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Euro-Mediterranean Association Agreements Matching Models and Policy Questions*

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Quantitative models play an increasingly important role in policy analysis. Especially in the case of structural changes in the economy, the impact of such changes can only be determined numerically. The Euro-Mediterranean Association Agreements (EMAAs) try to establish structural changes in the relations between the EU and the Mediterranean partner countries (MPCs), by establishing a Mediterranean free trade area (FTA). Various studies have therefore applied general equilibrium models to analyse the impact of the EMAAs.

Building on an earlier study,¹ we discuss in general terms the extent to which existing general equilibrium analyses address key policy issues of the EMAAs. Based on this assessment we identify promising directions for future modelling work.

Specifics of Mediterranean partner countries

Four key characteristics of the MPC economies are relevant when assessing the impact of the EMAAs: unemployment, agriculture, state-role and fiscal aspects.

Unemployment. The MPCs are combining high levels of unemployment with a young population. The impact of the EMAAs on employment is therefore crucial for the MPCs. With few exceptions, however, the existing models assume full employment and are therefore unable to assess the real impact on employment. Assuming full employment may also affect model results. This assumption implies that an expansion of production leads to higher wages and thus less competitive prices, whereas a contraction has the opposite effect. In the presence of unemployment either real or nominal wages are fixed, resulting in more rigid product prices. The models assuming full employment could therefore be expected to underestimate both gains and losses from the EMAAs, making the net impact of this bias indeterminate. Unemployment is also an important driving

force of the flow of migrants to the EU, an aspect of the EMAAs that is not addressed by any of the models.

Agriculture. Agricultural liberalisation is the most contested part of the EMAAs. The EU protects Mediterranean horticultural products (fresh fruit and vegetables), while MPCs protect temperate products (grains, milk and meat). Given these patterns in protection, establishing a Mediterranean FTA can be expected to cause shifts in agricultural production in the MPCs. Because of the limited economic size of the MPCs, the impact on the EU as a whole will be negligible. Regional impacts on southern EU member states directly competing with the MPCs, however, can be considerable. Most models focus on the industrial sector, aggregating all agricultural activity into a single sector. Modelling agriculture as a single sector prohibits an analysis of shifts between production of specific Mediterranean products and temperate activities.

State role in the economy. The state plays a prominent role in MPC economies. Apart from a bloated public sector, protection of temperate-zone agricultural activities and consumer subsidies for staple food, governments are directly involved in production activities through state enterprises. Models generally capture the 'standard' interventions through taxes, subsidies and government consumption. Direct involvement of the state in production is generally not accounted for in the models, preventing an analysis of the EMAAs on state enterprises and their employees.

Fiscal implications of EMAAs. The bloated public sector and subsidies require an extensive government budget. These expenditures are largely financed by tariff revenues, and the fiscal implications of the EMAAs therefore receive ample attention. Results indicate that the choice of tax replacement scheme affects the net welfare impact of the agreements.

Specifics of the Euro-Mediterranean Association Agreements

Next to specific features of the MPCs, there are specific features of the EMAAs that need to be accounted for: asymmetry, hub-and-spoke structure and the timing of implementation across the MPCs.

¹ These characteristics are derived from the result of a preceding study summarised in M. Kuiper & C. dell'Aquila (2003), *The Euro-Mediterranean Partnership: Policy and Research Issues*, ENARPRI Policy Brief No. 2., CEPS, Brussels, September.

Asymmetry. Because of direct competition with agricultural producers in southern EU member states, the EMAAs are limited to liberalising trade in manufactured products. Since the EU removed its restrictions on imports of manufactured goods from the MPCs in the 1970s, the EMAAs have *de facto* amounted to an asymmetric removal of industrial barriers by the MPCs. All the models analyse a removal of trade barriers on manufactured goods by the MPCs. This is generally contrasted with a liberalisation that encompasses agricultural trade flows. Surprisingly, in about half of the reviewed models the establishment of the FTA is modelled as a one-sided abolition of barriers on agricultural trade flows by the MPCs.

Hub-and-spoke structure. The EMAAs consist of bilateral trade agreements between the EU and the MPCs. The result is a hub-and-spoke structure where European producers have preferential access to all MPCs, while MPC producers still face barriers when exporting to other MPCs. Most analyses use a single country model and do not distinguish trade flows with other MPCs, prohibiting an analysis of the hub-and-spoke character of the agreements.

Timing across MPCs. The EMAAs are negotiated separately with each of the MPCs. Implementation of the agreements therefore follows a different timeframe across countries. This may affect the distribution of cost and benefits in the event that the MPCs manage to achieve south-south integration. The limited number of models separating trade flows with different MPCs or using a multi-country model do not analyse the impact of timing on the distribution of costs and benefits across MPCs.

Matching models and policy questions

The applied general equilibrium models used to analyse the EMAAs usually focus on fiscal implications and the impact on industrial sectors. The models generally do not capture essential features, such as unemployment and differences in protection for Mediterranean and temperate agricultural products. In addition to these points of concern regarding the structure of the models, a number of models define the establishment of a Mediterranean FTA as a one-sided liberalisation by the MPCs. This calls for caution when interpreting model results.

Directions for future research

The structure of the models reflects to a large extent the availability of data. Data for the MPCs are not easily obtained, resulting in more crude modelling exercises than one would hope for. Within the bounds of available data, there are, however, a number of modifications can be made to obtain quantitative analyses more in line with policy questions, through:

- *analysing the impact of unemployment* – with an applied general equilibrium model it is relatively easy to introduce a stylised notion of unemployment. Comparison with a full employment analysis would yield insight on the

direction of the bias in model results that arises from assuming full employment.

- *making a clear distinction between Mediterranean and temperate agricultural activities* – instead of aggregating agriculture into a single sector, a crude distinction between temperate (grain and livestock) and Mediterranean activities (fruit and vegetables) can be made to assess shifts between agricultural sectors.
- *analysing northern versus Mediterranean EU member states* – compared with the MPCs, data for the EU member states are readily available and it is therefore possible to analyse the impact of the EMAAs on northern and southern EU member states. Their diverging interests are a prime cause of the current shape of the agreements and warrant a more detailed analysis than has been performed thus far.

* This Policy Brief is based on ENARPRI Working Paper No. 5, *Fifty Ways to Leave your Protection – Comparing Applied Models of the Euro-Mediterranean Association Agreements*, M. Kuiper, CEPS, April 2004.

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