

Energy subsidy reform in the Arab region: case studies of Tunisia and Saudi Arabia



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Energy subsidy reform in the Arab region Context

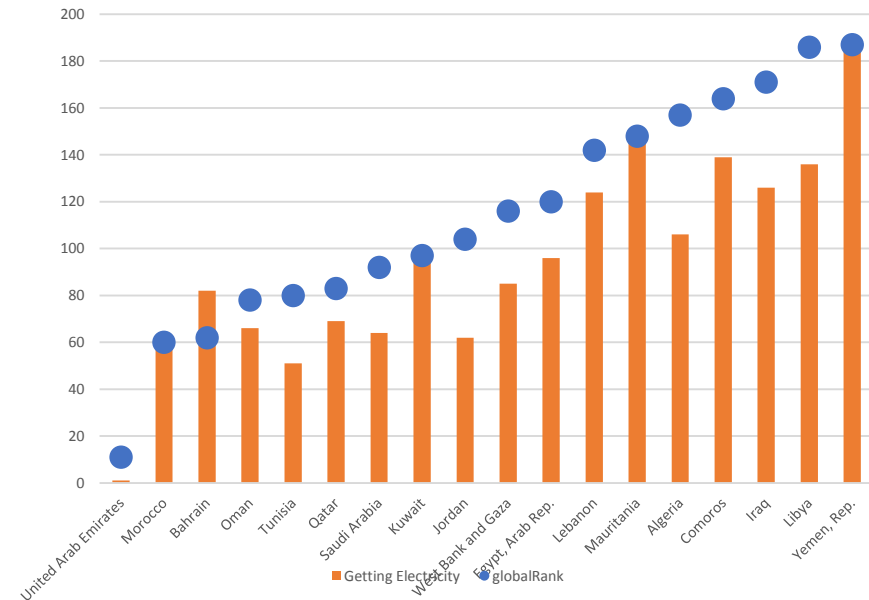
- Many developing countries have based their development model on the basis of cheap energy paradigm
- Arab countries represent more than (1/4) of global energy subsidies, amounting for \$117 billion out of a total of \$436 billion worldwide
- As result, affordable subsidized energy prices have contributed to using energy resources inefficiently with wasteful consumption patterns, leading to the aggravation of the fiscal burden

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Energy subsidy reform in the Arab region The effect of Energy subsidy in the Arab region

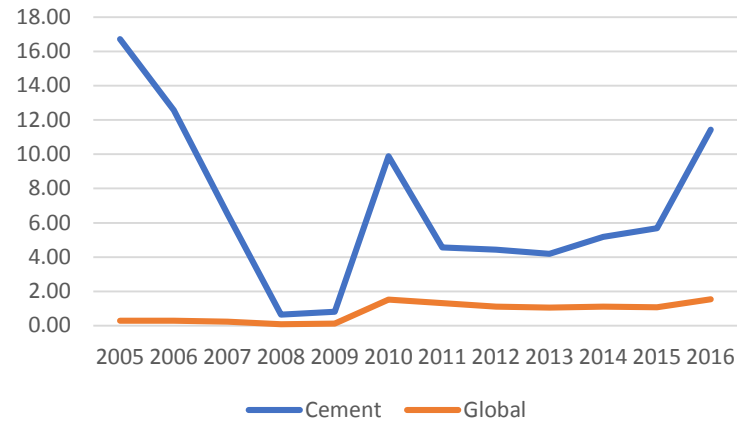
- The affordability of electricity, the cost of electricity is one of the most attractive policy to attract investors in the majority of Arab economies.
- There is huge disparities in terms of cost of electricity compared to getting electricity in Arab countries
- For example, Tunisia, an oil importing country ranks 51 in terms of getting electricity compared to its global rank of 80. KSA, a major oil exporter, is ranked at the 64th position in getting electricity whereas its overall rank is (92)!

Getting Electricity rank compared to the overall rank in Doing Business

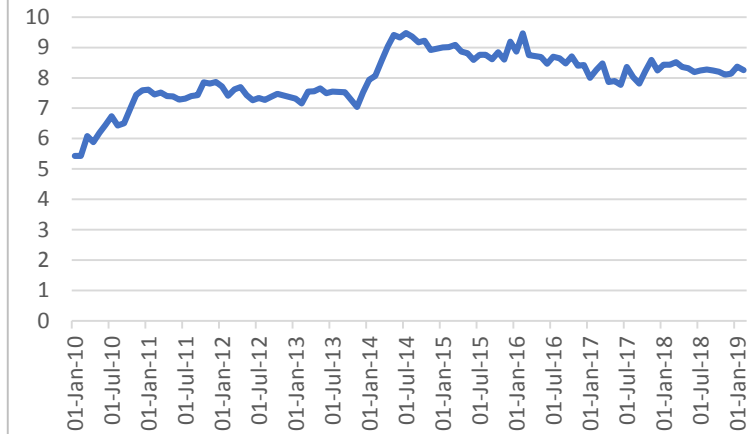


Such low energy prices policy allowed Arab countries to boost a range of energy-consuming industries such as aluminum, steel, cement, fertilizer and petrochemicals

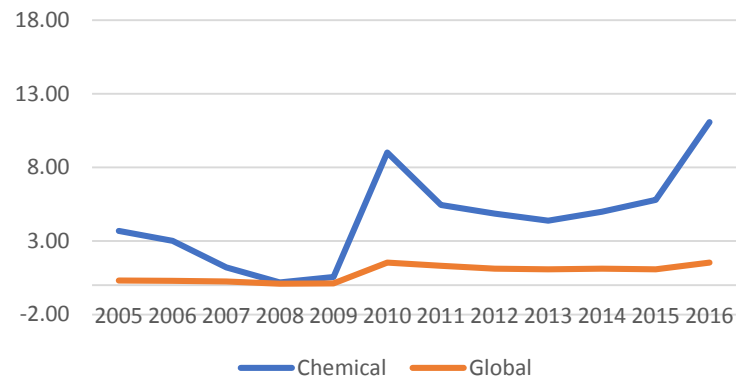
Share of the Arab production of Cement in the global production



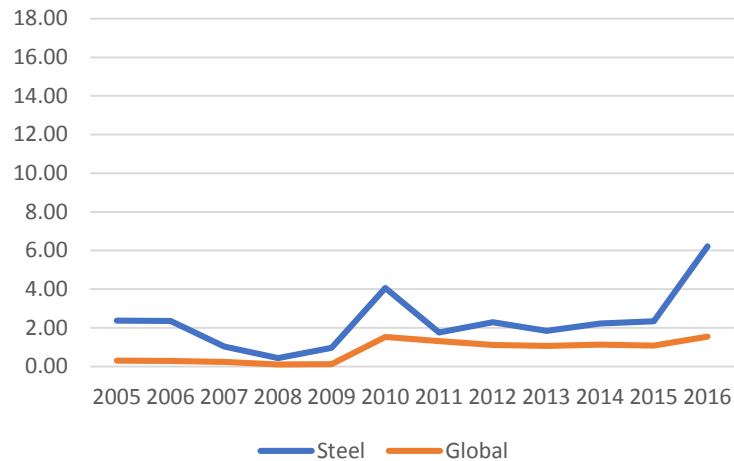
Share of GCC in the World Aluminum production



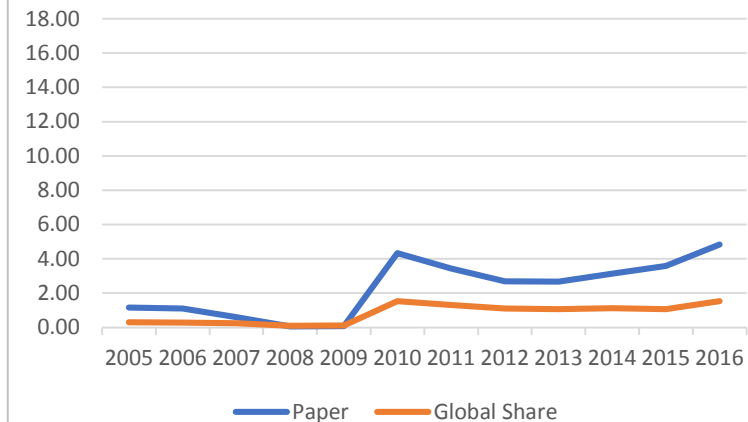
Share of the Arab production of Chemical products in the global production



Share of the Arab production of Production of Steel in the global production



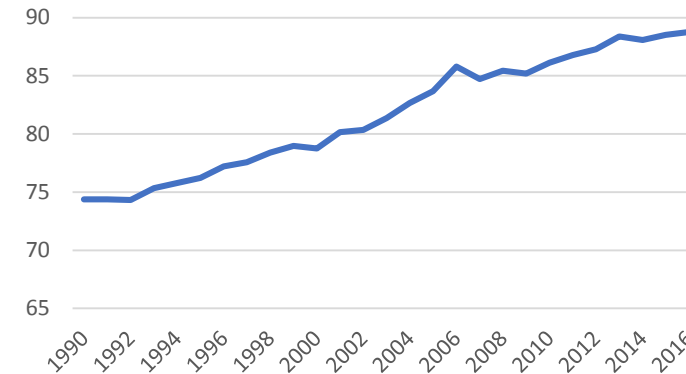
Share of the Arab production of Paper products in the global production



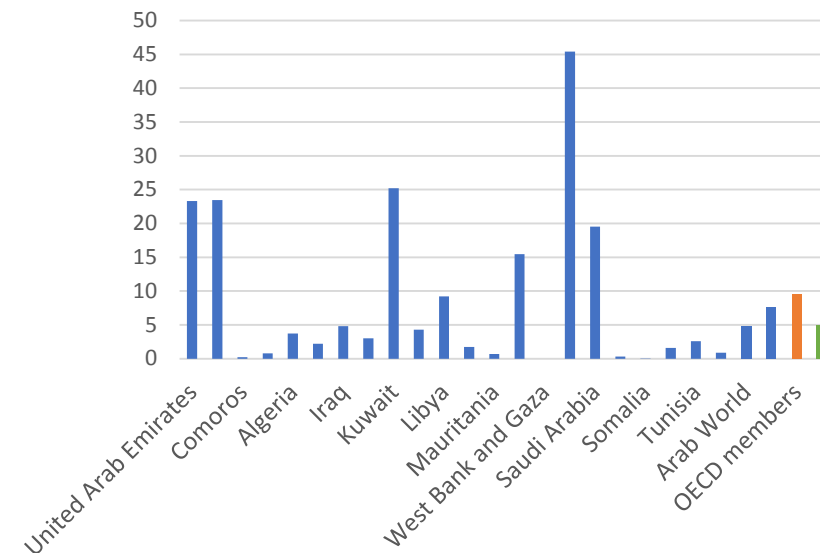
The effect of Energy subsidy in the Arab region

- Access to electricity has been increased over the past years. In 2016, almost 90 % of the population in the Arab region has access to electricity compared to nearly 75% 25 years ago;
- The Arab region maintained low prices for petroleum products: the gasoline prices are the lowest in the world.
- For regular gasoline, diesel and kerosene subsidies in the Arab countries represent on average about 65% of total energy subsidies (petroleum products, electricity and natural gas).
- As a consequence: the negative effect on environment. Fossil energy is a primary source of air pollution and rising of carbon footprint. GCC countries are among the highest carbon dioxide emitters, by far surpassing highly industrialized nations.

Access to electricity (% of population) in the Arab region



CO₂ Emissions (Metric Tons Per Capita)-2014



Status of Energy reforms in Arab countries

- Almost all Arab countries have initiated the reform of their energy subsidy system;
- Since 2015, all Arab exporters have undertaken reform steps by increasing the prices of energy products domestically
- Higher electricity tariffs were also implemented in most GCC countries, notably by UAE;
- Some of the Arab importers have eliminated subsidies for oil and electricity while almost Arab exporters maintain subsidies for electricity.

Table 1. Arab Countries: Status of Energy Reform, 2016

	Petroleum	Natural Gas	Electricity	Measures to protect the poor? (Y/N)	Medium-term plan? (Y/N)
MENA Oil importers					
Djibouti				No	Yes
Egypt				Yes	Yes
Jordan				Yes	Yes
Lebanon				No	No
Mauritania				Yes	Yes
Morocco				Yes	Yes
Sudan				Yes	Yes
Tunisia				Yes	Yes
Oil exporters					
Algeria				Yes	No
Bahrain				No	Yes
Iraq				Yes	Yes
Kuwait				No	Yes
Oman				No	No
Qatar				No	No
Saudi Arabia				Yes	Yes
UAE				No	No

■ : Subsidies eliminated
■ : Reform initiated, subsidies remain
■ : No specific measure

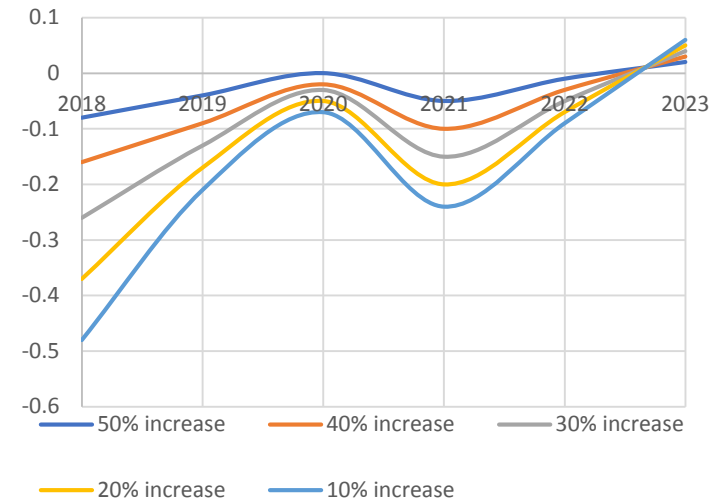
Source: IMF (2017)

Energy subsidy reform in the Arab region: Case study of Tunisia

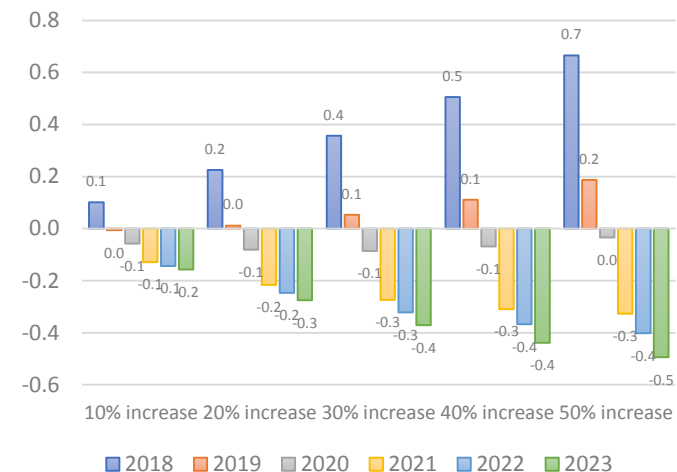
The effect of increase in the price of energy products

- Simulations show that higher prices for energy products (high and low voltage electricity) and hydrocarbon prices (LPG Gasoil Gasoil50) affect negatively the country's economic growth;
- The growth differentials between the simulations and the reference scenario are reduced as factor allocation adjustments are implemented. In 2023, the growth rate of the simulations is higher than that of the reference scenario.
- Higher prices of energy products are initially accompanied by an inflationary surge;
- The increases in energy prices by 30, 40 or 50 percent, with a multiplying effect on overall average price, increasing by 0.4, 0.5 and 0.7 percentage points in 2018

Growth gap

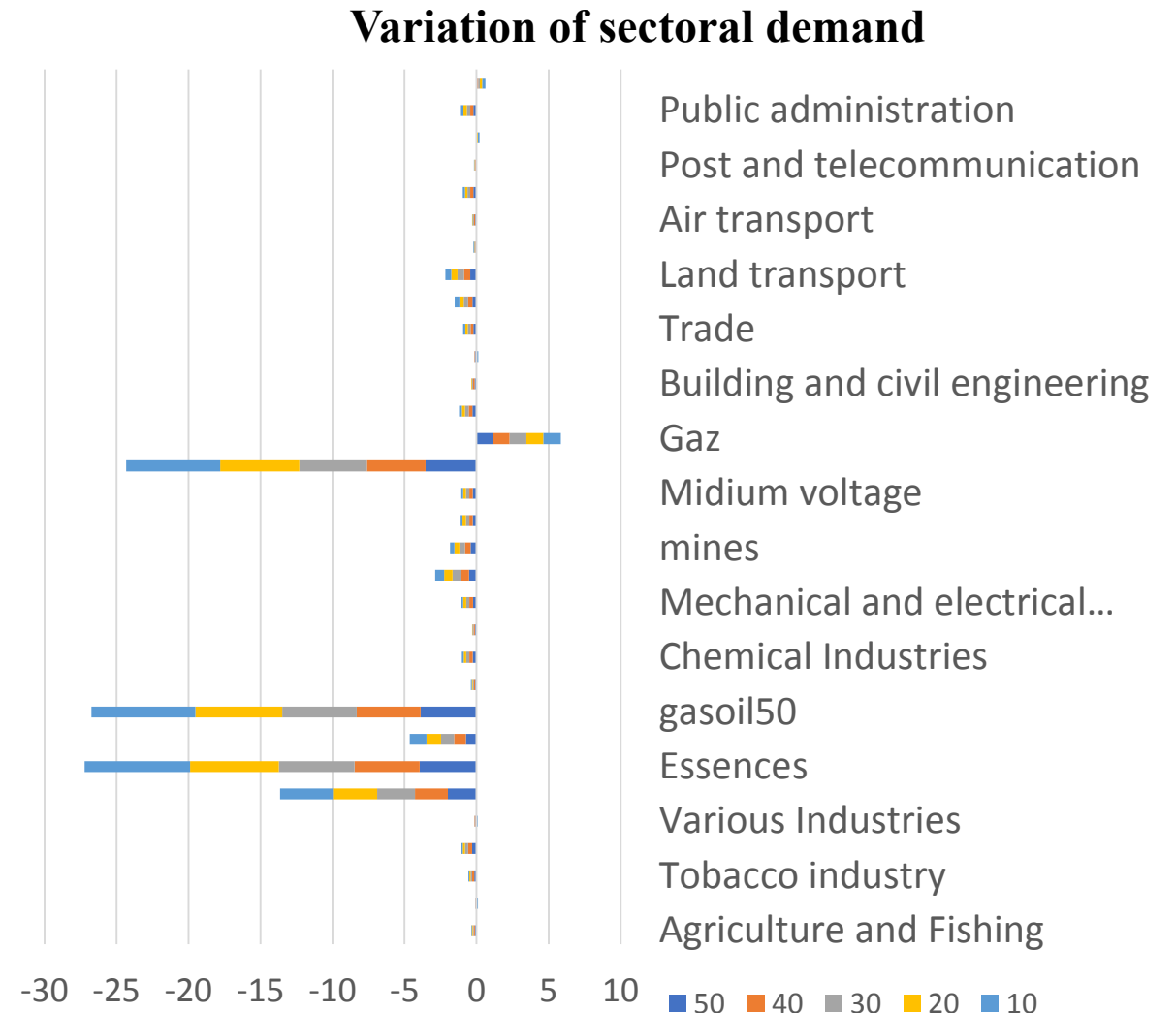


Effects on inflation



Sectoral effects

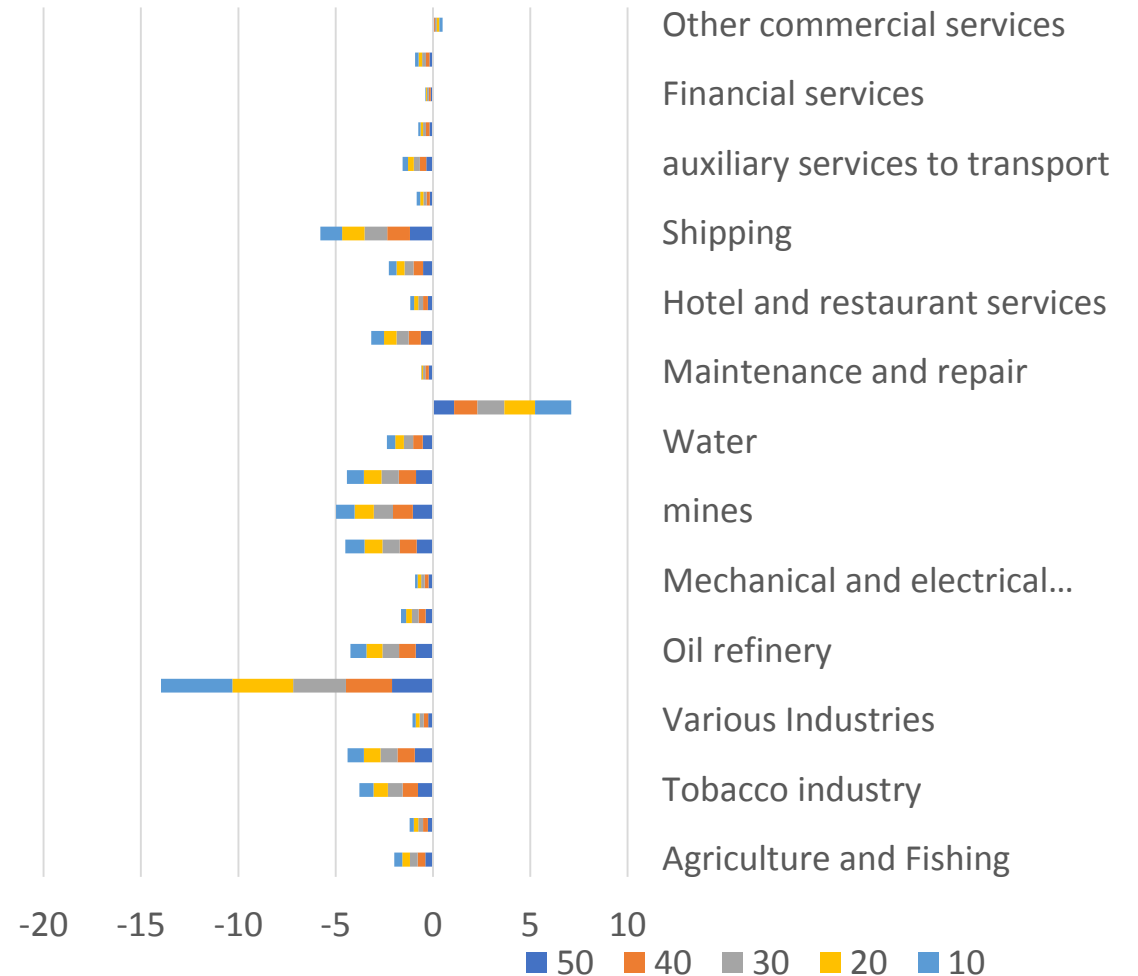
- Energy price increase has a significant effect on fuel and electricity demand
- The results show that the demand facing most products will decline
- Only the demand for gas could increase, it will benefit from the substitution effect



Sectoral effects (cont..)

- Labor demand decreases in the majority of the sectors raising the unemployment rate..
- Some significant exceptions, notably, in the building and civil engineering sectors
- The latter construction sector being highly intensive in male labor force in the country, indicates that the gender impact could be unequal

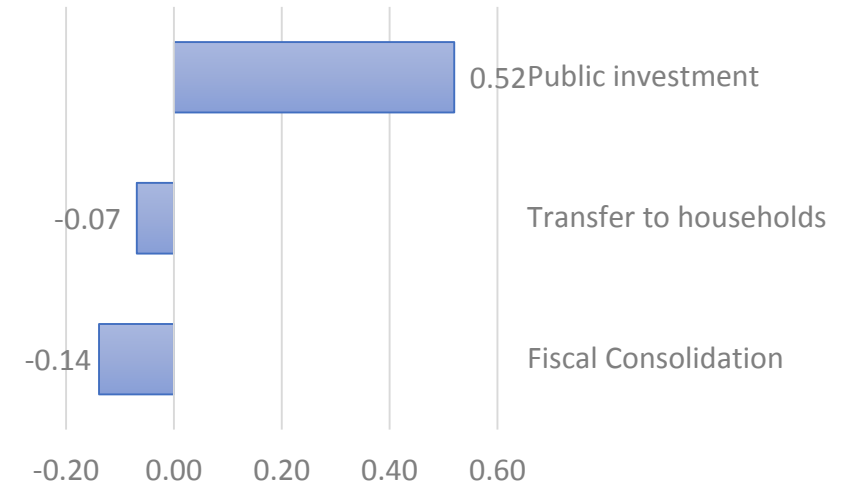
Variation of labor demand



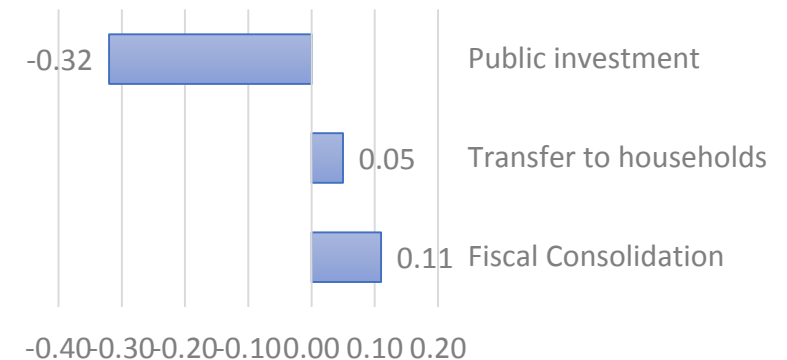
Implications of the fiscal closure

- In the first bunch of simulations we supposed that these ‘saved’ amounts are totally directed towards the reduction of fiscal deficit. This policy enhances the fiscal sustainability and reduces indebtment but has a negative impact on growth and job creation
- reallocating the “saved” amount towards a lumpsum transfer to households has a negative impact on growth and unemployment since it does not foster incentive to work. However, these negative effects are still less important than those arising from the fiscal consolidation scenario

Real GDP variation



Unemployment rate (%)

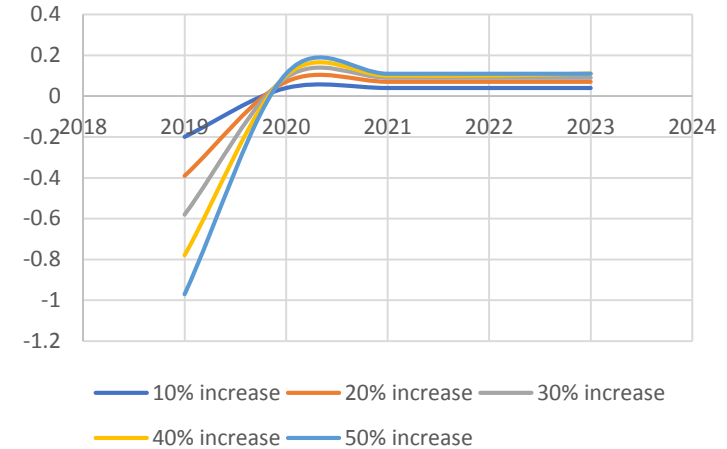


The case of Saudi Arabia

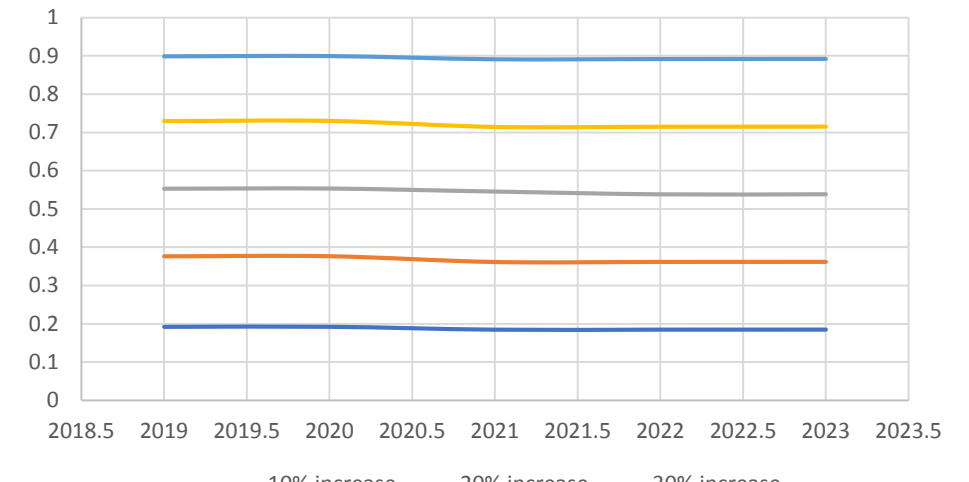
Effects on growth and inflation

- Energy subsidy reform could have a negative impact on growth and employment creation especially for nationals
- The growth gap between the different price simulation scenarios is initially wide in the implementation year 2019
- Since Saudi Arabia has a pegged exchange regime, the subsidy reform has no impact on its exchange rate. Thus, the increase in energy prices is completely translated into a surge in price index

Growth gap



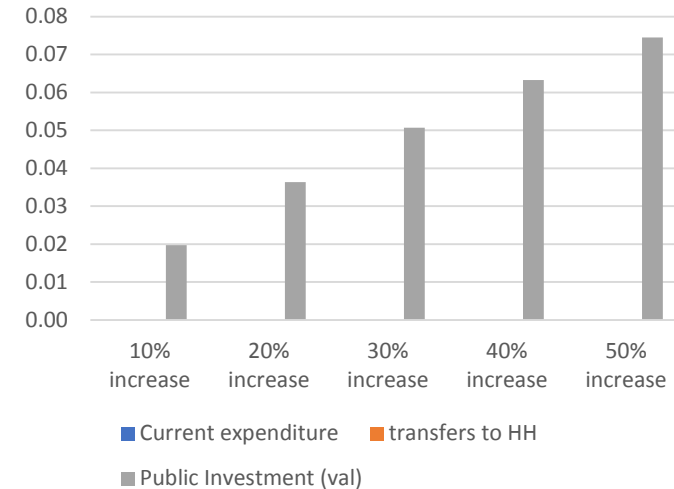
Effects on inflation



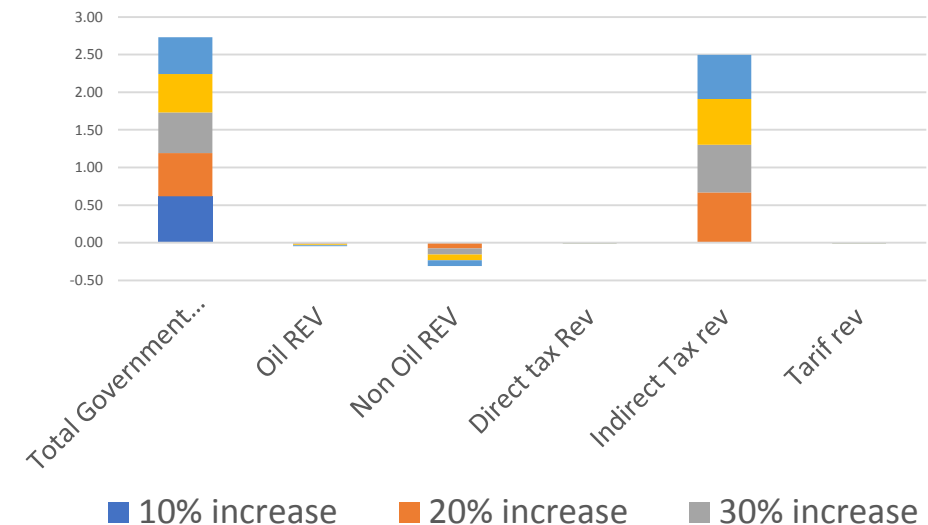
Fiscal implications

- Energy subsidy reforms is the positive effect on the fiscal balance
- Total government revenue would rise by a range of 0.5 to 0.6 equivalent GDP points for every quintile increase in energy prices
- Consequently, higher government revenue reduces the level of indebtment of the government and the debt burden

Variation of public spending as equivalent GDP points



Variation of government revenue as equivalent GDP points



Energy subsidy reform in the Arab region

Sectoral effects

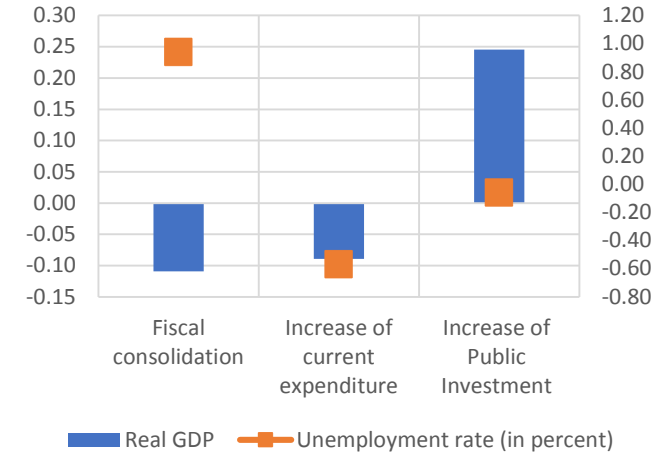
- Energy subsidy reforms decrease both production and demand in all sectors of the economy
- Electricity gas and water supply is obviously the largest sector affected directly which production declines
- This decline in production is coupled with a similar decrease in demand in all sectors as a result of higher prices for all products

	Production		Demand	
	20% increase	50% increase	20% increase	50% increase
Agriculture hunting and forestry	-0.15	-0.55	-0.61	-1.69
Crude petroleum and natural gas	0.17	0.29	-0.60	-1.58
Other mining and quarrying	0.03	-0.13	-0.30	-1.13
Petroleum refining	0.04	-0.07	-0.91	-2.32
Other manufacturing	-0.52	-1.57	-0.27	-1.10
Electricity gas and water supply	-5.89	-12.10	-5.91	-12.12
Construction	0.55	0.57	0.66	0.81
Transport storage and communications	-0.97	-2.59	-0.92	-2.42
Public administration and defense compulsory social security	-0.93	-2.28	-0.76	-1.87
Education	-0.80	-1.99	-0.74	-1.85
Health and social work	-0.92	-2.29	-0.74	-1.86
Other community social and personal service activities	-1.27	-3.18	-1.25	-3.13
Private households with employed persons	-1.95	-4.91	-1.95	-4.91

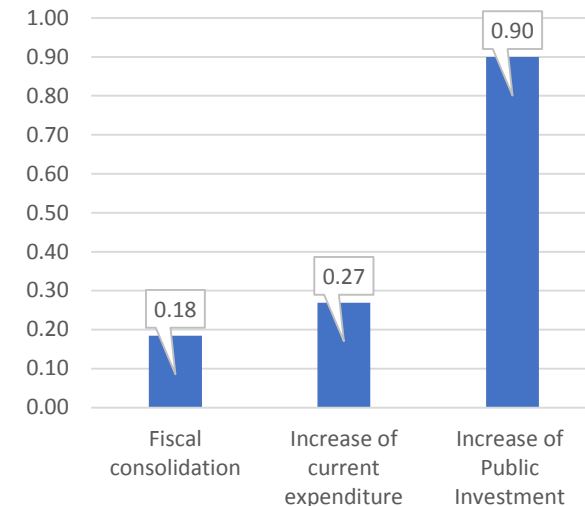
Implications of the fiscal closure

- Energy subsidy has a positive effect on the fiscal balance but weighs negatively on economic growth and unemployment due to lower economic activity arising from lower demand and production
- If such higher fiscal space is allocated towards increased current expenditures, **real GDP lose is reduced by 0.02 points compared to the fiscal consolidation scenario**
- if the fiscal balance is channeled towards increasing the public investment growth performance could be enhanced by 0.25 percentage.

Nominal GDP variation and Unemployment rate



Relative variation of price index



Conclusion

- Simulations demonstrate that reducing energy subsidy generates a fiscal space for both Tunisia and Saudi Arabia governments
- The ‘saved’ amounts could be allocated to the reduction of fiscal deficit and enhance fiscal sustainability;
- Application of alternative policies are possible. The saved amount could either be transferred to households as a lumpsum transfer or used to fund additional public investment programs
- The alternative policies are different in terms of growth, job creation and inflation..;

Recommendations

- Diversify the national energy mix and increase the share of renewable energy,
- Establish sustainable demand side management systems for domestic energy use,
- Re-prioritize structural economic diversification;
- Implement large-scale energy efficiency retrofit programs across all economic sector,
- Ensure effective enforcement of energy efficiency performance standards and regulations,
- And, increase the take-up of off-grid systems and enhance Regional energy trade.