COUNCIL on FOREIGN RELATIONS

Maurice R. Greenberg Center for Geoeconomic Studies

DISCUSSION PAPER

Sustaining Fuel Subsidy Reform

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October 2016

This Discussion Paper, produced by CFR's Program on Energy Security and Climate Change, was made possible through the generous support of the Alfred P. Sloan Foundation.

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Introduction

Fuel consumption subsidies threaten the fiscal and economic health of countries around the world. Economists widely agree that the subsidies, which reduce consumer prices for petroleum and natural gas below free-market prices, often strain government budgets, fail to target poverty efficiently, and distribute benefits unfairly. These subsidies can pose strategic challenges, such as perpetuating corrupt regimes or precluding investments in security; also, they worsen climate change by encouraging wasteful energy consumption and boosting greenhouse gas emissions.

Faced with considerable costs and risks and scant benefits, most analysts agree that fuel consumption subsidies should be reduced and reformed. Political barriers often obstruct sensible policy change, however, and examples of street protests challenging governments that have attempted subsidy reform discourage policymakers.

Yet, over the last two years, governments around the world have taken advantage of the plunge in oil prices and reduced or eliminated subsidies. International oil prices fell from a high of over $110 per barrel in June 2014 to below $50 per barrel by January 2015 and have remained low ever since. Recognizing that low oil prices can mitigate the increase in consumer bills caused by subsidy reform, ten countries have, since 2014, completely eliminated subsidies on at least one type of fuel, and a further twelve countries have reduced subsidies (figure 1).[1]

The progress should come as particularly welcome news for the United States. Subsidy reform can advance U.S. economic, geopolitical, and environmental goals by reducing world oil prices, instability in strategically important countries, and wasteful use of fossil fuels, which contributes to climate change. In some cases, such as when subsidy reform frees up fiscal resources to invest in infrastructure or security, U.S. interests and those of the reforming country align.

Recent reforms may not be permanent, however. Past fuel subsidy reforms have often come undone when prices rose or when reform-minded leaders fell. Multilateral initiatives, policy research, and media reports tend to focus on the initiation of subsidy reform, rather than ensuring that reforms last. Avoiding reform reversal is as important to U.S. interests as promoting new reforms.

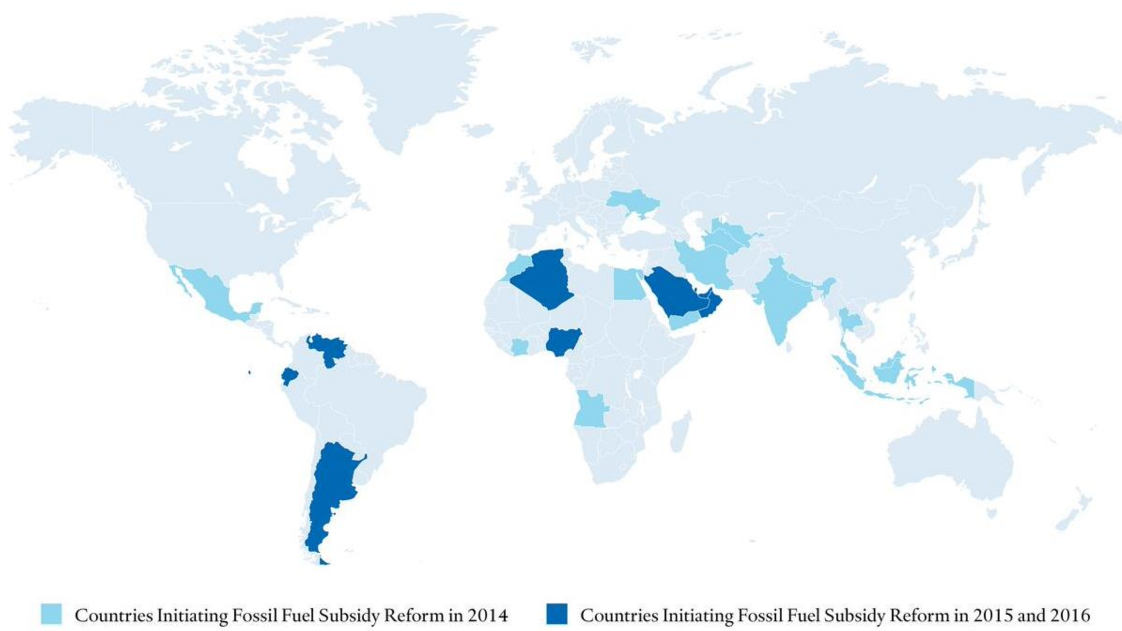
A review of the historical record reveals three ways governments have reinforced reforms against backsliding: by depoliticizing fuel prices and transferring control over prices to independent regulators, who enforce the link between domestic and international prices; by preempting popular discontent and rapidly demonstrating tangible economic benefits from reform; and by locking in partial subsidy reforms with subsequent reforms, as they pursued long-term strategies to eliminate all fuel subsidies and liberalize energy sectors.

Helping countries that have recently initiated reform pursue these three strategies should be a high priority for U.S. foreign policy. Where the United States has strong military or economic ties, senior-level U.S. policymakers should convey how important sustained reforms are to the relationship. In addition, the United States—possibly in partnership with international financial institutions—can provide assistance over a limited period that helps countries consolidate their reforms. The United States and international partners can also set up incentives for countries to continue reforming fuel subsidies and the broader energy sector.

Context and Recent Developments in Fuel Subsidy Reforms

The countries that have recently undertaken fuel subsidy reforms—including Egypt, India, Indonesia, Nigeria, Saudi Arabia, and Ukraine—represent a substantial fraction of the global economy, and many of them are also vital to U.S. geopolitical interests. But the global economic, environmental, and geopolitical benefits from these reforms may be short-lived, given that many of the countries have a history of reversing reforms.

Figure 1. Geographic Distribution of Countries That Have Recently Initiated Fuel Subsidy Reform (2014–2016)



Sources: IEA, OECD.

THE COSTS OF SUBSIDIES AND BENEFITS OF REFORM

This paper focuses on consumer fuel subsidies, which lower the prices of petroleum products and natural gas relative to the level at which they would be sold in a free market without constraints on price or trade. Governments employ a wide range of strategies to deliver these subsidies. For example, they can provide consumers with rebates or tax credits for fuel, sell fuel at below-market rates through a state-owned entity, or set regulated prices for fuel, which shifts costs to retailers, refiners, or upstream producers.[2] The value of consumer fuel subsidies around the world in 2013, before oil prices plunged, was nearly $400 billion, or about 0.6 percent of global gross domestic product (GDP), when measured by the “price-gap” approach, or the difference between domestic and international prices.[3] Not all regions are alike—for example, fuel subsidies provided in 2013 by countries in the Middle East and North Africa collectively equaled 5 to 10 percent of regional GDP.[4]

In countries where these subsidies account for a substantial portion of government budgets or national GDP, they can be fiscally debilitating and economically damaging. Often, subsidies are unsuited to target poverty reduction—they require, on average, $33 to deliver $1 of fuel price relief to the poor, and wealthier consumers often reap most of the benefits.[5] When subsidies constrain government budgets, they can displace necessary public investment in critical infrastructure—for example, as oil prices rose, many blamed Egypt’s fuel subsidies for underspending in electricity infrastructure, which led to frequent power cuts and shortages.[6] Also, subsidies depress economic growth by distorting the allocation of resources in a country’s economy, as seen in Ukraine’s reliance on energy-inefficient industries, caused by artificially cheap natural gas. Subsidies have additional insidious effects on economies: the confluence of fuel subsidies and state ownership in the energy sector often results in corruption, smuggling, and the emergence of black markets, all enabled by the spread between domestic and international market prices for fuel.[7] For example, Nigeria, which subsidized gasoline at high rates, unintentionally encouraged fuel smuggling into neighboring countries. As a result, Nigeria ended up subsidizing fuel in Benin and Togo, foregoing more than $100 million in revenues in 2011.[8]

A country’s fuel subsidy reforms can also deliver global economic benefits through lower and less volatile international fuel prices. By linking more of the world’s fuel consumption to international market prices, subsidy reform decreases the volatility of petroleum markets because consumption is more responsive to, and thus stabilizes, price movements. Reforms can also deliver lower global energy prices by reducing consumer fuel demand in countries where subsidies had previously kept prices artificially low. This could be even more important if oil prices rebound—some analysts forecast a return to levels of $100 per barrel or more by 2020 as a result of current underinvestment in oil exploration and drilling.[9] Under high oil and gas prices, the elimination of fuel subsidies in all developing countries could reduce international oil prices by 8 percent and natural gas prices by 13 percent.[10]

The same dynamics that reduce global fuel prices can also deliver environmental benefits, because lower fossil fuel consumption means not only lower global prices but also lower carbon dioxide emissions. Although falling natural gas consumption from subsidy reform might lead to greater use of more carbon-intensive fuels such as coal, it might lead to more consumption of clean energy. Because oil does not have higher carbon substitute fuels, lower oil consumption, as a result of reform, should always reduce emissions. Aggregating these effects and assuming high oil and gas prices, phasing out consumer fuel subsidies worldwide would reduce global greenhouse gas emissions by between 3 and 4 percent by 2035.[11]

In addition to economic and environmental benefits, fuel subsidy reforms can advance U.S. geopolitical interests. Successful reform can enable governments to free up public funding earmarked for fuel subsidies to enhance domestic and regional stability. For example, fuel subsidy reforms initiated in 2012 in Jordan have relieved some of the fiscal strain caused by an influx of roughly one million Syrian refugees and enabled the government to provide direct cash transfers to the poor.[12] In Nigeria, subsidy reform implemented in 2016 could free up funds to combat the Islamic terrorist group Boko Haram, which has destabilized the region; in 2015, the government spent $5 billion on fuel subsidies, compared to $6 billion on the military.[13] Elsewhere, ongoing subsidy reform could enable governments in countries of pressing concern—such as Egypt and Ukraine—to make crucial investments in domestic and regional security.

TWO RECENT WAVES OF SUBSIDY REFORM

Since the collapse of oil prices in mid-2014 and subsequent, persistent low prices, governments have reformed subsidies largely without provoking civil unrest because low oil prices have blunted the resulting price spikes. Because the fiscal cost of subsidies to the government depends on the difference between the local fuel price and the international market price, the magnitude of a country's subsidies falls whenever the international market price of fuel falls, regardless of whether the government undertakes reform. Thus, governments save money whenever international prices fall, even if they maintain a constant regulated domestic price.

Subsidy reform—which occurs when the government establishes an ongoing link between domestic fuel prices and international market prices—can be largely invisible to fuel consumers when the two prices are similar. As a result, subsidy reform under low international market prices may leave fuel prices unchanged while merely adjusting the administrative formula through which the domestic price is set, which is less likely to instigate public demonstrations than an actual hike in domestic fuel prices when reform is undertaken during a period of high international prices. The real test of the current round of reforms will be when international prices rise and pull up domestic prices.

First Wave: Countries Initiating Subsidy Reform in 2014

The first wave of subsidy reform occurred in 2014 as a result of a confluence of factors, including the plunge in oil prices (see figure 2). Some countries, such as Malaysia and Morocco, had already initiated reforms before the June 2014 price drop, after which they expanded the scope of reform.[14] Others, such as India and Indonesia, elected reform-minded leaders in 2014 who had made campaign promises to cut subsidies and then capitalized on the fortuitous price drop to rapidly implement reforms.[15] A third group of countries were forced to cut subsidies in response to crises: Ukraine began reforms in April 2014 to comply with its $17.5 billion loan from the International Monetary Fund (IMF), and Egypt commenced reforms in July 2014 to relieve fiscal strain that had contributed to a military coup d'état a year earlier.[16] Overall, seventeen countries reduced consumption subsidies for at least one petroleum fuel or natural gas in 2014.[17] These included both countries large enough to matter to global emissions and energy markets—India and Indonesia—as well as geopolitically significant countries—Ukraine and Egypt—whose reforms could improve regional stability.

Table 1. Selected Fuel Subsidy Reforms Under Low Oil Prices (2014–2016)

	Date of Reform	Degree of Reform	2013 Subsidy Expenditure	Reduction in Fuel Subsidy Expenditure After Reform	Reform History
Ukraine	April 2014 – May 2016	Full Reform for Natural Gas	$8 billion (4.5% of 2013 GDP)	$7 billion (5.0% of 2015 GDP)	No reform before 2014
Egypt	July 2014	Partial Reform for Gasoline, Diesel, Natural Gas	$22 billion (8.2% of 2013 GDP)	$13 billion (4.1% of 2015 GDP)	Attempts in 1977, 1980s, 1990s
India	October 2014	Full Reform for Diesel, Partial Reform for Natural Gas	$41 billion (2.2% of 2013 GDP)	$10 billion (0.4% of 2015 GDP)	Attempts in 2002, 2010
Indonesia	December 2014	Full Reform for Gasoline, Partial Reform for Diesel	$20 billion (2.3% of 2013 GDP)	$16 billion (1.8% of 2015 GDP)	Attempts in 1998, 2000–2003, 2008
Saudi Arabia	January 2016	Partial Reform for Gasoline, Diesel, Heating Oil	$20 billion (2.3% of 2013 GDP)	TBD	No reform before 2016
Nigeria	August 2014 – May 2016	Partial Reform for Natural Gas, Gasoline	$20 billion (2.3% of 2013 GDP)	TBD	Attempt in 2012

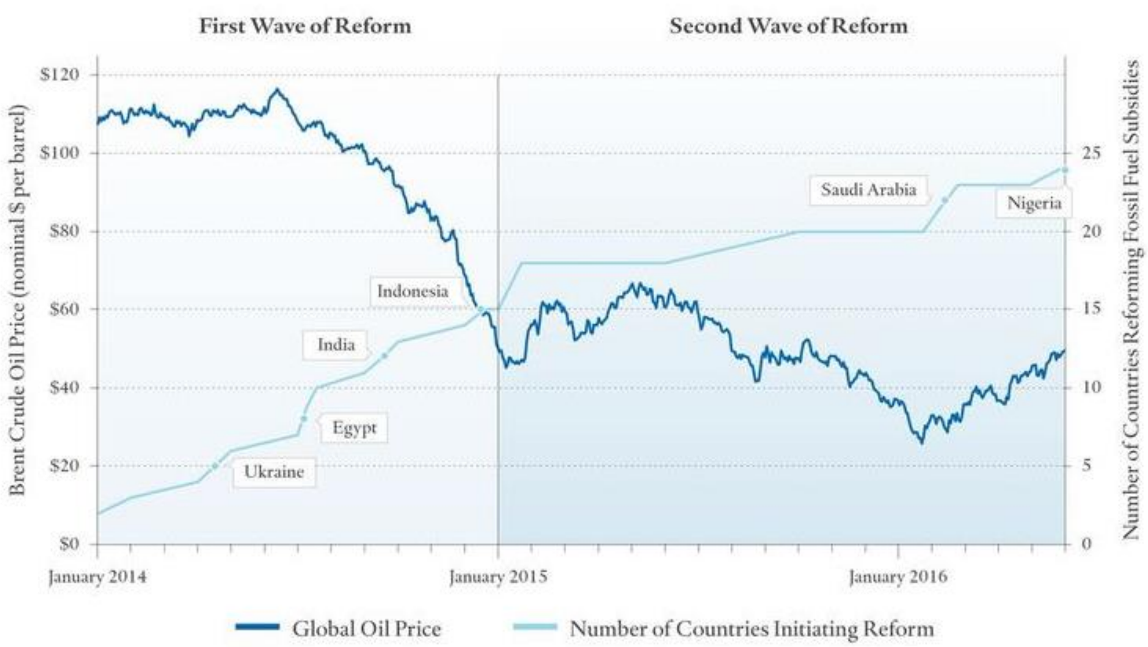
Sources: IEA, OECD, IMF, *Financial Times*, *Reuters*, *Economist.*

Reforms in India, the fastest growing economy in the world, have helped sustain investor confidence and could materially reduce the country's greenhouse gas emissions, currently the third-highest in the world.[18] After oil prices fell in 2014, incoming Prime Minister Narendra Modi swiftly reformed how fuel prices are set in India, deregulating the price of diesel and reducing the gap between subsidized domestic natural gas and more expensive foreign gas imports.[19] Plunging oil prices insulated consumers from a reform-induced price shock; retail diesel prices actually fell after deregulation.[20] Because fuel subsidies had previously consumed 15 percent of the government's budget, slashing subsidies by over half helped reduce the fiscal deficit of 4.5 percent in 2014 to 4 percent in 2015.[21] Rising prices in the future, however, could test the durability of India's reform. In the decade preceding the most recent reform, previous administrations twice submitted to rising oil prices or electoral pressure and reversed fuel subsidy reforms.[22] The Modi administration has balked at reforming subsidies for other fuels such as kerosene—large quantities of which are adulterated and sold in diesel and gasoline markets, undercutting reforms of those fuels—signaling a harsh political climate for reform, which will only worsen if oil prices rise.[23]

Like India, Indonesia is also a major consumer of oil—ranked fourteenth in the world—and a growing Asian economy whose fuel consumption patterns and fiscal health have global consequences. Similarly to Prime Minister Modi, in late 2014, incoming President Joko Widodo moved swiftly to eliminate subsidies on gasoline and diesel fuels while falling international prices insulated customers from a price increase. In 2015, reduced subsidy spending freed up $18 billion for the government to spend on transportation, agriculture, and public works.[24] But Indonesia also has a long history of reform roll-backs—three since 1998—which resulted from public protests that sometimes turned violent.

Public demonstrations may have helped spur Egypt's fuel subsidy reforms, although public pressure could also undermine them in the future. In 2013, after popular protests helped catalyze a military coup d'état, the incoming regime raised the domestic price of diesel and other fuels to rein in spending, provide better services for the disgruntled public, and secure a $4.8 billion IMF loan.[25] After three political transitions in four years, avoiding further upheaval in Egypt is important for regional stability, and recent progress on fuel subsidy reform is a step toward freeing up fiscal resources to improve public services and create a targeted social safety net, thus reducing domestic instability. In every decade since the 1970s, however, Egypt has reversed subsidy reforms, demonstrating the difficulty of implementing durable reform.[26]

Figure 2. The Rising Number of Countries Reforming Fuel Subsidies Under Low Oil Prices (2014–2016)



Sources: IEA, OECD.

Ukraine's recent progress in fuel subsidy reform is the centerpiece of broader economic reform crucial to the country's recovery. The durability of this reform effort is important for the country's future, which also matters for the future of U.S. global leadership and enforcement of international norms, given Russia's illegal annexation of Crimea and support for armed separatists in east Ukraine. Ukraine has continued to make progress on liberalizing natural gas prices, raising commercial and residential prices to international market prices in 2016 to unlock an IMF loan that could ultimately deliver $17.5 billion to the cash-strapped government.[27] Although continued IMF oversight should help protect against backsliding, strong domestic actors who benefit from subsidies—including oligarchs in energy-intensive industries—may test the durability of reforms.

Second Wave: Countries Initiating Subsidy Reform in 2015 and 2016

While a first wave of countries enacted subsidy reforms, others waited to see how reform would play out. Except for rare cases, such as Yemen, the first wave of reforms met with muted public response and has endured. Having observed the first wave, a further seven countries have implemented or announced subsidy reforms. Of these, Saudi Arabia and Nigeria stand out as particularly important to U.S. strategic interests.

Recent fuel subsidy reform in Saudi Arabia—one of the world's largest oil producers—is a crucial first step to restoring its fiscal health and, in turn, ensuring domestic stability—a top U.S. priority. Sales of oil account for 81 percent of Saudi Arabia's public revenue, and the government saw a $54 billion budget surplus in 2013 turn into a $98 billion deficit in 2015, after the plunge in oil prices.[28] A major cause of the deficit was the roughly $58 billion that Saudi Arabia spent on fuel subsidies, one of the highest amounts spent by any country in the world.[29] If Saudi Arabia maintains its deficit, it risks depleting its foreign exchange reserves and needing to curtail the generous public services it provides its citizens to ward off domestic unrest. Moreover, spiraling domestic oil consumption, driven by fuel subsidies, threatens to erode its export capacity, depriving the government of further revenue.[30] As a result, the government announced a 50 percent hike in the price of gasoline, which took effect in January 2016. The price of fuel remains heavily subsidized, but further reforms are envisioned by Saudi Prince Mohammed bin Salman in Vision 2030, a plan that aims to diversify the economy and achieve fiscal sustainability. If oil prices rise, however, there is a chance that the momentum of Prince Salman's reform agenda could slow or that the government might roll back its initial fuel subsidy reform, returning the country's fiscal health and domestic stability to the whims of future oil price volatility.

The risk of reform rollback is even greater in Nigeria, another major oil exporter, where citizens have already protested recent price hikes.[31] Another oil exporter, Nigeria derives about 75 percent of government revenues from crude sales; low oil prices have battered the country's fiscal health.[32] In 2015, the government spent $5 billion on fuel subsidies, and the budget deficit was $5.5 billion.[33] At the beginning of 2016, recently elected President Muhammadu Buhari announced the elimination of gasoline subsidies, leading to a 67 percent increase in the price of fuel by May.[34] Eliminating fuel subsidies could enable the government to better equip its military to fight the Boko Haram insurgency in the north, which already has spread to neighboring countries and could pose global risks if it is not extinguished. Yet, Nigeria has a record of reversing its reforms, most recently in 2012; as a result, the future of its nascent reform is uncertain.[35]

Three Strategies to Reinforce Subsidy Reform

Although fuel subsidy reforms around the world can advance U.S. strategic interests, the benefits are often precarious. When political or economic conditions change, governments are liable to reverse unpopular reforms. Indeed, reforms that were successfully initiated have historically provided little guarantee of longevity. In a 2013 study of twenty-eight cases, the IMF identified sixteen failed reform episodes.[36]

Separating what has and has not worked yields three strategies that countries can follow to reinforce reforms against reversal: depoliticizing fuel prices, communicating tangible and rapid benefits of reform, and incorporating specific reforms into a broader, long-term plan.

DEPOLITICIZING FUEL PRICE SETTING MECHANISMS

Governments presiding over successful reform episodes have often reduced the control over fuel price setting, eliminating several political channels through which reforms can unravel.

In many cases of fuel subsidy reform, governments may raise fuel prices but continue to administratively set prices rather than allowing market pricing. If the power to set prices resides with politicians, special interest groups can influence the government to reverse fuel subsidy reform, as in Namibia, where, at the behest of the powerful taxi lobby, the government periodically departs from market pricing, which was originally adopted as a reform in 1997. Governments can roll back reforms to seek electoral gains, such as when Indonesian legislators voted to increase subsidies in the run-up to the 2010 election, or to achieve other policy goals, such as when Brazil's government raised subsidies to curb inflation in 2004.[37] By contrast, governments that left a legacy of enduring reform introduced independent oversight and transparency to fuel price setting. By ceding control over fuel prices to independent regulators or the market, leaders can insulate subsidy reform from government opportunism and political pressure.

In South Africa, where reforms took place in the 1950s, and Turkey, where they occurred in the 1990s, reforms have lasted because the governments devolved authority over fuel prices to an independent regulatory body responsible for implementing an automatic pricing mechanism. Under those arrangements, the independent regulator set consumer fuel prices according to a formula that linked domestic and international prices. The Philippines, where reforms were enacted in the 1990s, went further, fully deregulating the downstream oil sector so that the price of fuel was completely determined by the international market. In all three cases, the governments effectively explained to the public that they no longer controlled fuel prices. Although South Africa and Turkey stopped short of full price deregulation, the independent regulators in both countries communicated the price-setting process and the formula-based linkage between domestic and international prices, preempting potential discontent over fuel price increases. Still, automatic pricing mechanisms are a second-best alternative to full price liberalization, and some researchers have found that countries that pursue full price liberalization are less likely to reverse reforms than countries that continue to regulate fuel prices.[38]

QUICKLY DELIVERING THE TANGIBLE BENEFITS OF REFORM

Subsidy reforms are more likely to persist if fuel consumers enjoy and recognize tangible and rapid benefits from reform. When reforms are not immediate, consumer displeasure—manifested in public demonstrations—has often led to partial or complete reversal of reforms. This was the case for failed reforms in Venezuela (initiated in 1989), Jordan (1989), Indonesia (1997), Ecuador (1998), Yemen (2005), Cameroon (2008), Bolivia (2010), and Nigeria (2012). Even carefully executed reforms can trigger protests. Although Ecuador's 1998 reform was accompanied by a cash-transfer program that reached 50 percent of households and softened the blow of rising fuel prices, a year later, protests in response to rising fuel prices erupted, and the government reinstated subsidies.[39]

Because fuel price increases are highly visible, successful reforms tend to include high-profile programs to compensate vulnerable consumers through cash transfer, infrastructure, education, and health programs.[40] Lasting reform depends not only on the provision of reform benefits but also on effective messaging. Whereas countries initiating reform are often advised to launch a communication campaign about the drawbacks of fuel subsidies, a similar messaging effort emphasizing the benefits from enacted reform is just as important for reform durability. After Ghana's reform in 2005 drove fuel prices up by 50 percent, the government avoided protests through extensive communication, including radio addresses by the president and finance minister, extolling the benefits of the reform and the reallocation of resources to better target poverty.[41] However, Ghana is also a cautionary tale of reform erosion. Because the Ghanaian government has not fully relinquished control over prices to an independent regulator and has also lowered the intensity of its communication campaign, it has struggled to keep domestic prices in sync with international price movements.[42] Sustained communication efforts are important to keep consumers educated about the rationale for the reform.

TRANSLATING REFORMS INTO LONG-TERM STRATEGY

Governments that incorporate specific subsidy reforms into a broad, but gradual, strategy for removing all fuel subsidies and liberalizing the energy sector in general are more likely to succeed in achieving lasting reform. Reforms that only apply to a subset of petroleum products can create market distortions and result in unintended consequences, such as fuel-switching, black markets, and smuggling. This was the case in Turkey in 2000, when subsidized liquefied petroleum gas (LPG) and market-priced diesel and gasoline led to an underground industry to retrofit vehicle engines to run on LPG, endangering the reforms for diesel and gasoline by eroding the fiscal gains from price liberalization. Fortunately, the Turkish government had already outlined a long-term vision for liberalizing prices across all fuels and acted swiftly to bring LPG prices in line with other fuels. By keeping up reform momentum rather than losing focus after a partial subsidy reform, Turkey was able to emerge from a setback with an even stronger set of reforms.

In addition, liberalizing a country's domestic oil and gas sector can also reinforce existing fuel subsidy reforms. The Philippines, where deregulation of the downstream petroleum industry in 1996 reinforced the liberalization of fuel prices, offers one of the best examples of comprehensive, durable reform. When the Asian financial crisis hit the Philippines in 1997, causing the peso to depreciate and fuel prices to rise, deregulation that had already been underway for seven months provided a bulwark against backsliding on reforms. Low international oil prices at the time also limited consumer fuel price spikes. Seventeen private companies had already begun operations in the downstream oil sector, and in the months prior to the crisis, the deregulated industry had demonstrated that it could offer stable fuel prices. As a result, the Philippines weathered the financial crisis without reregulating the energy sector or fuel prices, and over the subsequent decade of rising international oil prices, the country benefited from better fiscal health, increased investment in the energy sector, and reduced fuel consumption.[43] The Philippines wisely used the proceeds from reform to implement an effective cash transfer scheme to further lock in reform.[44]

By contrast, Brazil's success in fuel subsidy reform has been jeopardized by the government's failure to go beyond price reform toward deregulating the energy sector. Brazil attempted a broad privatization effort, successfully decontrolling fuel prices by 2001 and ending the formal monopoly of the state oil company, Petrobras, over upstream and downstream sectors. Petrobras, however, retained a de facto monopoly over refining and distribution and, hence, over fuel price setting.[45] As a result, the Brazilian government has repeatedly succumbed to the temptation to adjust fuel prices through its controlling stake in Petrobras as a means to achieve inflation targets. In 2015, a massive accounting scandal engulfed Petrobras, and, facing popular discontent, the government remains loath to cede control over fuel prices even as Petrobras struggles to restructure without guaranteeing buyers of its refineries that domestic fuel prices will track international markets.[46] Not only has the failure to liberalize the energy sector endangered Brazil's subsidy reform, but it also has undermined the credibility of the government and discouraged investment in the energy sector.

Recommendations for U.S. Policymakers

American policymakers should recognize the strategic importance of subsidy reform and help countries that have recently implemented reforms to reinforce them against backsliding, distinct from U.S. efforts to encourage countries to initiate new subsidy reforms. The United States has the diplomatic wherewithal to advance all three strategies outlined above, especially in countries where it has strong bilateral relationships. Multilateral venues such as the Group of Twenty (G20) and the Asia-Pacific Economic Cooperation (APEC) forum offer additional channels for U.S. advocacy of these strategies. Finally, through international financial institutions such as the IMF and the World Bank, the United States can mobilize financial and technical aid. With these tools at their disposal, U.S. policymakers can promote lasting subsidy reform in three ways.

PRIORITIZE FUEL SUBSIDY REFORM AT THE HIGHEST LEVELS

Senior U.S. officials do not invest enough time and attention on promoting durable fuel subsidy reform. Often, the problem is simply a failure of understanding. For many top U.S. officials, the technical, specialized nature of fuel subsidies can obscure the vital role fuel subsidy reforms can play in advancing U.S. strategic interests, or how reform reversal can undermine them. For example, since the Arab uprisings began in Egypt in 2011, U.S. policymakers have urgently sought to return the country to political and economic stability. A stable Egypt remains a prerequisite for stabilizing the broader region. Few efforts would do more to stabilize Egypt's economy and the government's fiscal position than protecting its existing reforms and making further progress, although in a gradual and planned manner to minimize the risk of political backlash that might undermine any economic gains. Before enacting its recent reforms, Egypt spent over $37 billion on subsidies in 2013, a quarter of its public spending. Given that its fiscal deficit is still 13 percent after reforms, rolling them back could tip Egypt into economic collapse, damaging its efforts to quell an Islamist insurgency in the Sinai and compromising the security of the Suez Canal.[47]

The Departments of State, Treasury, and Energy, and the U.S. Agency for International Development are all promoting subsidy reform around the world and partnering with several international financial institutions to extend assistance to reforming countries.[48] But for so many countries, fuel subsidy reform can affect political stability and endanger the survival of the governments overseeing them. If the U.S. government efforts are relegated to mid- and lower-level dialogue, often pursued at a technical level below political principals, the United States is unlikely to succeed in convincing foreign governments to take steps to reinforce recently enacted reforms.

Therefore, senior U.S. officials should prioritize durable subsidy reform and include it in high-level security or economic dialogues. Finding the right messenger also matters, as the most effective U.S. officials to convey the importance of reinforcing these reforms will vary from country to country. For example, because of long-standing military cooperation between the United States and Egypt and the annual $1.3 billion Egypt receives in U.S. foreign military financing—compared to the $150 million in U.S. economic aid to Egypt—Cairo values its security relationship with Washington.[49] Moreover, the

Egyptian military retains significant political and economic power in the country. Were the U.S. secretary of defense to exhort Egypt to protect reforms before oil prices rise, President Abdel Fatah al-Sisi might consider the recommendation more seriously than he would a suggestion from the U.S. secretaries of state or the treasury.

The point also extends to U.S. multilateral diplomacy, where the United States could do more to pressure Egypt to safeguard its reforms against backsliding. Egypt relies heavily on aid from Gulf Cooperation Council (GCC) countries—notably Kuwait, Saudi Arabia, and the United Arab Emirates.[50] However, GCC countries are increasingly dissatisfied by Egypt's economic mismanagement and its squander of billions of dollars in aid in recent years.[51] This provides an opportunity for the United States and GCC countries to present a unified front, requiring, for example, that Egypt make progress on privatizing its energy sector—a tested strategy to lock in existing fuel subsidy reforms—in exchange for a new foreign aid package. Moreover, any reversal of reforms could also trigger a review of ongoing aid, not just in Washington but also in Doha or Riyadh. To date, the United States has never mounted a senior-level diplomatic campaign to create a shared economic agenda with members of the GCC; such a campaign should be easier now that GCC leader Saudi Arabia is pursuing fuel subsidy reform as part of a broader push to diversify its economy.[52] The underlying message should be one of self-reliance and sovereignty. Egypt cannot reduce its reliance on foreign capital from the United States, the GCC, and the IMF unless its subsidy reforms succeed. Framed in this way and delivered by top officials from the United States and Gulf countries, this message could resonate with Egyptian officials' long-standing desire to reduce the influence of foreign powers on domestic policymaking.

Similarly, the United States should elevate reform durability to the top of its diplomatic agenda with Ukraine. Rather than view durable subsidy reform as a niche technocratic issue, senior-level U.S. economic and security officials need to understand that reform is central to Ukraine's fiscal health and to its security vis-à-vis Russia. Before it began reforming natural gas subsidies in 2014, Ukraine spent 8 percent of its GDP on gas subsidies—greater than its entire fiscal deficit, or 7 percent of GDP—and low gas prices spurred high domestic consumption that had to be met through imported Russian gas.[53] After reforms, Ukraine's budget deficit fell to 2 percent of GDP in 2015, and domestic gas consumption fell by 20 percent. In 2016, gas consumption is on track to fall further, to a level that can be met just with domestic gas production and imports from Europe, not Russia.[54]

Therefore, senior officials at U.S. State Department and the North Atlantic Treaty Organization who interact regularly with top Ukrainian officials should stress the importance of safeguarding recent reforms, for example, by ceding political control over fuel price setting to an independent regulator. They should offer to help fund public outreach explaining these reforms as about reducing the power of not only Russia but also the corrupt oligarchs whose energy-intensive industries benefit most from subsidies. Subsidies empower oligarchs to stymie structural economic reforms, such as the privatization of Ukraine's 1,800 state-owned enterprises; highlighting this inequity would resonate with Ukrainians resentful of elites.[55] With popular support on the side of reforms, backsliding would be unlikely.

Finally, at high-profile international meetings, high-level U.S. officials should place reform durability at the top of the discussion agenda. Whereas the United States has made limited progress on setting a timeline for the full elimination of subsidies since it spearheaded agreements at G20 and APEC summits in 2009, achieving consensus on safeguarding reforms that have already taken place is more politically tractable. The United States should use the peer review mechanisms created under these agreements to nudge countries to reinforce their reforms.[56] In order to support its own credibility to make recommendations to other countries, the United States should repeal domestic fossil fuel subsidies to oil and gas firms by undertaking sensible tax reforms.[57]

OFFER FINANCIAL SUPPORT TO HELP CONSOLIDATE REFORMS

Fuel subsidy reforms are more likely to last when consumers rapidly see tangible benefits. When a government raises fuel prices but does not provide a safety net for vulnerable consumers—for example, if it uses reform savings to immediately pay back international loans—it can face political backlash. If global oil prices rise, more consumers may face economic hardship, increasing the constituency exerting pressure on the government to backtrack on reforms. If these risks materialize before the government locks in reforms—for example, by relinquishing authority over price setting—then it might succumb to political pressure to reverse reforms. To prevent this and to create a path for countries to consolidate reforms, the United States and multilateral institutions should structure financial assistance that allows countries to deliver tangible benefits to vulnerable consumers and protects them—for a limited time—from sharp swings in the price of oil.

Immediately after reform, countries may not have the fiscal resources to direct cash transfers to consumers hardest hit by fuel price increases. For example, in Nigeria, falling oil prices and recent reforms have reduced the fiscal cost of the government's subsidy payments, but the falling value of crude oil exports led to a loss of revenue.[58] Without funds to distribute to citizens, Nigeria's fuel subsidy reform may fail—just like its 2012 attempt at reform—especially if oil prices spike. But over several years, fuel subsidy reform is likely to generate substantial fiscal savings, compared with a scenario of reform reversal. Lower fiscal deficits should improve the country's creditworthiness, reducing its cost of capital and further improving its fiscal position. Over time, Nigeria would be capable of paying back loans that provide resources to distribute to consumers and harden subsidy reform.

The World Bank could provide funds to front-load the benefits of fuel subsidy reform and create a path for countries to consolidate them.[59] It already offers development policy loans (DPLs) and policy based guarantees to lend and guarantee low-cost capital to countries such as Indonesia and Jordan to pursue broad energy sector reforms.[60] The breadth and ambition of the programs mean that countries can easily fall short of the conditions to unlock financing—for example, Indonesia was not able to secure additional DPL funds in 2010 because it had not sufficiently advanced its climate policies.[61] In addition to supporting broad reforms, the World Bank should mobilize funds for the narrower goal of enabling a country that has recently enacted fuel subsidy reform to consolidate its reforms, by creating a new facility or repurposing its existing subsidy reform technical assistance facility.[62] The policy conditions for this funding could be less politically fraught, given that part of the subsidy reform would already be accomplished. The World Bank might condition successive DPL disbursements or credit guarantees on a government relinquishing political control over price setting, investing in institutional capacity to shore up public services and a social safety net, and—at the least—maintaining existing reforms. As the country with the largest voting share in World Bank governance, the United States has ample influence to advance this strategy.

Countries can use funds from the World Bank and low-cost bonds backed by its credit guarantees to deliver tangible economic benefits of reform that reduce the risk of backsliding while saving a portion of the savings from reform to pay back loans.[63] For example, governments might distribute cash transfers to vulnerable consumers to offset fuel price increases. They might also use concessionary finance to create a stabilization fund that protects consumers from rapidly changing fuel prices. By providing the economy some insulation from global oil price volatility, a government has time to consolidate its fuel subsidy reforms.

Multilateral institutions such as the World Bank should ensure that countries neither become permanently reliant on external cash infusions to pay for a social safety net nor use an oil price stabilization fund to reintroduce fuel subsidies. Any financing package should taper off over a limited period, perhaps within five years, so countries can conduct multiyear fiscal planning to best use the savings from subsidy reform and prepare for full exposure to international oil markets. Ultimately, fuel subsidy reform will make consumers fully aware of international price movements so that their consumption decisions respond to market prices. The time-limited stabilization strategy is a compromise that eventually realizes liberalized markets but provides a few years of stable prices for a government to strengthen fuel subsidy reforms.

CREATE INCENTIVES FOR CONTINUED REFORM

Finally, the United States should incentivize countries to embed specific subsidy reforms within a broader strategy for dismantling all fuel subsidies and liberalizing the energy sector. The United States could provide assistance packages for countries that have recently enacted reforms, with escalating incentives as reforms proceed. The United States can also help direct low-cost capital to drive private investment in those countries' energy sectors, which would help lock in reforms by aligning the interests of the private sector with maintaining reforms.

Pay-for-performance models of international assistance have become increasingly popular and could inform an approach to promoting long-term energy-sector reform. For example, Norway has pledged to pay Brazil, the Democratic Republic of Congo (DRC), and Indonesia each up to $1 billion to reduce their greenhouse gas emissions from deforestation. Because the funds were earmarked for deforestation activities, Brazil's progress on reducing its deforestation rate unlocked even more funding to redouble its efforts, a cycle that helps explain the dramatic decline of deforestation in Brazil.[64] Although neither the DRC nor Indonesia has managed the same level of progress, owing to Brazil's success and recent gains in Indonesia, Germany, Norway, and the United Kingdom pledged $5 billion in 2015—mostly in pay-for-performance grants—to reduce deforestation around the world.[65] In other sectors of international development, pay-for-performance models have demonstrated successful results, notably in global health.[66]

The United States could press international financial institutions to adopt this approach when providing funds to countries where continued reform progress could lock in fuel subsidy reforms. For example, the World Bank might apply performance criteria to a portion of its portfolio in India, offering an escalating series of loan guarantees and grants matched to India's eliminating subsidies on fuels such as kerosene and LPG that were not part of its recent reforms. India may receive further financial support by demonstrating progress in liberalizing its oil and gas sector, measured by increasing the percentage of private ownership beyond its current minority stake in both production and refining.[67] Most important, any escalating financing package should be equipped with a claw back—an obligation for a country to return grants if the government backtracks on reforms at any time.

The United States might also deliver bilateral international aid through the U.S. Millennium Challenge Corporation (MCC), a federally funded foreign aid agency that awards grants, or compacts, to countries that have demonstrated free market policies and are committed to implementing further reforms. Countries that have recently enacted fuel subsidy reforms could qualify for MCC compacts to finance energy infrastructure projects. Because funds are awarded to the private sector through competitive bidding, an MCC compact could increase private sector participation in a country's energy sector, promoting industry liberalization.[68] This could alter a country's political economy to align the incentives of private energy companies with maintaining existing reforms and lobbying the government not to backtrack and reduce the domestic market price of fuel. Following a common MCC provision, a compact could entail a claw back mechanism, under which countries that halt ongoing reforms would have to return grant funding and forego further disbursements.

To drive even more private investment into reforming countries' energy sectors, the United States could spearhead the creation of an energy infrastructure exchange that can attract a wide pool of investors and low-cost private capital. The West Coast Infrastructure Exchange (WCX), a consortium of U.S. and Canadian states and provinces, created in 2012, provides a loose model. By pooling multiple infrastructure projects across member jurisdictions, the WCX can sell debt securities to institutional investors who are willing to invest large sums in a diversified portfolio of underlying assets.[69] Similarly, an energy infrastructure exchange, possibly housed within the World Bank and open to countries that have begun long-term subsidy reforms, could accelerate private energy investment in those countries. By pooling and securitizing debt from countries that are on track to improve their long-term fiscal position and the profitability of domestic energy investments with ongoing reforms, this exchange should be able to secure lower-cost capital for energy infrastructure projects. To ensure that reform moves forward, membership in the exchange should be conditional on a country demonstrating continued reform progress. Governments that backtrack on subsidy reforms would forfeit low-cost capital to invest in infrastructure.

This is an ambitious proposal, and the analogy between the WCX and a consortium of countries beginning energy reforms is far from perfect, but risk alone should not deter the United States from trying to galvanize private investment in these countries' energy sectors. Starting the exchange might require subsidizing initial debt sales with funding from the U.S. Overseas Private Investment Corporation, which explicitly tolerates elevated risk in pursuit of international development objectives, or support from a broad range of sources, including Germany's KfW Development Bank and the China-led Asian Infrastructure and Investment Bank. Just as loan guarantees offer countries undertaking fuel subsidy reforms a means of front-loading the benefits, an infrastructure exchange would similarly front-load the rewards from reforms to fuel subsidies and the broader energy sector—providing participating countries access to a new class of private capital at lower cost than offered by open markets. Initial subsidies would be justified by this exchange, like the WCX, being self-sustaining after the set-up phase.

Conclusion

Recent progress on fuel subsidy reforms in response to low oil prices advances U.S. economic, geopolitical, and environmental interests. However, the extensive record of countries reversing reforms upon shifting economic or political conditions suggests that permanence of the latest reform wave should not be taken for granted. Rather, the United States should do more to reinforce progress where countries have already taken on specific reform commitments, especially in countries where lasting reforms could bring outsized benefits for U.S. strategic interests.

There are three strategies by which governments can reinforce fuel subsidy reforms against backsliding. First, they can depoliticize fuel prices by transferring control over prices to an independent and transparent regulator who ensures that domestic prices track international markets. Second, by rapidly delivering tangible economic benefits from subsidy reform, they can preempt pressure to reverse reform. Third, governments that maintain the momentum of reform and achieve further liberalization can lock in progress to date.

The United States can help countries pursue all three strategies to reinforce fuel subsidy reforms. Where it has strong relationships, the United States should prioritize reform durability at the highest political levels. In addition, the United States, acting through institutions such as the World Bank, can provide financial support for a limited period of time that creates a path for countries to consolidate their reforms. Finally, the United States and international partners can create aid packages that reward long-term reform over decades; they can also drive private investment into the energy sectors of countries that have reformed fuel subsidies to support broader energy sector liberalization. These steps will require substantial resources and senior-level attention, but given its prospective benefits, lasting reform should be a top priority.

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