

# UNESCWA Modelling activities during 2015-2016

## **Assessing the Impact of the 2014 oil shock on Arab economies using Mirage.**

This analysis uses a modified version of MIRAGE to assess the economic implications of a drop in oil prices for Arab economies. The tool also gives the possibility of discerning the mechanisms through which the shock is transmitted, including the reallocation of resources within an economy's productive structure. Moreover, it captures the effects on unemployment and fiscal policy. Decline in oil prices was supposed to be driven by an increase of the United States supply of oil; all other producers maintain their supply at the 2014 level. The shock is supposed to take place early in 2015 and to be maintained until 2020. The results show that, as a whole, the Arab region would lose 1.5 percentage points in the year following the shock. The impact of lower oil prices on individual countries depends on their situation in the oil market as net exporters or net importers. Oil-exporting countries would lose 1.88 percentage points of growth, while the remaining Arab countries would lose 2.73 percentage points of growth.<sup>37</sup> The growth loss of Saudi Arabia is estimated at 2.58 percentage points, while that of Kuwait is 2.28 percentage points. Simulations revealed that the larger the shock, the more significant the consequences on GDP growth, total investment and skilled and unskilled unemployment rates. There were sectoral implications as well. Sectors that are intensive in the use of oil such as metal industry were positively affected and vice versa. Larger shocks are associated with higher benefits from flexibility in the allocation of resources in the long run. Simulation on oil prices shocks revealed higher unemployed results that might continue in the long run.

<https://www.unescwa.org/publications/survey-economic-and-social-development-arab-region-2014-2015>

## **Assessing Arab Economic Integration: Towards the Arab Customs Union:**

This report used the MIRAGE, to assess the set of scenarios of implementing the Arab Customs Union. The MIRAGE model is built to assess the impact of globalization on individual countries and regions across the world. The model is a relatively standard neoclassical model of economic activity. It is based on the latest release of the GTAP data set, version 9.0..

<https://www.unescwa.org/publications/assessing-arab-economic-integration>

## **Developing a user-friendly CGE model for the Kingdom of Saudi Arabia:**

As part a cooperation program between ESCWA and the Kingdom of Saudi Arabia, UNESCWA has developed SAM and a 'ready to use' CGE model for the ministry of economy and planning. The model is currently used to simulate various options and reforms occurring in the Kingdom. A user-friendly Interface Application to the CGE model was designed and delivered.

## **Assessment of the macroeconomic implication of the conflict in Libya on Tunisian economy:**

Between 2011 and 2015, Tunisia has lost an average of 3.86 basis points of growth per year. A predictable counter-performance consistent with the behaviour of countries undergoing a democratic transition, which is translated by social unrests, lack of visibility for investors and an instability in the chain of command. Add to these internal effects, the effects of the security and economic crisis in Libya, a neighbouring country and Tunisia's 6<sup>th</sup> economic partner. Using a single country CGE mode,

this paper has quantified the effects of the Libyan crisis on the Tunisian economy over the period of 2011-2015 and to isolate these effects from the economic cost of the political transition that Tunisia started in 2011.

**Measuring the Costs of Israeli Restrictions on the Palestinian Economy: A Computable General Equilibrium (CGE) Approach:**

Israeli restrictions on the Palestinian economy have long been a source of weak economic performance by misallocating scarce Palestinian resources. The unequal trade relations between Israel and Palestine have also made it increasingly difficult for Palestinian producers to compete with foreign imported goods and services. Using a CGE model, (PalMOD (bayar) the study conducted 2 policy simulations (1). An increase in “transaction costs” due to the increase in restrictions imposed by Israel; and (2). Easing of Israeli restrictions on Area C, which contains almost 80% of Palestinian natural resources. The simulation results of the first scenario - an increase of 50 percent in “transaction costs” due to stricter restrictions imposed by Israel – show that this would have a major negative impact on the Palestinian economy. Real GDP would decrease by more than 27 per-cent in the short run.

<https://www.unescwa.org/publications/measuring-costs-israeli-restrictions-palestinian-economy-computable-general-equilibrium>