

Policy Viewpoint reflects the stance of ECES on key policy issues in Egypt.

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The Subsidy System in Egypt: Alternatives for Reform

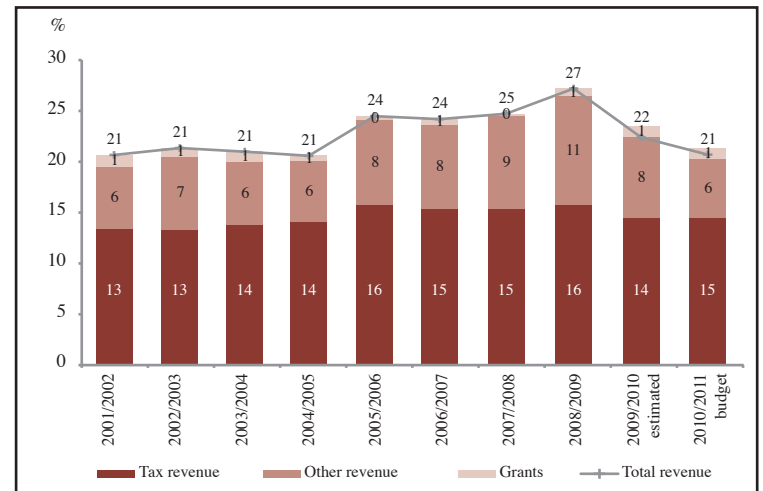
Alleviation of the fiscal burden of subsidies and the need for reforms are at the core of the reform agenda of public finances in Egypt. Subsidies have grown in size over time, encourage excessive consumption and fail to achieve the objectives of social equity. Hence, they involve a lot of waste of government resources that could be better targeted to address the growing social agenda by availing support to the most vulnerable groups. Following an overview of the state of public finances and the burden of subsidies, this edition of *Policy Viewpoint* considers the specifics governing the current system of fuel and food subsidies. It demonstrates its growing cost and inequity, and presents specific proposals to gradually phase out price subsidies to ultimately avail savings for targeted subsidies to the most vulnerable groups. To conclude, it emphasizes the importance of subsidy reform to fiscal sustainability and the need to establish complementary policies to secure the objectives of higher social equity and containing inflation.

OVERVIEW OF PUBLIC FINANCES

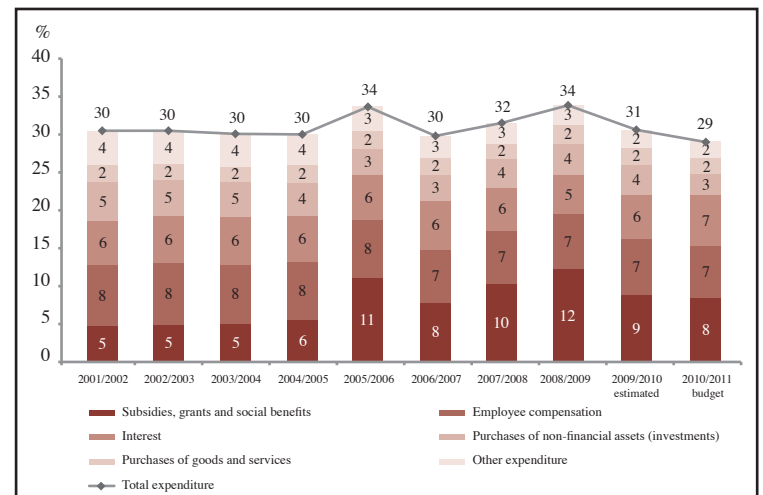
Recent efforts to mobilize additional revenues have paid off, but there is still room for further improvement. Total revenues in the government's budget have increased to 27

Figure 1. Total Revenue and Expenditure as Percent of GDP

a. Total Revenue as Percent of GDP



b. Total Expenditure as Percent of GDP



Source: The Ministry of Finance.

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percent of GDP in 2008/09, although slowed down to 22 percent during the global financial crisis (Figure 1a). Improvement on the revenue side reflects a number of recent reforms, but there is further scope to mobilize additional government resources. On the expenditure side, in 2007/08 rising food and energy prices pushed up government expenditures, with subsidy spending reaching 10 percent of GDP. In 2008/09, in response to the global economic crisis, the government introduced large increases in compensation to government employees and an additional LE 14.4 billion fiscal stimulus package to boost economic growth, which further increased expenditures to reach 34 percent of GDP (Figure 1b).

THE IMPACT OF SUBSIDIES ON THE FISCAL DEFICIT

Subsidies are expected to grow and remain the largest share of expenditures in 2010/11. In addition, there are notable increases in expenditures on wages and salaries and the cost of servicing existing debt. The growth in subsidies has been a major factor that has hampered fiscal consolidation, resulting in a surge in the budget deficit more recently (Figure 2a). More specifically, the increase in primary expenditures surpassed that of revenue, widening the primary deficit recently. Underlying the increase in primary expenditures has been a recent surge in subsidies and grants (Figure 2b).

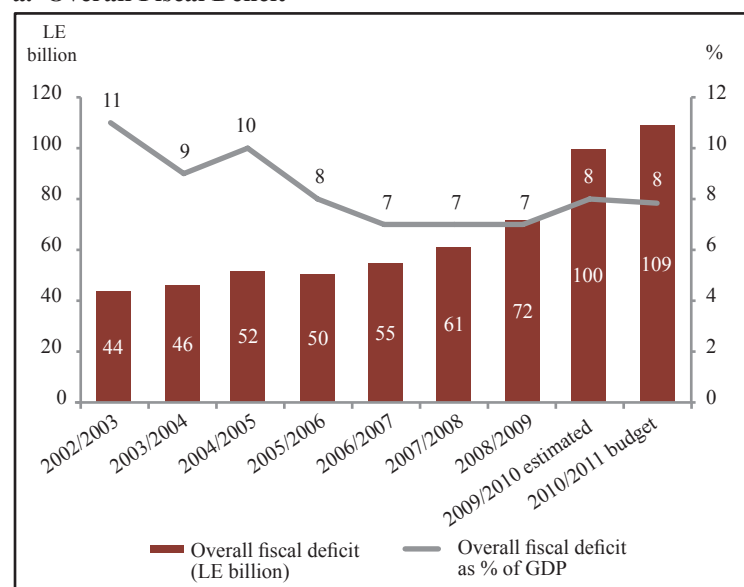
More than two thirds of total subsidies are for fuel products, while food subsidy is less than one quarter. In order to decrease the fiscal deficit, the government has been trying to restructure the subsidies scheme. However, during the course of reform, global pressures, namely the notable hike in world food and energy prices (2007-08) and the global financial crisis in late 2008, increasingly challenged the ability of economic policy to commit to subsidy reform.

ENERGY SUBSIDIES: FISCAL BURDEN AND INEQUITY

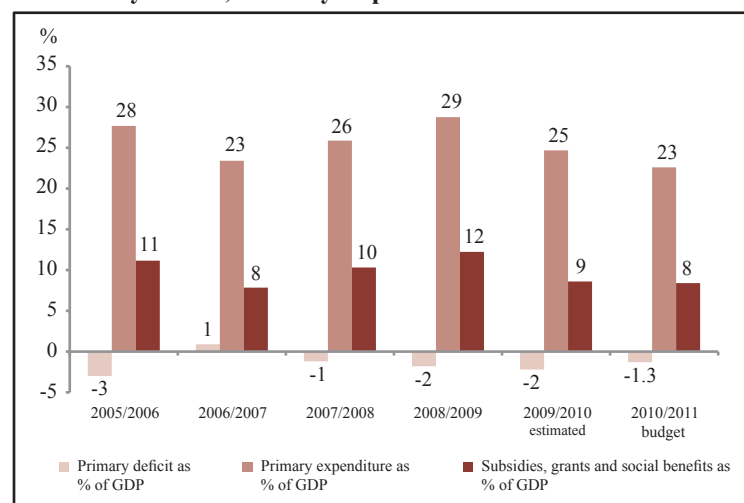
According to official estimates, direct subsidies of petroleum have totaled LE 368 billion in the first decade of this century (Figure 3). Direct subsidies measure the difference between the domestic cost and subsidized prices to consumers in the domestic market. A more realistic estimate of the cost of subsidies should consider the gap between domestic prices and international prices of petroleum products. According to this

Figure 2. The Fiscal Deficit in Egypt

a. Overall Fiscal Deficit



b. Primary Deficit, Primary Expenditure and Subsidies

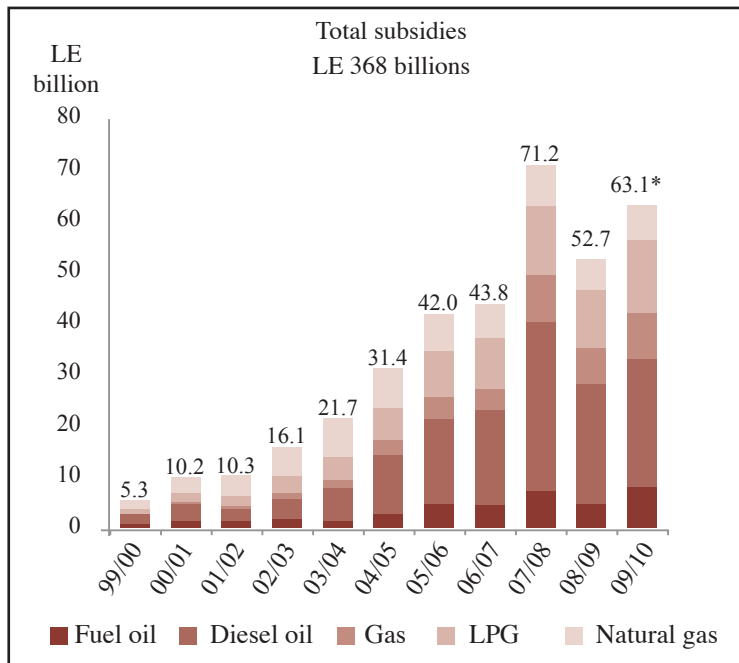


Source: The Ministry of Finance.

benchmark, the cost of subsidies doubles to LE 736 billion in the first decade of this century.

As shown in Table 1, petroleum subsidies apply to various energy products at different rates, ranging from 20 percent on gasoline 95 to 93 percent on LPG (Abouleinein, El-Laithy, and Kheir-El-Din 2009). Based on the shares of the various products in the consumption basket, the weighted share of the subsidy is estimated at 32.7 percent of the actual price for all petroleum products.

Figure 3. Direct Petroleum Subsidies: Estimates of the Difference between Actual Cost and Revenues Based on Subsidized Prices



Source: Presentation at the ECES workshop on “Price Subsidies in Egypt: Alternatives for Reform,” held on October 5, 2010.

*Preliminary estimates.

Table 1. Cost, Prices and Subsidies of Petroleum Products

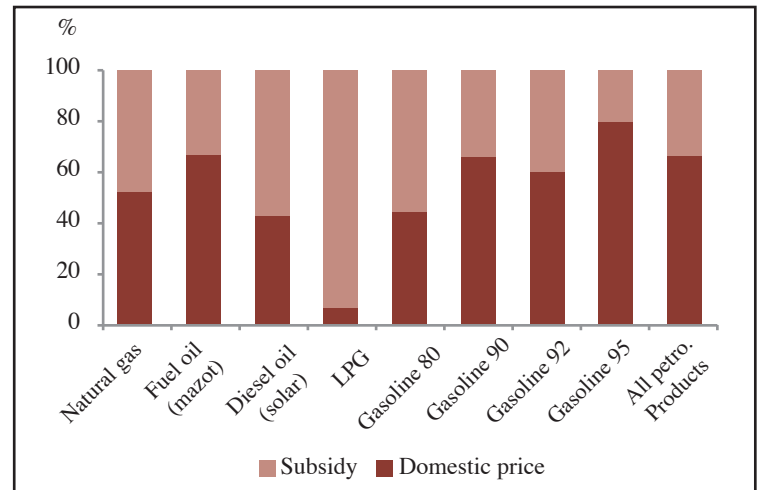
Unit	Petroleum products	Domestic price (in LE)	Actual cost (in LE)	Subsidy per unit* (in LE)	Share of subsidy to cost (%)
M3	Natural gas (for electricity)	0.24	0.46	0.22	48
Ton	Fuel oil (mazot)	1000	1495	495	33
Liter	Diesel oil (solar)	1.1	2.57	1.47	57
Cylinder	LPG	2.5	36.16	33.66	93
Liter	Gasoline 80	0.9	2.03	1.13	56
	Gasoline 90	1.75	2.65	0.9	34
	Gasoline 92	1.85	3.08	1.23	40
	Gasoline 95	2.75	3.45	0.7	20
	Weighted average of all petroleum products	240.6	122.10	118.5	32.7

Source: People’s Assembly, Final Accounts for Fiscal Year 2008/2009, Plan and Budget Committee (march 2010).

* Calculated as actual cost minus domestic price.

Figure 4 below shows ratios of prices and subsidies to actual cost of petroleum products in 2008/09.

Figure 4. Ratios of Prices and Subsidies to Actual Cost of Petroleum Products in 2008/09



Source: Abouleinein, El-Laithy, and Kheir-El-Din (2009); People’s Assembly, Final Accounts, Plan and Budget Committee, for Fiscal Year 2008/2009.

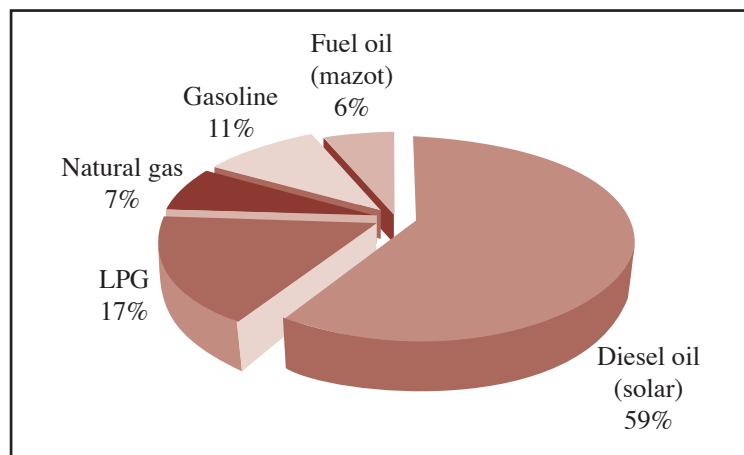
Most notably, however, the structure of subsidies is not aligned with that of consumption of petroleum products, exhibiting sharp contrasts. For example, natural gas and fuel oil (widely known in Egypt as “mazot”) cost the government only 13 percent of total petroleum subsidies in 2008/09, while they constitute a large share, estimated at 67 percent of total petroleum consumption, particularly among low income groups. In contrast, the heaviest burden of subsidies is attributed to diesel fuel and LPG (together accounting for 76 percent of the total cost), while they constitute only 27 percent of total consumption (Figure 5).

Misalignments between cost and consumption shares mandate a course for the reform agenda. Phasing out subsidies should target a gradual price adjustment for diesel fuel and LPG to reduce the cost of subsidies to the government and align it with consumption shares going forward. In parallel, a comprehensive reform agenda should be in progress to phase out all price subsidies and introduce a targeted scheme that establishes beneficiaries based on income levels.

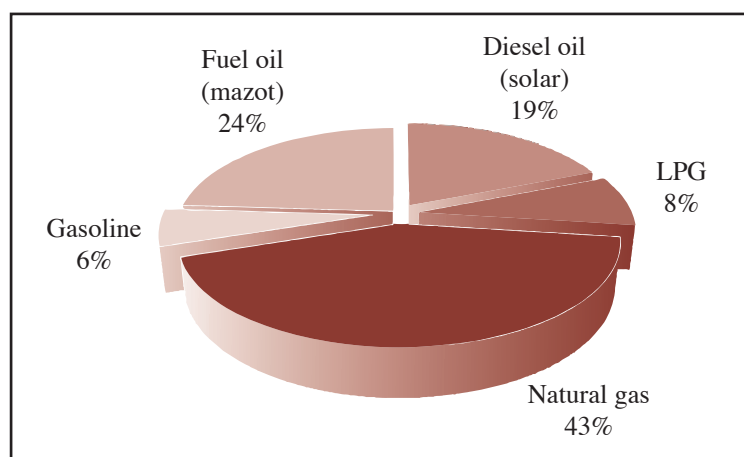
Petroleum subsidies have grown over time, reflecting increased consumption and fluctuations in international prices.

Figure 5. The Structure of Energy Subsidies and Consumption in Egypt

a. Energy Subsidies (2008/09)



b. Energy Consumption (2006/07)



Source: Abouleinein, El-Laithy, and Kheir-El-Din (2009); People's Assembly, Final Accounts, Plan and Budget Committee, for Fiscal Year 2008/2009.

In 2009/10, petroleum subsidies reached LE 66.5 billion, accounting for 70 percent of total subsidies, 18 percent of total expenditures, 24.7 percent of total revenues and 5.5 percent of GDP. Nonetheless, a serious plan to phase out subsidies should carefully consider the direct and indirect impacts of phasing out subsidies of various petroleum products. The estimation of these impacts depends on the increase in the price of each petroleum product, the weight of each product in the total cost structure of the various sectors, the weight of each product in the household's final consumption and the pattern of linkages, using input/output tables, among the various sectors. The three sectors that are heavily consuming petroleum products are energy-intensive industries, electricity and transportation and communications.

A uniform price increase for all energy products will be a tax on heavy consumption, in violation of social equity. Under a scenario that assumes a uniform price increase of 10 percent of all energy products, CPI price increase will reflect the weight of each product in the consumption basket. Accordingly, CPI inflation is estimated at 1.5 percent with the two energy products that account for the largest share of consumption (namely natural gas and fuel oil) contributing two-thirds of the increase.

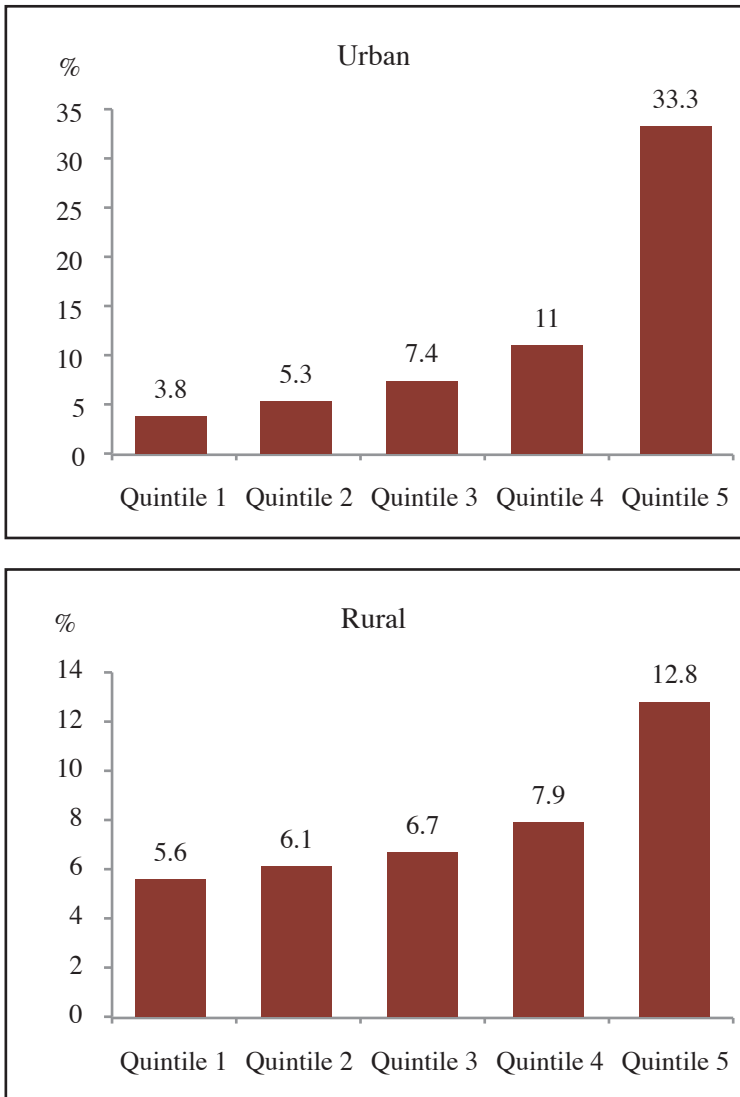
To contain inflationary pressures and achieve better social equity, the reform strategy should target products that are heavily subsidized and least consumed for gradual price adjustment. Under an extreme scenario that phases out subsidies on all petroleum products, the cumulative increase in CPI inflation is estimated at 30.1 percent. The largest share of this increase is attributed to the increase in the price of LPG that is currently the most subsidized by the government.

Alternatively, a gradual price adjustment should aim at targeting heavily subsidized products that are currently least consumed till the price reaches a benchmark that is consistent with the domestic cost. Subsequently, a system of automatic adjustment could be in place to adjust domestic prices in line with movements in cost. In parallel, savings realized from the gradual price adjustment should be used to avail a targeted subsidy with an option for cash or in kind transfers to vulnerable groups, paving the way for an eventual phasing out of all price subsidies, while addressing concerns about social equity.

The need to target subsidies is mandated by the failure of the current system to achieve social equity. Under the current system, the poorest twenty percent of urban population benefits only 3.8 percent of total subsidies while the richest twenty percent receives one third of total subsidies. The disparity in distribution between rich and poor is somewhat narrower for rural population. The difference reflects excessive consumption by the richest group that could be rationed if they are forced to deal with higher prices that they can afford. Moreover, benefits to the rich entail a waste of government resources that could be saved to increase targeted transfers and supporting social services to the most vulnerable groups (Figure 6).

The gap between rich and poor narrows as petroleum subsidies are phased out while savings are directed to the needy groups.

Figure 6. Distribution of Petroleum Subsidies by Expenditure Quintiles in Urban and Rural Egypt

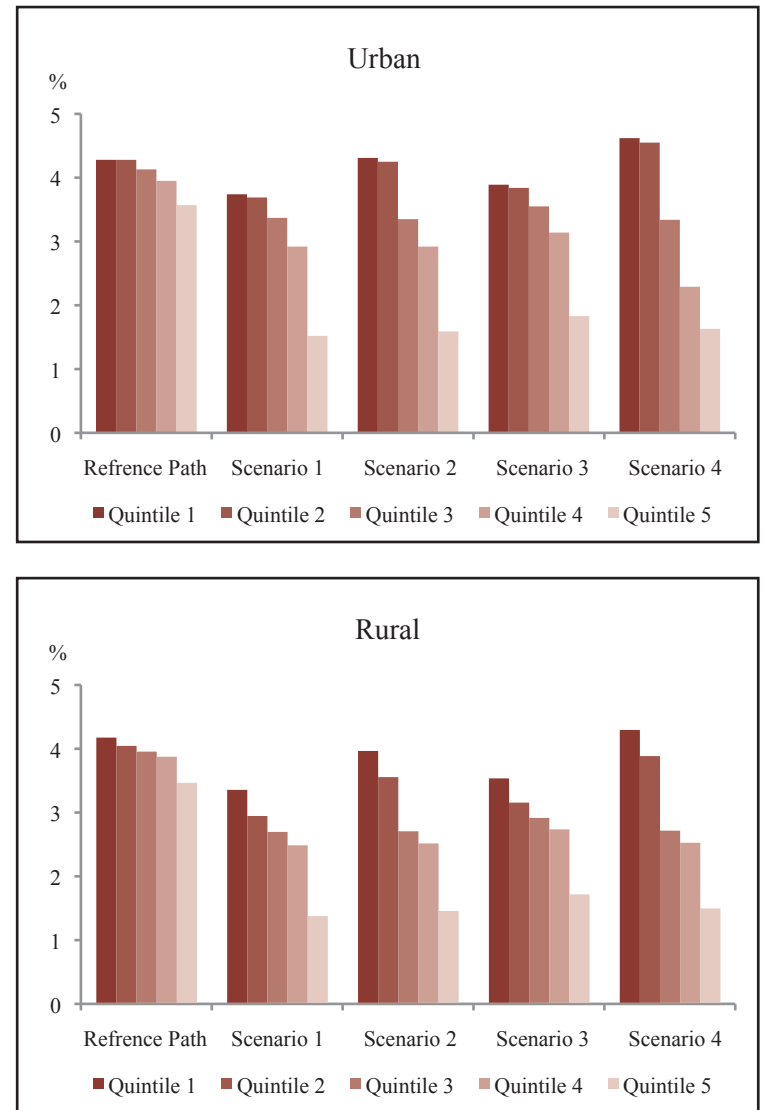


Source: Abouleinein, El-Laithy, and Kheir-El-Din (2009).

Using a CGE model, an ECES study (Abouleinein, El-Laithy, and Kheir-El-Din 2009) compared four alternative scenarios to a reference path that maintains the current system (Figure 7). Scenario 1 assumes a gradual adjustment of petroleum product prices with no compensation. Scenario 2 adjusts petroleum product prices with increased cash transfers to the poorest two quintiles in both urban and rural areas. Scenario 3 assumes adjustment of petroleum product prices with 50 percent of energy subsidy savings transferred to all households. Scenario 4 assumes adjustment of petroleum product prices and 50 percent of energy subsidy savings are transferred and targeted to the poorest two quintiles in both urban and rural areas. The results

contrast inequity under the reference path to scenario 4, which targets the largest savings to the poorest groups, narrowing the gap between consumption for the richest and poorest groups over time.

Figure 7. Alternatives for Phasing out Subsidies: Average Annual Growth Rates of Total Household Consumption by Quintiles



Source: Abouleinein, El-Laithy, and Kheir-El-Din (2009).

International Experience

International experience indicates that the reform of the price structure of petroleum products should be preceded and complemented by some measures that aim at increasing awareness regarding the need to prevent waste of government resources and achieve better equity through a better targeted

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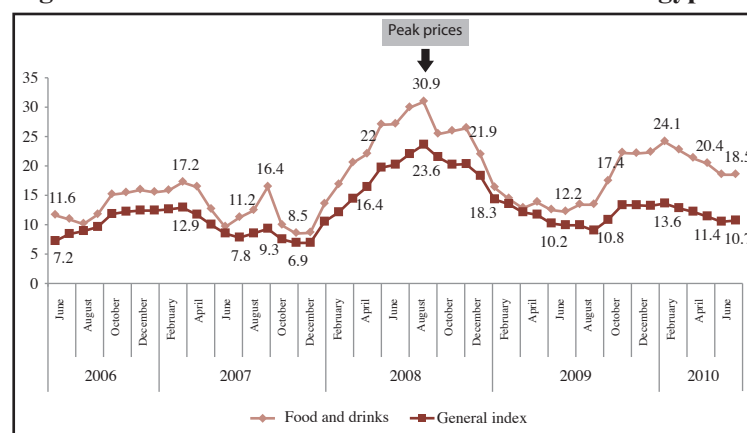
subsidy scheme. The strategy should aim at explaining the need for and the reasons behind price adjustments, identifying winners and losers and announcing clear measures to compensate the vulnerable losers. The awareness campaign should include: (i) evaluating the impact of reform on the poverty rate, health and the environment, (ii) reforming social aid programs in order to better address the needs of the poor, (iii) determining the amount or the level of assistance needed for each targeted group, (iv) determining the suitable mechanism to assist each targeted group and the necessary administrative capacity for effective implementation, (v) designing further indirect compensatory measures, and (vi) determining the time frame to implement the petroleum price adjustment program. Mechanisms to support the targeted groups range from direct cash transfers, direct transfers using smart cards or coupons or short-term indirect compensatory measures. The latter include distribution of LPG through community-based organizations (Bolivia), assistance to specific sectors (China), low transport tariffs (Malaysia), support to education, health, transport and electricity in rural areas (China), support to salaries (Jordan), grants and food stamps (Sri Lanka), and assistance to targeted groups (Vietnam).

FOOD SUBSIDIES: FISCAL BURDEN AND INEQUITY

Food subsidies, although smaller in scale relative to fuel subsidies, are also costly to the government and do not achieve social equity.¹ The impact of food price inflation is high in Egypt as it absorbs 41.5 percent of total household expenditures and accounts for 54 percent of total expenditures of the poorest Egyptian households. Indeed, soaring global food prices were reflected in escalating domestic food prices, resulting in a higher cost of living (Figure 8).

In 2008, the impact of the price shock was most significant on the middle and lower income groups in the Egyptian economy, demanding additional resources to alleviate the impact on the most vulnerable social groups and preserve social and economic stability. As such, the Egyptian parliament endorsed law 114/2008 with the objective of enhancing sustainable revenue measures to offset the additional budgetary outlays associated with higher spending on wages, pension, and food subsidies

Figure 8. Global Food Prices and CPI Inflation in Egypt



Source: CAPMAS.

in excess of what was originally proposed in the government 2008/09 draft budget.

Food subsidies are provided through two main channels: (i) subsidy for “baladi” bread (82 percent extraction rate), which is universal, and (ii) the ration cards that offer eligible households a pre-determined monetary quota of basic food stuffs (including rice, sugar and edible oil) for a maximum of four persons registered on each card (see Tables 2-3). Nearly 69 percent of the 2008/09 food subsidy bill was allocated to Baladi bread, while 31 percent was dedicated to other subsidized items, including sugar, rice and edible oil through the ration card system.

Table 2. Prices of Subsidized, Partially Subsidized and Non-Subsidized Bread Types

Bread type	Flour used	Percent of all produced bread	Number of bakeries	Price
Fully subsidized bread	Flour 82%	75%	19,000	LE 0.05 per loaf (130 gram)
Half subsidized bread (tabaki)	Flour 76%	15%	5,000	LE 0.10 per loaf (80 gram) LE 0.15 per loaf (150 gram)
Unsubsidized white bread	Flour 72%	10%	--	LE 0.25 per loaf

Source: Abouleinein et al. (2010).

¹ For more details, see Abouleinein et al. (2010).

Table 3. Cost of Food Subsidies in 2006/07, 2007/08 and 2008/09 (LE million, nominal)

	2006/07	2007/08	2008/09
Imported wheat	4496	11397	8085
Domestic wheat	2562	2681	4970
Maize	247	292	943
Fino bread	173	281	8
Flour	512	513	200
Total bread subsidy	7990	15164	14206
Rationed oil	649	1099	2352
Local sugar	1094	1137	2208
Edible oil	292	945	1288
Rice	471	754	577
Tea	-3	-13	6
Other subsidized food	2503	3922	6437
Total subsidy	10493	19086	20637

Source: Abouleinein et al. (2010).

Food subsidies are estimated to have reached LE 16.8 billion in 2009/10 (Table 4). Dramatic rises in global prices since mid-2006 have increased the food subsidy ratio to GDP from 1.3 percent in 2006/07 to 1.8 percent in 2007/08 and 2 percent in 2008/09.

Table 4. Food Subsidies in Egypt (2005/06-2010/11)

	2005/06	2006/07	2007/08	2008/09	2009/10 Estimated	2010/11 Budget
In billions of LE	9.4	9.4	16.4	21.07	16.82	13.58
In percent of GDP	1.5	1.3	1.8	2.02	1.4	0.98

Source: Abouleinein et al. (2010).

Part of the rise in the subsidy bill is due to the increase in rationed quantities and the expansion of ration cards coverage. In response to soaring food prices, the government decided in 2008 to update the registration for the food subsidy program to allow those born after 1989 to be registered in the system of ration cards. As a result, an extra 22 million individuals have been added, expanding the coverage of the ration card subsidy system to nearly 69.2 million beneficiaries by November 2008. Further, as of November 2008 ration cards supply additional quantities of rice, sugar and vegetable oil, at prices well below their free market value.

The food subsidy system is not equitable; four out of five households in Egypt purchase subsidized baladi bread and 67 percent have ration cards. The three middle quintiles purchase the largest share of baladi bread since it is available to everyone.

In contrast, the share of ration card holders decreases with the increase in expenditure, as certain criteria are used to exclude the rich from the ration card system (Table 5).

Table 5. Percentage of Households Receiving Food Subsidies by Quintiles

	1	2	3	4	5	Average
Baladi bread	78.01	80.96	83.80	84.86	77.74	81.01
Ration card food items	75.99	73.33	71.54	67.67	57.38	67.60

Source: Abouleinein et al. (2010).

Leakage is a serious problem in the bread subsidy (Table 6). Flour is highly subsidized and distributed to a large number of bakeries, hampering efforts to enforce monitoring and providing incentives for leakage to the black market. In addition, subsidized bread is cheaper than animal feed, providing incentives for cattle and poultry growers to abuse the system and use subsidized bread to feed their animals. This creates bread shortages and brings to light the weakness of a state subsidized economic model.

Table 6. Other Problems in the Bread Subsidy

	Fully subsidized flour (82%)	Half subsidized flour (76%)	Non-subsidized flour (72%)
Sold to bakeries	160 LE/ton	900 LE/ton	2500 LE/ton
Sold on black market	1750-2000 LE/ton	1200 LE/ton	—

Source: Abouleinein et al. (2010).

As shown in Table 7 below, food subsidies are poorly targeted and unnecessarily expensive, resulting in substantial leakage of resources to high-income households. Despite the long standing provision of in-kind subsidies and the expansion of the overall coverage of the food subsidy system over many years, poverty continues to rise and a large proportion of people remain highly vulnerable to food insecurity and malnutrition. A better targeted system should be in place to eliminate excessive consumption, prevent waste of government resources and ensure that savings are better targeted to those who could use extra support in the form of food subsidies and basic services.

Table 7. Per Capita Absolute Benefits of Food Subsidies Per Annum by Quintiles

	1	2	3	4	5	Average
Subsidies for baladi bread	123.0	134.9	146.9	164.4	167.8	147.4
Rice	17.4	20.1	20.9	21.5	22.1	20.4
Wheat	45.0	29.8	19.2	13.6	7.7	23.1
Oil	42.2	49.5	53.8	58.4	59.9	52.7
Sugar	25.9	27.9	29.2	29.9	28.6	28.3
Tea	4.5	4.5	4.2	4.9	4.3	4.5
All subsidies	257.9	266.6	274.3	292.9	290.5	276.4
Per capita consumption	1714.0	2423.6	3032.5	3887.0	7503.7	3712.1
Total Subsidies as Percentage of Total Consumption	15.0	11.0	9.0	7.5	3.9	7.4

Source: Abouleinein et al. (2010).

CONCLUDING REMARKS

The current subsidy system entails a lot of waste of government resources and does not achieve its objectives of reducing inequity. To the contrary, the bulk of the subsidy is diverted to those who do not need them, and therefore subsidizes luxury consumption for those who could afford to pay higher prices for food and fuel. Moreover, more subsidy resources are still lacking to support vulnerable groups in the form of quality and affordable education, health, and transportation and basic infrastructure services by the government.

Subsidies should be gradually phased out, mindful the implications on vulnerable groups and price inflation. Further, complementary policies should be in place to mitigate the effects on inflation and ensure more equity. In parallel, a system should be developed to ultimately replace price subsidies with an option for direct cash or in-kind transfers targeted to the most vulnerable groups.

The government's objective to reduce the overall deficit by about 5 percent of GDP by FY 2014/15 is critical to achieving private sector-led growth and reducing vulnerabilities. A large fiscal deficit increases the need for domestic financing and crowds out resources that could be made available to the private

sector. Further, the increase in public debt increases concerns about fiscal sustainability and erodes investor confidence. The targeted objective to reduce the fiscal deficit is feasible, based on the experience of other countries, and would lead to a further 15 percentage point decline in the debt-to-GDP ratio, currently estimated at 74 percent.

Anchoring the strategy in reform to increase the efficiency of public spending and complementing subsidy reform with better-targeted transfers will help durably address main fiscal vulnerabilities and avail more resources to support the government's social agenda. Such adjustment will be crucial to maintaining investor confidence, closing the gap of social inequity and reducing poverty, and preserving macroeconomic stability to ensure high and sustainable growth and create space for countercyclical fiscal policy, which proved to be effective during the last global economic crisis.

REFERENCES

- Abouleinein, Heba El-Laithy, and Hanaa Kheir-El-Din. 2009. *The impact of phasing out subsidies of petroleum energy products*. ECES Working Paper No. 145.
- Abouleinein, El-Laithy, Helmy, and Kheir-El-Din. 2010. *Impact of the global food price shock on the poor in Egypt*. ECES Working Paper No. 157.

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