

Energy Subsidy Reform in Libya

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ABSTRACT: Energy subsidies have become a significant burden on government finances in Libya. The pervasive nature of subsidies has led to rampant corruption, smuggling, and a diversion of resources from essential public services. The paper identifies key barriers to reform, including opposition from vested interest groups and public apprehension regarding inflation and welfare loss. To address these challenges, a strategic reform plan is proposed, emphasizing a phased approach, a comprehensive communication plan and social protection measures to mitigate the adverse effects of subsidy removal. By taking these steps, Libya can transition towards a more sustainable framework that supports macroeconomic stability.

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Libya

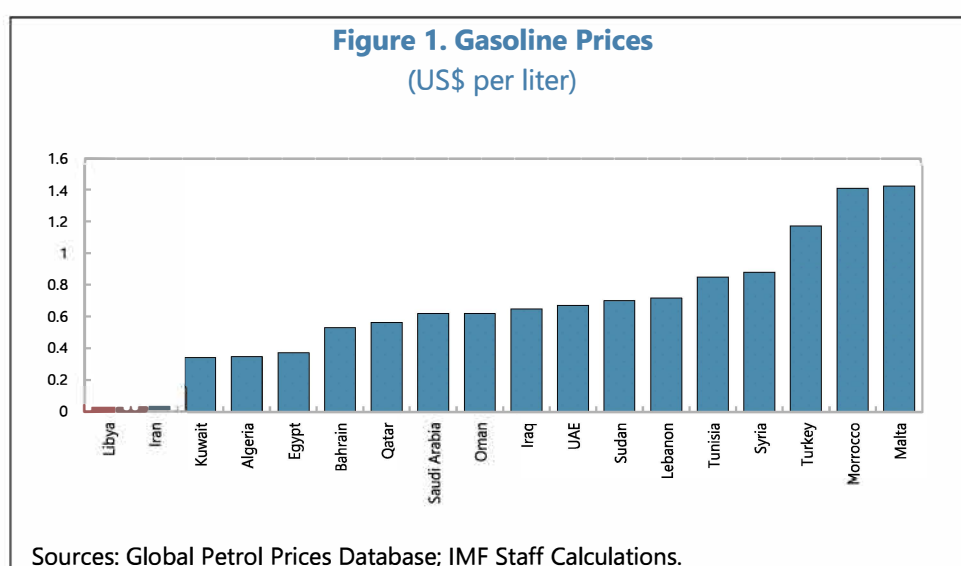
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ENERGY SUBSIDY REFORM IN LIBYA

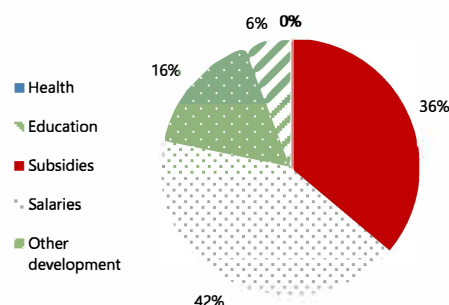
A. Introduction

1. Energy subsidies in Libya are extremely generous and poorly targeted. Given Libya's substantial oil wealth, the government has historically provided fuel subsidies as a form of redistribution, effectively allowing citizens to benefit from the country's rich natural resources. However, fuel prices have not changed since the 1970s, making the price of gasoline in Libya currently the lowest in the world. Although designed to protect citizens, subsidies are typically regressive and primarily benefit the wealthier segments of the populations. Libya's fuel subsidy has been costly and gave rise to corruption and wide-scale smuggling, effectively transferring the benefit of the subsidy to specific interest groups and adjacent countries.



2. This comes at the cost of availability and quality of public goods. Subsidies drain government resources thereby diverting funds from infrastructure and public services, hindering economic development in the longer run. This is especially relevant in Libya, given that development spending on education and health together account for less than 1 percent of total spending, whereas subsidies alone take up more than one third of the total budget. Furthermore, by lowering the cost of fossil fuel, subsidies make energy-intensive industries more attractive, discouraging diversification and potential non-oil private sector investment and suppressing long-term sustainable growth (International Monetary Fund, 2013).

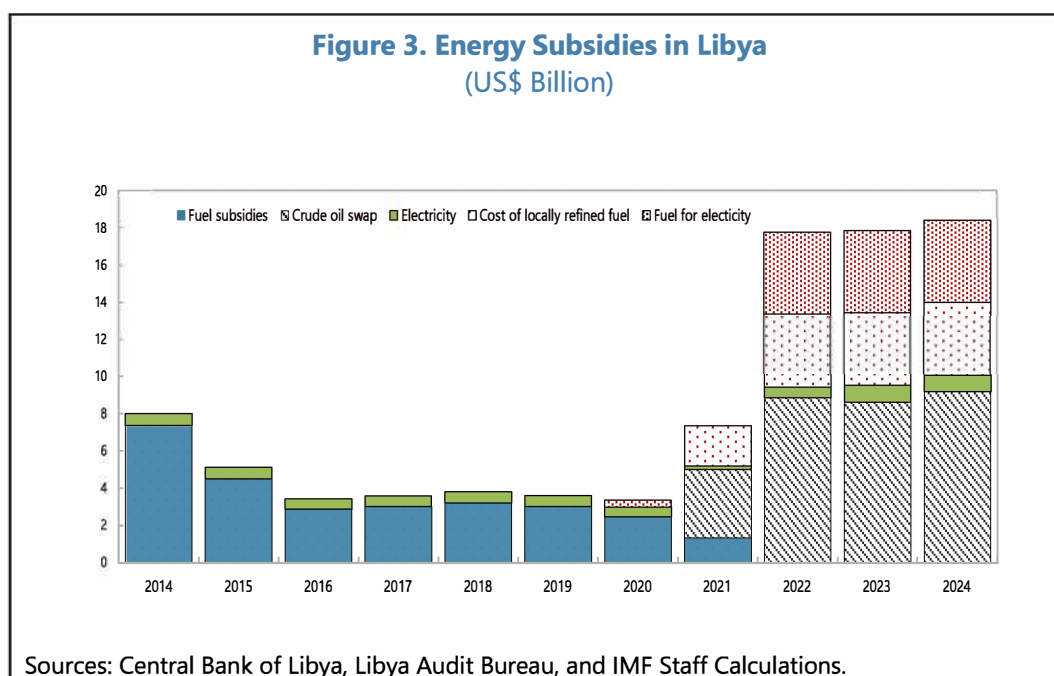
Figure 2. Health and Education as a share of Total Spending - 2024¹
(Percent)



Sources: Central Bank of Libya; IMF Staff Calculations.
1/Expenditures and subsidies are adjusted by crude oil swap.

B. Size and Burden of Energy Subsidies

3. Direct energy subsidies accounted for one third of revenues and 20 percent of GDP in 2024 (adjusted to include the crude oil swap). Although Libya is an oil-rich country, it imports most of its fuel since the capacity of its domestic refineries is limited and cannot meet local demand. Fuel imports jumped from an average of US\$3 billion in 2016-2019 to US\$9 billion in 2024, according to the Libyan Audit Bureau. Power generation in Libya utilizes heavily subsidized natural gas, diesel and crude oil. The government subsidizes the electricity sector in two ways; direct financial assistance to cover the sector's losses (due to the high cost of electricity production relative to the electricity tariff) and subsidized fuel supplied for electricity generation. Adding the cost of crude oil refined locally and natural gas used for electricity generation, estimated at an additional US\$3.9 billion and US\$4 billion, respectively, the total energy subsidy bill reaches US\$17 billion in 2024 (35 percent of GDP).



4. The jump in imports coincided with the adoption of the crude oil swap agreement.

Prior to 2021, the government allocated a budget for fuel imports, which was then distributed to the National Oil Corporation (NOC) through the CBL. In late 2021, NOC started to implement a crude oil swap that barter crude oil for the refined fuel to make up for the shortages in the budget allocations. Since then, imported quantities of fuel products have jumped 50 percent. Gasoline and diesel represent the bulk of fuel consumption of which imports currently account for around 90 and 70 percent of total consumption, respectively. Under the swap, fuel imports are based upon the stated requirements of fuel distribution companies and state enterprises (electricity and cement companies), which are typically exaggerated, under the claim of increased demand from the electricity company and petrol stations (UN Security Council, 2024).

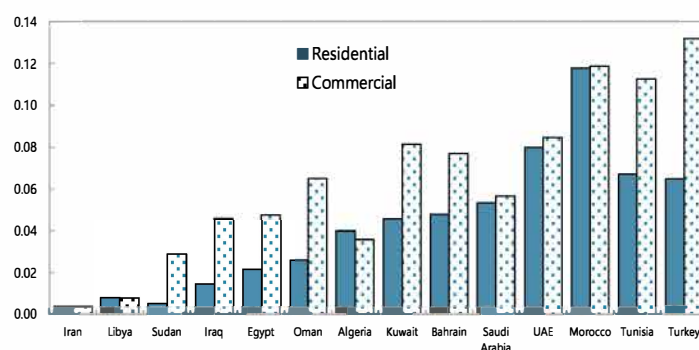
Figure 4. Consumption of Fuel Products
(Million metric tons)



Sources: Central Bank of Libya; IMF Staff Calculations.

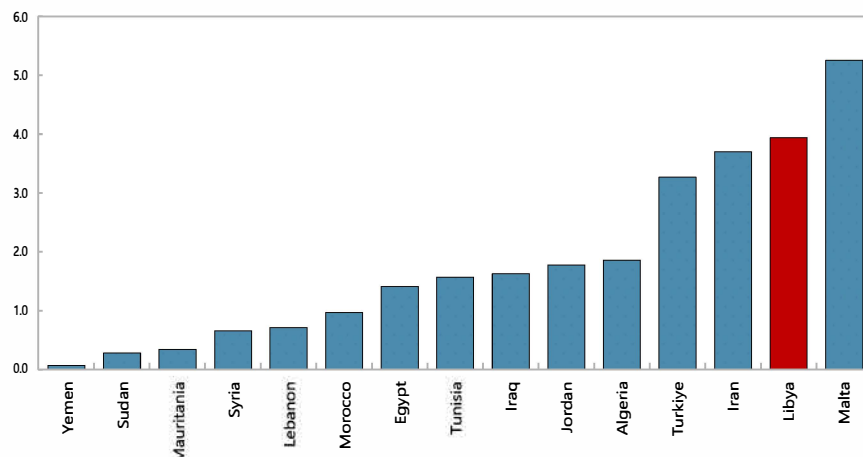
5. Electricity subsidies have also grown substantially. The electricity tariffs in Libya are one of the lowest in the world at US\$0.008 per kWh, well below the cost of production and average international prices. In 2023, electricity generation utilized 10 billion cubic meters of natural gas and 5 million barrels of crude oil at a cost of US\$4.4 billion. According to the General Electricity Company, generation capacity has increased by around 40 percent between 2020 and 2024 which required more diesel and natural gas. Libya's per capita electricity consumption is already one of the highest in the region and given that Libya is country with a modest population growth and limited industrial activity, it is not clear how consumption could be increasing at such pace.

Figure 5. Electricity Tariffs in the Region
(US\$/kWh)



Sources: Global Petrol Prices Database; IMF Staff Calculations.

Figure 6. Regional Electricity Consumption per Capita - 2022
(MWh/capita)

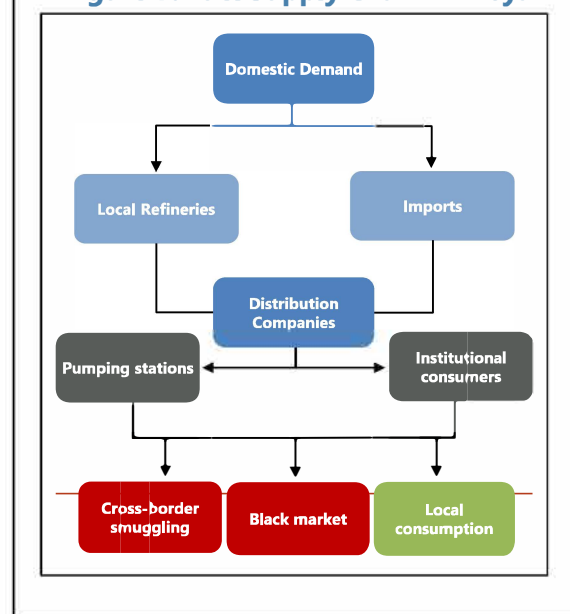


Sources: International Energy Agency (IEA); IMF Staff Calculations.

6. The extremely low prices encourage cross border smuggling. The sharp increase in “consumed” quantities of gasoline and diesel are most likely due to the rise in smuggling to neighboring countries, owing to the significant difference in prices. Authorities estimate that as much as 30 percent of the imported fuel is being smuggled. The distribution networks are the suspected source of this leakage. The lack of strong control on the distribution system leads to the diversion of the allocated diesel and gasoline from the formal distribution network either to the black market inside Libya or across the border to the neighboring countries (UN Security Council, 2024).

7. The collection system is fundamentally flawed. Despite the extremely low prices of fuel and electricity in Libya, collection of revenues is extremely low. The annual fiscal statement and the Audit Bureau reports show significant gaps between the estimated revenues from local sales of fuel and electricity and the actual revenues transmitted to the government, suggesting that even these modest revenues are not being collected. Furthermore, the majority of citizens do not settle their electricity bills despite the very low tariffs, which confirms that the main issue is not the price, but rather the urgent need to put in place a strong collection system first.

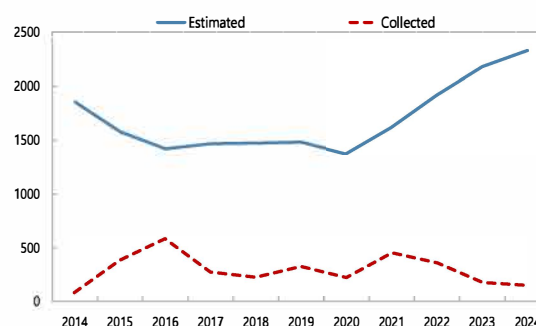
Figure 7. Fuel Supply Chain in Libya



C. Barriers to Implementation

8. Opposition from interest groups hinders any reform agenda. The lack of security and the presence of competing militias have led to large-scale smuggling that benefits influential groups. Smuggling the subsidized fuel to the parallel market yields about US\$0.7 per liter, generating an annual revenue of around US\$3 billion to key beneficiaries. Any proposed reform will threaten this lucrative business and thus will be met with strong opposition from various stakeholders, that could potentially escalate into violent conflict as factions strive to protect their revenue streams.

Figure 8. Estimated Versus Collected Revenues from Sale of Fuel Products
(Million Dinars)



Sources: Central Bank of Libya, Libyan Audit Bureau, and IMF Staff Calculations.

9. The absence of a unified government complicates any reform. The deep fragmentation in Libya, marked by the presence of multiple factions and a lack of a unified government, leads to conflicting interests and agendas and makes it difficult to achieve consensus on critical issues. Moreover, the absence of a cohesive policy framework complicates the development and execution of long-term strategies needed for stability and growth in the country. As a result, efforts to address economic challenges, improve security, and enhance public service delivery are hampered.

10. The lack of trust in the political system raises concerns that the government may not provide adequate compensation if and when these subsidies are eliminated. Subsidies in Libya are regarded as an integral component of the social contract and are perceived as a fair method of redistributing the natural wealth of the country. There have been several attempts to reform energy subsidies over the years that were met with objections and eventually reversed due to political pressure and public discontent. However, Libya was able to phase out food subsidies in 2014 and can capitalize on that experience as well as the experience of other countries with fuel subsidy reform.

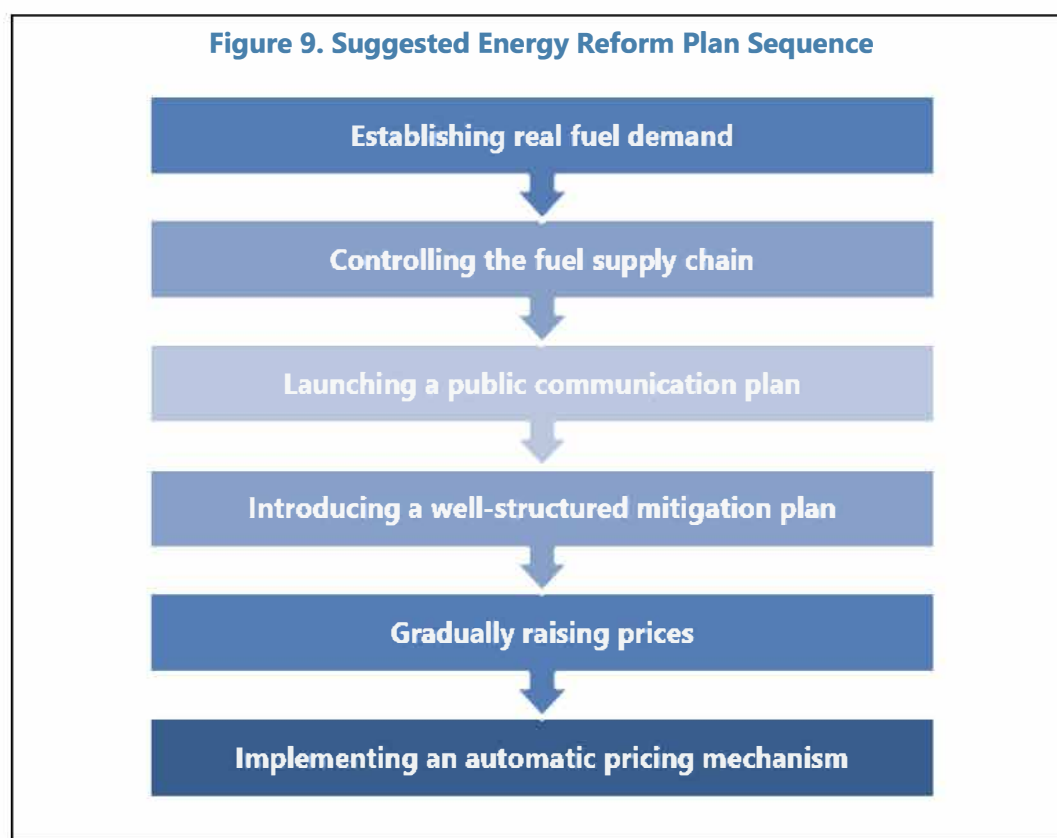
11. The inflationary impact from the proposed energy price adjustments may cause social discontent. The direct effect of energy price shocks on inflation is limited by the share of energy spending in the consumer basket. Even though spending on energy currently constitutes a small portion of Libyan households' monthly expenditure given the very low prices, as prices are adjusted the spending as a share of household expenditure would be expected to rise appreciably.¹ However, since most of the consumption basket of goods is composed of imported goods, the second-round

¹ Due to the data limitations in Libya, quantifying the anticipated second-round effects of a fuel price increase on inflation was not feasible.

effects of fuel price increases are likely to be felt through the cost of services and higher operating expenses in transport, electricity generation and wages. The social impact from this necessary adjustment in relative prices should be contained through sufficient social transfers as discussed in the mitigation section below.

D. Proposed Reform Plan

12. The intricate political landscape of Libya requires a cautious and strategic approach. As discussed, the main issue is not merely the price of fuel and electricity, as this is only one step in a long process of reform. To be successful, the energy reform program will have to be well designed and implemented with political consensus. Given the current political division and conflicting regimes, an open dialogue and a long negotiation process entailing compromise between the various political groups in Libya will be necessary. In our view, and in line with the IMF's approach (IMF, 2013), the reform plan should be implemented in successive phases in the following order:



13. Establishing actual fuel needs is the first prerequisite. An independent committee representing different entities must be established to assess real fuel requirements, in line with international consumption norms, for both individuals and institutional consumers. Imports would then be limited to these established quantities, after taking into consideration the local refining capacity. Furthermore, the real cost of subsidy must be quantified and properly reflected in the fiscal accounts.²

14. The distribution and collection systems should be restructured before any reform is undertaken. Any price increases will not be effective if there is no control over the fuel supply chain. Securing the distribution network through a digitalized monitoring system that tracks fuel quantities through the production, storage, distribution stages to final selling points will help identify any leakages outside the official network.³ This also must include fuel sold to the electricity company and to local refineries. At the same time, an effective collection system must be put in place to ensure the pass-through of price increases to all consumers equally, including state enterprises. The government may then allocate a subsidy to the electricity company to compensate for any losses until electricity tariffs reflect real production costs. Furthermore, residential and commercial electricity meters must be changed to prepaid systems and illegal connections must be terminated to ensure enforcement of the new tariffs.

15. A comprehensive communication strategy with the public is essential. Before any reform is introduced, a clear and transparent communication plan must be undertaken to educate the public on the welfare losses under the existing system and potential benefits from reform. The substantial budget allocated to energy subsidies should be disclosed, along with the drawbacks of the existing system and how the public will be compensated for the anticipated price increases. The key message should focus on the fact that not only are the Libyans paying inflated parallel-market prices but are also bearing the cost of a subsidy that they are not actually receiving. This will help foster public support and acceptance for the reform, and it will prevent social unrest that could arise if the people feel estranged from the reform process (IMF, 2013).

16. The proposed increase in prices must be sufficient to eliminate smuggling. Gradualism is usually the preferred method for any subsidy reform to allow for adjustment by households and firms. However, subsidy reform must be customized to each country's economic and political conditions. Given the substantial price disparity and the large-scale smuggling, a front-loaded increase may be essential in Libya's case. In the table below, an illustrative scenario is presented that eliminates around half of the current subsidy on gasoline and diesel in the first year and then phases out the remaining subsidy over the subsequent two years, coupled with a gradual reform for

² The fiscal budget allocated to fuel and electricity must be separated from oil exports and not netted out from revenues directly. The cost of the crude oil that is locally refined and natural gas and diesel used in electricity generation must be included in the annual budget under fuel and electricity subsidies, respectively, to properly reflect their true burden on the budget. Currently, only the direct subsidy provided to the electricity company is included in the government's fiscal presentation, which significantly undervalues the actual cost of subsidy.

³ There is already a new system being implemented in the South of Libya, whereby each citizen gets a weekly gasoline quota (using a QR code) that cannot be exceeded. This system could be further developed and implemented all over the country to track quantities sold and revenues collected.

electricity and Liquefied Petroleum Gas (LPG) cylinders over 5 years. In this scenario, the target price is based on the current import prices, after applying a 10 percent discount for the transportation costs of the locally refined portions of these products, except for electricity, which is based on current cost per kWh.

Table 1. Libya: Illustrative Gradual Phaseout Scenario

Product	Unit	Current price (LYD)	Current price (US\$)	Target price (LYD)	Year 1 (LYD)	Year 2 (LYD)	Year 3 (LYD)	Year 4 (LYD)	Year 5 (LYD)
Gasoline	Liter	0.15	0.027	3.3	1.5	2.5	3.3	Automatic pricing	Automatic pricing
Diesel	Liter	0.15	0.027	3.3	1.5	2.5	3.3		
LPG	Liter	0.05	0.012	2.1	0.5	0.9	1.3	1.7	2.1
Kerosene	Liter	0.09	0.016	3.1	0.7	1.3	1.9	2.5	3.1
Electricity	kWh	0.04	0.005	0.8	0.2	0.4	0.5	0.7	0.8
Estimated savings (US\$ million)					4,736	8,568	11,863	13,004	14,146

17. An automatic pricing mechanism should be introduced after total elimination of the subsidy to avoid any further build up in price gaps. An automatic fuel pricing mechanism would pass through any change (increases and decreases) in international fuel prices to domestic fuel prices based on a pricing formula that takes into account international prices, transportation costs and taxes (Coady et al., 2012). The formula is revised at regular intervals (monthly or quarterly) and may include a smoothing factor to avoid any sharp increase or decreases in prices. This ensures that prices continue to reflect actual costs and eliminates the need for fuel subsidies again in the future.⁴

E. Mitigation Plan to Accompany Subsidy Reform Plan

18. A well-structured mitigation plan for subsidy reform is vital to minimize potential negative impacts on the population and ensure a smooth transition. International experience suggests that countries that have adopted broad-based and relatively generous social protection programs covering a large segment of the population faced fewer implementation challenges and less pushback during the early stages of reform (IMF, 2013). In the case of Libya, direct cash transfers may be the easiest to implement and the most accepted by the public. There are already several social programs in place that could be easily expanded to incorporate the subsidy reform transfers. A thorough design of the chosen compensation system will be essential. The social protection plan needs to consider a few tradeoffs:

⁴ Establishing a credible and sustainable automatic pricing mechanism requires a number of institutional conditions to ensure transparency and effectiveness, including a clear legal and regulatory framework and appropriate infrastructure.

- **Target groups:** whether to target the lowest deciles of the population (lowest 40-50 percent) based on income or to extend the transfers to all citizens uniformly,
- **Type of program:** whether to expand existing programs or design new ones exclusively for subsidy reform,
- **Size of budgetary savings:** whether to redistribute all savings or re-invest them in other sectors,
- **Timeline:** whether the transfers will be permanent or temporary.

19. Libya has a unique chance to fully compensate the population for welfare losses and still achieve budgetary savings. Whether the government decides to use general transfers or targeted support based on income brackets, it can compensate for the expected increase in energy prices and realize some budgetary savings at the same time. Based on the 2022 household spending survey, the average household spending on energy and transportation is LYD 78 per family with an average family size of 5. The illustrative scenario below shows that transfers can cover the average welfare loss per family and still have sizable savings starting from the third year after smuggling is contained and the gasoline and diesel subsidies are fully phased out. These savings shall be reinvested in health, education, and public infrastructure—coordinated with the budget process—according to a pre-determined and communicated plan with the public to ensure transparency.

Table 2. Libya: Illustrative Cash Transfers to Accompany Gradual Phaseout of Subsidies

		Year 1	Year 2	Year 3	Year 4	Year 5
Illustrative cash transfer per citizen/month	US\$	39.5	61.2	70.6	85.1	92.6
	LYD (ER=5.5/US\$)	217.1	336.6	388.4	468.3	509.4
Transfers cost	US\$ million	3,315	5,141	5,931	7,152	7,780
Budgetary savings	US\$ million	1,421	3,427	5,931	5,852	6,366

F. Conclusion

20. Energy subsidy reform has become crucial for Libya. Eliminating subsidies is always a challenging process. The cost to the budget is large, and Libyans are bearing the burden of a subsidy that they do not fully receive. Furthermore, energy subsidies lead to overconsumption of energy, eventually leading to premature resource depletion. Given the significant price disparities and considerable levels of smuggling, slow price gradual adjustments are unlikely to be effective in Libya. Libya has an opportunity to gradually phase out subsidies, compensate citizens for the anticipated welfare loss and realize budgetary savings. A clear and effective communication with the public early on would facilitate adjustment and minimize potential public rejection.

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