The Precautionary Principle and the effects of CETA on its continuous implementation within the European Union

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Abstract

After seven years of negotiations the Comprehensive Economic and Trade Agreement ("CETA") was finally approved and signed on 30 October 2016. Given the current inability of the World Trade Organisation ("WTO") and other trade arrangements to effectively address regulatory divergence across countries and resulting non-tariff barriers to trade, both Canada and the European Union were willing to go beyond traditional international treaty-making and to explore new avenues of global economic governance based on international regulatory cooperation. As CETA also aims for regulatory branches in which the European Union, as opposed to Canada, applies the precautionary principle as enshrined in European treaties, laws and jurisprudence, CETA critics in Europe fear a lowering of the respective EU safety standards. To determine the legitimacy of public criticism, the thesis examines, utilising the final CETA text, whether the landmark deal between Canada and the European Union actually contributes to the weakening of the precautionary principle in Europe, which in turn would inevitably lead to a deterioration in environmental and human health standards. To this aim, the thesis initially elaborates on the place of the precautionary principle within the different conceptualised frameworks of risk regulation in Canada and the European Union. After outlining the main elements of CETA in chapter three, the fourth part of the thesis deals with the interpretation, evaluation and application of the relevant CETA provisions and critically assesses their implications on the continuous implementation of the precautionary principle in Europe. On consideration of the above legal analysis, the thesis concludes that the legal framework of CETA does not substantively or radically change the European ability to continue to regulate sensitive areas in accordance with the precautionary principle as interpreted by European policymakers. As, in addition, the place of the precautionary principle within the multilateral trading regime of the WTO has not significantly changed over the past years, the thesis argues that the European Union will be able to uphold its pre-active approach to risk regulation and therefore its high standards of health, environmental and consumer protection.

Abbreviations

Art	Article
CETA	Comprehensive Economic and Trade Agreement
CISDL	Center for International Sustainable Development
Conf	Conference
CJEU	Court of Justice of the European Union
Doc	Document
EC	European Commission
ECR	European Court Report
edn	edition
eds	editors
e.g.	for example
etc	et cetera (and so forth)
EU	European Union
ff	and following
FTA	Free Trade Agreement
GA	General Assembly
GATT	General Agreement on Tariffs and Trade
ibid	ibidem
ICJ	International Court of Justice
i.e.	that is
ILM	International Legal Materials
ITLOS	International Tribunal for the Law of the Sea
J	Journal
MEA	Multilateral Environmental Agreement
NAFTA	North American Free Trade Agreement
No	number
OECD	Organisation for Economic Cooperation and Development
para	paragraph
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Rep	Report
SCC	Supreme Court Cases (India)
SPS	Sanitary and Phytosanitary
SSDS	State-to-State Dispute Settlement

TBT	Technical Barriers to Trade
TEU	Treaty on European Union (“Maastricht Treaty”)
TFEU	Treaty on the Functioning of the European Union
TTIP	Transatlantic Trade and Investment Partnership
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
UNTS	United Nations Treaty Series
US	United States
v	versus
vol	volume
WTO	World Trade Organisation
YB	Yearbook

1 Introduction

After seven years of negotiations the Comprehensive Economic and Trade Agreement ("CETA") was finally approved and signed on 30 October 2016. Touted as the "Gold Standard" for a new generation of trade agreements, it is "broader in scope and deeper in ambition" than any trade and investment treaty ever concluded. Given the current inability of the World Trade Organisation ("WTO") and other trade arrangements to effectively address regulatory divergence across countries and resultant non-tariff barriers to trade, both Canada and the European Union were willing to go beyond traditional international treaty-making and to explore new avenues of global economic governance based on international regulatory cooperation.

As tariffs between Canada and the European Union are already on a low level, CETA is primarily focused on the reduction of non-tariff barriers to trade that are caused by divergent regulations and standards of the respective treaty parties and that may impede import and export of goods and services. Concerns arise at this point, as European regulatory policies in areas such as health, environmental as well as consumer protection are guided by the precautionary principle which, however, meets with fierce criticism from Canada buttressing a quite different regulatory approach. While the European Union proactively seeks to regulate risk, Canadian regulators wait more circumspectly for scientific evidence of actual harm before taking regulatory actions. These different views on the balance of science and precaution, manifesting themselves particularly in the event of scientific uncertainty, also led to two of the longest and most controversial disputes in WTO history. As a result, CETA critics in Europe oppose the ratification of CETA, fearing a degradation of EU safety standards would inevitably ensue.

Against this background, the pertinent question arises whether CETA actually jeopardises the high standards of health, environmental as well as consumer protection within the European Union by means of hindering and impeding European regulators to continue to regulate sensitive areas in accordance with the precautionary principle as established in the European treaties, laws and jurisprudence. In answering this principal research question, the thesis primarily focusses on the potential implications of CETA on the continued implementation of the European precautionary principle.[1] However, the thesis also places the latter in the wider multilateral context so as to reach a sound legal assessment regarding the maintenance of high safety standards in Europe.

To this aim, the thesis initially illustrates the different approaches of Canada and the European Union concerning the regulation of risk. In this context, the precautionary principle is defined, and its background and current status in international protocols and laws are examined. After outlining the main elements of CETA in chapter three, the fourth part of the thesis deals with the interpretation, evaluation and application of the relevant CETA provisions and critically assesses their implications on the continued implementation of the precautionary principle in Europe.

It should be noted that the examination and assessment of CETA will be limited to the latter's implications on the precautionary principle as established by the European Union. The thesis will therefore predominantly focus on selected treaty provisions that are considered particularly relevant in terms of the precautionary principle controversy. Although the much discussed CETA chapter on investment and investor-state dispute settlement might have an impact on regulatory changes in Europe, the continued realisation of the European precautionary principle as well as the attainment of high safety standards as regards human and environmental protection, its analysis is beyond the scope of the present thesis.

[1] This term refers to the precautionary principle as applied within the European Union.

1.1 Methodology

The research comprises a wide range of research methods, whereby the doctrinal method and the comparative method are to be considered the two most important ones. While the doctrinal method plays an important role in the analysis of the respective CETA provisions, the comparative method is mainly used when elaborating on the divergent approaches of Canada and the European Union concerning the regulation of risk and apparent differences between CETA and related Free Trade Agreements of the transatlantic trading partners. As extraneous matters, such as historical and social context, are taken into account when interpreting relevant CETA provisions, the research can also be characterised as being interdisciplinary.

The first part of the thesis is based on a literature review so as to illustrate the different approaches of Canada and the European Union concerning the regulation of risk. Books and articles, both academic and non-academic, are the main source of information, whereby relevant statutory law and legal doctrine are considered as well. The method used throughout this section is mainly descriptive. The second part of the thesis utilises an analytical research method in order to interpret, evaluate and apply the relevant CETA provisions and critically assess their implications on the continued implementation of the precautionary principle in Europe. The analytical second part which is based on the descriptive first part finally results in answering the main research question, namely, whether the European Union is able to uphold its high standards of health, environmental and consumer protection.

1.2 Originality

The research provided in this thesis offers a great deal of originality by means of thoroughly analysing and evaluating the potential implications of CETA on the continued implementation of the European precautionary principle, while also placing the latter in the wider multilateral context so as to reach a sound legal assessment as regards maintaining high safety standards in Europe. The thesis is, first, based on existing research for the purpose of illustrating Canadian and European differences regarding the regulatory situation of scientific uncertainty and then attempts to expand upon earlier research by taking consideration of CETA, but also relevant WTO case law and related developments in international law. Although there have been considerable concerns about the negative impact of CETA and similar agreements on the safety standards in Europe since negotiations started several years ago and although the broader public still opposes these agreements, academic literature lacks a clear assessment and analysis of the actual danger posed by agreements like CETA in this respect. The thesis therefore seeks to fill this gap by examining the way CETA deals with the precautionary principle as applied by European policymakers and whether the principle, in general, is properly secured in the light of European commitments under international law. By addressing some of the key concerns and fears of the public in Europe, the thesis can contribute to precautionary principle doctrines and create a basis for similar analyses to be conducted in the future. In addition, the thesis contributes to the analysis of the final text of CETA and can serve as a valuable source of information for the general public.

2 Risk and Uncertainty: Regulation of Risk and the Precautionary Principle

2.1 The Relevance of Risk Regulation

Throughout the ages, humankind and the environment have been subject to risks[2], by chance and as a mean of survival, as well as by choice. An essential part of human existence, as well as human progress, has undoubtedly been preoccupied by the contemplation of which risks to take and which to avoid, long before this process was known as 'risk regulation'.[3] Despite human life expectations nowadays being longer than ever before as a consequence of past successful risk management and the availability of new technologies that enable the detection of previously unseen risks to human health and the environment, influential commentators argue that today, notwithstanding our generally greater safety and security standards compared to the ones of our ancestors, we live in a 'risk society', in which the assessment and management of risks are the society´s overriding concerns.[4] While scientific and technological progress provides the modern industrial civilisation with ever-increasing opportunities to better the conditions of life, it is the scientific and technological progress itself that inevitably creates new risks and hazards to human health and the environment.[5] Scientific and technological progress is a double-edged sword that, on the one side, generates substantial benefits for humankind, but on the other side poses threats to human health and the environment that can give rise to unintended and unanticipated diseases, ecological vulnerabilities, environmental degradation and alike.[6] The fact that certain actions carried out in the past only showed their disastrous effects after several decades, often due to an accumulation of relatively minor impacts, has raised awareness of the desirability of anticipatory action among both policymakers and the general public.[7] The cooling agent chlorofluorocarbon (CFC), for instance, was found - 45 years after its discovery - to destroy the ozone layer of the stratosphere and thus to be a material contributor to global warming.[8] DDT, a "miracle" pesticide killing malaria-carrying mosquitoes, was found - after years of unrestricted use - to have substantial adverse effects on human health and ecology and was only then subject to global bans and restrictions.[9] These are only examples of a number of cases of serious environmental degradation and damage to human health where, despite early warnings, lessons were only learned belatedly, after several decades.

It is against this daunting background, supplemented by the increasing interconnectedness of risks across countries, that the need for effective risk management at the local, national and international level has increasingly been recognised by the competent authorities since the late 1960s that, in search

[2] For the purposes of this thesis, the term 'risk' is to be defined as «a situation or event in which something of human value (including humans themselves) has been put at stake and where the outcome is uncertain» Carlo C Jaeger and others, *Risk, Uncertainty and Rational Action* (Routledge 2001) 17.

[3] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 9f.

[4] Jonathan B Wiener, 'The Rhetoric of Precaution' in Jonathan B Wiener and others (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (Routledge 2010) 3; Ulrich Beck, *Risk Society: Towards a New Modernity* (Sage 1992).

[5] It is not without reason that Stephen Hawking, one of the most prominent figures in science, identified scientific and technological progress itself as the major source of new risks to humankind and the environment.

[6] OECD, *21st Century Technologies: Promises and Perils of a dynamic future* (OECD 1998) 14.

[7] OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 6.

[8] Ulrich Beck, 'Living in the world risk society: A Hobhouse Memorial Public Lecture given on Wednesday 15 February 2006 at the London School of Economics' (2006) Economy and Society, 329.

[9] Carl F Cranor, 'How Should Society Approach the Real and Potential Risks Posed by New Technologies?' (2003) Plant Physiology, 3.

of the perfect risk regulation regime, adopted a plethora of new laws, agencies, and policies to protect the environment, human health, safety and security.[10]

A factor that connects many of the risks that societies throughout the world are faced with is the uncertainty which surrounds them. In many cases, a causal link between an activity and its adverse effects on human health or the environment cannot, at least at the time of the activity, be scientifically established. Thus, the scientific understanding of the risk is often inadequate and the causal link between the activity and the hazard is, in fact, unknown.[11] Owing to the circumstance that all risks are uncertain to some extent, as we can never predict the future with complete certainty, it is generally accepted that scientific proof does not require all uncertainty to be resolved. Instead, scientific certainty is generally considered to be given once something can be considered to be, at least, 95 per cent certain.[12] Accordingly, along the continuum between 0 and 95 per cent certainty a risk is deemed to be 'uncertain'.[13] It is the regulation of these uncertain risks that differs the most between countries. States around the globe hold divergent views toward the relevance and usefulness of science as a tool to understanding and addressing the uncertainties surrounding risks to the environment and human health posed by the activities engaged in and the innovations created by modern society.[14] While some seek to proactively regulate risk by exercising ex ante precaution, others wait more circumspectly for (scientific) evidence of actual harm before taking ex post regulatory measures. The role of science in government assessment and management of environmental and public health risks has thus increasingly become the subject of a heated (transatlantic) debate. Numerous concerns have arisen during the last few decades concerning chemicals management, food safety, industrial pollutants and climate change.[15] It is in the context of this political, legal, economic and social debate that is predicated upon the divergent views around the adequate balance of science and precaution that the precautionary principle plays a decisive role as it provides for preventive and protective measures even in situations of scientific uncertainty, making it one of the most controversially disputed principles in contemporary international law.

2.2 The Precautionary Principle

The precautionary principle is an approach to handling (scientific) uncertainty in the assessment and management of risk.[16] It evolved from the increasing recognition that full scientific certainty, to the extent it is obtainable in a human health and environmental context, may, in certain cases, be achieved at a stage too late to provide effective policy and legal responses to human health and environmental

[10] Jonathan B Wiener, 'The Rhetoric of Precaution' in Jonathan B Wiener and others (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (Routledge 2010) 3; Ulrich Beck, *Risk Society: Towards a New Modernity* (Sage 1992).

[11] Marko Ahteensuu, 'Rationale for Taking Precautions: Normative Choices and Commitments in the Implementation of the Precautionary Principle' (2007) Risk & Rationalities, 2.

[12] Joakim Zander, *The Application of the Precautionary Principle in Practice* (Cambridge University Press 2010) 15; Erica Beecher-Monas, *Evaluating Scientific Evidence: An Interdisciplinary Framework for Intellectual Due Process* (Cambridge University Press 2007) 65.

[13] Uncertainty is to be distinguished from probability. Some risks (both low and high probability) are well documented and substantiated, while others (both low and high probability) are highly uncertain. For instance, death by lightning strikes and mobile phone radiation may both be low probability, however, the latter may be far more uncertain as scientists are unsure whether mobile phones even cause brain tumour; see Jonathan B Wiener and Michael D Rogers, 'Comparing precaution in the United States and Europe' (2002) Journal of Risk Research, 317, 320.

[14] Lawrence Kogan, 'The Precautionary Principle and WTO Law: Divergent views toward the role of Science in Assessing and Managing Risk' (2004) Seton Hall Journal of Diplomacy and International Relations, 77.

[15] ibid.

[16] George Acquaah, *Principles of Plant Genetics and Breeding* (2nd edn, Wiley-Blackwell 2009) 273.

risks.[17] Exercising precaution in an environmental and human health protection setting may be desirable in situations where two specific elements occur: the existence of a risk[18] and limited scientific certainty surrounding injurious effects of actions, products and processes on environmental and human health.[19] It is against this background, together with the general acknowledgment of the multiple uncertainties surrounding threats to the aforementioned objects of protection, of the accompanying inability of science to accurately predict potential adverse effects and, above all, of the necessity to undertake preventive action to protect humankind and the environment in the face of these uncertainties and this inability that the precautionary principle was introduced based on the idea that lack of scientific evidence should not, of itself, be a barrier to the taking of precautionary measures.[20]

The precautionary principle as such was, for the first time, articulated as a specific principle of environmental policy in German law (the "Vorsorgeprinzip"[21]) during the preparation of legislation on air pollution in the 1970s.[22] Since then it has spread to numerous other countries, has been adopted by other levels of governance and its application has been extended from environmental protection to other areas of law and policy to safeguard consumers and human, animal and plant health.[23] In its subsequent interpretation by the European Commission in the year 2000 the approach was renamed as the 'Precautionary Principle', an expression that has been increasingly found favour in the area of study today.[24] Currently, the principle is enshrined in numerous national regulations, international treaties and declarations and a myriad of (to some degree divergent) definitions exist on a domestic as well as international level.

Notwithstanding the fact that there is no universally accepted definition of the precautionary principle, the version as implemented in the 1992 Rio Declaration on Environment and Development certainly belongs to the most influential and quoted ones:

> «*In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities.* ***Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing*** *cost-effective measures[25] to prevent environmental degradation*» [emphasis added].

[17] Markus W Gehring and Marie-Claire C Segger, 'Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization' (2002) CISDL Research Paper, 2; OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 6.

[18] In consideration of n 2 «a situation or event in which something of human value (including humans themselves) has been put at stake and where the outcome is uncertain»; thus, in this specific context, where a potentially adverse effect deriving from an action, product or process has been identified.

[19] OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 7.

[20] Haydn Davies, 'Investor-State Dispute Settlement and the Future of the Precautionary Principle' (2016) British Journal of American Legal Studies, 449, 468; Arie Trouwborst, *Evolution and Status of the Precautionary Principle in International Law* (Kluwer Law International 2002) 10; Erik Persson, 'What are the core ideas behind the Precautionary Principle?' (2016) Science of the Total Environment, 134.

[21] Which can be translated as the "foresight principle".

[22] Some scholars also mention a Swedish origin.

[23] Giovanni Tagliabue, 'The Precautionary Principle: Its misunderstandings and misuses in relation to GMOs' (2016) New Biotechnology, 437; Didier Bourguignon, *The Precautionary Principle: Definitions, Applications and Governance* (European Parliamentary Research Service 2015) 4.

[24] Giovanni Tagliabue, 'The Precautionary Principle: Its misunderstandings and misuses in relation to GMOs' (2016) New Biotechnology, 437.

[25] As opposed to other definitions of the precautionary principle, the definition as contained in the Rio Declaration refers to cost-effective measures; thus requires decision-makers to balance the need for the measures taken with its potential economic impact.

As implied by its various definitions, the application of the precautionary principle is to be considered to be context specific, yet never deviates from its basic sentiment that one is "better safe than sorry". A very remote risk or a low degree of scientific uncertainty regarding the possible link between an action and potential damage would be unlikely to call for the same type and dimension of action as, for instance, a high risk combined with great lack of scientific certainty about a potential harm. Accordingly, recourse to the precautionary principle cannot be limited to approving an action, product or process, or prohibiting it, but implies managing different levels of risk and uncertainty, so as to ensure that the appropriate arrays of measures relevant to each level of risk are taken.[26]

While proponents of the precautionary principle advocate the principle for its use as a vital tool to address the evolving, complex and systematic challenges posed by modern economic life by means of controlling and reducing serious and irreversible environmental and public health threats, common critics contest its application on the grounds that it is ambiguous[27], lacks uniform interpretation and marginalises the role of science.[28] To this group of critics, the precautionary principle facilitates, since it is based on ideological value judgements, veiled forms of trade protectionism and represents an obstacle to science, trade and progress.[29] It seems indisputable that one of the biggest problems of the precautionary principle lies in its various formulations and definitions and its strong variability of interpretation. The use of the precautionary principle can be weak giving way to cost-benefit analyses and discretionary judgements despite scientific uncertainty, reminiscent of what Sandin[30] refers to as the argumentative version, or strong meaning that the principle is deemed to have a more prescriptive character and require certain mandatory measures to be taken.[31] Wiener and Rogers[32], for instance, have identified three different types of the precautionary principle ranging from 'uncertainty does not justify inaction', 'uncertainty justifies action', to 'uncertainty requires shifting the burden and standard of proof '.

While critics see this circumstance as confirming that the principle is ill-defined and too ambiguous to provide clear guidance for practical usage, proponents argue that these differing versions are owed to the fact that the use of the precautionary principle is context specific and consequently does not allow for a uniform formulation suiting all situations.[33] In the same vein, the European Commission noted that «the scope of the precautionary principle also depends on trends in case law, which to some degree are influenced by prevailing social and political values. However, it would be wrong to conclude that the absence of a [clear] definition has to lead to legal uncertainty».[34]

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[26] OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 7f.

[27] Disagreement is likely to arise, for instance, in respect of what constitutes a sufficient reason for assuming the existence of a threat to human health or the environment.

[28] George Acquaah, *Principles of Plant Genetics and Breeding* (2nd edn, Wiley-Blackwell 2009) 273.

[29] Jonathan B Wiener and Michael D Rogers, 'Comparing precaution in the United States and Europe' (2002) Journal of Risk Research, 317, 319.

[30] Per Sandin, 'A Paradox Out of Context: Harris and Holm on the Precautionary Principle' (2006) Cambridge Quarterly of Healthcare Ethics, 175, 177.

[31] The essential difference between weak and strong precaution lies in the burden of proof; strong precaution can result in a reversal of the burden of proof. Protective measures are to be taken unless and until evidence proves that it is not necessary.

[32] Jonathan B Wiener and Michael D Rogers, 'Comparing precaution in the United States and Europe' (2002) Journal of Risk Research, 317, 320f.

[33] OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 7.

[34] European Commission, 'Communication from the Commission on the Precautionary Principle' (2000) Office for Official Publications of the European Communities, 9.

The various definitions and applications of the precautionary principle also raise questions as to what type of legal concept the precautionary principle actually is; thus whether it is to be classified as a rule, principle or policy. Taking consideration of the definitions of these three categories commonly agreed upon by legal literature the application of the precautionary principle, notwithstanding its name, emerges to be best treated as a policy choice. «Where the precautionary principle fits in depends, to a great extent, on how it has been applied in the relevant legal order. However, even in legal systems where the principle is codified and endorsed by the courts, it usually remains ambiguous and undefined. Consequently, it is unlikely that the precautionary principle will be considered to apply in the all-or-nothing fashion generally expected from a rule. Instead, it would often have to be considered as either a principle or a policy. With regard to considering it as a principle, there are some concerns. First of all, the precautionary principle does not aim to safeguard the just and fair application of the law, in the manner that traditional legal principles do. Second, […] there are serious difficulties in establishing what the content and limits of the principle are. Third, even in states where the precautionary principle is heavily relied upon in certain areas, it is entirely let out of the application of the law in other areas. All of this makes it difficult to treat it as a legal principle which technically should apply equally in similar circumstances».[35]

Irrespective of its classification, nowadays, a vast majority of jurisdictions apply some form of the precautionary principle or, as a minimum, act out of precaution when confronted with uncertain environmental and human health risks; even if they do not explicitly refer to the principle as such.[36] In this regard it is, however, essential to distinguish between "prevention" (where the risks posed are clear) and "precaution" (where the risks to be reduced are of unknown nature). As opposed to purely preventive measures, measures based on the precautionary principle are, in addition, precautionary in the sense that the standards set are a response to the uncertainty surrounding the environmental and human health effects of particular actions, products or processes. As such, precaution is considered relevant only in the event of a potential risk, in particular if the risk cannot be duly established, quantified or its effects determined, owing to insufficient or inconclusive scientific data.[37] Consequently, only if potentially dangerous effects deriving from an action, product or process have been identified, however, scientific evaluation does not allow the risk to be determined with sufficient certainty, the precautionary principle becomes relevant.

2.2.1 The Precautionary Principle at the International Level

At an international level, the precautionary principle was first recognised in the World Charter for Nature, which was adopted by the UN General Assembly in 1982.[38] Since then, numerous international treaties on the protection of the environment and human health, including some that are of global application and applicable to a wide area of human activities, have adopted the precautionary principle or, at least, its underlying rationale.[39] In addition, the principle has been applied in international treaties referring to endangered species[40] and has evidently, over time, become a

[35] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 30f.
[36] ibid 4.
[37] Markus W Gehring and Marie-Claire C Segger, 'Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization' (2002) CISDL Research Paper, 3f.
[38] UN General Assembly, World Charter for Nature, October 28, 1982, A/RES/37/7.
[39] Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press 2012) 220.
[40] While the text of the *1973 Convention on the International Trade in Endangered Species of Wild Flora and Fauna* does not explicitly refer to the precautionary principle as such, in 1994, the Conference of the parties clearly endorsed it. At the ninth meeting of the Conference of the Parties, they adopted a resolution incorporating

principle of international attention and recognition. Yet, international agreements often merely make a general reference to 'the precautionary principle', 'a precautionary approach'[41] or 'precautionary measures'[42], and refrain from explicit definitions of the principle itself.[43] However, a number of agreements do make reference to the fact that «where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures».[44] Yet again, some international agreements do not mention the precautionary principle after all, but are basically precautionary in function.[45] Nonetheless, it is to be recognised that the precautionary principle has received widespread support at the international level and has become a widely encountered principle in international legal practice.

Despite its frequent use, there is no clear and uniform understanding of the meaning of the precautionary principle among states and other members of the international community.[46] This is partly owed to the fact that precaution has been termed in international treaties a legal concept, a principle or an approach, with the principle being seen as indicating a binding law and the approach merely a non-binding guideline.[47] The relevance of these differing terms in relation to the application of the precautionary principle is still in dispute.[48] Either way, the use of different terms in international treaties seems to cause difficulties for communication and dialogue on how to best deal with scientific uncertainty in the event of potential risks for human health and the environment.

2.2.1.1 The Precautionary Principle in the WTO Agreements

The role and recognition of the precautionary principle under the WTO Agreements has been a highly disputed issue over the last decade and has been the subject of a number of disputes before the WTO

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the precautionary principle into the procedure for listing species in need of protection (Resolution of the Conference of the Parties, Criteria for Amendment of Appendices I and II, Ninth Meeting of the Conference of the Parties, USA, November 7-18, 1994, Com 9.24).

[41] See e.g. UN Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 2167 UNTS [2001] ATS 8/34 ILM 1542 (1995), Art 6.

[42] See e.g. Montreal Protocol on Substances that Deplete the Ozone Layer, 1522 UNTS 3 / 26 ILM 1550 (1987) / [1989] ATS 18, Preamble.

[43] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 35.

[44] United Nation Framework Convention on Climate Change, 1771 UNTS 107 / [1994] ATS 2 / 31 ILM 849 (1992), Art 3 (3); also see Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2226 UNTS 208, 39 ILM 1027 (2000), Art 10 (6); WTO Agreement on the Application of Sanitary and Phytosanitary Measures, 1867 UNTS 493, Art 5.7.

[45] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 35; see, e.g. Kyoto Protocol to the UN Framework Convention on Climate Change (UNFCCC), 2303 UNTS 148 / [2008] ATS 2 / 37 ILM 22 (1998).

[46] Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press 2012) 222.

[47] «An approach describes a technique to address uncertainties, scientific or otherwise, while a principle can be legally binding upon the actor (legislator, administration or judiciary) to apply these techniques» Markus W Gehring and Marie-Claire C Segger, 'Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization' (2002) CISDL Research Paper, 16; this would indicate that the differences between the 'precautionary principle' and the 'precautionary approach' appear to be slightly more than merely semantic.

[48] It is not the purpose of this paper to contribute to this debate. Numerous articles and studies deal with the connotations of normativity of the term 'precautionary principle' as compared with 'precautionary approach'; see e.g. Jacqueline Peel, 'Precaution - A Matter of Principle, Approach or Process?' (2004) Melbourne Journal of International Law, 483; Nicolas de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press 2005) 95; Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (3rd edn, Oxford University Press 2009) 155.

dispute settlement bodies.[49] While neither of the WTO Agreements contains an explicit reference to the precautionary principle, various provisions can nonetheless be considered as incorporating, at least, the ratio of a precautionary approach. In this respect, the SPS Agreement, the TBT Agreement and the GATT 1994 are particularly relevant as they aim at the regulation of domestic measures that are created to protect, among others, human health and the environment.[50]

SPS Agreement

When discussing the legality of national regulations implying a precautionary approach in the context of WTO treaty law, the Agreement on the Application of Sanitary and Phytosanitary Measures ("SPS Agreement") is of primary importance as it defines the way in which WTO members can regulate sanitary and phytosanitary issues. Setting forth the basic rules for food safety as well as animal and plant health standards, the SPS Agreement acknowledges the WTO members' right to determine their own levels of protection provided that the domestic measures «are not inconsistent with the provisions of this Agreement [SPS Agreement]», that they are «applied only to the extent necessary to protect human, animal or plant life or health», are «based on scientific principles», are «not maintained without sufficient scientific evidence», «do not arbitrarily or unjustifiably discriminate between Members» and are not «applied in a manner which would constitute a disguised restriction on international trade».[51]

While the SPS Agreement does not include any mention or definition of the precautionary principle as such, but instead adopts scientific evidence as a basis for justifying trade restrictive measures[52], it has been widely understood, by Panels and the Appellate Body, as well as by commentators, that the precautionary principle finds an embodiment in situations covered by Article 5.7 of the SPS Agreement.[53] In addition to SPS Article 5.7 which allows for provisional precautionary measures in cases where relevant scientific evidence is insufficient, the precautionary principle also finds reflection in Article 3.3 and the sixth paragraph of the Preamble that both explicitly recognise the right of WTO members to determine their own levels of sanitary and phytosanitary protection, which may be higher (i.e. more cautious) than those implied in international standards, guidelines and recommendations.[54]

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[49] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 33; e.g. Panel Report, *EC-Approval and Marketing of Biotech Product*, September 29, 2006; Appellate Body Reports, *EC-Hormones*, January 16, 1998; *US-Shrimp*, October 12, 1998; and *US-Gasoline*, April 29, 1996.

[50] As an agreement regulating the trade and investment relations between Canada and the European Union, CETA will operate in the ambit of the WTO whose law will therefore continue to constitute a fundamental normative framework also for the application of the precautionary principle within the European Union. Free trade agreements like CETA, while being concluded outside the WTO, by no means signify a departure of their parties from the WTO and its regulatory framework, but rather represent bilateral and regional attempts to define additional obligations on top of WTO rules and disciplines, which, in any case, remain the basis of bilateral and regional trade relations. Consequently, while public criticism seems to focus on mega-regional agreements like CETA, the future European ability to regulate sensitive areas in accordance with the precautionary principle also heavily depends on future developments within the multilateral trade regime of the WTO.

[51] SPS Agreement, Art 2.

[52] Such a requirement is immediately at variance with the precautionary principle as the latter is invoked precisely in the absence or insufficiency of scientific evidence. It is precisely the inability to assess the level of risk that triggers the application of the precautionary principle (see Robert Kirunda, 'The WTO Panel's approach to the Precautionary Principle in the EC Biotech case: What Implications for the WTO and International Environmental Law?' (2007) available at «https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2931660» accessed 25 May 2017); Article 5.7 SPS Agreement is considered to operate as a "qualified" exemption from Article 2.2 SPS Agreement (Appellate Body Report, *Japan-Agricultural Products II*, para 80).

[53] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 73.

[54] Appellate Body Report, *EC-Hormones*, para 124; also see Chapter 4.2.3.

Yet, as emphasised by the Appellate Body in the case *EC-Hormones*[55] and confirmed by a Panel in the case *EC-Approval and Marketing of Biotech Products*[56], the precautionary principle «has not been written into the SPS Agreement as a ground for justifying SPS measures that are otherwise inconsistent with the obligations of Members set out in particular provisions of that Agreement».

Consequently, whenever a WTO member relies on an interpretation of the precautionary principle that is broader (i.e. stricter) than that called for by, in particular, Article 5.7 SPS Agreement, it will likely be operating beyond the bounds of WTO treaty law.[57] In such a situation, in order to avoid sanctions, a WTO member will need to establish that the precautionary principle has become a principle of customary international law and, as such, is to be substantively applied or otherwise considered by a WTO panel in the context of its decision-making.[58]

TBT Agreement

In the event that national measures do not meet the definition of a SPS measure, the Agreement on Technical Barriers to Trade ("TBT Agreement") may become relevant. Although of less direct concern as regards the application of the precautionary principle, several aspects are worth noting.[59]

Considering the protection of human health and the environment as a legitimate objective justifying technical regulations, the agreement, at the outset, prescribes that technical regulations need to comply with international standards and shall not be applied «with a view to or with the effect of creating unnecessary obstacles to international trade», shall «not be more trade-restrictive than necessary» and shall not be «maintained if the circumstances or objectives giving rise to their adoption no longer exist».[60] As the relevant provision, Article 2.2, merely stipulates that, in assessing risks, «relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products» it appears that the TBT Agreement is more lenient than the SPS Agreement in its appreciation which measures are to be allowed in the event of scientific uncertainty concerning risks to the environment or human health.[61]

However, as there is neither any explicit provision nor jurisprudence as regards the application of the precautionary principle, the extent to which measures based on the precautionary principle are admissible under the TBT Agreement remains equally unclear and controversial.[62]

GATT 1994

While the SPS Agreement and the TBT Agreement apply to certain categories of measures (sanitary and phytosanitary and technical regulations, respectively), GATT 1994 generally applies to all measures affecting trade in goods, irrespective of their content and purpose. As far as the precautionary principle would be argued under GATT 1994, it is apparent that the principle would need to be justified by one of the exceptions exhaustively listed in Article XX.[63] In this respect Article XX (b) (making an exception for measures necessary to protect human, animal or plant life or health),

[55] Appellate Body Report, *EC-Hormones*, para 123f.
[56] Panel Report, *EC-Approval and Marketing of Biotech Products*, para 7.87.
[57] This applies in particular to all non-provisional measures that are based on the precautionary principle.
[58] Lawrence Kogan, 'The Precautionary Principle and WTO Law: Divergent views toward the role of Science in Assessing and Managing Risk' (2004) Seton Hall Journal of Diplomacy and International Relations, 77, 101.
[59] Also see Chapter 4.2.4.
[60] TBT Agreement, Art 2.
[61] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 45; provided that a violation of one or more GATT obligations has occurred.
[62] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 13.
[63] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 46.

Article XX (d) (making an exception for measures necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of GATT 1994) and Article XX (g) (making an exception for measures related to the conservation of exhaustible natural resources) appear to be the most relevant ones. In addition, a defending Member needs to show that the measure in question also meets the requirements of the Chapeau of Article XX.

In several reports, WTO Panels and the Appellate Body have implicitly addressed the relevance of the precautionary principle within the legal framework of GATT 1994.[64] While none of these reports explicitly refers to the precautionary principle, they nevertheless allow the conclusion that WTO members may take a precautionary approach when establishing appropriate levels of protection, provided that respective measures can be (objectively) justified.[65] In any case, the fact that compliance with the SPS Agreement creates a presumption of compliance with other GATT provisions implies that the implementation and maintenance of provisional measures in accordance with Article 5.7 of the SPS Agreement would be deemed, at least prima facie, to meet the requirements of Article XX of the GATT 1994.[66]

Overall, while neither of the WTO Agreements actually mentions the precautionary principle expressis verbis, various provisions can be considered as incorporating, at least, the ratio of a precautionary approach.[67] However, as the relevant agreements adopt scientific evidence as a basis for justifying trade restrictive measures and as Article 5.7 SPS Agreement, which can generally be seen as the clearest WTO reflection of the precautionary principle, allows precautionary measures merely on a temporary basis, WTO treaty law only leaves narrow room for the application of the precautionary principle as enshrined in the European treaties, laws and jurisprudence. Indeed, in none of the disputes brought before the WTO dispute settlement bodies the respondent was able to justify trade restrictive measures having recourse to the precautionary principle.[68] At the same time, however, the findings have neither led to the irrevocable condemnation of the European approach to risk regulation nor the elimination of the regulatory barriers against which the claims were brought. As a consequence, the place of the precautionary principle within the multilateral trading system remains unresolved.[69]

As things stand at the moment, it appears that the substantive provisions of WTO treaty law allow precautionary measures only to a limited extent and, in any case, merely temporarily.[70] In situations

[64] Appellate Panel Report, *US-Gasoline*, April 29, 1996; Appellate Panel Report, *US-Shrimp*, October 12, 1998; Appellate Body Report, *EC-Asbestos*, March 12, 2001.
[65] Ilona Cheyne, 'Gateways to the Precautionary Principle in WTO Law' (2007) Journal of Environmental Law.
[66] Laurent A Ruessmann, 'Putting the Precautionary Principle in its Place: Parameters for the Proper Application of a Precautionary Approach and the Implications for Developing Countries in Light of the Doha WTO Ministerial' (2001) The American University Journal of International Law & Policy, 905, 925; Denise Prévost and Peter Van den Bossche, 'The agreement on the application of sanitary and phytosanitary measures' in Patrick F J Macrory, Arthur E Appleton and Michael G Plummer (eds), *The World Trade Organization: Legal, Economic and Political Analysis* (Springer 2005).
[67] Markus W Gehring and Marie-Claire C Segger, 'Precaution in World Trade Law: The Precautionary Principle and its Implications for the World Trade Organization' (2002) CISDL Research Paper, 27.
[68] See Appellate Body Report, *EC-Hormones*; Panel Report, *EC-Approval and Marketing of Biotech Products*.
[69] As the vast majority of WTO disputes has been based on the SPS Agreement, it is unclear whether the findings of the Panels and the Appellate Body are directly applicable on measures taken under GATT 1994 and the TBT Agreement. Since the WTO strives for consistency in the application of its agreements, such an assumption appears to be reasonable; see Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 75.
[70] As GATT 1994 as well as the TBT and SPS Agreement contain similar language with respect to exceptions that allow for the protection of "human, animal, or plant life or health", it is reasonable to assume that the various WTO agreements apply the same parameters to determine the reasonableness of the application of the precautionary principle. Yet, as mentioned before, the TBT Agreements appears to be more lenient than the SPS

where a WTO member relies on an interpretation of the precautionary principle that extends the scope of the precautionary principle as called for by the WTO Agreements, it will need to establish that the precautionary principle has become a principle of customary international law and, as such, is to be applied or otherwise considered by a WTO Panel in a WTO dispute settlement proceeding. In this regard, the Appellate Body in *EC-Approval and Marketing of Biotech Products* [71] declared that «the legal debate over whether the precautionary principle constitutes a recognised principle of general or customary international law is still ongoing» and that «prudence suggests that we [the Appellate Body] not attempt to resolve this complex issue».

2.2.1.2 The Precautionary Principle as a Principle of Customary International Law

Regardless of the ambiguity surrounding its terminology and the lack of uniform application, the precautionary principle has gained, as has already been mentioned, widespread acceptance in recent years and has increasingly been reflected in international treaties, conventions and declarations. It has not, however, reached the point of being fully recognised as a rule of customary international law.[72] Customary international law, as explained by the International Court of Justice, is formed in evidence of *opinio juris*[73] and consistent, representative state practice.[74] Despite the principle having been progressively consolidated in international environmental and human health law and various international and regional tribunals having been faced with parties basing their arguments on the precautionary principle[75], none of these tribunals has clarified the legal status of precaution, nor confirmed the existence of a precautionary principle as one of customary international law.[76] The lack of international tribunal determinations on the principle supports the conclusion of the Appellate Body in *EC-Hormones*[77], despite the ruling being made several years ago, that the status of the precautionary principle as international custom is still the subject of ongoing discussions at an international level. At this point it must, however, be added that already thirty years ago, in the 1990s, international judicial bodies have indicated that there would be sufficient evidence of state practice to justify the conclusion that the precautionary principle is receiving sufficiently broad approval to allow a sound argument to be made that the precautionary principle reflects a principle of international customary environmental law.[78] Yet, these were merely individual cases that, by no means, reflected the conventional wisdom.

Agreement; see Mystery Bridgers, 'Genetically Modified Organisms and the Precautionary Principle' (2003) Temple Journal of Science, Technology & Environmental Law, 171, 191.

[71] Panel Report, *EC-Approval and Marketing of Biotech Products*, para 7.88.

[72] Caroline E Foster, *Science and the Precautionary Principle in International Courts and Tribunals: Expert Evidence, Burden of Proof and Finality* (Cambridge University Press 2011) 21.

[73] The subjective belief of states that a principle is a principle of customary international law; compare *Nicaragua v USA* [1986] ICJ Rep 14.

[74] See Statute of the International Court of Justice, Art 38 (1) (b) and case law of the ICJ, such as *Libyan Arab Jamahiriya v Malta* [1985] ICJ Rep 3; *West Germany v Netherlands/Denmark* [1969] ICJ Rep 1.

[75] Regarding the International Tribunal for the Law of the Sea (ITLOS) see *Southern Bluefin Tuna (New Zealand/Australia v Japan)* August 4, 2000; the International Court of Justice see *Gabcikovo-Nagymaros Project (Hungary v Slovakia)* [1997] ICJ Rep 7 and *Nuclear Tests (New Zealand v France)* [1995] ICJ Rep 288; in one of the three dissents added to the judgement, judge Palmer noted that «it may be the case that the precautionary principle forms part of customary international law»; the WTO Dispute Settlement Body see Appellate Body Report, *EC-Hormones*, January 16, 1998 and Panel Body Report, *EC-Approval and Marketing of Biotech Products*, September 29, 2006; the European Court of Justice see cases C-157/96 and C-180/96, May 5, 1998.

[76] OECD, 'Uncertainty and Precaution: Implications for Trade and Environment' (2002) COM/ENV/TD (2000) 114/REV3, 13.

[77] Appellate Body Report, *EC-Hormones*, January 16, 1998; which has subsequently been adopted by the Panel Body in the case *EC-Approval and Marketing of Biotech Products*, September 29, 2006.

[78] See *Southern Bluefin Tuna Cases (New Zealand/Australia v Japan)* 38 ILM 1624, ICGJ 337 (ITLOS 1999); while the tribunal abstained from explicitly referring to the precautionary principle, it referred to "prudence and caution"; *Nuclear Tests (New Zealand v France)* [1995] ICJ Rep 288, Dissenting Opinion of Judge Palmer, para

Also at the national level, there have been a number of decisions addressing the status of the precautionary principle in international law. In the case *Vellore*[79], the Supreme Court of India ruled that «we [the Supreme Court of India] have no hesitation in holding that "sustainable development" as a balancing concept between ecology and development has been accepted as a part of the customary international law though its salient features have yet to be finalised by the international law jurists. Some of the salient principles of "sustainable development" are: […] environmental protection, the precautionary principle».

Nevertheless, the status of the precautionary principle as a general principle of international law is still in dispute, and thus depends very much on future developments in the jurisprudence of international tribunals. As such, the dispute settlement mechanism of the WTO will have an important role to play in incrementally advancing acceptance and definition of the principle.[80] In this regard, it must be noted that, while the WTO Panels as well as the ICJ abstained from deciding whether the precautionary principle has crystallised into a general principle of customary international law, the ITLOS Seabed Disputes Chamber has, in fact, already reached that conclusion.[81]

2.2.2 The Precautionary Principle at the Domestic Level

Given the lack of international consensus regarding the role of science in the analysis of risk, national legislators and policymakers have pursued different approaches toward taking regulatory actions in the presence of scientific uncertainty around possible links between an action and potential damage. These relative views are further shaped, at least to some extent, by disparate underlying economic, political and social values reflecting different societal concerns and thresholds for risk, ultimately, resulting in the adoption of varied risk tolerances despite comparable situations.

2.2.2.1 The Precautionary Principle in the EU

In spite of the controversy surrounding the precautionary principle and its binding character at the international level, it has found widespread support in various jurisdictions around the world with the European Union undoubtedly being its most emphatic supporter and promoter. The European Union formally adopted the precautionary principle, for the first time, in the Treaty on European Union ("Maastricht Treaty").Today, it is laid out in Article 191 (2) of the Treaty on the Functioning of the European Union and has evolved into one of the fundamental principles of the European Union governing policies related to the environment, food and human, animal and plant health. It has heavily

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91 (d); in this respect also see Markus Gehring and Marie-Claire Segger, 'Precaution in World Trade Law: The Precautionary Principle and its Implications for the WTO' (2002) CISDL Research Paper, 23.

[79] *Vellore Citizens Welfare Forum v Union of India* (1996) 5 SCC 647.

[80] It is thus essential to examine how WTO/GATT law has, so far, rejected or taken account of the precautionary principle and to pinpoint places where development is possible.

[81] See *Responsibilities and obligations of States with respect to activities in the Area*, Advisory Opinion, February 1, 2011, ITLOS Reports 2011,10, para 135; in this respect, also Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press, 2012) 228; Although the current study cannot and must not grant itself the power to resolve this important, but complex, issue, it is to be recognised that provisions explicitly or implicitly applying the precautionary principle have been incorporated into numerous conventions and declarations, that the precautionary principle has been increasingly referred to and applied by states at the domestic level and that a large number of international scholars and commentators have expressed the view that the precautionary principle has, over time, attained customary international law; see in this regard e.g. Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (3rd edn, Cambridge University Press, 2012) 228; Owen McIntyre, 'The Precautionary Principle as a Norm of Customary International Law' (1999) Journal of Environmental Law, 221; Agne Sirinskiene, 'The Status of Precautionary Principle: Moving Towards the Rule of Customary Law' (2009) Jurisprudencija, 349.

influenced EU legislation[82] as well as jurisprudence of the European Court of Justice, and was expressly acknowledged by the Commission of the European Communities to apply, despite the only explicit reference to the principle being found in the environment chapter of the TFEU, in the entire field of EU law.[83] In the same vein, the CJEU ruled that «the precautionary principle can be defined as a general principle of Community law requiring the competent authorities to take appropriate measures to prevent specific potential risks to public health, safety and the environment, by giving precedence to the requirements related to the protection of those interests over economic interests».[84]

As the European Community has consistently endeavoured to achieve a high level of environmental and human health protection, the precautionary principle was, in fact, prevalent in EU law long before it was covered by the EU treaties and formalised in any other international instrument. Its underlying idea had already formed part of the reasoning of the CJEU in its jurisprudence since the early 1980s that, from that time onwards, has introduced an approach permitting Member States to adopt measures aiming at the limitation of risks deriving from the introduction of potentially harmful activities, products or processes, even if such measures resulted in an outright ban of the latter.[85] The real turning point, which propelled the precautionary principle into a force to be reckoned within the European Community, came, however, with the BSE crisis in 1996 and the public´s growing awareness of the risks inherent in modernisation.[86]

Despite its official status as a fundamental principle of the European Union, neither the TFEU nor the Communication on the Precautionary Principle issued by the European Commission[87] provides a clear definition of the precautionary principle as applied within the Community.[88] As regards content and consequences of the precautionary principle recourse has thus to be taken to case law of the CJEU and, in particular, its judgement in *United Kingdom v Commission*[89]:

> «Where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent».

The precautionary principle, as applied in the European Union, can serve two functions. First, European Institutions can rely on the principle to justify legislation in harmonised policy areas. Second, it can be used by individual Member States to be exempted from harmonised policies or as a

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[82] Compare e.g. Directive 2011/92/EU and Regulation (EC) No 178/2002.

[83] «But in practice, its scope is much wider, and specifically where preliminary objective scientific evaluation, indicates that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the high level of protection chosen for the Community» European Commission, 'Communication from the Commission on the Precautionary Principle' (2000) Office for Official Publications of the European Communities.

[84] Case T-74/00 *Artegodan GmbH and others v European Commission* [2002] ECR 4945, para 184.

[85] Compare Case C-53/80 *Kaasfabriek Eyssen BV* [1981] ECR 409; Case C-272/80 *Frans-Nederlandse Maatschappij voor Biologische Producten BV* [1981] ECR 3277; Case C-227/82 *Van Bennekom* [1983] ECR 388 and particularly Case C-174/82 *Sandoz BV* [1983] ECR 2445; so far as there are uncertainties at the present state of scientific research it is for the Member States, in the absence of harmonization, to decide upon the degree of protection that they intend to assure; yet, states are required to take consideration of the requirements of the free movement of goods within the Community.

[86] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 88.

[87] This document is considered the key document for the understanding of the European precautionary principle.

[88] The latter, however, specifies that precautionary measures shall (1) be proportional to the chosen level of protection, (2) be non-discriminatory, (3) be consistent with comparable measures already in place, (4) be based on a cost–benefit analysis of action and non-action , (5) be subject to review when new scientific data becomes available, and (6) facilitate the production of the scientific evidence necessary for a more comprehensive risk assessment.

[89] Case C-180/96 *United Kingdom v Commission of the European Communities* [1996] ECR I-3903, para 99.

shield against the free movement of products in non-harmonised areas (Article 114 and 36 TFEU, respectively).[90] It should thereby be considered within a structured approach to the analysis of risk consisting of the separate elements: risk assessment, risk management and risk communication. The precautionary principle is to be regarded particularly relevant to the management of risk.[91] Furthermore, the European Commission repeatedly emphasised the importance of a science-based approach to precaution obviously attempting to link the European perspective on the application of the precautionary principle to approaches developed by the WTO.[92]

Overall, the precautionary principle nowadays is deeply anchored in the EU legal system, in its treaties as well as in its legislative acts and jurisprudence. Regulations regarding chemicals, biocides, pesticides and food are frequently referring to the precautionary principle shifting the burden of proof for proving scientific evidence to the producing companies.[93] It is undisputed that the precautionary principle is considered to be of fundamental importance within the European Union for continuously and dynamically safeguarding a high level of environmental and human health protection; in fact, more than ever, taking consideration of new scientific insights and technological and scientific developments that are to be expected in the future.[94]

2.2.2.2 The Precautionary Principle in Canada

In view of Canada´s economic dependence on its natural and agricultural resources[95], the protection of environmental health and vitality, aside from human health protection, has always been of paramount importance to the Canadian population, legislators and policymakers. Despite also requiring generally the conduct of research and application of scientific methods when approaching potential risks to the environment and human health, the Canadian regulatory framework concerning risk regulation in part, especially in the event of scientific uncertainty, differs significantly from the European system in terms of acceptability and tolerability of risks.[96] The reasons are many and varied, ranging from disparate underlying social, economic and political values reflecting divergent societal norms and preferences to divergent political institutions and processes.

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[90] Jale Tosun, *Risk Regulation in Europe: Assessing the Application of the Precautionary Principle* (2013 edn, Springer 2012) 46.

[91] European Commission, 'Communication from the Commission on the Precautionary Principle' (2000) Office for Official Publications of the European Communities, 2.

[92] Jale Tosun, *Risk Regulation in Europe: Assessing the Application of the Precautionary Principle* (2013 edn, Springer 2012) 46.

[93] Presuming that an action, product or process is harmful until proven otherwise may be seen as an expression of the precautionary principle as applied by the European Union; compare European Commission, 'Communication from the Commission on the Precautionary Principle' (2000) Office for Official Publications of the European Communities.

[94] This being said, it is to be recognised that certain developments, however, give reason to argue in favour of an opposite trend, see e.g. Regulation No 101/2013; in addition, significant variations regarding the status and application of the precautionary principle exist within the European Union itself. In the United Kingdom, for instance, the House of Lords Select Committee on Economic affairs once stated that «ill-defined and ambiguous terms [such as the precautionary principle] are generally unhelpful» (Select Committee on Economic Affairs, 'Government Policy on the Management of Risk'(2006) 5th Report of Session 2005-06).

[95] John C Bergstrom and Alan Randall, *Resource Economics: An Economic Approach to Natural Resource and Environmental Policy* (4th edn, Edward Elgar Pub 2016); Paul Guy, 'Throwing caution to the wind: the precautionary principle, NAFTA and environmental protection in Canada' (2004) Dalhousie Journal of Legal Studies, 187.

[96] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch.

Even though Canada, in general, recognises the precautionary principle as one to be applied in the event of scientific uncertainty,[97] it is differently conceptualised when compared to the European Union and does not rely on a formalised and consistent application.[98] Health Canada[99] considers the precautionary principle to have an important role in the management of (uncertain) risk, yet, in practice, the Canadian government remains ambivalent and inconsistent in applying it. The Department of Justice, for instance, in 1997 issued a report on sustainable development[100] explicitly referring to the precautionary principle and describing it as a principle of international recognition and then, in 2007, abstained from mentioning it in the follow-up report.[101]

While generalisations regarding the management of risk are generally inappropriate and often misleading[102], it can be said that the precautionary principle, in Canada, is generally looked at as a pervasive concept of precaution that does not require extremes in the actions taken, but rather induces the need to take timely and appropriately preventative actions, taking consideration of the context and nature of the issue as well as a proper cost-benefit analysis.[103] After all, an activity, product or process can often only be regulated in as much as the link of causation between the event and the damage is manifestly proven.[104] Thus, while the European Union seeks proactively to regulate risk, Canadian regulators commonly wait more circumspectly for scientific evidence of actual harm before taking regulatory actions. This more relaxed attitude towards risk regulation in the event of scientific uncertainty can be seen, for instance, in Canada´s permissive and supportive attitude towards genetically modified foods[105], its recent approval of atrazine for continued use in Canada[106] and its rejectionist stance on the European REACH regulation.[107]

Yet, while Canada, in key areas such as biotechnology, seems to apply a less strict version of the precautionary principle putting a stronger emphasis on the cost effectiveness of precautionary measures, the principle as such is enshrined in several national laws[108], such as the Canadian

[97] Compare, e.g. Cabinet Directive on Regulatory Management of April 1, 2012.
[98] Compare, e.g. Health Canada, 'Health Canada Decision-Making Framework for Identifying, Assessing, and Managing Health Risks' (2000) available at «http://hc-sc.gc.ca/ahc-asc/pubs/hpfb-dgpsa/risk-risques_tc-tm-eng.php» accessed 25 May 2017.
[99] Health Canada is the Federal department of the government of Canada with responsibility for national public health; thus responsible for helping Canadians maintain and improve their health.
[100] Justice Department, 'Sustainable Development Strategy: A Sustainable Future in the Balance' (1997) available at «http://publications.gc.ca/collections/collection_2011/jus/J2-1997-eng.pdf» accessed 25 May 2017.
[101] Justice Department, 'Sustainable Development Strategy 2007–2009: Sustainable Change is in Order' (2007) available at «http://publications.gc.ca/collections/Collection/J2-146-2007E.pdf» accessed 25 May 2017.
[102] Compare Jonathan B Wiener and Michael D Rogers, 'Comparing precaution in the United States and Europe' (2002) Journal of Risk Research, 317; Jonathan B Wiener and others (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (Routledge 2010).
[103] Health Canada, 'Decision-Making Framework for Identifying, Assessing, and Managing Health Risks' (2000) available at «http://hc-sc.gc.ca/ahc-asc/pubs/hpfb-dgpsa/risk-risques_tc-tm-eng.php» accessed 25 May 2017.
[104] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 10.
[105] Anton E Wohlers, 'Regulating genetically modified food: Policy trajectories, political culture, and risk perceptions in the US, Canada, and EU' (2010) Politics and the Life Sciences, 17.
[106] Health Canada, 'Special Review Decision: Atrazine' (2017) Re-evaluation Note REV 2017-09.
[107] Center for International Environmental Law, 'EU-Canada Trade and Investment Deal threatens EU chemical policies' (2017) Position Paper, 4; The REACH Regulation represents one of the strictest regulations of chemical substances worldwide requiring authorisation for chemical substances to be marketed.
[108] In 2001 the Canadian government noted in a discussion paper on the precautionary principle that «two federal statues, two provincial statues and several proposed laws make specific reference to the precautionary principle» Government of Canada, 'A Canadian Perspective on the Precautionary Approach/Principle' (2001) Discussion Document, 11; one can reasonably assume that this number has increased over the last 16 years; further examples are the Oceans Act (1996), the Pest Control Products Act (2002) and the Canadian Environmental Assessment Act (2012).

Environmental Protection Act (1999), and is becoming increasingly important in Canadian jurisprudence with courts more and more frequently endorsing the precautionary principle and affirming the power of governments to enact legislation designed to protect human health and the environment.[109] In this regard, the decisions of the Supreme Court of Canada in *Canada Ltée v Hudson*[110] and *Castonguay Blasting Ltd v Ontario*[111] are considered pivotal turning points in terms of environmental protection in Canada as the rulings explicitly referred to the precautionary principle as defined in the 1990 Bergen Ministerial Declaration on Sustainable Development[112] and ultimately even concluded that «there may be currently sufficient state practice to allow a good argument that the precautionary principle is a principle of customary international law». Moreover, the precautionary principle has also been considered, and applied, in a series of the Ontario Environmental Review Tribunal decisions.[113]

Despite these developments indicating a growing recognition of the precautionary principle in Canadian state practice, one must not ignore Canada´s close connection to the United States, which is generally viewed as being a staunch opponent of the precautionary principle,[114] and Canada´s commitments under agreements like NAFTA.[115] With Canada and the United States being two of the most integrated economies in the world[116], the reluctant and dismissive attitude of the United States towards precautionary measures in the event of scientific uncertainty will continue to have a considerable impact on Canadian decision-making. Apart from this, the commitments of Canada under Chapter 11 NAFTA effectively undercut the ability of Canadian legislators to fully rely on the precautionary principle and keep the principle from becoming an indispensable element of Canadian environmental policy.[117] A number of cases, including *Chemtura Corp v Government Canada*[118] and *Dow AgroSciences LLC v Government of Canada*[119], have vividly demonstrated the pressure exerted on the Canadian government and the danger of precautionary measures being classified as unjustified expropriations of international investors. [120]

After all, Canada takes a middle position between the United States and the European Union, which are commonly considered to hold the most divergent views as regards the precautionary principle. The

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[109] Paul Guy, 'Throwing caution to the wind: the precautionary principle, NAFTA and environmental protection in Canada' (2004) Dalhousie Journal of Legal Studies, 189.

[110] *Canada Ltée (Spraytech, Société d'arrosage) v Hudson (Town)* 2001 SCC 40, [2001] 2 SCR 241; Legal experts commonly believe that the Canadian Supreme Court´s decision in the Hudson case was the first time that the precautionary principle has been cited in a court case in North America.

[111] *Castonguay Blasting Ltd v Ontario (Environment)* 2013 SCC 52, [2013] 3 SCR 323.

[112] Bergen Ministerial Declaration on Sustainable Development in the ECE Region, 1990, Bergen, UN Doc. A/CONF.151/PC/10; a United Nations Document signed by Canada and most of the European Countries.

[113] See, e.g. *CCCTE v Director, Ontario (Environment and Climate Change)* 2015 CanLII 86925 (ON ERT).

[114] For a more detailed analysis regarding the application of the precautionary principle in the United States see Jonathan B Wiener and others (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (Routledge 2010) and Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010).

[115] North American Free Trade Agreement between the Government of Canada, the Government of Mexico and the Government of the United States, December 17, 1992, Can TS 1994 No 2, 32 ILM 289 (entered into force 1 January 1994) [NAFTA].

[116] The highly integrated nature of the Canadian and US economies was recently further enhanced through the Regulatory Cooperation Council in 2011.

[117] Paul Guy, 'Throwing caution to the wind: the precautionary principle, NAFTA and environmental protection in Canada' (2004) Dalhousie Journal of Legal Studies, 190.

[118] *Chemtura Corporation v Government of Canada*, UNCITRAL (NAFTA) Award, August 2, 2010.

[119] *Dow AgroSciences v Government of Canada*, UNCITRAL (NAFTA) Settlement Agreement, May 25, 2011.

[120] Also see *Vito G Gallo v Government of Canada*, UNCITRAL (NAFTA) Award (redacted version), September 15, 2011 and *Ethyl Corporation v Government of Canada*, UNCITRAL (NAFTA), Award on Jurisdiction, June 24, 1998.

application of the precautionary principle as an independent legal instrument in Canada has gained in importance, yet, despite several similarities[121], it is differently conceptualised compared to the precautionary principle as applied within the European Union and does not rely on a consistent and coherent pursuit.[122] Importantly, in key areas such as biotechnology, Canada proves to be more tolerant of risk and therefore applies higher tolerance thresholds for the presence of environmental and public health hazards than the European Union. Pushing for a higher tolerance level of risk with respect to human health and environmental harm in Europe, Canada has complained about the European REACH regulation several times and has raised concerns against the European approach to endocrine disruptors at every single meeting of the TBT Committee.[123] These dissimilar views on the appropriate balance between science and precaution, which manifest themselves particularly in the event of scientific uncertainty, also led to two of the longest and most controversial disputes within the history of the WTO (*EC-Approval and Marketing of Biotech Products*[124] and *EC-Hormones*[125]*)*. However, already in these cases, Canada considered the precautionary principle to be an emerging principle of international law, «which may in the future crystallise into one of the general principles of law recognised by civilised nations».[126]

2.3 Regulatory Divergence as regards Environmental and Human Health Standards

Every nation maintains, under international agreements and treaties, the sovereign right to determine its own level of protection. For a certain country, this level can either be higher or lower than the level applied by other countries depending on its economic situation, societal fears and socio-political priorities.[127] As regards the protection of human health and the environment, Canada and the European Union, as can be derived from the above, hold disparate views on the balance of science and precaution, manifesting themselves particularly in the event of scientific uncertainty and in the domestic application of the precautionary principle as a tool to provide a rationale for action. While the reality of precaution is «a much more complex pattern of overall parity, combined with detailed variation on particular risks»[128], the conventional wisdom sees the European Union endorsing a strict version of the precautionary principle and proactively regulating uncertain risks, while Canada is deemed to take a middle position between the United States, one of the main opponents to the

[121] Compare the five principles for precautionary measures as outlined by the Government of Canada in Government of Canada, 'A Framework for the Application of Precaution in Science-based Decision Making about Risk' (2003) and the requirements of measures based on the precautionary principle prescribed by the European Commission in European Commission, 'Communication from the Commission on the Precautionary Principle' (2000) Office for Official Publications of the European Communities.

[122] As a matter of rhetoric, the Canadian preference is for reference to the more flexible and possibly less restrictive notion of a 'precautionary approach', while the European Union prefers to speak of the 'precautionary principle'. However, compare n 47 and the debate whether this distinction is to be considered essentially semantic.

[123] Center for International Environmental Law, 'EU-Canada Trade and Investment Deal threatens EU chemical policies' (2017) Position Paper, 4.

[124] Panel Report, *EC-Approval and Marketing of Biotech Products*, September 29, 2006.

[125] Appellate Body Report, *EC-Hormones*, January 16, 1998.

[126] ibid, para 60.

[127] René von Schomberg, 'The precautionary principle and its normative challenges' in Elizabeth Fisher, Judith Jones and René von Schomberg (eds), *Implementing the Precautionary Principle: Perspectives and Prospects* (Edward Elgar Pub 2006) 25.

[128] Jonathan B Wiener, 'The Rhetoric of Precaution' in Jonathan B Wiener and others (eds), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (Routledge 2010) 13; Contrary to the vision of two coherent and distinct Canadian and European approaches to risk, a broader analysis conducted by *Wiener* reveals that neither the EU nor the US, also holding true for Canada, can claim to be categorically more precautionary than the other. Europe has been more precautionary about some risks, while the US/Canada has been more precautionary about other risks.

recognition of the precautionary principle, and the European Union, one of the leading advocates in respect thereof, generally opting to wait more circumspectly for scientific proof of actual harm before taking regulatory actions.[129] Even though the reality of precaution may indeed be risk and context specific, the legal and policy analysis conducted as part of this work tends to confirm and corroborate the widespread conviction that Canada privileges the role of science while the European Union takes a more cautious stance in the area of risk regulation.

Regardless of whether the premise of a more precautionary Europe actually holds true in all fields and sectors of risk regulation, it is undisputed that regulatory divergence between Canada and the European Union exists on a large scale in respect of environmental and human health standards; in many cases with latter being more precautionary than the former.[130] General EU food law, for instance, is based on the precautionary principle, as prominently articulated by the General Food Law Regulation 178/2002, and requires the receipt of authorisation for the production and marketing of novel food by the European Food Agency, in the process of which the onus is on the producing companies to prove the absence of human health risks. Such a far-reaching obligation is, in general, foreign to Canadian food law.[131] The European Union being more precautionary than Canada also holds true in many other key areas, including the regulation of residues of pesticides in food, genetically modified organisms, chemicals, endocrine disruptors and nanotechnology.[132]

2.4 The Impact of Regulatory Divergence on International Trade

With the success of the World Trade Organisation and numerous Free Trade Agreements in reducing conventional tariffs on merchandise imports, non-tariff barriers to trade[133] resulting from, inter alia, differences in product standards and technical regulations have increasingly been identified as considerable impediments to international trade and investment. Non-tariff barriers in the form of regulatory divergence, for example, can have an influential impact on a bilateral relationship, as they may encumber or even eliminate outright trade of a particular good or service and frequently result in additional costs for producers and exporters that can effectively inhibit trade in the respective products.[134] While non-tariff measures may often rise to the level of trade protectionism by means of, for instance, promulgation of particular environmental and human health standards that secretly act as disguised barriers to trade, the use of non-tariff measures will, irrespective of the motive that underlies them, in many cases have adverse trade implications.[135]

[129] As the view of a wholesale shift toward greater European precaution is so widespread and influential, it forms the main hypothesis of this research.
[130] This is the view of the author; however, in a similar vein e.g. Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010).
[131] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 15.
[132] ibid.
[133] Non-tariff barriers to trade are generally understood to be any trade barriers that restrict imports without the use of a tariff, such as general or product-specific quotas and packaging or labelling requirements.
[134] The effects of non-tariff barriers on international trade and investment are the subject of a large literature; for a more detailed analysis see Josh Ederington and Michele Ruta, 'Non-Tariff Measures and the World Trading System' (2016) Policy Research Working Paper; UNCTAD, 'International Classification of Non-Tariff Measures' (2012) UN Report; WTO, 'Trade and public policies: A closer look at non-tariff measures in the 21st century' (2012) World Trade Report; WTO, ITC and UNCTAD, 'World Tariff Profiles 2016' (2016) Report.
[135] Lawrence Kogan, 'The Precautionary Principle and WTO Law: Divergent views toward the role of Science in Assessing and Managing Risk' (2004) Seton Hall Journal of Diplomacy and International Relations, 77, 78.

As a result, countries increasingly pursue regionalisation and try to address their regulatory divergence by negotiating trade and investment agreements which deepen and further WTO disciplines.[136] To achieve this goal, the new generation of trade agreements tend to embrace a comprehensive approach to trade liberalisation and consider the elimination of non-tariff barriers to trade as a central objective that shall primarily be achieved through the enhancement of regulatory convergence.[137]

As for Canada and the European Union, this continuous quest recently eventuated through the Comprehensive and Economic Trade Agreement which ought to serve the abolition of non-tariff barriers to trade and, ultimately, the elimination of unnecessary regulatory divergence. However, as far as the precautionary principle is concerned, such regulatory convergence occurs in a fragmented context: while some are concerned about the consequences of a stronger recognition and acceptance of the precautionary principle in Canada, others fear that CETA essentially contributes to the weakening of the precautionary principle as applied within the European Union.[138]

3 The Comprehensive Economic and Trade Agreement (CETA)

After seven years of negotiations the EU-Canada Comprehensive Economic and Trade Agreement (CETA) was finally approved and signed on 30 October 2016 and is currently awaiting its provisional application. Touted as the "Gold Standard" for a new generation of trade agreements, the 1.600 page landmark deal is considered "a milestone in European trade policy" and deemed to be "broader in scope and deeper in ambition" than any trade and investment treaty ever concluded. According to the lead Member of the European Parliament on CETA, by adopting the latter, «we chose openness and growth and high standards over protectionism and stagnation. Canada is a country with whom we share common values and an ally we can rely on. Together we can build bridges, instead of a wall, for the prosperity of our citizens. CETA will be a lighthouse for future trade deals all over the world». Pursuant to a joint study conducted by the European Commission and the government of Canada, CETA is expected to boost bilateral trade in goods and services by €25.7 billion (22.9%) and could lead to European GDP gains of up to €11.6 billion per year.[139]

3.1 Background and Signing

Based on a longstanding economic relationship between Canada and the European Union[140], which can be dated back to 1958 when Canada accredited its first ambassador to the then European Economic Communities (EEC) and the historic Framework Agreement for Commercial and Economic

[136] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265; Stanko Krstic, 'Regulatory cooperation to remove non-tariff barriers to trade in products: key challenges and opportunities for the Canada-EU Comprehensive Trade Agreement (CETA)' (2012) Legal Issues of Economic Integration.

[137] Der-Chin Horing, 'Reshaping the EU's FTA Policy in a Globalizing Economy: The Case of the EU-Korea FTA' (2012) Journal of World Trade, 301.

[138] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 271.

[139] European Commission and Government of Canada, 'Assessing the Costs and Benefits of a closer EU-Canada economic partnership' (2007) Joint Study; European Commission, 'Facts and figures of the EU-Canada Free Trade deal' (2013) available at «http://trade.ec.europa.eu/doclib/press/index.cfm?id=974» accessed 25 May 2017.

[140] Compare European Commission, 'Economic and Trade Relations between the European Union and Canada' (2004) Factsheet prepared by the European Commission; Selen S Guerin and Chris Napoli, 'Canada and the European Union: Prospects for a Free Trade Agreement' (2008) CEPS Working Document.

Cooperation[141], signed in 1976, Canada and the European Union first announced the launch of negotiations towards a new economic and free trade agreement on 5 May 2009.[142] After seven years, on 26 September 2014, the formal conclusion of negotiations was announced during the EU-Canada summit in Ottawa[143] with the final text of the agreement being released, following legal review, on 29 February 2016.[144] Despite public criticism and incidents, such as Walloon lawmakers blocking Belgium's CETA signature, Canadian Prime Minister Justin Trudeau, alongside European Council President Donald Tusk and European Commission President Jean-Claude Juncker, finally signed the controversial free date deal on 30 October 2016.

As CETA was declared a mixed agreement by the European Commission in July 2016 and as such requires ratification by national and regional parliaments, its entry into force is expected to take several years.[145] Yet, as the European Parliament has voted in favour of the agreement on 15 February 2017 once Canada has ratified CETA according to its domestic procedures, the CETA deal will apply provisionally according to Article 30.7 CETA.[146] The provisional application will embrace most parts of the agreement, yet, among other provisions that do not fall under exclusive EU competence, regulations concerning investment protection and the Investment Court System will be excluded from provisional application.

3.2 The Content and Ambition of CETA

CETA is generally said to be the most complex free trade agreement ever negotiated by Canada and the most ambitious, progressive and far-reaching ever negotiated by the European Union. Apart from the usual chapters on goods, services and investments, this high profile next generation WTO plus agreement contains whole chapters on different aspects of regulatory cooperation, government procurement and intellectual property rights, extensive new provisions to assist the movement of people engaged in commercial activity as well as numerous provisions regarding sustainable development, environmental and labour standards. Among its supporters, CETA is thus considered to have the potential to become the "blueprint for future trade deals" with its benefits ranging from facilitated market access for goods, services and investment through the abolishment of almost all tariffs and reduction of a wide array of non-tariff barriers to enhanced intellectual property and investor protection, facilitated trade in services through mutual recognition of professional qualifications and enhanced business opportunities for economic actors on both sides of the Atlantic.

While being concluded outside the WTO, CETA by no means signifies a departure of the European Union and Canada from the WTO and its regulatory framework, but rather is to be seen as defining additional obligations on top of present WTO rules, which remain the basis of trade relations between

[141] The Framework Agreement for Commercial and Economic Cooperation between Canada and the then EEC was the first international agreement between the latter and an industrialised country.

[142] European Commission, 'EU-Canada Summit to launch negotiations for a new economic and free trade agreement' (2009) IP/09/701; Government of Canada, 'Canada and European Union launch historic economic partnership' (2009) available at «www.sice.oas.org/TPD/CAN_EU/Negotiations/launch_e.pdf» accessed 25 May 2017.

[143] European Council, 'Press statement by the President of the European Council Herman Van Rompuy following the EU-Canada Summit in Ottawa' (2014) EUCO 189/14.

[144] The CETA text is available at «http://trade.ec.europa.eu/doclib/docs/2014/september/tradoc_152806.pdf» accessed 25 May 2017.

[145] For more details as regards trade negotiation´s procedure see European Commission, 'Trade negotiations step by step' (2013) Factsheet prepared by the European Commission.

[146] The provisional application is intended to reduce the inconveniences inherent in the lengthy ratification process. Provisional application ends after all EU Members notify the Council that they have completed their internal ratification procedures. Only then, CETA can fully enter into force.

the transatlantic treaty parties. This follows from WTO rules that allow for Member States to engage in such agreements by virtue of Article XXIV GATT and Article V GATS, respectively.

3.3 The Anxieties of European Society

CETA also aims for regulatory branches in which the European Union applies the precautionary principle as established in the European treaties, laws and jurisprudence and thus for regulatory areas in which the European Union proactively seeks to regulate risk. Owing to the fact that its transatlantic trading partner Canada, in the vast majority of cases, waits more circumspectly for scientific evidence of actual harm before taking regulatory actions, there is concern that CETA is meant to lower the high standards of health, environmental as well as consumer protection within the European Union by means of hindering and impeding the European regulators to continue to regulate sensitive areas in accordance with the precautionary principle as interpreted by the European policymakers. As Canada generally applies a higher risk tolerance level as regards potential harm to human health and the environment and as the precautionary principle as such is differently conceptualised within the framework of Canadian risk regulation, critics in Europe fear a weakening of the European precautionary principle, inevitably leading to a lowering of EU safety standards in respect of environmental and human health protection.

Against this background the relevant CETA provisions need to be interpreted, evaluated and applied in order to critically assess their implications on the continued implementation of the precautionary principle in Europe and, subsequently, whether the European Union is able to uphold its high standards of health and environmental protection in the light of European commitments under this landmark deal. Setting the precedence for future trade deals of the European Union, CETA is deemed to provide an indication of possible future European treaty practice on this subject.

4 Implications of CETA on the European Precautionary Principle

CETA consists of 30 Chapters, supplemented by a large number of annexes and attached protocols, out of which the Trade and Sustainable Development, Trade and Environment, SPS, TBT as well as the Regulatory Cooperation Chapter are particularly relevant due to their strong connection to the precautionary principle controversy. Accordingly, the analysis will primarily focus on these selected sections of CETA; however, will also take consideration of the trade agreement as a whole.

4.1 Regulatory Autonomy and the Precautionary Principle under CETA

In the light of Canadian and European regulatory divergence as regards the regulation of scientific uncertainty, which is caused by disparate views on the balance of science and precaution, the preservation of the parties' right to regulate sensitive areas in accordance with their own values and laws is to be considered of great importance in terms of the future European ability to regulate sensitive areas having recourse to the precautionary principle as established in the European treaties, laws and jurisprudence.[147] As Canada, in general, applies a higher risk tolerance level as regards potential harm to human health and the environment and in many cases favours a re-active approach to risk regulation, it is essential that CETA preserves, despite recognising regulatory convergence as the overarching goal of the agreement, the right of individual governments to regulate and pursue legitimate public policy objectives, such as the protection of human health and the environment,

[147] Furthermore, the precautionary principle as such needs to be sufficiently safeguarded within CETA; in this respect, see Chapters 4.2 - 4.3.

according to their own domestic (safety) standards.[148] Such an acknowledgment of the parties' principal sovereignty does not, for itself, stand in contradiction to CETA´s overarching purpose to promote transatlantic regulatory convergence. The right to regulate should include the right of the parties to set their own priorities and to modify and adapt their domestic legislation accordingly.[149]

Throughout the CETA text, several mentions are made in this regard with the mentions included in the Preamble being the most significant ones, apart from Article 23.3 (Trade and Labour Chapter) and Article 24.3 (Trade and Environment Chapter) that explicitly recognise the parties' right to regulate and to set their own labour and environmental priorities, respectively.[150] The Preamble of CETA, inter alia, reads as follows:

> «*Recognizing that the provisions of this Agreement* ***preserve the right of the Parties to regulate within their territories and the Parties' flexibility to achieve legitimate policy objectives, such as public health, safety, environment,*** *public morals and the promotion and protection of cultural diversity. […] Recognizing that the provisions of this Agreement protect investments and investors with respect to their investments, and are intended to stimulate mutually-beneficial business activity,* ***without undermining the right of the Parties to regulate in the public interest within their territories***» [emphasis added].[151]

In addition, the Preamble stipulates that sustainable development is to be considered as forming a basic framework underlying the economic and trade relations between Canada and the European Union:

> «*Reaffirming their commitment to* ***promote sustainable development*** *and the development of international trade in such a way as to* ***contribute to sustainable development*** *in its economic, social and environmental dimensions […]Implementing this Agreement in a manner consistent with the enforcement of their respective labour and environmental laws and* ***that enhances their levels of labour and environmental protection****, and building upon their international commitments[152] on labour and environmental matters*» [emphasis added].[153]

Although the Preamble does not create independent rights and obligations, the mentioning of regulatory autonomy and sustainability as the basic frameworks underlying the parties' bilateral trade relations can enhance regulatory flexibility both because the Preamble outlines the object and purpose of the treaty and because it forms part of the context that is to be considered when interpreting treaty provisions.[154] This is set out specifically by Article 31 (2) of the Vienna Convention that states that

[148] The "right to regulate" within the context of investor protection lies outside the scope of the present paper; see in this regard National Board of Trade, 'The Right to Regulate in the Trade Agreement between the EU and Canada - and its implications for the Agreement with the USA' (2015) Report; Catharine Titi, *The Right to Regulate in International Investment Law* (Nomos and Hart Publishing 2014); Christian Tietje and Kevin Crow, 'The Reform of Investment Protection Rules in CETA, TTIP and other Recent EU-FTAs: Convincing?' (2016) available at «https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2884380» accessed 25 May 2017.
[149] Compare Articles 23.2 and 24.3 CETA.
[150] In addition the "right to regulate" is also mentioned in Art 8.9 CETA; as regards Art 24.3 see Chapter 4.2.2.
[151] CETA, Preamble.
[152] In the light of the latest two WTO dispute settlement cases launched by, among others, Canada against the EU, the reference to the parties' international commitments might be considered to weaken the position of the precautionary principle as applied by the EU.
[153] CETA, Preamble.
[154] Catharine Titi, *The Right to Regulate in International Investment Law* (Hart Publishing 2014) 115.

«the context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, […] its preamble and annexes».[155]

As the Preamble indicates that the substantive provisions of CETA are to be carried out in a manner consistent with environmental protection and in ways to promote sustainable growth, the parties are granted a rather extensive "right to regulate". The precise extent and scope of the sovereignty concessions that the European Union can for its part accept and, more importantly, can request from its trading partner Canada, however, is a future question whose answer will primarily depend on the analyses and interpretations conducted by arbitration tribunals in this regard. In this context, arbitration tribunals will be required to take consideration of international customary law encompassing legal doctrines such as the doctrine that gives individual governments an extensive right to make their own decisions without becoming liable for damages.[156]

The Joint Interpretative Instrument, which was negotiated in response to the Walloon veto on CETA, affirms the wording of the Preamble emphasising that «the European Union and its Member States and Canada will therefore continue to have the ability to achieve the legitimate public policy objectives that their democratic institutions set […] CETA will also not lower our respective standards and regulations related to food safety… health, environment or labour protection. Imported goods, service suppliers and investors must continue to respect domestic requirements, including rules and regulations. The European Union and its Member States and Canada reaffirm the commitments with respect to precaution that they have undertaken in international agreements […]CETA preserves the ability of the European Union and its Member States and Canada to adopt and apply their own laws and regulations that regulate economic activity in the public interest, to achieve legitimate public policy objectives such as the protection and promotion of public health, social services, public education, safety, the environment, public morals, social or consumer protection, privacy and data protection and the promotion and protection of cultural diversity».[157]

The parties' right to regulate is limited in two ways when it comes to lowering standards.[158] First, parties cannot amend their laws in ways inconsistent with their international commitments, including those of CETA.[159] Second, Article 23.4 (Trade and Labour Chapter) and Article 24.5 (Trade and Environment Chapter) require Canada and the European Union to uphold their existing levels of

[155] Vienna Convention on the Law of Treaties, 1969, 1155 UNTS 331, Article 31 (2); in addition, the importance of the Preamble can also be derived from case law, see Appellate Body Report, *US-Shrimp*, October 12, 1998.

[156] National Board of Trade Sweden, 'The Right to Regulate in the Trade Agreement between the EU and Canada - and its implications for the Agreement with the USA' (2015) Report, 7; see in this regard Rahim Moloo and Justin M Jacinto, 'Environmental and Health Regulation: Assessing Liabilities Under Investment Treaties' (2011) Berkeley Journal of International Law, 1; Prabhash Ranjan and Pushkar Anand, 'Determination of Indirect Expropriation and Doctrine of Police Power in International Investment Law: A Critical Appraisal' in Leila Choukroune, *Judging the State in International Trade and Investment Law* (Springer 2016); Matthew C Porterfield, 'State Practice and the (Purported) Obligation Under Customary International Law to Provide Compensation for Regulatory Expropriations' (2011) North Carolina Journal of International Law and Commercial Regulation, 159.

[157] European Union, its Member States and Canada, 'Joint Interpretative Instrument on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union and its Member States' (2016) Official Journal of the European Union, 3; It is important to note that Canada and the European Union are legally obliged to take recourse to the Joint Interpretative Instrument when interpreting CETA. Yet, as a means of legal interpretation it cannot override or alter the legally binding text of CETA (Article 31(2)(b) of the Vienna Convention on the Law of Treaties).

[158] Laura Puccio and Krisztina Blinder, 'Trade and sustainable development chapters in CETA' (2017) Briefing on the Comprehensive Economic and Trade Agreement, 4.

[159] This restriction is implicitly included in Art 23.2 and Art 24.3, respectively.

protection recognising that, for instance, it is inappropriate to encourage trade or investment by weakening or reducing the levels of protection afforded in their environmental law.[160]

Overall it appears that the parties' right to regulate in the public interest is enshrined as a basic underlying principle of CETA. Through the incorporation of related Articles in the treaty text itself and the inclusion of a persuasive Preamble, CETA contains sufficient elements that guarantee that the economic gains do not come at the expense of the governments' right to regulate.[161] Nonetheless, it remains to be seen how Canada and the European Union approach this topic, in particular taking account of the institutionalised regulatory cooperation envisaged in CETA.[162]

4.2 Recognition of the Precautionary Principle within Substantive Provisions

Throughout the CETA text several mentions are made about the mutual supportiveness and interdependency between economic and environmental aspects, apart from the Preamble, also in the substantive body of the treaty. The affirmation of such objectives and the inclusion of respective Chapters at the core of a trade agreement between two developed countries is an interesting propensity.[163] Such linkage between trade and non-directly trade related concerns is also of relevance as regards the precautionary principle controversy as the preservation of respective standards and regulations related to food safety, product safety as well as health and environmental protection is expressly articulated in various parts of the agreement.

4.2.1 The Precautionary Principle within the Sustainable Development Chapter

Sustainable development has gained considerable attention from environmental and supranational organisations, including the United Nations and the European Union, since the concept was first introduced in the 1970s and subsequently defined by the United Nations as a «development that meets the needs of the present without compromising the ability of future generations to meet their own needs».[164] Today, sustainable development is well represented and acknowledged in international (trade) law with states increasingly enhancing the integration of sustainable development into international treaty making.[165] Against this background it is hardly surprising that Canada and the European Union have negotiated sustainable development provisions in CETA;[166] yet, it is to be noted that CETA is the first Canadian trade agreement dealing with provisions on sustainable development as an integral part of the agreement itself.[167] While Canada formerly dealt with areas related to

[160] For a more detailed analysis in this regard see Chapter 4.2.2.
[161] This view is supported by the European Commission in 'Proposal for a Council Decision on the conclusion of the Comprehensive Economic and Trade Agreement between Canada of the one part, and the European Union and its Member States, of the other part' (2016) COM(2016) 443 final and European Commission, 'Explanatory Memorandum on European Union Document: Proposal for a Council Decision on the provisional application of the Comprehensive Economic and Trade Agreement between Canada of the one part, and the European Union and its Member States, of the other part' (2016) COM (2016) 470 final.
[162] See in this regard Chapter 4.3.2.
[163] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 273.
[164] Luis A Avilés, 'Sustainable Development and the Legal Protection of the Environment in Europe' (2011) Sustainable Development Law & Policy, 29; United Nations, 'Our Common Future' (1987) Report of the World Commission on Environment and Development, Annex to document A/42/427.
[165] Patrick Reynaud, 'Sustainable Development and Regional Trade Agreements: Toward Better Practices in Impact Assessments' (2013) McGill International Journal of Sustainable Development Law & Policy, 209.
[166] In fact, as members of the WTO, Canada and the European Union are committed to sustainable development as enshrined in the Preamble to the Marrakesh Agreement establishing the WTO, signed in 1994.
[167] Government of Canada, 'Technical Summary of Final Negotiated Outcomes: Canada-European Union Comprehensive Economic and Trade Agreement' (2013) Agreement-in-Principle, 25.

sustainable development in side-agreements attached to its FTAs,[168] CETA follows the EU approach and deals with the respective sustainable development provisions in the agreement itself. While some might consider this fact as being merely incidental[169], it can also be viewed as a sign of Canadian willingness to take a step towards the European Union and acknowledge the latter´s internal commitments to promote sustainable development in the context of international trade negotiations.[170]

In this context, the precautionary principle specifying a rationale and legal basis for governmental action in the event of inconclusive scientific evidence can be seen as forming a rationale for sustainable development and is indeed increasingly recognised as a central principle in respect thereof.[171] Accordingly, as these two concepts are, to some degree, interconnected, the precautionary principle as an approach to govern risk and, ultimately, prevent irreversible damage to the nature caused by human action is in some way reflected in any sustainable development clause integrated in a FTA between states.[172] Even though it has so far not officially been declared to be a sup-principle of sustainable development, the precautionary principle is closely connected to the latter´s realisation and the balancing between economic development and environmental protection that sustainable development calls for.[173] Yet, as the precautionary principle merely contributes to the underlying idea of sustainable development, its relevance and impact as an independent principle within sustainable development regulation are infinitesimal. Nonetheless, as the inclusion of sustainable development chapters in FTAs generally serves the purpose to ensure that trade and investment liberalisation does not lead to a deterioration in environmental standards, the latter´s implementation within CETA also plays a role in the precautionary principle controversy.

As regards CETA, Canada and the European Union included several provisions exclusively dealing with sustainable development in Chapter 22. As is evident from the structure of the agreement, the so-called Trade and Sustainable Development Chapter mainly serves as a framework chapter establishing institutional rules for the subsequent chapters dealing with trade and labour (Chapter 23) as well as trade and environment (Chapter 24).[174] As far as the precautionary principle is concerned, it is noteworthy that the parties initially reaffirm their existing commitments under related international declarations and arrangements, such as the Rio Declaration on Environment and Development of 1992 and the Johannesburg Declaration on Sustainable Development of 2002. Although such a reaffirmation of international commitments complies with common international treaty practice and despite these commitments stemming from non-binding legal instruments[175], the mentioned international declarations and documents are nevertheless remarkable as all of these international declarations, as far as environmental protection is concerned, provide for the use of the precautionary principle in the case of scientific uncertainty. Thus, all of these international instruments argue for a

[168] Compare NAFTA and Canadian FTAs with Chile and Costa Rica.
[169] As the functional difference is to be considered negligible.
[170] Art 3 TEU obliges the EU to ensure coherence of trade, environmental protection and sustainable development, inside and outside its territory; see more detailed Wybe T Douma, 'The Promotion of Sustainable Development through EU Trade Instruments' (2017) European Business Law Review, 197 and European Commission, 'EU-US Transatlantic Trade and Investment Partnership' (2013) Initial EU Position Paper.
[171] Kamaljit S Bawa and Reinmar Seidler (eds), *Dimensions of Sustainable Development: Volume II* (EOLSS Publishers 2009) 49.
[172] Precaution and Sustainable development have been described as «two sides of the same coin» Gehring and Segger (eds), *Sustainable Development in World Trade Law* (Kluwer International 2005) 442.
[173] Luis A Avilés, 'Sustainable Development and the Legal Protection of the Environment in Europe' (2011) Sustainable Development Law & Policy, 33.
[174] Laura Puccio and Krisztina Blinder, 'Trade and sustainable development chapters in CETA' (2017) Briefing on the Comprehensive Economic and Trade Agreement, 3.
[175] While some critics of CETA criticise, in this regard, that reference is merely made to non-binding international declarations, it must be noted that reference to binding instruments would be superfluous as they require legal compliance in any case.

better articulation between the precautionary principle and the international trade regime. Importantly, the Rio Declaration on Environment and Development of 1992 contains one of the most cited definitions of the precautionary principle.[176]

The objective of the Trade and Sustainable Development Chapter is given in Article 22.1, which, in its basic idea, fosters the rationale of the precautionary principle stipulating that «the parties recognise that economic development, social development and environmental protection are interdependent and mutually reinforcing components of sustainable development, and reaffirm their commitment to promoting the development of international trade in such a way as to contribute to the objective of sustainable development, for the welfare of present and future generations».[177] Yet, the objective merely constitutes a declaration of intention and can, in any case, not be directly related to the precautionary principle as such.

As the precautionary principle is generally promoted by the European society, the involvement and integration of civil society in matters related to the implementation of the Trade and Sustainable Development Chapter is to be seen as the strongest "commitment" of the parties as regards the application of the precautionary principle.[178] The Joint Interpretative Instrument issued by the European Union, its Member States and Canada clarifies that «commitments related to trade and sustainable development […], are subject to dedicated and binding assessment and review mechanisms. […] The European Union and its Member States and Canada are committed to seeking regularly the advice of stakeholders to assess the implementation of CETA. They support their active involvement, including through the establishment of a CETA Civil Society Forum».[179]

Yet, despite CETA providing for a number of binding obligations to involve civil society, the scope and impact thereof remain questionable. Although a joint Civil Society Forum composed of representatives of civil society, including, among others, labour and business organisations and environmental groups, is to be established[180] in order to promote a dialogue on the sustainable development aspects of CETA, its legal implications seem very limited.

In sum, the Trade and Sustainable Development Chapter, as expected, refrains from any reference to the precautionary principle, and consequently does not indicate a shift toward one approach to risk regulation. It forms a basic framework underlying the economic and trade relations between Canada and the European Union that as such neither prohibits nor prescribes the use of precautionary measures in the event of inconclusive scientific evidence. Yet, certain elements implicitly strengthen the position of the precautionary principle, such as the stronger involvement of civil society and the reference to the Rio Declaration on Environment and Development of 1992, which explicitly mentions the term "precaution".[181]

[176] Rio Declaration on Environment and Development of 1992, Principle 15; interestingly, the Rio Declaration is not mentioned in other Free Trade Agreements of the European Union, such as the FTAs concluded with the Republic of Korea, the Republic of Singapore and the Socialist Republic of Vietnam, respectively; the recalling of the Rio Declaration is particularly interesting in view of the fact that the parties paraphrase Principle 15 in the Trade and Environment Chapter, see more detailed in this regards Chapter 4.2.2.
[177] CETA, Article 22.1.
[178] The same applies for the Trade and Labour as well as the Trade and Environment Chapter; see Chapter 4.2.2.
[179] European Union, its Member States and Canada, 'Joint Interpretative Instrument on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union and its Member States' (2016) Official Journal of the European Union, 9.
[180] «The parties *shall* facilitate a joint Society Form…» Article 22.5 CETA.
[181] The lack of enforceability of sustainable development provisions is dealt with in Chapter 4.2.2.

4.2.2 The Precautionary Principle within the Trade and Environment Chapter

It must first of all be stressed that the inclusion of a separate chapter on trade and environment at the core of a trade agreement between two developed countries is a positive and auspicious step as it implies the parties' awareness that addressing trade-related environmental implications not only requires legal and political debates, but concrete actions that ensure the achievement of ambitious environmental objectives.[182] The Trade and Environment Chapter of CETA, Chapter 24, thereby contains two sets of provisions that are particularly relevant with regard to the precautionary principle controversy: the provisions incorporating the precautionary principle into CETA and the ones dedicated to the Multilateral Environmental Agreements.

Incorporation of the Precautionary Principle into Article 24.8.2

As far as the precautionary principle is concerned, the perhaps most significant finding in terms of its future application within the European Union is that the precautionary principle as such is incorporated by virtue of Article 24.8.2:

> «*The Parties acknowledge that where there are threats of serious or irreversible damage,* ***the lack of full scientific certainty shall not be used as a reason for postponing*** *cost-effective measures to prevent environmental degradation*» [emphasis added].

While the parties refrained from explicitly referring to the precautionary principle by means of its designation and also abstained from explicitly mentioning the term "precaution", the relevant paragraph appears to be an exact replication of Principle 15 of the Rio Declaration on Environment and Development of 1992[183] which is generally considered «the most cited and conclusive definition of the [precautionary] principle in effect at the international level».[184] Such an incorporation of the precautionary principle within the core of this new generation trade agreement is worth nothing, particularly in view of the fact that Canadian FTAs typically contain environmental side-agreements or chapters that either refer only to science or do not address the question at all.[185] Remarkably, as the reference to the precautionary principle is preceded by an emphasis on the role of science in environmental regulations, Canada and the European Union set a precedent by ensuring that science and precaution are enshrined together in the same article. The inclusion of the precautionary principle in Article 24.8.2 also demands particular attention taking account of previous and recent European FTAs that contain a reference regarding the role of science in environmental regulations, but do not include any reference to the precautionary principle or precaution in general.[186] It is striking that the in FTAs commonly used first paragraph (Article 24.8.1), this time, was supplemented by an additional paragraph (Article 24.8.2) that exactly replicates one of the most important and frequently cited

[182] The European Union, so far, most commonly included a "Trade and Sustainable Development" Chapter in its FTAs encompassing environmental issues, yet, never dealt with the latter in a separate chapter, see e.g. FTA EU-Korea, Chapter 13 and FTA EU-Singapore, Chapter 13; Canada, so far, most commonly dealt with environmental issues in specific side-agreements, see e.g. NAFTA.

[183] The wording is exactly the same, apart from the insignificant addition of the word "the".

[184] Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 72.

[185] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 275; see e.g. Free Trade Agreement between Canada and Korea, Honduras and Panama, respectively; The replication of Principle 15 of the Rio Declaration in Article 24.8.2 of CETA is important also with a view to the more general rules laid down in the Trade and Sustainable Development Chapter of CETA as the Rio Declaration itself is also recalled in Article 22.1; see Chapter 4.2.1

[186] Compare FTA EU-Korea, Art 13.8 (as for the protection of the environment and social conditions) and FTA EU-Singapore, Art 13.5 (regarding health and safety at work) and 13.9 (regarding environmental protection).

definitions of the precautionary principle. What is more, since the wording is directed to both parties, Article 24.8.2 must be considered as coming very close to an obligation of both Canada and the European Union to take precautionary action whenever the conditions of Article 24.8.2 are met.[187] Yet, as Canada and the European Union mainly hold divergent views as regards the conceptualisation of the precautionary principle, but less in terms of its principal recognition[188] the inclusion of the precautionary principle in the Trade and Environment Chapter of CETA is to be regarded as being remarkable, yet, not revolutionary.[189]

Although welcoming the inclusion of the precautionary principle in the environment chapter of CETA as a certain achievement that has to be acknowledged, some of the few authors that have elaborated on the incorporation of the precautionary principle into CETA find fault with the fact that the relevance of the precautionary principle within CETA is restricted to the limited frame of the sectoral and best-endeavour chapters Trade and Labour and Trade and Environment.[190] Whilst these considerations are not erroneous in themselves, they seem to ignore the fact that, despite being applied in the entire field of EU law, also the European concept of the precautionary principle as such is legally enshrined merely in the environmental section of the TFEU. As analysed in the corresponding chapter of this study,[191] the only explicit reference to the precautionary principle within the legal framework of the European Union is found in Art 191 (2) TFEU and consequently, also only within the environment chapter of the respective treaty. The reason for this sector-specific regulation may lay in the fact that it is at the environment and trade interface that frictions between science and precaution are the most visible.[192] Accordingly, the inclusion of the precautionary principle in the environment (and labour) chapter of CETA cannot be regarded as being a consciously directed restriction, but rather a technique that corresponds to international legal practice.[193] In addition, as the European experience has shown, the inclusion of the precautionary principle solely in the environment chapter of a treaty does not, for itself, prevent the principle from being applied in related sensitive and important areas of law.

As regards the remark that the relevance of the precautionary principle is substantially limited due to its incorporation in a best-endeavour chapter of CETA, it must be noted that the unenforceability of Article 24.8.2 certainly restricts the scope and importance of the precautionary principle within CETA and accordingly the effective protection of environmental issues, yet, it appears that CETA does not

[187] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 14.
[188] See Chapter 2.3.
[189] Similarly, the Trade and Labour Chapter, Chapter 23, also prescribes a precautionary approach as regards the protection of health and safety of workers, with a prior requirement to take consideration of relevant scientific and technical information, Art 23.3.3.
[190] Compare Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch; Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265.
[191] See Chapter 2.2.2.1.
[192] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 272.
[193] Besides the case of the European Union, in international agreements, in general, reference to the precautionary principle is often included in sector-specific agreements (Joakim Zander, *The Application of the Precautionary Principle in Practice: Comparative Dimensions* (Cambridge University Press 2010) 72); in view of the fact that new generation agreements like CETA, by means of their scope and depth, are the opposite of sectoral arrangements, the inclusion of the precautionary principle at the core of such a comprehensive trade agreement must be regarded as a promising trend.

provide for sanctions in case of non-compliance because the European Union itself opposed this, whereas Canada would have been in favour of an enforceable environment chapter.[194]

Provisions dedicated to Multilateral Environmental Agreements

It is widely recognised that multilateral cooperation through the negotiation of MEAs is considered the best approach for resolving trans-boundary (regional and global) environmental issues.[195] As a fundamental tenet of international environmental law, the precautionary principle is enshrined and mentioned in a number of MEAs, such as the Stockholm Convention on Persistent Organic Pollutants[196], the Cartagena Protocol[197] and the United Nations Framework Convention on Climate Change.[198] Aiming towards the resolution of international environmental concerns MEAs frequently include provisions that prohibit trade in certain species or products and allow countries to restrict trade in certain circumstances, and thus provisions that could potentially enter into conflict with WTO rules.[199] It is against this backdrop, supplemented by the fact that typically neither the MEAs nor the WTO Agreements clarify the relationship between these sometimes, at least seemingly, contradictory undertakings, that the issue of coordinating the international trade regime and MEAs has been largely discussed over the last years and has been, for instance, set on the agenda of the Doha Ministerial Conference in 2001.[200]

Without revolutionising the issue, the Trade and Environment Chapter of CETA contains several provisions dedicated to MEAs that promote a better inclusion of policies and measures adopted pursuant to MEAs in accordance with the international trade regime.[201] Besides emphasising the importance of MEAs within the trade relations between Canada and the European Union, Article 24.3 of CETA requires measures adopted or modified by the parties to comply both with the legal framework set under CETA and the MEAs to which they are parties.[202] As such, CETA strives for conciliation between MEAs and the current international trade regime by means of requiring compliance with both frameworks when implementing domestic measures. As the precautionary principle is the underlying rationale for a number of MEAs, [203] such an attempt to overcome potential conflicts between MEAs and the multilateral trade regime in advance by requiring consistency with both of them also has a positive impact on the standing of the precautionary principle within the

[194] Laura Puccio and Krisztina Blinder, 'Trade and sustainable development chapters in CETA' (2017) Briefing on the Comprehensive Economic and Trade Agreement, 10; as regards the enforceability of the environmental chapter see later on in this section.
[195] WTO Secretariat, 'Trade and Environment at the WTO' (2004) Trade and Environment Report, 8.
[196] Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, 2256 UNTS 119; 40 ILM 432 (entered into force 17 May 2004).
[197] Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 29 January 2000, 39 ILM 1027 (entered into force 11 September 2003).
[198] United Nations Framework Convention on Climate Change, UNFCCC, 5 September 1992, 1771 UNTS 107 (entered into force 21 March 1994); as such, it is the parent treaty of the 2015 Paris Climate Change Agreement.
[199] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 273; WTO, 'Doha WTO Ministerial Declaration 2001' (2001) WT/MIN(01)/DEC/1.
[200] ibid; Henrik Horn and Petros C Mavroidis, 'Multilateral environmental agreements in the WTO: Silence speaks volumes' (2014) International Journal of Economic Theory, 147.
[201] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 275.
[202] Article 24.3 and Art 24.4 must be interpreted as allowing Canada and the European Union to adopt and modify measures in application of their respective MEAs, irrespective of whether they have been ratified by the other party; «…the multilateral environmental agreements to which it is party…» Articles 24.3 and 24.4 CETA.
[203] Sabrina Shaw and Risa Schwartz, 'Trading Precaution: The Precautionary Principle and the WTO' (2005) UNU-IAS Report, 4.

multilateral trading system of the WTO and implicitly strengthens its wide-spread application. Especially when compared to Canadian pre-millennial FTAs, such as NAFTA, CETA proves once more to be a modern and progressive trade agreement that not only is intended to boost trade and economic activity, but that also provides for and encourages high levels of environmental protection and as such forms a basis for arguments in favour of a stringent application of the precautionary principle.[204] While a similar NAFTA provision, Article 3 of the side-agreement on environmental cooperation, does not include any reference to international environmental commitments, CETA actually paraphrases the respective Article 3, however, includes a commitment to act in a manner consistent with MEAs.[205] Such an explicit articulation of the high relevance of MEAs obviously strengthens the precautionary approach set through MEAs in regard to its application within the multilateral trading regime.

Apart from the above mentioned provisions that incorporate the precautionary principle into CETA and promote the precautionary approach set through MEAs, the environment chapter of CETA contains several other provisions that are worth noting as they might safeguard the high standards of environmental protection in Europe. Inter alia, the parties recognise the right of each party to set its environmental priorities and to establish its own levels of domestic environmental protection[206] and agree not to lower levels of protection afforded in their environmental law in order to encourage trade or investment.[207] In the context of the precautionary principle controversy it is in particular Article 24.5 that might serve as guarantee that European environmental standards that are often based on the precautionary principle are not lowered for the purposes of promoting trade and investment between the parties.

However, while the substantive provisions of the Trade and Environment Chapter of CETA appear to provide for sufficient substance to uphold the high levels of environmental protection in Europe, their credibility and legal relevance is disputed as the enforceability of the respective provisions is limited.

A fundamental prerequisite for genuine commitments concerning environmental protection is to provide for effective, proportionate and dissuasive sanctions in the case of violations of provisions and to give the respective chapter equal consideration to other chapters within the agreement. This in turn requires subjecting its provisions to the same state-to-state dispute settlement as the other parts of the agreement, such that both Parties can pressure and effectively hold each other accountable for violations of environmental commitments.[208]

However, as far as CETA is concerned, Article 24.16 prescribes that «for any dispute that arises under this Chapter [Trade and Environment Chapter], the Parties shall only have recourse to the rules and procedures provided for in this Chapter». As the environmental section of CETA only contains a week mechanism based on dialogue to resolve potential disputes, its provisions are, in fact, unenforceable. The report of the Panel of Experts, which is to be convened for any matter that is not satisfactory addressed through consultation under Article 24.14, is neither binding on parties nor can it result in

[204] In this context as a fundamental principle of numerous MEAs.
[205] CETA, in the context of environmental protection, proves to be a continuation of the Canadian trend to include references to MEAs whose starting point can be dated back to the turn of the millennium. Compare Canadian FTAs before and after the year of 2000.
[206] CETA, Art 24.3.
[207] CETA, Art 24.5.
[208] In its TTIP resolution, the European Parliament has emphasised the importance of enhancing the credibility of environmental commitments by recommending that the European Commission needs to ensure that «the sustainable development chapter is binding and enforceable» European Parliament, 'European Parliament resolution of 8 July 2015 containing the European Parliament's recommendations to the European Commission on the negotiations for the Transatlantic Trade and Investment Partnership (TTIP)' (2015) P8_TA (2015) 0252.

any form of penalty for breaches of the Trade and Environment Chapter, such as, for instance, appropriate tariff sanctions. Moreover, directly affected natural persons or civil society do not have any effective tool to address potential breaches of the Trade and Environment Chapter by governments or industry.[209]

Yet, it needs to be noted that while Canada would have been in favour of a respective sanction mechanism, it was the European Union itself that opposed the application of the normal SSDS mechanism to the sustainable development chapters of CETA. Taking account of the fact the European Union has some of the world's highest environmental standards,[210] such a special treatment of environmental provisions could be explained by the possible fear of the European Union that the normal SSDS mechanism could have been used against its own legislation or against measures that are more restrictive than the Canadian counterparts. In this regard, Trade Commissioner Cecilia Malmström once stated: «Sustainability and human rights are indeed key to all our trade agreements […] You know that the way for the European Union is to start with dialogue, not with sanctions, because if you start with sanctions, those who will suffer are not the regime - the authorities; it is the ordinary people who benefit from the contacts. The EU model is to start with dialogue, try to set up different forums, engage with civil society».[211]

Overall, the Trade and Environment Chapter of CETA clearly highlights the importance of ensuring that the main purpose of CETA, to promote transatlantic trade and investment, does not lead to any reduction in the levels of protection afforded in the parties' environmental laws, which, in case of the European Union, are often based on the precautionary principle. Through the incorporation of the precautionary principle itself in Article 24.8.2 and the mutual commitment to effectively implement in their laws and practises the MEAs to which Canada and the European Union, respectively, are party, the precautionary principle as applied within the European Union appears to be sufficiently safeguarded and anchored. However, as Canada and the European Union mainly hold divergent views regarding the conceptualisation of the precautionary principle, but less in terms of its principal recognition the absence of any further details on its practical application constitutes an omission that is to be criticised as it entails the potential for conflicts and an eventual rift.[212] In addition, due to the lack of enforceability of the respective treaty provisions their actual legal relevance is to be seen in the future and will primarily depend on the willingness of both parties to live up to their environmental CETA commitments. The lack of enforceability might simply indicate the parties' principle openness, despite their different views regarding the application of the precautionary principle, to produce better and, in the long term, more similar rules as regards the protection of the environment.[213]

[209] CETA, Art 24.15; Transport&Environment and C-Earth, 'Comprehensive Economic and Trade Agreement (CETA) and the Environmnet: A Gold Standard for the Planet or for big Business?' (2016) In house analysis, 9.
[210] European Union, 'Environment and Climate Change' available at «http://eur-lex.europa.eu/summary/chapter /environment.html?root_default=SUM_1_CODED%3D20» accessed 25 May 2017.
[211] Laura Puccio and Krisztina Blinder, 'Trade and sustainable development chapters in CETA' (2017) Briefing on the Comprehensive Economic and Trade Agreement, 10.
[212] However, a clarification in this regard within a trade agreement like CETA would have been remarkable and could not be expected to actually happen.
[213] As regards the role of the United States, see Chapter 2.2.2.2 and 4.2.3.

4.2.3 The Precautionary Principle within the SPS Chapter

As far as sanitary and phytosanitary measures are concerned it seems, at first sight, that one of the main objectives of incorporating SPS-plus rules within a bilateral trade agreement like CETA would be to further the multilateral disciplines on risk regulation, for instance, by including practical guidelines for the application of the precautionary principle.[214]

On a closer look, however, it becomes apparent that Canada and the European Union refrained from developing new disciplines on risk regulation and, for the most part, merely replicated the framework of the WTO by incorporating the respective SPS Agreement.[215] While there is no substantive mention of risk, precaution or science, new disciplines rather focus on additional procedural requirements or incentives for cooperation regarding the establishment of regulations.[216] The SPS Chapter incorporated into CETA merely builds upon the key principles of the SPS Agreement by providing for improved dialogue and cooperation on addressing bilateral SPS issues and abstains from furthering SPS disciplines in a substantive sense. Accordingly, as far as risk regulation is concerned, the substantive SPS provisions under CETA do not indicate a shift from the existing situation and do not tilt towards either of the disparate approaches pursued by Canada and the European Union, respectively. Rather, Chapter 5 of CETA extends the status quo with regard to the precautionary principle and its place within the multilateral trade regime of the WTO.[217] In this regard, the Appellate Body in the case *EC-Hormones*[218] stated: «The precautionary principle indeed finds reflection in Article 5.7 of the SPS Agreement. We agree, at the same time, with the European Communities, that there is no need to assume that Article 5.7 exhausts the relevance of a precautionary principle. It is reflected also in the sixth paragraph of the preamble and in Article 3.3. These explicitly recognise the right of Members to establish their own appropriate level of sanitary protection, which level may be higher (i.e., more cautious) than that implied in existing international standards, guidelines and recommendations». Yet, while the precautionary principle, in general, is indeed recognised by the multilateral trading regime[219], it is merely considered to be a minor part of risk regulation and could as such not protect the European Union against being challenged under the WTO dispute settlement mechanism by, amongst

[214] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 278.

[215] See CETA, Art 5.4; the Agreement on the Application of Sanitary and Phytosanitary Measures sets out the basic rules as regards food safety as well as animal and plant health standards. It allows Member States to set their own standards, however, requires that regulations are based on science and are only applied to the extent necessary to protect human, animal or plant life or health. In addition, related measures should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail (WTO Secretariat, 'Understanding the WTO Agreement on Sanitary and Phytosanitary Measures' (1998) available at «www.wto.org/english/tratop_e/sps_e/spsund_e.htm» accessed 25 May 2017); for more details see Denise Prévost and Peter Van den Bossche, 'The agreement on the application of sanitary and phytosanitary measures' in Patrick F J Macrory, Arthur E Appleton and Michael G Plummer (eds), *The World Trade Organization: Legal, Economic and Political Analysis* (Springer 2005).

[216] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 279; see CETA, Chapter 5.

[217] For a more detailed analysis regarding the standing of the precautionary principle within the multilateral trading system of the WTO, see Chapter 2.2.1.1.

[218] Appellate Body Report, *EC-Hormones*, January 16, 1998, para 124.

[219] However, according to WTO law, only provisional (i.e. temporary) regulations may be based on the precautionary principle, while all other regulations are required to take a science-based approach.

others, Canada for measures that were based on the precautionary principle as applied within the European Union.[220]

Against this backdrop, the pure reinstatement of rules of the SPS Agreement under which the European Union has lost[221] two WTO dispute settlements and the intensification of commitments inherent in the incorporation of such provisions into CETA must be interpreted as full European endorsement of the state of affairs as they stand.[222] This is problematic, as the multilateral trading system of the WTO pursues an approach to risk regulation that does not conform to the precautionary principle as applied within the European Union. While the legal framework of the WTO, as underscored by Article 5.7 SPS Agreement, allows precautionary measures only on an exceptional and temporary basis, the European Union endorses an indefinite or more extensive ratione temporis application of precautionary measures. As the parties confined themselves to refer to the relevant rules as they stand, the divergent views of the WTO and the European Union on the temporal application of precautionary measures are brought and transferred into CETA, which, as far as sanitary and phytosanitary measures are concerned, inevitably harbours the danger of tensions and conflicts.

The reluctance to further the WTO framework on risk regulation can, however, be explained by the fact that the divide over this controversial topic not only pertains to Canada and the European Union, but occurs in a multilateral context.[223] In particular Canada was in a difficult bargaining position to settle its position on the precautionary principle within a bilateral trade agreement, taking account of the fact that the European Union and the United States, being the most opposed with regard to their approaches to risk regulation, are also its two first trading partners.[224] Furthermore Canada and the United States are two of the most integrated economies in the world. It is thus hardly surprising that Canada did not engage in a SPS Chapter with the European Union that could jeopardise its privileged and unique trading relationship with the United States.[225]

The lack of any reference to the European precautionary principle within the hard disciplines of the SPS Chapter of CETA should thus not be overrated. In fact, Canada has shown its general willingness to overcome its long-standing controversies with the European Union regarding the precautionary principle by means of introducing the precautionary principle to the best-endeavour and sectoral Trade and Environment Chapter of CETA.[226]

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[220] Cases *EC-Hormones*, January 16, 1998 and *EC-Approval and Marketing of Biotech Products*, September 29, 2006; the findings have neither led to the irrevocable condemnation of the European approach nor the elimination of the regulatory barriers against which the claims were brought. Yet, in the case *EC-Hormones*, for instance, the United States and Canada were authorised to impose trade sanctions on the EU, worth respectively US $ 116.8 million and Canada $ 11.3 million a year.

[221] As neither of the rulings led to the irrevocable condemnation of the European approach regarding the application of the precautionary principle and as the European Union was, in fact, able to uphold the challenged bans, it might be inappropriate to simple describe the cases as "lost cases"; also see n220.

[222] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 12.

[223] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 279.

[224] ibid; European Commission, 'European Union, Trade in goods with Canada' (2017) available at «http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113363.pdf» accessed 25 May 2017.

[225] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 279; in 2016 bilateral trade in goods and services between these two countries exceeded USD $ 635 billion (€ 578 billion); Government of Canada, 'Trade and Investment: Canada - A Trading Nation' (2017) available at «http://can-am.gc.ca/relations/commercial_relations_commerciales.aspx?lang=eng» accessed 25 May 2017.

[226] And the Trade and Labour Chapter of CETA.

4.2.4 The Precautionary Principle within the TBT Chapter

The chapter on technical barriers to trade (TBT) is a key area of CETA and is deemed to be one of the most ambitious parts of the agreement.[227] Although of less direct concern as regards the application of the precautionary principle, the TBT Chapter of CETA is nonetheless likely to be important for trade issues regarding environmental and health issues. The substantive TBT provisions of CETA generally follow the approach taken in the SPS Chapter and refer as well as reaffirm the parties' obligations and rights under the WTO TBT Agreement.[228] In this regard, Article 4.2 CETA incorporates Article 2 of the TBT Agreement, which is generally considered to allow for precautionary measures in the event of scientific uncertainty, into the bilateral trade agreement between Canada and the European Union. Although less clear than, for instance, the respective Article of the SPS Agreement[229] Article 2.2 of the TBT Agreement appears to authorise precautionary measures by stating that «Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: […] protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products».[230] Interestingly, Article 2 of the TBT Agreement is excluded from the Dispute Settlement Chapter of CETA.[231] Room for the application of the precautionary principle is also let in the Preamble of the TBT Agreement, which as such is not explicitly incorporated into CETA,[232] but is to be considered relevant when it comes to the interpretation of the respective TBT provisions.[233]

However, as there is neither any explicit provision nor jurisprudence regarding the application of the precautionary principle with respect to technical regulations and standards, the extent to which measures based on the precautionary principle are admissible under the TBT Agreement remains equally unclear and disputed.[234] By way of reference, this legal uncertainty is brought and transferred into CETA as the parties refrained from any clarification in this respect. While such a lack of clarification does not for itself represent a deterioration of the European situation as regards the precautionary principle, it does obviously not safeguard the latters' future application either.[235]

4.3 Recognition of the Precautionary Principle within Tools of Trade Facilitation

The previous analysis has shown that neither of the selected substantive provisions of CETA indicates a radical shift toward one approach of risk regulation. Accordingly, much of the efforts to mitigate the

[227] National Board of Trade Sweden, 'Analysis of the possible effects of the CETA free trade agreement on the environment, human and animal health and democratic decision-making' (2016) Publication issued by the National Board of Trade, 8.
[228] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 13; see CETA, Art 4.2.
[229] Article 5.7 of the SPS Agreement.
[230] TBT Agreement, Art 2.2.
[231] See CETA, Art 4.2.3.
[232] See CETA, Art 4.2.
[233] See Vienna Convention on the Law of Treaties, 1969, 1155 UNTS 331, Article 31 (2).
[234] Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 13.
[235] In the particular sensitive area of human health protection the precautionary principle is consequently covered only to a (very) limited extent, namely where it coincides with labour protection and indirectly with environmental protection.

impact of regulatory divergence and promote transatlantic regulatory convergence between Canada and the European Union are reflected within CETA´s tools of trade facilitation.[236]

Contracting parties aiming at the reduction of non-tariff barriers to trade that are caused by, inter alia, divergent regulations and standards can generally rely on several mechanisms that contribute to the overarching objective of trade facilitation. Apart from harmonisation, mutual recognition and equivalency as well as regulatory cooperation are considered to be among the most commonly used tools of trade facilitation.[237] Since CETA does not include measures of harmonisation, the following chapters will primarily focus on the analysis and assessment of the potential implications of equivalency and regulatory cooperation on the continued implementation of the precautionary principle in Europe.

4.3.1 The Impact of "Equivalency of Measures" on the Precautionary Principle

Equivalence assessment and acceptance is an alternative way of facilitating trade.[238] It is based on the rationale that regulatory objectives, for example in relation to health and food quality, in practice can be achieved by the use of different kinds of national regulatory measures. Despite their differences, national regulations can set an identical level of protection and achieve the same regulatory objective and can thus, even though regulatory differences persist, be recognised as equivalent. Accordingly, agreements that allow for equivalence recognition make it possible to maintain disparate national regulatory measures while at the same time removing the measures' trade restrictive effects. [239]

With reference to CETA and the precautionary principle controversy, it is especially Article 5.6 CETA that is of particular interest as it requires Canada and the European Union to recognise measures of the other party as equivalent provided that the latter can objectively demonstrate that its measures achieve the same level of protection.[240] This general equivalency provision is completed by a list of measures that are to be recognised by the parties.[241]

As equivalency recognition implies that a state accepts the import of goods into its territory that do not directly comply with the domestic regulations, some authors have expressed concerns as regards potential adverse effects of equivalency on the level of protection set by environmental and health standards.[242] However, as achieving a similar level of protection is one of the defining criteria of equivalency, this view cannot be shared. In particular in situations where measures are based on the precautionary principle, their level of protection is by definition higher than the protection granted by regulations that favour a re-active risk regulation approach.[243] Therefore, the precautionary principle as such constitutes an obstacle to the recognition of equivalency as it will be virtually impossible for a

[236] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 280.
[237] ibid; Frode Veggeland and Christel Elvestad, 'Equivalence and Mutual Recognition in Trade Arrangements: Relevance for the WTO and the Codex Alimentarius Commission' (2004) NILF Report.
[238] Even though equivalence recognition is a sub-category of regulatory cooperation it is dealt with in a separate Chapter due to its high relevance regarding the precautionary principle controversy.
[239] Frode Veggeland and Christel Elvestad, 'Equivalence and Mutual Recognition in Trade Arrangements: Relevance for the WTO and the Codex Alimentarius Commission' (2004) NILF Report, 8.
[240] The TBT Chapter of CETA provides for a similar provision; see CETA, Art 4.4.
[241] See CETA, Art 5.6.3 in conjunction with Annex 5-E.
[242] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 281; see e.g. Peter-Tobias Stoll and others, 'CETA, TTIP and the EU precautionary principle: Legal analysis of selected parts of the draft CETA agreement and the EU TTIP proposals' (2016) Study - Commissioned by foodwatch, 12.
[243] Otherwise the whole precautionary principle controversy would not exist.

party to demonstrate that a regulatory measure, which is not based on the precautionary principle, has reached the same level of protection set by the other party´s regulation, which in turn is grounded in the application of the precautionary principle. Consequently, measures that do not represent a precautionary approach cannot be recognised as equivalent with measures that are based on the precautionary principle. Against this backdrop, concerns regarding the lowering of European safety standards as a result of equivalency recognition in CETA seem unlikely and inappropriate. This view is supported by Annex 5-E of CETA that deals with the recognition of sanitary and phytosanitary measures and, in this context, stipulates that parties can require the compliance with special conditions, such as in case of fresh meat «compliance with microbiological food safety criteria of the importing party».[244] Consequently, also after CETA, exporters will have to ensure that their products meet the safety criteria of the importing country, which, in case of the European Union, are often based on the precautionary principle as far as environmental and human health standards are concerned. In such situations, Canadian products that comply with Canadian regulations that do not represent a precautionary approach will not be able to benefit from equivalency recognition due to the lack of equivalence between Canadian non-precautionary and European precautionary measures.

Yet, new generation agreements like CETA have been described as "living agreements" that provide for on-going and progressive mechanisms to promote (transatlantic) regulatory convergence. In this sense, Canada and the European Union are expected to try to expand the scope of equivalency. However, in order to do so their laws and regulations need to be approximated and the parties might have to gradually shift their policy objectives. This is something that requires careful assessment so as to ensure that the shift occurs both in favour of the reduction of regulatory barriers to trade as well as the maintenance of high levels of environmental and human health protection. Due to its character, such a process would most likely occur within the framework of regulatory cooperation.[245]

Consequently, non-tariff barriers to trade resulting from regulatory measures that cannot be recognised as equivalent need to be primarily mitigated within the framework of regulatory cooperation.

4.3.2 The Impact of "Regulatory Cooperation" on the Precautionary Principle

Beyond the scope of chapters such as those entirely dedicated to sanitary and phytosanitary measures (SPS Chapter) and technical barriers to trade (TBT Chapter), respectively, Canada and the European Union aim at the reduction of non-tariff barriers to trade more generally by means of regulatory cooperation.[246] The core of regulatory cooperation under CETA[247] is governed by Chapter 21 that, as a means of contributing to the overarching objective of regulatory compatibility and convergence, sets forth general provisions for all areas of regulatory cooperation providing for, amongst others, the creation of institutional bilateral bodies[248] and the consultation with private entities.[249] As throughout

[244] CETA, Annex 5-E, 302.
[245] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 282.
[246] The OECD defines international regulatory cooperation as «any agreement or organizational arrangement, formal or informal, between countries (at the bilateral, regional or multilateral level) to promote some form of cooperation in the design, monitoring, enforcement, or ex-post management of regulation, with a view to support the converging and consistency of rules across borders» (OECD, 'International Regulatory Co-operation: Addressing Global Challenges' (2013) OECD Publishing, 153).
[247] Chapter 21 is supplemented and modified, respectively, for application in specific areas by special provisions in other chapters of CETA.
[248] Such as the Regulatory Cooperation Forum pursuant to Art 26.2.1(h) in conjunction with 21.6 CETA; the CETA Joint Committee pursuant to Art 26.1, etc.
[249] CETA, Art 21.8.

the entire agreement, the parties, also in the case of the Regulatory Cooperation Chapter, abstained from setting detailed and hard obligations that predetermine a specific outcome, but, on the contrary, agreed on vaguely formulated provisions that leave room for treaty interpreters to predict their legal implications on, inter alia, the continuous implementation of the precautionary principle in Europe.

While some authors argue that these voluntary[250] provisions will not be able to enhance the convergence of the parties' respective regulations, others fear that CETA as a "living agreement" could bring convergence to the "lowest common denominator"[251], inevitably leading to the weakening of health and environmental standards in Europe.[252] In this respect, some commentators have expressed concerns that, for instance, the incentive to "establish, when appropriate, a common scientific basis"[253] could indicate a possible attack on the precautionary principle that «could weaken EU environmental protection laws and could hinder the EU's introduction of new rules and regulations to protect the environment in the future».[254] In the same vein, some authors take the view that the mutual promotion of "efficient and effective regulatory processes"[255] could in practice hamper the implementation of regulatory measures based on the precautionary principle.[256] Yet, most of these concerns appear to be doubtful and based on pessimism and general aversion, rather than on objective and impartial legal analyses.[257] In fact, the Regulatory Cooperation Chapter of CETA does not in itself carry any perceptible risk of current or future regulations providing for a lower level of protection.

As provided for in Article 21.1, the scope of application of regulatory cooperation under CETA includes, apart from a few exceptions, all regulatory measures that are of relevance in relation to trade in goods and services. As the respective Article generally refers to the "parties' regulatory authorities" it appears that, on the EU side, regulatory cooperation includes both regulations of the European Union and those of its Member States.[258] As the provision furthermore refers to "development, review and methodological aspects of regulatory measures" it must be assumed that regulatory cooperation encompasses both existing and future regulations. Yet, as a result of general economic and legal circumstances, the main focus will most likely lie on the approximation of future policies and regulations in the relevant areas. In this context, CETA provides for a detailed enumeration of regulatory cooperation activities that are to be pursued by the parties in their endeavours to fulfil the

[250] The voluntary nature of Chapter 21 CETA will be discussed more detailed later on in this section.
[251] Karen Hansen-Kuhn and Steve Suppan, 'Promises and Perils of the TTIP: Negotiating a Transatlantic Agricultural Market' (2013) Institute for Agriculture and Trade Policy, TTIP Series, 4.
[252] Angéline Couvreur, 'New Generation Regional Trade Agreements and the Precautionary Principle: Focus on the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union' (2015) Asper Review of International Business and Trade Law, 265, 282.
[253] CETA, Art 21.4 (n) (iv).
[254] Scott Sinclair, Stuart Trew and Hadrian Mertins-Kirkwood (eds), 'Making Sense of CETA' (2014) available at «www.policyalternatives.ca/publications/reports/making-sense-ceta» accessed 25 May 2017; Usman Khan and others, 'Transatlantic Trade and Investment Partnership: International Trade Law, Health Systems and Public Health' (2015) Report by the London School of Economics and Political Science.
[255] CETA, Art 21.2.4 (c).
[256] Usman Khan and others, 'The Transatlantic Trade and Investment Partnership: International Trade Law, Health Systems and Public Health' (2015) Report by the London School of Economics and Political Science, 12.
[257] The following analysis mainly focusses on aspects relevant to the precautionary principle controversy; for a more general analysis of the Regulatory Cooperation Chapter see Peter-Tobias Stoll, Till P Holterhus and Henner Gött, 'The Planned Regulatory Cooperation Between the European Union and Canada and the USA according to the CETA and TTIP Drafts' (2015) Legal opinion commissioned by the Chamber of Labour, Vienna; Ronan O´Brien, 'Moving Regulation out of Democratic Reach: Regulatory Cooperation in CETA and its Implications' (2016) Working Paper commissioned by the Chamber of Labour, Vienna; Stanko S Krstic, 'Regulatory cooperation to remove non-tariff barriers to trade in products: key challenges and opportunities for the Canada-EU Comprehensive Trade Agreement (CETA)' (2012) Legal Issues of Economic Integration.
[258] Yet, it appears unclear how regulatory cooperation is conducted at a national level, taking account of the high number of Member States, their divergent internal procedures, etc.

objectives of regulatory cooperation as set out in Article 21.3. These activities include, among others, consulting with each other and exchanging information throughout the entire regulatory development process, sharing drafts of proposed regulations so that comments and proposals for amendments may be taken into account as well as conducting a joint risk assessment and a regulatory impact assessment if practicable and mutually beneficial.[259] Future regulatory cooperation as provided by CETA will be carried out primarily by inter-state committees that are established under Chapter 26 CETA and that will comprise representatives of the governments of both Canada and the European Union as well as, at certain intervals, representatives of stakeholders.[260] According to Articles 26.1 and 26.2 CETA, there will be one primary committee (the CETA Joint Committee) and several specialised committees, such as the Committee on Trade and Sustainable Development and the Regulatory Cooperation Forum. The former is intended to coordinate the overall administration and implementation of CETA, while the latter ones will be established for individual chapters and substantive areas in which they then prepare and assist the work of the CETA Joint Committee.[261]

In view of the latter´s powers and competences, it appears that it is in particular the CETA Joint Committee that takes on a major role in the further development of the precautionary principle. As it is responsible for all questions regarding trade and investment between the parties (Article 26.1.3) and has the authority to render binding decisions over a wide range of matters, it, by implication, also has the legal position to make trailblazing decisions with respect to the precautionary principle controversy. In particular in the context of its function as an arbitrator concerning disputes that arise due to divergent views on the interpretation and application of CETA, the CETA Joint Committee will have the opportunity to set out and prescribe specific approaches regarding the handling of, among others, scientific uncertainty concerning risks to human health and the environment.[262] In addition, the CETA Joint Committee has the authority to, among others, agree on amendments of CETA and adopt binding interpretations of relevant provisions even outside dispute resolution. It thus appears that the future place of the precautionary principle within the trade relations between Canada and the European Union will primarily depend on the views and practices shared by the CETA Joint Committee in its function as the top body of CETA. As commitments concerning sustainable development fall within the field of the common commercial policy as defined in Article 207.1 TFEU and, as such, within the exclusive competence of the European Union pursuant to Article 3.1 (e) TFEU[263], the CETA Joint Committee will, in matters related to the precautionary principle, consist of representatives of the

[259] CETA, Art 21.4.

[260] See CETA, Chapter 26; «all Committees and bodies established under the EU-Canada Comprehensive Economic Trade Agreement (CETA) are bilateral bodies, composed by the EU and Canada. Each decides the composition of its own delegation according to its internal rules. The common commercial policy is an exclusive competence of the EU. In view of this allocation of competences, the external representation of the EU in trade matters is ensured by the Commission as prescribed by Article 17 of the Treaty on European Union. In line with this principle, the Commission will represent the EU in all CETA specialised committees as long as these committees intervene in matters falling within EU competence. In cases where specialised committees would intervene in matters falling within the competences of Member States, the latter would have the right to be present and participate in the adoption of decisions on such matters. The same principle also applies to the CETA Joint Committee» Cecilia Malmstöm, 'Parliamentary Questions: Answer given by Ms Malmström on behalf of the Commission' (2017) available at «www.europarl.europa.eu/sides/getAllAnswers.do?reference=P-2016-009059&language=EN» accessed 25 May 2017.

[261] Peter-Tobias Stoll, Till P Holterhus and Henner Gött, 'The Planned Regulatory Cooperation Between the European Union and Canada and the USA according to the CETA and TTIP Drafts' (2015) Legal opinion commissioned by the Chamber of Labour, Vienna, 5.

[262] Compare CETA, Art 26.1.4 (c).

[263] European Court of Justice, Opinion 2/15, May 16, 2017, para 139-167.

European Commission and Canada.[264] Accordingly, as EU Member States will not be represented in the CETA Joint Committee, decisions and the willingness to compromise in matters pertaining to the application of the precautionary principle will entirely lie in the hands of the European Commission.

Yet, it is to be noted that the powers of the CETA Joint Committee are subject to several important restrictions. First, according to Article 26.3.3 CETA, decisions will become legally valid only in the event of mutual consent; thus, if the representatives unanimously agree on a particular matter.[265]. Second, according to Article 30.2.1 CETA, amendments of the agreement need to be approved by each Party and are therefore subject to the respective internal requirements and procedures.[266] The CETA Joint Committee can therefore not act without a decision of the EU institutions, taken according to the European internal legal procedures.[267] Third, with respect to the precautionary principle controversy, it must be noted that interpretations of CETA provisions are binding on tribunals established under the Investment Chapter (Chapter 8) and the Dispute Settlement Chapter (Chapter 29).[268] As most of the provisions relevant to the precautionary principle controversy are, however, excluded from the Dispute Settlement Chapter, binding interpretations issued by the CETA Joint Committee on matters related to the precautionary principle appear to be limited in scope.[269] Yet, notwithstanding the aforementioned restrictions, regulatory decisions of great importance will be strongly affected by the activities of the CETA Joint Committee that, if used appropriately, can thus become a stepping stone for the future strengthening of the European precautionary principle.[270]

With a view to the general implications of regulatory cooperation on the continuous implementation of the precautionary principle, it is to be noted that Canada and the European Union refrained from any explicit mention of the precautionary principle in the context of regulatory cooperation. Having said

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[264] Compare Cecilia Malmstöm, 'Parliamentary Questions: Answer given by Ms Malmström on behalf of the Commission' (2017) available at «www.europarl.europa.eu/sides/getAllAnswers.do?reference=P-2016-009059&language=EN» accessed 25 May 2017.

[265] In this regard, the European Commission declared that «the CETA Joint Committee is not an independent body and shall make its decisions and recommendations only by agreement between the EU and Canada» European Commission, 'Proposal for a Council Decision on the conclusion of the Comprehensive Economic and Trade Agreement between Canada of the one part, and the European Union and its Member States, of the other part' COM (2016) 443 final; This implies a veto right of both parties; which is also of particular importance regarding the precautionary principle controversy as it ensures the EU´s ability to insist on its regulatory approaches concerning risk regulation.

[266] Concerning amendments of protocols and annexes Article 30.2.2 remains ambivalent and vague, although it has been amended during the so-called legal scrubbing: «The Parties ***may*** approve the CETA Joint Committee's decision in accordance with their respective internal requirements and procedures necessary for the entry into force of the amendment»; as opposed to paragraph 1, the parties' approval is not a clear condition.

[267] European Commission, 'Proposal for a Council Decision on the conclusion of the Comprehensive Economic and Trade Agreement between Canada of the one part, and the European Union and its Member States, of the other part' COM (2016) 443 final; These conditions are particularly important, taking consideration of a judgement rendered by the Second Senate of the German Federal Constitutional Court on CETA on December 07, 2016 in which "democratic backing" of any decision made by one of the committees established under CETA was expressly required; see German Federal Constitutional Court, 2 BvR 1368/16, 2 BvE 3/16, 2 BvR 1823/16, 2 BvR 1482/16, 2 BvR 1444/16, December 07, 2016.

[268] CETA, Art 26.1.5 (e).

[269] As stated in the introductory Chapter of this thesis, the much discussed CETA chapter on investment and investor-state dispute settlement is beyond the scope of the current study. However, it shall be noted that, from the author´s point of view, implications on the continued realisation of the European precautionary principle are to be expected mutatis mutandis to extent as described in this section.

[270] Ronan O´Brien, 'Moving Regulation out of Democratic Reach: Regulatory Cooperation in CETA and its Implications' (2016) Working Paper commissioned by the Chamber of Labour, Vienna, 10; as the committee on Trade and Sustainable Development assists the CETE Joint Committee in areas particularly relevant to the precautionary principle controversy, it will have an important role in the further development of the precautionary principle concept as well (e.g. according to Art 26.2.4 CETA it is entitled to propose draft decisions for adoption by the CETA Joint Committee).

that, the challenge for the precautionary principle appears to be that regulatory cooperation will unavoidably bring up a clash of opposed regulatory approaches regarding the handing of uncertain risks. Yet, while the application of the precautionary principle is certainly not promoted within the Regulatory Cooperation Chapter of CETA, its use in European regulatory practice appears nonetheless to be warranted. First, in discussing the scope of regulatory cooperation reference is being made to, among others, the Trade and Environment Chapter of CETA which itself does not explicitly refer to the precautionary principle, but instead paraphrases one of the most cited definitions thereof.[271] Consequently, as far as environmental regulations are concerned, the future application of the precautionary principle appears to be safeguarded. Second, Article 21.2.4 explicitly states that the endeavour of enhancing convergence and compatibility of regulatory measures should not prevent the parties from adopting divergent legislative approaches by stipulating that furthering regulatory cooperation does not limit «the ability of each Party to carry out its [own] regulatory, legislative and policy activities». Taking account of the fact that Canada takes a middle position between the United States and the European Union, which are commonly considered to hold the most divergent views as regards the application of the precautionary principle, it may be the case that such general reservations were considered sufficient to ensure the future application of the precautionary principle. This consideration is indirectly supported by the TTIP-EU Proposal for a Chapter on Regulatory Cooperation which explicitly acknowledges the right of both parties to «apply its fundamental principles governing regulatory measures in its jurisdiction, for example in the areas of risk assessment and risk management […] For the EU, such principles include those established in the Treaty on the Functioning of the European Union».[272] As Canada does not oppose the European approach to risk regulation to the extent the United States does, but increasingly accepts the precautionary principle as a principle that is to be applied in the event of scientific uncertainty[273], such a specific clause on risk regulation might have been deemed superfluous.[274] Third, the parties expressly agreed on making the commitment to ensure high levels of environmental protection as well as protection for human, animal and plant life or health an underlying principle of regulatory cooperation.[275] In this context reference is being made to CETA itself, which, as already mentioned, contains one of the most cited definitions of the precautionary principle. This general approach to regulatory cooperation is underpinned by the European Commission´s Detailed Explanation on the EU´s Proposal for a Chapter on Regulatory Cooperation stating that «regulatory cooperation must be consistent with the objective of pursuing a high level of protection and in no way restrict the right of each side to maintain, adopt and apply timely measures to achieve legitimate public policy objectives».[276]

In addition, and most importantly, participation in regulatory cooperation is explicitly characterised as being of voluntary nature.[277] Accordingly, neither of the parties is legally obliged to enter into any particular regulatory cooperation activity and, more significantly, to reach agreement. As provided for

[271] See Chapter 4.2.2

[272] TTIP-EU Proposal for Chapter: Regulatory Cooperation, made public on March 21, 2016, available at «http://trade.ec.europa.eu/doclib/docs/2016/march/tradoc_154377.pdf» accessed 25 May 2017; however, this is merely a proposal; the actual text in the final agreement will be a result of negotiations between the EU and US.

[273] See Chapter 2.2.2.2.

[274] In addition, it must be noted that regulatory cooperation under CETA is based on voluntary participation, while regulatory cooperation under TTIP is deemed compulsory, yet, exempted from the application of the agreement´s dispute settlement (no reference as regards voluntary participation). This might explain the specific clause on risk assessment and management in the TTIP Proposal.

[275] See CETA, Chapter 21.2.2.

[276] European Commission, 'Towards an EU-US trade deal: Making trade work for you' (2015) Detailed Explanation on the EU´s Proposal for a Chapter on Regulatory Cooperation.

[277] CETA, Art 21.2.6.

in Article 21.2.6 both parties may refuse to cooperate and may withdraw from cooperation at any stage of the cooperation process. This general voluntariness of regulatory cooperation is also substantiated by the parties' Joint Interpretative Instrument which under point three clarifies that «[regulatory] cooperation will be voluntary: regulatory authorities can cooperate on a voluntary basis but do not have an obligation to do so, or to apply the outcome of their cooperation». Yet, without having any influence on the general voluntariness of regulatory cooperation, both parties are required to explain their refusal to initiate regulatory cooperation and their withdrawal from ongoing cooperation, respectively. While such a requirement does not restrict the voluntary character of regulatory cooperation, it does pressure the parties to provide political justification.[278] However, as the parties refrained from any further reference regarding the reasonableness of such grounds for refusal or withdrawal, the level of justification appears to be low.[279]

It must, however, be noted that a more comprehensive refusal to cooperate on regulatory measures beyond a specific project could be prohibit under provisions of general international law. As CETA provides for regulatory cooperation also in other parts of the agreement and generally obliges the parties to further develop regulatory cooperation[280], a party´s total refusal of any regulatory cooperation in a specific area might amount to a violation of international contract law, which prohibits the frustration of contracts and prescribes the duty to fulfil contracts in good faith.[281]

Overall, it is to be concluded that the Regulatory Cooperation Chapter of CETA does not in itself imply any direct change of the legal framework in which the precautionary principle is to be applied. Due to its voluntary character, the mutual commitment to ensure high levels of protection and the preservation of the parties' right to adapt regulatory measures in accordance with their own domestic regulations and standards, the Regulatory Cooperation Chapter of CETA contains sufficient elements that serve as guarantees of the European future ability to apply a precautionary approach whenever science meets its limits. In order to protect the specific regulatory interests of both parties, the Regulatory Cooperation Chapter expressly emphasises that regulatory cooperation is not intended to impede or limit the parties' right to autonomously stipulate its own standards of protection. As such, the Regulatory Cooperation Chapter of CETA rather contains the potential to enhance a shared understanding of the (European) precautionary principle, than the danger to substantially weaken its position in the bilateral trade relations between Canada and the European Union. As long as regulatory cooperation is guided by public policy and environmental concerns, rather than by trade facilitation, the exchange of best practices and successful approaches is to be regarded as valuable and positive in terms of pursuing and deepening bilateral relations between Canada and the European Union. Under those circumstances, the Regulatory Cooperation Chapter of CETA rather bears the potential to foster, in the long term, effective reduction of non-tariff barriers to trade while simultaneously reaching the highest level of protection possible, than the danger of adverse effects on the place of the precautionary principle in Europe.

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[278] Peter-Tobias Stoll, Till P Holterhus and Henner Gött, 'The Planned Regulatory Cooperation Between the European Union and Canada and the USA according to the CETA and TTIP Drafts' (2015) Legal opinion commissioned by the Chamber of Labour, Vienna, 4.

[279] In consideration of this, divergent views on the regulation of scientific uncertainty and the European willingness to uphold high standards of human health and environmental protection are, at any rate, appropriate reasons to refrain from regulatory cooperation on specific issues.

[280] CETA, Art 21.2.4.

[281] Peter-Tobias Stoll, Till P Holterhus, Henner Gött, 'The Planned Regulatory Cooperation Between the European Union and Canada and the USA according to the CETA and TTIP Drafts' (2015) Legal opinion commissioned by the Chamber of Labour, Vienna, 4; Vienna Convention on the Law of Treaties, 1969, 1155 UNTS 331, Articles 18 and 26.

5 Conclusion

In view of technological change and scientific developments, governments find themselves increasingly confronted with hazards to human health and the environment that are difficult to identify and almost impossibly to quantify. As globalisation continues to increase and global economy is becoming more integrated and interdependent than ever before, the need for effective risk management at the local, national and international level has increasingly been recognised by the competent authorities that, in search of an appropriate risk regulation regime, have adopted a plethora of new laws, agencies, and policies to protect human health and the environment. Owing to the fact that national legislation is heavily influenced by the domestic economic situation, societal fears and socio-political priorities, states have developed divergent views on the balance of science and precaution, manifesting themselves particularly in the event of scientific uncertainty and the domestic application of the precautionary principle as a tool to provide a rationale for action.

These observations also hold true for Canada and the European Union, with the former privileging a science-based approach to risk regulation compared to the latter who endorses a more cautious stance that promotes a preventive approach based on the precautionary principle as enshrined in European treaties, laws and jurisprudence. While the reality of precaution actually appears to be risk and context specific, the legal and policy analysis conducted as part of this study confirms and corroborates the widespread conviction that the European Union, based on the precautionary principle, proactively regulates uncertain risks while Canada, on the other side, favours a re-active approach to risk regulation generally waiting more circumspectly for scientific evidence of actual harm before taking regulatory action. Even though the precautionary principle is increasingly recognised in the laws and jurisprudence of Canada, it is conceptualised differently and does not rely on a consistent application.

Against this backdrop, from a socio-political standpoint, the anxieties of European society over the potential adverse effects of CETA on the continuous implementation of the precautionary principle in Europe appear to be legitimate. However, from a legal perspective, the European ability to regulate sensitive areas in accordance with the precautionary principle should not be substantively or radically changed by the legal framework of CETA. First, and most importantly, the precautionary principle is enshrined in the treaty text itself. Second, sustainable development forms a basic framework underlying the economic and trade relations between Canada and the European Union. Third, the parties have committed themselves to uphold existing levels of protection and explicitly preserved the parties' right to autonomously define domestic standards of protection and to adopt regulatory measures according to their own domestic priorities. Forth, both parties promised one another compromise and mutual understanding. Fifth, regulatory cooperation is voluntary and by no means requires the parties to enter into any particular regulatory cooperation activity and, more significantly, to reach agreement. Yet, as most of the provisions relevant to the precautionary principle controversy are voluntary in nature and lack any enforceability, the preservation of high standards of health, environment and consumer protection in Europe will primarily depend on the willingness and motivation of the European Union to uphold its high levels of protection. CETA, in any case, provides for the necessary tools to protect the European precautionary principle from any possible attacks from Europe´s transatlantic trading partner Canada. Due to its decisive role in the overall administration, implementation and interpretation of CETA and its authorisation to resolve disputes and take binding decisions, it is in particular the CETA Joint Committee that appears to take on a major role in the further development of the precautionary principle. If used appropriately, it can become a stepping stone for the future strengthening of the European precautionary principle.

Accordingly, despite allegations to the contrary, CETA has significant potential to reinforce and enhance the trade relations between Canada and the European Union and to promote a better

articulation between regulatory measures aimed at the prevention of long-term multifaceted risk issues within the international trade regime. By promoting dialogue rather than conflict with an international trading partner, the European Union took the necessary precautions to ensure that trade and investment liberalisation does not lead to a deterioration in environmental and human health standards.

As the place of the precautionary principle within the legal framework of the WTO has not significantly changed over the past years and since the principle itself is sufficiently safeguarded and anchored in the trade agreement between Canada and the European Union, the study concludes that European regulators will, also after CETA, be able to continue to regulate sensitive areas in accordance with the precautionary principle as established in the European treaties, laws and jurisprudence. Provided that the European Union is actually willing to uphold its high safety standards, additional commitments under CETA will not impede the ability of policymakers to take appropriate and needed measures.

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