5

The G20 and Fossil Fuel Subsidies

The Catalyst

The September 2009 G20 commitment to reform fossil fuel subsidies took most spectators by surprise. Few of the limited number of people working on the topic were aware that such a commitment was being discussed (Van de Graaf and Blondeel, 2018), and the concept was largely unknown in broader circles. The surprise element only adds to the impression that there is a 'before' the September 2009 G20 commitment to reform fossil fuel subsidies and an 'after' (Skovgaard and van Asselt, 2018c). The commitment set in motion a range of efforts from other international institutions, which will be discussed in this chapter as well as the following ones. Its effects on the domestic level are less immediately evident, but nonetheless relevant. The G20 output from the Pittsburgh commitment and the subsequent, more technical output onwards is outlined in the next section. This is followed by a discussion of how US entrepreneurship was important in getting the G20 to address the issue, and how the output has been shaped by the membership circle and worldview of the G20 as well as interactions with the International Energy Agency (IEA), Organisation for Economic Co-operation and Development (OECD), Organization for Petroleum Exporting Countries (OPEC) and the World Bank. The subsequent section outlines the consequences of the G20 output, which was most pronounced in terms of promoting the norm of fossil fuel subsidy reform and of raising awareness of fossil fuel subsidies, in both cases both at the international and (to a lesser degree) the domestic levels.

5.1 Output: The Pittsburgh Commitment And The Subsequent Reviews

The G20 output has predominantly been formal and regulatory, most importantly in the shape of the 2009 commitment. The commitment reads as follows:

> *To phase out and rationalize over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest*. Inefficient fossil fuel subsidies encourage wasteful consumption, reduce our energy security, impede investment in clean energy sources and undermine efforts to deal with the threat of climate change. We call on our

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Energy and Finance Ministers to report to us their implementation strategies and timeline for acting to meet this critical commitment at our next meeting. (G20 Heads of State and Government, 2009b)

This commitment is most important in normative terms, as it defined and elevated the norm of fossil fuel subsidy reform to a new level (Van de Graaf and Blondeel, 2018). While the commitment referred to the OECD and IEA estimates that phasing out fossil fuel subsidies could reduce emissions by 10 per cent by 2050 (OECD, 2009), it did not provide a definition of fossil fuel subsidies, or specify what the terms 'rationalize', 'medium term' and 'inefficient' meant. In this way, the norm was left vague, especially as regards the policies that would fall under the category of inefficient fossil fuel subsidies and thence be targeted by the norm. Importantly, fossil fuel subsidies were primarily framed in terms of their impact on climate change, while the importance of maintaining support for poverty reduction was also stressed. Fossil fuel subsidies were also framed in terms of macroeconomic consequences (e.g. 'inefficient fossil fuel subsidies encourage wasteful consumption, distort markets, impede investment in clean energy sources') while the fiscal impact was not mentioned.

The 2009 statement also contained two important clauses regarding future efforts to promote fossil fuel subsidy reform. First, the IEA, the OECD, OPEC and the World Bank were tasked with measuring the magnitude and the consequences of such subsidies (discussed in detail in Section 5.3). Second, member states committed themselves to submitting strategies and timetables for phasing out their fossil fuel subsidies while taking into account the needs of the poorest citizens (G20 Heads of State and Government, 2009b), leading to various kinds of output that are most important in normative terms. The commitment to submitting strategies and timetables led to tasking member state experts under the authority of their finance and energy ministers with coordinating and overseeing the implementation of the commitment (Kim and Chung, 2012). The experts have been meeting in the context of a broader working group on energy, the G20 Energy Transitions Working Group (previously the Energy Sustainability Working Group), which focuses on the transition to sustainable energy systems. The expert output on fossil fuel subsidies has generally been reported to the finance ministers, and the largest group of experts also came from finance ministries (interview with senior OECD official, 3 February 2020).

Discussions of how to define fossil fuel subsidies (including whether to include production subsidies), as well as of how to define 'inefficient' and 'wasteful consumption' did not result in an agreement on common definitions. Rather it was agreed to leave these issues to the reporting countries (Lang, 2011). Starting in 2010, the G20 member states reported on an annual basis whether they had any inefficient fossil fuel subsidies and the progress on reforming or phasing out these

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subsidies, constituting regulatory output (Aldy, 2017). Seven countries (Australia, Brazil, France, Japan, Saudi Arabia, South Africa and the United Kingdom) have reported that they have no fossil fuel subsidies, whereas other countries have submitted plans of varying ambition for phasing out their subsidies (Kirton et al., 2013). The progress reports have focused mainly on measures taken to reform the subsidies identified in the 2010 country reports (Asmelash, 2017). The G20's bottom-up approach leaving it to the member states to define which fossil fuel subsidies they have and how to phase them out has been criticised for only inducing countries to act to a limited degree (Van de Graaf and Westphal, 2011). Nonetheless, the reporting requirement constitutes important ideational output in terms of forcing G20 member states to acknowledge the salience of the norm of fossil fuel subsidy reform and argue whether it applies to them, as well as in terms of promoting the framing of policies as fossil fuel subsidies. The working group has also served as the forum for officials for discussions and the exchange of knowledge about fossil fuel subsidies on the basis of their own experience and the reports provided by the IEA, OECD, OPEC and World Bank. There are very few forums in which finance (and economics) ministry officials can discuss climate change, and the working group served as a useful forum for such discussions focusing on fossil fuel subsidies (Interview with former senior US Treasury official, 6 May 2014). In the first few years, fossil fuel subsidies were still a new issue where there existed only limited knowledge, and the working group expanded the knowledge about the issue among the participants, and – via the reports from the four International Organisations (IOs) – also among a wider public.

A subsequent development was the 2012 decision by G20 state leaders to request their finance ministers to explore the options for voluntary peer reviews of member states' fossil fuel subsidies and their efforts to reform or phase them out (G20 Heads of State and Government, 2012). The peer review replaced self-reporting as the most important G20 (regulatory) output on fossil fuel subsidies (Rive, 2019). Currently, some member states (mainly those having undergone peer reviews) provide updates on their reform efforts at the meetings of experts, but no agreement has been reached regarding a proposal to reintroduce the mandatory self-reporting process with an IO review of the reports (interview with senior OECD official, 3 February 2020).

In 2016, the two largest economies and emitters, the United States and China, volunteered to be the first countries to undergo a pairwise peer review. In this review, they each first provided a self-report on their fossil fuel subsidies and the efforts to reform them; this was subsequently reviewed by the other country as well as the OECD, the IMF (in the case of China), Germany, Indonesia (in the case of China) and Mexico (in the case of the United States) (G20, 2016a, 2016b). In 2017,

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Germany and Mexico, and in 2019 Indonesia and Italy, underwent similar peer reviews, whereas at the time of writing Argentina and Canada have planned such reviews. The later reviews have been carried out by China, Germany, Italy, Indonesia, Mexico, New Zealand, the OECD (acting as chair for all the reviews), and in the case of the 2019 reviews also the IEA, the International Institute for Sustainable Development (IISD) and the World Bank. The peer reviews follow a logic in which a developed and an emerging economy undergo a review together to avoid criticism of double standards. So far, the countries undergoing a peer review are all countries that have acknowledged having inefficient fossil fuel subsidies in their reports to the G20. The peer reviews have been criticised for not including all fossil fuel subsidies in the reviewed countries (see e.g. the criticism of Germany's peer review, Hansen, 2017). They are best understood as providing opportunities for learning (Verkuijl and van Asselt, 2020), getting states to accept the framing of particular policies as fossil fuel subsidies and acknowledging that the norm of fossil fuel subsidy reform is salient in regard to these policies. Importantly, although fossil fuel subsidies were addressed by officials from finance (and economics) ministries, and to a lesser degree also energy ministries, they were framed mainly as a climate change issue which also involved economic inefficiencies such as market distortions and the inefficient use of fiscal resources.

5.2 Causes

Regarding the factors influencing the adoption of the 2009 commitment (and hence the first aspect of economisation), entrepreneurship and relations with member states stand out. Before the Pittsburgh Summit, G20 member states including the United States had attempted to put fossil fuel subsidies on the G20 agenda for five years without success (interview with former senior US White House official, 17 February 2015). The difficulty of addressing fossil fuel subsidy reform in any international forum, particularly forums which include Saudi Arabia, meant that the commitment took spectators by surprise (Van de Graaf and Blondeel, 2018). Several G20 members, particularly Saudi Arabia, had blocked the previous attempts, underscoring the importance of which states are members of the institution and how the member states arrive at decisions (in this case consensus allowing one state to block proposals). The entrepreneurship of the US government (the G20 president) played a key role in placing the commitment on the agenda and also in terms of the US government drafting the commitment text (Van de Graaf and Blondeel, 2018). This draft text went fairly unchanged through the working groups of officials from the member states. One important change was the change in the

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timeframe for the phase-out/rationalisation from five years to ‘medium term’, a change which was at the insistence of the Chinese (interview with former senior US White House official, 17 February 2015). The notion of a deadline for reforming or phasing out inefficient fossil fuel subsidies has proven controversial in all forums debating these subsidies, and has only been possible to adopt in the G7 and the North American Leaders’ Forum, two smaller forums that do not include the largest emerging economies or oil producers, notably China, India and Saudi Arabia. This difference between the G20 and the two smaller forums regarding a deadline underscores the importance of which states are the members of the institution. Another important change to the draft commitment, was the BRICs (Brazil, Russia, India and China) successful insistence on adding ‘rationalize’ to the commitment to ‘phase out and rationalize over the medium term inefficient fossil fuel subsidies’ (Kirton and Kokotsis, 2015). Thus, the norm became less specific, since a more specific definition would have made it unpalatable to several G20 member states (Van de Graaf and Blondeel, 2018). The broad membership circle of the G20 (covering developed and emerging economies as well as fossil fuel exporters and importers) meant that the wording of the commitment was somewhat vague, but also increased its relevance to a broader set of countries and arguably also its legitimacy beyond the G20.

Within the US government, the initiative came from the White House (more specifically the Council of Economic Advisors). Owing to previous failed attempts to address fossil fuel subsidies in the G20, several officials doubted that the attempt would be successful, but still deemed it worthwhile (interview with former senior US Treasury official, 8 April 2014). The US government chose to act as a policy entrepreneur due to the perceived stalemate in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations which led the government to look for issues which ‘were good economic politics’ as well as climate politics (interview with former senior US White House official and current IMF senior official, 17 February 2015). Previously, when the G20 member states had sought to address fossil fuel subsidies, the G20 meetings had been meetings of finance ministers (and central bank governors), but the G20 state leaders took over the issue in 2009 when they started to meet due to the economic and financial crisis. The transfer of fossil fuel subsidies from finance ministers to state leaders meant the issue was addressed by a set of actors with more power to adopt far-reaching decisions. Thus, it was a combination of external factors (the UNFCCC stalemate in the run-up to the fifteenth Conference of the Parties to the United Nations Framework Convention on Climate Change [COP15] and the crisis) and policy entrepreneurship which drove the adoption of the commitment. Arguably, had climate change not been as high on the international agenda in 2009, the Council

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of Economic Advisors would not have addressed fossil fuel subsidies in the first place. Furthermore, the resources and institutional set-up facing policy entrepreneurs mattered. Had the initiative not come from the United States and the Council of Economic Advisors (recognised as one of the most powerful entities within the US government) and had it not been addressed by state leaders, other member states would have had better prospects of blocking the initiative.

In terms of how fossil fuel subsidies were addressed (the second aspect of economisation), it was the entrepreneurship of the Obama administration that framed fossil fuel subsidies as a climate issue (as well as an economic one), something which was controversial among some countries including India (see Section 5.3. The perceived stalemate during the UNFCCC negotiations as well as in the recently published OECD–IEA report (2009) on the climate consequences of fossil fuel subsidy reform influenced the framing of fossil fuel subsidies as a climate issue. While the UNFCCC stalemate, as previously mentioned, led the United States (and other G20 states) to promote fossil fuel subsidy reform as a climate instrument, the OECD–IEA report provided important knowledge regarding the climate impact of fossil fuel subsidy reform, specifically that 'eliminating fossil fuel subsidies by 2020 would reduce global greenhouse gas emissions in 2050 by ten percent' (G20 Heads of State and Government, 2009b, item 29). In other words, institutional interaction with the UNFCCC, the OECD and the IEA influenced the G20.

The (macro)economic worldview inherent to the G20 is evident in the framing in terms of '*inefficient* fossil fuel subsidies encourage *wasteful consumption, distort markets, impede investment* in clean energy sources' [author's emphasis]. Although the main purpose of reforming fossil fuel subsidies according to the G20 is to fight climate change, the causal chain through which this impact takes place is economic, i.e. through impeding investment and encouraging wasteful consumption. Furthermore, distorting markets is framed as constituting a problematic consequence in itself. In other words, the worldview of the G20 shaped the framing of fossil fuel subsidies (the second dimension or aspect of the economisation of fossil fuel subsidies), yet was less influential regarding the G20's decision to address fossil fuel subsidies (the first aspect of economisation), which was rather driven by climate concerns. This worldview was rooted in the G20's origins as a forum for dealing with economic issues and the economic officials drafting the commitment.

The 2009 commitment set the tone for much of the subsequent G20 output on fossil fuel subsidies. The G20 state leaders reaffirmed the commitment at every summit until the 2017 Summit in Hamburg, when opposition from the United States meant that joint references to the commitment were removed (Asmelash, 2017,

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G20 Heads of State and Government, 2017). Only the G20 'Hamburg Climate and Energy Action Plan for Growth', adopted by the remaining 19 G20 members referred to fossil fuel subsidy reform (G20, 2017a). The US decision to withdraw from the Paris Agreement caused major contention at the summit. Consequently, references to climate related issues including fossil fuel subsidies at subsequent summits were adopted by the other G20 members without the United States, although the 2019 Osaka Summit reintroduced the fossil fuel subsidy commitment in a joint G20 declaration (G20 Heads of State and Government, 2018, 2019). While factors such as the membership circle and worldview inherent to the G20 remained unchanged, other factors changed after 2009. The US presidency already under Obama did not engage in the same level of entrepreneurship as in 2009, although the United States and China were important in volunteering to be subject to the first pair of peer reviews. Post-2009 presidencies were a great deal less entrepreneurial than the US one, although some presidencies promoted the issue to a larger degree than others, e.g. the Mexican presidency that managed to convince the members to agree on the conditions for the voluntary peer reviews. Once fossil fuel subsidies were placed on the G20 agenda and a process set in motion, it remained there until the Trump administration took over. In this way, the Trump administration acted as an 'antipreneur' resisting and rolling back normative change (Bloomfield, 2016). Some of the countries that lowered the precision of the commitment (e.g. China) ended up being rather active in the process, whereas others (e.g. Saudi Arabia) argued that the commitment did not apply to them as they did not have any inefficient subsidies (Kirton et al., 2013). Interaction within other institutions mattered most in the cases of the four institutions tasked with providing an analysis of fossil fuel subsidies. They have continuously provided material to the G20 that has shaped the knowledge of participants in G20 meetings as well as the broader public. This knowledge concerned the nature, scope and consequences of fossil fuel subsidies (economic, environmental and distributive) as well as how to reform them (IEA and OECD, 2018; IEA, OECD, et al., 2010; IEA, OPEC, et al., 2010; IEA et al., 2011; OECD and IEA, 2019; OECD Secretariat, 2010a; World Bank with contributions from International Monetary Fund (IMF), 2014).

5.3 Consequences

5.3.1 International Consequences

Starting with the international level, the G20 set in motion a range of activities through interaction with other institutions. Most importantly, among the four institutions requested to provide an analysis, the request caused an increased attention to fossil fuel subsidies beyond the analysis, thus influencing their agendas.

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The **OECD Secretariat** was already working on fossil fuel subsidies before the Pittsburgh Summit, but the request lifted OECD involvement to a new level (interview with OECD officials, 29 April 2015). It was only following the G20 commitment that the member states gave the OECD Secretariat the mandate to scrutinise their national fossil fuel subsidies (interview with OECD officials, 29 April 2015), an activity that goes beyond the G20 request. At a later stage, the decision by the G20 members that have so far committed to peer reviews of their fossil fuel subsidies (China, Germany, Indonesia, Italy, Mexico, and the United States) to invite the OECD Secretariat to chair those peer reviews once again lifted the OECD Secretariat involvement to a new level (Skovgaard, 2017a). Today, the OECD involvement in fossil fuel subsidies extends well beyond servicing the G20 (see Chapter 6 for more detail). A similar picture emerges regarding the **IEA**, which also addressed fossil fuel subsidies prior to the 2009 commitment, but which has increased its activities regarding such subsidies, including the number of reports dedicated to the topic since the commitment.

The **World Bank's** involvement with fossil fuel subsidies was arguably more significant prior to 2009 than those of the OECD and the IEA, as it had not only provided an early analysis but had also promoted reform as part of its programmes (see Chapter 4). After 2009, it continued these efforts while providing an increasing amount of analysis targeting fossil fuel subsidies as a distinct phenomenon (Kojima, 2016; Kojima and Koplow, 2015; Strand, 2013). Its Energy Sector Management Assistance Program (ESMAP) facility has also provided assistance and knowledge for countries considering fossil fuel subsidy reform (Flochel and Gooptu, 2016; World Bank et al., 2015). The drastic increase in World Bank attention to fossil fuel subsidies happened a few years after the Pittsburgh commitment, and can be attributed to the increasing attention to fossil fuel subsidies among member states, officials and management as much as the direct effect of the G20 request. The fourth institution requested to provide an analysis, **OPEC**, has unsurprisingly not paid the same kind of attention to fossil fuel subsidies as the other institutions beyond the reports to the G20, but has addressed the impact of fossil fuel subsidies and their reform on oil demand (OPEC, 2016).

Beyond the requested institutions, the G20 commitment has led to the adoption of similar commitments to reforming, rationalising or phasing out fossil fuel subsidies within forums including the **Asia-Pacific Economic Cooperation** (APEC), the **G7**, the **North American Leaders' Forum** and the **Friends of Fossil Fuel Subsidy Reform** (Friends). Friends was established in 2010 on the initiative of New Zealand inspired by the G20 commitment and with the intention of promoting the reform of fossil fuel subsidies (Rive, 2018). The group deliberately consists of countries that are not members of the G20 to promote the reform of

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fossil fuel subsidies beyond this group and avoid duplication. Without the G20 commitment, this institution would not have been created in 2010. The APEC, G7 and North American Leaders' Forum commitments would not have been adopted without the G20 commitment, and include similar language (see Chapter 4), except that the G7 and North American Leaders' Forum commitments also include deadlines for the phase-out. These forums overlap considerably with the G20 in terms of membership. Finally, fossil fuel subsidies moving up the agenda of international institutions, particular among economic institutions, following the G20 commitment was also an important factor in the IMF addressing fossil fuel subsidies (see Chapter 7). Furthermore, although the adoption of **Sustainable Development Goal** (SDG) 12.c to 'rationalize inefficient fossil fuel subsidies that encourage wasteful consumption' (United Nations, 2015) was not directly inspired by the G20 the way the other institutions' commitments were, the wording of the SDG is very similar to the G20 commitment.[1] The fact that there was an existing commitment covering twenty of the largest economies, as well as the member states of both APEC and Friends, paved the way for the adoption of SDG 12.c.

5.3.2 Domestic Consequences

Turning to the influence on national fossil fuel subsidies, the G20 influence on the five selected countries is less clear cut (Skovgaard, 2018).[2] In the case of **the United States**, federal fossil fuel subsidies (defined as policies rather than non-priced externalities) consist of tax expenditure in support of producers of oil, gas and coal, and as consumption subsidies, particularly those directed at the energy costs of low-income households, together valued at several USD billions but falling at least until 2017 (OECD, 2020a). As a comparison, in 2018, the United States had a GDP of more than USD 20,000 billion (World Bank, 2020c). The US federal government has long acknowledged the existence of US fossil fuel production subsidies. The Obama administration tried to end tax breaks for fossil fuel production, but failed in the US Congress due to opposition from Democrats from fossil fuel producing states and Republicans (Rucker and Montgomery, 2011). Regarding the G20 reporting, the Obama administration submitted various self-reports and most notably participated in the first peer review. The US self-report from 2015 of the federal policies it considered to be fossil fuel subsidies was reviewed by a team chaired by the OECD Secretariat and included China, Germany and Mexico. In this report and in the 2014 G20 progress report, the United States acknowledged that the tax reductions and support for low-income households' energy costs constituted

[1] Although the SDG commitment is less demanding in terms of not mentioning the phase-out of fossil fuel subsidies or including a reference to a timeframe ('medium term' in the Pittsburgh commitment).

[2] This section expands on and updates Skovgaard (2018).

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fossil fuel subsidies, although the latter was not inefficient and hence should not be reformed (US Government, 2014, 2015). The 2015 report included four tax exemptions and a liability cap (in the range of USD 0 to 342 million) not included in the 2014 report (US Government, 2014, 2015). These five subsidies were identified in an inter-agency process carried out in anticipation of the peer review with the intention of identifying additional subsidies that merited inclusion (interview with US Treasury official, 20 December 2016). The Trump administration's unwillingness to address fossil fuel subsidies and other climate issues both within the G20 and domestically meant there was little scope for G20 influence on US fossil fuel subsidies.

On the public agenda, the attention to fossil fuel subsidies has waxed and waned over the years (Table 5.1), focusing in the beginning of the period on domestic proposals to end tax breaks and in 2019 on climate action) and only referring to the G20 in a few instances in 2009, 2010 and 2015. As Table 5.1 shows, the total number of articles referring to fossil fuel subsidies increased with a peak of twenty-two in 2012. However, only a few of them referred both to fossil fuel subsidies (in a way that related to US subsidies) and the G20, most notably in 2009 when referring to the Pittsburgh commitment and the Obama administration's role in bringing it about (Eilperin, 2009b; Shin and Eilperin, 2009). None of the articles made a connection between the G20 commitment and domestic fossil fuel subsidy reform (e.g. by referring to the commitment when discussing fossil fuel producers' tax breaks). Not even the peer review of US fossil fuel subsidies caught the attention of the newspapers.

In this way, the G20 changed the policymaking agenda by placing the identification of fossil fuel subsidies on the agenda of several agencies not usually taking much interest in the issue, and the ideational context of action by reframing specific

Table 5.1 *Fossil fuel subsidies and the G20 in the US media:* New York Times *and* Washington Post

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Articles referring to US fossil fuel subsidy reform *and* the G20	3	1	0	0	0	0	2	0	0	0	0	**6**
All articles referring to fossil fuel subsidy reform (international and domestic)	3	6	20	22	9	8	16	0	0	1	15	**100**

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policies as fossil fuel subsidies and making it difficult to argue that they did not constitute such subsidies. A liability cap and two royalty exemptions for oil and gas extraction – which amounted to tens of million dollars annually – were identified in the reports to the G20 as fossil fuel subsidies that could be reformed without congressional approval. They were reformed in 2014 and in 2016 respectively, the latter immediately following the election of Donald Trump as president (Bureau of Land Management, 2016; US Government, 2015).The three subsidies that were reformed are among the subsidies that were not acknowledged until the 2015 report (and the only ones not requiring Congressional approval), and in this way, the Obama administration lived up to the G20 commitment as far as possible. Yet, the decision to reform the subsidies was well under way before the peer review and was adopted by the Department of the Interior in isolation from the policy processes addressing the G20 commitment (interview with senior Department of the Interior official, 15 December 2016; interview with US Treasury official, 20 December 2016). Under the Trump administration, the 2016 decisions to reform the two royalty exemptions were weakened, while the reforms of the liability cap remained in place (Bureau of Land Management, 2018).

The peer review agreed with the US self-review regarding the subsidies identified (including the Low-Income Home Energy Assistance Program [LIHEAP] not being inefficient), but also argued that the support for inland waterway infrastructure mainly used to transport fossil fuels – not included in the self-report – constituted a fossil fuel subsidy (G20, 2016b). Altogether, the G20 commitment institutionalised the norm of fossil fuel subsidy reform, which the Obama administration sought to adhere to within the domestic constraints, and for which it was held accountable regarding policies it was reluctant to define as fossil fuel subsidies. Yet, this norm was challenged by the Trump administration, which explicitly made support for coal, gas and oil extraction a priority, and weakened two of the Obama administration’s three reforms (Hermwille and Sanderink, 2019).

Regarding **the United Kingdom**, according to the OECD, direct fossil fuel subsidies consist mainly of reduced rates of value-added tax (VAT) for fuel and power, the covering of liabilities related to coal mining and tax breaks for oil and gas production, together estimated at several billion pounds (OECD, 2020a). This can be compared to the UK’s 2018 GDP of USD 2,850 billion (World Bank, 2020c). In recent years, the UK government has introduced new measures subsidising oil and gas production by allowing for increased deductions of extraction costs from corporate taxes (OECD, 2019f). The UK government has promoted fossil fuel subsidy reform at the international level, including within the G20 (UK Treasury Official, interview, 24 November 2014). Yet, in its reports to the G20 (as well as domestically),

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the UK government has argued that the UK provides no inefficient fossil fuel subsidies (Kirton et al., 2013; UK Department for Business, 2019a, 2019b, 2019c, UK Department of Energy and Climate Change and HM Treasury, 2013). This argument is based on the definition of fossil fuel subsidies as 'any Government measure or programme with the objective or direct consequence of reducing, below world-market prices, including all costs of transport, refining and distribution, the effective cost of fossil fuels paid by final consumers, or of reducing the costs or increasing the revenues of fossil-fuel producing companies' (UK Department for Business, 2019b; UK Department of Energy and Climate Change and HM Treasury, 2013).

Importantly, this claim was challenged by members of the UK Parliament, first and most notably the House of Commons' Environmental Audit Committee (with members from all major parties) in its report on energy subsidies (2013). The report opened new venues for actors – including environmental non-governmental organisations (NGOs) and renewable energy companies – opposed to fossil fuel subsidies, many of whom testified to the Committee and influenced its report. The Committee used inter alia a price-gap approach that (unlike the government) included VAT in the benchmark price, and consequently lower VAT on inter alia the electricity bills of households and small businesses, and were defined as a (GBP 3.6 billion) subsidy. The Committee also – unlike the UK Government – defined tax rebates for high-cost oil and gas fields and fracking as subsidies. In this way, the ideational influence from the G20 commitment brought fossil fuel subsidies onto the policymaking agenda. Specifically, the government's international commitment to the norm of fossil fuel subsidy reform not only brought attention to the concept of fossil fuel subsidies (a cognitive and agenda-setting dynamic), it also meant that the government could be held accountable to the norm even if it thought it was not relevant to the UK (the ideational dynamic known as entrapment; see also Schimmelfennig, 2001). Actors including members of the House of Commons' Environmental Audit Committee pointed to the perceived inconsistency between the UK government's commitment to the norm and high international profile on fossil fuel subsidy reform and the existence of, even growth in, fossil fuel subsidies domestically (Carrington, 2015a). In subsequent years, petitions to Parliament as well as questions to the UK government raised by members of both Houses of Parliament calling for the reform of UK fossil fuel subsidies were met by the similar response that the United Kingdom does not subsidise fossil fuels gov (HM Treasury, 2017a, 2017b, UK Department for Business, 2019a, 2019b, 2019c, UK Department of Energy and Climate Change and HM Treasury, 2013). Although the government engaged in cognitive discussions of whether

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Table 5.2 *Fossil fuel subsidies and the G20 in the UK media:* The Guardian *and* The Independent

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Articles referring to UK fossil fuel subsidy reform *and* the G20	0	0	2	5	5	4	3	0	1	1	2	**23**
All articles referring to fossil fuel subsidy reform (international and domestic)	0	0	8	11	10	9	27	11	18	16	46	**156**

the norm was relevant to UK policies and price levels, it could not argue that the norm was not salient. With regard to the G20, the UK government ruled out participating in a G20 peer review of its fossil fuel subsidies on the basis that it did not have such subsidies (HM Treasury, 2017b).

These dynamics also played out on the public agenda (Skovgaard, 2018). The number of newspaper articles mentioning fossil fuel subsidies has increased substantially since 2011 (Table 5.2). Several articles linked the G20 commitment to fossil fuel subsidies in the United Kingdom, and referred to the debate concerning whether the norm of fossil fuel subsidy reform was relevant to UK policies and the alleged inconsistency between the UK government's international profile on fossil fuel subsidy reform and its domestic policy (Carrington, 2015a, 2019). This link was most pronounced in the period 2011–15, whereas in the subsequent years attention to fossil fuel subsidies increased, but the attention to the link between the G20 and fossil fuel subsidies subsided.

Concerning ideational dynamics at the level of officials, the Treasury was the ministry responsible for developing the UK government's definition of fossil fuel subsidies and for the G20. The two other ministries with important roles – the Department of Energy and Climate Change and the Department for International Development focused mainly on the international level (interviews with a Department for International Development official, 24 November 2014; Department of Energy and Climate Change, 7 October 2014, 28 April 2020). The interaction in the G20 working groups raised awareness of the issue but did not lead to fundamental cognitive and normative changes of ideas regarding British fossil fuel subsidies in the Treasury.

In the case of **India**, fossil fuel subsidies in India consist mainly of selling kerosene and liquid petroleum gas (LPG) at a loss, and are estimated at INR

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hundreds of billions or USD billions (OECD, 2020a), or 1–2 per cent of GDP (IISD, 2014). Indian GDP was USD 2,700 billion in 2018 (World Bank, 2020c). National production subsidies are estimated at USD 1.5 billion (Bast et al., 2015). The Indian government acknowledges the existence of Indian fossil fuel subsidies, and has carried out a series of major reforms of consumption subsidies since 2013, liberalising prices and focusing subsidies on the poor (Garg et al., 2020; Jain et al., 2018). India is often hailed as a showcase of successful reform.

The Indian government has been sceptical of the G20 commitment, especially the G20 framing of fossil fuel subsides as an environmental issue, since the Indian government preferred to frame it as a purely economic and fiscal issue (for an example of this perspective, see Dasgupta, 2013). The scepticism reflects the historically predominant (yet increasingly challenged) view within the Indian elite that climate change is the responsibility of developed countries and that developing countries should not commit to climate change actions (Sengupta, 2019; Thaker and Leiserowitz, 2014). Nonetheless, the Indian government has implicitly acknowledged the relevance of the norm to India by reporting its plans to reform fossil fuel subsidies to the G20.

The framing of fossil fuel subsidies as a domestic and economic issue is mirrored in the public agenda, where Indian subsidies increased in importance with a peak in 2012–13 (when there was substantial discussion of whether and how to reform). After 2015, most of the reforms had been successfully implemented, and subsequent (less path-breaking) reforms received less attention. Thus, G20 ideational influence on the institutions on the public agenda is extremely limited, as only one newspaper article linked the G20 with domestic reform, and focused on India's status as a G20 member rather than the G20 commitment (Nandi, 2017; see also Table 5.3).

Table 5.3 *Fossil fuel subsidies and the G20 in the Indian media:* The Hindu *and* Times of India

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Articles referring to Indian fossil fuel subsidy reform *and* the G20	0	0	0	0	0	0	0	0	1	0	0	**1**
All articles referring to fossil fuel subsidy reform (international and domestic)	0	1	10	35	37	19	17	4	7	4	4	**138**

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The fossil fuel subsidy reforms have been the responsibility of the Ministry of Finance and the Ministry of Petroleum and Natural Gas. According to all former and current officials of the two ministries interviewed, the main reasons for undertaking these reforms have been fiscal and macroeconomic: there are cheaper ways of alleviating poverty, and the fossil fuel subsidies were detrimental to the public budget and the balance of trade (as they increased oil and gas imports). Two contextual factors – none of them linked to the G20 – made the reform possible: low oil prices and the liberalisation of the Indian economy since the early 1990s. Low oil prices created the scope in which to liberalise fuel prices without causing public protests.

Like India, **Indonesia** has considerable direct subsidies, which, according to the OECD, were constituted mainly by setting the prices of oil products and electricity below the market price and were estimated at around IDR 100 trillion or USD 7 billion USD (OECD, 2020a), currently at around 5 per cent of public expenditure (G20, 2019b).[3] As a comparison, in 2018, Indonesia had a GDP of USD 1,000 billion (World Bank, 2020c). The Indonesian government acknowledges that these policies constitute fossil fuel subsidies, and has since 2000 attempted, with varying success, to reform them (Beaton et al., 2017; Chelminski, 2018). Most of the sizeable production subsidies for oil, coal and gas have been difficult to quantify, yet it is safe to say that they amount to USD billions (Bast et al., 2015; G20, 2019). Since Joko Widodo became president in 2014, consumption subsidies for petrol have been phased out, and diesel and electricity subsidies reduced, although production subsidies have not been reformed (IISD, 2015b, 2018).

Unlike India, Indonesia has been supportive of the G20 commitment and underwent a peer review of its fossil fuel subsidies in 2019 simultaneously with Italy (G20, 2019b). The Indonesian government has also continuously reported its plans and efforts to reform fossil fuel subsidies to the G20. The peer review forced the Indonesian government to undertake more in-depth analysis of its fossil fuel subsidies, especially in terms of collecting more data about its production subsidies (G20, 2019b, Government of Indonesia, 2019). The peer review commended Indonesia for its reforms, including the way they were communicated and that the subsidies targeted the poor, but also noted more recent increases in fossil fuel subsidies and recommended the gathering of further information about production subsidies (G20, 2019b). The fossil fuel subsidy reform norm has generally had an influence on government policymakers, since failure to live up to the commitment is considered politically embarrassing (interview with Indonesian Ministry of Finance officials, 14 September 2016). The Indonesian government has also highlighted its fossil fuel subsidy reforms in its voluntary reporting to the G20 on

[3] Down from a peak of more than 20 per cent of public expenditure in 2014 (G20 2019).

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Table 5.4 *Fossil fuel subsidies and the G20 in the Indonesian media:* Kompass *and* Tempo

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Articles referring to Indonesian fossil fuel subsidy reform *and* the G20	0	0	0	1	0	0	0	0	0	0	0	**1**
All articles referring to fossil fuel subsidy reform (international and domestic)	0	1	4	61	28	45	18	19	48	60	26	**310**

measures supporting ‘energy transitions and global environment for sustainable growth’ (G20, 2019a).

Nonetheless, the reforms have been driven by domestic economic concerns rather than concerns about the G20 commitment, which instead was influential in cognitive terms of encouraging the Indonesian government to study their subsidies.

The G20 ideational influence on the public agenda has been virtually non-existent (Table 5.4). Most newspaper articles focus solely on domestic aspects of subsidy reform. Only one article referred briefly to the G20 efforts to phase out fossil fuel subsidies. Generally, the Indonesian public are unaware of the existence of fossil fuel subsidies or tend to underestimate them (Chelminski, 2018).

Finally, in **Denmark**, fossil fuels subsidies consist of reduced energy taxes for fuels used for specific purposes and for oil extraction. The subsidies as identified by the OECD are estimated to amount to above DKK 1 billion or USD 200 million (OECD, 2020a). This can be compared to the Danish GDP of USD 350 billion (World Bank, 2020c). Denmark is not a G20 member, and hence not subject to the 2009 commitment. Yet, it is an active member of the Friends of Fossil Fuel Subsidy Reform, which emerged due to the G20 commitment (see Chapter 4). Danish membership of Friends has not led to public discussions of Danish fossil fuel subsidies. Furthermore, Denmark has not subjected itself to a voluntary peer review of its fossil fuel subsidies within Friends in the same way as Sweden and Finland have done. Despite the increasing focus on fossil fuel subsidies since 2010, only two articles linked the G20 and Danish fossil fuel subsidies (Nielsen and Andersen, 2015). Generally, fossil fuel subsidies have been framed as an international (mainly developing country) phenomenon rather than a Danish one. The G20 commitment has had an indirect influence on Danish discussions of fossil fuel subsidies by

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Table 5.5 *Fossil fuel subsidies and the G20 in the Danish media:* Politiken *and* Jyllands-Posten

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Articles referring to Danish fossil fuel subsidy reform *and* the G20	0	0	0	0	0	0	1	1	0	0	0	**2**
All articles referring to fossil fuel subsidy reform (international and domestic)	0	0	3	3	5	8	9	1	10	4	13	**56**

increasing attention to such subsidies among IOs, NGOs and civil servants, which again led to the aforementioned discussions of fossil fuel subsidies.

5.4 Summary

The G20's 2009 commitment was a catalyst for action on fossil fuel subsidies. It constitutes an important normative output, since it elevated the norm of fossil fuel subsidy reform from relative obscurity to a level of salience in which several institutions and most countries – also beyond the G20 – had to address it. Beyond the normative impact, the commitment has also had an important cognitive (and agenda-setting) impact in terms of raising awareness of fossil fuel subsidies on the international and domestic levels, and in terms of the knowledge about such subsidies produced by the four IOs requested to do so by the G20. The G20 output has not altered incentive structures. Subsequent output from the G20 has been more low-key and to some degree hindered by the lack of precision concerning the norm of fossil fuel subsidy reform as formulated in the commitment. Yet, the self-reporting and especially the peer reviews have forced G20 member states to address the salience of the norm to their domestic policies (especially in the case of the United Kingdom) and in the case of the peer reviews, have led to new knowledge about the subsidies of the countries reviewed (in the United States and Indonesia). All things considered, the consequences of the G20 output have been significant at the international level (especially in leading to similar international commitments), whereas the domestic consequences have been more limited but still relevant. The commitment has not in itself brought about any major fossil fuel subsidy reform.

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The G20 commitment was triggered by US entrepreneurship utilising a conducive moment and reacting inter alia to the inaction within the UNFCCC (a reaction which amounts to institutional interaction). The commitment was shaped by this entrepreneurship, the membership circle (including insistence from some emerging economies on avoiding the norm being too precise) and the G20's economic worldview. Subsequent G20 output has been less shaped by entrepreneurship (except for the peer reviews) and more by the membership circle, the G20 economic worldview and interaction with the IEA, OECD, OPEC and the World Bank. The pro-fossil fuel stance of the Trump administration has played a small but still significant role in limiting G20 efforts on fossil fuel subsidies, although the other nineteen G20 members have moved forward without the United States.

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