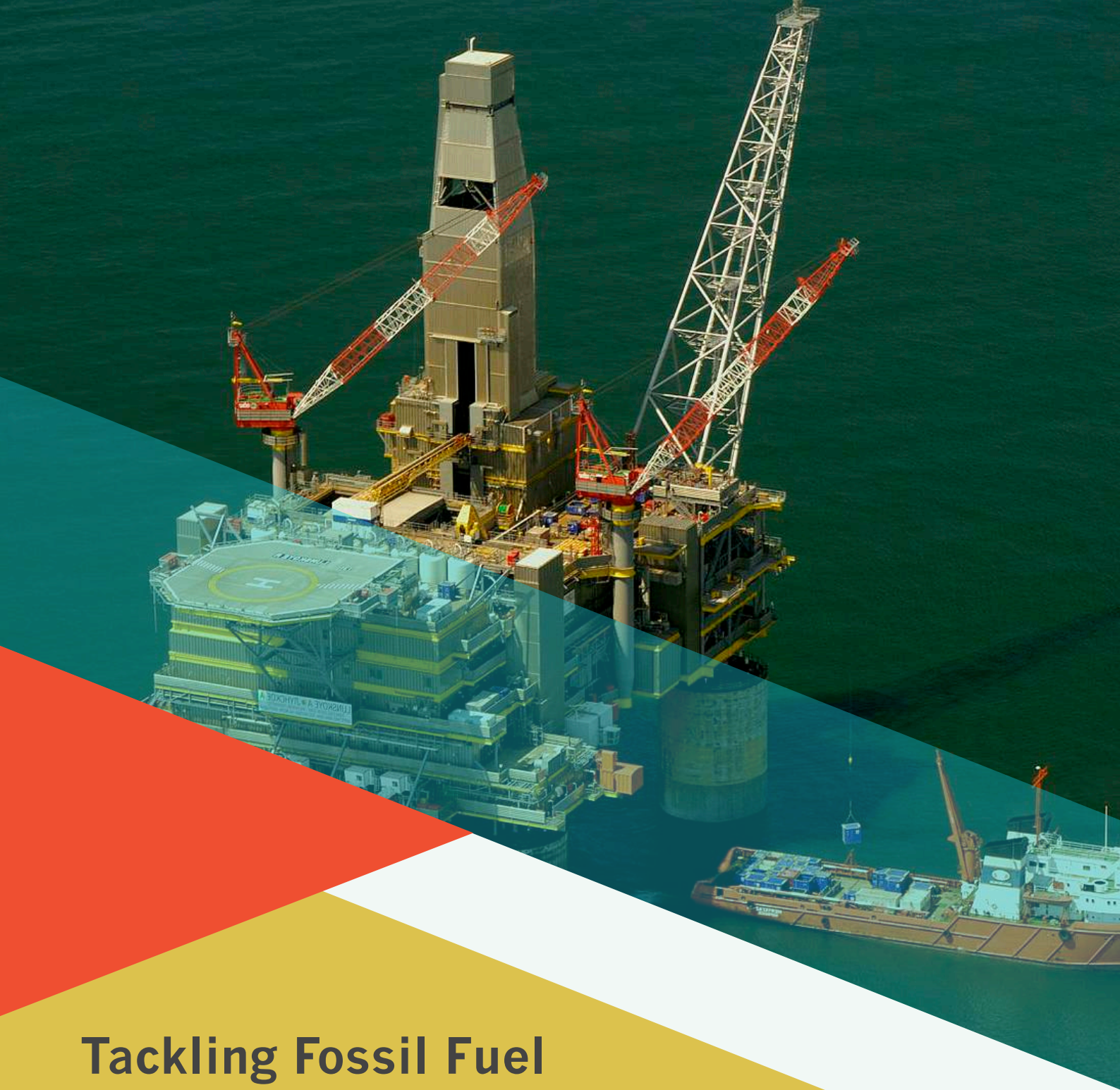




Tackling Fossil Fuel Subsidies through International Trade Agreements

NOVEMBER 2017

Cleo Verkuijl
Harro van Asselt
Tom Moerenhout
Liesbeth Casier
Peter Wooders

 Climate
Strategies

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Cleo Verkuijl - *Research Fellow, Stockholm Environment Institute (SEI)*

Harro van Asselt - *Senior Research Fellow, Stockholm Environment Institute (SEI)*

Tom Moerenhout - *Associate, International Institute for Sustainable Development (IISD)*

Liesbeth Casier - *Project Officer, International Institute for Sustainable Development (IISD)*

Peter Wooders - *Group Director (Energy), International Institute for Sustainable Development (IISD)*

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List of Abbreviations

APEC	Asia-Pacific Economic Cooperation
AB	Appellate Body
ASCM	Agreement on Subsidies and Countervailing Measures
BRIICS	Brazil, Russia, India, Indonesia, China and South Africa
CTE	Committee on Trade and Environment
CVD	Countervailing duty
EU	European Union
FFSR	Fossil fuel subsidy reform
FIT	Feed-in tariff
G20	Group of 20
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
IDC	Intangible drilling costs
IEA	International Energy Agency
IMF	International Monetary Fund
IUU	Illegal, unreported and unregulated
LPG	Liquefied petroleum gas
NSM	National Solar Mission (India)
OECD	Organisation for Economic Co-operation and Development
SCM Committee	Committee on Subsidies and Countervailing Measures
SDG	Sustainable Development Goal
TPP	Trans-Pacific Partnership
TPR	Trade Policy Review
TPRB	Trade Policy Review Body
TPRM	Trade Policy Review Mechanism
TRIMs Agreement	Agreement on Trade-Related Investment Measures
US	United States
WTO	World Trade Organization

Executive Summary

Fossil fuel subsidies undercut the international community's Sustainable Development Goals and climate change objectives in many ways. They do so, for example, by diverting investment from development objectives such as health care, education and access to renewable energy, and by locking in carbon-intensive energy systems for decades into the future. Estimated at several hundred billion dollars a year, such subsidies also affect fossil fuel prices, and can therefore have distorting impacts on trade and investment.

Given its central role in disciplining trade-distorting subsidies across sectors, its previous efforts to reduce environmentally harmful fisheries subsidies, and its mandate to ensure economic progress with sustainable development, the World Trade Organization (WTO) is an obvious candidate for advancing fossil fuel subsidy reform (FFSR) internationally. However, the Organization's engagement on this topic has been limited. In fact, while a growing body of disputes on renewable energy support measures have been brought before the WTO, Members have yet to initiate legal proceedings against subsidies for oil, coal or gas.

As discussed in this working paper, there is a range of explanations for this puzzling discrepancy. From a political perspective, the different role played by the two industries' domestic pressure groups has been identified as a key contributing factor. Another suggested reason is that newer subsidies – such as those to renewable energy – are more likely to be challenged than long-standing support measures – such as those for fossil fuels – that have already been built into investor decision-making.

However, most explanations for the absence of fossil fuel subsidy disputes at the WTO stress legal considerations. Scholars have argued that WTO law interacts with the specifics of support measures to fossil fuel producers and consumers, resulting in their “undercapture” compared to renewable counterparts. While such explanations may have merit, there is a need to advance the debate beyond generalities. Fossil fuel support measures differ on a case-by-case basis, and the WTO legality of a given measure cannot be fully established without closer examination of its specific features.

Against this backdrop, this working paper analyses the compatibility of five selected fossil fuel support measures in the Group of 20 (G20) countries with the WTO's 1994 Agreement on Subsidies and Countervailing Measures (ASCM). The exercise has never been attempted before. In doing so, the working paper identifies some of the key legal questions that such support measures raise at the WTO, as well as challenges to completing such legal analyses. Specifically, the findings highlight the difficulty of litigating fossil fuel consumption subsidies through the ASCM, and of demonstrating adverse effects of support measures falling within the ASCM's category of “actionable” subsidies. Nevertheless, the futility of litigating fossil fuel subsidies under the WTO should not be treated as a foregone conclusion. In particular, more could be done to probe the trade effects of actionable subsidies to fossil fuel producers. There may also be potential in exploring to what extent individual fossil fuel support measures may fall within the ASCM's category of prohibited (i.e. never permitted) subsidies.

Yet, the difficulty of litigating such measures remains substantial. While enhanced transparency could help address some of the challenges complainants may face, fossil fuel subsidy notification rates within the WTO system remain disappointingly low.

In light of these shortcomings, the working paper identifies five complementary avenues for reform of international trade policy to enable countries to better address fossil fuel subsidies:

1 Promote technical assistance and capacity building: this avenue could include lesson-sharing on fossil fuel subsidy reform and technical cooperation with existing initiatives such as the Enhanced Integrated Framework for Least Developed Countries. To ensure value added, the work of the WTO in this area can build on, and be coordinated with, activities by other international and non-governmental organisations, such as the World Bank, the International Monetary Fund and the Global Subsidies Initiative.

2 Enhance transparency: this option could include Member commitments to voluntarily notify fossil fuel subsidies under the ASCM based on a common template. Member States could also commit to include fossil fuel subsidies within their Trade Policy Reviews under the Trade Policy Review Mechanism. Finally, Members could seek to strengthen the enforceability of existing notification obligations. All this could add value to overall efforts to strengthen transparency (notably through the G20 self-reporting and the G20 and APEC voluntary peer reviews) by broadening the group of countries that offer clarity on their fossil fuel subsidies.

3 Pledge subsidy reform and ensure credible follow-up through reporting and review: this avenue could include pledges by Members to eliminate or reduce their fossil fuel subsidies. It could build on the ASCM, and link to other voluntary commitment and review processes (e.g. the G20's and APEC's), extending the system to Members that do not participate in such forums.

4 Adopt a political declaration: one option in this regard would be to negotiate an interpretation of the scope of the ASCM, i.e. a political understanding on how fossil fuel subsidies – or specific types thereof – would fall under the definition of ASCM Article 1. Another option – without legal effects – would be to clarify the mandate of the Committee on Trade and Environment to discuss fossil fuel subsidies or, more generally, affirm that the WTO is an appropriate forum for intergovernmental dialogue on this issue.

5 Expand the category of prohibited subsidies (with possible exemptions): this option could involve the inclusion of fossil fuel subsidies in the ASCM's category of prohibited subsidies, for instance those with trade-related or environmental effects. Prohibitions could be tailored to meet specific needs, such as taking into account special and differential treatment, subsidies aimed at the poor, and allowing for a more flexible timeline.

In the current political climate, some of these avenues may be more feasible than others. However, options could also be pioneered by one or several WTO Members, or through regional, mega-regional and plurilateral trade agreements. Whichever approach is chosen, it will need to adequately address the special circumstances of developing countries, and complement ongoing efforts in other forums.

The adoption of the 2030 Agenda and the Paris Agreement represent a clarion call for more decisive action on climate change and sustainable development, providing a clear mandate for deeper engagement of the international trade community in this space. Given their potential to bring about “lose-lose-lose” (climate, sustainable development and trade) outcomes, reform of fossil fuel subsidies offers a compelling starting point for this effort.



Introduction

Fossil fuel subsidy reform (FFSR) is attracting increasing attention as a way to bring about significant sustainable development benefits and help to meet the objectives of both the Paris Agreement and the 2030 Agenda for Sustainable Development.

From the perspective of climate change mitigation, such subsidies are a major impediment to a sustainable energy transition. They artificially enhance the competitiveness of fossil fuels, divert investment from renewables and energy efficiency, and lock in carbon-intensive energy systems for the coming decades (Asmelash 2016). It has been estimated that greenhouse gas emissions could be reduced by about 11 per cent on average by 2020 if FFSR were to be implemented in a sample of 20 countries (Merrill et al. 2015).¹

From a broader sustainable development perspective, fossil fuel subsidies divert investment from pressing development needs, such as healthcare and education (Clements et al. 2013). Moreover, there is a growing understanding that such subsidies tend to be regressive in nature, undercutting arguments that they are a necessary tool for poverty alleviation (Coady et al. 2015a; Whitley and van der Burg 2015). In recognition of the various advantages of FFSR, the Group of 20 (G20) committed in September 2009 to “phase out and rationalise over the medium term inefficient fossil fuel subsidies” (G20 2009), a pledge subsequently echoed by the 21 economies of the Asia Pacific Economic Cooperation (APEC) group (APEC 2009).

Owing to its wide membership, its central role in disciplining trade-distorting subsidies across economic sectors, and its well-established dispute settlement system, the World Trade Organization (WTO) would seem well suited to take the FFSR

¹ Algeria, Bangladesh, China, Egypt, Ghana, India, Indonesia, Iran, Iraq, Morocco, Nigeria, Pakistan, Russia, Saudi Arabia, Sri Lanka, Tunisia, United Arab Emirates, United States, Venezuela and Vietnam.

agenda forward. To date, however, the Organization's involvement in this issue has been limited. In fact, while various disputes relating to renewable energy subsidies have been launched at the WTO over the past decade, no fossil fuel subsidies have been challenged thus far (Droege et al. 2016).

Arguably, however, the topic falls squarely in the Organization's mandate. By affecting fossil fuel prices, subsidies can have distorting impacts on trade and investment (Burniaux et al. 2011). Moreover, the WTO was established with a view to ensure economic progress is achieved in accordance with the objective of sustainable development (Marrakesh Agreement 1994, preamble). The 2030 Agenda recognises that the achievement of sustainable consumption and production patterns (Sustainable Development Goal (SDG) 12) will require "rationaliz[ation of] inefficient fossil-fuel subsidies that encourage wasteful consumption ... including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts." It thus strengthens the rationale for addressing fossil fuel subsidies within the WTO.

Although parallels should not be overstated, it is also worth noting the WTO's engagement on reducing environmentally harmful fisheries subsidies as part of the Doha Round (see also Young 2017). Observing the discrepancy in how the two subsidy types were treated in the Organization, the former WTO Director-General Pascal Lamy (2013) characterised the absence of fossil fuel subsidies from the WTO agenda as a "missed opportunity".

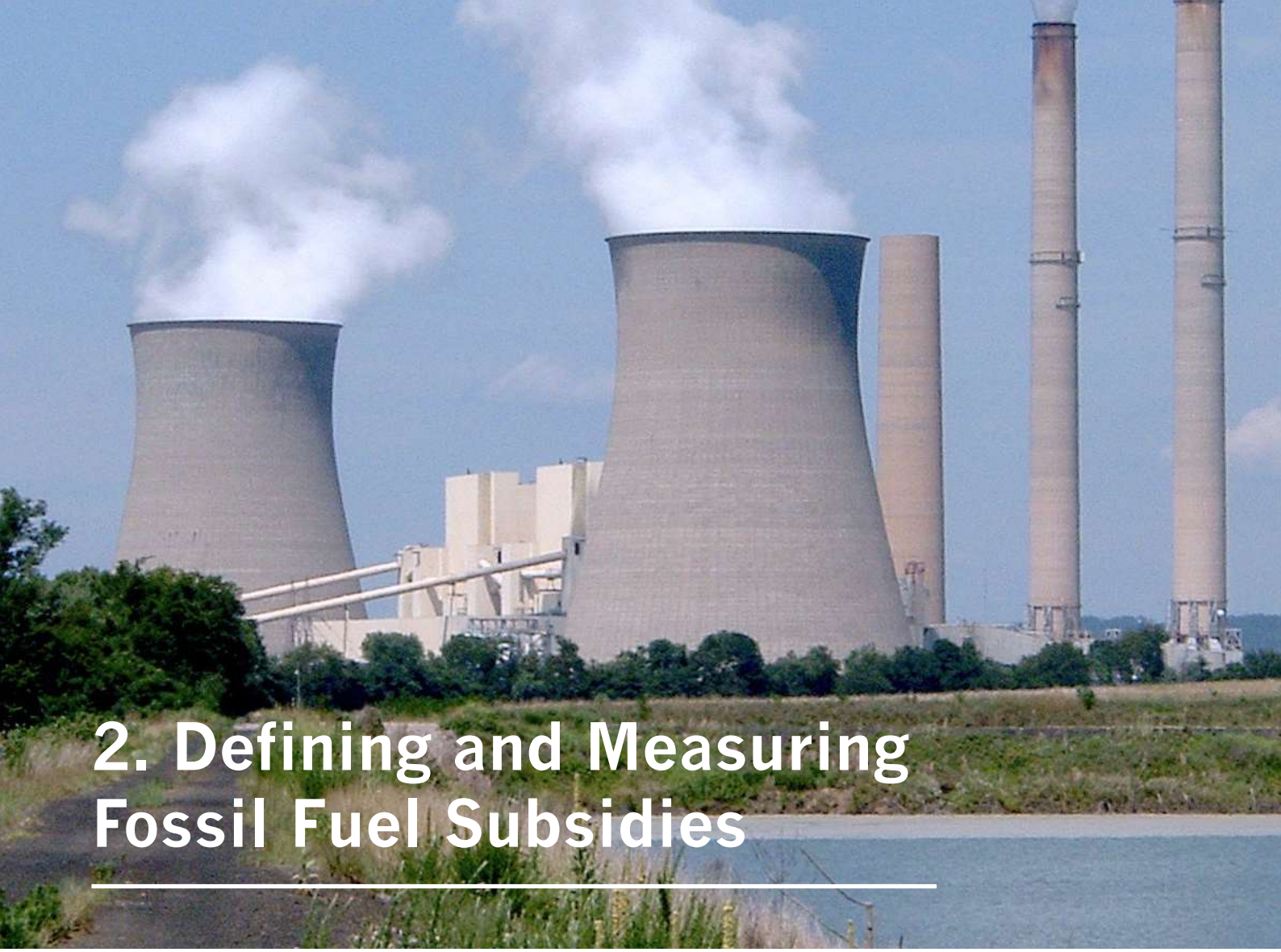
Against this backdrop, this working paper aims to clarify why the WTO's engagement on fossil fuel subsidy reform has thus far been limited, and to explore potential avenues for enhancing this involvement in future. Considering the issue primarily through a legal lens, the working paper seeks to go beyond theoretical considerations. It assesses whether a number of fossil fuel support measures are compatible with the WTO's rules. The findings of this practical exercise have informed the report's recommendations for WTO reform.

The paper proceeds as follows. Chapter 2 provides an overview of the size and scope of fossil fuel subsidies, while acknowledging conceptual challenges. Chapter 3 offers an introduction to WTO subsidies law. Although the 1994 General Agreement on Tariffs and Trade (GATT) and Agreement on Trade-Related Investment Measures (TRIMs Agreement) are highlighted in this context, particular attention is paid to the WTO's dedicated subsidies treaty, the Agreement on Subsidies and Countervailing Measures (ASCM).

Turning from theory to practice, Chapter 4 considers the WTO's case law on renewable energy support measures, highlighting key lessons from recent judgements by the WTO adjudicating bodies in this area. Chapter 5 then addresses the critical question of why the WTO's case law thus far has focused on renewable energy subsidies, while fossil fuel subsidies have evaded litigation. The chapter discusses both political and legal factors and concludes with an appeal to avoid treating "fossil fuel subsidies" as a single entity, as there is much to be gained from considering their WTO legality on a case-by-case basis.

Chapter 6 offers a blueprint for what such an approach could look like, by subjecting five fossil fuel support measures in G20 countries to an initial test of compatibility with the ASCM. In doing so, this chapter also identifies some of the key challenges and questions that such an analysis must overcome, making a novel contribution to the literature on fossil fuel subsidies, which has so far been primarily theoretical. It concludes that there is much room for further exploration of fossil fuel subsidy litigation (many such measures are not automatically compatible with the ASCM) but issues related to data remain a key challenge. In light of this, Chapter 7 discusses how the WTO has approached the vital issue of fossil fuel subsidy transparency to date.

Based on the findings of the previous sections, Chapter 8 discusses options for reform of WTO law and practices towards a stronger engagement with fossil fuel subsidies. Some of these options appear relatively feasible in the current political context (e.g. capacity building and enhancing transparency), while others are more controversial and involve changes to existing WTO law. Chapter 9 presents the conclusions.



2. Defining and Measuring Fossil Fuel Subsidies

The term “subsidy” has no universal definition, and is rarely employed with precision (Sykes 2013). Nevertheless, some general observations about fossil fuel subsidies can be offered. At the most basic level, they can be described as government interventions that support either consumers or producers of fossil fuels (Van de Graaf and van Asselt, 2017). Consumer subsidies reduce the cost of fossil fuels for consumers, and are typically found in developing countries. Producer subsidies benefit the producers of fossil fuels by raising the price or lowering production costs. These measures are present in a wide range of countries, including both developed and developing countries. Given the varying features of both subsidy types, the consumer/producer distinction can have both policy and political implications (e.g. Rive 2016). As discussed in Chapters 5 and 6, it may also lead to disparate treatment under WTO law.

The most comprehensive studies on the size of global fossil fuel subsidies have been published by the International Energy Agency (IEA), the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). Estimates vary widely, however, because of different valuation methods used, countries studied and different interpretations of what constitutes a “subsidy” in the first place. The IEA (2016) estimates global fossil-fuel consumption subsidies at USD 325 billion in 2015, and the OECD (2015a) estimates additional subsidies, in the 40 countries it covers, of USD 160-200 billion per annum over the 2010-2014 period. The IMF includes consumption-related externalities in its definition of “post-tax subsidies”, which brings its estimate of global fossil-fuel subsidies to USD 5.3 trillion in 2015 (Coady et al. 2015b).

The IEA, which has provided estimates of global fossil-fuel consumption subsidies for more than a decade, calculates them using a “price-gap” approach. This focuses on the gap between reference prices (the full cost of supply, or the free market prices) and the prices being charged to consumers (IEA 2014: 318). While this method is attractive in its simplicity, identifying an appropriate reference price poses significant challenges (Koplow 2009). In addition, the approach overlooks government interventions that do not result in a difference in observed energy prices, but that may nevertheless benefit fossil producers or consumers (Koplow 2009). The IEA estimates exclude producer subsidies. According to the OECD, the latter add up to around at least another USD 70 billion a year in the OECD countries plus the BRIICS (Brazil, Russia, India, Indonesia, China and South Africa) (OECD 2015a).

In an effort to complement the IEA’s estimates, the OECD calculates subsidies that cannot be measured by price gaps. This involves constructing an “inventory” of individual policies that constitute government support. Support is defined as “a result of a government action that confers an advantage on consumers or producers [of energy], in order to supplement their income or lower their costs” (OECD 2005: 191). With its emphasis on granting an advantage, the OECD’s subsidy definition follows the logic of the WTO Agreement on Subsidies and Countervailing Measures (ASCM), where the presence of a subsidy requires proof of a “benefit” to the recipient. The OECD estimates tally the value of nearly 800 of such policies in 35 member countries, as well as in the BRIICS. Though data-intensive, this approach has the advantage of covering a broader range of subsidies, including those to producers.

The IMF has published estimates of fossil fuel subsidy levels both “pre-tax” and “post-tax”. The former, which combines estimates of fossil-fuel consumption subsidies (using the price-gap approach) and the OECD’s estimates of producer subsidies, reached USD 333 billion in 2015 (Coady et al. 2015b), an amount that fits with the IEA/OECD range.

The latter, at USD 5.3 trillion, is of another order of magnitude. The difference can be explained by the fact that – controversially – the IMF’s post-tax approach includes the monetised value of externalities associated with the use of fossil fuels, such as those related to climate change and air pollution. It also includes the monetised value of externalities related to driving, such as traffic congestion, accidents, and road wear-and-tear.²

Although, according to Professor Nicholas Stern, the IMF work has helped to “shatter the myth that fossil fuels are cheap” (Carrington 2015), broadening the concept of subsidies to include negative externalities risks diverting attention from the many, more direct fiscal support measures that sustain the fossil fuel industry (Bárány and Grigonyé 2015).

Leaving aside the question of whether externalities should be included in valuations, the term “fossil fuel subsidy” can be interpreted in a way that includes a range of government measures. It may be relatively straightforward to identify and account for some of these, while others are significantly more difficult to quantify and go unreported in government accounts. Table 1 provides an overview of some of the most common types of government support to fossil fuels production and consumption, and related examples.

Although fossil fuel subsidies involve vast amounts even by the most conservative estimates, the acceptance by different stakeholders that measures listed in Table 1 are subsidies varies (Gerasimchuk 2014). In this context, the WTO’s approach to subsidies provides a sort of an anchor. Through the ASCM, the WTO provides one of the few widely agreed definitions of a subsidy, which, as noted above, has also informed the approach of other organisations (e.g. the OECD). In Chapter 3, we take a closer look at how the WTO has sought to define and discipline subsidies through several legal agreements.

² The latter are independent of the type of fuel used, however, and would be generated as well by all-electric vehicles.

Table 1. Types and examples of fossil fuel subsidies.

Support Type	Example
Direct transfer of funds	Cash payments, grants; purchase of goods above the market rate; research and development funding
Foregone tax revenue	Deviations and exemptions from standard tax rules, e.g. value added tax, goods and services tax
Other foregone government revenue	Beneficial terms of access to resources; provision of market-related information that would otherwise have to be purchased
Transfer of risk	Provision of loans or loan guarantees at below-market rates; government ownership, in particular of high-risk or expensive aspects of production; insurance or indemnification provided by government at below-market prices
Induced transfers of funds	Measures whereby funds are transferred to actors following government intervention, e.g. cross-subsidies between regions or sectors; import or export restrictions; price controls; purchase requirements and similar regulations

Source: Based on OECD (2012: 27).



3. Disciplining Subsidies under the WTO

There are several agreements relevant to the disciplining of subsidies³ among the dozens comprising the WTO legal regime. They include the cornerstone 1994 GATT and the 1994 ASCM, which elaborates on the GATT's provisions. Moreover, as evidenced by recent case law, the 1994 TRIMs Agreement can also be invoked with respect to energy support measures.

Disciplines that address subsidies to agriculture and fisheries are also being discussed in the (currently stalled) trade negotiations of the Doha Development Round, and the General Agreement on Trade in Services (GATS) requires WTO Members to negotiate subsidy rules. Other more specialised treaties, such as the Agreement on Agriculture and the Agreement on Government Procurement also contain rules for particular subsidy types.

However, the analysis below is restricted to the three agreements most obviously relevant to the disciplining of fossil fuel subsidies.

It is important to keep in mind that, from a WTO law perspective, subsidies are currently considered objectionable insofar as they distort trade. Therefore, climate change and other environmental or socio-economic concerns do not necessarily enter the equation. Indeed, while we restrict the reflection to the current WTO rules on subsidies, a range of authors have argued that these are among the WTO regulations that should be revised to meet the urgent imperatives of climate science (e.g. Cosbey and Mavroidis 2014; Rubini 2015; Espa and Rolland 2015; Horlick and Clarke 2016; De Bièvre et al. 2017).

³ The word “subsidy” in this working paper will be used in line with the definition provided in the previous chapter, i.e. “a government intervention that supports either the producers or consumers of fossil fuels”. Given that the ASCM maintains its own, narrower, definition of what constitutes a subsidy, a measure meeting the ASCM’s subsidy requirements will be referred to as “a subsidy under the ASCM” to avoid confusion.

3.1 The General Agreement on Tariffs and Trade

The 1947 GATT did little to constrain countries' domestic subsidy policies (Green 2006). Despite several elaborations in the following decades, including a plurilateral Tokyo Round Subsidies Code in the 1970s, the Agreement's subsidy rules have remained relatively underdeveloped (Green 2006; Lang et al. 2010). At the same time, the GATT has been successfully invoked in energy subsidy cases as recently as 2016, demonstrating its enduring relevance.

Two provisions of the 1994 GATT address subsidies explicitly. First, GATT Article VI inter alia prohibits a WTO Member from imposing countervailing duties (CVDs) on imports unless it determines that the effect of subsidisation of these imports "is such as to cause or threaten material injury to an established domestic industry, or ... retard materially the establishment of a domestic industry" (GATT Article VI:6(a)). Given that the ASCM also addresses countervailing measures, including CVDs, the Appellate Body (AB) in *Brazil–Desiccated Coconut* considered that CVDs "may only be imposed in accordance with the provisions of Part V of the [ASCM] and Article VI of the GATT 1994, taken together" (WTO 1997: Section E2).

Second, GATT Article XVI is relevant. Section A of this provision does not restrict subsidisation as such, but introduces a duty for countries to notify other Members of all subsidies that increase its exports, or reduce its imports. The paragraph also provides that the Member shall, upon request, discuss the possibility of limiting the subsidisation "[i]n any case in which it is determined that serious prejudice to the interests of any other contracting party is caused or threatened by any such subsidization". Section B regulates subsidies contingent on the export of products, generally leading to a lower price in the importing country compared with that charged in the exporting country (Green 2006). Recognising that such subsidies "may have harmful effects for other contracting parties", the provision outlaws them.

As explained below, the ASCM expands upon both Articles VI and XVI of the GATT. Before turning to this specialised treaty, however, it is worth highlighting a few additional GATT provisions that may be relevant to the regulation of subsidies.

GATT Article III (the "national treatment" obligation) prohibits financial measures and other measures that "afford protection to domestic production", and, more generally, discrimination between foreign and domestic "like products". While paragraph 8(b) stipulates that this article "shall not prevent the payment of subsidies exclusively to domestic producers", case law has found the scope of this exception limited to a specific subset of subsidies (Coppens 2014).⁴ Consequently, complainants can rely, and indeed have relied, on this provision to challenge certain types of subsidies involving discriminatory local content requirements (Chapter 4).

Under GATT Article XXIII:1(b), a Member may complain if a benefit it accrued under the Agreement is being "nullified or impaired" as a result of "the application by another contracting party of any measure, whether or not" this measure conflicts with the GATT. This provision is potentially relevant, for instance where a WTO Member's subsidies undermine the tariff concessions it has made to another country (Green 2006). The remedy in this case does not necessarily entail the removal of the subsidy, but could involve another form of "satisfactory adjustment", including compensation (GATT Article XXIII).

Finally, there is an ongoing debate on the relevance for subsidies of the general exceptions of GATT Article XX. Under certain conditions, governments can rely on this provision to maintain policies (including subsidies covered by the GATT) that violate other provisions of the Agreement. This "shelter" can be invoked for a variety of reasons, including to uphold measures that are demonstrated to be necessary to protect human, animal or plant life or health (Article XX(b)), or relate to the conservation of exhaustible natural resources (Article XX(g)). GATT's general exceptions also apply to the TRIMs Agreement, which explicitly incorporates the right to invoke these provisions (TRIMs Agreement Article 3). While

⁴ Based on case law, Coppens (2014: 189-190) identifies three cumulative requirements for this carve-out to apply, i.e. cases where: (1) payments of subsidies (2) are made exclusively to domestic producers (not purchasers or processors) and (3) do not discriminate between imported and domestic products.

it has been argued that the GATT's exceptions could additionally provide a defence for certain subsidies challenged under the ASCM (e.g. Howse 2013), the majority of authors considers this approach unfeasible (Coppens 2014: 192).

3.2 The Agreement on Subsidies and Countervailing Measures

Like the 1994 GATT, the ASCM was in the package of agreements that emerged from the negotiations of the Uruguay Round. It is applicable in addition to the GATT and elaborates the GATT's provisions on subsidies in many ways. It applies only to trade in goods, not services.

Under the ASCM, a Member can seek the withdrawal of a subsidy or of its adverse effects through the WTO's dispute settlement mechanism ("multilateral route"). Or, in the alternative, it can launch its own investigation and impose CVDs on subsidised imports to remedy their trade-distorting effects ("unilateral route").

Showing a violation of the ASCM requires a number of cumulative conditions. These include satisfying the ASCM's "three-part test" for determining whether a measure meets the Agreement's subsidy definition and falls within the ASCM's scope (Section 3.2.1); and demonstrating the existence of either a prohibited subsidy (Section 3.2.2.1) or of adverse effects to the interests of another Member (Section 3.2.2.2).

3.2.1 Definition of Subsidy and Scope of the Agreement

In notable contrast to the GATT and the Tokyo Round Subsidies Code, the ASCM defines the term "subsidy" in its first Article. For the purposes of the Agreement, a subsidy is a (1) financial contribution by a government that (2) confers a benefit. The ASCM applies only to measures that meet this definition. Moreover, its disciplines are further restricted to (3) those subsidies that are deemed or determined to be "specific".

⁵ "Market" has been defined by the Panel as "the area of economic activity in which buyers and sellers come together and the forces of supply and demand affect prices" (WTO 2004b: para. 7.1236).

3.2.1.1 Financial contribution by a government

To meet the ASCM's subsidy definition, a measure must first be proven to be a "financial contribution by a government or any public body within the territory of a Member". The ASCM provides an exhaustive list of measures this may entail, as reflected in Table 2.

A measure that constitutes "any form of income or price support in the sense of" GATT Article XVI (i.e. operating directly or indirectly to increase exports of any product from, or reduce imports into, a Member's territory) also meets the ASCM's first threshold requirement.

3.2.1.2 Benefit

To be considered a subsidy under the ASCM, any measure in Table 2 must also confer a benefit to the recipient (ASCM Article 1.1(b)). The ASCM provides some guidance on the concept of benefit in Article 14, which addresses the calculation of the subsidy amount in terms of the benefit to the recipient when it comes to CVD investigations. The case law has also helped elaborate the concept.

Guided by Article 14, the AB in *Canada–Aircraft* (WTO 1999a) introduced what has been dubbed a "private market test" (Coppens 2014: 60) to establish the existence of a benefit. This test specifies that a benefit is conferred when "the recipient has received a financial contribution on terms more favourable than those available to [it] in the market" (WTO 1999a: para. 158).⁵ Consequently, it is neither necessary nor sufficient to demonstrate that a government incurred a cost as a result of the financial contribution or price support it has provided (WTO 1999a: paras. 154-156; WTO 1999b: paras. 9.111-9.120).

In accordance with ASCM Article 14, this private market test does not have to be substantively met where government revenue is foregone, as a benefit seems automatically conferred in such cases (Coppens 2014: 61). As such, the need for a substantive benefit analysis is limited to a (potential) direct transfer of funds, and the provision of goods or services or the purchase of goods. In this regard, Article 14 indicates that *the conditions in the marketplace at the time the financial contribution was made* forms the correct market benchmark

Table 2. Types and subsidies under the ASCM.

ASCM (sub)article	Measure	Examples (if listed in the ASCM)
1.1(a)(1)	Financial contribution	
(i)	A government practice involves a direct transfer of funds	Grants, loans or equity infusion
(i)	A government practice involves a potential direct transfer of funds or liabilities	Loan guarantees
(ii)	Government revenue that is otherwise due is forgone or not collected	Fiscal incentives such as tax credits
(iii)	A government provides goods or services other than general infrastructure	--
(iii)	A government purchases goods	--
(iv)	A government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated above	--
1.1(a)(2)	Any form of income or price support in the sense of Article XVI of the GATT	

(WTO 2011a: para. 706). That a recipient could have received the financial contribution at a similar “better-than-market” rate from another (private) actor is therefore not relevant to the benefit analysis (Coppens 2014: 64).

There are instances where a financial contribution itself distorts the conditions in the private market, for instance by suppressing prices (Coppens 2014: 64, 66). This prompted the AB in *US–Softwood Lumber IV* (WTO 2004a) to consider that for calculating a benefit there may be benchmarks other than the private market (e.g. proxies that take into account

prices for similar goods quoted on world markets, or proxies constructed on the basis of production costs). However, it also considered the possibility for using alternative benchmarks “very limited” (WTO 2004a: para. 102). The AB’s ruling in *US–Anti-dumping and CVDs (China)* endorsed this view (WTO 2011b). The AB in *Canada–Renewable Energy* additionally held that an alternative benchmark should also be used in instances where, in providing a financial contribution, a government creates a market that would not otherwise exist (WTO 2013). As discussed in more detail in Chapter 4, however, this rationale for constructing an alternative

benchmark (i.e. because government regulation has created a market that would not otherwise exist) has proved highly controversial.

3.2.1.3 Specificity

Pursuant to ASCM Article 2, only subsidies that are “specific” are subject to the disciplines of the Agreement. This distinguishes several types of specificity, whereby access to a subsidy is limited to:

- a particular enterprise or enterprises (enterprise specificity);
- a particular industry or industries (industry specificity); or
- recipients in a certain region within the granting authority’s jurisdiction (regional specificity).

Export subsidies or local content subsidies (the prohibited subsidies discussed in Section 3.2.2.1) are automatically considered specific.

The Agreement provides that such specificity may be stated explicitly in law (*de jure*) or be present in fact (*de facto*). To establish *de jure* specificity, the AB in *US–Large Civil Aircraft* (WTO 2012a) developed a two-step approach, involving identification of (1) the relevant subsidy scheme and (2) whether this is limited by the granting authority or legislation to certain enterprises (Coppens 2014: 103-104). If, notwithstanding a finding of non-specificity, there are reasons to believe that the subsidy may be specific – or vice versa – a further analysis is needed.

A positive finding of specificity may be undercut if “objective criteria or conditions” have been established for the eligibility and the amount of a subsidy (ASCM Article 2.1(b)).⁶ However, this provision has not been successfully invoked yet (Coppens 2014).

In case of a negative finding, *de facto* specificity could still be determined. Relevant factors in this regard include: use of the subsidy by a limited number of certain enterprises; predominant use of the subsidy by certain enterprises; granting of disproportionately large amounts of a subsidy

to certain enterprises; and the manner in which discretion has been exercised by the granting authority in making decisions to grant the subsidy (ASCM Article 2.1(c)). Notably, a finding of *de facto* specificity does not require the *deliberate* limitation of a subsidy’s reach (WTO 2003: para. 7.116). However, in examining this issue, account must be taken of the diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy has been in operation (ASCM Article 2.1(c)).

With the exception of cases concerning prohibited subsidies (where specificity is always presumed), the onus of showing specificity rests on the complainant. This may be an important obstacle to a successful challenge, as complaining Members may have less access to relevant information (Coppens 2014: 101).

3.2.2 Subsidy Types

Unless all three elements are present, a measure will not fall within the remit of the ASCM. Even where all three factors have been demonstrated, however, a subsidy is not necessarily illegal under the Agreement.

Historically, the ASCM has distinguished three types of subsidies, each associated with different disciplines: prohibited (often referred to as “red light”); actionable (“amber light”); and non-actionable (“green light”). During the first five years of the ASCM (1994-1999), the latter (ASCM Article 8) permitted, up to certain amounts, subsidies to promote adaptation of existing facilities to new environmental requirements imposed by law or regulations. This was to compensate for regional inequalities within a WTO Member, or to promote research and development. However, after the lapse of the initial five-year term in 2000, this category was not renewed. A “safe harbour” for subsidies that promote certain policy goals thus no longer exists (Mavroidis 2007: 201). The ASCM currently distinguishes only two types of subsidies: prohibited (never permitted) and actionable (permitted, unless certain types of trade effects, or the threat thereof, are demonstrated).

⁶ Footnote 2 of the ASCM clarifies that this entails criteria or conditions that are neutral; do not favour certain enterprises over others, and are economic in nature and horizontal in application, such as the number of employees or size of enterprise.

3.2.2.1 Prohibited subsidies

The ASCM's category of "prohibited subsidies" comprises two types of measures: export subsidies and local content subsidies.

Export subsidies are "contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance" (ASCM Article 3.1(a)). ASCM Annex I provides for a non-exhaustive "Illustrative List" of eleven measures that meet this definition. Complainants can therefore prove the existence of an export subsidy by either (1) demonstrating the existence of a subsidy per Article 1, in conjunction with Article 3.1(a) on export subsidies; or (2) identifying the measure in question in the Illustrative List (if it is included). The latter approach enables complainants to bypass not only Article 3.1(a)'s export contingency test, but also the subsidy test of Article 1 (Coppens 2014: 118).

Local content subsidies are contingent upon the use of domestic rather than foreign products. Although the ASCM refers only to *de jure* contingency, case law has confirmed that, as with export subsidies, this provision also applies to *de facto* contingency (WTO 2000: paras. 135-143).

If a prohibited subsidy is found to exist, it must be withdrawn "without delay" (ASCM Article 4.7). Given that both export and local content subsidies are considered trade-distorting (Horlick and Clarke 2016) as well as intrinsically specific, prohibited subsidies do not require a demonstration of harm or of specificity. The legal threshold for formulating a claim of prohibited subsidy is therefore typically lower than that of an actionable subsidy (Coppens 2014: 148).

3.2.2.2 Actionable Subsidies

Unlike prohibited subsidies, actionable subsidies are in principle permissible under the ASCM, unless they cause "adverse effects to the interests of other members" (ASCM Article 5). Such harmful trade effects can manifest in the three ways discussed below. The burden to demonstrate their existence falls mainly on the complaining Member (Coppens 2014: 144) and can be "burdensome and expensive" (Wold et al. 2012: 685).

⁷ These are: (1) the total *ad valorem* subsidisation of a product exceeds 5 percent; (2) the subsidy covers operating losses sustained by an industry; (3) the subsidy covers operating losses sustained by an enterprise, other than one-time measures; or (4) there is direct forgiveness of debt.

1

Serious prejudice to the interests of another Member

The first type of adverse effects is that of serious prejudice, or the threat thereof. Initially, the ASCM contained a rebuttable presumption that serious prejudice existed in four cases.⁷ It required the complainant to prove only the existence of this type of specific subsidy, leaving it up to the defendant to demonstrate that there was not serious prejudice within the meaning of the Agreement (ASCM Articles 6.1 and 6.2). However, this category of subsidy expired in 2000, together with the "green" category of non-actionable subsidies.

At present, Article 6.3 of the Agreement includes a number of instances that affect trade interests of a WTO Member in terms of volumes sold or price and constitute "serious prejudice":

1. the effect of the subsidy is to displace or impede the imports of a like product of another Member into the market of the subsidising Member;
2. the effect of the subsidy is to displace or impede the exports of a like product of another Member from a third-country market;
3. the effect of the subsidy is a significant price undercutting by the subsidised product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market;
4. the effect of the subsidy is an increase in the world market share of the subsidising Member in a subsidised primary product or commodity compared to the average share of the previous three years, and the trend is consistent when subsidies are granted.

It is up to the complainant to demonstrate these effects. To succeed, a serious prejudice claim must demonstrate the existence of any of these effects and, in most cases, prove them to be the *effect of the subsidy itself*. Although the size of the subsidy may be relevant to this last requirement, there is no obligation to quantify the subsidy amount precisely (WTO 2012a: para. 697). This is, however, a higher causation standard than that under injury (discussed below), which requires only to prove that the effect is a result of the *subsidised product*.

In addition to evidence requirements that are specific to each type of serious prejudice, there are a number of other general conditions to be satisfied. First, in accordance with ASCM Article 6.3, it is necessary to show the existence of *present adverse effects*. Historical data could be used for this purpose (e.g. WTO 2010: para. 17.194). Note that the temporal aspect revolves around *effects*: it is not necessary to show that the measure in question, nor the conferred benefit, are currently present.

Second, a complainant must show that these effects are being felt for products originating in its own territory (WTO 1998; 2004b).

Third, certain effects must have been caused by subsidies to a “like product” (in the case of ASCM Articles 6.3(a), (b); and price undercutting under ASCM Article 6.3(c)). This entails: a product “identical”; “alike in all respects”; or with characteristics that closely resemble the one being harmed (ASCM footnote 46). In this regard, the product’s physical characteristics are important, although other criteria such as end uses and consumer tastes and habits are also relevant (WTO 1998; 2005). Case law on the issue of likeness under the ASCM is limited, however. Wold et al. (2012: 664) observe that “under the [ASCM], it is not clear just how tightly the accordion of likeness should be squeezed”. In their extensive analysis of the topic of “likeness” in the context of fossil fuel and renewable energy, they conclude that although renewable energy products such as wind turbines and solar panels are not “like” fossil fuels; others, such as biodiesel blended with petrodiesels, may be. Electricity from non-renewable and renewable energy sources could be considered “like products” under the ASCM (Wold et al. 2012).

Fourth, and related to the previous point, per ASCM Article 6.3, it must be shown that the harmed product is competing in the same market as the subsidised product. Both demand-side and supply-side substitutability may be relevant in this regard (WTO 2010: para. 1119).

Finally, as noted above, a complainant could also invoke this provision in the context of a threat of serious prejudice, though the relevant remedy will not necessarily be identical to that for a claim of present serious prejudice (WTO 2004b: para. 244).

2

Injury to the domestic industry of another Member

ASCM Article 5 uses the term “injury to the domestic industry” in the same sense as the Agreement’s section on CVD investigations (ASCM Article 5(a), footnote 11). The term encompasses both material injury to a complaining Member’s industry, as well as “the threat of” such injury, or “material retardation of the establishment” of such an industry (ASCM Article 15, footnote 45). If a subsidy is thought to have caused any of these effects, a Member can either unilaterally undertake a CVD procedure or pursue the multilateral route.

Mirroring the approach used in CVD investigations, the Panel in *EC–Large Civil Aircraft* sought to establish the existence of injury in two steps (WTO 2010).⁸ This entailed, first, establishing material injury during the reference period, i.e. for the complaining member’s domestic industry’s overall performance, or some relevant factors to have deteriorated over the reference period.⁹ Among “relevant economic factors and indices having a bearing on the state of the industry”, the ASCM (Article 15.4) identifies: actual and potential decline in output, sales, market share, profits, productivity, return on investments, or utilisation of capacity; factors affecting domestic prices; actual and potential negative effects on cash flow, inventories, employment, wages, growth, and ability to raise capital or investments. The Agreement clarifies that the list is non-exhaustive, “nor can one or several of these factors necessarily give decisive guidance” (Article 15.4). Regarding the question of whether an injury is “material”, the Panel in *EC–Large Civil Aircraft* (WTO 2010: para. 7.2083) held that this is dependent on “the nature of the product and industry in question”, and therefore on the specifics of each case.

⁸ Although while considering this approach appropriate, the Panel did not deem it mandatory (Coppens 2014: 144).

⁹ Even if an industry’s performance would have been materially better in the absence of the subsidised imports, the claim will not succeed unless performance actually deteriorated (Coppens 2014: 145). The Panel discusses how to determine this reference period in *EC–Large Civil Aircraft* (WTO 2010: para. 7.2082).

As a second step, causation must be demonstrated by showing that the *subsidised imports* are causing the material injury through their volume and price effects. This is a more lenient requirement than the need to show the adverse effect is caused by the *challenged subsidies themselves*, as in the case of serious prejudice (Coppens 2014).

A “threat of” material injury, should be based “on facts and not merely on allegation, conjecture or remote possibility” (ASCM Article 15.7). Among relevant factors to consider in this regard, the Agreement highlights: the nature of the subsidy or subsidies and the trade effects likely to arise from them; a significant increase of subsidised imports into the domestic market; and whether imports are entering at prices that will have a significant depressing or suppressing effect on domestic prices, and would likely increase demand for further imports (ASCM Article 15.7).

3 Nullification or impairment of benefits accruing directly or indirectly to other Members under the GATT in particular the benefits of concessions bound under GATT Article II

This final category of adverse effects reflects the possibility that the benefits accruing to a Member by virtue of the GATT may be undercut through subsidies.¹⁰ For instance, the expected export benefits for country A as a result of country B reducing its tariffs on imported steel, may be undermined by country B’s simultaneous subsidisation of domestic steel producers. While injury takes place in the domestic market of the complaining Member (hence allowing for a unilateral approach), nullification or impairment of benefits occurs in the market of the subsidising country; thereby causing harm to the complainant’s export industry. This can only be remedied through a multilateral approach.

The ASCM employs the term “nullification or impairment” in the same sense of non-violation complaints under the GATT (ASCM footnote 12): “[T]he existence of such nullification or impairment is to be established in accordance with the practice of application of these provisions”. In accordance with the case law, the complainant must therefore demonstrate (1) the use of a subsidy; (2) the existence of a benefit accruing under the GATT; in particular, the benefit of trade concessions; and (3) the nullification or impairment of a benefit as a result of subsidy use (Coppens 2014: 146).

The final step – proving that nullification or impairment has been caused by the subsidy in question – represents a particularly high bar for any complainant. The GATT Panel in *EEC–Oilseeds I* considered that this effect occurs when a tariff concession is “systematically” offset or counteracted by a subsidy programme; an approach reflecting the exceptional nature of this remedy (Coppens 2014: 146). As with serious prejudice, and in contrast to cases of injury, moreover, this requires proving that the effects are caused by the subsidy, as opposed to the subsidised product.

3.3 The Agreement on Trade-Related Investment Measures

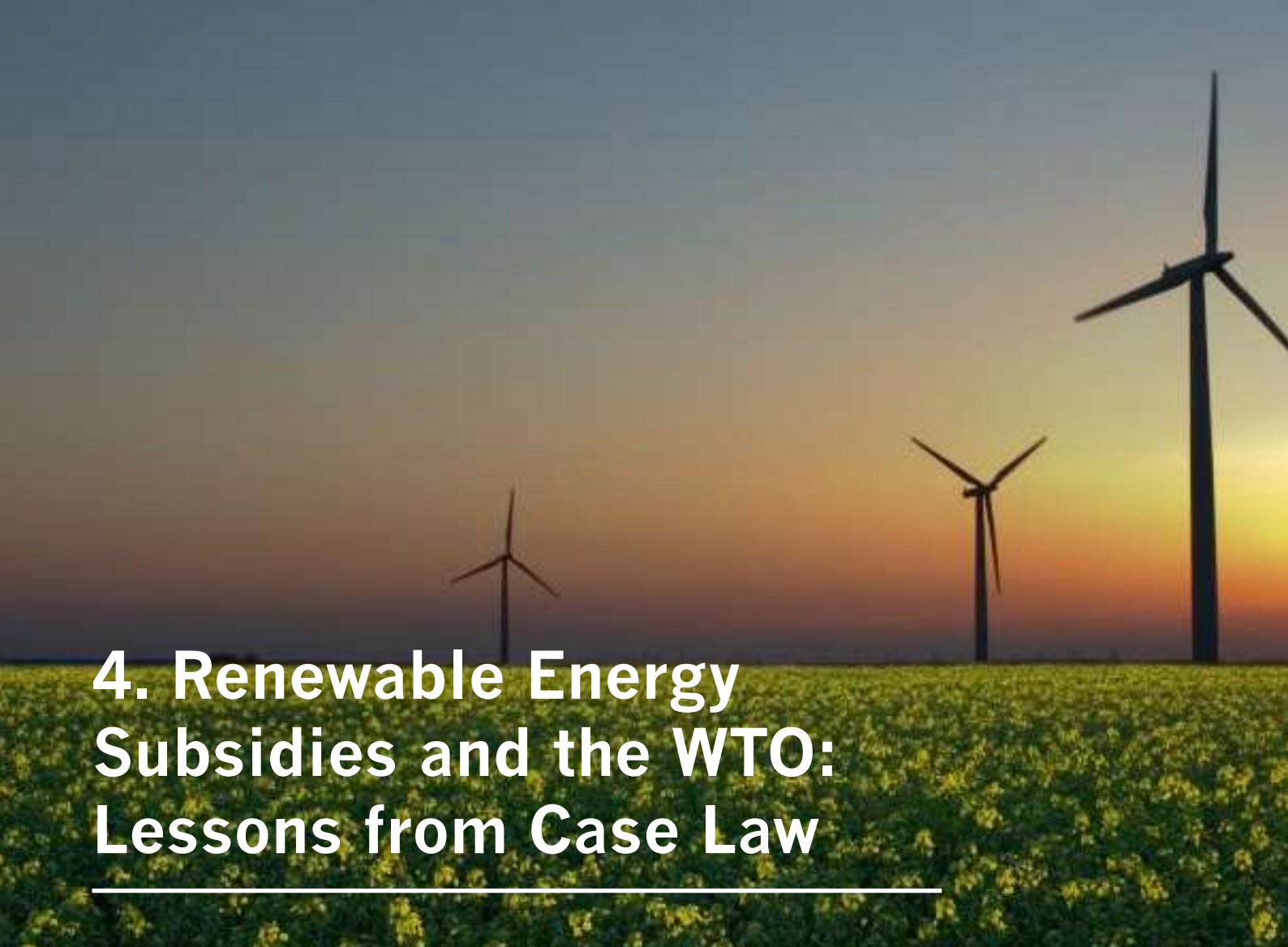
Adopted in 1994, the TRIMs Agreement seeks to discipline any trade-distorting effects of investment measures related to trade in goods. The Agreement (Article 2.1) applies the GATT’s national treatment obligation to all trade-related investment measures. When it comes to subsidies, as seen with the GATT and as illustrated by the case law (Chapter 4), this obligation may bear particular relevance to government support measures with local content requirements.

¹⁰ Note that the term “benefit” in this context refers to market-opening concessions, especially multilateral tariff bindings, and should not be confused with use of the word under the ASCM’s subsidy test.

While the Agreement does not define trade-related investment measures, it does provide an Annex with illustrative examples of TRIMs that are inconsistent with GATT Article III:4 (national treatment obligation) and GATT Article XI (general elimination of quantitative restrictions). In addition to local content requirements for the production of goods, the list includes other mandatory and domestically enforceable measures that WTO members might impose, such as trade-balancing requirements, exchange-balancing requirements and export restrictions.

Although investment measures that violate the TRIMs Agreement's national treatment obligation may also independently violate the GATT's obligations, the TRIMs Agreement "expand[s] the reach of those rules somewhat to measures that might arguably be investment measures related to products but not about products themselves" (Meyer 2016: 20).

From theory, we now turn to how WTO subsidy law has been applied in practice in recent energy disputes.



4. Renewable Energy Subsidies and the WTO: Lessons from Case Law

Although WTO Members have filed a variety of complaints related to subsidies at the WTO, energy subsidies have appeared relatively late in this context (Meyer 2016). The first case was initiated in September 2010, when Japan, joined later by the European Union (EU), requested consultations with Canada on a feed-in tariff (FIT) scheme in the province of Ontario.

WTO Members have since initiated consultations on nine other government support programmes in the energy sector (Droege et al. 2016).¹¹ These include measures to support solar cell development in India, the production of wind power equipment in China, and the promotion of biofuels in the EU: all cases about renewable-energy.

No fossil fuel subsidies have been brought before the WTO's dispute settlement mechanism to date.

While the majority of these disputes remains pending in consultations, the WTO adjudicating bodies have ruled in three cases.¹² Of these, the case of Ontario's FIT and one challenging the local content requirements in India's Jawaharlal Nehru National Solar Mission programme have been the most contentious.

This chapter summarises the main facts and findings of the disputes, and considers the broader implications, if any, they carry for challenging fossil fuel subsidies at the WTO.

¹¹ In addition to the Canadian case (DS412 and DS426), these are: China–Measures Concerning Wind Power Equipment (DS419); United States–Countervailing Duty Measures on Certain Products from China (DS437); European Union and a Member State–Certain Measures Concerning Importation of Biodiesels (DS443); European Union and Certain Member States–Certain Measures Affecting the Renewable Energy Generation Sector (DS452); India–Certain Measures Relating to Solar Cells and Solar Modules (DS456); European Union and Certain Member States–Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry (DS459); European Union–Anti-Dumping Measures on Biodiesel from Argentina (DS473); European Union–Anti-Dumping Measures on Biodiesel from Indonesia (DS480); US–Certain Measures Relating to the Renewable Energy Sector (DS510). Disputes are available on the website of the WTO, at https://www.wto.org/english/tratop_e/dispu_e/dispu_status_e.htm.

¹² DS412 and DS426; DS437 and DS456.

4.1 Canada–Renewable Energy

The *Canada–Renewable Energy* case revolved around a 2009 FIT programme introduced by the government of Ontario as part of measures to diversify the province’s energy mix and move away from coal-fired electric power. The programme provided for guaranteed electricity prices for certain wind- and solar-generation sources. The financial incentive was conditional on satisfaction of “Minimum Required Domestic Content Levels” in the development and construction of such facilities.

Over the course of 2010-2011 Japan and the EU requested consultations with Canada. The complainants considered that by according less favourable treatment to imported renewable-energy equipment similar to that originating in Ontario, Canada’s FIT programme contravened Article III:4 of the GATT (national treatment obligation), as well as Article 2.1 of the TRIMs Agreement (TRIMs inconsistent with GATT Article III:4 as discussed in Chapter 3). They also argued that through their contingency on the use of Ontario-produced equipment over equipment from other countries the measures in question also violated ASCM Articles 3.1(b) and 3.2, which prohibit the granting or maintaining of local content subsidies.

In their findings, the adjudicating bodies rejected Canada’s defence that the measures fell under GATT Article III.8 (the government procurement exception) and easily found them to fall within the scope of paragraph 1(a) of the TRIMs Agreement’s Illustrative List. They considered this sufficient to demonstrate a violation of the national treatment obligations of both TRIMs Agreement Article 2.1 and GATT Article III:4 (WTO, 2013: para. 6.1(b)(v). As Meyer (2015: 1954) suggests, this finding was so evident “that Canada did not bother to challenge it during the ensuing appeal”.

The ASCM complaint raised more discussion, however. The main contested issue was whether Ontario’s FIT scheme conferred a benefit, thereby meeting the ASCM’s definition of a subsidy. The finding was necessary to enable the WTO adjudicating bodies to determine whether the measures represented a prohibited local content subsidy under the ASCM, as complainants maintained.

For different reasons, neither the Panel nor, in appeal, the AB were able to confirm the presence of a benefit. Discussions centred on the appropriate market benchmark for a benefit analysis. The Panel majority and the AB rejected the complainants’ proposition that Ontario’s wholesale electricity market represented a suitable benchmark. In doing so, they appeared to depart from existing AB jurisprudence, where, in the words of the dissenting Panel member, the marketplace has been the relevant focus of the benefit analysis “regardless of its particular characteristics or imperfections” (WTO 2012b: para. 9.6).

The adjudicating bodies set out their own approach for an appropriate “private market test” in this case. The Panel proposed testing the FIT scheme against “the types of arm’s length purchase transaction that would exist in a wholesale electricity market whose broad parameters are defined by the Government of Ontario” (WTO 2012b: para. 7.322). As a possible way forward, it suggested the rate of return obtained by the FIT generators under the FIT scheme could be compared with the average cost of capital in Canada for projects with a comparable risk profile in the same period (WTO 2012b: para. 7.323). Due to lack of evidence, the Panel was not in a position to determine whether a benefit had been provided, and thus whether an ASCM violation had occurred.

The AB took the Panel’s analysis a step further. Noting that the analysis should have begun by identifying the relevant market for the benchmark (WTO 2013: para. 5.178), the AB accepted the distinction – drawn by Canada in its defence – between energy markets for conventional energy on the one hand, and renewable energy on the other (WTO 2013).

According to the AB, a government intervention that creates a market that would not otherwise exist should be distinguished from an intervention to support players in existing markets, or to correct market distortions therein (WTO 2013: para. 5.188). The AB also considered that the former, “new market” type of intervention, does not necessarily involve conferring a benefit. This would need to be separately determined within the new market. In the AB’s words:



Where a government creates a market, it cannot be said that the government intervention distorts the market, as there would not be a market if the government had not created it. While the creation of markets by a government does not in and of itself give rise to subsidies within the meaning of the [ASCM], government interventions in existing markets may amount to subsidies when they take the form of a financial contribution, or income or price support, and confer a benefit to specific enterprises or industries (WTO 2013: para. 5.188; emphasis added).

Consequently, the AB found that the appropriate benefit benchmark was not the competitive wholesale electricity market as a whole, but within the new competitive markets for wind- and solar photovoltaic-generated electricity, “created by the government definition of the energy supply-mix” (WTO 2013: para. 5.178). It suggested a comparison with “the terms and conditions that would be available under market-based conditions for each of these technologies, taking the supply-mix as a given” (WTO 2013: para. 5.190). However, the AB lacked the necessary evidence to complete such an analysis and was not able to determine the existence of a subsidy. The complainants’ claim as regards an ASCM violation was thus rejected.

4.2 Implications

While *Canada–Renewable Energy* was about a renewable energy support policy, the adjudicating bodies were not able to establish whether this measure violated the ASCM. The success of the complainants’ hinged instead on findings that violations of the TRIMs Agreement and GATT had occurred. This outcome suggests that in some cases it may be more feasible to demonstrate that a subsidy represents a violation of the TRIMs Agreement or GATT, than of the ASCM (Coppens 2014: 142).

In particular, when it comes to demonstrating a local content violation under the TRIMs Agreement and GATT, there is no need to pass the ASCM’s three-step “subsidy” test. The TRIMs Agreement requires only evidence of a trade-related investment measure that violates GATT Article III:4’s national treatment obligation or Article XI:1’s obligations on quantitative restrictions, “compliance with which is necessary to obtain an advantage” (TRIMs Agreement Illustrative List, para: 1). As Coppens (2014) notes, the threshold for demonstrating such an “advantage” under the TRIMs Agreement is much lower than for demonstrating a “benefit” under the ASCM. In *Canada–Renewable Energy*, simply participating in the FIT programme was considered sufficient evidence of an advantage, given that participants were guaranteed a fixed price over a twenty-year period (WTO 2012b: para. 7.165).

The *India–Solar Cells* case (Box 1) further illustrates this point. It has strong parallels with *Canada–Renewable Energy* in that it revolved around a renewable energy support measure with local content requirements. The US’ first request for consultations on India’s solar programme (which pre-dated the *Canada–Renewable Energy* ruling) also invoked the ASCM, including Articles 3 (prohibited subsidies) and 5 and 6 (serious prejudice). However, in an approach likely informed by *Canada–Renewable Energy* – which suggested invoking the GATT and TRIMs Agreement would be sufficient to win a local content case – the complainant’s second request for consultations did not refer to the ASCM at all (Asmelash 2015).¹³

¹³ Although India has since invoked the ASCM in its request for consultation in *US–Certain Measures Relating to the Renewable Energy Sector (DS 510)*, this case concerns not only alleged US local content requirements, but also other renewable energy support measures.

Box 1. India-Solar Cells

In February 2013, the US requested consultations with India concerning the Jawaharlal Nehru National Solar Mission (NSM). The programme aims to diffuse solar power in India “as quickly as possible” by generating 20,000 megawatts (MW) of grid-connected solar power capacity by 2022 (WTO 2016a: para. 7.1). As part of these efforts, the Indian government entered into long-term power purchase agreements with solar power developers. Controversially, however, a mandatory domestic content requirement for the production of solar cells or modules was imposed on such developers.

The US claimed that these measures violated the national treatment obligations of GATT Article III:4 and TRIMs Agreement Article 2.1. India countered that the requirements did not accord imported solar cells and modules less favourable treatment than like products of Indian origin. It also requested the Panel to rule that GATT Article III:8(a)’s derogation for government procurement was applicable to the measures at stake; or, alternatively, that these could be justified under two of the GATT’s general exceptions: Article XX(j) (concerning products “in general or local short supply”); and Article XX(d) (necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of the GATT).

The Panel ruled in favour of the US, considering domestic content requirements to be a prohibited trade-related investment measure under paragraph 1(a) of the TRIMs Agreement’s Illustrative List (WTO 2016a: para. 7.73.). Although this finding was sufficient to identify a violation of both TRIMs Agreement Article 2.1 and GATT Article III:4, the Panel assessed separately claims under GATT Article III:4. Here, too, it was found that the measures did accord “less favourable treatment” to imported products, in violation of the national treatment obligation (WTO 2016a: para. 7.99).

The Panel also rejected India’s arguments on why the measures may nevertheless be justified. It found inapplicable the government procurement derogation in GATT Article III:8(a) considering purchases of electricity for commercial resale not as government procurement. The Panel also remained unconvinced by India’s arguments that the measures were justified under GATT Article XX (WTO 2016a: paras. 7.265 and 7.333).

In the appeal, the Panel’s key findings were upheld by the AB. India was therefore required to bring its measures in conformity with the national treatment provisions of the GATT and TRIMs Agreement (WTO 2016b: para. 6.8).

The *Canada–Renewable Energy* rulings have drawn strong criticism from commentators. For instance Coppens (2014: 465) wrote: “As a matter of law, the AB got it wrong. ... From an economic perspective, the [AB] again got it wrong.” Notably, it has been suggested that the WTO adjudicating bodies, by departing from established case law during the benefit analysis, “engage[d] in legal acrobatics” (Cosbey and Mavroidis 2014: 12) to avoid classifying Canada’s FIT programme as a subsidy under WTO law, while nevertheless finding a violation of the national treatment obligation (see also Kulovesi 2014; Rubini 2016).

As Casier and Moerenhout (2013) have argued, FITs may very well be found to be specific, and to cause adverse effects. Yet Ontario’s FIT was a popular renewable energy support scheme (Kulovesi 2014), which adjudicating bodies may have been hesitant to undercut. This impression is strengthened by the fact that the AB ruling in several places “takes pains to explain – even defend” the underlying environmental rationale for Ontario’s FIT scheme (Cosbey and Mavroidis 2014: 32). Although the adjudicating bodies were “careful not to cross the line” (Cosbey and Mavroidis 2014: 15) and suggest that these considerations justify special treatment, the impression lingers that the adjudicating bodies “conflated the two separate issues of the existence of a subsidy with its economic and policy justification” (Rubini, 2016: 163, emphasis in original).

Considering the heavy criticism of the AB’s market benchmark definition, it remains to be seen whether the adjudicating bodies will uphold this approach in the future (Cosbey and Mavroidis 2014). The renewable-energy support cases currently under consideration potentially are a testing ground in this regard.

In terms of broader implications, it is important to bear in mind that the *Canada–Renewable Energy* and *India–Solar Cells* cases challenge a very narrow example of energy support measures, namely those involving support to renewable energy producers, and including local content requirements. The TRIMs Agreement and GATT are particularly relevant in these cases. For other support measures (notably those without local content requirements), a challenge under the ASCM may be the only avenue available under WTO law. Moreover, in the case of local content subsidies, it may be worth pursuing the ASCM route in addition to the TRIMs Agreement and GATT as the ASCM is stricter (Coppens 2014: 143). In contrast to certain measures that violate the TRIMs Agreement and GATT, it seems unlikely that defendants can justify a measure incompatible with the ASCM through recourse to GATT Article XX (Coppens 2014).

The observation that WTO case law on energy support measures has so far revolved around renewable energy only raises an intriguing question on why this may be the case. Chapter 5 explores this question in more detail.

A large offshore oil rig, the 'Beyford Dolphin', is shown against a blue sky with some clouds. The rig has a complex steel structure with a tall derrick in the center. A large crane is visible on the right side of the rig. The rig is supported by several large red cylindrical legs. The name 'BEYFORD DOLPHIN' is visible on the side of the rig.

5. Why Have Fossil Fuel Subsidies Evaded Litigation?

Despite various disputes on renewable energy support, so far not a single complaint has been initiated with the WTO dispute settlement mechanism about fossil fuel subsidies.¹⁴ This chapter discusses the numerous political and legal explanations that have been given for this discrepancy, and that have sparked calls for reforms to improve the WTO's receptiveness to climate change concerns. Given the diversity of fossil fuel subsidies, however, the chapter also cautions against hasty generalisations on the prospects of any fossil fuel subsidy dispute at the WTO. As with so many legal issues, the devil is in the detail.

5.1 Political Factors

From a political perspective, Meyer (2017) highlights the important role of domestic pressure groups in compelling governments to launch investigations, or initiate a dispute, against another Member. While producers of renewable energy equipment have been particularly effective lobbyists in this regard, those standing to lose from fossil fuel subsidies have, for a variety of reasons, remained much more passive (Meyer 2017). One possible explanation is that the fossil fuel market includes a number of large multinationals that may benefit from subsidies in multiple countries (De Bièvre et al. 2017). The “loss-aversion hypothesis” also suggests that new measures that harm trade may be more likely to be challenged than existing ones: while new renewables support measures can disrupt investment expectations, long-standing fossil fuel subsidies may have already been built in investors' decisions (Meyer 2017).

¹⁴ However, EU coal subsidies came under intense scrutiny in the early 1990s; nearly sparking a formal trade dispute (GATT Committee on Subsidies and Countervailing Measures 1991, as discussed in Steenblik et al. forthcoming).

Other explanations put forward for this incongruity include the fact that several key fossil fuel exporters only joined the WTO relatively recently, as a result of which disputes have yet to emerge (Selivanova 2010). Governments may also be more inclined to address energy trade concerns in specialised forums such as the Energy Charter Treaty (Meyer 2017), and their fears of retaliatory litigation may override their incentives to initiate disputes at the WTO (Wold et al. 2012). A reluctance of WTO Members to expose their own subsidy programmes to scrutiny has been observed in other contexts. An example is the unwillingness to litigate over fisheries policy (Young 2009). It is worth noting, however, that the WTO's rules on standing do not require a complainant to have "legal interest" to be able to request the establishment of a panel in a dispute¹⁵. Therefore, countries such as low-lying islands, who are most vulnerable to climate change and stand to suffer most acutely from any increase in greenhouse gas emissions resulting from fossil fuel subsidies, could conceivably launch a case against the subsidies of a major fossil fuel producer, even in the absence of trade effects on their domestic industry.

Another explanation is that Members are more likely to challenge measures in diversified economies, which include several important renewable energy players, but exclude some key fossil fuel producing countries (Meyer 2017). Given that WTO judgements are usually enforced by restricting third-product imports from the contravening country, a diversified economy may represent a more attractive target for litigation (Meyer 2017).

While political factors may indeed have a role to play, most explanations for the absence of fossil fuel subsidy disputes at the WTO concern legal considerations.

5.2 Legal Factors

Notwithstanding the environmental imperative of addressing fossil fuel subsidies, the particular features of WTO law currently appear to "undercapture" such subsidies compared to those granted to renewable energy. With a reduced chance of success, the argument goes, governments are less likely to challenge the former in the first place (Asmelash 2015; De Bièvre et al. 2017). This reasoning is applied in reference to both prohibited and actionable subsidies under the ASCM.

5.2.1 Prohibited Subsidies

As seen in Chapter 3, prohibited subsidies – those contingent on products' export, or on use of local content – are generally among the more straightforward to challenge under the ASCM. These subsidies require neither a demonstration of specificity nor of harmful effects, since both factors are assumed. Further, the case law demonstrates that local content requirements can be challenged under the GATT and the TRIMs Agreement, sidestepping the potentially burdensome ASCM requirements of demonstrating a form of financial contribution, or income or price support that confers a benefit to specific enterprises, industries or regions. The *India–Solar Cells* case, in which the US dropped its claims under the ASCM in the confidence that the GATT and TRIMs Agreement would provide sufficient legal recourse (Asmelash 2015), illustrates this point.

¹⁵ For more on the topic of standing, see https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/c10s1p1_e.htm

Turning to the energy market, it has been suggested that support schemes for renewables are more likely than fossil fuel support measures to incorporate local content measures incompatible with WTO rules (De Bièvre et al. 2017; see also Kuntze and Moerenhout 2013). As Wilke (2011:1) has noted, “[s]elling ‘green’ as a stimulus measure is often seen as a means of reconciling consumer fears [of increased electricity costs] by creating jobs while increasing the share of renewable energy”. At the same time, the incorporation of local content requirements appears to render such support measures more vulnerable to a WTO challenge. Strong support for this argument comes from the fact that, despite their widespread use globally, only FITs attached to local content requirements have been challenged at the WTO to date (Chapter 4). While the ASCM’s second category of prohibited subsidies – export subsidies – has yet to attract a WTO challenge in the energy market, it is thought that such measures are also more widespread among renewable energy than among fossil fuels (Asmelash 2015).

5.2.2 Actionable Subsidies

A comparable dynamic of fossil fuel subsidy “undercapture” has been identified with regard to the ASCM’s category of “actionable subsidy”. Commentators have pointed out that the ASCM’s emphasis on specificity – a necessary condition for any subsidy to be considered actionable – forms an impediment for challenging measures in support of fossil fuels (De Bièvre et al. 2017; Steenblik et al. forthcoming). Whereas renewable energy subsidies tend to be granted to producers (where demonstrating specificity can be relatively straightforward) many fossil fuel subsidies are provided to energy consumers (Selivanova 2007; Espa 2015). An example are dual pricing schemes (i.e. consumer subsidies that set domestic prices lower than export prices). In such cases, specificity may well be absent (De Bièvre et al. 2017), although it has been suggested that a subset of such subsidies could be de facto specific if they disproportionately benefit energy-intensive industries (Asmelash 2015; but see Selivanova 2007: 30).

Moreover, even where fossil fuel subsidies can be proven to be specific, the ASCM’s requirement to demonstrate adverse trade effects still represents an important hurdle to a successful challenge (Wold et al. 2012; De Bièvre et al. 2017).

5.3 Towards a Case-by-Case Approach

A combination of political and legal factors has thus far appeared to stymie fossil fuel subsidy disputes at the WTO, while, paradoxically, renewables support measures have been made the subject of several disputes. A range of authors have therefore highlighted the need to revisit WTO subsidy law, as one of several ways to improve the Organization’s responsiveness to climate change concerns (see Chapter 8). Yet, while there may be merit in careful WTO reform, the differences between subsidies for renewables and fossil fuels should not be overstated in the process.

The existence of a subsidy is to some extent “in the eye of the beholder”. As such, certain measures considered “fossil fuel subsidies” by some actors (e.g. externalities in the case of the IMF) are unlikely to ever meet the WTO’s subsidy criteria. Others may already fall squarely within the ASCM’s subsidy definition (Espa and Rolland 2015). Wold et al. (2012) illustrate this point with several examples of US and EU governments providing access to fossil fuel resources at below market rates, foregoing revenue otherwise due or engaging in direct transfers of funds or price supports to the fossil fuel industry.

While producer subsidies and local content requirements may be widespread among support measures for renewable energy, these elements may also feature in fossil fuel support programmes. As previously noted, the G20’s subsidisation of fossil fuel production may be in the range of USD 70 billion annually in the OECD countries and the BRIICS (OECD 2015a). It has also been pointed out that local content requirements, while widespread in the renewables sector, have a “long history” in the oil and gas industries (Meyer 2017: 394; see also Tordo et al. 2013).

The fact that attempts by international and non-governmental organisations to shed light on the fossil fuel subsidies landscape have emerged quite recently also warns against hasty generalisations about these measures as a whole.

There are also examples of renewable energy subsidies provided to consumers (Ghosh and Gangania 2012: 22), thereby likely to fall outside the ASCM's scope. It is furthermore worth noting that many subsidies that benefit renewable energy are targeted at the electricity that these energy sources generate. As electricity is not widely traded across borders, this renders a successful WTO challenge unlikely.

In summary, even though political and legal factors may interact to make challenges on subsidies to renewables more likely, certain measures in support of fossil fuels may well be captured by WTO rules, and the inverse may hold true for certain renewable energy subsidies. The paucity of official data on subsidies poses an additional problem to generalisations. Any assessment about the WTO legality of a measure in support of fossil fuels would thus have to be conducted on a case-by-case basis. The next chapter will engage in such an exercise.

A large offshore oil rig is silhouetted against a bright sunset sky. The sun is a large, glowing orb in the upper left corner. The rig's complex structure of towers and cranes is visible. To the right, a tall, narrow flame of gas being burned off (flaring) rises into the air. The sea is dark blue with some whitecaps.

6. Case Studies

This chapter applies the relevant provisions of the ASCM to five selected fossil fuel support measures currently or previously in place in G20 countries. In doing so, it seeks – where possible – to make a preliminary assessment of their compatibility with WTO law. As discussed throughout the chapter, despite a growing understanding of the fossil fuel subsidy landscape, data and information challenges are manifold. As a result, none of the five analyses conducted in this chapter can be considered a conclusive or exhaustive investigation into the ASCM compatibility of the relevant measure. Rather, given the pioneering nature of this exercise, the analyses seek to lay the basis for more in-depth studies in future, including by:

- offering an impression of some of the most common types of subsidy in G20 countries;
- identifying some of the key legal questions to address when an ASCM analysis is conducted;
- providing an initial estimation, where possible, of the likelihood that the measure would pass the various ASCM legal thresholds; and
- highlighting some of the key challenges that any attempt to challenge fossil fuel subsidies under the WTO faces, including data and information gaps.

The decision to restrict the scope of the analysis to G20 countries takes into account the economic and trading clout of these major economies – the G20 nations account for some 80% of global GDP (Government of Germany, 2017). It also considers that all G20 countries in 2009 committed to phase out and rationalise inefficient fossil fuel subsidies. All G20 countries are WTO Members.¹⁶

¹⁶ While the Member States of the European Union are also WTO Members in their own right, the European Commission represents EU Member States at almost all WTO meetings.

6.1 Methodology

6.1.1 Choice of measure

The analyses conducted in this chapter consider the following five fossil fuel support measures:

Case Studies

- 1 Expensing of intangible drilling costs in the US;
- 2 Compensation for below-market prices for fuels in Indonesia;
- 3 Manufacturer privilege in Germany;
- 4 Fuel tax credit for agriculture, forestry and fisheries in Mexico;
- 5 Support to Queensland Rail's coal and freight services in Australia.

While not purporting to be comprehensive, the selection of measures seeks to cover some of the most common fossil fuel subsidies. The purpose is to give a flavour of the questions and challenges these raise from the perspective of WTO law. The analysis sought to provide diverse examples in terms of subsidy type (production or consumption), fossil fuel (oil, coal or gas) and sector covered, as well as geographic location of the measure. In addition, factors such as magnitude and timing (e.g. most recent) were taken into account.

6.1.2 Data used

The OECD's 2015 online inventory of fossil fuel subsidies, which documents and provides estimates for almost 800 individual measures in OECD countries and selected non-OECD economies, has been the starting point for the analyses. All five measures considered in this chapter are included in the database (OECD 2015a). For each of them, the inventory details features such as history, eligibility criteria and recipients, formal incidence, and related fuel. The database therefore helps ensure comparability across different measures, forming an adequate starting point for a preliminary assessment of ASCM compatibility.

The OECD database offers two additional advantages. First, it draws heavily on government sources (OECD 2015b: 28), so the information can be considered relatively uncontroversial. Second, as discussed in Chapter 2, the OECD definition of "support" is comparable to the ASCM definition of subsidies, in that the OECD similarly considers whether a benefit has been provided. The Companion to the Inventory notes in relation to the OECD's concept of support: "[e]ssentially, it includes both direct budgetary transfers and tax expenditures *that in some way provide a benefit or preference for fossil-fuel production or consumption relative to alternatives*" (OECD 2015b: 26, emphasis added). Arguably, then, the OECD database emphasis on provision of a benefit or preference offers a preliminary indication that a measure may pass the ASCM hurdle of "benefit conferred".

Although future assessments could also take into account other public sources (e.g. primary legislation, G20 peer reviews, and research institute or non-governmental organisation reports), considering this material was beyond the scope of this exercise. This is an important drawback of the study, which could have progressed further in certain areas if such data had been taken into consideration.

At the same time, it was recognised that such sources can also hamper comparability as they consider different years and apply a different methodology. For instance, the US self-review under the G20 (US 2015) estimates the annual costs of its intangible drilling costs subsidy at USD 1,629 million, while Oil Change International and the Overseas Development Institute estimate this subsidy at USD 2.6 billion annually (Doukas 2015). The OECD, instead, provides a year-by-year breakdown of the costs of the subsidy differentiated by fuel, therefore providing the most comprehensive picture.

6.1.3 Application of WTO law

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6.1.3.1 Choice for ASCM

Section 6.2 describes five support measures for fossil fuels in G20 countries, and subjects them to an initial assessment of ASCM compatibility. Figure 1 summarises the steps involved in an ASCM compatibility test, as discussed in more detail in Chapter 3. As mentioned, besides the ASCM, other WTO agreements may be relevant to litigation of subsidies, and indeed, the case law has thus far relied primarily on the TRIMs Agreement and GATT to challenge renewable energy support measures. However, given that the measures in question focused on a narrow subset of subsidies – those to renewable energy producers and containing local content requirements – there is merit in using the ASCM as a starting point for assessing the wider range of support measures discussed in this chapter.

6.1.3.2 Dealing with uncertainty

It should be noted that the absence of data in many cases has been an impediment to a conclusive assessment of whether a measure passes the ASCM legal thresholds. As highlighted above, reliance on a broader range of sources may have helped addressing this constraint to some extent. Nevertheless, in several cases, preliminary findings could still be achieved based on the information included in the OECD database and previous case law. In this regard, it is important to note that even if additional data may have yielded different findings, the main purpose of the analysis was to reveal the mechanics of assessing the WTO compatibility of fossil fuel support measures. It was not to deliver a decisive judgement for any of the measures under consideration.

The approach taken towards managing this uncertainty is as follows. If a measure is deemed unlikely to pass the relevant ASCM threshold, it appears to be compatible with the ASCM, so we terminate the analysis. The exception is if there is a negative finding of a prohibited subsidy. In this case, the analysis can proceed to the next step, as an actionable subsidy with adverse effects may still be present. Conversely, if the subsidy is likely to pass the relevant ASCM threshold, an ASCM violation may be present and we continue to the next step to explore this possibility further. Finally, if we deem inconclusive whether a subsidy passes the relevant ASCM threshold or not, we also opt to continue the ASCM analysis to avoid leaving under-examined a measure that is potentially in violation of the Agreement.

Table 3. Decision Chart: Testing ASCM Compatibility

Step	ASCM threshold		Key questions to consider	Assessment and next steps or conclusion	
				YES	NO
1(a)	Subsidy?	<i>Financial contribution or income or price support</i>	Is the subsidy: • a financial contribution by a government OR • Income or price support in the sense of GATT Article XVI?	Continue to Step 1(b)	The measure is not a subsidy for the purposes of the ASCM
1(b)		<i>Benefit</i>	Does the measure confer a benefit?	Continue to Step 2	
2	Prohibited?		Is the subsidy: • An export subsidy? • A local content subsidy?	The subsidy must be withdrawn “without delay”	The subsidy is not a prohibited subsidy. Proceed to Step 3
3(a)	Actionable, with adverse effects?	<i>Specificity</i>	Is the subsidy specific to: • a certain enterprise/ group of enterprises; • a certain industry/ group of industries; • recipients in a certain region within the granting authority’s jurisdiction?	Continue to Step 3(b)	The subsidy does not fall within the scope of the ASCM

3(b)	Actionable, with adverse effects?	Adverse effects	Does the subsidy (or in some cases the subsidised product) cause any of the following adverse effects?:		If none of the effects are present, the subsidy is permitted under the ASCM
			• (The threat of) serious prejudice	The defendant must eliminate the subsidy's adverse effects or withdraw the subsidy	
			• (The threat of) injury to the domestic industry of another Member or "material retardation of the establishment" of such an industry?	The injured Member can impose countervailing duties (unilateral track) or the defendant must eliminate the subsidy's adverse effects or withdraw the subsidy (multilateral track)	
			• Nullification or impairment of benefits accruing directly or indirectly to other Members under the GATT, in particular the benefits of concessions bound under GATT Article II?	The defendant must eliminate the subsidy's adverse effects or withdraw the subsidy	

6.2 ASCM Analysis

This section applies the ASCM Compatibility Decision Chart in Table 1 to five support measures for fossil fuels in G20 countries. These measures are illustrative of some of the more common types of subsidies to fossil fuel production or consumption in the G20 and beyond. Therefore, they help highlight several questions such measures may raise at the WTO. The purpose of this exercise is emphatically not to "single out" any country or measure. Indeed, one of the measures discussed in this section (Compensation for below-market prices for fuels in Indonesia) has already undergone reform. Another

(Expensing of intangible drilling costs in the US) has been identified by the government as ripe for phase-out (US 2015).

Following a brief introduction in a fact box that draws heavily on the 2015 OECD database¹⁷, the measure in question is subjected to an initial assessment. The three steps of the decision chart are then applied to each measure resulting in a preliminary conclusion on its ASCM compatibility.

The findings are summarised and discussed in Section 6.3.

¹⁷ Information deemed irrelevant for the purposes of the analysis has been excluded. In some cases, minor changes to language have been made for ease of understanding. Finally, estimated expenditure amounts have been rounded off to the nearest million, or billion in the case of Case Study 2. All changes remain the sole responsibilities of the authors.

6.2.1 Case Study 1: Expensing of Intangible Drilling Costs in the United States

Key elements		Description										
Period: 1986 – present; older versions go back to 1916		This tax concession allows independent crude oil and natural gas producers to deduct entirely (i.e. expense) the intangible drilling costs (IDC) associated with successful investments in domestic oil and gas wells in the year they are incurred. In addition, integrated oil and natural gas companies (large, vertically-integrated producers) may deduct up to 70 percent of such costs at once and recover the remaining 30 percent over a five-year period. “Intangible drilling costs” are defined by the US Internal Revenue Service as the costs of developing a well before production begins, and may include wages, fuel, hauling costs, machinery for grading and drilling, and unsalvageable materials used in developing a well. Because these expenses occur prior to production and are properly attributable to future output, normal income-tax rules would treat them as capital costs and allow deductions for depletion only as resources from the well are extracted, i.e. as the asset depreciates. Accelerated depreciation causes tax revenues to be lower in the early years of a given asset’s useful life than they would have been had the asset been depreciated in a conventional way. This implies that a net benefit is conferred upon the recipient in present-value terms. At the same time, as is usually the case with the accelerated depreciation of capital (of which expensing is a particular type), annual cash-flow estimates of revenue foregone can also at times be negative. This is the case, for instance, when the industry to which the provision applies contracts, thereby slowing (or even reversing) capital accumulation. Similar rules apply in the case of certain exploration and development costs for energy minerals other than oil and natural gas, for coal and uranium in particular. The Congressional Research Service indicates, however, that exploration and development expenditure for coal and other fuel minerals generally accounts for a very small share of total support provided under this measure (around 1% only). This is mainly due to the smaller size of the coal industry, but also to lower exploration costs for surface mining.										
Fuel type: Petroleum and natural gas												
Provider: US government												
Recipient: Producers												
Incidence: Capital												
Stage: Extraction or mining												
Indicator: Producer support estimate												
Size	Year			2006	2007	2008	2009	2010	2011	2012	2013	2014
	Cost (mln USD)	PETRO-LEUM	Crude oil	236	178	534	551	133	162	162	204	89
			Natural gas liquids	50	39	118	117	30	37	34	40	18
			Other hydrocarbons	2	2	6	6	2	2	2	2	1
		NATURAL GAS			392	311	991	966	236	298	272	303

Source: [http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_USA&Lang=en&Coords=\[MEA\].\[USA_TE_06\]](http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_USA&Lang=en&Coords=[MEA].[USA_TE_06])

Step 1

Subsidy?

1(a) – Financial contribution by a government or public body?

The measure could be an example of government revenue that is otherwise due “foregone or not collected”. There is no need to demonstrate involvement by a government for this type of financial contribution since the decision to forego revenue inherently involves exercise of government authority (WTO 2011b: para. 286). Demonstrating this type of financial contribution involves an analysis in three steps (WTO 2012a: paras. 812-815), which are set out below.

(i) Identifying the challenged tax treatment applied to recipients, including considering “objective reasons” for this treatment. In the present case study, the ability of producers to deduct, fully or partially, certain IDC in the year they are incurred appears to deviate from the norm and would therefore constitute the relevant challenged tax treatment. However, identifying the “reasons” for this treatment requires, inter alia, consideration of the internal principles of the tax regime (Coppens 2014: 47), which goes beyond the scope of this exercise.

(ii) Identifying a benchmark tax treatment. While this step can be challenging, “[v]ery often this benchmark will be the general tax rules applicable to comparable income” (Coppens 2014: 49). In this regard, the OECD database specifically highlights that “normal income-tax rules” would treat pre-production costs “as capital costs and allow deductions for depletion only as resources from the well are extracted, i.e. as the asset depreciates”. This gives an indication of what the benchmark treatment is supposed to be.

(iii) Comparing the “reasons” for the challenged tax treatment with the benchmark treatment. This allows determination of whether, “in the light of the treatment of the comparable income of comparably situated taxpayers, the government is foregoing revenue that is otherwise due in relation to the income of the alleged recipients” (WTO 2012a: para. 814). As noted, the present analysis is not able to determine for what (if any) tax-regime-related

reasons the IDC measure has been adopted under (i); and is thus not able to compare these reasons to the benchmark tax treatment identified under (ii).

Preliminary finding: inconclusive.
Continue to next step.

1(b) – Does the measure confer a benefit?

As discussed in Chapter 3, the private market test is usually met where government revenue is foregone, as a benefit seems automatically conferred in such cases. As the Panel wrote in *US-Large Civil Aircraft* (WTO 2011c: para. 7.170), a “tax break is essentially a gift from the government, or a waiver of obligations due, and it is clear that the market does not give such gifts”. As such, a finding of government revenue foregone in Step 1(a) would lead to a positive finding also in this step. In the absence of a conclusive finding in this regard under Step 1(a), we also withhold judgement for the benefit threshold, deeming the evidence inconclusive.

Preliminary finding: inconclusive.
Continue to next step.

Step 2

Prohibited?

As discussed in Chapter 3, a prohibited subsidy can manifest in several ways, namely if a measure is:

(i) De jure contingent on export or use of local content. Such contingency should be “demonstrated on the basis of the words of the relevant legislation, regulation or other legal instrument” (WTO 1999b: para. 167; see also WTO 2000: para. 100). The OECD description of this measure provides no indication that such contingency is present.

(ii) De facto contingent on export or local content. To determine if there is a *de facto* export subsidy, the test considers whether “the granting of the subsidy [is] geared to induce the promotion of future export performance by the recipient” (WTO 2011a: para. 1044) and whether the subsidy “favour[s] a recipient’s export sales over its domestic sales” (WTO 2011a: para. 1053). Even if the increased production as a result of the subsidy is

exported as whole, the measure does not necessarily constitute an export subsidy. This will only be the case if the intervention somehow distorts pre-existing conditions of supply and demand in a way that induces exports over domestic sales. For local content contingency, the legal standard is similar (see Coppens 2014, 141, footnote 141). However, like in *de jure* contingency, the OECD description does not provide a sufficient basis to determine the presence of *de facto* contingency. This assessment thus goes beyond the scope of this paper.

(iii) Covered by one of the items contained in the ASCM's Illustrative List of Export Subsidies (Annex I): Again, the absence of information makes it impossible to assess whether the measure falls within the scope of this list.

 **Preliminary finding: inconclusive.**
Continue to next step.

oil, natural gas, coal and uranium, and thus that the measure is specific.

(ii) If not, can we nevertheless speak of *de facto* specificity? Even if the energy minerals industries targeted by this subsidy are found to be too broad to meet the ASCM's specificity test, it can be argued that the present measure can be considered *de facto* specific. Indeed, the *appearance* of *de facto* specificity is there at least as the OECD summary says that “exploration and development expenditure for coal and other fuel minerals [than oil and gas] generally accounts for a very small share of total support provided under this measure (around 1% only)”, and that while this is mainly due to the smaller size of the coal industry, surface mining is also associated with lower exploration costs.

 **Preliminary finding: likely. Continue to next step.**

Step 3

Actionable with Adverse Effects?

3(a) – Is the subsidy specific?

This subsidy appears to benefit primarily the oil and gas industries. At the same time, the OECD summary notes that “[s]imilar rules apply in the case of certain exploration and development costs for energy minerals other than oil and natural gas, for coal and uranium in particular”. This raises two key questions:

(i) Do oil, gas, and the other energy minerals to which the rules apply all fall under the specificity requirement of “a group of industries”? The answer is that this group of recipients may meet the ASCM's specificity requirement. In the *US-Softwood Lumber IV* case, for instance, the Panel (WTO 2003: para. 7.121), suggests that “the ‘wood products industries’ constitutes at most only a limited group of industries – the pulp industry, the paper industry, the lumber industry and the lumber remanufacturing industry – under any definition of the term ‘limited’”. As such, the Panel considered these industries to be sufficiently specific for the purposes of the ASCM. For the present subsidy, it could be similarly argued that the “energy minerals industries” are limited to

3(b) – Does the subsidy/the subsidised product cause adverse effects?

Subsidies to producers will, in theory, enable firms to drill new wells and expand production to some more “optimum” amount. Erickson et al. (2017) have found that at recent US oil prices of USD 50 per barrel, tax preferences and other subsidies in the US, including the IDC subsidy, push nearly half of new, yet-to-be-developed oil into profitability. This will potentially increase US oil production by almost 17 billion barrels over the next few decades (Erickson et al. 2017).

With this in mind, it seems possible that the IDC measure has led to an expansion of US fossil fuel production, thereby causing serious prejudice, injury or nullification or impairment of benefits to third countries. However, in order to conduct this assessment, more data are needed on the impacts of the IDC subsidy on fossil fuel production levels in the US, on concomitant impacts on trade flows, and on what fossil fuel producers and third countries were most affected, if any.

 **Preliminary finding: inconclusive.**

Conclusion:

It was not possible to determine whether this measure is compatible with the ASCM.

While the US IDC measure is likely specific, more information is needed to assess whether it (1) would pass the three-part analysis of “government revenue foregone” (and therefore confers a benefit); (2) represents a prohibited subsidy; and (3) causes adverse effects.

6.2.2 Case Study 2: Compensation for Below-Market Prices for Certain Types of Petroleum in Indonesia

Key elements		Description											
Period: 1967-2015		Since 1967, the Indonesian Government has set the retail prices for certain brands of petroleum below market levels. The state-owned energy company Pertamina is provided with direct financial compensation from the government for the losses it incurs as a result. The rate of this compensation has risen sharply owing to the decline of domestic oil production, and the increase in international oil prices in the 2000s. Notably, the subsidy was eliminated in 2015, and the price of gasoline was adjusted to reflect the international oil price. While diesel and kerosene will still be subsidised, both fuels have been allocated significantly less in 2015.											
Fuel type: Petroleum													
Provider: Indonesian government													
Recipient: Fuel consumers													
Incidence: Direct Consumption													
Stage: Other end uses of fossils													
Indicator: Consumer support estimate													
Size	Year			2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Cost (bln IDR)	PETRO-LEUM	Crude oil			15,032							
			LPG	1,950,	3,026	7,758,	4,009	8,840	17,713	14,707	31,000	43,600	21,500
			Motor gasoline excl. biofuels	31,575	42,010	73,563	24,318	44,226	88,611	73,574	99,600	99,400	0
			Other kerosene	15,977	19,710	24,805	4,490	4,529	9,075	7,535	6,300	6,200	3,400
			Gas/ diesel oil excl. biofuels	14,710	19,047	32,980	12,222	24,756	49,601	41,184	73,200	74,100	17,100

Source: [http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_IDN&Lang=en&Coords=\[MEA\].\[IDN_DT_03\]](http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_IDN&Lang=en&Coords=[MEA].[IDN_DT_03])

Step 1

Subsidy?

1(a) – Financial contribution by a government or public body?

As a starting point, it should be noted that the Indonesian government's subsidisation of petroleum appears to lower prices indiscriminately for consumers and producers.

At first glance, a direct transfer of funds may appear to be taking place through the compensation of Pertamina. In accordance with ASCM Article 1.1(a) and 1.1(a)(v), such a contribution may also be present if a public body – which state-owned Pertamina might be – or a private actor directed or entrusted by the government – which Pertamina could also be seen as – fulfils this task. However, while a transfer of funds does appear to be taking place between the Indonesian government and Pertamina, the company does not appear to be fulfilling a proxy role, as the act of keeping prices artificially low in accordance with prices set by the government does not represent a direct transfer of funds to fossil fuel consumers and producers. Sticking to the letter of the ASCM, then, this type of financial contribution may not be present.

Instead, this measure may be a case of a government (through the proxy, Pertamina) providing goods (i.e. petroleum) other than general infrastructure. Indeed, since fuel is not a type of infrastructure, it does not fall under this exception. A complainant would have to demonstrate that this activity falls under the “provision” of goods and the case law does not shed much light on whether lowering prices would be included in this definition (see Coppens 2014: 42-45 for a discussion of the relevant jurisprudence).

Finally, the measure may fall under “any form of income or price support” (i.e. ASCM Article 1.1(a) (2)). While the case law about this clause is limited, in *China-GOES*, the Panel found that price support “includes direct government intervention in the market with the design to fix the price of a good at a particular level” (WTO 2012c: para. 7.85).

However, the normal purpose of such an intervention is to ensure a minimum, rather than a maximum price (Pogoretsky 2011). It is thus unclear whether the current measure falls within this definition.

Preliminary finding: inconclusive.
Continue to next step.

1(b) – Does the measure confer a benefit?

The AB in *Canada–Aircraft* (WTO 1999a) introduced the so-called “private market test” (Coppens 2014: 60) to establish the existence of a benefit. This test specifies that a benefit is conferred when “the recipient has received a financial contribution on terms more favourable than those available to [it] in the market” (WTO 1999a para. 158).

In this regard, it appears evident that the measure confers a benefit to purchasers of different forms of petroleum (crude oil, LPG, motor gasoline excluding biofuels, other kerosene, and gas- or diesel oil excluding biofuels). As noted above, this may include fossil fuel producers as well as consumers. According to the OECD database, “[t]he compensation the government provides to Pertamina ... is equivalent to the difference between the subsidised retail prices and the benchmark market price multiplied by the respective domestic consumption volumes”. In other words, consumers and producers do not pay the market price, but obtain a more favourable rate. Based on the private market test, a benefit thereby appears to be conferred to both types of purchasers. As discussed in Chapter 3, in some cases there may be difficulties in identifying the benchmark market price if the subsidy itself is leading to a distortion of this price. In the present case, however, the government already appears to be availing itself to a benchmark price.

Preliminary finding: likely. Continue to next step.

Step 2

Prohibited?

The measure may be available to producers that use oil as an input good, and, as with Case Study 1, there is insufficient information in the OECD database to determine whether it is contingent on export or the use of domestic products. Nevertheless, given that this measure is available to consumers in addition to producers, we consider it extremely unlikely that such contingency is present.

Preliminary finding: unlikely. Since subsidy could still be actionable, continue to next step.

Step 3

Actionable with Adverse Effects?

3(a) – Is the subsidy specific?

The measure benefits all purchasers of certain brands of petroleum. As such, it is not specific to a certain enterprise or group of enterprises, a certain industry or group of industries, or recipients in a certain region within the jurisdiction of the granting authority's, as per ASCM definition of specificity.

Preliminary finding: unlikely. Terminate analysis.

Conclusion:

The measure is likely compatible with the ASCM.

While it was not possible to determine whether Indonesia's measure meets the ASCM definition of a subsidy, it is unlikely this would be a prohibited subsidy. The measure lacks specificity and as such, it falls outside of the scope of the Agreement.

6.2.3 Case Study 3: Manufacturer Privilege in Germany

Key elements		Description											
Period: 1930 – present		Since 1930, the German Government has exempted from energy tax coal, natural gas, and petroleum products that manufacturers of energy products (e.g. refineries) use as process energy. In line with EU Directive 2003/96/EG, the German Government provides this exemption on competitiveness grounds. A 2009 evaluation report of German subsidies — requested by the Federal Ministry of Finance — concluded, nevertheless, that the measure was harmful to the environment, though it met the EU’s competition guidelines. This inventory uses data from the IEA’s Energy Balances for Germany’s transformation sector (predominantly refinery gas and fuel oil) to allocate the annual amounts of foregone revenue to the different fuels, as reported in the Subventionsbericht (Subsidy Report).											
Fuel type: Coal, Petroleum and natural gas													
Provider: German government													
Recipient: Manufacturers of certain energy products													
Incidence: Cost of intermediate inputs													
Stage: Refining or processing													
Indicator: Producer support estimate													
Size	Year			2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Cost (mln EUR)	COAL	Lignite	11	11	9	7	8	10	10	11	11	11
		PETRO-LEUM	Refinery gas	231	230	156	161	175	176	175	176	176	176
			LPG	14	15	13	12	9	6	5	4	4	4
			Fuel oil	67	64	41	34	40	36	32	31	31	31
			Petroleum coke	29	30	19	19	18	19	19	20	20	20
			Other oil products	0	0	0	4	0	0	0	0	0	0
			Coke oven gas	20	17	13	13	12	11	9	7	7	7
		NATURAL GAS		26	26	16	20	33	36	41	45	45	45

Source: http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_DEU&Lang=en&Coords=%5bMEA%5d.%5bDEU_TE_07%5d

Step 1

Subsidy?

1(a) – Financial contribution by a government or public body?

The measure may be an example of foregone or not collected government revenue that is otherwise due, as the government has exempted manufacturers of fossil fuel products from certain taxes. As noted in Case Study 1, once this type of financial contribution has been demonstrated, there is no need to additionally demonstrate action taken by government.

However, as also mentioned in Case Study 1, demonstrating the presence of government revenue foregone requires completing a three-step test:

- (i) Identifying the challenged tax treatment that is applied to the recipients, including considering the “objective reasons” for this treatment;
- (ii) Identifying a benchmark tax treatment; and
- (iii) Comparing the “reasons” for the challenged tax treatment with the benchmark treatment.

In this regard, the “challenged tax treatment” under (i) can reasonably be held to be the tax exemption applied to manufacturers of energy products. As these taxes appear to be the norm in other cases, the benchmark tax treatment under (ii) could be the requirement to pay taxes on such fuels. However, the completion of the test faces similar challenges to those encountered in Case Study 1 with regard to the reasons for the exceptional tax treatment, and their comparison with the benchmark treatment. Conducting the full analysis falls outside the scope of this paper, so our findings remain inconclusive.

Preliminary finding: inconclusive.
Continue to next step.

1(b) – Does the measure confer a benefit?

As discussed in Chapter 3, the private market test does not have to be substantively met where government revenue is foregone, as a benefit seems automatically conferred in such cases. A finding of government revenue foregone in Step (1 a) would therefore lead to a positive finding under the current step. In the absence of a conclusive finding in this regard under Step 1(a), we also withhold judgement for the benefit threshold, deeming the evidence inconclusive.

Preliminary finding: inconclusive.
Continue to next step.

Step 2

Prohibited?

As with Case Study 1, insufficient information is available to conduct this assessment.

Preliminary finding: inconclusive.
Continue to next step.

Step 3

Actionable with Adverse Effects?

3(a) – Is the subsidy specific?

According to the OECD description, this measure exempts “manufacturers of energy products (e.g. refineries)” from energy tax on coal, natural gas and petroleum products they use as process energy.

While it is not entirely clear from the OECD database what other enterprises, besides refineries, fall within the scope of “manufacturers of energy products”, it seems plausible that this (group of) recipients constitutes “at most only a limited group of industries”, as per the Panel’s finding on “wood products industries” in *US-Softwood Lumber IV* (WTO 2003: para. 7.121). Therefore it seems that a strong case could be made that the measure meets the ASCM’s specificity requirement and is specific to a “group of industries” or perhaps even to a “group of

enterprises”.

 **Preliminary finding: likely. Continue to next step.**

3(b) – Does the subsidy/the subsidised product cause adverse effects?

Given the significant sums involved, there certainly appears to be a possibility that this measure has harmed the trade interests of other WTO Members. However, in order to conduct this assessment, more specific data are needed on the impacts of the subsidy on Germany’s fossil fuel production levels, any concomitant impacts on trade flows, and what fossil fuel producers and third countries were most affected, if any.

 **Preliminary finding: inconclusive.**

Conclusion:

It was not possible to determine whether this measure is compatible with the ASCM.

While Germany’s Manufacturer Privilege measure is likely specific, more information is needed in order to assess whether it: (1) would pass the three-part analysis of “government revenue foregone” (and therefore confers a benefit); (2) represents a prohibited subsidy; and (3) causes adverse effects.

6.2.4 Case Study 4: Fuel Tax Credit for Agriculture, Forestry and Fisheries in Mexico

Key elements		Description											
Period: unknown		This measure provides the agriculture, forestry, and fisheries sectors with a fuel-tax credit on their purchases of diesel fuel for final use in general machinery, with the exception of vehicles, regardless of the prevailing rate of the excise tax law (<i>Impuesto Especial Sobre Producción y Servicios</i>).											
Fuel type: Petroleum (gas- or diesel oil except biofuels)													
Provider: Mexican government													
Recipient: Agriculture, forestry and fisheries sectors													
Incidence: Direct consumption													
Stage: Other end uses of fossil fuels													
Indicator: Consumer support estimate													
Size	Year			2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Cost (mln Mexican Peso)	PETRO-LEUM	Gas/ diesel oil excl. biofuels	122	0	1,137	1,078	102	52	135	174	0	2,770

Source: [http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_MEX&Lang=en&Coords=\[MEA\].\[MEX_TE_05\]](http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_MEX&Lang=en&Coords=[MEA].[MEX_TE_05])

Step 1

Subsidy?

1(a) – Financial contribution by a government or public body?

The measure may be an example of foregone or not collected government revenue that is otherwise due. The government would usually be able to retain revenues from diesel taxes, but under this measure, the agriculture, forestry and fisheries sectors are able to obtain tax credit on their diesel fuel in certain instances.

The three-step test of Case Study 1 is similarly applicable here and its completion faces similar challenges. However, it is relevant to note that “fiscal incentives such as tax credits” are explicitly mentioned in ASCM Article 1.1(a)(1) as an example of foregone revenue making more likely for this measure to pass the test. As also noted in Case Study 1, there is no need to demonstrate action taken by government in cases of foregone or not collected government revenue.

Preliminary finding: likely. Continue to next step.

1(b) – Does the measure confer a benefit?

Following on from Step 1(a), the measure also likely meets the ASCM’s benefit test. The private market test does not have to be substantively met where government revenue is foregone, as a benefit seems automatically conferred in such instances (Chapter 3).

Preliminary finding: likely. Continue to next step.

Step 2

Prohibited?

The OECD database makes no reference to the measure being contingent on either export performance or use of domestic over foreign products. However, given its broad scope, we consider unlikely that the measure was implemented with any of these considerations in mind.

Preliminary finding: unlikely. Continue to next Step.

Step 3

Actionable with Adverse Effects?

3(a) – Is the subsidy specific?

Given the limited amount of information available about this subsidy, it is difficult to ascertain precisely how it works and how it is distributed. It should be noted, however, that there is no indication in the OECD database that the subsidy is limited to certain (sub-)sectors of the agriculture, fishery or forestry industries.

In *US-Upland Cotton* (WTO 2004b), the Panel did not consider the US argument that a crop insurance subsidy generally available to the US agriculture sector as a whole would not be specific within the meaning of ASCM Article 2, given that the Panel had already found that the crop insurance subsidy in question was not available to all agricultural production (WTO 2004b: para. 7.1152). However, the Panel did consider (WTO 2004b: para. 7.1150-1) that US crop insurance subsidies which were “generally available for most crops but ... not generally available in respect of the entire agricultural sector in all areas” could be considered specific. The Panel noted that (WTO 2004b: para. 7.1147):

a subsidy that is limited to a small proportion of industries, such as those producing one or two individual United States products would be limited and thus “specific” within the meaning of Article 2 of the ASCM Agreement. These subsidies are “specific” as they are not even available in respect of a number of commodities.

And that (WTO 2004b: para. 7.1151):

the industry represented by a portion of United States agricultural production that is growing and producing certain agricultural crops (and certain livestock in certain regions under restricted conditions) is a sufficiently discrete segment of the United States economy in order to qualify as “specific” within the meaning of Article 2 of the SCM Agreement.

This would suggest that, conversely, subsidies available to the agriculture sector as a whole, including all crops and livestock, and the many industries comprised therein, cannot be considered specific. This would appear to be the correct approach given that the ASCM specificity requirement is limited to enterprises and industries, but does not refer to the broader term of “sector(s)”.

The absence of specificity would seem even more clear-cut if the subsidy is provided to other sectors, in addition to agriculture. It would thus appear unlikely that the current measure, which is not limited to specific industries or sub-sectors within agriculture, but also extends to fisheries and forestry, would be considered specific.

Preliminary finding: unlikely. Terminate analysis.

Conclusion:

The measure is likely compatible with the ASCM.

While Mexico’s fuel tax credit measure may meet the ASCM’s definition of a subsidy, it likely lacks specificity. As such, it falls outside of the scope of the Agreement.

6.2.5 Case Study 5: Support to Queensland Rail's Coal and Freight Services in Australia

Key elements		Description	
Period: 2003/04 financial year		The Queensland state budget for FY2003/04 directed AUD 94 million to Queensland Rail’s Coal and Freight Services to upgrade and acquire rolling stock such as diesel locomotives. This funding supplemented capital expenditure by state-owned Queensland Rail of about AUD 615 million in FY2003/04. This programme benefitted Queensland’s hard-coal industry as a whole.	
Fuel type: Hard coal			
Provider: Queensland government			
Recipient: Queensland hard coal and freight services			
Incidence: Capital			
Stage: Transportation of fossil fuels			
Indicator: General services support estimate (GSSE)			
Size	Year	HARD COAL	2003-2004
	Cost (mln AUD)		94

Source: [http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_AUS&Lang=en&Coords=\[MEA\].\[AUS_DT_04\]](http://stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=FFS_AUS&Lang=en&Coords=[MEA].[AUS_DT_04])

Step 1

Subsidy?

1(a) – Financial contribution by a government or public body?

This measure could fall under the contribution type of: “the provision of goods or services ... other than general infrastructure”.

The AB has endorsed a wide interpretation of the term “provision”, with this issue hinging on whether a transaction made goods or services available (WTO 2004a: paras. 68-75). With regard to the present measure, the OECD database notes that the Queensland state budget for the fiscal year 2003/2004 directed AUD 94 million to Queensland Rail’s coal and freight services “to upgrade and acquire rolling stock such as diesel locomotives”. It thus appears that this transaction made the upgrading and acquisition of the rolling stock available.

With regard to the carve-out of “general infrastructure”, it can be plausibly argued that rolling stock such as locomotives cannot be considered infrastructure. Indeed, in *EC–Large Civil Aircraft* the Panel (WTO 2010: para. 7.1036) highlighted that the ordinary meaning of infrastructure refers to “installations and services (power stations, sewers, roads, housing, etc.) regarded as the economic foundation of a country”. While the case may thus have been different if the government of Queensland’s financing had gone to maintenance of the railway infrastructure (this would have required determination of the “generality” of the infrastructure in question; see e.g. WTO 2010: para. 7.1039), the present measure does seem to fall under this carve-out, and rather appears related to the provision of goods and services under Article 1.1(a)(1)(iii) of the ASCM.

Finally, it should be noted that the government of the state of Queensland falls within the scope of a “government” under the ASCM. In accordance with public international law, the conduct of any organ of the state, at whatever level, is attributable to that state (Coppens 2014: 51).

Preliminary finding: likely. Continue to next step.

1(b) – Does the measure confer a benefit?

A benefit appears to be conferred on Queensland’s hard coal industry, since the recipient “has received a financial contribution on terms more favourable than those available to [it] in the market”. On the private market, the coal industry would have either to make the rolling stock investments itself, or to forego the advantages of such an investment.

Preliminary finding: likely. Continue to next step.

Step 2

Prohibited?

As with Case Study 1, there is insufficient information available to conduct this assessment.

Preliminary finding: inconclusive. Since the subsidy could still be actionable, continue to next Step.

Step 3

Actionable with Adverse Effects?

3(a) – Is the subsidy specific?

According to the OECD inventory, this subsidy “benefited Queensland’s hard coal industry as a whole”. However, the inventory also mentions the subsidy was granted to the state-owned rail company’s coal and freight services. As such, it is not immediately evident to what extent the subsidy is specifically limited to the coal industry in Queensland. As noted, the case law has in practice taken a wide reading to the concept of specificity, with industries e.g., “producing wood products” (WTO 2003: para. 7.121) or “a subset of basic agricultural products” (WTO 2004b: para. 1148) being considered sufficiently specific for the ASCM’s purposes. At the same time, the concept is necessarily delimited (see also Case Study 4). More information into the nature of the freight and the

industries involved, and the extent to which different industries benefitted from this subsidy (both *de jure* and *de facto*) would be needed to conduct this assessment.

 **Preliminary finding: inconclusive.**
Continue to next step.

3(b) – Does the subsidy/the subsidised product cause adverse effects?

There is at least a possibility that this measure has harmed the trade interests of other WTO Members. Indeed, more than three-quarters of Australia's coal output goes to export, making the country the world's largest coal exporter in volume (OECD 2015a). The Queensland government is a major exporter of coal, with exports estimated at AUD 23.5 billion for 2014-2015 (Queensland Government n.d.).

However, more specific information regarding the impacts of this subsidy on production and trade flows is needed to assess whether it is causing serious prejudice, injury, or nullification or impairment of benefits to other Members. This challenge is compounded by the fact that while the measure is historical in nature, serious prejudice, for instance, requires that adverse effects occur at present, or represent a future threat.

 **Preliminary finding: inconclusive.**

Conclusion:

It was not possible to determine whether this measure is compatible with the ASCM.

While the Queensland government's 2003/2004 support to Queensland Rail's coal and freight Services is likely to represent a subsidy for the purposes of the Agreement, it is unclear whether it was sufficiently targeted at Queensland's coal sector to be deemed specific. There is also insufficient information available to determine the presence or absence of a prohibited subsidy, and of adverse effects.

6.3 Summary and Conclusion

The analyses conducted in the previous section have led to different ASCM outcomes for our case studies on fossil fuel consumer support on one hand, and on producer support measures on the other. Several variations within these two categories are also discernible. The analyses have served to highlight common challenges across different measures, in particular when it comes to demonstrating adverse effects.

6.3.1 Consumer Subsidies

Our analyses found two support measures to be likely in conformity with the ASCM: Case Study 2 (Compensation for Below-Market Prices for Certain Types of Petroleum in Indonesia) and Case Study 4 (Fuel Tax Credit for Agriculture, Forestry and Fisheries in Mexico). Both measures were deemed unspecific, thereby falling outside the ASCM's scope. These findings are in line with the existing literature on fossil fuel subsidies and the WTO, which suggests that most consumer subsidies are unlikely to be captured by the ASCM, and are therefore particularly difficult to litigate under WTO law (Chapter 5).

Determining whether Case Study 2 represents a financial contribution by a government, or income or price support, also proved challenging. This may in part be explained by the fact that the ASCM is not geared towards addressing consumer subsidies, as the Agreement's specificity requirement shows. However, this finding is also in line with the existing literature on dual pricing, which suggest that this type of measure is difficult to address even when producers are the primary beneficiaries (see e.g. Espa 2015).

6.3.2 Producer subsidies

By contrast, the results for the three producer case studies were inconclusive. Although specificity could be preliminarily determined in two cases, the absence of readily available information made conducting other legal tests necessary to determine ASCM-compatibility impossible. This included the three-part analysis to determine whether government

revenue that is otherwise due is foregone or not collected under the ASCM's "subsidy" test. Given the link between foregone government revenue and benefit conferred, in two of the three case studies it was not possible to determine whether the benefit threshold of the Agreement had been met.

Similarly, the exercise left unanswered numerous questions related to prohibited subsidies. This was primarily due to a lack of information on the precise characteristics of the measure in question. In future, however, this shortcoming could be addressed through a more in-depth examination of the rules governing the measure and how it is implemented in practice, including with consultation of a wider range of sources besides the OECD database. There is merit in exploring the prevalence of this type of subsidy among fossil fuel support measures, given that prohibited subsidies allow complaints to bypass the ASCM's specificity and adverse effects tests. As evidenced by the case law on local content requirements, they can also be challenged under the TRIMs Agreement or GATT (Chapter 4). In addition, in contrast to some of the softer remedies available if adverse effects are found, prohibited subsidies must be withdrawn "without delay". As suggested in Chapter 1, withdrawal is arguably the most desirable outcome when it comes to fossil fuel subsidies.

6.3.2.1 Adverse Effects

One step of the ASCM analysis deserves further discussion and that concerns adverse effects. In all three case studies where this step was considered (i.e. the producer support measures in Case Studies 1, 3 and 5), our findings were inconclusive. The analysis could not proceed beyond general statements on fossil fuel production and export in the country in question.

An adverse effects analysis, however, requires a very targeted approach. It would demand more information on the impacts of the measure on production levels in the country where support is provided; concomitant impacts on trade flows; and which fossil fuel producers and third countries were most affected, if any.

Responding to such questions in the present paper was not feasible because it was time-consuming, and because specific information in this regard was

not readily available. For instance, it may be possible to ascertain country X's petrodiesel production and export levels over, for example, the last 10 years. It may also be possible to determine who were other major exporters and importers of diesel over that period, and related changes. But linking country X's supported exports, or — as required under serious prejudice — the *support itself* to adverse trade effects in any given Member represents an enormous challenge. In addition, as discussed in Chapter 3, it would have to be proven that the adverse effects are currently present. Under a serious prejudice claim, it would also have to be demonstrated, in certain instances, that harm was caused to a *like product*, raising further potential challenges with regard to the likeness of e.g. petrodiesel, biodiesel, and petrodiesel-biodiesel blends (on this discussion see e.g. Wold et al. 2012: 670-682).

This analysis thus corroborates the understanding that the adverse effects threshold forms a significant, if not insurmountable, obstacle for litigating subsidies under the ASCM (see e.g. Wold et al. 2012; De Bièvre et al. 2017).

6.3.3 Interim Conclusion

The analyses conducted in this chapter are in line with previous findings suggesting that there are important challenges in tackling fossil fuel subsidies through WTO litigation. In particular, most consumer support measures are likely to fall outside the scope of the ASCM, and there are key information difficulties in demonstrating adverse effects of producer subsidies.

Nevertheless, the futility of litigating fossil fuel subsidies under the WTO should not be treated as a foregone conclusion. Contravention of the ASCM could not be decisively ruled out for any of the actionable subsidies examined in this chapter. Indeed, all three producer subsidies reached (conditionally) the final, adverse-effects, stage of the analysis, suggesting there may be insights to gain from further probing the trade effects of these measures. Moreover, there is an opportunity to further explore the presence of prohibited subsidies among fossil-fuel support measures, as these may be easier to litigate.

At the same time, our findings point strongly to the need of a better understanding of specific fossil fuel subsidies governments have in place, as well as their trade effects. The next chapter deals with the transparency challenges the WTO currently faces in obtaining such information.



7. Transparency of Fossil Fuel Subsidies

Contrary to the dispute settlement mechanism, transparency policies are a non-coercive – yet essential – method to understand and tackle systemic challenges (Casier et al. 2014; Shaffer et al. 2015). This is no different for the WTO's subsidy regime, where improving the trading system as a whole and the functioning of the WTO specifically require increased transparency in national trade policies. The ASCM mandates subsidy notifications by each party at regular time intervals. Currently, however, a number of deficiencies in the notification system have emerged.

7.1 Deficiencies of ASCM Subsidy Notification

One major deficiency of the ASCM notification system is that Members fail to notify in time. To illustrate the problem, in October 2016, 89 Members had not yet filed their 2015 notifications, 63 Members had failed to make their 2013 notifications and 57 Members

had not even submitted their 2011 notifications. This prompted the Chair of the SCM Committee to lament “discouragingly low compliance” and admit that “chronic low compliance caused a serious problem in the proper functioning of the [ASCM]” (WTO 2016c).

Casier et al. (2014) suggest the inadequate and ambiguous ASCM notification questionnaire is one key reason for a lack of subsidy notification. As seen in previous chapters, the WTO definition of subsidy leads some economic support measures to not be considered as subsidies. Therefore, they should not be notified to the Committee on Subsidies and Countervailing Measures (SCM Committee). This complexity already makes the notification of fossil fuel subsidies more difficult. The SCM Committee questionnaire, however, adds to it by requesting information on the specificity of subsidies (a concept that remains unclear in the WTO jurisprudence) and its trade effects. These are two requirements that make the notification even more unlikely, particularly for consumer subsidies.

For these reasons, notifications have been sporadic and highly differentiated between Members. Whereas the EU, Japan and the US have notified about 10 fossil fuel subsidies each (including some sub-federal programs), other fuel-subsidising countries like Russia and Brazil have notified just one. In many cases, the measure involved was about fuel subsidies to fishermen, thereby falling under the category of fisheries subsidies. It is indicative that fuel subsidies were rarely labelled as such. The discrepancy between self-notification in the WTO and the thorough reporting by the OECD is remarkable. Between 2008 and 2013, WTO members notified 64 fossil fuel subsidies through the ASCM, while the OECD inventory contained 640 notifications for the same period (Shaffer et al. 2015).

The ASCM notification system has built-in safety mechanisms to counter lack of compliance. The SCM Committee is mandated to examine notifications on a regular basis (ASCM Article 26) and Members themselves can also request information on subsidies they think should have been notified by other Members (ASCM Article 25.8). In the absence of a constructive process, they even have a formal method to counter-notify subsidies (ASCM Article 25.10). This system, however, is also suffering practically. In October 2016, the US and Australia submitted a number of proposals to strengthen procedures to debate subsidy notifications, but these were not approved by Members (WTO 2016c).

In 2015 and 2016, there was hardly any discussion of energy subsidies in the SCM Committee. As far as fossil fuel subsidies were concerned, there was only a request by the US for China to enhance transparency of information on fisheries subsidies, including fuel support to fishermen. In addition, there was only one question by India on local content requirements associated to renewable energy subsidies in the US.¹⁸

7.2 Subsidy Transparency through the TPRM?

The Trade Policy Review Mechanism (TPRM) under the Trade Policy Review Body (TPRB) is intended to add transparency and improve understanding about trade policies and other practices of individual WTO Members. The Secretariat prepares and publishes periodic Trade Policy Reviews (TPRs) of each Member, as well as an annual review of the trading system with a review of measures taken in response to the financial crisis. These reports are authorised by the Secretary-General, not by individual Members. Individual Members do submit a Government Report in response to the Secretariat Report.

The Secretariat has the mandate to consider fossil fuel subsidies and fossil fuel subsidy reform in TPRs (Casier et al. 2014). These topics have been discussed in various sections of TPRs. Most TPRs have a section on the economic environment, recent economic developments and economic prospects. With the sharp decline in international oil prices since July 2014 (and the record high prices the years before), both importing and exporting countries have put the reform of energy prices at the centre of structural economic reforms. TPRs can also address fossil fuel subsidies in the sections describing trade policies and aspects by Members and in trade policies per sector, which often includes an energy component as well.

Of the 27 TPRs prepared between August 2015 and July 2016, 10 did not mention fossil fuel subsidies. Some TPRs generally noted the existence of fossil fuel subsidies and, at times, how they operated (Haiti, Malawi, Moldova and Namibia). Others were more detailed and discussed what type of consumer or producer received subsidies, what fuels were mainly subsidised and what type of fossil fuel subsidy reform attempts had been made or were planned in the near future. Four TPRs even included fossil fuel subsidy estimates, albeit to different degrees of detail.

¹⁸ Based on an analysis of the six meetings of the SCM Committee (92-97) held in 2015 and 2016. These can be found at https://www.wto.org/english/news_e/sppl_e/sppl279_e.htm.

Table 4. Fossil fuel subsidy reforms in Trade Policy Reviews (August 2015 – July 2016).

	No. of TPR parts that mention fossil fuel subsidies	Mentions fuel pricing system details?	Mentions specifically subsidised fuels?	Mentions fossil fuel subsidy reforms?	Mentions of fuel subsidy estimates?	Mentioned in government report?
Angola	6	Yes	0	Yes	0	Yes
Albania	2	Yes	Yes	0	0	0
Botswana	0	0	0	0	0	0
Cabo Verde	3	Yes	Yes	Yes	0	0
China	0	0	0	0	0	0
Fiji	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Guyana	0	0	0	0	0	0
Haiti	1	Yes	0	0	Yes	0
Honduras	1	0	Yes	0	0	0
Jordan	3	0	0	Yes	0	Yes
Lesotho	0	0	0	0	0	0
Malawi	1	Yes	0	0	0	0
Maldives	2	Yes	0	Yes	0	0
Moldova	0	Yes	0	0	0	0
Morocco	2	Yes	Yes	Yes	Yes	Yes
Namibia	1	0	0	0	0	0
SACU *	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0
South Africa	0	0	0	0	0	0
Swaziland	0	0	0	0	0	0
Thailand	3	Yes	Yes	Yes	Yes	Yes
Tunisia	2	Yes	0	Yes	Yes	0
Turkey	0	0	0	0	0	0
UAE * *	2	0	Yes	Yes	0	Yes
Ukraine	3	0	Yes	Yes	0	0
Zambia	2	Yes	0	Yes	0	0

* Southern African Customs Union.

** United Arab Emirates.

When discussing fossil fuel subsidies, the difference in the level of detail between TPRs is remarkable. Countries like Angola, Jordan, Morocco and Thailand stand out, with detailed analyses of which sectors receive fossil fuel subsidies, what type of reform is envisioned and even what compensation measures are planned to mitigate certain negative aspects of reform (Jordan and Thailand). Among all TPRs, those of Angola and Thailand are especially detailed. If the goal is transparency on subsidies, it is interesting to observe how the TPRs of these countries came to be.

The level of reporting detail does not depend on whether countries have more or larger fossil fuel subsidies, but on information being more readily available. In its development of TPRs, the Secretariat has the discretion to make use of and refer to analyses prepared by third parties, including other international organisations and non-governmental experts. For Angola, the Secretariat relied on the work by the IMF (2015) and for Thailand it relied on a study by the Global Subsidies Initiative of the International Institute for Sustainable Development (IISD, 2013). For Morocco's subsidy estimates, it relied on data provided by the IEA.

When and how the Secretariat uses analyses from third parties is decided by the TPRB itself. The lack of consistency between various TPRs is somewhat unfortunate as the combined knowledge of international organisations such as the World Bank, IMF, OECD, IEA and non-governmental organisations such as the Global Subsidies Initiative could guarantee an in-depth assessment of fossil fuel subsidies for many more countries. Whether fossil fuel subsidy analyses are included in reports likely depends on individual authors within the Secretariat, and how much time they have to write the report.

This relates to another downside of using TPRs for better transparency on fossil fuel subsidies: their frequency. Now with 164 members, the General Council amended the TPRM in 2017 to reduce the frequency of trade policy reviews to once every three, five or seven years, depending on the size of the economy (WTO 2017b). In the world of fossil fuel subsidies, these are relatively long intervals. Especially in the case of consumer subsidies, international oil price volatility has proven that even three years can mean a world of difference.

The next chapter discusses options and avenues for reform of WTO law to enhance the Organization's ability to address fossil fuel subsidies, including through improved transparency.



8. Options for Reform

The previous chapters have shown how challenging it may be to determine whether certain fossil fuel subsidies are either compatible or incompatible with WTO law, and how further efforts are needed to improve the transparency of such subsidies. But where to go from there?

This chapter provides some possible ways forward in addressing fossil fuel subsidies through international trade agreements – including but not limited to the WTO Agreements. The chapter begins by offering an overview of the state of play in international trade talks in relation to fossil fuel subsidies. It then sets out a variety of options to address fossil fuel subsidies. Finally, it discusses the choice of forum to address such subsidies through trade agreements.

While the chapter outlines a series of options, it does not subject each of them to in-depth analysis. The feasibility of each will depend, among other factors, on their (perceived) costs, actors in favour of, or opposing, a role for trade agreements in addressing fossil fuel subsidies, the extent to which legal changes (i.e. amendments) are necessary or can be avoided, activities already undertaken by other (international) organisations, as well as on broader contextual factors unrelated to the issue of fossil fuel subsidies (e.g. the future of the Doha Round of trade negotiations). Moreover, the prospects of pursuing any of these options would likely change should a dispute arise in relation to fossil fuel subsidies. Although further discussion is needed, the main purpose of this chapter is to show that there are a plethora of options available, going well beyond introducing new trade disciplines for fossil fuel subsidies.

8.1 State of Play in International Trade Talks

The 2001 Doha Declaration formed the basis for “negotiations aimed at clarifying and improving disciplines under the ... [ASCM]” (WTO 2001: para. 28). Although fossil fuel subsidies have not been addressed under these negotiations, the Negotiation Group on Rules – tasked with negotiations under paragraphs 28 and 29 of the Doha Declaration – discussed fisheries subsidies, another form of environmentally harmful subsidies¹⁹.

There are no specific negotiations related to fossil fuel subsidies, but the issue has been regularly raised in the Committee on Trade and Environment (CTE). At these meetings, members of the Friends of Fossil Fuel Subsidy Reform – including New Zealand, Norway and Switzerland – have highlighted progress made in other international forums, such as the G20 and APEC, while arguing that trade agreements have a role to play in addressing fossil fuel subsidies. Some WTO Members (e.g. Canada, Mexico, Nigeria, the Philippines) have indicated they are open to (continue) such discussions under the CTE, whereas others (e.g. Qatar, Saudi Arabia, Venezuela) have expressed concerns that the WTO is not the appropriate forum for this discussion (WTO 2015; 2016d; 2017a). In addition to talks in the CTE, fossil fuel subsidies (and their reform) have been brought up in the SCM Committee and the Trade Policy Review Body (see Chapter 7).

Shifting the focus away from multilateral trade talks, fossil fuel subsidies have been brought up in the context of regional trade agreements. In the negotiations on the Trans-Pacific Partnership (TPP),²⁰ for instance, a proposal was made to link the agreement to voluntary commitments under APEC, though this proposal was not included in the final text due to the opposition of some countries (see Young 2017; Steenblik et al. forthcoming).

Nevertheless, prospective TPP members did agree on provisions prohibiting specific fisheries subsidies that would “negatively affect fish stocks that are in an overfished condition” or that are caught through “IUU” (illegal, unreported and unregulated) fishing (TPP Article 20.16.5), as well as provisions strengthening the transparency of such subsidies, including fuel subsidies (TPP Article 20.16.9-11).

While the TPP’s future is in doubt following the US’ withdrawal in 2017, another regional trade agreement – between the EU and Singapore, still awaiting ratification – includes a provision specifically aimed at fossil fuel subsidies (EU-Singapore Free Trade Agreement Article 13.11.3):

The Parties recognise the need to ensure that, when developing public support systems for fossils [sic] fuels, proper account is taken of the need to reduce greenhouse gas emissions and to limit distortions of trade as much as possible. While subparagraph (2)(b) of Article 12.7 (Prohibited Subsidies) does not apply to subsidies to the coal industry, the Parties share the goal of progressively reducing subsidies for fossil fuels. Such a reduction may be accompanied by measures to alleviate the social consequences associated with the transition to low carbon fuels.

Although to our knowledge this has not been used yet in other regional trade agreements, and the provision itself is not subject to the agreement’s dispute settlement system (Article 13.16), this type of provision shows an emerging recognition among major trading nations of the connection between FFSR and trade liberalisation.

¹⁹ Although these negotiations have yet to lead to any agreement, and are hampered by the ongoing deadlock in the Doha Round (Young 2017), it should be noted that, by one estimate, fuel subsidies (notably for diesel used for fishing) account for 22 percent of global fisheries subsidies (Sumaila et al. 2016; see also OECD 2017).

²⁰ Which at the time involved Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the US and Vietnam. The US withdrew from the Agreement in January 2017.

8.2 Options to Address Fossil Fuel Subsidies through International Trade Agreements

Opportunities for the WTO and other international trade agreements to start addressing fossil fuel subsidies are plentiful. This section seeks to map the landscape of available options. Broadly speaking, five categories of actions are available to WTO Members:

1

Promote technical assistance and capacity building

A first step towards fossil fuel subsidy reform is identifying existing subsidies. Some countries, however, lack the necessary capacity and technical expertise to do so. Capacity building and technical assistance on how to identify, measure and evaluate fossil fuel or wider energy subsidies may help overcome this challenge. In this way, Members' understanding of energy subsidies, their trade and environmental impacts, and anticipated effects of reform could be improved.²¹

Capacity building and technical assistance could also be in the form of lessons from countries' efforts to reform fossil fuel or wider energy subsidies. This would help Members better understand the circumstances under which subsidy reform is appropriate, how it can be made to work, and how it can support countries' wider development goals and plans.

Within the WTO, experiences with reform are already shared informally when the subject comes up in CTE and TPRB meetings (e.g. WTO 2015; 2016d). This could be supported by ongoing research by international organisations, non-governmental organisations and academia that have provided insights on case studies about reform (e.g. Whitley and van der Burg 2015; Rentschler and Bazilian 2017).²² This should include consideration of how the poor and vulnerable in society can be supported after reform. It could also include a focus on vulnerable sectors of the economy (e.g. energy-intensive, trade-exposed sectors). Much of the capacity-building could build on and/or be coordinated with efforts by existing international and non-governmental organisations, including the World Bank (and its Energy Sector Management Assistance Program), the IMF and the Global Subsidies Initiative (see Moerenhout 2017 for more details).

The WTO's Economic Research and Statistics Division could be requested to supply relevant information on subsidies to help strengthen the knowledge base. It could also draw on ongoing work by other international and non-governmental organisations. Moreover, the WTO has a long-standing experience of building capacity and providing technical assistance on trade-related matters.²³ The issue of fossil fuel subsidies could therefore be mainstreamed in existing capacity-building initiatives by the WTO Secretariat, as well as initiatives undertaken in partnership with other international organisations, such as the multi-agency Enhanced Integrated Framework for Least Developed Countries.²⁴

²¹ It should be noted that such capacity-building efforts are likely to take place also in the context of reporting on SDG 12.C, which has as an indicator for reporting the "[a]mount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels". See <https://sustainabledevelopment.un.org/sdg12>.

²² For case studies of reform, see also <http://www.iisd.org/gsi/fossil-fuel-subsidies/case-studies-lessons-learned-attempts-reform-fossil-fuel-subsidies>.

²³ See for more details https://www.wto.org/english/tratop_e/devel_e/build_tr_capa_e.htm.

²⁴ Besides the WTO, the Framework is supported by the UN Conference on Trade and Development, the International Trade Centre, the UN Development Programme, the IMF and the World Bank. It already has two focal areas that could be linked to fossil fuel subsidies, namely "Trade and Environment" and "Sustainable Development Goals". See <http://www.enhancedif.org>.

Improving transparency has been a key tenet of international efforts to address fossil fuel subsidies (with the voluntary peer reviews under the G20 and APEC being a key example; see further IEA and OECD 2017). However, as discussed in Chapter 7, there is still room for improvement on this topic within the WTO. This could help shed light on the subsidies provided, especially by countries that have not yet undergone voluntary peer review in other forums. A few options can be identified in this regard.

First, Members could – unilaterally or plurilaterally – pioneer new approaches to strengthened transparency by committing to voluntarily notify fossil fuel subsidies under the ASCM according to a common template. Although notifications under the WTO have been hindered by deficiencies (see Chapter 7), self-reporting of fossil fuel subsidies has already taken place in the context of the G20. Notifications would help governments and other stakeholders better understand what subsidies are being provided, and track efforts to reform them over time. By using an improved notification template (e.g. Thöne and Dobroschke 2008; Steenblik and Simón 2011), barriers of ambiguous requirements and other technical difficulties from the use of the current template could be overcome. Although – as the G20 experience has demonstrated (Aldy 2017; Smith and Urpelainen 2017) – self-reporting may mean that only a limited number of subsidies are notified, it is a first step towards improved transparency.

Second, the WTO Secretariat could seek to consistently include fossil fuel subsidies within its TPRs under the TPRM. WTO Members could also on their own initiative – again, unilaterally or plurilaterally – decide to include information on fossil fuel subsidies in their reports in response to the TPR. To encourage this practice, the TPRB could require the WTO Secretariat to pay particular attention to environmentally harmful subsidies in its reports, for instance in the discussion of specific trade policies and practices (which include subsidies). Alternatively, it could encourage the Secretariat to

pay attention to fossil fuels in general (e.g. trade of fossil fuels, or greenhouse gas emissions from their combustion) in sectoral discussions about energy. Members could take up the emerging practice (see Chapter 7) of including information from other sources – e.g. countries' peer and self-reviews under the G20 and APEC, or third-party material – in the process. Such material could be classified as official, requiring it to be considered by the WTO Secretariat in preparing its TPRM reports. The role of the TPRM in addressing fossil fuel subsidies could additionally be strengthened by granting civil society organisations and other stakeholders with expertise on the matter observer status at TPRM meetings. The Secretariat is allowed to use third-party analyses in the development of the TPRs, and having an observer status could facilitate the interaction with external experts holding valuable information on fossil fuel subsidies.

A third option would be to strengthen the enforceability of existing notification obligations with regard to fossil fuel subsidies, to help address the deficiencies highlighted in Chapter 7. For instance, Bacchus (2016: 17) suggests to “[m]andate full disclosure of fossil fuel subsidies under WTO rules”. This option would likely require a change in the rules, as Article 25 of the ASCM (on notification) does not specify which types of subsidies – beyond those meeting the definition of Articles 1-2 – should be notified, and does not specify any consequences for incomplete notifications. More specifically, Porterfield and Stumber (2014) suggest a provision modelled after Annex V of the ASCM, which would presume that non-cooperation in disclosing information about a subsidy could lead to a finding of “adverse effects”.²⁵

Adopt subsidy reform pledges and ensure credible follow-up through reporting and review

A more far-reaching option would be for WTO Members – again, acting alone or with others – to pledge to eliminate or progressively reduce their fossil fuel subsidies, as well as to report progress and review each other's advances. This option would combine elements of increased transparency

²⁵ Annex V (paras. 5-7) specifies that, in case of a dispute, non-cooperation in an information-gathering process by the WTO dispute settlement body by the subsidising Member may result in a ruling of “adverse effects”. Annex V “reflects the awareness among drafters that much information which the complaining member needs in order to demonstrate serious prejudice is in the ‘sole control’ of the subsidising country and/or third countries” (Coppens 2014: 199) and may offer an important potential means of overcoming the heavy burden of proof for fossil fuel subsidies.

– as discussed under option (2) – with a voluntary process to set commitments. Such a pledge-and-review process may gain more recognition following the adoption of the Paris Agreement in 2015, under which countries adopt five-year, non-legally binding “nationally determined contributions” subject to review under a transparency framework. Moreover, pledge-and-review processes also have a firm basis in the WTO, which has employed legally binding “Schedules of Concessions” for tariffs and non-tariff measures. Although it is not suggested here that measures to eliminate or reduce fossil fuel subsidies would necessarily be included in the Schedules, the regular pledging of FFSR could make it part of a bargaining process, allowing (energy-rich) Members to trade-off commitments to reform fossil fuel subsidies with other trade-related commitments.

Through this mechanism, commitments to action could be anchored to the WTO, with Members peer reviewing each other’s reports to share lessons and increase ambition. This approach could build on the ASCM, and could seek to link to other voluntary commitment and review processes (e.g. under the G20 and APEC), but extend to Members that do not participate in such forums.

4

Adopt a political declaration

Another series of options consists of political declarations adopted by WTO Members (or a group of them) about fossil fuel subsidies. Such “soft law” declarations could be modelled after the Doha Declaration on the Agreement on Trade-Related Aspects of Intellectual Property Rights and Public Health, which offered a specification of another WTO agreement on a contentious issue (WTO 2001; see also Gathii 2002). The value of a declaration lies in providing clarity on how WTO rules apply to fossil fuel subsidies and/or offering a signal that the WTO seeks to advance FFSR.

Such declarations could, first of all, provide clarity on how subsidies rules apply to fossil fuel (or wider energy) subsidies. One option would be to negotiate a political understanding on whether fossil fuel subsidies – or specific types – would fall under the definition of ASCM Article 1. This could specify which types of energy subsidies would fall under which part of the definition. It would not necessarily mean that such subsidy types are specific, or that

they would cause adverse trade effects, so this assessment would need to be made separately.

Alternatively, a political declaration could be made in the form of statements of intent regarding fossil fuel subsidies in the context of trade. For instance, although discussions on CTE occasionally touch upon the issue, Members could agree to continue discussing fossil fuel or wider energy subsidies within the CTE, and specify that the CTE’s mandate should include debating how they could be reformed within the WTO. Moreover, WTO Members could more generally state their support for addressing the issue under the WTO, whether within the CTE or in any other body. This could be done broadly by affirming support of commitments related to sustainable development and climate change action made elsewhere – e.g. through the 2030 Agenda, the Paris Agreement or the Addis Ababa Action Agenda. It could also be about affirming more specifically, or referring, to commitments to address fossil fuel subsidies (e.g. by the G20 or APEC), or using similar language.

Although declarations are non-legally binding, they may have legal effects (see also Pauwelyn 2015). This would be the case for a declaration that interprets the scope of ASCM Article 1. Such a declaration could be considered either a “subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions” or “subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation” under the Vienna Convention on the Law of Treaties (Article 31.3(a) and (b)). As such, it would be relevant for interpreting WTO law (in this case, the ASCM). By contrast, a declaration mandating the CTE to discuss fossil fuel subsidies would have no such legal effects.

One last group of options would require a change of existing rules, as it would expand the category of prohibited subsidies under Article 3 of the ASCM. Although the categories of Article 3 have remained unchanged since the inception of the ASCM, there have been proposals to expand the list, with the EU for instance proposing the categorisation of dual pricing as a prohibited subsidy (WTO 2006; see also Coppens 2014: 116).

Some have suggested that fossil fuel subsidies should be included as a category of prohibited subsidies (in addition to export subsidies and local content subsidies) (De Bièvre et al. 2017). However, any such provision need not apply to *all* fossil fuel subsidies, but could be limited to a specific subset, for instance based on particular trade-related or environmental effects.

Multilateral and regional negotiations on fisheries subsidies could be used as an example of how to distinguish between different types of measures in this regard. For instance, the targeting of subsidies used to support IUU fishing in the TPP draft demonstrates how trading partners can agree on a specific category of prohibited subsidies (TPP Article 20.16.5(b); see Young 2017). The TPP seeks to link subsidy prohibitions to “negative effects” (based on “the best scientific evidence available”) on overfishing (TPP Article 20.16.5(a)). Similarly, in the WTO negotiations on fisheries subsidies, it was suggested to prohibit a wide range of measures taking into account the particular characteristics of the sector (see WTO 2007). The advantage of such an approach would be that WTO Members obtain guidance on how the subsidies covered would be treated under WTO rules, and which of them could be disciplined.

In addition to distinguishing between different types of subsidies, any prohibition could be tailored to meet specific needs. Importantly, the prohibition could take into account the type of Member and provide for special and differential treatment (e.g. exempting least developed countries or linking to provisions on technical assistance and capacity-building). The prohibition could also apply to fossil fuel subsidies above a quantified limit. Exemptions

could be made for countries that can prove subsidies are used to achieve certain socio-economic benefits (e.g. targeting low-income communities). Moreover, the prohibition could be phased in gradually for some or all countries (Porterfield and Stumber 2014; Bacchus 2016).

Expanding the category of prohibited subsidies would amount to an amendment. But submitting it would already require consensus among WTO Members and giving it effect would demand it is accepted by a majority of at least two-thirds (Agreement Establishing the WTO Article X).

Discussion

Options (1) through (5) need not be mutually exclusive, and many would likely be particularly effective if adopted together. A pledge, report and review system, for instance, would benefit from parallel efforts to improve transparency. Moreover, the options could be carried out as subsequent steps, with voluntary commitments following efforts to build capacities.

All approaches, ranging from voluntary to binding, would necessarily be led by WTO Members and be embedded in the WTO’s dispute settlement mechanism. This provides scope for gradual increase in ambition.

Last but not least, any successful effort to address fossil fuel subsidies through the international trading system would need to adequately address the special circumstances of developing countries. That might involve special and differential treatment provisions, including potential exemptions and carve-outs for development needs, including enhanced energy access.

8.3 Choice of Forum

The options discussed above could be pursued through several trade-related forums. For several reasons, it can be argued the WTO is an appropriate one (Lang et al. 2010). First, trade should contribute to sustainable development. This was already mentioned in the preamble of the Marrakesh Agreement establishing the WTO, which refers to the objective of sustainable development. Also, SDG 17 explicitly identifies trade as a critically important means of implementation for the Sustainable Development Goals. Trade should therefore be viewed as an enabler for achieving the SDGs and targets, including the reduction of fossil fuel subsidies set out under SDG 12. Second, the WTO has very wide membership from both developed and developing countries, suggesting its efforts to govern fossil fuel subsidies could be considered more legitimate than those of a smaller group of countries (e.g. the G20). Third, the WTO has put in place an institutional infrastructure to promote compliance and deal with cases of non-compliance. Fourth, through the ASCM, the WTO has played a key role in disciplining subsidies, and has over time gained a significant amount of experience in developing, interpreting and applying rules about subsidies. Related to this, the WTO's dispute settlement system offers an important tool for strengthening the credibility of any commitments made. Finally, as mentioned in Chapter 1, fossil fuel subsidies may have impacts on trade, making them directly relevant for the achievement of the WTO trade liberalisation goals.

At the same time, ensuring agreement within the WTO may be challenging. Submitting an amendment to existing agreements – such as the ASCM – would require consensus among Members. However, some amendments might be possible, as evidenced by a recent one made to the TPRM procedures (WTO 2017b).

While other options, such as an authoritative interpretation by the Ministerial Conference, can be achieved with a majority – in this case a three-fourths majority (Marrakesh Agreement Article IX.2), in practice this also requires a consensus (Ehlermann and Ehling 2005: 806). As noted above, however, options can go beyond changing WTO rules or adopting an authoritative interpretation, and may also be in the form of a political declaration.

Although the political hurdles for any of these choices remain significant, a successful outcome of the ongoing negotiations on fisheries subsidies would undoubtedly set a promising precedent.

Given the challenges to progress within the WTO, some have argued that other international forums, including regional, mega-regional and plurilateral trade agreements, may offer a better way forward, at least in the interim (Young 2017; Steenblik et al. forthcoming). For regional trade agreements, such provisions can expand on the precedent of the EU-Singapore Free Trade Agreement or the abandoned provisions of the TPP on fossil fuel subsidies. Inspiration could also be drawn from disciplines on fisheries subsidies, with the TPP text again offering an example. Trade negotiators could also look beyond these agreements, and consider the wide variety of environmental provisions introduced in regional trade agreements in the past decades (Morin et al. forthcoming; see also van Asselt 2017). Indeed, addressing fossil fuel subsidies through trade agreements will likely require creativity in the drafting process.

Negotiations on several plurilateral trade agreements have started in recent years, including on services and environmental goods. Some of these agreements – such as the Information Technology Agreement or the Environmental Goods Agreement – involve a “critical-mass” that extends benefits to all WTO Members (Draper and Dube 2013). Which WTO Members form the critical mass depends on the subject matter. In the context of fossil fuel subsidies, bringing together some major trading nations providing significant fossil fuel subsidies could be sufficient for establishing a critical mass, as when a country reduces or eliminates its subsidies, producers of the same or competing products in *all* other countries automatically benefit. Possible candidates can be found within the group of countries that have pledged to phase out their inefficient fossil fuel subsidies, for instance those that signed up to the G20 commitment or the Friends of Fossil Fuel Subsidy Reform's Communiqué (FFFSR 2015).

Pursuing options through the WTO or through regional or plurilateral agreements can be done in parallel. Rules, policies and practices at the regional level could influence multilateral discussions and vice versa (see also Young 2017), allowing for a dynamic of multi-level reinforcement.

An aerial photograph of a large offshore oil rig in the ocean. The rig is a complex structure with multiple levels, yellow and grey sections, and several cranes. A helicopter landing pad is visible on one of the upper decks. To the left of the rig, a red and white supply ship is positioned. The water is a deep blue-green color.

9. Conclusions and Recommendations

By impeding the low-carbon transition and diverting funds from vital areas such as health and education, fossil fuel subsidies form a major obstacle to achieving the goals of the Paris Agreement and the 2030 Agenda for Sustainable Development. In recognition of the need to address the hundreds of billions in public funds that flow to fossil fuel production and consumption each year, a host of nations, including the members of the G20 and the economies of APEC, committed in 2009 to phase out and rationalise inefficient fossil fuel subsidies.

The WTO has a well-established record of addressing subsidies, and its ASCM also contains one of the few internationally agreed definitions of the term “subsidy”. However, fossil fuel subsidies have been conspicuously absent from the Organization’s dispute settlement mechanism. While several renewable energy support measures have been challenged at the WTO – including the *Canada–Renewable Energy* and *India–Solar Cells* cases discussed in Chapter 4

– no proceedings have been initiated against fossil fuel support measures to date.

Both political and legal explanations have been put forward to account for this discrepancy. From a political perspective, the role of domestic pressure groups and the notion that new measures are more likely to be challenged than existing ones, help explain why renewable energy subsidies are more likely to be contested than their fossil fuel counterparts. From a legal perspective, it has been suggested that WTO law “undercaptures” fossil fuel subsidies compared with those to renewables. Local content requirements for project developers, for instance, are common among renewable energy support measures such as FITs, making such measures incompatible with the ASCM’s “prohibited subsidy” category. By contrast, many fossil fuel subsidies are targeted at consumers, making them “unspecific” for the purposes of the ASCM and allowing them to fall outside the scope of the Agreement.

While there is merit in both types of explanations, it is important to remember that fossil fuel support measures can differ on a case-by-case basis and the WTO legality of a given measure cannot necessarily be determined without closer examination of its specific features. As such, this publication seeks to move beyond generalities. To this end, it has subjected five G20 fossil fuel support measures to an analysis of compatibility with the WTO's ASCM, an exercise that, to our knowledge, had never been attempted before. In doing so, the study has sought to identify some of the key legal questions that such support measures raise within the WTO, as well as challenges in completing the legal analysis.

Our findings are broadly in line with the existing literature on this topic. The two fossil fuel consumption subsidies considered were deemed to fall outside the ASCM's scope, while we considered it plausible that all three production subsidies were potentially "actionable" under the Agreement. However, determining the existence of adverse effects towards the trade interests of other WTO Members proved to be a key challenge to deliver conclusive results about the WTO legality of these measures. This, too, corroborates previous findings on the difficulties of challenging subsidies under the ASCM due to the high thresholds of evidence that must be met under this test.

Nevertheless, the futility of litigation of fossil fuel subsidies under the WTO should not be treated as a foregone conclusion. When it came to ascertaining the existence of prohibited subsidies, for instance, time and resource constraints prevented our analysis from going beyond initial considerations. But there are possibilities to further explore the existence of this category of "never permitted" subsidies among fossil fuel support measures.

Our findings also drive home the need of enhanced transparency to improve our understanding of the various types of fossil fuel subsidies in existence. However, in Chapter 7 we show that the current notification system under the ASCM carries a number of deficiencies that have made notification sporadic.

Given these and other shortcomings in the WTO's approach to addressing fossil fuel subsidies, this publication proposes a number of options that WTO Members could pursue towards enhanced action:



In the current political climate, some of these options may be more feasible than others. Some could be pioneered by one or several WTO Members, or through regional, mega-regional and plurilateral trade agreements. Whatever approach is chosen, it would need to adequately address the special circumstances of developing countries and complement ongoing efforts in other forums.

With the WTO's 11th biennial Ministerial Conference coming up in Buenos Aires in December 2017, creative thinking, constructive debate, and further research on the various options is needed to ensure that the promise of the Paris Agreement and the 2030 Agenda is fulfilled.

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