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Fossil Fuel Prices in the Arab World and the Fear of Reform

Challenges facing reform attempts and the way forward

gtz Transport Policy Advisory Services

On behalf of
Federal Ministry
for Economic Cooperation
and Development

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Introduction

The Middle East has always been a focal point of interest when it comes to oil and oil prices. Home to more than 40% of the world's proven oil reserves (BP 2008: 213) and several major oil producing and exporting countries, security issues and several countries' oil production policies have a huge impact on the price of crude oil and are thus closely watched by the international markets. For a long time much less attention, however, was given to the region's domestic petroleum pricing policies. But lately the tides have changed. With historically high price levels of oil and increasing awareness and concern with climate change, the efficient pricing of fossil fuels and especially petroleum products has crept up the international agenda. In the Communiqué agreed by the G-20 leaders meeting on 24-25 September 2009 in Pittsburgh, USA fossil fuel subsidies were explicitly mentioned and all countries encouraged to rationalize and phase them out over the medium term. Meeting again in Toronto this year, the leaders of the world's biggest economies reiterated the same message and called for the development of time frames and strategies to implement the phase-out of subsidies.

Although Arab countries are not alone in the legion of countries with artificially cheap petroleum products, they are among those who most heavily subsidies fossil fuels selling it below the opportunity cost of selling it abroad and where - with a few notable exceptions – the least action has taken place to tackle this issue. A look at the GTZ's fuel price survey from November 2008 shows that 10 out of the 20 countries surveyed with the cheapest gasoline were Arab countries and only a few are efficiently taxing fuels to account for their externalities (GTZ 2009: 63). During the latest oil price peak the median pass-through ratio, defined as the ratio of the change in retail prices to the change in import costs (both in domestic currency), was lowest in the Middle East among all regions surveyed by Granado et al. (2010: 4). Of course this picture masks that there are considerable differences among Arab countries and that some countries, forced by the increasing burden on their budgets and dwindling resources, are making more progress than others. However, it applies to all countries that the pricing of petroleum products is politically a highly sensitive issue to tackle and often causes demonstrators to go to the streets.

GTZ International Fuel Prices

Deutsche Gesellschaft für Technische Zusammenarbeit GmbH - German Technical Cooperation (GTZ) - with its global network of projects in 135 countries, regional offices and representations in 64 developing countries, publishes a bi-annual study "International Fuel Prices" on the global fuel sector since 1999. The study covers retail prices of gasoline and diesel in more than 170 countries.

"International Fuel Prices" is a long-time effort of GTZ (German Technical Cooperation) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) to provide decision-makers with data on fuel prices on a global scale. The worldwide transparency and comparability of fuel prices is an important preliminary step towards the national implementation of optimal energy pricing policies.

A fortnightly newsletter summarizes key developments, new publications and upcoming events.

For more information please visit the project's website: www.gtz.de/fuelprices.

This paper categorizes the Arab countries into groups and sketches their current pricing mechanisms and why it is important to look at the region as a whole rather than looking at each country per se. Then it is explained why these subsidies are there in the first place followed by the need for reform and the obstacles they face. A section on strategies for reform concludes.

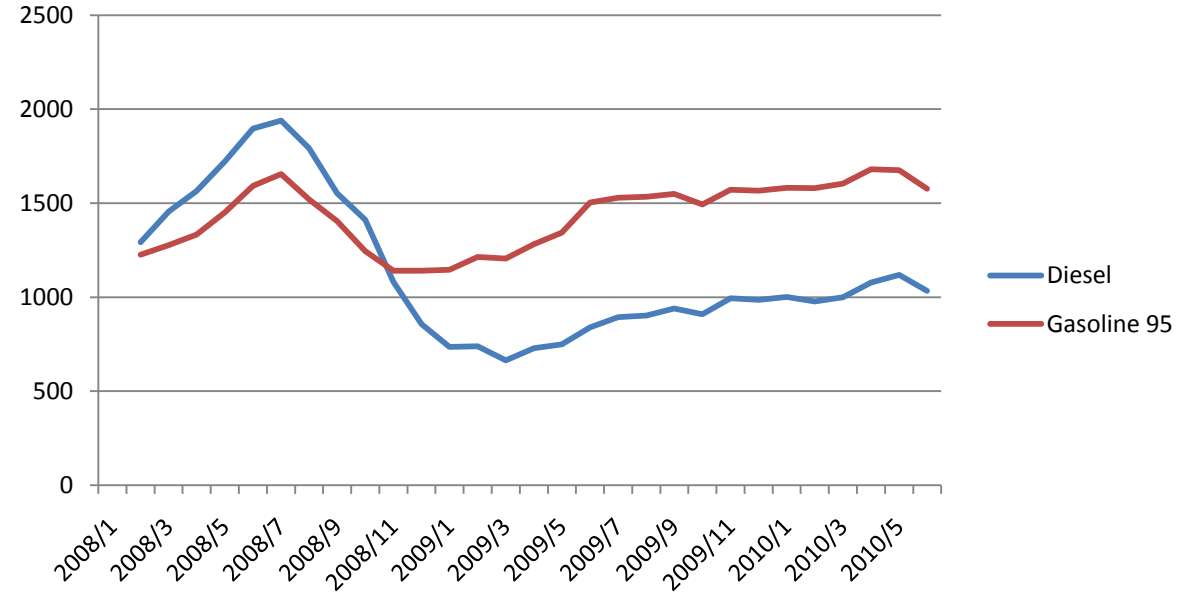
I. Current Pricing Policies and Cross Border Spillover Effects

The Arab world is usually associated with abundance in oil production and export and an even bigger proportion of international crude oil reserves. Nonetheless, this only applies to a group of ***oil-exporting*** countries that consists of Iraq, Libya, Algeria and Sudan as well as the members of the Gulf Cooperation Council (GCC): Saudi Arabia (KSA), Kuwait, Oman, United Arab Emirates (UAE), Qatar and Bahrain. Not surprisingly, these countries have some of the cheapest fuel in the world. Prices are set via administrative decrees or laws and are rarely adjusted to reflect market prices. Transparent information on the price setting mechanism, when and why prices are changed and how much the fuel subsidies cost is a rarity. Despite regulatory and reformist differences we group these countries to simplify the later analysis into ***oil-exporting non movers.*** What further characterizes this group of countries (to a lesser extent Sudan and Iraq) is the huge dependence on the automobile and the almost non-existence of public transport to serve passengers or railways for freight hauling.

Egypt, Morocco, Syria and Yemen can be labeled as ***oil-producing*** countries. Although these countries command a non-negligible amount of oil resources, they barely cover their domestic consumption as can be seen in Figure 2 and have reached or are close to reaching their peak production levels. Some are even already forced to import oil for their domestic consumption. Governments in these countries are increasingly under pressure to reform their fuel pricing policies and reduce subsidies due to the very high burden they exert on their budgets and the need to redirect funds to combat the high incidence of poverty.

Last but not least is the group of ***reformers***. This group consists of Lebanon, Jordan and Tunisia. These countries have negligible or low oil resources and have come early under pressure to reform their price setting mechanism. Although their fuel markets have not been completely liberalized and subjected to the forces of supply and demand, regular price changes have become the norm and subsidies have more or less been capped or eliminated. Among these countries, Lebanon went furthest with liberalizing its market. Subsidies have been eliminated, prices are set weekly via ministerial decree and the price breakdown is published on the website of the Ministry of Energy and Water. Jordan, which for long depended on oil supplied from Iraq at preferential prices, started reforming its pricing mechanism in 2005 which culminated in the elimination of subsidies on most petroleum products in 2008. A committee formed of representatives of the finance, energy and trade ministry as well as the Jordanian Petroleum Refinery Company (Dicke 2010: 30) adjusts the prices of petroleum products monthly based on an formula that follows the changes in the price of Brent crude oil during the previous 30 days. The new prices are announced via the news agency *petra* and are published on the website of the Ministry of Energy. The latest country to join the ranks of the reformers was Tunisia. In the wake of the crude oil price peaks the government decided in January 2009 to cap the subsidies at the level they reached when oil cost 52$ per barrel. Whenever the international price of oil exceeded the reference price 52$ per barrel by 10$ over a period of three consecutive months, prices of petroleum products increased by an a priori fixed amount. In early 2010, however, the reference price was raised to 60$ per barrel. This pricing mechanism is explained on the website of the Ministry of Industry and Technology and the amount of subsidy on each petroleum product is detailed for an exemplary international price of oil.

Figure 1: Lebanon's System of Automatic Price Adjustment: Average Monthly Prices of Diesel and Gasoline in Local Currency



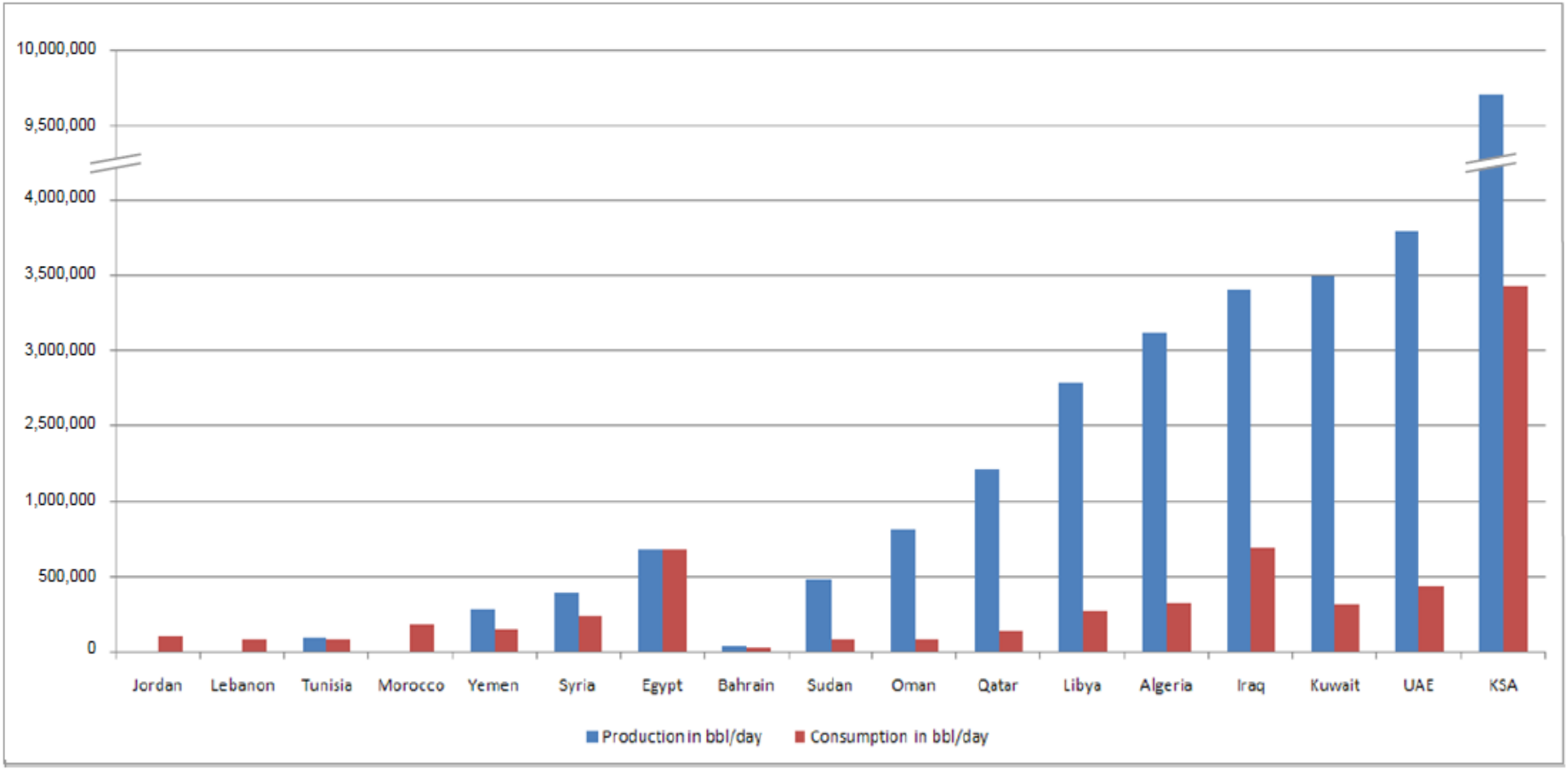
***Source**: http://www.energyandwater.gov.lb/pages.asp?Page_ID=44. Retrieved 27.09.2010*

Despite grouping them into three different categories, governments in the Arab world face a similar challenge with a huge interdependence between each other. A common challenge these countries face is the perception cemented since the advent of Arab Socialism in the 1960s that prices are the government's responsibility. Until today, several governments are still struggling to liberalize their markets and shake off this image.

Furthermore, the impact of the fuel pricing policies followed by the ***oil-exporting non-movers*** is not confined to their own borders. Since the oil boom in the 1970s, millions of Egyptians, Syrians, Jordanians and Lebanese have been working and living in the Gulf and Libya. After living there for several years, they adapted attitudes to transport that are automobile centered and hence, invested a huge amount of their savings in buying a new car. Upon returning to their home countries, they expected to be able to continue using their cars cheaply due to low fuel prices and could not comprehend the pressure for higher prices in their home country. They automatically blamed their "incompetent and corrupt governments". Moreover, due to the shared media and inter-country traffic, people are used to comparing prices across countries and quickly blame their governments if fuel prices are more expensive at home because – as mentioned earlier – prices are still considered in the domain of the government's responsibilities. Policies are sometimes copied and one government's bad or good experience often affects whether others follow suit. As evidence of this interdependence, in 1996 Egypt's president Mubarak had to come out in public and deny any plans to raise the price of subsidized bread after such plans led to riots in Jordan.

Although the pace and urgency for reform vary across the different groups, a concentrated effort by several governments in the region will make it easier for each government to sell the reforms to the public.

Figure 2: Oil production and Consumption Levels in bbl/day



Source: *CIA World Fact Book. Retrieved 31.08.2010*

II. Political Arguments for Subsidies

To be able to fully comprehend the prospects of reform and how fossil fuel subsidies became entrenched in Arab societies, it is necessary to understand why and how these subsidies came into place in the first place. It is essential for the success of any reform strategy to begin with "the political logic that led to the creation of this subsidy" (Victor, D. 2009: 8). The announced and latent motivations back then, are to a large extent the same today and constitute the biggest impediment to reform.

Usually, governments often *choose* to supply the public with subsidies. Employing subsides in general, and for fossil fuels in particular, is difficult to resist. "For many governments there are no other readily available mechanisms for satisfying important interest groups" (Victor, D. 2009: 8). This is especially the case in countries where governments do not face popular referenda and hence value stability highly and try to reduce any possible threats to their survival by providing highly visible services at low cost (Victor, D. 2009: 8). This is often called the "populist paradox". This applies to a large extent to governments in the Arab world. With little public contestation of power and very low inclusiveness, regimes have no choice but to "bribe" their citizens' obedience by subsidizing all sorts of goods. However, the background and political dynamics of supply and demand for the subsidies are different across our three categories.

For the ***oil-exporting non-movers*** it is appropriate to employ the rentier state theory for explanation. It implies that autocratic Arab regimes, rich with natural resources, survive by exploiting the rent revenues from oil industries. As Reiche (2009: 2) puts it: "These revenues allow a regime to provide its subjects with substantial material benefits without the need for heavy taxation and democratic representation." Since oil is readily available and can be provided at a cheap cost, subsidizing it is often an obvious solution and an integral part of sharing the wealth from oil and natural gas generated revenues with the domestic population (Reiche, D. 2009: 3).

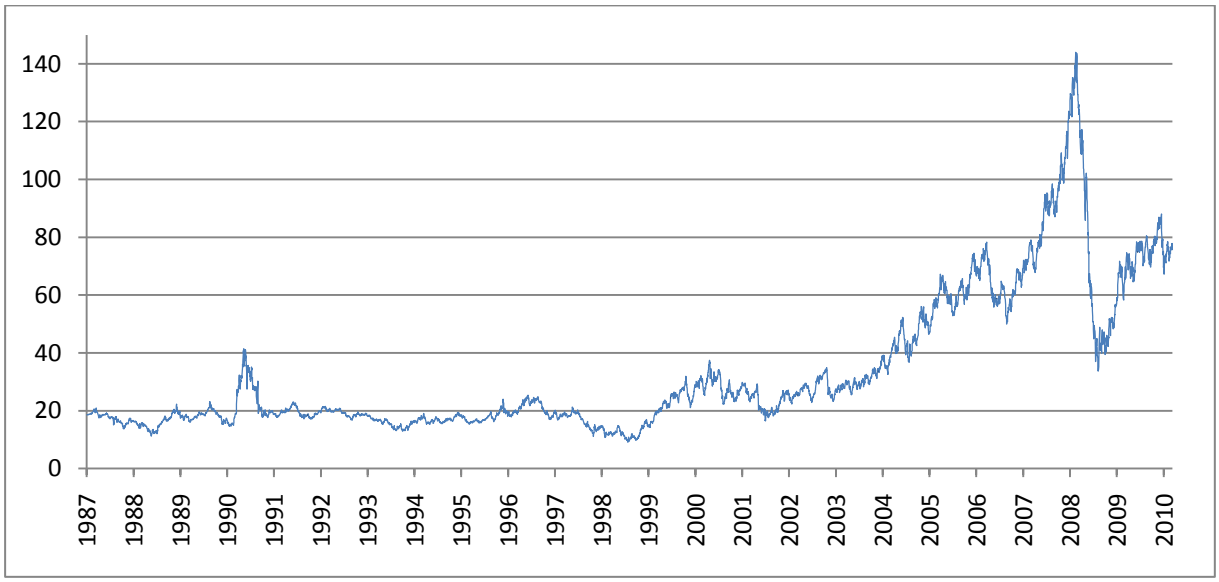
In the ***oil-producing*** and ***reforming*** countries the situation was for long relatively similar. More oil was produced than domestically needed and if not it could be imported from friendly Arab countries at preferential rates. Universal subsidies on fuel, food, transport and housing were a visible and easy way to deliver benefits in exchange for supporting the autocratic regimes (Victor, D. 2009: 19). Furthermore, many of these countries suffered from wide spread poverty and inequity in the 50s and 60s of the last century. The socialist systems that ruled in many of these countries at that time also introduced universal subsidies as a tool for combating poverty and reducing inequality. Once these subsidies were in place, they became entrenched and all citizens felt entitled to them. As time went by it became increasingly difficult to sustain these subsidies. Attempts to reform some of the subsidies were often met with strong resistance. Social unrest was not uncommon: "violence and protests followed price rises in Egypt (1977), Morocco (1981, 1984, 2007), Tunisia (1984), and Jordan (1989, 1996). In many cases (Tunisia 1983, Morocco 1981, Egypt 1977), price increases had to be reduced or rescinded" (IEA et al. 2010: 37). These experiences shock many regimes to the core and till today continue to inform policy making. Fear of unrest has become the biggest determinant to reforming fuel pricing mechanisms and reducing subsidies.

III. The Need for Change

For a long time subsidizing and administratively setting the price of petroleum products was not a problem. Crude oil prices were stable at a relatively low level during most of the 1990s and the early 2000s. The subsidy bill did not constitute a high fiscal burden and the opportunity cost of consuming oil domestically instead of exporting it was relatively low. Governments in the Arab world did not feel or even see the need to change their fuel pricing policies. However, the picture changed dramatically in the last 5 to 8 years. Oil prices soared reaching a peak of $144 a barrel in July 2008. In comparison, the median price in the 1990s was $18 per barrel (US Energy Information Administration 2010). This

development brought the fuel price setting policies on the agenda of national governments with varying degrees of willingness for reform.

Figure 3: Europe Brent Spot Price FOB (Dollars per Barrel)

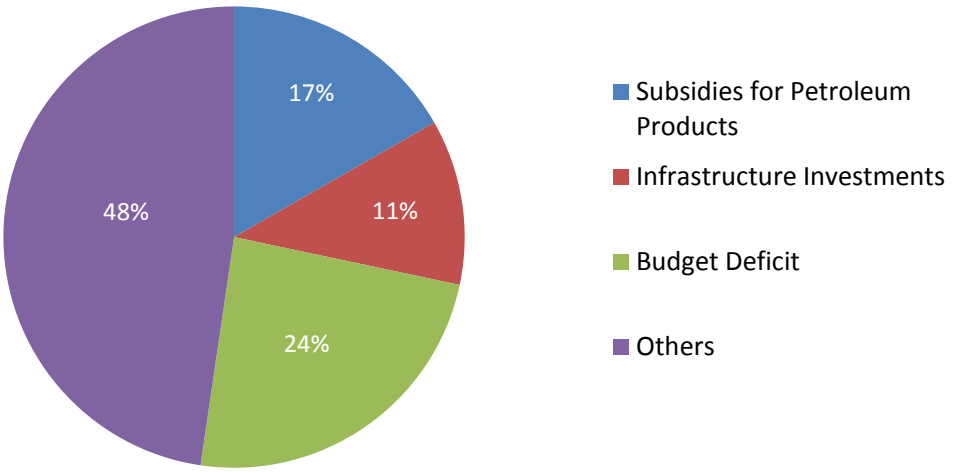


Source: *US Energy Information Administration 2010. Retrieved 04.08.2010.*

For the group of ***oil-producing*** and ***reforming*** countries, reform has become imperative and in many cases already a reality. Several years of high growth led to a soaring demand for petroleum products domestically while oil production has either already reached its peak level of production or is very close to it. Several countries are already forced to import oil making the straining impact of the subsidy visible in their budgets while depleting their foreign currency reserves and negatively affecting their balance of payments. As can be seen in Figure 4, the outlays of petroleum product subsidies exceeds spending on infrastructure investment in Egypt in the fiscal year 2008/2009.

Fuel subsidies have also proven their costly inefficiency as an instrument in protecting the poor. Universal subsidies are in general regressive as "benefits are conditional upon the purchase of subsidized goods, and increase with expenditure" (IEA et al. 2010: 24). This effect is compounded by the general increase in wealth that is leading to a more automobile centered life style among the non-poor. Some studies estimate that the poorest 40% of a population only benefit from 15–20% of the fuel subsidies. Subsidizing diesel and gasoline is especially regressive because they are used mainly for private transport, whereas LPG and kerosene are usually used by the poor for cooking and thus might be less regressive (G20 2010: 24-25). Abouleinein et al. (2009:19) found in an analysis of Egypt's petroleum subsidies that the richest urban quintile receives 33% of fuel subsidies whereas the poorest urban quintile only benefits from 3.8%.

Figure 4: Egyptian Budget Breakdown for the Financial Year 2008/2009



Source: *Ministry of Finance; Closing accounts for the 2008/2009 budget. p. 32.*

With bigger differences in prices between neighboring countries, smuggling has also become a lucrative business. Reports on petroleum product smuggling from Syria to Lebanon, Jordan and Turkey are increasingly making the news.[1] Apparently it has also become a business in Egyptian cities on the Suez Canal to smuggle gasoline and diesel to the ships passing through the canal or through tunnels to the Gaza Strip.

Although the rationale and urgency for reform in the ***oil-exporting non-movers*** might be different, the need for reform remains. Every barrel of oil sold at the low domestic prices is forgone revenue. This government revenue could be used to finance necessary investment in infrastructure and job creation. The artificially low prices of oil products have also led to inefficient economies that are highly dependent on subsidized oil and are unprepared for the post oil era. The wealthier members of this group are also coming under more international pressure to contribute to combating climate change, as can be seen from the recent G20 communiqué. In addition to this, not all countries have the time to make slow adjustments. In Bahrain and Oman the oil sector had negative growth rates from 2003 to 2007 and is suffering from a rapid decline in oil reserves as well as production capacity (Reiche, D. 2009: 4). In the UAE, where the constitution stipulates that full legal control over oil and natural gas reserves is with the local and not federal government (Reiche, D. 2009: 4), five of the seven emirates hardly have any oil resources with 85 per cent of the UAE's oil output capacity and more than 90 per cent of its reserves in the Emirate of Abu Dhabi (Butt, G. 2001: 231).

Furthermore, petroleum subsidies in oil exporting countries are pro-cyclical. When world oil prices increase, the subsidy bill will increase, which tends to be during periods of economic expansion. On the other hand when oil prices decrease, government spending also falls. The procyclicality of the subsidies will thus exacerbate the effects of oil price shocks on economic activity (Gupta, S. et.al. 2002: 15-16) and instead of attenuating the cycle of boom and bust, governments will be actually intensifying it.

IV. Obstacles facing Reform

For any reform program to succeed it is necessary to first identify the obstacles facing reform and subsequently develop appropriate mitigation strategies to address them. Several of these obstacles

[1] http://www.sptechs.com/news/article_468.html. Retrieved 25.08.2010.

are common to any reform program, whereas others are unique to fossil fuels especially in the Arab world.

Subsidies have the strange habit of justifying their existence even when they no longer fulfill the original intention for their introduction. Once there, "interest groups and investments solidify around the existence of the [subsidy] policy and make change difficult" (Victor, D. 2009: 8). Consumers invest in gasoline guzzling cars, buy or live on the outskirts of cities far from their work's location or send their kids to schools halfway across town. Companies plan their logistics around trucks and many households earn their livability by leasing and driving informal microbuses. These long-term investments make consumers especially from the middle classes vehement opponents to any reforms associated with price increases. Oil has also lately become one of the most volatile commodities. This volatility causes inconvenience and adjustment costs to consumers that increase with the level of risk aversion (Federico et al. 2001). With the general perception that Arabs are culturally more risk averse, consumers interest in retaining the subsidy and the associated pricing policy are incredibly high.

Moreover, there is a wide spread feeling in the Arab world that the public is entitled to cheap petroleum products and that "strategic goods" like gasoline and gas have to be subsidized. When rumors spread in Bahrain in August 2010 that the government is considering raising prices of petroleum products demonstrators took to the streets and held banners saying: "Everything but our Food". It did not help, that for years oil ministries propagated their oil discoveries, creating the impression that there is more than enough oil for years and years to come, whether this was true or not. As one talk show host once said to a junior minister from the oil ministry after a price hike: "You have been giving us the impression for the last 30 years that we are swimming in an oil ocean and now you tell us you have to increase prices." And even where oil is available, the public often calls for the reduction of exports if it will lead to lower prices domestically. The public also rarely accepts that oil prices are set internationally and that domestic prices should reflect this fact. National discussions are usually dominated by the view that domestic wages are not set internationally, thus neither should prices.

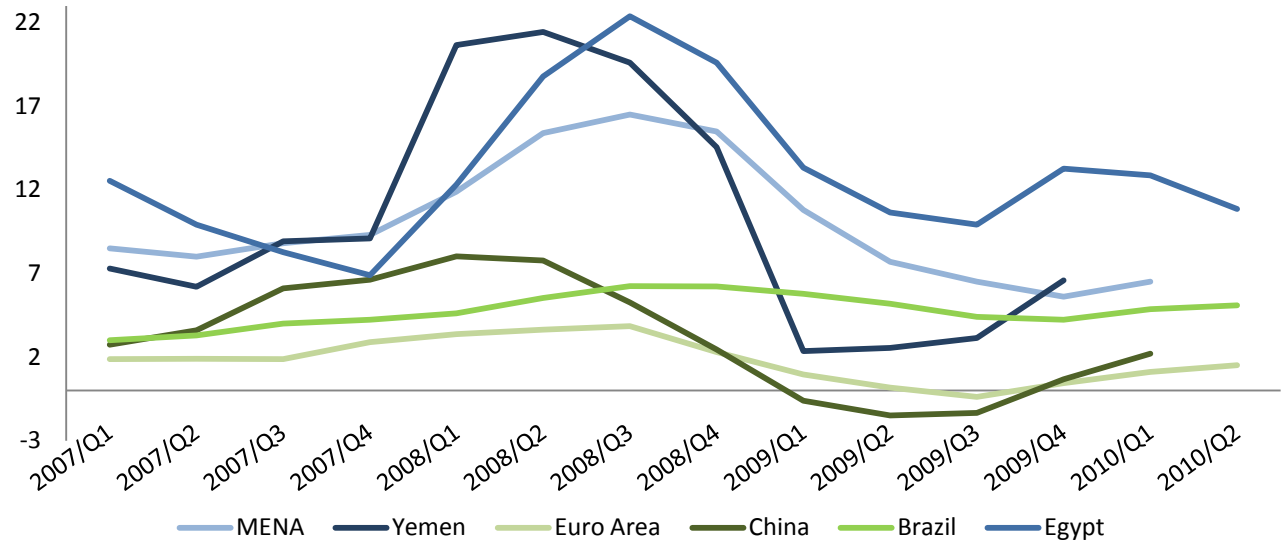
Closely related is the problem of transparency. The real cost of fossil fuels, the amount spent on subsidies or plans to reform the price setting mechanism, if they exist, are closely guarded secrets. An internet survey by the GTZ showed that with exception of Lebanon, not a single country published a detailed price breakdown and several countries did not even publish their current fuel prices online (see Annex). Even the way ad hoc prices are administered is often subject to a shock and surprise policy: When the Yemeni government adjusted prices in May this year only retailers were informed of this price change and citizens were not properly informed. This led to disagreements at several tanking stations. For a founded discussion on fossil fuel subsidies in the media and civil society, more information need to be made available to the public.

In addition to that, ad hoc pricing dominates in the region, thus making governments directly responsible for price increases and unnecessarily politicizing the price setting mechanism. It creates the impression that changes reflect government policy, rather than international factors (Granado et al. 2010: 14) and often lead to demonstrations and riots. This effect is compounded by the low public comprehension of market economics and the long legacy of controlled prices (Dicke 2010: 29). In 2005 the Yemeni the government had to cancel price increases for Diesel, Gasoline and Kerosene after riots broke out leaving 22 dead. The Algerian parliament also refused to increase prices twice in 2007 and 2008 out of fear for its popularity. This link between governments and prices is often a major hindrance for adjusting prices.

Besides, in the last 50 years governments in the Arab world have strongly invested in building roadways at the expense of other public modes of transport. River transport infrastructure and railroads have fallen to despair and only lately have any efforts been made to improve them or install new ones, not to mention the often non-existent formal urban public transport. This leaves

consumers and firms few other options than to rely on private cars, shared taxis and trucks for mobility, all modes that are highly dependent on fossil fuels.

Figure 5: Annual Change in Consumer Price Index in %



Source: *IMF; International Financial Statistics*

Especially the group of ***oil-producing countries*** and the ***reformers*** have a sizeable population below or just above the poverty line. This complicates any reform attempts as the relative adverse impact of removing the subsidies can be greatest for the poor, even though the rich receive most of the total value of the subsidy (IEA et al. 2010: 25). Probably because prices in Arab countries are especially low, the impact on households' real incomes is bigger than elsewhere. In a study by Granado et al. (2010: 9) they estimate the direct plus indirect impact of a $0.25 per liter increase in fuel prices in several regions showing a "decline in household real incomes, with the impact ranging from 3.8 percent in South and Central America to 9.6 percent in the Middle East." Other studies measured a direct effect of petroleum subsidies in reducing the poverty incidence by 8 and 5 percentage points in Yemen and Morocco, respectively (IEA et al. 2010: 25). Mitigation measures to protect the poor from the adverse impacts of a reform cannot be readily introduced because most governments lack the administrative capacity and the necessary information to reach the poor and developing a well targeted safety net could take years. Obviously, reform does have a substantial welfare cost for society's most vulnerable.

One of the biggest hindrances to reform, though, is the relatively high inflation rate in several ***oil producing*** countries. High inflation rates have already led to deadly riots in Egypt in 2008[2] and as Figure 5 illustrates, inflation is still quite high in this group of countries. Without the appropriate monetary tools to combat inflation, controlling energy prices is an important instrument in keeping it at bay (Victor, D. 2009: 25).

Two major obstacles face reform in ***oil-exporting non-movers***. Firstly, a global reform of fuel subsidies would hurt them economically. As stated in the IEA et al. report on fossil fuel subsidies (2010: 27):"International fossil-fuel price declines induced by phasing out of consumer subsidies would induce terms-of-trade changes that would favor fossil-fuel importing countries at the expense of fossil-fuel producers. While a multilateral removal of fossil-fuel subsidies would bring some real income gains at the world level, these gains would be unevenly distributed across countries." Removing subsidies domestically gives other importing countries ammunition in pushing their reform

[2] http://www.huffingtonpost.com/2008/04/08/egypt-grants-bonuses-afte_n_95685.html. Retrieved 18.09.2010

programs forward and encourages an international elimination of subsidies. This also explains why the OPEC objected to the IEA's definition of fossil fuel consumption subsidy. OPEC is of the opinion that "the benchmark price to be used in the case of energy resource well-endowed countries should be the cost of production" (IEA et al. 2010: 4).

Secondly, many of these countries have encouraged development models centered on cheap oil to add value to their local resources. Most of their industry is energy intensive and relies heavily on cheap oil and electricity. Removing the subsidies could lead to unemployment in countries with already very high unemployment levels (e.g. KSA: official 11.7%, estimates ranging to 25%)[3].

As mentioned above, cross-border spillover effects also complicate any national reform efforts. In addition to smuggling and tourism tanking, people compare prices across countries and cannot understand when prices are more expensive domestically. "What is the difference between Saudi, Kuwaiti and Emirati oil? Why is it more expensive here than there?" exclaimed an interviewee on Al Jazeera after the latest price increase in the UAE.

V. Strategies for Reform

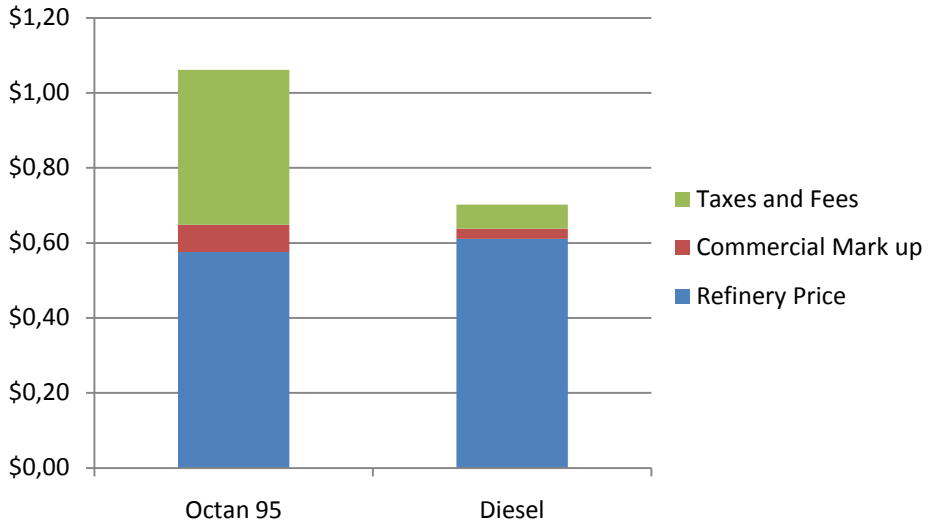
Although gradual approach to reform entails many risks - progress might falter or even be reversed and a longer implementation period could give opponents more time to organize and hinder the continuation of the reform - gradual reform over several years is seen as the most realistic and applicable approach for Arab countries. The riots these governments experienced when attempting to reform different universal subsidies are sure to kill any notion of rapid reforms. Thus, the strategies laid down below are divided into short and medium term plans as well as strategies to protect the poor and a special section for oil-exporting countries.

5.1 Short-Term Strategies

1. Governments have to organize ***mass information campaigns*** with a clear message from all relevant ministries to effectively communicate to the population the drawbacks of the current situation and the need for reform (Gupta et al. 2000).
2. Stop sending ***mixed signals***. Until today, petroleum ministries propagate oil discoveries vehemently, creating the illusion that there is enough oil to last forever.
3. Start ***comparing fuel prices with poorer countries*** (e.g. SSA). Comparing prices with Western countries leads to ridicule and cry outs for "international" wages.
4. ***Present the cost of the subsidy in concrete terms***. Compare the financial outlays to spending on other relevant posts, like education and health care. Egypt, for example, compared the budgetary burden with revenues from the Suez Canal when trying to reform other subsidies.
5. Inform customers at every point of sale of the ***actual cost of the current purchase*** and the amount of subsidies just received. This will make the subsidy more visible in everyday life.
6. Governments need to be ***transparent*** on the actual cost of the subsidy, which groups benefit the most from them and on the price breakdown of each unit of fuel. Additionally, the availability of data enables peer review and the media can help dispel myths and misinformation about the magnitude and incidence of fossil fuel subsidies (IEA et al. 2010: 36). A very important step in this direction is by explicitly accounting for the subsidies in the budget and not by forcing companies to make lower profits or sell at below market prices.

[3] CIA World Fact Book. Retrieved 13.9.2010.

Figure 6: Published Price Breakdown of Gasoline and Diesel in Lebanon in August



Source: *http://www.energyandwater.gov.lb/pages.asp?Page_ID=44. Retrieved 17.08.2010*

7. ***Plans and action to reform the system should be made public*** and discussed with relevant stakeholders. Till today, ministers are skeptical of announcing their plans, as the Egyptian finance minister Ghali demonstrated in an interview with the Financial Times (2010): "We have a vision [for reducing subsidies] but we don't publicise it. In the coming months you will see." An Emirati oil expert interviewed by Emirates Today (2010) after a recent price increase in the UAE lamented that "the view of the retail companies and the reasons for their price increases were not explained to the public in advance. […] Informing the consumer and preparing him is important, especially when it concerns increasing the price of a product he deals with daily" (own translation).

5.2 Medium-Term Strategies

1. Any reform program with the ultimate goal of eliminating subsidies on fossil fuels has to include a ***reform of the price setting mechanism***. Prices under the current ad hoc pricing that dominates the region (with the exception of Lebanon, Jordan and Tunisia) usually know only one way: up. After prices increased in the wake of the 2008 peak, they did not decrease when oil prices fell to 40$ a barrel. For the public this seems to contradict the argument of international dependency used by governments to explain price increases. Therefore, any reform of the pricing policies has to lead to a pricing system where regular price changes in both directions are the norm, price changes are linked to the international price of oil and the mechanism by which prices are set is transparent and clear. Such a mechanism will remove the government from the process and prepare the public for the eventual elimination of the subsidy. Ultimately, governments should try to liberalize the market and subject the prices to the forces of supply and demand. A liberalized market is less susceptible to policy fallbacks than other forms of price setting.
2. The change in the ***pricing mechanism*** needs to be made ***permanent***. As Ghana illustrates, reform fallbacks are not uncommon and the system can collapse into a discretionary approach if the automatic price changes are not always implemented (Federico et al. 2001). This creates the need to engrave the reformed price setting mechanism into law to increase the hurdle for a return to ad hoc pricing and shield the government from political pressure for low petroleum prices. Writing it into law, though, has the potential drawback of eventually hindering the complete liberalization of the market in the future.

3. The automatic price setting mechanism ***should not involve politicians***. Prices should be determined/announced by an independent regulator. Having a price setting committee consisting of representatives of various ministries as in Jordan or under the supervision of a minister, as in Tunisia, keeps the impression that politicians are responsible for prices.
4. As mentioned above, the huge fossil fuel dependency of transportation modes in the Arab world and the lack of alternatives is what often causes the public's outrage for removing the subsidies. This applies to the poor, the middle classes and firms relying on trucks to transport their goods. Thus, governments have to use the freed public funds in a beneficial way that creates alternatives and links these newly available alternatives to the removal of the subsidy. One way of doing this is to establish an ***infrastructure investment fund***, where a fixed amount of the money otherwise marked for the subsidy flows yearly. This fund can then finance infrastructure projects that improve railroads and waterways for freight hauling and create qualitative public transport modes. In the same way that EU funds used to finance projects in the member countries have to be visibly labeled, projects financed by such a fund have to be marked as such. This creates visibility and establishes the link between government spending on infrastructure and the removal of the subsidy.
5. Start developing better administrative capabilities to tame inflation. As the example of China demonstrates, better administrative capabilities made targeting inflation through the control of the banking system and monetary supply possible, rendering the direct control over the various factors of production dispensable (Victor, D. 2009: 25).
    a. Enhance the central banks' administrative capacity and repertoire of tools to control the money supply.
    b. Empower competition authorities and give them the necessary legal tools to combat collision.

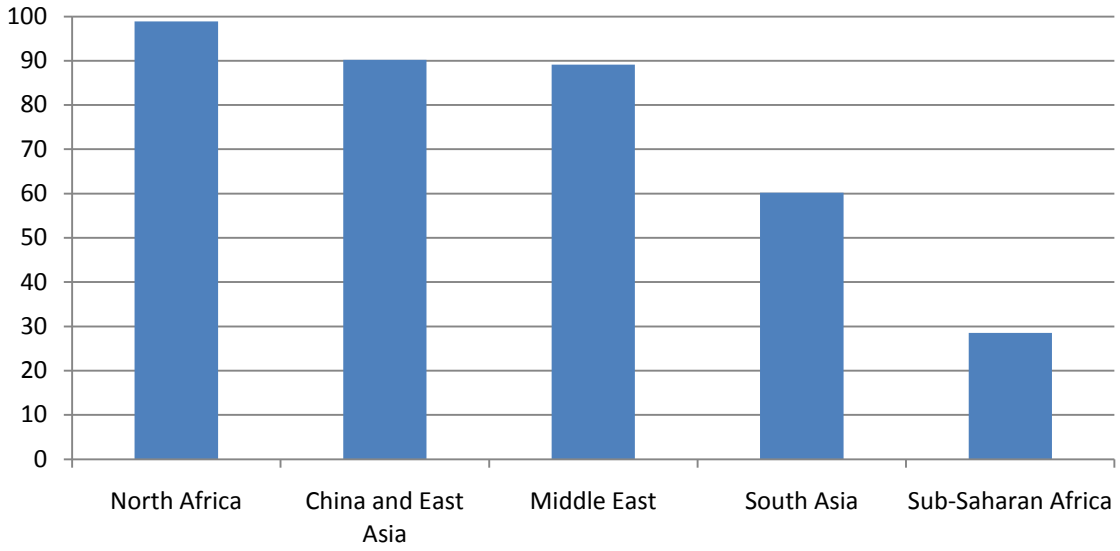
5.3 Measures to Protect the Poor

5.3.1 Short-Term Strategies

Arab countries have several favorable conditions that should help them protect the poor in the short run and compensate the middle classes for potential losses that accrue when removing subsidies on fossil fuels.

1. The ***public sector and state-owned enterprises*** in Arab countries usually constitutes a big share of the labor force. Although not exactly the poor, they usually include the politically better organized middle class. These employees are accessible and can be compensated. Jordan gave a one-time bonus and wage increases to the low income employees and pensioners when it completely removed subsidies in 2008.
2. ***Universal electricity access.*** Due to the ability to vary tariff levels according to consumption levels, subsidizing electricity is a more efficient and cost effective way to reach the poor than subsidizing fuel. Since close to 99% of all households (with the exception of Yemen, which drags the average rate for the Middle East down) are connected to the grid (see Figure 7), freezing prices at the lower end of consumption while implementing reforms helps to mitigate the impact of price increases on poor households (Granado et al. 2010: 12).

Figure 7: Electrification Rate in %



Source: *http://www.iea.org/weo/electricity.asp. Retrieved 31.8.2010*

3. Introducing a ***coupon system*** to ration the consumption of LPG and kerosene might be appropriate. Families would be entitled to a limited number of coupons per year allowing them to buy the canisters. Even if it will not end the abuse, it will at least cap the number of canisters sold per year and accordingly the amount spent on the subsidy. Later it could be limited to households living in areas without a connection to the gas grid.

5.3.2 Long-Term Strategies

1. ***Substitution to natural gas***. As with electricity tariffs, natural gas tariffs can be varied by consumption. A one-off subsidy to connect poor households to the gas grid, if economically feasible, in combination with a lower "lifeline tariff" might be appropriate. Connecting households to the gas grid is a declared strategy by the Egyptian government to combat the misappropriation and leakage of LPG - intended for use in poor households for cooking - to restaurants, industrial facilities and chicken farms.
2. ***Development of a safety net***. Most importantly and necessary for the longer term protection and assistance of the poor, governments need to develop an effective safety net, where subsidies are tied to the individual and not the good. In general, cash transfers have many advantages. "They allow for consumer choice, the cost to the budget is known with greater certainty than in the case of generalized subsidies, and they can be targeted to the poor" (Gupta et al. (2000). Successful programs in Latin America linked cash handouts to certain requirements, like sending children to school or going to regular health checks (Progressa).
3. Invest in ***pro-poor infrastructure*** such as better rural roads, gas grid connections, public transport, etc.

5.4 Strategies specific to the oil-exporting non-movers

Till today it has been part of the social contract between governments and their population that subsidized prices is the channel, through which the population gets to share and enjoy the oil wealth. But low prices are not the only way to share the wealth. Although people might need time to get used to them, there are other less distorting ways to share the wealth.

1. ***Cash transfers to all households, independent of income or wealth***. Albeit with other perverse incentives (lower incentive to work, etc.), cash transfers widen the populations' choice base and do not distort market signals on the efficient consumption of goods.

2. Invest money in ***independently run pension funds***. Norway gives a good example on how a country can manage the wealth created by natural resources. Investing the money generated from exporting oil in offshore funds removed the money from the immediate political process and decreased the intensity of the political contest on how to spend this money (Victor, D. 2009: 22). Setting these funds up should not be a challenge, since several oil exporting countries have already set up sovereign wealth funds. In a further step to compensate the public, these funds could pay yearly dividends, depending on their performance, to all country nationals.
3. Put the ***business function of oil companies at arm's length***. Guaranteeing the independency and profit making nature of the oil companies increases the pressure on the government either to liberalize the prices or explicitly pay the companies for the consumer subsidy they provide. In the UAE the oil companies that are increasingly becoming more profit oriented are pressuring the government to increase prices to offset their losses. This has led to the circulation of plans to bring domestic prices in the UAE on par with international ones. Prices in the UAE are already the highest in the GCC.

Conclusion

To conclude, the challenge of reforming fossil fuel subsidies is neither unique to fossil fuels nor to Arab countries. What sets Arab countries apart is the relative abundance of fossil fuel in the region, the interdependence of the countries' policies and the dominance of autocratic regimes. For too long these factors coupled with the fear of unrest and violent protests experienced during previous reform attempts deterred governments in the Arab world from initiating reform or comprehensively tackling the issue of universal subsidies. A detailed analysis of these previous attempts, however, showed that governments neither had a comprehensive reform plan to compensate the losers from the reform, nor did they communicate the measures appropriately. The population was administered a shock therapy in a politically charged environment, where popular discontent with the government was high. If governments adopt a stakeholder approach to reform in combination with mass information campaigns and compensatory measures for the losers of the reform, violent protests can be avoided. The international community can also do its part to assist governments under pressure and willing to reform. International organizations can assist in the conduction of a Poverty and Social Impact Analysis lending them credibility in societies where the public is very mistrustful of government published data and information. They can also help in building institutional capacity to implement a social safety net or in financing necessary investment to mitigate the negative effects of the reform.

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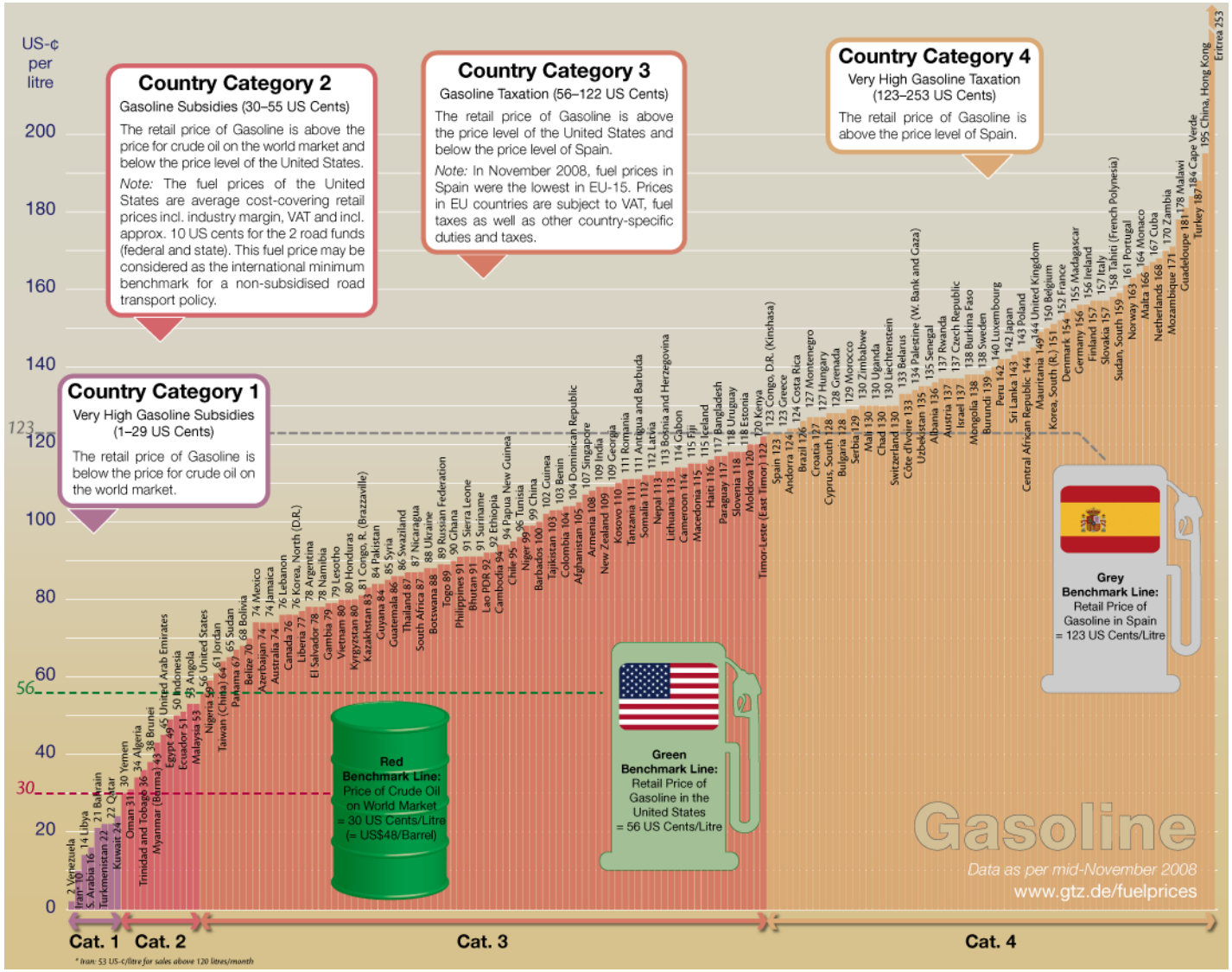
Annex I

Country	Links to Diesel/Gasoline prices	Info on Pricing Mechanism
Gulf Countries		
Saudi Arabia	No official website with information on prices	Prices are changed per Royal decree. Apparently the last price change was in 2006, when prices were lowered.
UAE	No official website with information on prices Ministry of Energy: http://www.moenr.gov.ae/Web/Default.aspx	Prices are set in discussions between the government and the state owned retail companies. UAE has the highest fuel prices among the GCC countries with two prices increases already this year. Plans to eventually liberalize the market according to a state oil company official. UAE has to import refined fuel products because they have too few refineries. Prices should be reviewed periodically every three month by a pricing committee.
Oman	No official website with information on prices Ministry of Oil and Gas: http://mog.gov.om/ http://www.moneoman.gov.om/arabic/index.asp	NA
Qatar	No official website with information on prices	NA
Kuwait	http://www.knpc.com.kw/knpc/product_oils.html	The Higher Council of Petrol is responsible for setting the price. The council consists of several ministers. Apparently prices haven't changed in years.
Bahrain	No official website with information on prices	Government had to back more than once from plans to increase prices. Legal dispute whether parliament's approval needed to increase prices or if the government can change them per administrative decree.
Iraq	No official website with information on prices	NA

Yemen	No official website with information on prices	Yemen adopts a system of ad hoc price changes. Currently under pressure from IMF and World Bank to reform the system due to dwindling resources and high budget deficits. Prices have increased twice already this year.
Maghreb		
Libya	No official website with information on prices. Unofficial website with up-to-date information: http://www.temehu.com/Prices.htm	Libya adopts a system of ad hoc price changes.
Tunisia	http://www.tn.total.com/Os/ostunisia.nsf/VS_OPM/CCE9E20F6FE9BDDEC1256F460033A2FC?OpenDocument#8CC6 http://www.tunispro.net/tunisia/tunisia-prices.htm	Oil products are being subsidized. Till 1.1.2009 there were ad hoc price changes. New mechanism adopted in 2009. Since then prices change every 3 month by an apriori fixed amount if the reference price of 52$ per barrel is exceeded 10$ over a period of three consecutive months. In early 2010, however, the reference price was raised to 60$ per barrel. http://www.industrie.gov.tn/fr/directdoc.asp?docid=281
Marokko	NA	Oil products are subsidized and apparently price changes are ad hoc. Information, however, not clear.
Algeria	http://www.mem-algeria.org/english/index.php?page=tarification-des-produits-petroliers-reglementes http://www.mem-algeria.org/english/index.php?page=700	Apparently price changes have to be approved by parliament. Parliament refused to change the price of diesel twice: in 2007 & 2008.

Mashreq		
Jordan	http://www.memr.gov.jo/	A system of monthly price changes has been adopted since 8.2.2008. Prices set by a committee that includes the Minister of Trade, of Finance and of Energy. Price adjustment supposed to reflect changes in Brent oil price. Applied formula not announced and unclear.
Syria	NA	Syria adopts a system of ad hoc price changes. Prices can be changed by a prime ministerial decree upon the recommendation of the Finance Minister and the Minister of Transport.
Lebanon	http://www.energyandwater.gov.lb/pages.asp?Page_ID=44 http://www.abillamaapetroleum.com/products.php	Prices are set weekly by the Minister of Energy and Water. Prices and price breakdown (taxes, etc) are published on the ministry's website.
Sudan	http://www.spc.sd/sudan_petroleum_1.php	Apparently prices are not the same all over the country and they change from state to the other.
Egypt	http://www.petroleum.gov.eg/LawsPricingFuel.aspx http://www.petroleum.gov.eg/LawsPricing.aspx	Prices are changed per decree from the Minister of Petroleum, Prime Minister or by law. Last price change took place in 2008.

Annex II


US-¢ per litre
Country Category 2
Gasoline Subsidies (30–55 US Cents)
The retail price of Gasoline is above the price for crude oil on the world market and below the price level of the United States.
Note: The fuel prices of the United States are average cost-covering retail prices incl. industry margin, VAT and incl. approx. 10 US cents for the 2 road funds (federal and state). This fuel price may be considered as the international minimum benchmark for a non-subsidised road transport policy.
Country Category 3
Gasoline Taxation (56–122 US Cents)
The retail price of Gasoline is above the price level of the United States and below the price level of Spain.
Note: In November 2008, fuel prices in Spain were the lowest in EU-15. Prices in EU countries are subject to VAT, fuel taxes as well as other country-specific duties and taxes.
Country Category 4
Very High Gasoline Taxation (123–253 US Cents)
The retail price of Gasoline is above the price level of Spain.
Country Category 1
Very High Gasoline Subsidies (1–29 US Cents)
The retail price of Gasoline is below the price for crude oil on the world market.
Red Benchmark Line: Price of Crude Oil on World Market = 30 US Cents/Litre (= US$48/Barrel)
Green Benchmark Line: Retail Price of Gasoline in the United States = 56 US Cents/Litre
Grey Benchmark Line: Retail Price of Gasoline in Spain = 123 US Cents/Litre
Gasoline
Data as per mid-November 2008
www.gtz.de/fuelprices
Cat. 1
Cat. 2
Cat. 3
Cat. 4
* Iran: 53 US-¢/litre for sales above 120 litres/month