35-36.

248. *Id.* at 40, 45.

249. *Cf.* Berger-Walliser & Shrivastava, *supra* note 143, at 471.

250. Siedel & Haapio, *supra* note 169, at 659.

251. Sorsa, *The Proactive Law Approach*, *supra* note 146, at 40, 43, 47 (noting that proactive law highlights the importance of empowering the regulated entities and encouraging self-initiated actions, while stressing the role of the lawmaker as a meta-regulator).

252. OECD Recommendation, *supra* note 195, Preamble.

security."[253] In view of the positive and negative potentials of AI, the Recommendation explains that its main objective is to steer the developmental trajectory of AI technologies towards realizing their promises and mitigating their risks. Notably, even though the Recommendation places the main responsibility for attaining this objective on governments,[254] it also calls upon "AI actors," including "organisations and individuals that deploy or operate" AI systems to engage in responsible stewardship of trustworthy AI. With a view toward encouraging AI actors to self-initiate and self-regulate, the Recommendation thus stipulates that those actors should, *inter alia*, "commit to transparency and responsible disclosure regarding AI systems;" ensure "traceability" in the operation of AI systems; and apply a "systematic risk management approach to each phase of the AI system lifecycle."[255]

Beyond the promulgation of international legal instruments in a way that considers both the negative and positive implications of the regulated global challenge, the preventive and promotive tenets of the proactive approach should be mainstreamed into the work of those responsible for the daily administration and operation of international law and international organizations. In the context of pandemics, for example, some have suggested that there are certain anticipatory actions that the WHO, as the regulator of global health issues, could initiate within its current authority in order to facilitate pandemic prevention (even absent an amendment of the IHRs or adoption of a new pandemic treaty). Thus, the WHO could develop a system of multilayered warnings prior to the declaration of a PHEIC, which could enable governments, businesses, civil society, and other stakeholders to "understand the levels of risk presented by various pathogens . . . and make corresponding investments and decisions . . . for people in their countries, communities, and organizations."[256] The WHO could also take promotive actions to improve pandemic preparedness by encouraging regulated states to follow good practices. For example, it could promulgate pertinent science-based standards against which countries could independently assess their pandemic preparedness.[257] Admittedly, while such regulatory steps cannot compel countries to act, they could nevertheless aid prevention efforts and encourage desirable practices among states,[258] thereby increasing the chances that countries and communities are placed in a better position when the next pandemic arrives.

253. *Id.* On the dual potential of AI and its treatment in the OECD Recommendation, see Silja Vöneky, *Key Elements of Responsible Artificial Intelligence – Disruptive Technologies, Dynamic Law*, ORDNUNG DER WISSENSCHAFT 9, 11–12 (2020).

254. OECD Recommendation, *supra* note 195, art. 2.

255. *Id.* art. 1.

256. Katherine Ginsbach, John Monahan & Katie Gottschalk, *Beyond COVID-19: Reimagining the Role of International Health Regulations in The Global Health Law Landscape*, HEALTH AFFS. (Nov. 1, 2021), https://www.healthaffairs.org/content/forefront/beyond-covid-19-reimagining-role-international-health-regulations-global-health-law.

257. *Id.*

258. *Id.*

6. *Decentralization, Pragmatism, and Soft Law*

The previous OECD and WHO-related examples further illustrate yet another important element of the proactive law approach, which concerns the "preference for decentralized, pragmatic regulation," with regulatory responsibilities shared among diverse actors located in different sites.[259] Particularly, because this approach looks for a mix of methods to reach desired policy objectives, it is not limited to "hard-law" instruments, such as international treaties between states.[260] Rather, it envisions an important role for soft-law measures—for example, non-binding agreements and declarations adopted by states, or recommendations and guidelines delivered by international organizations, non-governmental organizations, expert groups, and transnational corporations—which may "precede or co-exist with traditional 'hard' law, thereby creating a decentralized system."[261] Such a system, where soft and informal modes of lawmaking are imbedded in formal hard lawmaking, can create valuable experimentation opportunities and result in regulatory structures that are more dynamic and pragmatic, and which take advantage of the knowledge, experience, and practices developed by different actors operating in relevant fields.[262]

This is not to suggest that proactive international law does not foresee a role for hard-law instruments. Indeed, it acknowledges treaties—not only multilateral but also regional or bilateral—as an important means of addressing and controlling evolving global challenges. Among other things, treaties give rise to binding obligations that are based on state consent and thus provide relatively strong compliance incentives.[263] Moreover, treaties are often accompanied by institutional mechanisms supporting their continuous implementation and administration, and tend to be durable in the face of domestic and international political changes.[264] For these reasons, treaties thus represent a plausible regulatory avenue along which to tackle long-term challenges that require ongoing and lasting cooperation.

Yet, for these same reasons, treaties often take a long time to negotiate and go into effect. Furthermore, the sovereignty costs they entail, which are particularly high when uncertain and relatively distant global problems are at stake, may lead negotiating parties to adopt unambitious and inefficient standards in confronting such problems, or to refrain from participating in treaties altogether.[265] Therefore, notwithstanding their advantages, proactive

259. Berger-Walliser & Shrivastava, *supra* note 143, at 465. This element is also common to new governance approaches. *See* Lobel, *The Renew Deal*, *supra* note 188, at 381–85; Abbott & Snidal, *Transmittal New Governance*, *supra* note 188, at 524–28.

260. *Cf.* EESC Opinion, *supra* note 145, ¶¶ 1.6-1.7.

261. Berger-Walliser & Shrivastava, *supra* note 143, at 466. On soft law in the context of new governance approaches, see Lobel, *The Renew Deal*, *supra* note 188, at 388–95.

262. Berger-Walliser & Shrivastava, *supra* note 143, at 465–66.

263. Abbott & Snidal, *Hard and Soft Law*, *supra* note 95, at 426–429.

264. BODANSKY ET AL., *supra* note 182, at 18.

265. *Id.* at 56; Laurence R. Helfer, *Nonconsensual International Lawmaking*, 2008 U. ILL. L. REV. 71, 73.

international law recognizes that treaties may not always be an available tool for tackling rapidly growing and increasingly complex global challenges in a pragmatic and timely manner.

In such instances, soft and informal instruments, which do not raise similar sovereignty concerns and are less prone to participation deficits,[266] can facilitate self-initiation and early action in the face of evolving global challenges. Additionally, the non-binding and revisable nature of these instruments makes them more suitable for managing the complexity and uncertainty associated with such challenges.[267] Whereas formal treaty-making processes might become "shackles" that inhibit progress and innovation,[268] decentralized regulatory processes involving diverse actors, procedures, and outputs can allow for learning and creative problem solving, which are crucial for the effective regulation of long-term, uncertain threats and advances.[269] Hence, while our vision of proactive international law reserves an important place for treaty-making, the application of this approach should be considered systematically at all sites and levels of international regulation.[270]

7. *Collaboration and Integration Across Policy Domains*

Decentralization in international lawmaking under the proactive approach does not imply disintegration or division between the different actors, institutions, and issue-areas of international law. Rather, in our conception of proactive international law, decentralization in international regulation must be coupled with a commitment to collaboration and an integrative outlook across regulatory institutions and policy domains.

As noted earlier, many global challenges, such as AI and job loss or population growth and food security, are closely interconnected. Additionally, since many global problems are multisectoral in nature, they are co-governed by multiple international legal regimes and institutions whose membership and jurisdictions partially overlap. Consequently, substantive progress in issues such as AI technologies, public health, and climate change hinges on constructive relations and dialogue among diverse institutions governing different-but-interrelated aspects of international affairs.[271] This interdependency among international regulatory issues and bodies became particularly prominent during COVID-19. Indeed, the pandemic demonstrated the profound limitations of a fragmented international legal system when faced with a crisis requiring a

266. Timothy Meyer, *Alternatives to Treaty-Making: Informal Agreements*, *in* THE OXFORD GUIDE TO TREATIES 59, 70–73 (Duncan Hollis ed., 2nd ed. 2020); Abbott & Snidal, *Hard and Soft Law*, *supra* note 95, at 434–36; Helfer, *supra* note 265.

267. Joost Pauwelyn, Ramses A. Wessel & Jan Wouters, *When Structures Become Shackles: Stagnation and Dynamics in International Lawmaking*, 25 EJIL 733, 742–43, 749 (2014); Berger-Walliser & Shrivastava, *supra* note 143, at 466.

268. Pauwelyn et al., *supra* note 267.

269. BODANSKY ET AL., *supra* note 182, at 18–20.

270. *Cf.* EESC Opinion, *supra* note 145, ¶ 1.10.

271. Randall Hening, *Designing Institutional Collaboration into Global Governance*, GICI Policy Brief No. 167 (July 12, 2021), https://www.cigionline.org/static/documents/PB_no.167.pdf.

proactive and coordinated response, one that cuts across the remit of multiple international organizations regulating diverse issues such as health, labor, human rights, and trade.[272]

Proactive international law, in turn, acknowledges the increasingly interconnected and multisectoral nature of pending global challenges, the fragmented international order in which they transpire and, consequently, the need for active collaboration across international legal regimes and institutions in order to ensure high-quality governance in many areas of global policy. In line with the proactive law approach more generally, it thus assumes cross-professional collaboration and underscores the need for dialogue between different understandings and areas of expertise in the processes of making and implementing the law.[273] And, in the spirit of new governance approaches, it stresses the principles of coordination and integration between policy domains, with a view to facilitating the structured interactions of separate actors,[274] and accounting for the interconnections among such diverse issues as economic policy, employment, immigration, and the environment.[275]

Together with other core elements such as participation and decentralization, the call for collaboration and integration of policy domains underscores that apparently dispersed global issues are often connected,[276] and thus should be addressed in their broader context and in an encompassing manner. As such, these elements further underline the need to design and integrate institutional collaboration mechanisms into the rules and structures of international law, a governance system that is deeply fragmented along sectoral lines.

8. *Adaptability, Flexibility, Dynamism, and Imagination*

Proactive international law, as is clear by now, invites actors on the international stage to adopt a long-term vision in the creation, development, and operation of international law. At the same time, it acknowledges the inevitability of change, the limited accuracy of prediction, and the incompleteness of human knowledge and cognition. Accordingly, this approach also involves critical elements such as adaptability and flexibility towards uncertain futures,[277] along with dynamism, creative thinking, and imagination.[278]

That international law operates in a dynamic and turbulent environment is a long-standing truth. Yet, the future seems to herald a far more complex and rapidly changing world than previously known. The accelerating rate of

272. Shlomo Agon, *supra* note 88.

273. *Cf.* Pohjonen, *supra* note 192, at 54–55; Berger-Walliser, *supra* note 142, at 22–23, 28–30.

274. Lobel, *New Governance*, *supra* note 219, at 67–68.

275. Lobel, *The Renew Deal*, *supra* note 188, at 385–87.

276. *Id.* at 385.

277. Sorsa, *Introduction*, *supra* note 140, at 21; Sorsa, *The Proactive Law Approach*, *supra* note 146, at 44; Berger-Walliser & Shrivastava, *supra* note 143, at 465.

278. Berger-Walliser, *supra* note 142, at 30.

transformation in terms of demographics, urbanization, and technological innovation, among others, alongside the continuous trends of global power shifts and growing interconnectedness, indicate that international law will function in a context of constant, fast, and intensive change.[279]

Given this context, it is critical to enhance the "adaptive capacity" of international law and institutions, meaning, their ability to respond to change.[280] Thus, "adaptation should not be simply about responding to impacts *ex-post*"—what international law and its makers have long been doing. Instead, it is necessary to "recognize that unforeseen impacts may occur and to plan for the capacity" of international law and institutions to flexibly adapt in those circumstances.[281] In other words, there is a need for dynamism, flexibility, and continued evolution in the normative and institutional structures of international law, and especially for a shift in international legal planning towards the possibility of "multiple [future] scenarios with associated adaptability and enhanced system resilience capable of responding to rapid change."[282]

Beyond these elements of adaptability and flexibility, proactive international law requires open-mindedness, a willingness to think "out of the box," and experimentation with novel tools and creative solutions. It invites all actors involved in international regulation to demonstrate legal imagination and "the ability to develop new ideas and concepts in order to respond to needs, problems or challenges, sometimes by means of an original and previously non-existing approach."[283] As proactive international law is predicated on the understanding that in our accelerating world the future represents uncharted waters and cannot be as accurately predicted on the basis of past factual patterns, it effectively contends that legal measures taken to address past problems may not be adequate for tackling future challenges. Thus, proactive international law calls for inventive thinking and the development of new strategies and mechanisms that can stand up to those challenges.

One way to enhance the flexibility, adaptability, and inventiveness of international regulatory frameworks addressing complex and uncertain global challenges, which is of particular importance when these frameworks are based on rigid legal instruments like treaties, is to delegate authority regarding the interpretation, implementation, and further development of the applicable legal arrangements to subsidiary bodies. Such delegated bodies, which may take different forms and have diverse mandates,[284] are often better situated than their mandate providers (such as states or international organizations) to collect relevant data; assess ongoing changes and developments; identify problems and

279. *Cf.* Retief et al., *supra* note 181, at 54, 56.

280. Richard S.J. Tol, *Adaptation and Mitigation: Trade-offs in Substance and Methods*, 8 ENV'T SCI. 572, 574 (2005).

281. *Cf.* Retief et al., *supra* note 181, at 56.

282. *Id.* at 52, 58.

283. Berger-Walliser, *supra* note 142, at 30.

284. *See, e.g.*, Bradley & Kelley, *supra* note 95; BARBARA KOREMENOS, THE CONTINENT OF INTERNATIONAL LAW: EXPLAINING AGREEMENT DESIGN 86–97 (2016).

gaps in existing legal arrangements; and come up with original solutions and adaptation measures in a timely manner.[285]

An interesting example of a flexibility- and adaptability-enhancing delegation mechanism can be found in the case of the COPs operating under the U.N. climate treaties. The COPs have been vested with the power to make decisions and set mainly non-binding standards relating to such issues as emission calculations, impact assessments, and procedures to be pursued by states in implementing their treaty obligations.[286] In exercising these regulatory powers, the COPs have significantly contributed to fleshing out treaty provisions and making them operational and responsive to developments on the ground without having to go through formal treaty-amendment processes.[287]

Yet, the COPs have further been delegated the authority, if new circumstances or data so require, to adopt formal amendments to the U.N. climate treaties, either by consensus or, as a last resort, by a three-fourths majority vote.[288] While such amendments would generally enter into force only once ratified by three-fourths of member states and only with respect to the ratifying members, amendments concerning treaty annexes (which are usually of a more technical-scientific nature) become applicable automatically and without any entry-into-force threshold to all states that have not announced their non-acceptance.[289] These amendment procedures represent an instructive attempt to balance the well-established international legal principle of state consent with the need for dynamism and adaptability in the face of constantly evolving knowledge and circumstances. In the same spirit, several environmental treaty regimes outside the U.N. climate change framework provide for similar—at times even simpler—amendment procedures, which are intended to ensure that the respective regimes remain relevant and effective in a rapidly changing global landscape.[290]

Finally, the U.N. climate regime includes some additional, less common mechanisms that exhibit creativity and open-mindedness, and which work to enhance the adaptative capacity of the regime. One such mechanism is the differentiation in treaty commitments among state parties. Departing from the conventional practice of uniformly applying treaty commitments, the U.N. climate treaties distinguish between developing and developed countries and

285. On the benefits and costs of delegation in international law, see Bradley & Kelley, *supra* note 95; Hathaway, *International Delegation*, *supra* note 95; Allen Buchanan & Robert O. Keohane, *The Legitimacy of Global Governance Institutions*, 20 ETHICS & INT'L AFFS. 405 (2006); Jonas Tallberg, *Delegation to Supranational Institutions: Why, How, and with What Consequences?*, 25 W. EUR. POLS. 23, 25–26 (2002).

286. UNFCCC, *supra* note 193, arts. 4, 7; Kyoto Protocol, *supra* note 214, arts. 3, 5, 7, 9; Paris Agreement, *supra* note 214, arts. 4, 6, 14, 16.

287. BODANSKY ET AL., *supra* note 182, at 90.

288. UNFCCC, *supra* note 193, art. 15; Kyoto Protocol, *supra* note 214, art. 20; Paris Agreement, *supra* note 214, art. 22.

289. UNFCCC, *supra* note 193, arts. 15-16; Kyoto Protocol, *supra* note 214, arts. 20-21; Paris Agreement, *supra* note 214, arts. 22-23.

290. Jutta Brunnée, *Treaty Amendments*, *in* THE OXFORD GUIDE TO TREATIES 336, 351 (Duncan B. Hollis ed., 2nd ed. 2020) (mentioning, for example, the Montreal Protocol on Substances that Deplete the Ozone Layer).

place upon the latter more demanding obligations, considering their greater contribution to climate change and their enhanced ability to address the problem.[291] Another mechanism that enables dynamism and facilitates adaptation in the attempt to tackle the evolving challenge of climate change is the requirement from all state parties to gradually deepen their emission reduction commitments through the formulation and implementation of periodical Nationally Determined Contributions ("NDC"),[292] with each NDC representing a progression beyond the previous one and reflecting the state party's "highest possible ambition."[293] While it remains to be seen how these sorts of mechanisms play out in practice, they provide useful illustrations of the need to tackle long-term global challenges by means of flexible, adaptable, and, at times, previously non-existing ideas and tools.

D. THE CORE ELEMENTS WOVEN TOGETHER

By weaving the various elements outlined above together, the proactive approach to international law seeks to expand the scope of international legal thought and practice, bringing long-term problems and advancements to the forefront of international law and regulation. Notably, some of the core elements or particular aspects thereof can already be traced in certain quarters of the international legal system. Nonetheless, they have not been applied in an encompassing and systematic manner. More importantly, they are not implemented out of a genuine commitment to the proactive role that international law should play in today's global world. Rather, to the extent that some of those elements are present in international legal structures and rules, they are employed within the broader context of international law's reactive, backward-looking, and short-term paradigm. They are therefore limited in terms of the outcomes they are capable of producing. Hence, streamlining the various elements discussed in this Article into the international legal system requires an updated vision of international law's modes of governance; and, at the most basic level, a commitment to start doing things differently by shifting the system's lenses towards the future.

CONCLUSION

This Article has challenged the long-standing reactive approach to international law. In view of the rapidly changing world in which we live and the increasingly complicated global challenges that lie ahead, international law can no longer afford to develop in a predominantly backward-looking manner in light of past events. Rather, it is high time for international law to become more proactive, forward-looking, and geared towards preventing risks and seizing upon opportunities. Against this backdrop, the Article has laid the theoretical underpinnings and conceptual pillars of a novel and complementary

291. UNFCCC, *supra* note 193, arts. 3, 4; Kyoto Protocol, *supra* note 214, art. 11.
292. Paris Agreement, *supra* note 214, art. 4.2.
293. *Id.* art. 4.3.

approach to the evolution and functioning of the discipline called proactive international law. This Article has further identified the core elements of proactive international law and suggested possible ways to incorporate these elements into the modus operandi of states, international organizations, and other actors involved in the formation and operation of international law.

Stepping outside the comfort zone of reactiveness and pursuing a more proactive approach to the development and implementation of international law is by no means a simple task. Rather, this transformation requires a fundamental shift in many of the underlying conceptions and actual structures of the international legal system, given that the reactive paradigm is built into the very DNA of the prevailing system.

Furthermore, moving towards greater proactiveness in the international legal system might give rise to various sorts of perils and difficulties that merit further thought and consideration. Thus, making proactive interventions in view of uncertain and not-yet-fully comprehensible future challenges may increase the risks of relying on wrong predictions and using inadequate regulatory tools. Consequently, scarce international resources may be spent in vain in certain situations, thereby attenuating the cost-effectiveness of international regulatory schemes and potentially undermining the perceived legitimacy of international law as a governance system. A shift to proactive international law is therefore likely to require international law and policymakers to strike some delicate trade-offs between present and future needs. Moreover, the proactive approach is likely to raise difficult questions regarding the propriety of curbing the discretion of future generations and creating irreversible path dependencies through the adoption of early preventive and promotive measures.

Notwithstanding these difficulties and concerns, we believe that the very same considerations just mentioned, particularly the need to ensure the continued effectiveness and legitimacy of the international legal system, attest to the dire need for a more proactive, future-oriented, and long-term vision in the realm of international law. In order for international law to remain a valuable and viable system of governance in an increasingly complex, accelerated, and interdependent world, it must prepare in advance for upcoming challenges and regularly contemplate the long-term consequences of current actions—or rather failures to act, on future outcomes, events, and generations. Recent global crises, such as the COVID-19 pandemic, serve as a strong reminder of the need to look to the future and navigate international legal arrangements and infrastructures accordingly.

The turn to proactive international law must, however, be pursued with caution, care, and humility. This Article has sought to begin the conversation on a more proactive approach to international law and to delineate the lines along which it can develop. This conversation, however, is expected to be long and complex. Much remains to be explored in order to distill and refine the various features of a more proactive international law. In this sense, the analysis presented in this Article points to several possible directions for future research and discussion.

To begin with, future studies may more closely investigate the specific factors and forces that push international law toward reactiveness and hinder proactive thinking and action, while also examining possible ways by which to overcome these obstacles. Furthermore, additional research efforts should be directed at identifying and characterizing the global challenges and issues that call for proactive regulation, based on the understanding that a proactive approach to international law may be more suitable for regulating certain global affairs while being less appropriate for others. In a similar vein, future scholarly works should continue to develop the tools and strategies that can be used to facilitate implementation of the core elements of the proactive approach while considering the ethical and practical problems and difficulties that relevant devices and tactics may give rise to. In this context, special attention should be given to the potential promises and perils of harnessing big data and artificial intelligence technologies as means to generate more accurate predictions of future global developments and, thereby, to figure out better ways for addressing them at the international level. Any such move would undoubtedly involve considerable effort and resource investment, but such an investment is imperative if we are to ensure that the international legal system remains viable and fit for purpose, not only now but also in the decades and centuries ahead.