The Influence of International Economic Institutions on Fossil Fuel Subsidy Reform

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International economic institutions, particularly the G20, the OECD and the IMF, have been vocal in advocating reform of fossil fuel subsidies. The question that the paper seeks to answer is how influential the institutions have been in inducing countries to reform their fossil fuel subsidies? Although studies of individual fossil fuel subsidy reforms point to the role of international economic institutions as one factor among many, no overarching study has studied their influence across countries. This gap deserves to be addressed, particularly given the power of these institutions.

More specifically, the paper focuses on pathways of influence which go beyond legally binding multilateral agreements. Such influences include learning, ideational change such as socialisation, and commitments which have to be adhered to. Concerning fossil subsidy reform, these pathways may consist of adherence to the (non-binding) G20 commitment, learning about fossil fuel subsidies and the possibilities to reform them, or socialisation into the norm that such subsidies should be reformed. Case studies of the US, India, the UK, Indonesia, Sweden and Denmark showed that ideational change stemming from the G20 and the OECD helped move fossil fuel subsidies up the agenda in industrialised countries, IMF was decisive in one case of Indonesian fossil fuel reform, and that learning processes mattered in terms of workshops organised by the OECD and the World Bank.

Keywords: Fossil fuel subsidy reform; policy diffusion; IMF; OECD; World Bank; G20

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Introduction

The last decade, fossil fuel subsidy reform has been rising on the agenda of international economic institutions such as the Group of Twenty (G20), the Organisation for Economic Co-operation and Development (OECD), the World Bank and the International Monetary Fund (IMF). Importantly, international *environmental* institutions such as the United Nations Framework Convention on Climate Change have been rather silent on the issue except for the Kyoto Protocol (UNFCCC 1997), whose provisions on fossil fuel subsidy reform did not lead to concrete measures. Simultaneously have such subsidies also been the subject of increasing debate in several countries, often leading – particularly in developing countries – to successful reform of these subsidies. The question arises whether this correlation indicates a causal influence from the international economic institutions to domestic policies.

A growing body of literature is seeking to identify the role of different political, economic and social factors in explaining fossil fuel subsidies and their reform (Victor 2009; Cheon et al. 2013; Lockwood 2015). Although studies of individual fossil fuel subsidy reforms point to the role of international economic institutions as one factor among many in individual cases of such reforms (see inter alia Beaton and Lonton 2010; Lockwood 2015), no overarching study exists which focus on the influence of these institutions across countries. This gap deserves to be addressed, particularly as these institutions have generally been described as having a very significant impact on government policy (see Vreeland 2007). Furthermore, an important aspect of the impact of these institutions is *how* or more precisely through which causal mechanisms they may have influenced domestic policy. Whether the institutions have influenced domestic policy via socialisation into norms, learning or more coercive/compliance-based mechanisms of influence (Holzinger and Knill 2005; Dobbin et al. 2007; Marsh and Sharman 2009) is both academically and politically relevant.

In order to address these issues and gaps, the paper will answer the following research question:

Research question: To which degree and through which causal mechanisms did international economic institutions influence fossil fuel subsidy reform in specific countries?

The question concerns the actual impact of the G20, the IMF, the World Bank and the OECD on national policies defined as fossil fuel subsidies in India, Indonesia, Denmark, Sweden, the UK and the US. The paper focuses on the causal mechanisms of influence rather on which institution they emerged from, since the mechanisms are more theoretically and politically relevant, and the institutions arguably constituted elements of an institutional complex (Biermann et al. 2009; Keohane and Victor 2011) with closely interrelated roles regarding fossil fuel subsidy reform.

Importantly, fossil fuel subsidy reform can be framed in economic as well as environmental terms. The paper explicitly focuses on the relationship between environmental and economic framings of fossil fuel subsidies, and on how international *economic* institutions have addressed the issue. This focus is due to economic institutions are likely to be decisive for fossil fuel subsidy reform. The countries studied cover countries at different levels of economic development, G20 members as well as non-G20 members, and countries with varying degree of success in reforming fossil fuel subsidies.

The paper proceeds with outlining the theoretical framework for studying international influences on domestic policy. The subsequent section outlines how this theoretical framework has been operationalised, and this section is followed by the application of the framework to the six country cases.

Theoretical framework

If different countries adopt similar policies within the same period of time, it may be "the result of similar but independent responses of political actors to parallel problem pressures" (Holzinger & Knill 2005: 786), or it may be the result of the same factor influencing them. In the case of fossil fuel subsidy reform, fiscal crises fall into the former category of parallel factors, while influence from international economic institutions – the topic of this paper – falls into the latter category. Following Robert

Keohane (Keohane 1989: 3-4), international institutions shall be understood as a ”persistent & connected sets of rules (formal & informal) that prescribe behavior, constrain activities and shape expectations”. According to this definition, international organizations constitute one subset of international institutions.

Within the International Relations literature on influences from the international to the domestic level, constructivists have focused on the dissemination of ideas – including norms of appropriate behaviour – from the international to the domestic level, while rationalist scholars have focused more on the impact of conditionalities imposed by international organizations such as the IMF (Vreeland 2007) or the EU (Schimmelfennig 2008). Further, neo-Gramscian scholars have focused on the spread of hegemonic ideas from the international to the domestic level as part of a neoliberal world order (Cox 1981; Gill 1995).

Most of the literature on international influences focuses on one kind of influence (Dobbin et al. 2007), but increasingly scholars have developed more comprehensive frameworks for comparing different kinds of influences (Bernstein and Cashore 2012). While the frameworks may focus on different but closely related concepts such as policy diffusion, policy transfer or policy convergence, they generally distinguish between normative/socialisation-based, market-based/competitive, learning/lesson-drawing and coercive/compliance-based mechanisms of influence (Holzinger and Knill 2005; Dobbin et al. 2007; Marsh and Sharman 2009).

The present paper will draw on these frameworks in order to to identify three kinds of casual mechanisms of influence from the international economic institutions: ideational, learning and power-based.[1] Importantly, in order to study these influences it is necessary to focus on their impact on the policy processes and policy debates (Kingdon 2003; Sabatier and Weible 2014) that related to fossil fuel subsidy reform. Hence the object of the institutions' influence is not the state as a whole, but rather different actors and/or the setting in which actors operate.

First, normative or ideational influences concern both the room of manoeuvre for actors to influence decision-making, but also, and more fundamentally, affects how

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[1] Competition, often mentioned as a fourth mechanism, is less relevant to the case of fossil fuel subsidy reform.

actors perceive the world and their own goals. The latter kind of ideational influence involves actors internalising specific beliefs and goals and taking them for granted, rather than perceiving them as external constraints (Checkel 2005: 804). For instance, domestic actors could internalise the belief that a given kind of policy (e.g. a tax break) constitutes a fossil fuel subsidy and that reforming fossil fuel subsidies constitutes a desirable goal. Besides changing the beliefs and goals of actors, ideational influence also implies that some actors will be empowered, whereas others will be weakened. The reason is that the introduction of new norms or changes to existing norms may legitimize (or delegitimize) particular goals or actors as well as open up new avenues for framing issues (e.g. framing a particular policy as a fossil fuel subsidy). Ideational influence originating from the international institutions can be the result of officials interacting with peers within the institutions (Johnston 2001) – e.g. in the context of the OECD, or IOs actively promoting particular normative ideas such as the desirability of fossil fuel reform. International institutions can be particularly influential once a given nom has reached an international "tipping point" at which norm adherence is driven by international to a larger degree than domestic factors (Finnemore and Sikkink 1998: 902).

Second, learning is understood as changing beliefs concerning the "best" (generally most efficient or effective) way to achieve an objective on the basis of past experiences. Unlike normative change, learning does not involve changes to actors' goals or to the normative structures of society defining what is appropriate. The experiences may have happened to the individual who is learning, or she/he may draw on the experiences of others (Dobbin et al. 2007: 460), for instance may policy-makers contemplating fossil fuel subsidy reform learn from successful and unsuccessful reforms in other countries. Learning can be generated from experiences in other countries but is often disseminated via international institutions, either in groups of officials (Haas 2000)(Haas 2000) or through the active dissemination of best practices by the IOs (see inter alia Lehtonen 2007: regarding the OECD; Seabrooke 2011: regarding the IMF).

Third, power or coercion-based influences. International institutions may influence domestic policy by placing individual (often legal) commitments on states, by imposing direct conditionalities on the states (e.g. IMF or World Bank programs), or by providing support (e.g. finance) for particular policies. Such influences may hinder certain actions while empowering or disempowering particular constituencies (Kahler 2000). The power-based influence of international economic institutions is well-documented, particularly the influence of IMF and World Bank Structural Adjustment Programs (Vreeland 2007), which are relevant to fossil fuel subsidy reform since they intervene directly in domestic policy in order to improve fiscal balances.

Importantly, the influence of an institution primarily takes place via what will be referred to as the "governmental constituency" of the institution, viz. the member states' representatives which on a regular basis represent their state in the interaction with the institutions. The governmental constituencies of international economic institutions typically come from finance ministries. Which ministries and other domestic actors also matter in relation to the question of whether fossil fuel subsidies are framed as an environmental or an economic (in most cases fiscal) issue (on framing, see Schön and Rein 1994). Framing it as an environmental issue involves environmental actors such as environmental NGOs and environment ministries, whereas framing it as an economic issue involves economic actors such as finance ministries and economic think tanks. Given that the most important (direct) economic consequences of fossil fuel subsidies are fiscal, an economic framing of fossil fuel is unlikely to mobilise actors beyond government in favour of reform, since few interest groups will benefit directly from such reform but many will lose from it (see also Victor 2009).

Methods

The countries studied are Denmark, India, Indonesia, Sweden, the UK and the US. These countries have been selected as they cover both industrialised and emerging economies, and G20 members as well as non-G20 members. Furthermore, during the last fifteen years the six countries vary in terms of experiences with fossil fuel subsidy reform: while the UK and to some degree also Sweden Denmark do not acknowledge having fossil fuel subsidies, the other countries acknowledges this, but the degree to which the reform was successful reform range from very limited (the US,) over mixed (Indonesia in the mid-2000s) to high (India, Indonesia in recent years). Finally, all six of them have played important roles in international discussions of fossil fuel subsidy reform.

The analysis relies on a combination of official documents, key informant interviews and second-hand sources. The official documents originate from the governments in question. The key informants (a total of 15) are primarily senior officials currently or previously responsible for fossil fuel subsidies, and coming from finance ministries and other key ministries or agencies (mainly relating to energy) from the countries studied. Interviews and secondary sources have been used to assess the different kinds of influence from IEIs. The analysis also identifies any major changes to policies defined as fossil fuel subsidies in the countries studied (reductions as well as increases), in order to determine which factors (including but not limited to international economic institutions) played a role. Thus, the focus is on policies rather than on price levels as such, since the focus of the paper is on influence on policy rather than on prices, which may be influenced by a range of factors beyond political ones.

Empirical context: IEIs addressing FFSR

Although the efforts of international economic institutions to address fossil fuel subsidies go back decades, they were lifted to a different level by the 2009 G20 commitment to *"phase out and rationalize over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest"* (G20 Heads of State and Government 2009). The commitment resulted inter alia in a process in which the member states report their fossil fuel subsidy reform strategies and timetables, which may then be subject to voluntary peer reviews by other G20 members and representatives of international organizations such as the OECD. It is up to the member states to identify which fossil fuel subsidies exist in their own country and how to phase them out. The G20 member states have used different definitions of fossil subsidies. Seven countries (Australia, Brazil, France, Japan, Saudi Arabia, South Africa and the United Kingdom) have claimed to have no *inefficient* fossil fuel subsidies[2], whereas other countries have submitted plans for phasing out their subsidies with varying degrees ambition (Kirton et al. 2013: 62-69).

[2] Claims that contradict the findings of independent think tanks such as the Global Subsidies Initiative.

Crucial for the discussion of which countries that have fossil fuel subsidies is which definition of fossil fuel subsidies that is used and to which one focuses on consumption and/or production subsidies (van Asselt and Skovgaard, forthcoming). Regarding definitions there is an important distinction between the conferred benefits-approach and the *price-gap* approach (Koplow 2009; OECD Secretariat 2010). The former approach focuses on whether policies confer a benefit to specific groups (e.g., the latter focuses on whether whether prices are below a benchmark price (Koplow 2009). The benchmark price is generally based on the international price of a given fossil fuel, sometimes also including transport, distribution, value added tax and/or a tax corresponding to the externalities stemming from the fuel (Gerasimchuk 2014). The second distinction separates *producer* subsidies (directed at extraction of fossil fuels) from *consumer* subsidies (directed at the use of fossil fuels). Consumer subsidies are concentrated in the developing countries while producer subsidies are more common in the industrialized countries.

The OECD addressed fossil fuel subsidies before the G20 commitment as part of the regular environmental performance reviews of individual member states, studies of pricing policies and more general studies. Generally, the OECD's activities have focused on creating knowledge about fossil fuel subsidies and promoting the norm that fossil fuel subsidies should be reformed. Using a conferred-benefits approach to identifying fossil fuel subsidies, the OECD Secretariat found fossil fuel "support"[3] measures in all 34 OECD countries, (OECD Secretariat 2005; OECD Secretariat 2010; IEA et al. 2011; OECD Secretariat 2011). Furthermore, the OECD Secretariat has arranged workshops on fossil fuel subsides for representative of member states. Yet, 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, April 29th 2015).

The IMF and the World Bank have both followed a two–pronged approach focusing both on inducing states subject to IMF or World Bank programs to reform their subsidies and on providing knowledge about and promoting fossil fuel subsidy reform as a norm. The former strand dates back decades, as the two Bretton Woods

[3] The OECD uses the term support rather than subsidies.

institutions have sought to phase out any kind of subsidy irrespective of its environmental consequences. The latter strand took off after the G20 commitment, especially since the G20 commissioned the World Bank (as well as the OECD, the IEA and OPEC) with analysing the scope of fossil fuel subsidies. Importantly, in 2013 and 2015 the IMF published reports using a price-gap which included environmental externalities in the benchmark; an approach which led to estimates of global fossil fuel subsidies of respectively US$ 1900 and 5300 billion (Clements et al. 2013; Coady et al. 2015). These reports constituted a radical break with previous estimates from inter alia the IEA (2014), which had estimated global subsidies at US$ 550 billion based on benchmark prices without such externalities. The IMF approach led to the conclusion that industrialised countries account for a quarter of all fossil fuel subsidies.

While the concept of fossil fuel subsidies and their reform have risen significantly on the agenda of the international economic institutions, it is not given that this rise in prominence has translated into actual changes on the national level, including changes in policy. How the six states have reacted to the economic institutions' call for fossil fuel subsidy reform and whether this call has influenced national policy is the subject to which this paper now turns.

The Influence of International Economic Institutions on Fossil Fuel Subsidies

The US

Most US fossil fuel subsidies are federal tax reductions and directed at producers of oil, gas and coal, and can be measured in billions of US$ (Makhijani 2014). The US federal government have long acknowledged the existence of US fossil fuel subsidies, and the Obama administration has proposed phasing out federal fossil fuel subsidies in its budget proposals. Yet, these reforms have not passed Congress due to opposition from groups tied to the recipients of the subsidies.

Internationally, the US has actively promoted fossil fuel subsidy reform. As the host of the September 2009 G20 summit, the US played a crucial role as policy entrepreneur in getting the fossil fuel subsidy reform commitment adopted. This active role is at least partly due to the desire within the Obama administration to phase out subsidies (tax breaks) to fossil fuel producers within the US (interview with former senior US Treasury official, April 8th 2014). Within the Obama administration, it is mainly the White House and the Treasury which address fossil fuel subsidies both domestically and internationally. The Treasury is the most involved department on a day-to-day basis and saw fossil fuel subsidies equally in terms of its fiscal, macro-economic, and environmental consequences (interview with former senior US Treasury official, May 6th 2014).

Generally speaking, the influence of international economic institutions were limited by the fact that the US federal government already acknowledged the existence of fossil fuel subsidies and sought to reform but did not succeed due to domestic barriers. The G20 commitment amttereed mire to US politics than the OECD defining specific policies as subsidies (since these policies were already widely recognised as subsidies in the US). In its progress report to the G20 the US acknowledged that the tax reductions constitute fossil fuel subsidies as well as the existence of one consumption subsidy directed at low-income households (US Treasury 2014). In terms of ideational influence, the G20 commitment created an international commitment and norm the Obama administration could use to promote its (unsuccessful) reform proposals. Furthermore, there was close collaboration between Treasury officials and the IMF officials who had drafted the IMF definition on fossil fuel subsidies and other issues, but this collaboration did not amount to an ideational influence that induced the Treasury to adopt a price-gap approach including environmental externalities the way the IMF's definition of fossil fuel subsidies does (Clements et al 2013).

Learning processes and power-based influences (since US federal government wanted to reform fossil fuel subsidies already before the G20 commitment) were not relevant to the US case.

The UK

Fossil fuel subsidies in the UK are mainly constituted by reduced rates of VAT for fuel and power and covering of liabilities related to coal mining. The UK government has generally been very supportive of addressing the issue at the international level, including within the G20 (interview with UK Treasury Official, 24 November 2014).

Internationally (in the reports to the G20) as well as domestically, the UK government has argued that the UK does no have any inefficient fossil fuel subsidies. This argument is based on the definition of fossil fuel subsidies as 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". The definition corresponds to the UK government's general framing of fossil fuel subsidies as something which exists in developing countries.

Interestingly, the ideational influence from G20 commitment changed the context for action when the UK government's definition of fossil fuel subsidies and its claim that the UK does not have fossil fuel subsidies was challenged by the House of Commons' Environmental Audit Committee (2013) in its report on energy subsidies. The Committee (which has members from all major parties) commissioned a report which used price-gap approach which included VAT in the benchmark price, which meant that lower VAT rates on inter alia the electricity consumption of households and small business were defined as subsidies, which alone corresponded to a subsidy of 3.6 billion GBP to gas. The crucial difference is that the UK government does not include VAT in its benchmark price, while the Committee includes it. Thus, the G20 commitment brought fossil fuel subsidies on the agenda and opened up new venues for actors opposed to fossil fuel subsidies within the UK (many of whom testified to the Committee), but did not lead to any domestic policy changes.

In terms of socialisation, UK officials from the Treasury and other ministries interacted on a regular basis with the different IOs addressing fossil fuel subsidies. The Treasury perceived fossil fuel subsidies in terms similar to the way in which the economic IOs did, namely as undesirable firstly due to their economic distortionary effects and secondly due to their environmental effects (interview with UK Treasury official, 24/11/2014). This interaction did not lead to significant changes of the beliefs and goals regarding British fossil fuel subsidies within the Treasury. The Treasury interacted most closely with the IEA, whose definition (a price-gap approach not including environmental externalities) resonated with the UK government's definition (ibid.). Altogether, learning, ideational change in terms of changing the beliefs and goals of actors, and power-based influences had little effect in the case of the UK.

India

The vast majority of the Indian subsidies are constituted by compensating oil marketing companies for losses incurred when selling diesel, kerosene and Liquid Petroleum Gas (LPG) at a loss, so-called under-recovery. The sizeable Indian fossil fuel subsidies increased drastically through the 2000s to a peak at above US$ 16 billion (1.75 per cent of GDP) in the fiscal year 2012-2013 (IISD 2014). From 2013, the Indian government embarked on a series of fossil fuel subsidy reforms, starting with reforming diesel prices followed by reform of LPG prices.

The Indian government has been sceptical of attempts to address fossil fuel subsidy reform on the international level, including within the G20. Particularly the attempts to frame it as an environmental issue has been criticized, as the Indian government preferred to frame it as an economic and fiscal issue (see Dasgupta 2013 for an example of such a view). This position shall be seen in the light of the historically predominant (yet increasingly challenged) view within the Indian elite that climate change is the responsibility of the industrialized countries and that developing countries should not commit themselves to climate change actions (Thaker & Leiserowitz 2014; Malik 2013).

However, the Indian government is undertaking a program of fossil fuel subsidy reform which is phasing out several fossil fuel subsidies (of diesel, kerosene and Liquid Petroleum Gas), and has reported on the progress of these reforms to the G20. The Ministry of Finance and the Ministry of Petroleum and Natural Gas have been the ministries responsible for the reforms. Neither the G20 commitments nor other influences from the international economic institutions played a significant role. According to all of the former and current officials from the two ministries interviewed, the main reasons for undertaking these reforms have been their fiscal and macro-economic: there are less costly ways of alleviating poverty, and the fossil fuel subsidies were bad for the public budget and the balance of trade (as they increased oil imports). Two contextual factors made the reform possible: first and most importantly the low oil prices which provided a window of opportunity for liberalizing fuel prices without provoking public protests, and secondly the ongoing liberalisation of the Indian economy since the early 1990s.

Although the liberalisation of the Indian economy arguably can be seen as the result of socialisation into particular norms advocating free-market economic governance (Mukherji 2013), more specific ideational influences concerning fossil fuel subsidies have not been possibly to identify. Power-based influences were also absent. However, regarding learning, participating in workshops arranged by the World Bank provided opportunities for learning from other emerging economies which had gone through similar fossil fuel reforms (interview with senior Indian Ministry of Finance official, November 5th 2014).

Indonesia

In Indonesia, fossil fuel subsidies have amounted to 4.5 per cent of GDP or above 20 per cent of public expenditure (Dartanto 2016). Consumer subsidies in the shape of fixing prices of oil products below the market price have constituted the majority of these subsidies. Since 2000, the Indonesian government has attempted various fossil fuel subsidy reforms, some of which have been successful, others less so (Yusuf 2016). Recent reforms from 2014 and onwards have succeeded in phasing out subsidies to petrol while retaining diesel subsidies at reduced levels (IISD 2015).

The various Indonesian government has acknowledged the existence of fossil fuel subsidies, and the current Widodo government has explicitly aimed at phasing out most fossil fuel subsidies and using the finances saved for pro-poor policies. Within the context of G20, Indonesia has continuously reported its plans and efforts to reform fossil fuel subsidies. However, the G20 commitment has not had an impact on Indonesian fossil fuel subsidy reforms, which have been driven by domestic factors rather than international ones. Nonetheless, power-based influences have played a role in terms of the IMF program following the 1997/98 Asian crisis, and which in the course of 2002 led to continuous increases in the fixed fuel prices until they reached levels close to or at international prices (Yusuf 2016: 5-6). Yet, international oil prices were low in 2002, and when they increased the following years, domestic prices did not follow, thus increasing the expenditure on subsidies. Subsequent reforms have been more driven by the Indonesian Ministry of Finance, which worried about the impact on the budget and public debt (interview with Indonesian Ministry of Finance official, 26 February 2016). Until recently, it was only when fossil fuel subsidies made the fiscal situation untenable it was politically possible to reform fossil fuel subsidies. However, the current President Joko Widodoto have undertaken subsidy reform in order to re-allocate the funds saved to development or poverty-reduction policies.

Other kinds of influence from international economic institutions (learning; socialisation) appear to have been relatively unimportant, since the Indonesian started addressing fossil fuel subsidies before it became an important issue on the international agenda, and its reforms have not been shaped by concrete efforts by the international economic institutions.

Sweden

Swedish policies subsidising fossil fuels mainly consist of reduced CO2 and energy tax rates for uses such as energy production or diesel used in agriculture and forestry. Some of these subsidies have been reduced or phased out, most notably the reduced CO2 tax rates for industrial producers outside the EU Emissions Trading System which has been reduced since 2009.

While the Swedish government has actively promoted fossil fuel subsidy reform internationally, especially within the Friends of Fossil Fuel Subsidy Reform group, it has not been interested in linking these international efforts to Swedish fossil fuel subsidies. The changes to Swedish fossil fuel subsidies have been driven by domestic concerns rather than direct influences from the international economic institutions. However, the OECD has estimated the scope of fossil fuel support in Sweden and defined the tax exemptions and reductions and support in the context of its inventories of fossil fuel support/subsidies. Perhaps more importantly, the OECD's 2014 Environmental Performance Review of Sweden criticised these exemptions and reductions for being detrimental to a cost-efficient climate policy (OECD 2014), a criticism which was picked up in Swedish media (SVR 2014). In this way, ideational influences from the OECD to some degree strengthened critics (from environmental NGOs and the Green Party) of the differentiated CO2 and energy taxes by moving the issue up the agenda and allowing them to refer to the OECD criticism, yet without this influence leading to actual changes in policy. Similar analyses had previously been put forward the Swedish National Audit Office (2012) and the Swedish Environmental Protection Agency (2012), and the OECD Performance Review added to the weight of their arguments but did not provide a radically new perspective on the issue. Although Swedish officials have participated actively in meetings concerning fossil fuel subsidies hosted by the OECD and other international economic institutions, this did not lead to internalisation of the norm that tax expenditure constitutes a subsidy, or learning about how to best reform such tax expenditure. Power-based influences were not relevant in the Swedish case.

Denmark

In Denmark – like in Sweden – fossil fuel subsidies are mainly constituted by reduced energy taxes and duties for fuels used in specific sectors (e.g. agriculture), as well as support for oil extraction. The rates of these tax reductions have remained constant the last fifteen years. Similar to the Swedish government, the Danish government have actively promoted fossil fuel subsidy reform internationally, particularly within Friends of Fossil Fuel Subsidy Reform. The Danish government has acknowledged that production subsidies constitute fossil fuel subsidies, but argues that this is not the case with the tax expenditures since the taxing of fossil fuel use generally speaking exceeds the externalities (Danish Parliament 2015). Environmental NGOs have increasingly called for phasing out the subsidies, using the Danish government's international efforts for reforming fossil fuel subsidies, particularly within the Friends of Fossil Fuel Subsidy Reform (The Ecological Council 2012; 2014; Politiken, 13 February 2015).

The international economic institutions have played a limited role in these discussions, although some NGOs, journalists and politicians have referred to respectively the OECD inventory of fossil fuel support and the IMF's estimate that Danish fossil fuel subsidies amount to US$ 1000 per capita (Information, 8 August 2015; Altinget 14 January 2016; The Ecological Council 2014). It is via this kind of ideational influence on the domestic policy agenda in Denmark that the international economic institutions have been most influential. Although participation in workshops about fossil fuel subsidies arranged by the OECD increased knowledge and awareness of the topic within the Finance Ministry and other ministries (thus constituting limited ideational change), this did not translate into concrete government proposals (author's observation). Power-based influences were not relevant in the Danish case.

Conclusion

The analysis showed that the influence of the international economic institutions operated through three different mechanisms, which were influential in different kinds of countries. First, in terms of power-based influences an IMF Structural Adjust Program was decisive in inducing Indonesia to undertake fossil fuel reform in the early 2000s. Second, the G20 commitment and OECD inventories of fossil fuel support helped move fossil fuel subsidies up the agenda and strengthened actors calling for fossil fuel subsidy reform in countries such as the US, Sweden, Denmark and most notably the UK, thus constituting ideational influence. However, these influences did not lead to actual policy change, but arguably increased the possibility of future change. Ideational change may have helped convincing industrialised countries that fossil fuel subsidies were undesirable, but not that their own policies constituted such subsidies. Third, learning processes mattered in terms of workshops organised by the OECD and the World Bank increasing the understanding of fossil fuel subsidies and their reform – including experiences from other countries – among government officials. However, only in the case of India was such learning important in relation to actual fossil fuel subsidy reform, and played a role in shaping how the reforms were carried out rather than causing the reform as such. Altogether, the power-based influence of the IMF proved more important than the more ideational and learned based influence of the OECD (and in some cases the World Bank), while the influence of the G20's non-binding commitment has been ideational rather than power- or learning based.

The major successful fossil fuel reforms have taken place in developing countries, with lesser reforms in the US and Sweden. These reforms (especially in the developing countries) were driven by domestic rather than international factors, and economic rather than environmental concerns. Even if the initial reform in Indonesia was driven by the IMF program, the Indonesian government continued to adopt reforms due to domestic factors particularly fiscal problems. Consequently, it appears there are limits to how international institutions can do by framing fossil fuel subsidies in environmental terms. Even governments actively promoting fossil fuel subsidy reform internationally (the UK, Sweden, Denmark) have not been successfully entrapped by their international commitments, although attempts have been made to use their international efforts to induce fossil fuel subsidy reform. Perhaps a more useful path is to emphasise the economic benefits and promote learning about how to implement fossil fuel subsidy reform when economic windows of opportunity appear.

In terms of future research, it makes sense to adopt a longer term perspective and explore the role of international economic institutions not only when fossil fuel subsidy reform is introduced, but also in terms of maintaining these reforms. It would be particularly relevant when political pressure for reintroducing subsidies is high, e.g. in case of rising fuel prices.

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