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EXECUTIVE SUMMARY

The decline in oil prices that began in the middle of 2014 presents an opportunity for governments to reform their fuel subsidies. Fossil fuel subsidies that artificially lower consumer prices are estimated to cost governments around the globe approximately $500 billion per year. These subsidies have a host of negative effects on an economy—encouraging wasteful consumption, creating a large fiscal burden on developing country budgets, disproportionately benefiting wealthier households, and increasing the health and environmental costs associated with fossil fuel use. Therefore, reforms to these subsidies can be good for the economy and the environment.

Recent reforms by Indonesia and Malaysia illustrate that governments can capitalize on lower prices and act swiftly to remove fuel subsidies. While these governments have changed the regulated prices of fuels before, some of their recent reforms have removed fuel subsidy mechanisms altogether. This paper has three goals. First, it explains the benefits of fuel subsidy removal and how low oil prices can enable action. Second, it summarizes key lessons about political obstacles to reform based on our original research and the existing literature. Finally, it offers a constructive, action-oriented agenda for national and international policymakers, as well as social scientists. In short, the paper finds the following:

- The main barriers to fuel subsidy reform are generally political. A move to eliminate subsidies can face popular resistance as well as resistance from vested interests. Efforts can also be complicated by a country's low institutional capacity. In a lower oil price environment, the risk of a sharp short-term increase in energy costs from subsidy removal is drastically reduced. This can decrease the intensity of popular opposition as well as from vested interests to reform.
- Countries with lower institutional capacities can struggle to pay for alternative, targeted social welfare spending that compensates for the impact of higher fuel prices on their populations when subsidies are removed. Cheaper fuel prices effectively lower the amount of spending that would initially need to go into such programs.
- One potential downside of low oil prices is that it may undermine the political will for a government to undertake reforms. While a lower price environment supports taking action, lower prices also reduce the cost of the subsidies and, therefore, reduce the fiscal pressure on oil-importing countries to reform subsidies.
- For international and civil society organizations, the development of best practices and information-sharing mechanisms is an important area to continue to strengthen. The recent decrease in global oil prices took the international community by surprise, and the long-run effect of this change in the world economy on fuel subsidies remains to be seen. If governments that have already had success with their reforms are willing to share information about their strategies and experiences—an action that would bring reputational benefits to these governments by highlighting their bold and savvy reforms—then international organizations and civil society groups can help disseminate this information to others.
- Academic researchers will have a role to play in the international effort to abolish fuel subsidies. As governments consider reforms, they worry about short-run costs and popular opposition. Systematic data collection and rigorous analysis can be useful for estimating the magnitude of these costs and the extent of opposition in different circumstances. Such estimations can help governments decide whether the time is ripe for reform, and if so, how extensive. The most important research priority is the creation of a comprehensive database of events and processes related to fuel subsidies in key countries.

INTRODUCTION

One of the most significant recent changes in the world energy markets is the collapse of international oil prices. In June 2014, the price of a barrel of Brent crude was approximately $115, but by January 23, 2015, it had fallen below $50. Since then the price has generally traded within a range of $45–65 a barrel, well below the level seen in recent years, and many forecasts expect weaker prices may be the norm in the medium term.

One important consequence of the price drop is that many governments across the developing world are now planning, enacting, and implementing fuel subsidy reforms. Fossil fuel subsidies that artificially lower consumer prices are estimated to be approximately $500 billion per year. These subsidies have a host of negative effects on an economy. Subsidies encourage wasteful consumption, create a large fiscal burden on developing country budgets, disproportionately benefit wealthier households, and have severe health and environmental costs associated with fossil fuel use. Therefore, reforms to these subsidies are good news for the environment and the economy.

Low oil prices present a window of opportunity for policymakers and researchers to build on the experiences of countries that have already enacted some reforms and advance the agenda of fuel subsidy reforms on a global scale. Cheaper fuel can dampen the threat of public unrest and popular opposition, which has been one of the main obstacles to reform in individual countries. To further mitigate the risk of public backlash, governments should rapidly replace fuel subsidies with social policies, cash transfers, and other productive investments that benefit the poor and other immediate losers from fuel subsidy reform.

Recent reforms by Indonesia and Malaysia illustrate that governments can capitalize and act swiftly to remove fuel subsidies. While these governments have changed the regulated prices of fuels before, some of their recent reforms have removed fuel subsidy mechanisms altogether. If governments that have already had success with their reforms are willing to share information about their strategies and experiences, then international organizations and civil society groups that are working on fuel subsidy reform can help disseminate this information to others and help design more effective reform programs.

This briefing paper has three goals. First, it explains why fuel subsidy removal is a great idea and how low oil prices enable action. Second, it summarizes key lessons about political obstacles to reform based on our original research and the existing literature. Finally, it offers a constructive, action-oriented agenda for national and international policymakers, as well as social scientists. All these aspects are illustrated with two case studies from Southeast Asia. Indonesia and Malaysia both seized the opportunity to abolish their fuel subsidies at the end of 2014—after decades of tight price controls—when international oil prices collapsed.

Academic researchers have a role to play in the international effort to abolish fuel subsidies. Existing studies have noted that a thorough political economy analysis would be needed to more completely understand the political drivers and constraints in implementing fuel subsidy reform (IISD 2014: iv). As governments consider reforms, systematic data collection and rigorous analysis can help estimate the magnitude of these costs, the extent of opposition in different circumstances and from different groups, and the most effective strategies for implementing reform and for sustaining reforms as energy prices rise over time.

WHY REFORM FUEL SUBSIDIES?

Both in developing and developed countries, governments spend large amounts of public money to subsidize the consumption and production of fossil fuels. Forms of subsidies include price controls, tax exemptions, and direct budgetary transfers. The total dollar value of fossil fuel subsidies—defined as those subsidies that artificially lower the end-user price for fuel—was $550 billion in 2013 (IEA 2014). Figure 1 shows the geographic distribution of these subsidies in 2013 in thirty-seven emerging and developing countries that subsidize fossil fuels and, according to the IEA, account for more than 95 percent of global fossil fuel subsidies.[1]

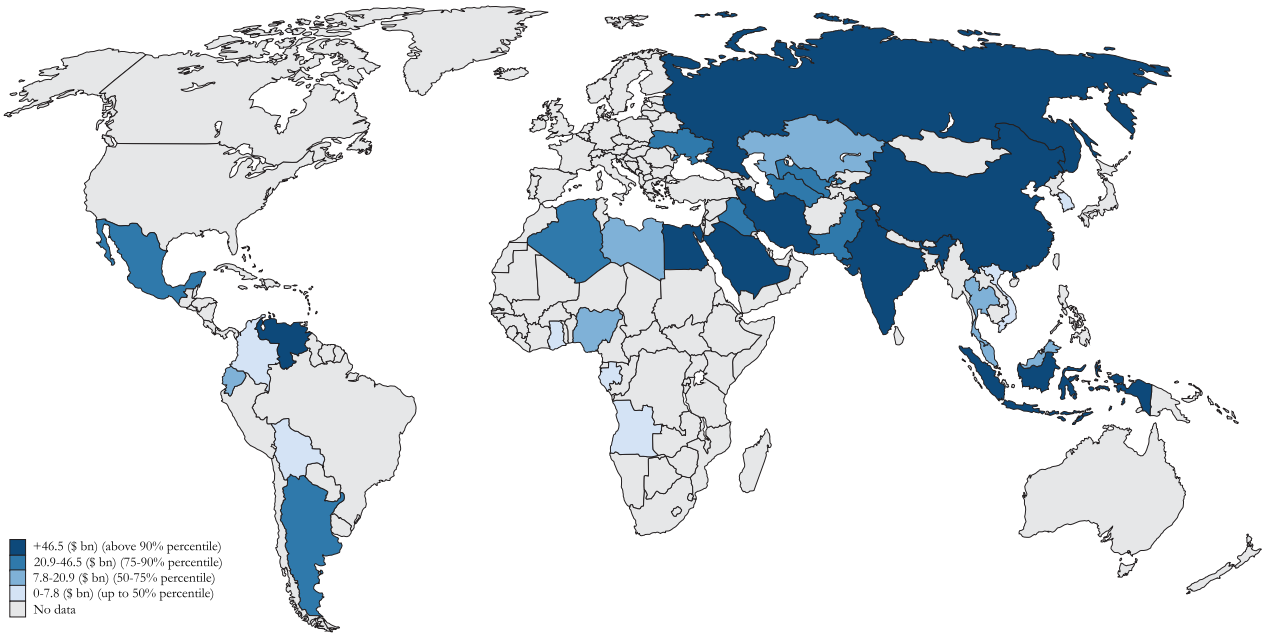
While production subsidies are also important, we focus here on consumption subsidies. Artificially low fuel prices in different countries are mostly the product of consumption subsidies, and low oil prices offer an opportunity to remove these subsidies in particular.[2]

One common rationale given for consumption subsidies is to promote an overall increase in social welfare by alleviating poverty. In practice, these subsidies often lead to market distortions and entail substantial economic, environmental, and social costs.

Subsidies lead to economic inefficiency, as people consume too much energy due to artificially deflated prices. Recent research shows that the total annual deadweight loss worldwide from fuel subsidies for road transport reached $44 billion in 2012, even excluding external costs, such as those on the environment (Davis 2014). In addition to environmental costs, subsidies can have negative macroeconomic impacts. For example, excessive energy consumption encouraged by underpriced fuel promotes capital-intensive industries, discouraging job creation (IMF 2013). The higher budgetary burden of subsidies also implies less room for fiscal and monetary policies for managing the economy.

Figure 1: IEA estimates of fossil fuel subsidies in 2013 in thirty-seven emerging and developing countries

(In billion dollars)



Source: IEA. Note: According to the IEA, these countries are responsible for more than 95 percent of global fossil fuel subsidies.

Rather than alleviating poverty, subsidies disproportionately benefit households at the top of the income distribution (Arze del Granado et al 2012). The Indonesian case illustrates this clearly. About two-thirds of poor households do not consume any gasoline at all, and the richest 10 percent of households absorb 40 percent of subsidy benefits, while less than 1 percent goes to the poorest 10 percent (IISD 2011). Fuel subsidies promote inequality as they function as a form of generous transfers to the rich.

Fuel subsidies are closely associated with a variety of severe environmental side effects. Overconsumption of petroleum products, coal, and natural gas, promoted by fuel subsidies, makes investments in the renewable energy sector less attractive, which exacerbates greenhouse gas emissions. When subsidies for gasoline and diesel are eliminated, it is estimated that CO_2 emissions would decrease by roughly 4.5 billion tons, representing around 13 percent of total CO_2 emissions in 2012 (IMF 2013). In addition, since such excessive consumption of fuel leads to high levels of vehicle traffic, subsidies indirectly result in traffic congestion and higher rates of accidents and road damage. The overall external damage of gasoline and diesel consumption on the environment exceeds roughly $1.11 per gallon (Parry et al 2007).

Opportunity costs of fuel subsidies are also noteworthy. Fiscal burdens from subsidies force governments to impose higher taxes on other sectors and decrease public expenditures on social priorities such as healthcare or education. In fact, many subsidizing countries spend more on fuel subsidies than on public health and education. For instance, in Malaysia, social services spending takes up 5 percent of total government spending compared to nearly 20 percent spent on fuel subsidies. Indonesia spent around 20 percent of its 2013 budget on subsidies, which exceeded the sum of government spending on social programs and capital expenditures combined.[3]

Malaysia is hardly unique among developing countries in having fuel subsidies that constitute a large share of its total GDP and crowd out other social spending. In 2012, the cost of fuel subsidies comprised around 2.6 percent of annual GDP in Indonesia (over 13 percent of total government expenditures), while the central government invested less than 1 percent of GDP in infrastructure and spent only 0.5 percent of GDP on social assistance (IMF 2013). In India, the cost of fuel subsidies in 2013 was 1.6 trillion rupees ($23.5 billion), accounting for 1.3 percent of its total GDP.[4] According to a recent World Bank report, after the recent round of reforms, energy subsidies in Egypt, Tunisia, and Yemen still account for more than 5 percent of GDP. Subsidies are even higher among oil-producing countries, such as Algeria, Iran, Iraq, and Saudi Arabia, exceeding 10 percent of GDP (World Bank 2014).

The heavy spenders on subsidies are not necessarily those best positioned to finance them. The World Bank report further notes that in the Middle East and North Africa, a region that accounts for 48 percent of the world's energy subsidies (based on pretax subsidies), a number of countries are running large fiscal deficits—a whopping 13 percent of GDP in Egypt and Jordan, and 7 percent in Tunisia, Yemen, and Lebanon. Their subsidies crowd out public spending on health, education, and investment, often threatening the sustainability of public debt. Egypt spends seven times more on fuel subsidies than on health.

Moreover, fossil fuel subsidies undermine climate mitigation. Over the next fifteen years, the global economy will require $4.1 trillion in incremental investment for the low-carbon transition to stay within the internationally agreed limit of a 2-degrees-Celsius temperature rise (Global Commission on the Economy and Climate 2014). The estimates of the climate finance that developing countries will need to build resilience to these changes range from $75 billion to $100 billion per year over the next forty years, and developed countries have agreed to mobilize $100 billion a year by 2020 from public and private sources to help the developing countries (World Bank 2010). If countries were to remove their fossil fuel subsidies and use the money saved for climate mitigation and adaptation, climate mitigation would be easier in two ways. First, the removal of fuel subsidies would reduce the consumption of fossil fuels. Second, the savings could be directed toward low-carbon development.

However, financing to address climate change is not growing fast enough. According to the Climate Policy Initiative, much larger amounts are needed to engage and maintain countries on a sustainable and inclusive development pathway; global climate finance flows were estimated to be at $331 billion in 2013, and the flow from developed to developing countries accounts for about $34 billion, leaving a gap in the annual commitment of about $70 billion (Climate Policy Initiative 2014). However, fossil fuel subsidies far outstrip current and planned climate finance pledges. It is expected that the money saved by eliminating fossil fuel subsidies would facilitate a low-carbon transition while unlocking new opportunities for energy cooperation, and would help governments to meet the climate finance commitment and other mitigation and adaptation needs.[5]

OPPORTUNITIES FOR REFORM

In June 2014, the price of a barrel of Brent crude was about $115. By January 2015, the price had fallen below $50, and it has remained low ever since. It is notoriously difficult to predict oil prices and there are various opinions as to how long prices might remain at these levels, but there are good reasons to believe that low oil prices offer a window of opportunity for fuel subsidy reform.

The drop in oil price should help alleviate some of the political obstacles to reforming subsidies. Governments, especially those in Asia, have acted to seize this opportunity. Beginning in 2015, Indonesia abolished its gasoline subsidy and reduced its diesel subsidy to just 1,000 rupiah (8 US cents) per liter. This will cut the expected government cost of subsidies to just 1 percent of total expenditures from a previously estimated 13.5 percent, freeing up $20 billion for spending in other areas.[6] In October 2014, India, Asia's second-largest economy, announced a deregulation of the diesel price and a regulated price increase for natural gas. The diesel subsidy, which cost over $10 billion in the last fiscal year, had been one of the defining symbols of India's excessive interference in the economy, discouraging investments in the fuel sector.[7] Malaysia stopped subsidizing both gasoline and diesel in December 2014, saving at least $6.3 billion in the government's annual budget.[8]

While the Middle Eastern oil producers have been slower to act, their subsidies have also come under increased scrutiny, particularly in light of the shortfalls on oil profits. In January 2015, Kuwait, Oman, and Abu Dhabi—the richest member of the United Arab Emirates that sits on about 6 percent of the world's proven oil reserves—have all cut subsidies on diesel, natural gas, and utilities.[9] Kuwait has plans to triple the price of kerosene and diesel early this year. Gasoline and electricity subsidies may be next. Iran cut gasoline subsidies in early 2014. In Africa, several countries have made reforms. Angola, a major African producer, raised gasoline and diesel prices 20 percent in December 2014. Ghana has also acted to remove subsidies.[10]

BARRIERS TO REFORM AND THE ROLE OF OIL PRICES

Why are economically and environmentally sound reforms not an obvious choice for governments? Research by academics, governments, and international institutions (see IMF 2013) has begun to identify barriers to reform. According to this research, these problems are almost exclusively political. Even governments that have an interest in reforming fuel subsidies face problems related to public approval, vested interests, and institutional capacity. The good news is that low oil prices can help deal with all three problems.

The basic barrier to removing fuel subsidies is popular opposition (Victor 2009; Overland 2010; Cheon et al 2013; Cheon et al 2015). Since fuel subsidies generate a visible benefit to people who consume fuel, the removal of subsidies has an immediate negative effect on people's purchasing power. In contrast, the benefits of removing fuel subsidies are less direct. For example, a reduction in public debt or an increase in public infrastructure investment generates less obvious direct benefits to individuals, and those benefits only accrue with some delay. In oil-producing countries in particular, broad, low-cost access to oil resources is considered a fundamental part of the social contract. Therefore, the removal of fuel subsidies may present a difficult short-term political problem for the government. In autocratic regimes, public unrest—protests and riots—may erupt and threaten the stability of the subsidy-reforming regime. In democratic regimes, that public unrest may lead the public to oust the reforming government in elections; in autocratic countries, political instability threatens the political survival of the authoritarian ruler. Examples of countries that have faced public unrest because of subsidy reform efforts include Indonesia in May 1998 during the Asian financial crisis, and Nigeria in January 2012. In both cases, the government restored fuel subsidies to stop the unrest, and in Indonesia, President Suharto resigned.

Low oil prices reduce the risk of a public backlash. Although a reduction in fuel subsidies may still increase energy costs, the current low oil prices ensure that any price increases are less dramatic. Indeed, actual fuel prices with high oil prices and energy subsidies may well be higher than fuel prices with low oil prices after the subsidy removal.[11] Therefore, low oil prices ease the pain of adjustment and allow governments to implement policy reforms that would create major political turmoil under high oil prices. The recent decline in oil prices was particularly well timed for Morocco, a country that removed the last of its diesel fuel subsidies on January 1, 2015, after two years of careful planning and a public outreach program in which Prime Minister Abdelilah Benkirane himself had embarked on a plain-spoken drive to sell ordinary Moroccans on the importance of removing subsidies.[12]

Besides popular opposition, vested interests present a barrier to fuel subsidy reforms (Overland 2010; IISD 2013; Vagliasindi 2013). Despite their high total cost to the society, fuel subsidies benefit some societal interests. For example, low gasoline prices benefit truckers with gasoline engines; low diesel prices benefit farmers who use diesel in their tractors and irrigation pumps (Overland 2010). Out of self-interest, these groups often oppose fuel subsidy reforms. Because they are the direct beneficiaries of the fuel subsidies, they have strong incentives to lobby against reforms unless the government offers adequate compensation for their losses. If these groups are organized, their ability to engage in collective action in the political arena allows them to exert an influence far beyond their numbers. Moreover, vested interests may play a role in the mobilization of popular opposition. For example, if the members of a labor union in the trucking industry benefit from a fuel subsidy, they may participate in protests.[13]

Low oil prices also reduce interest group pressure to maintain fuel subsidies. Under low oil prices, the cost to vested interests of subsidy removal is less severe than under high oil prices. As a result, a rational interest group that benefits from fuel subsidies lobbies less aggressively for their continuation when oil prices decrease. Although the interest group may anticipate high oil prices in the future, a status quo of low oil

prices implies that the immediate cost of fuel subsidy removal is limited. In this circumstance, the interest group focuses its political efforts on other, more pressing issues. For example, Prime Minister Modi's "radical" decision last year to end diesel subsidies came at a time when the price of crude oil had hit a three-year low, shielding his constituents who relied on cheap fuel, particularly small-scale farmers, from the immediate effects of subsidy reforms.[13]

The third political problem that prevents fuel subsidy reform is low institutional capacity (Victor 2009; Cheon et al 2013). A government capable of effectively implementing a range of public policies can find less costly alternatives to fuel subsidies to meet its stated social welfare goals. The simplest alternative is a cash transfer. Instead of reducing fuel prices through subsidies, the government can make direct monetary transfers to the people. If the government is able to implement a cash transfer scheme, it can avoid the distortionary effects of subsidies while continuing to give visible and salient benefits to the people. On the other hand, if the government does not have the administrative apparatus to implement an effective cash transfer scheme, this alternative to fuel subsidies is not available.

For a government with limited institutional capacity, the continuation of low fuel prices is an administratively easier, if ultimately more costly, approach. Cheon et al (2015) examine how gasoline prices respond to international oil prices in countries with and without national oil companies. They find that the political control of national oil companies allows governments to administer and hide the true cost of fuel subsidies from the public. Therefore, national oil companies perpetuate the problem of fuel subsidies by facilitating the provision of fuel subsidies.

Here again, oil prices can be helpful. When oil prices are low, the size of the cash transfers or other benefits required to compensate for the higher fuel prices is smaller compared to times of high oil prices. Low oil prices mean that the government need not implement ambitious social policies; instead, modest benefits are enough to secure popular support for replacing fuel subsidies with other policies. After all, low oil prices mean that fuel subsidy removal is not very costly to the people. Therefore, even a government with limited institutional capacity may be able to enact and implement fuel subsidy reforms. While such a government may lack the capacity to successfully implement ambitious policies, limited institutional capacity does not cripple the government's ability to offer modest benefits to the people hurt by the fuel subsidy removal.

When Malaysia announced partial gasoline and diesel price reforms in September 2013, additional cash transfers were nowhere near enough to quell popular protests. Full dismantling of the subsidy mechanism was out of the question, given a barrel of Europe Brent was priced around $111 at the time.[14] A more sophisticated redistributive mechanism, one that requires greater institutional capacity, would have been necessary to replace it. Fast forward to late 2014, when the price had fallen to $79.44 and the cash transfers suddenly seemed an adequate solution (Bridel and Lontoh 2014).

One potential downside of low oil prices is that it may undermine the political will for a government to undertake reforms. While a lower price environment supports taking action, as identified above, lower prices also reduce the cost of the subsidies and, therefore, reduce the fiscal pressure on oil-importing countries to reform subsidies. In some cases (Egypt and Honduras) fuel subsidy reforms were only undertaken in response to a fiscal crisis where the government in question simply did not have any choice. With a lower risk of this type of fiscal crisis, government officials may not feel sufficient pressure to tackle the politically difficult reforms—even if the political opposition to those reforms is relatively less intense when oil prices are lower.

CASE STUDIES

As an illustration of the relationship between oil prices and the feasibility of fuel subsidy reform, we now present two short case studies from Southeast Asia. By examining how the logic of fuel pricing policy has changed in the aftermath of the collapse of international oil prices, we can see how the incentives and strategies of governments vary over time with said prices. In Indonesia, low oil prices allowed the deregulation of gasoline prices for the first time after four decades of tightly controlled, artificially low prices. In Malaysia, the oil price drop allowed the government to move from partial reforms to the full deregulation of gasoline and diesel prices.

In both cases, the evidence clearly shows that the low oil prices removed high political barriers to policy change by softening the short-run impact of reform on households, vested interests, and the national economy. In Indonesia, President Joko Widodo's argument for removing fuel subsidies—that Indonesia needs the savings to fund infrastructure, education, and public health instead—found a more receptive audience as the market price for gasoline fell below its previously subsidized price. In Prime Minister Najib Razak's Malaysia, while even partial reforms, i.e. announced increases in gasoline and diesel prices, had been met with protests in 2013, he was able to achieve full dismantling of the pricing mechanism in 2014. One contributing factor, of course, was the precipitous drop in oil price.

INDONESIA: PRICE DEREGULATION AFTER FOUR DECADES OF CONTROL

In Indonesia, the largest economy in Southeast Asia, President Joko Widodo has pursued fuel subsidy reform as one of his legislative programs. After taking office in October 2014, President Widodo announced two reforms in his first three months in office. Last November, the Indonesian government reduced subsidies for gasoline and diesel by 31 percent and 36 percent respectively, increasing the price of each fuel by 2,000 rupiah ($0.16) per liter. On January 1, 2015, it abolished gasoline subsidies, permitting gasoline price to fluctuate in line with international prices, for the first time in four decades.[15] Also, Indonesia capped subsidies on diesel at 1,000 rupiah ($0.08) per liter instead of abolishing them altogether because diesel is the main fuel used for public transport and fisheries.[16]

The significant cost of fuel subsidies had prevented Indonesia from improving poor infrastructure and social services. For example, in 2012, the cost of fuel subsidies comprised around 2.6 percent of annual GDP in Indonesia, while the central government invested less than 1 percent of GDP in infrastructure and spent only 0.5 percent of GDP on social assistance (IMF 2013). Also, fuel subsidies made the country, a net oil importer, economically vulnerable. A sudden rise in global oil prices can widen Indonesia's budget deficit, and thereby weaken the rupiah and aggravate its trade balance.[17] In fact, 276 trillion rupiah was allocated for fuel subsidies in the 2015 budget, accounting for 13.5 percent of total expenditure. However, after reforming their subsidies, it is expected that the government will spend 20 trillion rupiah for fuel subsidies, equivalent to just 1 percent.[18]

Abandoning a four-decade-old policy of subsidizing fuel has long been a hot potato in Indonesian politics. From the 1970s, when the first oil shock struck Indonesia, until 2005, the fuel price had been less than $0.20 per liter (World Bank 2014). Historically, when the Indonesian government attempted to increase the price, furious protests had followed. The most extreme case was the reform failure in 1998. In 1998, the military-backed dictatorship of President Suharto announced increases in the prices of diesel and gasoline by 60 percent and 71 percent, respectively, as part of the IMF-supported adjustment program to revitalize the economy in the aftermath of the 1997 Asian financial crisis (Beaton and Lontoh 2010). However, such rapid increases in fuel prices spurred massive protests and public dissatisfaction with the Suharto government, which played a part in the regime's eventual collapse (IMF 2013).

More recently, President Widodo's predecessor, Susilo Bambang Yudhoyono, had also implemented fuel subsidy cuts in 2004 and 2008, and partial success was achieved thanks to his popularity at that time. However, as his popularity eroded in 2010, widespread demonstrations against the high cost of fuel took place (IMF 2013). As a result, the fuel reforms were reversed and subsidy reforms in particular were stalled until Widodo was elected as president.

Why did Indonesia's recent reform effort face only limited opposition? First of all, the precipitous drop in global oil prices cushioned the impact of the subsidy cut. In fact, the gasoline price in January 2015 was 7,600 rupiah per liter, which was even less than the subsidized price of 8,500 rupiah in December 2014.[19] Second, President Widodo has so far successfully neutralized political opposition and the Indonesian public by arguing that Indonesia needs to cut the fuel subsidy to fund infrastructure, education, and public health.[20] Moreover, Indonesia's opposition-dominated parliament, which is the greatest political hurdle for the fuel subsidy reform, has weakened as a result of political debates regarding direct elections for governors and mayors, and hence President Widodo could push fuel subsidy reform with little political resistance.[21] In addition, the government has already launched three promised social protection programs: Indonesia Health Card, Indonesia Smart Card, and Family Welfare Fund.[22] These policies lent credibility to President Widodo's political will to improve social services, one of his main campaign pledges, contributing to little protest against fuel subsidy reforms.

To be sure, these reform efforts may be just the beginning of Indonesia's journey toward eliminating fuel subsidies. Compared to other countries such as India and Malaysia that abandoned government spending for keeping diesel and gasoline prices low, Indonesia is still behind. Also, since opposition parties have taken control of parliament, they can threaten to reverse or block reforms and even pursue impeachment proceedings. More importantly, the true challenge to sustain fuel subsidies reform will be how to draw support from public—especially poor households—when a new surge arises in international fuel prices. Since, historically, fierce resistance from the public had discouraged Indonesian leaders who had tried subsidy reform, building public support is particularly necessary to achieve lasting subsidy reform in Indonesia. This requires informing the public of how savings from the reform would be invested to address broader national priorities. Fortunately, however, the Indonesian government has clearly shown that the savings from fuel subsidy reform will be transferred to more investment in infrastructure. The Indonesian government announced that 60 percent of expected savings from fuel subsidy reform will be spent in transportation, agriculture, and public works such as roads, housing, and irrigation, which will double the budgets in these sectors.[23]

MALAYSIA: FROM PARTIAL TO FULL REFORM

In November 2014, Malaysia's Prime Minister Najib Razak made the radical decision to abolish subsidies to gasoline and diesel, effective the first day of December.[24] Welcomed by the international community, this decision ended three decades of generous fuel subsidies in Malaysia.[25]

Malaysia had been paying a very high price on its fuel subsidies. In September 2013, Malaysia's fuel prices were well below the standard in Southeast Asia (Bridel and Lontoh 2014, 5). For example, the gasoline price in the Philippines was almost double that of Malaysia, and in Singapore, where gasoline taxes are an important source of government revenue, the price was almost triple that of Malaysia. In 2013, Malaysia allocated $7.9 billion to fuel subsidies, and in 2012, "Malaysia's fiscal deficit of 4.5 percent of GDP was the second highest among Asia's thirteen emerging markets in 2012, coming only after India" (Bridel and Lontoh 2014, 2). In a country with a population of thirty million, the annual direct fuel subsidy cost amounts to almost $300 per capita. These costs to the Malaysian public do not count the indirect costs related to resource misallocation and poorer air quality.

The government's decision to abolish the fuel subsidies was not the first reform effort in Malaysia. Already in September 2013, Razak's government had announced increases in gasoline and diesel prices (Bridel and Lontoh 2014, 1). However, these prior reforms did not dismantle the fuel subsidy mechanism itself. Any

government in the future could reverse the price increases without new legislation. Although these partial reforms came with increased cash transfers to compensate the poor for their losses, there were still a lot of protests by the political opposition, trade unions, and nongovernmental organizations (Bridel and Lontoh 2014, 12–13). In such a political environment, it is not surprising that full reform was out of the question.

Why was there more opposition to these earlier, partial reforms? It is likely that high oil prices played a role. As mentioned in the previous chapter, in September 2013, the spot price of a barrel of Europe Brent was around $111.[26] A complete removal of the fuel subsidy mechanisms would have dramatically increased gasoline and diesel prices. According to Bridel and Lontoh (2014, 8), most commentators believed that the removal of fuel subsidies would, despite its long-run benefits and immediate fiscal benefits, reduce short-term economic growth and raise inflation because of the sudden rise in fuel prices.

When the government decided to abolish fuel subsidies entirely in 2014, Malaysia was in an altogether different situation. The price of Europe Brent was at $79.44 and decreasing rapidly in November 2014. Given the expected decrease, the immediate effect of dismantling the fuel subsidy on gasoline and diesel prices would be limited. Indeed, the government decided to remove the fuel subsidy mechanism at the beginning of December, less than two weeks from its announcement. The rapid policy change highlights the unique window of opportunity that the collapsing oil prices afforded Malaysia.

To be sure, Malaysia's liberal fuel pricing policy is not yet set in stone. In February 2014, The Economist warned that Malaysia's political opposition was in disarray, allowing the hardliners among Prime Minister Razak's United Malays National Organisation to attack the premier's liberal policies with less restraint.[27] Subjected to such attacks, liberal reforms, such as the fuel subsidy removal, could be reversed. However, by removing the regulatory pricing mechanism, the Malaysian government made any such policy reversals much more difficult than the earlier, partial reforms did.

DISCUSSION: SCOPE CONDITIONS

The above examples illustrate the relationship between oil prices and fuel subsidy reform in countries that have changed their policies. At the same time, it is important to consider the conditions under which such positive effects may be expected. While Malaysia and Indonesia have acted, other countries have done much less. In Venezuela, for example, transportation fuel has been almost free for decades. In such contexts with very generous fuel subsidies, even low oil prices may not be enough to protect a reform-oriented government from a political backlash. While the Venezuelan government has talked about raising gasoline prices to deal with the country's economic crisis,[28] the current prices are so free that a complete removal of fuel subsidies would result in large price increases—a scenario that both Indonesia and Malaysia avoided because their subsidies were less generous to begin with.

Another cautionary tale is Nigeria, where the previous president, Goodluck Jonathan, failed to remove fuel subsidies in the aftermath of the international oil price decrease. It was only after the March 2015 elections that the Nigerian Senate passed a budget reducing fuel subsidies.[29] After the budget proposal was made, however, the House of Representatives rejected a motion to remove the fuel subsidy, leaving the outcome of the reform attempt very much in doubt.[30]

The above counterexamples point to a possible difference between major oil exporters and other countries. If we allocate the 2013 IEA fuel subsidy estimate to countries that Ross (2012) classifies as "long-term oil producers" and all other countries, we see that about 70 percent of the $550 billion, or $386 billion, is given by such producers. Such countries may face particular obstacles to reforming their fuel subsidy policies. For one, the history of the twentieth century shows that the public in many resource-rich countries prefers the nationalization of domestic natural resources (Luong and Weinthal 2006). Such sentiments may create support for low domestic prices, as the public feels entitled to its own resources at a low cost. Moreover, Cheon et al (2015) note that national oil companies, which we have identified above as a

key mechanism perpetuating fuel subsidies, are more common among countries with high levels of domestic oil production. And finally, the literature on the "natural resource curse" suggests that economies that depend on large resource rents are more prone to using subsidies and other distributive policies as instruments of political survival (Karl 1997; van der Ploeg 2011). All these arguments suggest that designing fuel subsidy reforms could be more difficult in countries such as Nigeria, Venezuela, and Saudi Arabia.

AN AGENDA FOR RESEARCHERS AND PRACTITIONERS

Low oil prices present an important opportunity to reduce economically costly and environmentally destructive fuel subsidies. When oil prices are low, subsidy removal has limited social and economic consequences. If oil prices are also decreasing, the removal of the subsidy may even be done in the context of falling fuel prices. In the cases of Malaysia and Indonesia, the national governments were able to swiftly remove fuel subsidies because low oil prices eliminated the threat of public unrest and popular opposition.

However, low oil prices do not remove all political barriers to policy change. In the case of Indonesia, for example, the diesel subsidy mechanism remains intact, even though the subsidy has now been capped to a low level. The lack of a clear plan to abolish the diesel subsidy even over a longer period of time suggests that the government is concerned about a potential political backlash among farmers and other users of diesel.

THE AGENDA FOR PRACTITIONERS

What can governments learn from these early experiences? To begin with, that it is possible to act quickly. Governments across the world have changed the regulated prices of fuels many times over the past decades. What is unusual about recent reforms is that some policymakers are now moving to eliminate fuel subsidy mechanisms altogether, and without transition periods. Governments considering fuel subsidy reform to enhance the performance of their national economy should consider a strategy of rapid subsidy removal now that low oil prices reduce the short-run impact. In so doing, they mitigate the risk of public backlash with policies such as cash transfers that provide direct, concrete benefits to the poor and others who stand to lose, at least in the short run, from the removal of fuel subsidies.

The success cases offer a number of other useful lessons that may be transferable across countries. The Indonesian case suggests that future subsidy reformers could benefit from exploiting political windows of opportunities, such as a divided opposition in parliament. Widodo's example also suggests that leaders would do well to demonstrate their commitment to other social causes, such as public health and family welfare, to earn the trust of the public before embarking on major subsidy reforms.

The Malaysian case demonstrates that a phased or piecemeal reform, based on careful considerations of expected costs and benefits of each step along the way, can be fully compatible with decisive action when an opportunity, such as a precipitous drop in oil price, presents itself. Malaysia also highlights the importance of path dependence or "lock-in." By dismantling the subsidy mechanism altogether, reformers could make it much more difficult for successors to reverse course, a strategy that could be emulated elsewhere. Last but not least, Malaysia demonstrates that cash transfers as a policy instrument, despite its relative simplicity, can be useful for reformers under certain circumstances.

For international and civil society organizations, the development of best practices and information-sharing mechanisms is an important area to continue to strengthen. The recent decrease in global oil prices took the international community by surprise, and the long-run effect of this structural change in the world economy on fuel subsidies remains to be seen. If governments that have already had success with their reforms are willing to share information about their strategies and experiences—an action that would bring reputational benefits to these governments by highlighting their bold and savvy reforms—then international organizations and civil society groups can help disseminate this information to others.

Indeed mechanisms, such as international peer review, are already being considered and initiated at international organizations. In 2009, the Group of Twenty agreed to phase out fuel subsidies. It reaffirmed this commitment several times and agreed to a voluntary peer review process.[31] APEC has also established an annual peer review of fuel subsidy policies in member states.[32] To date, China, Germany, the United States, and Mexico have agreed to undergo the G20 peer review; Peru, the

Philippines, Vietnam, and New Zealand have agreed to undergo the review within APEC. These peer review efforts will help promote the transparency necessary to support reforms. That voluntary peer reviews are only now getting under way six years after the initial G20 commitment, however, only underscores the lack of progress that has been made in G20 countries (until Indonesia and India undertook their reforms capitalizing on the low oil prices). If the low oil prices persist, as they are now expected to, there could be enough political momentum for the G20 to do more at the 2016 meeting in China than just reaffirm the existing commitment to phase out inefficient fossil fuel subsidies in "the medium term," and move toward establishing a set target date by which countries agree to make reforms. Our findings suggest that such mechanisms bring a lot of added value and should be a priority for international policymakers, especially now that low oil prices have provoked interest in fuel subsidy reform among governments across the world.

THE AGENDA FOR RESEARCHERS

Academic researchers will have a role to play in the international effort to abolish fuel subsidies. As governments consider reforms, they worry about short-run costs and popular opposition. Systematic data collection and rigorous analysis can be useful for estimating the magnitude of these costs and the extent of opposition in different circumstances. Such estimations can, in turn, help governments decide whether the time is ripe for reform, and if so, how extensive.

The most important research priority is the creation of a comprehensive database of events and processes related to fuel subsidies in key countries. Such a database would have to contain information on reform efforts, the motivations behind them, and their success or failure. On popular opposition, it is important to investigate how readily different segments of the public protest against fuel price increases and whether there are communication and outreach strategies that can reduce such opposition. For example, an evaluation of the political feasibility of cash transfers as a replacement to fuel subsidies would be useful. A similar analysis could be conducted on the interests and clout of vested interests, along with their ability to access the institutions that formulate energy policy in the country. Another important research question pertains to the relationship between vested interests and popular mobilization, as opponents of fuel subsidy reform may strategically mobilize the public to oppose policy change. The institutional capacities and limitations of the administrative apparatus, along with reform opportunities, would in turn address the problem of low institutional capacity. For example, researchers could examine the ability of different institutions to enact and implement alternatives to fuel subsidies.

Another important direction for the future is to examine the durability of reforms. We have seen encouraging reforms in various countries, including Indonesia and Malaysia, but their durability remains unclear. Research on the ability of governments to resist the urge to move back to fuel subsidies, especially upon future increases in oil prices, is therefore important to ensure that the gains from fuel subsidy reforms will be sustained in the long run. The durability of such reforms may depend on factors such as domestic political institutions, the strategies adopted by the government, and public opinion. In our view, research on the role of these factors is an important task for social scientists.

Finally, future research and commentary should also move beyond gasoline and diesel prices. Given the magnitude of gasoline and diesel subsidies, along with the direct relationship between global oil prices and the price of these fuels, it is understandable that most attention has so far focused here. At the same time, other fuels such as LPG and kerosene are also heavily subsidized and a drain on government budgets in different countries. Even more broadly, electricity subsidies have driven electric utilities into bankruptcy in many developing countries. The applicability of lessons from gasoline and diesel price reform to other fuels requires consideration and is an important research frontier.

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