Workshop:
Fiscal Reforms for Low Carbon Growth in the Mediterranean

Organized by the Center for Mediterranean Integration and the World Bank’s Climate Action Peer Exchange

Villa Valmer, Marseille, 18-19 October 2018

Key messages and main conclusions

The Center for Mediterranean Integration (CMI) and the World Bank’s Climate Action Peer Exchange (CAPE) organized jointly a workshop entitled “Fiscal Reforms for Low Carbon Growth in the Mediterranean”. The workshop took place at Villa Valmer in Marseille on 18-19 October 2018. It brought together around 30 participants, amongst whom representatives from finance ministries of Algeria, Egypt, Lebanon, Morocco and Tunisia, academics, and representatives from international organizations (World Bank, IMF and OECD).

CAPE is a capacity-building forum for peer-to-peer knowledge sharing and advisory support. The CAPE initiative brings together finance ministers, senior technical staff, and other relevant stakeholders to design climate-smart macroeconomic policies, discuss fiscal-policy measures for mitigating the impact of climate change, and develop financing strategies for implementing the NDCs.

The CMI is a multi-partner platform bringing together Mediterranean countries and donors around the development and integration challenges of the Region. One of the axis of the CMI is creating economic opportunities through the sharing, at the regional level, of the knowledge gained from experience, operations and pilot analyses in order to facilitate policy decisions that lead to stronger, inclusive and more sustainable economic growth in the Mediterranean Region.

Altering the trajectory of carbon emissions will require operationalizing the Paris Accord’s Nationally Determined Contributions (NDCs) through public policies, public and private investments, and innovative financial instruments. Finance ministers are pivotal to achieving these objectives. From tax instruments to strengthening social and economic resilience, finance ministers have a wide range of policy instruments with which to fight climate change and
manage the transition towards low carbon development. Moreover, fiscal reform and regional energy market integration need to move in harmony.

The objectives of the workshop were: (i) to discuss the fiscal reforms that are critical for a low carbon energy transition in the Mediterranean and (ii) to share country experiences and knowledge on the design of fiscal reforms conducive to the energy transition.

The agenda of the workshop, as well as the presentations, the pictures and the participants list, can be found here. The present document focuses on summarizing the key messages, the most important conclusions and the suggested next steps.

Session 1 – Fossil Fuel Subsidy Reform: Why, How and When

The session began by providing an overview of overall landscape of Energy Subsidies in the developing countries of the Middle East and North Africa (MENA) Region (namely, Algeria, Tunisia, Morocco, Egypt, Lebanon, Jordan) both in terms of levels relative to the rest of the world and energy subsidy reform experiences with a focus on the pricing of fossil fuels and impacts they have had on public investment and growth. It highlighted how the World Bank's recently released Energy Subsidy Reform Assessment Framework (ESRAF) can be used by governments to design effective reforms in an informed manner that incorporates the various economic, political economy, and communications dimensions of these reforms. The recent experience of Egypt highlighted how they are undertaking their energy subsidy reforms using such a multidimensional approach. Early results are encouraging both in terms of creating fiscal space and facilitating transition to renewables use (solar and hydro).

The first speaker, Paolo Verme, provided a lucid discussion of energy subsidy reforms in the MENA Region until 2014. Pre-reform fuel prices in the Region, whether for Gasoline, Diesel, Kerosene or LPG, were relatively significantly lower than those in all other regions of the world. The late 2000s saw political changes from regime changes in Tunisia, Libya, Egypt and Yemen and a new social contract with the populations which became less averse to reforms, including energy subsidy reforms. Fiscal impacts of subsidies, especially in the face of spiking oil, commodity and food prices led to increasing budget deficits. Big Bang energy subsidies followed in Iran (2010), Jordan (2012), and Egypt (2014). Gradualist reforms in Morocco (2013-14) and Tunisia (2012-2014). By end-2014, the agenda for the complete elimination of consumer subsidies remained unfinished in all the countries in the Mediterranean Region other than in Morocco. With fossil fuels, a product by product approach to removing subsidies is proposed given the differentiation between who gets the subsides by income groups, welfare and poverty impacts of subsidy removal and readiness of social transfer payment mechanisms and programs that would be used in the respective country to implement these energy subsidy reforms. The dramatic oil price drop in 2014 was an opportunity to reform for oil importers in the Region.

The second speaker, Thomas Flochel, then provided a window into the post-2014 period until today where the global environment is, and is expected to be, very different from the earlier period. International oil prices are on the rise, interest rate outlook in international capital markets calls for possible rate hikes and global growth is expected to slow on average given ongoing trade frictions. All this does not bode well for the incentive of governments to abandon fossil fuel subsidies, especially in the Mediterranean Region, where they have been prevalent for
a while, despite increasing fiscal pressure, reduced fiscal space and high youth unemployment in the Region. The increasing oil prices also pose a threat of energy subsidy policy reversals in some of the MENA countries. Energy subsidies impact energy mix (encouraging overuse of fossil fuels by households and firms), emission intensity and lead to adverse environmental externalities (e.g. on health outcomes) and may hamper the achievement of the country’s own NDCs for Climate Action. It crowds out social spending and investment in social protection systems. Lessons that emerge from these data include the following: price subsidies for network energy are easier to target; subsidy removal is easier for gasoline than diesel and most difficult for cooking and heating fuels; conditional cash transfers facilitate price deregulation. Successful energy subsidy reform experiences show that getting consumers used to frequent price adjustments is important and can contribute to depoliticizing energy pricing decisions. Indirect impacts of energy subsidies through inflation and exchange rate effects is important. Finally, well-designed communications campaigns should be an essential ingredient in order to facilitate buy-in to energy subsidy reforms in a country.

The third speaker, Gabriela Mundaca, presented the findings of her empirical research in the MENA Region on energy subsidy reforms and its impact on GDP and employment over time. Econometric analyses, on the basis of certain stylized assumptions presented, suggests that higher GDP is possible by eliminating energy subsidies. Environmental taxes in the form of a tax on diesel reduces labor force participation in the short run, but as the economy reallocates resources and switches to alternative energy sources in response to higher fossil fuel prices (post-subsidy reforms), and accompanying infrastructure investments with better public services, employment increased in subsequent years. Looking at a hypothetical increase in diesel and gasoline by USD 0.20 per liter, Mundaca (2018) finds that CO₂ emissions would be reduced by 50% on average in the MENA Region.

Finally, Moheb Malak from the Egyptian Ministry of Finance, provided a rich perspective on the energy subsidy reforms the Government of Egypt has undertaken since 2014. Those reforms are aimed to address the previous underpricing of energy that led to unsustainable fiscal situations and overconsumption of fossil fuels. As a result of underinvestment in energy production and overconsumption of energy, Egypt, which was once an energy exporter, became a net importer. A comprehensive multi-pronged energy subsidy reform program is now being implemented. This includes measures for fiscal stabilization, social inclusion and structural reforms to bring in the private sector in the energy sector. Today the Egyptian government spends more on education and health than on subsidies for petroleum products and electricity.

Session 2 – Environmental Tax Reforms: Rationale, Benefits and Pitfalls

The session was aimed at discussing and sharing knowledge on the application of environmental tax reforms (ETR). ETR include taxing sources of energy that produce pollution and recycling the revenues to reduce labor (and other taxes) and unemployment. Revenues from environmental taxation can also be invested in low-carbon infrastructure or fund social spending, thus increasing human welfare.

The first speaker, Prof. Anil Markandya, provided an overview of the key issues in designing and implementing ETRs. He also presented an application of ETRs principles using a standard CGE model for Spain, a country with a large informal sector and unemployment. The case study shows that replacing part of the labor taxes with a carbon tax results in a reduction in
unemployment and – under certain conditions – an increase in welfare. Prof. Markandya concluded that the results of this model are particularly important for developing countries, where there is a high level of substitution between energy and labor. This ‘double dividend’ could be generated even more effectively by reducing fossil fuel energy subsidies and use the savings to reduce employment taxes in the formal sector.

The second speaker, Kurt Van Dender, discussed the current use of environmental taxes. A recent OECD report (OECD, Taxing Energy Use 2018) found that across 42 OECD and G20 economies, almost all taxes on energy are too low to contribute in a meaningful way to reducing global warming. Moreover, between 2005 and 2014 the revenues from all environmental taxes – on energy use, road transportation, waste production, water use and water pollution – declined to an average of 1.8% of GDP and shrank to 6.5% of total tax revenue. By contrast, simulations show that the revenue potential from applying a carbon tax of EUR 30 in OECD countries would be significant, 2% of GDP. Decisions on how to use these revenues will determine the economic case for carbon pricing as well as its political viability. He suggested that policy makers should avoid implicit revenue use through reduced rates or narrow base. This reduces environmental effectiveness and slows down the transition to a low carbon economy (long-run competitiveness).

The third speaker, Mario Mansour, provided an overview of the tax system in the MENA Region and discussed the links between taxation and the environment in MENA. The Region is characterized by very large pre-tax subsidies that result in consumer fuel prices below international benchmarks. Moreover, consumer electricity prices are also well below production and distribution costs, implying large subsidies and they are largely in favor of high-income households. Environmental taxation is uncommon: data are scarce but excise revenues from energy products are lower in MENA relative to comparators. Policy suggestions for increasing the efficiency of the tax system include phasing out price subsidies and pricing externalities (and de-politicizing the price mechanism is necessary for success – provided accompanying measures are implemented); extending excises to certain items (on cars and plastic); applying road and congestion fees and replacing tax holidays with better targeted tools to reduce capital cost. For equity purposes, policy makers should consider introducing more progressive PIT rates, better taxation of self-employed, and fundamental reforms to social security contributions, among others.


The fiscal regime, besides discouraging the use of high carbon forms of energy, also needs to provide incentives for the use of energy sources which do not emit CO₂. Support schemes for Renewable Energy Sources (RES) provide such incentives and can be funded, in part, from the revenues generated by environmental taxes and released by the removal of fossil fuel subsidies. In this session, the participants heard about the different support schemes and got guidance on their fiscal implications and suitability based on policy objectives and market conditions.

The first speaker, Prof. Jacques Percebois, listed the economic instruments available to promote low carbon growth: fossil fuel taxation (incl. subsidy removal), carbon pricing, RES subsidies, norms and standards for energy using equipment and innovation promotion through R&D support. All of these have to be used in combination, but carefully to avoid the “Green Paradox”
(such as an acceleration of fossil fuel production to avoid leaving in the ground resources that will not be needed in a decarbonized world). He then provided an overview of different RES support schemes and their pros and cons. The most widely used scheme is Feed-in-Tariff (FiT) which provides a price guarantee, and therefore certainty for investors, but does not provide volume certainty. Moreover, FiT schemes are costly for the government budget and often for consumers (as they indirectly bear the cost of government support). FiTs are gradually being replaced by Feed-in-premiums and auctions. The presentation then addressed the distortionary effect of RES support schemes and the need for mitigating measures (such as capacity mechanisms), as well as the requirement for flexibility solutions (such as storage) to address the intermittency characteristics of RES.

The second speaker, Prof. Dr. Mario Ragwitz, provided more details on auctions, that are increasingly being adopted, given their ability for real price discovery and for controlling the level of support expenditures, while adding certainty to volumes produced. The use of auctions is complex and challenging: high transaction cost, risk of collusion, possibly low participation, risk premium, etc. However, their use is spreading in the European Union, as the Clean Energy Package for ALL and State Aid Guidelines require a move to market-based support mechanisms, as well as the increased use of cooperation mechanisms, so that RES production takes place where cost is lowest, hence reducing the cost of support. Their use is also becoming widely spread in developing countries, in particular in Southern and Eastern Mediterranean Countries (SEMC) which have very good solar and wind resources and where large-scale government support may not be available.

The third speaker, Emanuela Menichetti, gave an overview of RES developments in SEMC and of the policies that are supporting those developments. Although the Region has one of the best RES potential of the world (in particular solar), RES still only represent a very small share of energy consumption. However, the RES development is accelerating, in part thanks to strong political commitment to climate change mitigation and the adoption of policy measures to support RES deployment. All countries have adopted RES targets and NDCs where RES play a central role. For the electricity sector, tenders/auctions are the favored support mechanism, and have resulted in some of the lowest prices in the world. Various schemes to lower the cost of equipment (such as reduced VAT for high efficiency appliances or solar water heaters) or reduce the cost of capital (through credit lines at concessional rates) are also in place.

Finally, the last speaker, Waleed Saleh I. Alsuraih, addressed the topic of regional energy market integration and the requirement for harmonization of RES support schemes and energy taxes/subsidies. Regional market integration is one of the options to provide the flexibility that electricity systems need to accommodate the RES intermittency. The Pan-Arab Electricity Market (PAEM) is gradually becoming well integrated, with the potential of integrating with Europe in the long-term. However, the utilization of interconnectors is very low and trade benefits, in particular as regards RES scale-up, are unexploited. Subsidies on electricity tariffs results in over-consumption, reducing the amount of electricity that could be traded at international prices. Subsidized fuel for power generation is a hindrance to trade because of concerns about implicit wealth transfer. Free commercial trade resulting from PAEM integration would yield numerous benefits, including enabling higher share of renewable energy without compromising security of supply as PAEM serves as pool of supply and demand to balance the fluctuations of renewables generation, reduced investment and operating costs due to reserve
sharing and joint dispatch and lower CO₂ emissions (not only because of higher RES penetration, but also because of more efficient power systems).

Conclusions and next steps:

Blanca Moreno-Dodson drew the overall conclusions of the workshop:

- We have heard that subsidy reform can happen gradually, or as a “big bang”, but, in all cases, a holistic approach is necessary. Fiscal policy needs to be coordinated with energy, climate, social and industrial policies. Regional coordination and cooperation is also useful to improve the efficiency and effectiveness of reforms.
- Social safety nets are essential to make energy subsidy removal acceptable and mitigate the impact on the most vulnerable population. Communication ahead of the reform and during the transition to market prices is also critical to ensure acceptability. Moreover, it is important to get consumers used to price changes at an early stage.
- Removing fossil fuel subsidies is less painful when oil prices are low, but a necessity when oil prices are high to avoid ballooning budgetary pressure.
- During ETR, some of the revenues from new or existing taxes can be earmarked for instance to finance climate mitigation measures, such as RES incentives.
- Higher consumer fossil fuel prices resulting from subsidy removal are good for the development of RES, making them more competitive.
- Before undertaking subsidy removal, or ETR in general, it is essential to ensure that the required technologies to mitigate their effect is available in the affected market at a reasonable price (i.e. efficient boilers or solar water heaters). It is therefore important to know the markets of the products for which subsidies are being reformed and to adopt an approach best tailored for each product/market.
- To avoid negative spillover effects or distortion to trade, ETR should be undertaken to the extent possible in cooperation with neighboring countries. The transition to low carbon growth is less costly if regionally coordinated (see the example of the single market in the EU).

In addition, during the tour de table, the country participants made the following comments and suggestions:

- The workshop was very useful to give guidance on their on-going process of price reform. In particular, they noted the importance of safety nets and social programs to mitigate the effect on vulnerable population and of industrial policy to ensure no adverse effect on competitiveness.
- There is a need for comprehensive policy: if measures are taken to improve energy efficiency, then the price increase resulting from ETR will have less of a damaging effect on productivity and competitiveness. Subsidy reform can even make industry more competitive if it induces investment in new more efficient technologies. Technological change is key to a successful ETR.
- Some countries offer reduced VAT and lower tax rates in general for renewable and energy efficiency equipment (Morocco). Others offer capital grants to encourage RES and energy and environment investment (Tunisia).
- Putting in place automatic price adjustments to international oil markets is key to a successful subsidy reform.
• Electricity subsidies remain an un-tackled issue.
• Earmarking and recycling of environmental tax revenues to reduce corporate taxes and employment charges are essential to acceptability and to feeding low-carbon growth.

In summary, this workshop was only the beginning of a long process of transition to a low carbon path. CAPE, CMI and the World Bank will continue to work with SEMC to implement fiscal reform to serve the objectives of the Paris Agreement. They propose tools (such as ESRAF), knowledge products, capacity building activities and peer exchange events, to support fiscal reforms for low carbon growth in the Mediterranean.