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Proceedings of the Workshop on

**Euro-Med Association Agreements
Agricultural Trade - Regional Impacts in the EU**

Jointly organised by

DG RTD and DG JRC
With the collaboration of DG AGRI

Held in Brussels on 14 February 2006

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**Institute for Prospective Technological Studies
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The mission of the IPTS is to provide customer-driven support to the EU policy-making process by researching science-based responses to policy challenges that have both a socio-economic as well as a scientific/technological dimension.

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1. Introduction

By Per Sørup, Laurent Bochereau, and Alexandre Asbil

The Barcelona Process (Euro-Mediterranean Partnership) celebrated its tenth anniversary with a Summit of Head of Governors in November 2005. A five-year work programme, agreed by the partners, marks the renewed efforts to implement the objectives of the Euro-Mediterranean Partnership. One of the key objectives is the creation of a free trade area in the year 2010. However, the implementation of free trade, particularly in sensitive (agricultural) products, requires an analysis of the impact for the partners on both sides of the Mediterranean.

Through the 6th Research Framework Programme and particularly the activity “Scientific Support for Policies”, the European Commission supports several research projects aiming to provide the policy tools needed by the Commission services to assess regional and multilateral trade integration. DG AGRI has proposed a set of research areas to be covered by this activity. One of these areas deals with the Euro-Mediterranean partnership, in particular from an economic standpoint (agricultural trade liberalisation). To allow for the exchange of information between related projects and to meet the requirements of policy-makers, there is a need to follow up EU-funded research projects to obtain policy-relevant scenarios and results. To this end, DG AGRI suggested a workshop to provide a forum for discussion among related Commission services and for exploring further developments in that area, to be jointly organised by DG RTD and DG JRC with the support of DG AGRI.

A large number of these projects are funded by DG RTD under FP6 “Scientific Support to Policies, Priority 8.1.B.1.1 Sustainable Management of Europe’s Natural Resources – Research in support of international negotiations”. This activity allows support to be given to innovative approaches to provide policy support on specific themes jointly identified with the Commission service in charge of the policy concerned. DG RTD organises workshops to discuss the state of the art of EU-funded projects and to investigate further research needs.

The Sustainability in Agriculture, Food and Health (SAFH) unit of DG JRC is working jointly with DG RTD and DG AGRI to build up research and expert capacity in order to follow up successful project results in the area of international agricultural trade. The middle- to long-term aim is to provide a platform for successful modelling tools and to ensure the further use of EU-funded models.

In the case of Euro-Mediterranean trade research projects, the methodological approaches and the results need to be discussed in order to make them available in time and ensure that they are relevant to the policy-making process.

The proceedings of this joint workshop, held on 14 February 2006 in Brussels, summarise the views of the different Commission services, give an overview of scientific papers by experts, provide presentations of EU-funded projects, and finally, document the discussions during the workshop.

2. Background

2.1. Topical background

By Robert M'barek and Peter Wobst

The Euro-Mediterranean Partnership

In November 2005, the Barcelona-Process (Euro-Mediterranean Partnership) celebrated its tenth anniversary with a “Special anniversary conference” at head of government level in Barcelona. Obviously, the Euro-Mediterranean Partnership had not fulfilled all the hopes invested in it. However, a five-year work programme was adopted to achieve concrete progress in three areas critical for the future of the region: education, sustainable economic growth, and human rights/democracy. One of the key objectives of sustainable economic growth is liberalisation in agriculture, processed agricultural and fisheries products and services, to be achieved through a roadmap for the creation of a free trade area by 2010.

The new roadmap for the liberalisation of agricultural trade stresses that ‘a high degree of liberalisation must be achieved for agricultural products, processed agricultural products and fishery products.’ The Council has given the Commission a mandate to conduct bilateral negotiations with the Mediterranean Partner Countries. These negotiations should start in the first quarter of 2006.

The recent launching of the European Neighbourhood Policy, a high priority for the European Union, addressing both the Mediterranean Partner Countries and the Eastern Neighbour Countries, should stimulate the Barcelona Process through mutually agreed Action Plans.

The issue of agriculture

The agricultural sector plays a crucial role for most Mediterranean Partner Countries (MPCs)¹ in terms of share of GDP, labour and population. The cultural and historical dimension of rurality in these countries should also be kept in mind. The importance of the rural world for political stability in the MPCs has to be stressed. Agriculture has a much higher share of GDP than in the EU. In the EU economy as a whole, the weight of agriculture is rather small, although it remains economically and socially important in some EU countries. In particular, the EU Member States in the Mediterranean region have substantial agricultural GDP shares and often depend on a few commodities for their export earnings from agriculture. As some southern European regions also have a relatively low export potential outside agriculture, the EU-MPC agreements are of considerable importance for their economic performance.

The EU is the main trading partner for the MPCs. Trade relations are characterised by strong asymmetries. For the MPCs, access to European markets is very important as it is the main destination of their exports, mainly fruit and vegetables, olive oil, and seafood, which contribute considerably to economic growth. MPC imports are mainly basic food (cereals), with an increasing dependence on both EU and non-EU trading partners.²

Trade in agricultural products accounted for approximately 6% of total EU trade with MPCs in 2002.³ The main MPC suppliers of agricultural products to the EU are Turkey, Morocco and Israel and, to a lesser extent, Egypt and Tunisia.

¹ The twelve Mediterranean Partner Countries that are signatories to the Barcelona Convention are: Algeria, Cyprus, Egypt, Jordan, Israel, Lebanon, Malta, Morocco, Syria, the Gaza Strip and the West Bank, Tunisia and Turkey.

² Eurostat, Euro-Mediterranean trade in agricultural products, Statistics in focus, EXTERNAL TRADE, THEME 6 – 1/2004.

³ Eurostat, Euro-Mediterranean trade in agricultural products, Statistics in focus, EXTERNAL TRADE,

The bilateral association agreements provide for the gradual reciprocal liberalisation of agricultural trade, but negotiations have been moving slowly. Now, however, starting from early 2006, there is a new mandate and a new strategy. The gradual approach will be abandoned in favour of a reciprocal liberalisation process for all sectors, while keeping a negative list with a limited number of sensitive products excluded from total liberalisation (see roadmap).

From an economic point of view, the dispute about market access for agricultural commodities is only partly valid. The MPCs, with small economies relying considerably on agriculture, are anxious to maintain or widen preferential market access and at the same time keep sensitive sectors protected in order to prevent loss of income and employment. Regionally, however, Mediterranean products (mainly fruit and vegetables, olive oil) are the subject of strong competition between the MPCs and the EU's Mediterranean Member States. The multilateral trade negotiations within the Doha Development Round (Hong Kong December 2005) could finally erode the bilateral agreements, i.e. provide better access to both the European and MPC markets and reduce preferences for the MPCs.

Modelling of trade liberalisation and possible welfare effects

From an economic point of view, reciprocal liberalisation will have the following effects:

Decrease in non-competitive production of cereals and meat in the MPCs with a strong (negative) impact on small-scale rain-fed agriculture, coupled with increasing EU exports of cereals and meat;

Rising exports of fruits and vegetables, in particular tomatoes (Morocco), olive oil (Tunisia), and potatoes (Egypt), with positive impacts on labour markets and trade balance in the MPCs, accompanied by a regional decline of production in Mediterranean Europe due to strong competition.

Consequently, further liberalisation would increase welfare for consumers on both sides of the Mediterranean. For the adversely affected producer groups mentioned above, sharp welfare losses could arise depending on how far their current level of protection is dismantled. The total (economic and social) impacts, however, are much stronger in the MPCs, given the higher share of agriculture in their economies. Quantitative models confirm these effects, differing only in their extent due to different modelling approaches, assumptions and scenarios. However, only a small number of studies provide an analysis of the impacts on different regions of the European Union, distinguishing between northern and Mediterranean EU countries or even individual Member States. Analysing the regional European implications of liberalisation could help answer the following questions and strengthen the focus of discussion:

- What are the overall impacts for the EU, taking into account the gains of free trade in (and better market access for) industrial goods and services, and the overall size of the agricultural sector/trade?
- Do the potential impacts of better market access for MPCs justify the protection measures? (Are the regional impacts that important?)
- To what extent does better access for "northern" products (cereals, meat) compensate for the losses with "southern" products in the EU?
- What are the probable consequences of the ongoing multilateral negotiations within the Doha Development Round (WTO ministerial meeting in Hong Kong)?

Are there alternatives to the sole focus on raw products (e.g. processed food)?

These questions require an appropriate modelling approach and model design. The importance of regional (dis-)aggregation has been already mentioned. In this context, it is important to distinguish between General Equilibrium (GE) models and Partial Equilibrium (PE) models. While GE models usually do not replicate the complicated regulatory framework of the agricultural trade agreements, PE models on the other hand do not cover the interactions between all sectors (e.g. it is also important to assess the impact of the end of the Multi-Fibre Agreement on labour markets).

2.2. *The Community Research Programmes and Euro-Mediterranean trade (DG RTD)*

By Laurent Bochereau and Hans-Joerg Lutzeyer (DG RTD)

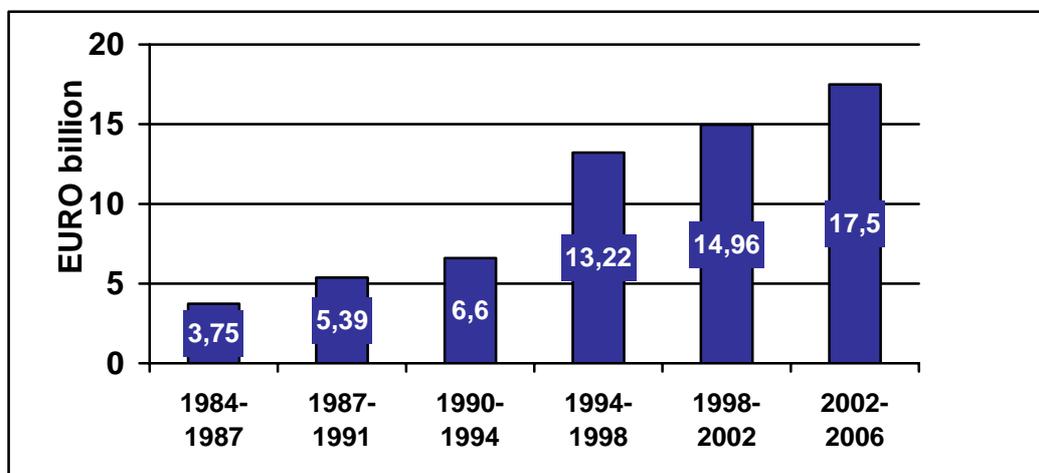
Based on workshop presentation

The objectives of the Community Research Programmes are (Article 163 of EU Treaty): i) to strengthen the European research potential, ii) to promote the competitiveness of European industry, and iii) to support Community policies.

The 5th Research Framework Programme (1998 – 2002) focussed on a problem-solving approach defining key actions of research based on society's needs. While the 6th FP (2002 – 2006) is targeting research support towards integration to achieve the European Research area.

This strategy brought the European Research policy to the core of the Lisbon and Göteborg strategy of the European Union, based on jobs, growth and sustainability. As a result the Research Framework Programmes show considerable increase over the years.

Figure 2-1: Sixth Framework Programme (2002-2006)



The objectives of Scientific Support to Policies (SSP) are to underpin the formulation and implementation of Community policies (AGRI, SANCO, ENV, etc.) and to provide scientific support that (i) precisely targets needs (is demand-driven), (ii) provides timely and effective scientific input to policy decisions, (iii) responds to present and urgent policy needs. An example is the SSP5 B INFLUENZA call in response to the current global threat of avian flu.

SSP tasks cover the following areas:

- Research in support of international negotiations
- Supporting CAP market reform (e.g. cross-compliance)

- Widening the scope of rural development
- Sustainable agriculture production systems
- Non-food uses of agricultural products
- Sustainable forestry
- Animal health and welfare
- Countering the effects of bioterrorism

Research in Support of International Negotiations (ongoing FP6 research projects)

Several projects/networks are funded by the EU to investigate the impacts of the Euro-Mediterranean agreements.

The projects funded by DG RTD (FP6 Priority 8-1, 2004 – 2007), [EU-MEDAgpol](#), [Medfrol](#), [ENARPRI](#) and [TRADEAG](#), are at the centre of interest in this workshop, as they employ modelling tools to simulate the impacts of liberalisation.

EU-MEDAgpol (1/3/2004 – 28/2/2007) focuses on the impacts of agricultural trade liberalisation in the Mediterranean region on European countries. The project is coordinated by [CIHEAM](#)⁴, Montpellier.

MEDFROL (1/4/2004 – 31/3/2007) analyses the macroeconomic environment and the agricultural sector of the thirteen non-EU Mediterranean countries and employs a trade model to assess likely impacts of a free trade area. The project is coordinated by CIHEAM, Chania.

The TRADEAG (1/4/2005 – 31/3/2008) project is intended to provide a comprehensive picture of the state of the art with the EU's trade agreements, including preferential trade and regional agreements, where the Mediterranean countries will receive particular attention. TRADEAG is coordinated by INRA, France.

The ENARPRI (1/1/2003 – 31/12/2006) network is also partly engaged in this field and has devised [liberalisation scenarios](#) with a Computable General Equilibrium Model (GTAP). This network will hold a final dissemination workshop in late spring 2006. A comprehensive [study](#), issued by this network, compares applied models of the Euro-Med association agreements.

Two other research projects to support international negotiations may also be mentioned here. [EUMercoPol](#) analyses the competitiveness of key Mercosur agri-food sectors, while [MEACAP](#) focuses on the impact of Environmental Agreements on the CAP.

A Euro-Mediterranean network outside the Research Framework Programme, but also funded by the EU, is [FEMISE](#). It gathers together more than 80 independent economic institutes to analyse the economic and financial aspects of the Euro-Mediterranean partnership.

The [SIA-EMFTA](#) (Sustainability Impact Assessment of the Euro-Mediterranean Free Trade Area), commissioned by the European Commission, comprises a technical evaluation of potential impacts, but no detailed modelling.

SCAR — Standing Committee on Agricultural Research

“Open coordination” between Member States and the Commission is an essential element of the European Research Area to overcome fragmentation of the European research sector. Agricultural research is in the privileged position to use the Standing Committee on Agricultural Research (SCAR). The SCAR committee supports the Commission and Member

⁴ CIHEAM is an intergovernmental organisation covering the entire range of agricultural research in Mediterranean areas.

States in their efforts to improve the coordination of agricultural research across the European Research Area. This involves:

- Strategic discussions on the agricultural research agenda in Europe over the long term (FP7 and beyond)
- Enhanced cooperation between Member States (joint research programmes, common infrastructures), 13 thematic SCAR working groups each coordinated by a Member State are deepening specific fields of research by setting up a strategic research agenda and / or developing an ERA-Net approach
- Research agenda regarding scientific support for the CAP
- Exchange of information with complementary mechanisms under EU Framework Programmes

Relevant issues for Mediterranean agriculture

The SCAR participants dealing with Mediterranean agriculture are IT (coordinator), CY, EL, ES, FR, IL, MT, PT, TR, HR. The objectives are to:

- Screen relevant ongoing research activities,
- Create a common coordinated system to address research themes, aimed at better exploiting Mediterranean resources,
- Prepare new proposal for an ERA-net.

The means to achieve these objectives are questionnaires to identify relevant ongoing research activities, the exchange of information, the definition of a list of key work areas of joint interest, the involvement of research funding agencies, and position papers. The last meeting took place on 7 March 2006 in Rabat as a satellite event of the Forum on the FP7: "Towards a Euro-Mediterranean area for agricultural research" (see <http://www.ciheam.org/8.html>).

Sources for further information

General information on research: <http://europa.eu.int/comm/research>

Information on research programmes: <http://www.cordis.lu>

AGRINET (agricultural research):

http://europa.eu.int/comm/research/agriculture/index_en.html

Information on SCAR: <http://europa.eu.int/comm/research/scar.html>

2.3. The Policy Dimension and Research (DG AGRI)

By Efthimios Bokias (DG AGRI)
Based on workshop presentation

Figure 2-2: Research coordination DG AGRI G.1

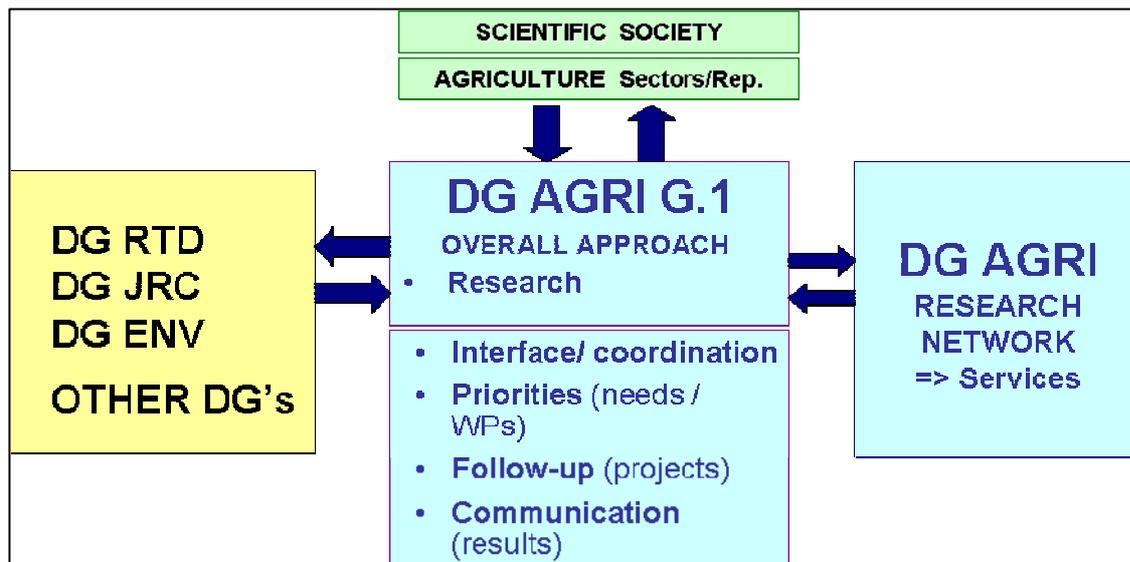
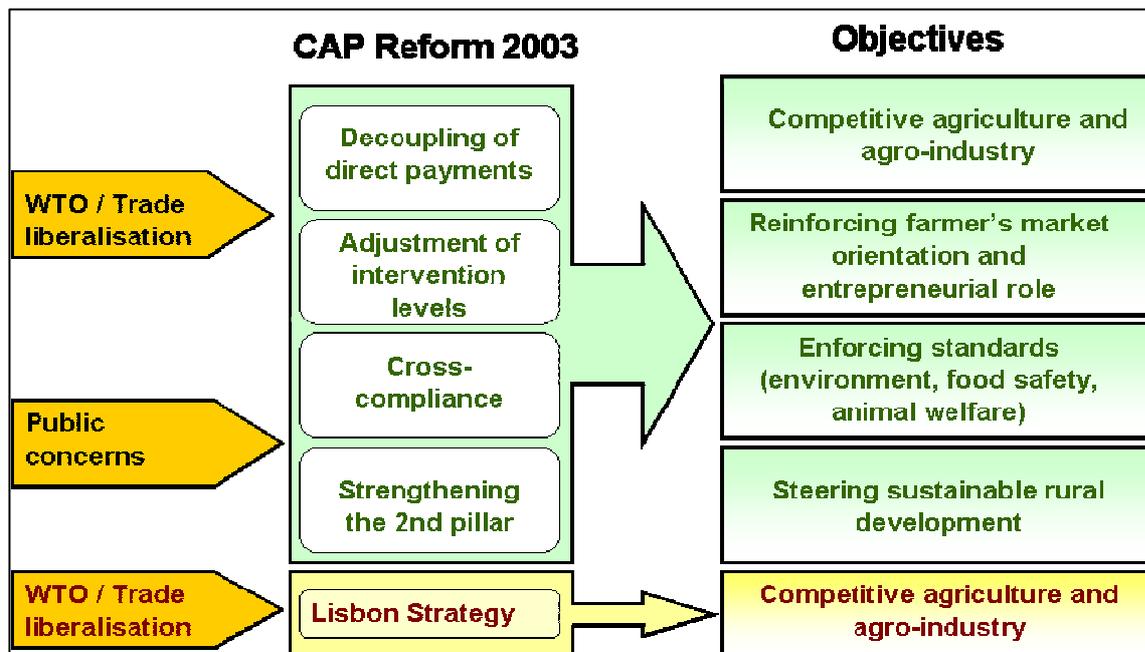


Figure 2-3: Role of science

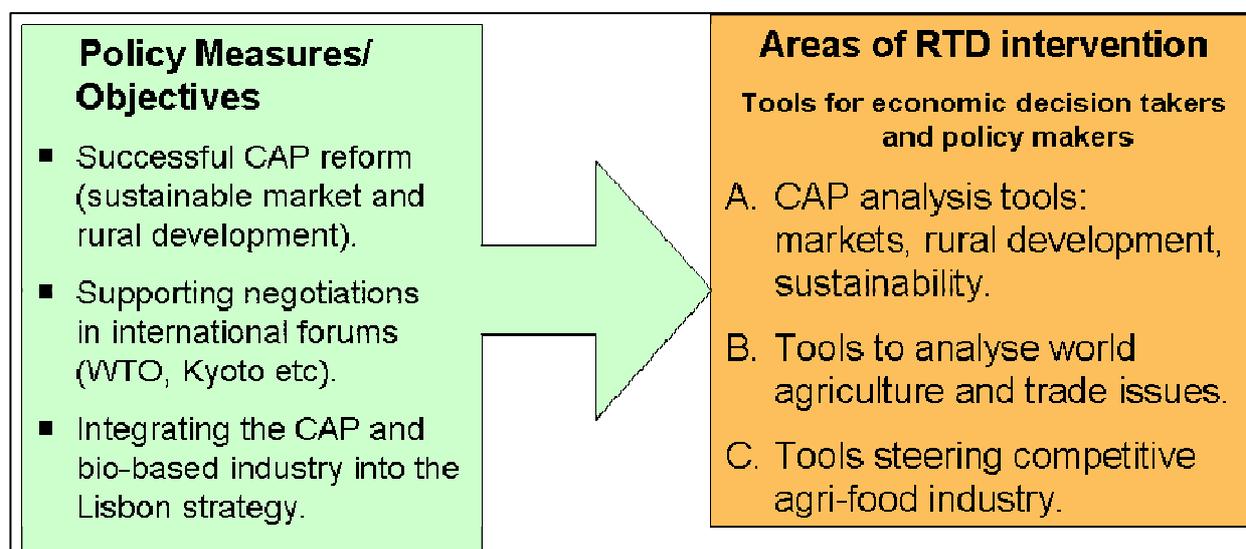


Sustainable agricultural production systems, striking the right balance between competitiveness and the other elements of sustainability.

Competitive and sustainable agri-food sector on an open world market, reflecting consumer demands and the needs of society.

Knowledge-based agri-economy with tools for policy-makers and economic decision-makers.

Figure 2-4: Knowledge based agri-economy



Analysis tools for world agriculture and trade

Tariff and non-tariff trade barriers to agricultural products; export regime policies; issues related to trade and intellectual property rights (TRIPs).

Building expertise on world agricultural markets: economic data, characteristics, commodity specificities, etc. Effects of globalisation on concentration, integration, developing countries and trade.

Defining and analysing multifunctionality as a trade policy issue; quantifying externalities.

2.4. Bridging Research and Policy (DG JRC)

By Per Sørup, Robert M'barek and Peter Wobst (DG JRC)

Based on workshop presentation

The Institute for Prospective Technological Studies (IPTS) is one of the seven scientific institutes of the European Commission's Joint Research Centre (JRC). Its mission is to provide customer-driven support to the EU policy-making process by researching science-based responses to policy challenges that have both a socio-economic and a scientific or technological dimension.

The Institute's main activities therefore relate to providing strategic support for the conception and development of EU policies. Its core competence is the ability to work at the intersection between the socio-economics of an issue and the science and technology involved.

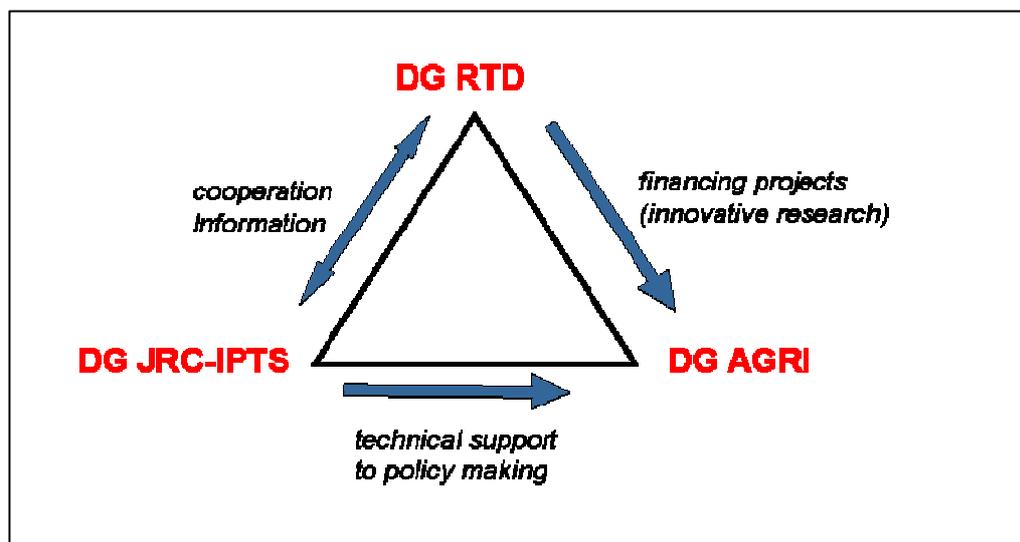
The activities of JRC-IPTS in the field of agricultural analysis are new initiatives to:

- Provide the Commission with in-house ex-ante and ex-post policy analysis capacity, developing a knowledge base and a tool set (models);

- Provide stable platforms for relevant tools developed by scientists under the European Commission's Research Programme, tune them to policy needs, and make them readily available to Commission services;
- Help create a stable platform for networks in NMS and CCs.

JRC-IPTS has close working relationships with DG AGRI and DG RTD.

Figure 2-5: Triangle of cooperation

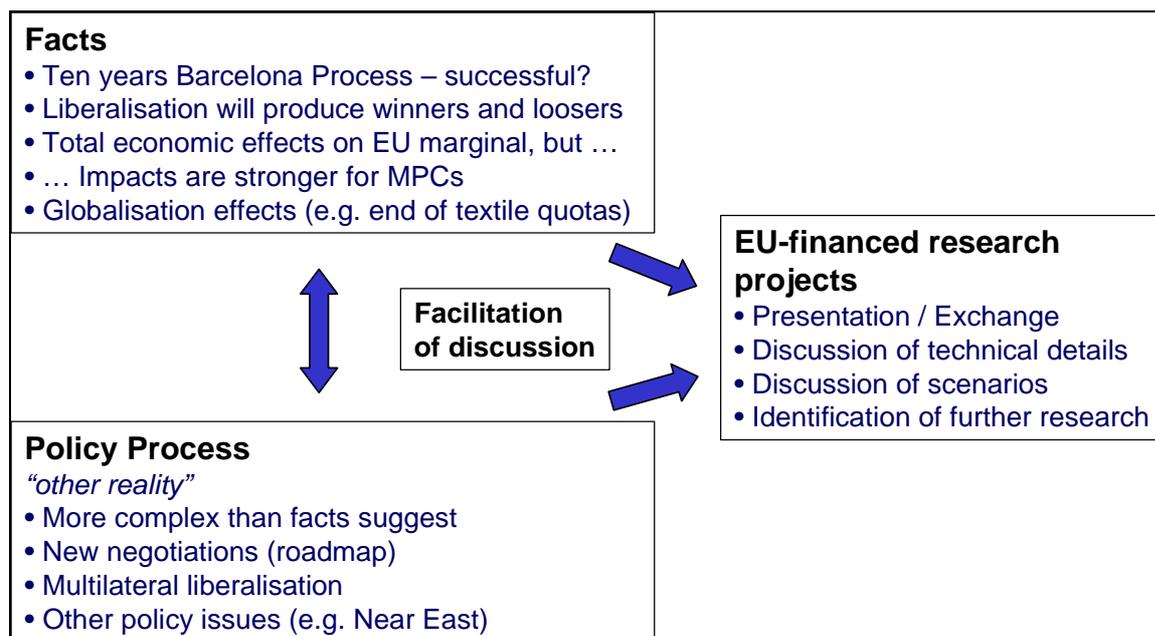


The research covers:

- Sustainability of farming systems
- EU policy on food quality schemes
- The food industry in the EU25+
- Rural development / rural economy
- Projections of European agricultural commodities
- International agricultural trade (e.g. Euro-Mediterranean trade negotiations)

In the case of Euro-Mediterranean trade research projects, the methodological approaches and the results need to be discussed in order to make them available in time and ensure that they are relevant to the policy-making process.

Facilitating communication on EU-financed projects with Commission staff, e.g. regarding methodological approaches and liberalisation scenarios, stimulating discussion among EU-financed projects, and identifying further needs for research and/or policy support are the main objectives of this workshop.

Figure 2-6: Facts and the other reality

Some questions to consider:

What are the “actual” impacts for the EU, taking into account gains from free trade in industrial goods and services and the overall size of the agricultural sector/trade?

Do the potential impacts of better market access for MPCs justify protection measures?

To what extent does better access for “northern” products (cereals, meat) compensate for the losses with “southern” products (fruits, vegetable, olive oil) in the EU?

What are the probable consequences of the ongoing multilateral negotiations within the Doha Development Round (Hong Kong)?

Are there other relevant product groups besides primary agricultural produce, e.g. processed food?

2.5. Objectives of the Workshop

The idea of the workshop is to provide a synthesis of ongoing research projects (in terms of scientific results) so that researchers can present results, policy-makers are able to obtain comprehensive information and both have a forum for discussion. A clear picture of the impacts of agricultural trade liberalisation could provide a more scientific basis for negotiations on further steps towards a free trade area. Accordingly, the workshop could provide input for the roadmap discussion and for the beginning of bilateral negotiations on trade liberalisation with MPCs in 2006 as well as the forum on Rural Development Policy. An examination of multilateral liberalisation scenarios after the WTO ministerial meeting in Hong Kong (Dec 2005) could be useful for the ongoing modelling exercises.

Furthermore, the workshop should help identify the needs of more precisely targeted models and provide an opportunity to adapt project planning accordingly, if needed. Finally it should contribute to identifying further research needs under the 7th Research Framework Programme.

The objectives of the workshop in detail are:

- To obtain an overview of the state of the art in modelling the Euro-Med trade liberalisation process;
- To present preliminary results from EC-funded projects;
- To sharpen the European perspective of the agricultural sector;
- To identify relevant scenarios (e.g. changes after the WTO Hong Kong meeting);
- To focus on policy-makers' needs and to discuss the relevance of the design of projects to policy-makers' expectations;
- To foster synergies between EC-funded projects and IPTS and to possibly adapt remaining work plans;
- To identify further research needs (FP7).

3. The Barcelona Process from different policy perspectives

3.1. *External relations (DG RELEX)*

By Andres Bassols (DG RELEX)

Regional integration

The European Union is a very successful example of regional integration. This concept can be exported and promoted.

The basic goal of the Barcelona process in 1995 was to achieve a change of economic policy and policy in general in MPCs through economic integration and free trade (starting with the industrial sector). The basic formula that importing goods means importing governance/knowledge remains valid.

Liberalisation

The added value of agriculture and services accounts for two thirds of total added value in MPCs (industry for one third). The need to further liberalise agriculture and services was confirmed at the Barcelona summit in November 2005.

Difficulties of the agricultural sector in MPCs

The agricultural sector in the MPCs has the dual characteristic of being poor but competitive. Therefore, liberalisation should be gradual and asymmetric, and accompanied by measures to buffer the impact. It is important to consider i) continental and Mediterranean products, ii) complementary vs competitive production, iii) sustainable agriculture, and iv) trade vs migration.

Interest of RELEX

Socio-economic research is a crucial discipline in analysing the problems. The key to improving the situation in MPCs is rural development, including not only agriculture but also the social, economic and cultural dimensions.

It is important to provide empirical evidence and political choices.

3.2. *Trade relations (DG TRADE)*

By Christophe Rames (DG TRADE)

The Euro-Mediterranean Summit in November 2005 adopted a five-year work programme, with the creation of a free trade area by 2010 remaining an ambitious and political objective.

DG TRADE has a broad picture of trade relations with the MPCs and sets the following priorities:

Regional integration

Some progress has been made with respect to regional integration. Several agreements, e.g. Turkey-Tunisia, Turkey-Morocco, Turkey-Egypt and the Agadir process, are proof of these efforts. However, South-South trade is still underdeveloped and accounts for only less than 5% of total trade, in comparison with the 60% for intra-regional trade in the EU. The assessment of potential impacts is an important task for research.

Implementation of a pan-European cumulation of origin

This is already largely achieved. A new protocol has been adopted by the EU, though not yet by all MPCs. Research on the impact of this tool (affecting the textile industry but also agriculture) is important.

Liberalisation of trade in services and investment

Services in the MPCs account for around 60% of GDP. Investment is an important driver of development. However, the flow of foreign direct investment from the EU to MPCs is still very low. The liberalisation of trade in services and investment would enhance the attractiveness of EU investment in the MPCs.

Standards

Progressive convergence with EU rules, especially for industrial products, is a further precondition for improving competitiveness.

Deepening liberalisation in agricultural trade

The liberalisation of agricultural trade should cover not only agricultural raw products but also processed food products and fisheries products. Non-trade issues also need to be taken into account.

3.3. *Agricultural trade relations (DG AGRI)*

By Alexandre Asbil (DG AGRI)

Complexity

Agricultural trade relations are a very complex topic, ranging from processed agricultural food products to rural development issues. The complexity of the issue is further compounded by water scarcity in the region, new products, globalisation, and sociological impacts.

Winners and losers

It is important to focus on the winners and losers of trade liberalisation. Beneficiaries should be not only those who are already successful but also the poor rural population, given that instability emerges from remote areas. Furthermore, it is also important for the analysis to take into account the impact on farmers in European Mediterranean countries.

Time horizon

The time schedule for the Euro-Med free trade area is not reasonable, the year 2010 being more a political decision than a realistic time horizon. The roadmap for agricultural trade liberalisation has been taken over in the five-year work programme and will form the basis for negotiations.

However, to cope with this complex subject and to ensure successful negotiations, it is important to keep things simple.

4. Agricultural trade relations from a scientific viewpoint

4.1. Euro-Med Association Agreement - Regional Impacts in the EU - introductory note

By Jose-Maria Garcia-Alvarez-Coque (Technical University of Valencia-UPV)

Background

The analysis of regional trade liberalisation remains an interesting area of research. A large number of countries have preferential agreements. This is also true for the Mediterranean region. The present note attempts to review some of the key aspects of the research agenda for agricultural trade liberalisation in the Euro-Mediterranean region.

In 1995, the European Union (EU) Member States and 12 Mediterranean countries launched in Barcelona an integration process with the goal of promoting “*sustainable and balanced economic development to create an area of shared prosperity*”⁵. Regional integration, understood as trade liberalisation among the countries involved, was the method chosen, with the aim of creating a Euro-Mediterranean Free Trade Area (EMFTA) by 2010.

Euro-Mediterranean Agreements (EMA) have been negotiated and are being implemented by the EU and individual Mediterranean partners, aiming for trade liberalisation on a bilateral basis, i.e. through reciprocal liberalisation of trade in manufactures (see Table 1).

The commercial integration process has been making progress in recent years. The process is quite dynamic and not all MPCs are at the same stage in implementing their FTAs (ideally to be completed by 2010). While agreements with Morocco, Israel and Tunisia are at a relatively advanced stage of implementation (even following recent reviews of the tariff provisions), ratification and entry into force has been relatively recent for Jordan (2002) and Egypt (2005). Agreements with Algeria and Lebanon have been signed but not yet ratified. By the end of 2004, Syria had finalised technical negotiations but signature was pending the resolution of political problems. Simultaneously, in the multilateral arena, the current Doha Development Agenda might deepen world-wide trade liberalisation and bring about further changes in Euro-Mediterranean trade patterns.

Delays in the negotiation of the Barcelona process reflect the existing difficulties and serious disputes on some specific chapters, in particular agriculture.

Table 4-1: Euro-Med Agreements

Med Country	Status	Date signed	Entry into Force
Algeria	Signed	April 2002	Ratification in progress
Egypt	Signed	June 2001	June 2004
Israel	Signed	Nov 1995	June 2000
Jordan	Signed	Nov 1997	May 2002
Lebanon	Signed	June 2002	Interim Agreement March 2003
Morocco	Signed	Feb 1996	March 2000

⁵ The Mediterranean partners at that time were Egypt, Lebanon, Syria, Jordan, Turkey, Malta, Cyprus, Israel, Morocco, Tunisia, Algeria and the Palestinian Authority.

Palestinian Authority	Signed	Feb 1997	Interim Agreement July 1997
Syria	Initialled (Oct. 04)		
Tunisia	Signed	July 1995	March 1998
Turkey	Customs Union January 1996	Customs Union	Customs Union

Some facts on agricultural trade

Agricultural trade between the EU and Med countries is less dynamic than total trade. In 1999, agricultural products accounted for 7.7 percent of total EU imports from the Mediterranean region and 8.4 percent of EU exports to the Mediterranean region. In 2004, both shares had fallen to 6.1 percent and 6.8 percent, respectively.

Trade balance is still in favour of the EU: EUR 2 700 million in 1999; EUR 2 590 million in 2004.

MPCs exports still mainly comprise raw products but trade in processed products has grown. Processed products accounted for 14 percent of MPCs exports to the EU in 1999; 17 percent in 2004.

MPCs exports are still specialised in Mediterranean products. Fresh F&V + Fats and Oils + Processed F&V account for 2/3 of MPCs exports to the EU.

EU exports to Med region are mainly “continental products”. Dairy products + Cereals account for 23 percent of EU exports to the Med region. Processed products accounted for 27 percent of EU exports to the Med region in 1999; 29 percent in 2004.

Exports of fresh vegetables from the Med region are dynamic. Chapter 7 imports from the Med region have increased by 55 percent as against a 20 percent increase in total imports of extra-EU origin.

The asymmetry in trading power between the EU and Med countries remains. However, the Med region has diversified its exports. In 1995, the EU15 accounted for 54 percent of the total agricultural exports of Med countries; but 48 percent in 2003. For the EU-N10, the corresponding percentages were 4 percent in 1995 and 6 percent in 2003. The Mediterranean region retains a relatively constant share of total EU15 imports (8 percent in both 1995 and 2003).

Some features of agricultural trade liberalisation

Liberalisation on both sides has been limited, with less than 50% of agricultural trade effectively liberalised.

A product-by-product approach has been followed, based on traditional trade. The process has excluded some sensitive products from the tariff elimination provisions.

A number of policy measures remain as non-tariff measures.

Agricultural support is much higher in the North than in the South.

For processed agricultural products, the industrial component of tariffs has been phased out, but the agricultural element has generally not been affected by tariff dismantling.

Complexity characterises the bilateral trade liberalisation process in the region. This is a challenge for the agricultural economist, not only because of the range of instruments still constraining trade but also because of the special nature of the most important traded goods (product differentiation and seasonality).

Lessons from research

Research on Euro-Mediterranean issues has grown in recent years. Mediterranean agriculture is no longer a marginal item on the European agricultural research agenda. The support of organisations such as the European Union institutions (including the IPTS), CIHEAM, OECD and FAO has been an essential factor behind research on the adaptation of Mediterranean agriculture to the EuroMed process. The work by research groups and networks such as FEMISE, EuMed-AgPol, MedFROL, ENARPRI, TRADEAG and others has been formidable, providing the basis for a comprehensive understanding of the integration process.

Some lessons can be drawn from the analysis of agricultural systems:

The static effects of bilateral trade liberalisation are limited.

Trade liberalisation involves asymmetric impacts. Trade offers opportunities as a catalyst for change. But trade can have adverse effects in the short run as sectors and employment adjust.

For the Med region, reciprocity in agricultural concessions is needed in order to gain net benefits from the Barcelona process.

The macroeconomic and regulatory contexts matter. Efficient factor markets, institutions and infrastructure have to be in place if trade liberalisation is not to undermine the rural sector and increase poverty.

Farmer welfare can be enhanced through policies designed to improve the coordination, transparency and efficient management of information across the supply chain. Policies need to adapt to the special characteristics of Mediterranean product markets rather than aim to provide direct income support.

At the end of the day, agricultural research has had some influence on policies. The Barcelona process has recently been re-launched through a new strategy aiming for substantial progress in the reciprocal liberalisation of agricultural trade in combination with supporting measures going beyond the purely trade aspects. The five-year programme agreed at the Barcelona Mediterranean Conference (27-28 November 2005) provides for the progressive liberalisation of trade in agriculture, but *“with a possible selected number of exceptions and timetables for gradual and asymmetrical implementation, taking into account the differences and individual characteristics of the agricultural sector in different countries”*. This recognises that while progress in bilateral liberalisation is needed, it must be coupled with accompanying policies, which probably require financial instruments quite different from traditional market and income support instruments.

The future agenda

Research is contributing to clarifying some of the “myths” of Euro-Mediterranean integration. Most of the questions relevant in the past remain open for the future, but research has to provide more precise answers to them. Four main areas of research have been identified in recent years, at least where economists and social scientists are concerned:

Trade. This field includes questions such as:

- The impacts of trade liberalisation, which should be detailed by product, season and territory.
- Assessment of current and future trade instruments: TRQs and entry prices.

- The issue of preferences versus multilateral liberalisation. Policy options for Med countries should be taken into account, including their response to preference erosion.
- The growing role of SPS and TBT standards, including the quality policy of large retailers.

Rural development. This can be considered as a “global public good”. Institutional mechanisms, including international cooperation, can be set up in the Mediterranean countries, irrespective of their stage of development. A practical way to approach this common role for agriculture in development is to arrive at a common view of non-distorting or Green Box payments. Northern and Southern Mediterranean countries should together be able to provide clear guidelines for other WTO members for this type of agricultural support, guidelines that allow the EU to keep non-trade agriculture products at the desired level, while simultaneously enabling Southern Mediterranean countries to provide their farmers with the required support to improve their quality of life and restructure their farms and to meet the other needs of their agricultural populations. On the other hand, what is the meaning of rural development in Mediterranean areas (e.g. coastal and peri-urban areas) with a specialised agriculture? What is the future of small farms where the opportunity costs of land are increased by the emergence of alternative sectors such as tourism and construction?

The future of supply chains and the agri-food system. With the growing importance of big retailers, the producers tend to adjust their behaviour to the strategies of the leading groups. Given the growing concentration of demand, trade protection will help ease the rate of adjustment in the agricultural sector, but it is not a solution for its weaknesses. Agricultural producers frequently complain about the high intermediate margins between origin prices and sale prices.

Policies. External and domestic pressures have influenced recent CAP reforms. Direct payments are at the core of the CAP, which officially aims to preserve the European agricultural model. Fruit and vegetable producers share the scepticism regarding the ability of the market system to ensure an efficient allocation of resources. However, it is not clear that a new single payment scheme would be the best the way to approach the problems faced by Mediterranean products. Policies must address to the specificities of the supply chain, which relate to risk management, quality assurance, human capital, logistics and information technology and other characteristics that cannot be tackled through traditional subsidies.

Conclusion

Agricultural trade liberalisation in the Euro-Mediterranean region remains incomplete and the process can still be directed in many possible ways, so discussion of the advantages, costs and choices related to the EMFTA is still relevant. The work ahead has three main challenges:

First, it can help policy-makers (and society in general) to understand that the integration process in the region is feasible if proper action is taken at sectoral and regional level.

Secondly, while the role of market access to the EU in providing gains for Med exports is recognised, there is a great deal of methodological and empirical work yet to be undertaken. Two promising areas are (i) quantitative modelling of detailed product/regional impacts of policy reforms; and (ii) the behaviour of institutions, producer organisations and individual actors in Mediterranean product markets, for which neo-institutional economics could be helpful.

Thirdly, transnational cooperation is a must for the analysis of Euro Mediterranean integration. This starts with research groups, but should also continue with workshops and projects with the participation of farming associations and other market operators from both North and South. International cooperation will help reduce political resistance to market reforms on both sides of the Mediterranean basin. One line of work, clearly indicated by the present workshop, is promoting coordination among research groups working on Mediterranean issues to avoid

overlapping and to take advantage of potential synergies. Project results have to be discussed and disseminated outside the research community.

4.2. *Challenges in modelling agricultural trade liberalisation in the Euro-Mediterranean framework*

By Giovanni Anania (Department of Economics and Statistics, University of Calabria, Italy)

Why is modelling Euro-Med agricultural trade liberalisation different?

There are information gaps regarding policies, supply and demand functions, and different farm/production systems. Information is also lacking on the many non-tariff factors limiting the export supply response, such as rules of origin, weak infrastructure and private standards.

Some of the relevant EU trade policy instruments are particularly complex and less well researched, including the entry price system for many fruits and vegetables, the seasonality of policy instruments and Tariff Rate Quotas (TRQs). The discriminatory nature of the preferential trade regime is an additional modelling challenge.

In assessing the benefits and costs of Euro-Med agricultural trade liberalisation, the impact beyond agriculture and the impact on the different household/farm production systems should be covered as well. Of course, the social and environmental dimensions of sustainability also have to be taken into account.

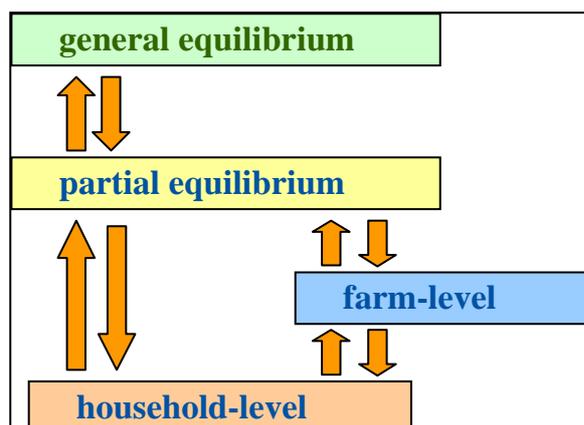
Which modelling framework?

CGE modelling is the only way to model the economy-wide impact, but CGEs typically have limited country disaggregation and a very poor representation of policies, make strong assumptions (full employment; fixed balance of payments, etc.) and are non-spatial (often imposing the Armington assumption in order to generate the bilateral trade flows needed to model discriminatory trade policy instruments).

In partial equilibrium models, adequate country disaggregation and policy representation are possible; some partial equilibrium models are spatial, but no assessment of the impact beyond the sub-sector(s) considered is possible.

Micro models allow the modelling of decision-making by different types of farms/households and assessment of the impact this has on them, but need to be fed with an exogenously determined market impact of trade liberalisation.

Figure 4-1: Integrated use of different models



The perfect ‘one-does-it-all’ model structure does not exist, but examples of modelling approaches that do one or other, or a few, of the things mentioned as necessary do exist. The solution to the modelling challenge is thus the integrated use of different (coherently designed) models.

4.3. Liberalisation in the Euro-Mediterranean zone: the need for a progressive approach

By Anna Lipchitz (French Ministry of Economy)

Trade liberalisation between the European Union and the southern and eastern countries of the Mediterranean Basin⁶ is an ongoing process (the Barcelona process⁷ launched in 1995). Agricultural liberalisation would mitigate the harmful consequences in the short term of industrial liberalisation in the Mediterranean Partner Countries (MPCs).

Putting the young industries of southern Mediterranean countries into competition with the EU countries may sometimes be painful in view of the lack of competitiveness of the MPC industrial sector (electronic, chemistry, heavy goods vehicles, etc.).

The simultaneous opening of agricultural markets would allow MPCs to make the most of their comparative agricultural advantages (fruits and vegetables), which are obscured by the current distortions affecting exchanges (tariff barriers, non-tariff barriers and support mechanisms under the CAP to protect European producers).

Agriculture is an important issue for MPCs. Agricultural exports represent a large part of the exports of MPCs. The EU is also their main trading partner: more than half of MPC exports of agro-food products are to the EU while the EU supplies almost one third of MPC agro-food imports.

However, MPCs do not represent a homogenous group, and their comparative advantages differ from country to country. This justified the bilateral logic of the Euro-Mediterranean agreements. Except for Turkey, the comparative advantages of MPCs have decreased for at least two thirds of the products in question. Indeed, domestic demand is strong, and demographic developments coupled with changes in dietary behaviour do not suggest a slowdown in demand. Moreover, there are structural constraints that curb the export potential of these countries.

Nevertheless, the MPC agriculture has important assets, such as the low cost of labour and a remarkable diversity.

Various evaluations of agricultural liberalisation impacts suggest only **marginal consequences for the economy of the EU**, given the weak position of MPCs in EU foreign trade (around 5%): gains of only about 0.1 GDP points after 14 years may be foreseen for the EU. Nevertheless, the EU should strengthen its position in the region, which constitutes an important market and a growing one for sectors that are often in surplus within the EU (cereals for example). European consumers should benefit from lower prices for fruit and vegetables and from longer supply periods.

⁶ Through cooperation agreements granting, without compensation, duty-free access to the Community market for industrial exports from Mediterranean countries.

⁷ Which linked the European Union to 12 Mediterranean countries: Morocco, Algeria, Tunisia, Egypt, Jordan, Israel, Palestinian Territories, Lebanon, Syria, Turkey, Cyprus and Malta (Libya being at this stage an observer).

The expected growth in imports from MPCs should amount to no more than +3.1% annually of intra-European trade, but would specifically affect the fruit and vegetables sector in southern Europe (Spain, Portugal, Greece, France, Italy), where restructuring may be expected.

The impact of total liberalisation on MPCs would be negative (**loss of social welfare** of between 0.6 and 0.9 GDP points), but would be mitigated if industrial liberalisation is accompanied by agricultural liberalisation. Agricultural liberalisation should lead to redistribution from producers to consumers. Consumers should benefit from decreased food prices (cereals, meat, milk), even if consumption subsidies were to disappear. Fruit and vegetable producers should benefit from improved access to the European market.

However, bilateral liberalisation in agriculture, without any incentives, could impose an intolerable burden on the MPC producers of subsistence crops (cereal, milk, meat) and could cause significant rural depopulation that other economic activities would not be able to absorb. **So, even if agricultural liberalisation along with industrial liberalisation appears to be desirable, the temporary and graduated maintenance of protection (customs and domestic support), at least for certain products, should be considered.** This approach accords with the standpoint of the European Commission, which advocates liberalisation in conjunction with a negative list, excluding some sensitive products from the process.

However, the agricultural question in the Mediterranean region will not be answered by simple trade liberalisation. MPC agriculture, in addition to its food security role, helps reduce poverty, conserve the environment (upkeep and management of landscapes, biodiversity conservation, etc.), and maintain social equilibrium (spatial distribution of the population, etc.). The **development of agriculture** in these countries is of great importance, but the liberalisation of agricultural trade will not be enough to ensure this development.

MPC **political incentives** to grow crops traditionally exported to the EU (fruit and vegetables) have little interest for the saturated European market. Other niche markets should be investigated, with a higher added-value, with less competitive marketing periods or in third-party markets even if they are limited. This means moving towards the development of quality products, as suggested during the Venice Conference in November 2003. The local production of basic foodstuffs (cereals, meat, milk) should be maintained, but any increase may give rise to concerns for the environment, as efforts to improve productivity may lead to the exploitation of marginal lands. **Resorting to imports** could allow the future agricultural productive capacities of these countries to be preserved and could contribute to the stabilisation of agricultural production.

Intra-regional exchanges (representing at present less than 5% of total MPC trade) should also be developed. However, this development could be limited, in view of the similar nature of the products traded between MPCs (fruits and vegetables).

Finally, **national policies** should accompany liberalisation in order to limit its impact on the affected population (in both Europe and the MPCs), but also in order to launch a process to develop MPC agriculture. These supportive measures are also included in the European Commission's roadmap.

In the southern Mediterranean countries, the focus should be on improving agricultural competitiveness based on dynamic agronomic research, the implementation of land policies, and training. Rural development policies encouraging the development of infrastructures and diversified activities should be promoted. The management of natural resources should also be

backed up by policies for sustainable development. Moreover, in view of the heterogeneity of food balances and comparative advantages in the various MPCs, the consequences of liberalisation for each MPC would be different. Impact studies for each country should thus be performed in order to propose national policies appropriate to the situation of each country.

In the southern European Member States, transitional compensation could be paid to producers of fruits and vegetables in order to facilitate the political acceptability of EU-MPC trade liberalisation.

4.4. The Future of Agricultural Trade Preferences under the Euro-Mediterranean Agreements and the EU Import Regime for Fresh Fruit and Vegetables

By Harald Grethe and Stephan Nolte, Humboldt-University of Berlin

Agricultural Preferences under the Euro-Mediterranean Agreements

Current Status

Table 1 shows the agricultural exports of Mediterranean partner countries and the value of preference margins (VPM) for preferential exports to the EU. The total VPM is about €225m, varying between €0.3m for Syria and €120m for Morocco. In relation to the total value of agricultural exports to the EU, the VPM varies from 2.7% for Lebanon to almost 16% for Tunisia. The average for the MPCs is 7.4%. Generally, the preference margin is highly concentrated on a few products. For all MPCs, four or fewer products at the 4-digit CN level account for more than half of the VPM. In some cases, this concentration is even more pronounced.

Table 4-2: PC and VPM under the EMA (Trade Data 2001-2003)

	Algeria	Egypt	Israel	Jordan	Lebanon	Morocco	Palestine	Syria	Tunisia	Total MPC
Agr. ex., €m	40.4	781.1	1 101.9	392.9	196.6	1 125.9	62.1	794.4	445.3	4 940.5
Agr. ex. to EU, €m	39.9	306.7	860.9	7.2	32.8	1 384.3	5.1	137.3	293.8	3 068.0
VPM, €m	1.8	11	36.6	0.3	0.9	122.3	0.4	5.7	46.6	225.5
In % of agr. ex.	4.5%	1.4%	3.3%	0.1%	0.5%	10.9%	0.6%	0.7%	10.5%	4.6%
In % of agr. ex. to EU	4.5%	3.6%	4.3%	4.2%	2.7%	8.8%	7.8%	4.2%	15.9%	7.4%
In % of GDP _{agr}	0.03%	0.07%	1.23%	0.16%	0.04%	1.91%	0.13%	0.12%	1.83%	0.55%
In % of total GDP	0.00%	0.01%	0.03%	0.00%	0.00%	0.32%	0.01%	0.03%	0.21%	0.06%

Sources: Grethe, Nolte and Tangermann (2005), own calculations.

In all cases, the VPM represents a significant share of MPC agricultural exports to the EU. However, the situation looks somewhat different if the VPM is compared to GDP in the agricultural sector. Only for Israel, Morocco and Tunisia does the VPM exceed 1% of agricultural GDP, while for all other countries it is 0.2% or less of agricultural GDP. In all, the VPM for the MPCs is equivalent to about 0.6% of agricultural GDP. Compared to total GDP, it is of course even smaller. On average, for all MPCs, the VPM is no more than 0.06% of total GDP. Only for Morocco and Tunisia does the VPM exceed 0.2% of total GDP. This is due to the relatively large preference margins compared to the size of the agricultural sectors, and the relatively large share of the agricultural sectors in the whole economy. For all other MPCs, the VPM is 0.03% or less of total GDP.

The VPM must be interpreted carefully and cannot be seen as a direct monetary gain for the recipient country. It is a weighted average tariff reduction, with trade values used as weights and the result expressed in money terms rather than as a percentage tariff rate. It indicates the extent to which the EU is willing to forego (potential) tariff revenue by granting preferential access to its markets, and the potential economic gain which may accrue to the exporting country. For many reasons, the real-world economic gain may differ from the VPM and accrue only partially to the preference recipients.

The Future of Agricultural Trade Preferences under the EMA

In the long run, agricultural trade preferences are subject to erosion as the EU is reducing its price support for agricultural products for various external and internal reasons. In addition to this preference erosion stemming from a reduction in EU domestic price levels and in MFN market access barriers, preference erosion may also result from the EU granting additional preferential market access to countries that did not previously enjoy preferential treatment.

Thus, for both preference-granting as well as preference-receiving countries, the perceived advantages of preferential trade agreements are diminishing. For preference recipients, the welfare effects resulting from higher export revenues than those obtainable under MFN conditions are diminishing. For the EU, the incentive to narrowly control preferential market access through a system of seasonal tariff and entry-price preferences, TRQs, sophisticated rules of origin, and safeguard clauses is declining.

In particular, most MPCs have little to lose from preference erosion in the current Doha round of trade negotiations. This is because they are competitive suppliers with a comparative advantage due to climate and geographical location for most of their preferential export products such as fruit, vegetables, and olive oil. They can therefore support the multilateral liberalisation of these EU markets.

Given the high transaction costs of product-specific and differentiated preferences, the full inclusion of MPC agricultural exports in a free trade area with the EU seems a worthy alternative. The effect on EU markets may be limited for many reasons. First, compared to the growing EU market, the MPCs are relatively small in terms of agricultural production. Second, natural resources, especially water, are rather scarce in most of the MPCs and therefore put a limit on additional exports. Third, transportation costs and increasing quality standards applied by EU importers limit the competitiveness of many MPC products on EU markets.

Market Policies and Preferences for Fresh Fruit and Vegetables

Current Status

The EU grants various tariff preferences for fruit and vegetables under reciprocal and non-reciprocal arrangements. For the MPCs, the value of preference margins for fresh fruit and vegetables under the EMA amounts to €81m, or about 36% of the total value of the preference margins. They therefore constitute an important product for the MPCs in the context of agricultural preferences.

Fruit and vegetables in the EU are typically protected by ad valorem tariffs of up to 20%. However, tariffs are only one element in the protective trade regime the EU applies to this sector. More important is the entry price system, which applies to a subset of fruit and vegetables considered particularly "sensitive" in the EU, and which effectively establishes minimum import prices.

Besides reductions in ad valorem tariffs, preferences for the MPCs also come in form of preferential entry price reductions. These have been negotiated for limited quantities (entry price quotas – EPQ) of oranges from Israel, Egypt, and Morocco, and some other products

from Morocco. Reductions in entry prices of between 5% and 58% enable these countries to supply products to EU markets at prices significantly below those of products from countries having to accept the MFN entry price. As a result, reduced entry prices enable the countries concerned to export products to the EU even if the EU domestic price at high season is below the MFN entry price plus tariff. If the EU domestic price is above the level of the entry price plus the relevant tariff, the preferential entry price will have no direct effect except the assurance of being the last exporter to leave the market if the EU domestic price declines. Preferential entry prices could also enable countries to export low-quality products to the EU, which would not be marketable at the MFN entry price level.

However, the effectiveness of the entry price system differs widely among products. For some products, such as oranges, the system is fairly redundant, along with preferential entry prices. For other products, the entry price system is restrictive, and preferential entry prices permit significant economic gains, as, for example, for tomatoes from Morocco.

The Future of the EU Entry Price System

The EU import regime for fruit and vegetables will be subject to any agreement on agriculture which may be reached in the Doha round of trade negotiations in the WTO. Various aspects play a role in how such an agreement could impact the current import regime for fruit and vegetables.

At the WTO ministerial conference in Hong Kong in December 2005, a banded approach for tariff reductions was agreed. However, agreement could be reached only on the number of bands (four), but not on the ranges of the bands nor on the reduction rates. The first question then is in which tariff band fruit and vegetables would fall. If the EU proposal of 28 October 2005 is taken as the reference (European Commission, 2005d), fruit and vegetables not covered by the entry price system would generally fall in the lowest tariff band (up to 30%) and tariffs would thus be reduced by 20% to 45%, with an average of 35%. For those products falling under the entry price system, specific tariffs would be converted to ad valorem equivalents (not yet published), and these products would therefore fall into higher tariff bands and the corresponding reduction rates would apply to both the ad valorem and the specific tariffs.

The second question is how tariff reductions would impact entry prices. During the implementation period of the Uruguay Round Agreement, entry prices were reduced by the same amount as the respective specific tariffs. As entry prices were higher than the specific tariffs, their relative reduction was less than the 20% reduction applied to specific tariffs. As a result, the more entry prices were reduced (in relative terms), the higher the specific tariff in relation to the entry price. Whether the EU will apply this approach is again an open question and depends on the outcome of negotiations.

The third question is to what extent the EU will be able and willing to declare tariff lines for fresh fruit and vegetables as “sensitive”. There are enormous differences in the current proposals with respect to the share of tariff lines that would be eligible for this category (1% to 8%), and the still outstanding agreement on the size of the TRQs to be set for these products, as well as in and above TRQ tariff reduction rates. Thus, the consequences for trade remain unclear.

A fourth aspect that may turn out to be relevant for the future protective nature of the EU import regime for fruit and vegetables is the potential continuation of the SSG. The quantity trigger, which has been invoked in some years, may become particularly relevant in the event of a reduction in entry prices and specific tariffs. Depending on the results of the Doha Round, granting the MPCs free access to the EU’s fruit and vegetable markets may only be a small step.

To depict Euro-Mediterranean trade in fruit and vegetables in an equilibrium model is an analytical challenge, not only because of the complexity of the EU's market policies. The seasonality of supply and in some cases the demand for fruit and vegetables and the heterogeneous qualities of these products also add to the difficulties of such an undertaking.

Papers on EMA and Entry Price System from Humboldt University of Berlin

General overview and assessment of the economic value of agricultural parts of the EMA:

Grethe, H., S. Nolte and S. Tangermann (2005), Evolution, Current State and Future of EU Trade Preferences for Agricultural Products from North-African and Near-East Countries. Forthcoming in *Journal of International Agricultural Trade and Development*, 1 (2): 109-133.

Case studies:

Chemnitz, C. and H. Grethe (2005), EU Trade Preferences for Moroccan Tomato Exports – Who Benefits? In *XIth Congress, European Association of Agricultural Economists, "The Future of Rural Europe in the Global Agri-Food System"*, Copenhagen, 24-27 August 2005 (CD).

Goetz, L. and H. Grethe (forthcoming), *The EU's Import Regime for Oranges – Much Ado about Nothing?*

General assessment of agricultural preferences granted by the EU:

Grethe, H. (2005), The Perspective of Agriculture Trade Preferences Granted by the EU to Developing Countries. In *IATRC 2005 Summer Symposium, "Pressures for Agricultural Policy Reform: WTO Panels and the Doha Round Negotiations"*, Seville, Spain, 19-21 June 2005 (CD).

Summarising overview paper:

Grethe, H. (2005), *EU Agricultural Trade Preferences for North Africa and the Near East and the EU Import Regime for Fresh Fruit and Vegetables*. Paper prepared for the FAO Regional Trade Workshop "Recent Development in the WTO Negotiations on Agriculture and in Regional Trade Agreements and their Implications for Trade, Agriculture and Food Security in the Near East Countries", Cairo, 15 to 17 November 2005.

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4.5. Will the use of flexibilities for “special products” necessarily dilute the potential “gains” to developing countries from further liberalisation of trade in agricultural products?⁸

By Jamie Morrison (Food and Agriculture Organisation of the United Nations)⁹

The question in the title of this statement is stimulated by a seeming contradiction whereby at a time when global trade models are increasingly being used to strengthen the case for further trade liberalisation by developing countries and to argue against recourse to special product provisions, the debates and negotiations, both within and outside the WTO, are characterised by increasing calls for such flexibilities to allow these countries to retain some level of protection for some agricultural products.

This seeming contradiction could be dismissed as being a result of the mercantilist stance taken by many trade negotiators, or as simply reflecting a trade-off between efficiency and non-efficiency objectives (such as those related to e.g. food self-sufficiency objectives).

However, there are also important efficiency arguments for questioning whether further liberalisation in some products by some countries is an optimal approach, given both their current level of agricultural development and their current tariff profiles, both of which differ widely across countries. This diversity is not well reflected in quantitative analysis.

At the level of primary commodity production, agricultural producers often face widespread market failures, which can reduce their ability to (a) generate investible surpluses and (b) use these to invest resources in higher value activities — both of which are a prerequisite for the resource reallocations that drive the efficiency gains reflected in the results of global trade simulation models¹⁰, and are simply assumed to occur.

The process of agricultural commercialisation and the associated diversification into higher value-added activities in cases of successful agricultural-led growth has been observed to require significant government intervention at early stages of development to alleviate the pervasive nature of market failures, as reflected in weak input and output markets, lack of seasonal financing, limited risk management instruments, etc.

Similarly, at higher levels of processing, there may also be arguments for providing some level of support while nascent processing sectors develop. Coordinated investments along the supply chain are generally needed to allow the formation of reliable local and regional markets, but markets at this level in the chain are often imperfect and can be particularly susceptible to import competition.

Where might border protection be required?

Having said that, whether a less than liberal trade policy is a component part of such state intervention is still an unresolved issue.

In thinking this through, it is important to recognise the importance of import-competing food staple sectors, which is where the majority of the poor operate particularly in countries at lower levels of development. Trade debates should not focus exclusively on increasing export opportunities under the assumption that producers can simply adjust if such opportunities

⁸ See FAO Trade Policy Technical Note No 14 for further discussion of this issue
http://www.fao.org/trade/policy_en.asp.

⁹ The views expressed in this statement are those of the author **and should not be attributed to the FAO.**

¹⁰ See FAO Trade Policy Technical Note No 13 for further discussion of this issue
http://www.fao.org/trade/policy_en.asp.

arise. In addition, for many poorer producers, the domestic market is likely to provide a more promising outlook in the short to medium term than international markets.

It is also important to recognise that the WTO negotiations (and indeed most trade negotiations) are product-based and do not adequately reflect differing modes of production. But the dynamics of the shift from low to higher productivity production systems is critical in achieving the “gains” from trade and this needs to be better reflected in analysis.

The use of border measures can assist in providing more stable and remunerative investment environments for import-competing commodity sectors, which may contract in the face of greater competition, but which are critical to the development of agricultural and wider rural growth, by:

Providing a better environment to promote levels of investment in productivity-enhancing technologies, generating surpluses and in turn allowing the diversification of resources into more “competitive” sectors: a case for moderate levels of protection while such improvements in productivity are being achieved.

Preventing short term disruption to domestic sectors which may be otherwise competitive, but are susceptible to risk and limited access to risk management instruments, so could suffer from exposure to low-cost, often subsidised, imports and associated price instability: a case for variable levels of protection.

In conclusion, there is still an important agenda in analysing appropriate agricultural trade policies at different stages of agricultural development. It is likely that a variety of trade policies for agriculture will be appropriate. While some similarities and generalisations may be made by future research concerning appropriate trade policies, under specific structural assumptions, the larger challenge is to explore such policies in a manner that can inform policy-makers who are concerned with accelerated development as well as with the various constraints that trade agreements may be imposing on their flexibility to respond to changing circumstances.

5. Presentation and discussion of projects

5.1. *EU-MED Agpol: Impacts of Agricultural Trade Liberalisation between the EU and Mediterranean countries*

By Florence Jacquet and Wolfgang Britz

5.1.1. Presentation of the project

Under the Barcelona Process, bilateral association agreements have been signed since 1995 between the EU and the Mediterranean partner countries, with a progressive but slow liberalisation of agricultural trade. A new perspective was launched in 2006 with a renewal of the Euro-Med partnership, moving towards deeper liberalisation.

Trade relations between the EU and the Mediterranean countries are weak, asymmetric and sensitive. The EU is the main trading partner for the Mediterranean countries¹¹. Their exports, mainly fruit and vegetables and olive oil, contribute significantly to their economic growth, so access to European markets is very important. Their imports are mainly basic foods, from both EU and non-EU trading partners. For the European Union, trade with the Mediterranean countries is not particularly important. However, some European regions producing fruits and vegetables could be negatively impacted by increased market access to the EU.

The overall objective of the EU-MED Agpol project is to estimate and describe the impacts of EU-Med agricultural trade liberalisation on European countries and societies. The major changes in European imports are expected to be in fruits and vegetables and olive oil, whereas Europe will be able to increase exports of cereals, meats, and milk products to Mediterranean countries.

Changes in exports from the EU to Mediterranean countries can be estimated by traditional sector models, so we have chosen CAPRI, a widely used European agricultural sector model, for that purpose. But estimating the impacts of changes in fruit, vegetable, and olive oil imports is an entirely different story. Fruits and vegetables are much more complicated. Many fruits are perennials, and thus are difficult to handle in standard annual models. The traditional European export commodities like wheat, barley, milk, meat, etc. are relatively homogeneous. But fruits and vegetables come in hundreds of varieties. Furthermore, there are issues of seasonality that, in essence, make a strawberry in one month different from a strawberry in another month. And on top of all the natural variety, the customs rules and duties applied to fruits and vegetables by the EU are very complicated. In addition, the possible changes in trade in fruits and vegetables are quite large. Thus, it would be very difficult, if not impossible, for any one modelling approach to reliably estimate the impacts of prospective policy changes regarding fruits and vegetables. Quantitative models are best when the products are relatively homogeneous, when the policy instruments are straight-forward, and when the envisioned changes are not large. None of these conditions apply to fruits and vegetables, so it would not be wise to use such techniques for impact estimation. Consequently, we will use expert panels to derive estimates of the orders of magnitude of potential exports of fruit and vegetables from Mediterranean countries to the EU under liberalisation assumptions. For olive oil, the case is somewhere between the two extremes. There are models of world oil markets, and some of them include olive oil. CAPRI contains other table oils, but not olive oil at present. We have access to data from the FAO and the International Olive Oil Council and from other studies that will permit us to add olive oil to the CAPRI model. Thus, CAPRI will be quite useful in

¹¹ We use here the term Mediterranean countries to refer to the eastern and southern Mediterranean countries listed in the detailed task description (Malta, Turkey, Morocco, Algeria, Tunisia, Egypt, Cyprus, Lebanon, Libya, Syria, Israel, Gaza and West Bank, and Jordan). We will also use the abbreviation MED to refer to those same countries.

the quantitative analysis of policy changes regarding olive oil. However, we will still use an expert panel for Tunisia to supplement the quantitative analysis.

Thus, the state of the art is that we can and will use quantitative analysis tools for part of our analysis but must use other approaches to complement the modelling approach. For the fresh fruit and vegetable sub-sectors, we have opted to use expert panels for the Mediterranean countries with a substantial export potential. For processed goods, we will use a global supply chain approach to capture the supply chain interactions.

Nine teams from European and Med countries are involved in the project:

P1: CIHEAM-IAMM, F.Jacquet, M.Petit, W.Tyner, F.El Hadad

P2: ENSAM-INRA, J.L. Rastoin, J.C. Montigaud

P3: INRA Nantes, E.Chevassus, J.Gallezot

P4: IAP Bonn, F. Junker, W.Britz

P5:CSIC Madrid, S. Mili

P6: METU Ankara, E.Cakmak

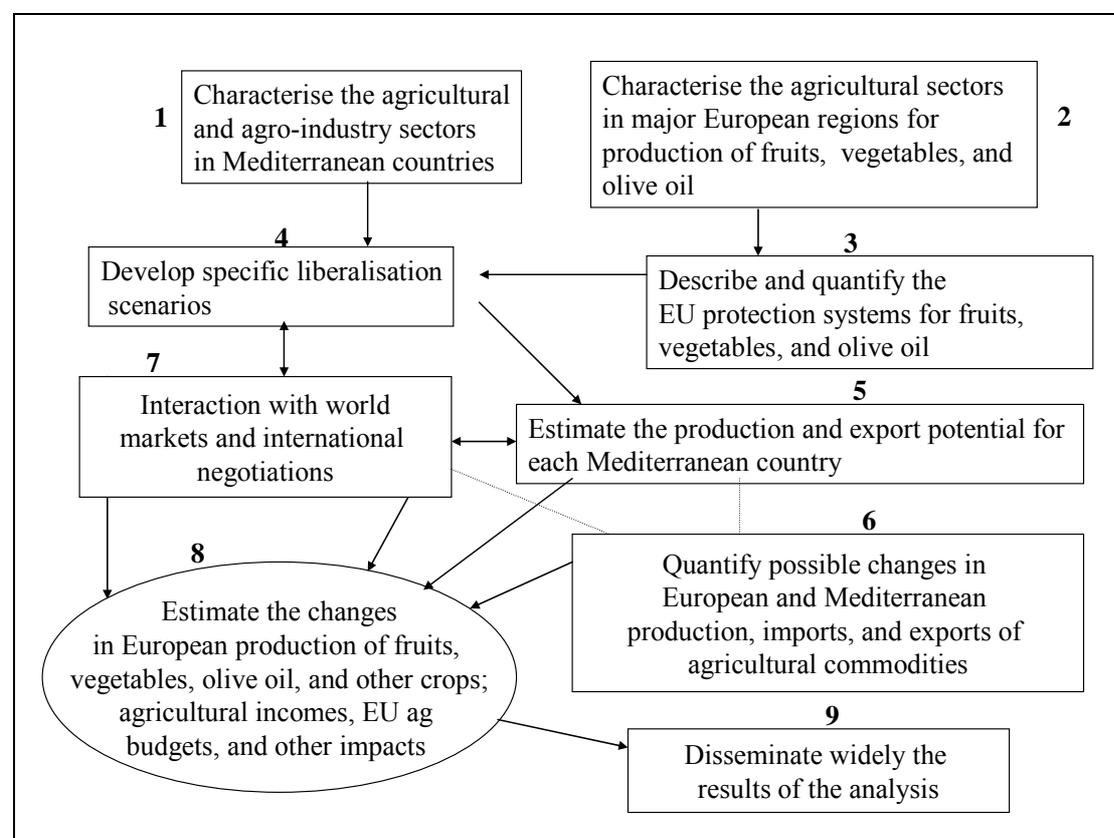
P7: IAV Hassan II, R.Doukkali, N.Akesbi

P8: Institut de l'Olivier Sfax, B.Karray

P9: CAES, Un. Of Cairo, G.Siam

This project has been partitioned into nine tasks or work packages. Figure 1 provides an overview of the project with the flows and interactions among the nine tasks.

Table 5-1: Work Packages of the EU-MED AGPOL project



5.1.2. Summary of results and ongoing work

In this brief presentation, we will present the current state of the project, i.e. the results for the first three work packages, and the ongoing work concerning liberalisation scenarios and modelling:

WP1 – Characterisation of the agriculture of Mediterranean countries

In coordination with the Medfrol project, which is the other EU-funded project on the same topic, we have decided to focus more deeply on five Med countries, whereas the Medfrol project will concentrate on a general overview of all the Mediterranean countries.

The reasons why we have chosen those five countries can be seen from the following table (cf Annex 1, EU-MED AGPOL proposal):

Table 5-2: Share of Mediterranean exports to the EU for each product category (1997-2000)

Country	Vegetables	Fruits	Oils	Processed
				Fruits and
				Vegetables
Turkey	21.50%	60.27%	9.53%	67.22%
Morocco	34.36%	15.49%	1.49%	17.18%
Israel	19.41%	16.00%	2.85%	13.70%
Tunisia	0.72%	4.00%	85.56%	0.23%
Egypt	15.93%	0.84%	0.22%	0.17%
Total	91.91%	96.59%	99.65%	98.49%

Sources COMEXT et Base MEDINA-Taragro INRA

We will not summarise here the different general case studies conducted on those five countries, which can be found on the general website for the project (D1 Morocco, D2 Turkey, etc.)

Because the potential for expanding the production of fruits, vegetables, and olive oil is to be estimated in future tasks under this project, we will summarise here what lessons can be drawn from the WP1 reports for this forecast.¹²

There appear to be several important points, which we will take forward into the next stage of our analysis:

- Water is probably the most important binding constraint in increasing production in all the countries.

¹² This part is drawn from D7, written by W. Tyner.

- For Israel, water is the binding constraint, and water scarcity is likely to mean little production expansion in the future.
- For Turkey, water is less of a constraint today than for the other countries, but future projections place Turkey in the water-deficit category as early as 2010. However, Turkey is the most water-abundant country among the five countries in this study.
- Morocco and Tunisia are water-constrained. There is some potential to expand the irrigated area, but this may incur a high cost.
- In Egypt, the problem is not so much total water availability as the allocation of water. Egypt still produces lots of cereals, even though it is one of the world's largest wheat importers.

A second major constraint is agricultural policy.

Starting in 2001, Turkey has made significant reforms to its agricultural policy, substituting direct payments for some commodity payments. However, with a Producer Support Equivalent of 26 percent, agriculture is still protected.

In Egypt, there is potential to expand the production of fruits and vegetables substantially, but current agricultural policy is a major hindrance. The state supports wheat and maize prices, leading farmers to use more land to produce these crops instead of fruits and vegetables.

In Morocco and Tunisia, state intervention in wheat markets leads farmers to produce more of that commodity. In both countries, however, the transition away from wheat will probably take place over 20 years or more, and only as other opportunities become available. Neither country is prepared to reverse the income transfers made through higher wheat prices without clear opportunities in other crops.

Irrigated land is often used for crops that are not economically viable, such as sugar cane or sugar beets. If policies were changed, with the land used to produce fruits and vegetables, greater production and exports might be achieved.

In Israel, current policy is aimed at reducing water use in agriculture through improved technology and through reallocation to other sectors.

A third major constraint is marketing and export infrastructure:

- Many countries lack adequate grades and standards, which will be needed to increase exports substantially.
- An adequate cold chain is not present in many countries, and export markets will require a continuous cold chain to secure the high quality demanded in those markets.
- Government intervention in fruit and vegetable marketing still exists to some extent in Tunisia, Turkey, Morocco, and Egypt. Successful exporting will be achieved through private sector activities.
- Transportation systems will need to be improved in most countries if exports are to be competitive.

There are, of course, many other factors important for production and export growth in each country. We will go into these factors in greater detail in future analyses of export growth potential by product and country.

WP2 – Characterisation of European fruit and vegetables and olive oil production and markets

For the fruit and vegetable sectors (fresh and processed), the analysis describes European production and markets (D8-D9-D11).

The most original part of this work, and probably the most useful for the final assessment of the project, is the measurement of the “vulnerability” of the regions affected in five European countries (Greece, France, Italy, Spain, Portugal)¹³. The first step here consists in imagining a function called a **regional vulnerability index (RVI)**, which combines four identified strategic parameters. In a second step, we proceed to a hierarchical classification of regions and then to a strength-weakness diagnosis.

The following table summarise the four strategic parameters for the fresh fruit and vegetable sub-sectors

Table 5-3: Regional Vulnerability Index (RVI)

Strategic parameters	Indicators
Structure and performance of farm producers (SPFP)	Size, concentration, increase in turnover, investment rate, subsidy rate, mark-up, work productivity
Density and quality of marketing organisations (DQMO)	Number, turnover, assets, indebtedness, mark-up, productivity, profitability
Capacity of the commodity system to create value by differentiating the territory (CV)	Number of PDO (AOP), PGI (IGP) and OF (AB) ¹⁴
Constraints imposed by the economic and institutional regional environment (CRE)	Population density, purchasing power, transportation infrastructures, R&D expenses

The Regional Vulnerability Index is inversely proportional to the sum of the scores of each parameter. It is calculated using the following equation:

$$RVI = 1/[(SPFP) \times \alpha + (DQMO) \times \beta + (CV) \times \lambda + (CRE) \times \theta]$$

α , β , λ , θ being weighting coefficients.

The regions selected for calculating the index are those with the largest average annual turnover during the period 1999-2002: 23 for fresh fruit, 24 for fresh vegetables, i.e. 34 European regions as a whole containing 324 000 holdings specialised in fruit and vegetable production and making about €12 billion a year on average.

The main results can be seen in the following tables:

¹³ This part is drawn from D8-9-11, written by J.L. Rastoin and J.C. Montigaud

¹⁴ Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Organic Farming (OF).

Table 5-4: Vulnerability of European fruit-producing regions

	Weak specialisation	Strong specialisation
Strong vulnerability ($0.41 < RVI < 1.60$)	Makedonia Thessalia Tras Os Monte Alentejo-Algarve Aragon Sicilia	Ipiros (THREATS +++)
Weak vulnerability ($0.07 < RVI < 0.41$)	Campania Emilie Romagne Cataluna Calabra Veneto Piemonte Languedoc Roussillon Midi-Pyrénées Rhône-Alpes	Ribatejo Andalucia Murcia PACA Alto-Adige TrentinoValencia

A strong vulnerability combined with strong specialisation makes regions fragile (i.e. they face a high level of threat). On the other hand, a weak vulnerability (i.e. high performance under the 4 indicators) and the diversification of production allow alternative solutions to be envisaged. In the fruit sector, only one region (Ipiros in Greece) among the 23 seems to be threatened by trade liberalisation while six would suffer a significant impact. A lot of regions are in fact protected by their diversified production and good structural indices.

Table 5-5: Vulnerability of European vegetable-producing regions

	Weak specialisation	Strong specialisation
Strong vulnerability ($0.33 < RVI < 0.66$)	Alentejo-Algarve Entre Douro Sicilia Toscana Sterea Castilla Açores Lazio	Ipiros Ribatejo Murcia Andalucia (THREATS +++)
Weak vulnerability ($0.06 < RVI < 0.33$)	Campania Pays de la Loire Veneto Languedoc Roussillon Emilia Romagna Brittany Rhone Alpes Puglia	Canaries Ligurie PACA Valencia

In the vegetable sector, the outlook is not so good, probably due to the high intensification levels achieved with the production models. Four regions would be strongly affected by liberalisation, including the largest, Andalucia (27 000 farm holdings, turnover of €1.8

billion). Eight other regions are threatened (but to a lower degree). Therefore, half of the specialised European regions are at risk.

For the processed fruit and vegetable sectors, a similar approach has been followed (D11).

The olive oil sector is of particular importance for several southern countries of the EU (accounting for approximately 15% of agricultural output in Greece, 7% in Spain and 4% in Italy and Portugal), and is also particularly important in EU-Med trade. A specific study has thus been carried out on European regions producing olive oil (D10).

WP3 – Characterisation of European protection, fruit and vegetables and olive oil production and markets

The results of this WP are mainly twofold. On one hand, we have built up a very detailed database (Meditar) providing all the information needed on current EU protection for fruits and vegetables, information that will be used in WP5 (export potential in the case of liberalisation). On the other hand, we have constructed an aggregated indicator in order to analyse the preferential margins of the different Med countries.¹⁵

The measurement of the preferential margins of the fruit and vegetable sector at aggregated level provides an overview of the agreements and the level of protection applied on entry into the EU. However, previous developments have led to various methodological difficulties in measuring this indicator (ad-valorem equivalent). As it is not known what customs duties are actually applied when goods go through customs (6), some methodological assumptions are necessary. Under these specific methodological assumptions (see D13 for detailed assumptions), the results are the following:

For fruit and vegetables (figures 5-1 and 5-2), two groups of countries emerge:

The first group includes Turkey, Lebanon and Morocco, countries for which EU market access is very advantageous, not only compared to other third countries (subject to the MFN regime) but also compared to the other Mediterranean countries. In the case of Morocco, the preferential advantage is the strongest mainly for vegetables, with a preferential margin of around 10 points compared to the MFN tariff. For fruits, on the other hand, the average rate for Morocco is 8.1%, a level of protection fairly close to that applied to the other Mediterranean partners.

In contrast to this group of countries, for which the trade liberalisation process in the fruit and vegetable sector is very advanced, two countries have EU market access conditions that remain highly unfavourable compared to other Mediterranean countries: Israel and Palestine. Not many products come under preferences and not many benefit from duty-free access. Thus, the average tariff applied by the EU to imports from Israel is 12.1% for vegetables as a whole and 11.9% for fruits. The situation is similar for Egypt, which is the 4th largest Mediterranean exporter to the EU market despite a continuing high level of protection.

¹⁵ This part is drawn from D13, written by E.Chevassus et al.

Figure 5-1: The level of preferences granted to Mediterranean countries for fresh vegetables - arithmetic mean – year 2004

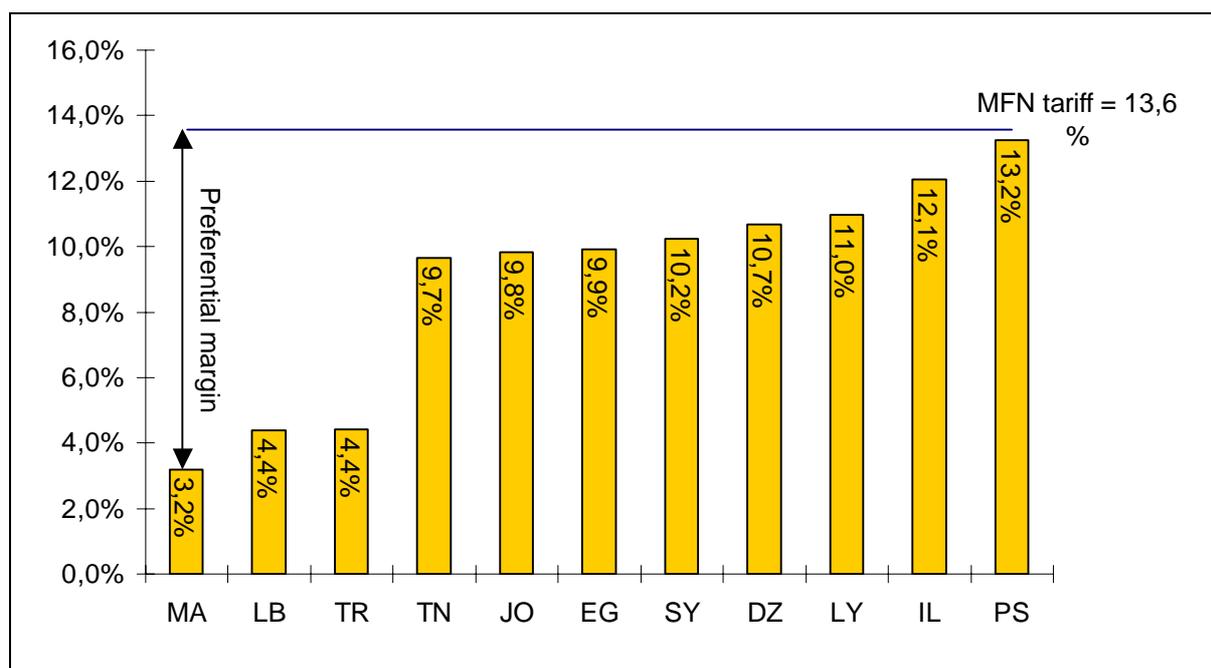
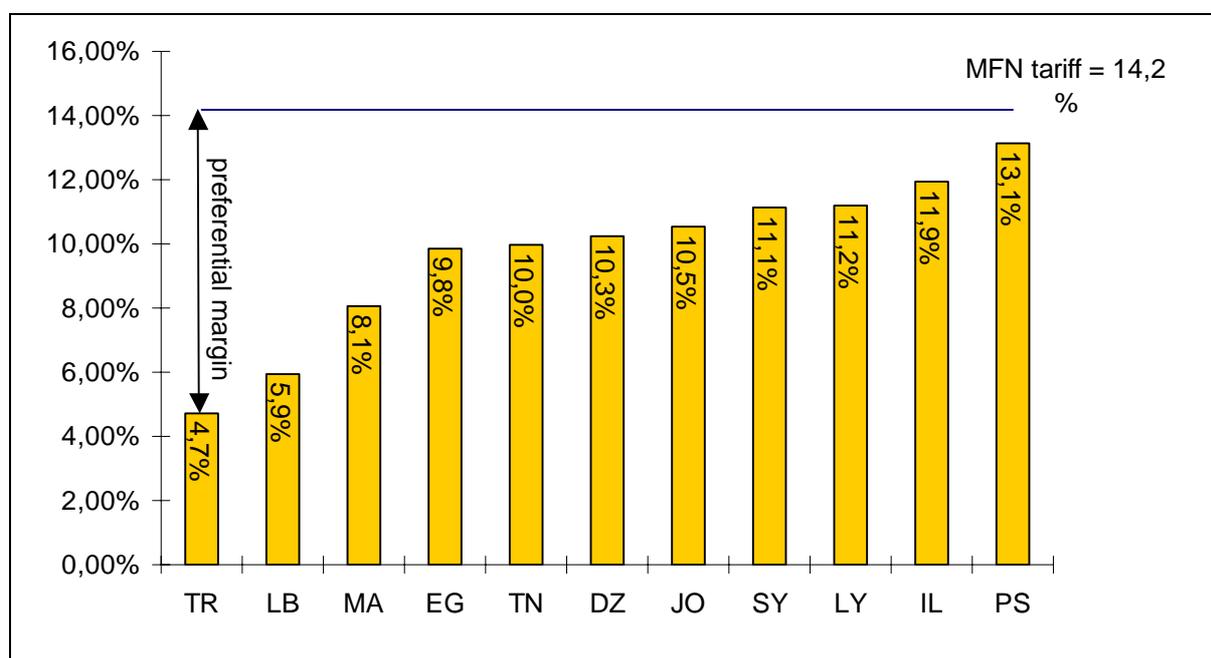


Figure 5-2: The level of preferences granted to Mediterranean countries for fresh fruits - arithmetic mean – year 2004



WP4 – Liberalisation Scenarios, WP5 and WP6: estimating the trade impacts of liberalisation

The purpose of this research project is to assess the potential consequences of liberalisation in the Euro-Mediterranean region. This obviously implies a medium- to long-term horizon. We have chosen a ten-year horizon. Scenarios of plausible futures are needed to specify the assumptions required in order to estimate quantitatively and qualitatively the production,

income, budget, and social impacts of EU-Med trade liberalisation. In addition, the potential impact of liberalisation measures somewhat more radical than what seems most likely will be analysed in order to assess more broadly the stakes involved in the current and future negotiations, whether at world, multilateral, regional or bilateral level.

The asymmetries characterising agricultural trade in the Mediterranean region are so sharp that different approaches have been chosen in this project to assess the potential impact of the liberalisation of imports into the EU, on the one hand, and the liberalisation of imports from the EU to partner Mediterranean countries, on the other. This implies different specifications for defining the scenarios in WP4.

Specifying a partial liberalisation scenario for EU imports of fruits and vegetables is necessarily complex because, to be meaningful, such a scenario must be both country- and product-specific, given the diversity and complexity of product-specific border measures. First, a list of products to be considered was established for each country, taking into account the relative importance of each product in the total exports of the country to the EU and the potential competition with domestic production in the EU; then, for each product in each country, current EU protection instruments were identified and, for each one, assumptions were made as to how it could evolve under a partial liberalisation scenario, bearing in mind the Commission's current position on Euro/Med liberalisation, as expressed in the 'road-map'¹⁶. EU protection can take the form of import windows, quotas, minimum import prices, and tariffs, most often involving some combination of these instruments. Some degree of arbitrariness is necessarily involved in the formulation of these liberalisation assumptions. However, in order to achieve some measure of consistency, a few general principles were used. (For details, see D15.)

These scenarios are being used in the expert panels conducted in the five selected countries. Under this methodology, experts are asked to estimate the potential for increasing exports of selected fruits and vegetables. For the moment, this analysis has been completed for Morocco, Egypt and Turkey (see website). The results will soon be available for the other countries.

The modelling part of the project is based on one hand on the CAPRI model and on the other hand on the TASM (Turkish Agricultural Sector Model) and on a CGE for Morocco. CAPRI is a combination of regional models for the EU27 and a spatial global trade model for agricultural products. It allows the impacts on the EU of increased EU exports to Mediterranean countries to be captured, and will also provide some generalised impact information for fruits, vegetables, and olive oil. It will also be used to measure the impact on the EAGGF budget and consumers, and to measure the regional impacts on production and farm income.

The national models will give insights into the impacts of trade liberalisation on national economies (for Morocco and Turkey)

The following specific work is currently being carried out on the modelling part of the project:

- Expanding the product list of the Global Trade Model to cover fruits and vegetables
- Splitting out Turkey and Morocco

¹⁶ With a view to strengthening the Barcelona process, the Euro-Mediterranean foreign ministers asked the Commission to draw up, at senior level, a roadmap for the process of liberalising agricultural trade. In this connection, one of the conclusions of the foreign ministers at The Hague (November 2004), following the Dublin Declaration (May 2004) and the conclusions of the Venice conference of agriculture ministers (November 2003), was that: *"the strategy for accelerating the liberalisation of trade in agriculture has begun to be addressed through a meeting at senior expert level, with a view to Ministers agreeing later on measures for reciprocal agricultural trade liberalisation within a package – containing a specific roadmap – including trade in processed agricultural products and non-trade aspects (rural development, quality policy, etc.)"*. The roadmap process was endorsed by the conference held in Barcelona in November 2005.

- Including liberalisation scenarios in the models
- Defining point elasticities of supply and demand based on simulation experiments of TASM and Mor-CGE, and calibrating CAPRI to these results

For EU exports of cereals, sugar and livestock products to Mediterranean countries, the liberalisation scenarios must be specified in terms that are consistent with the models in which they are to be incorporated, particularly the CAPRI model, since models will be used to estimate the potential impact of liberalisation for these products. Thus, we could define the liberalisation scenarios starting from the protection data currently in CAPRI for Mediterranean countries. When that information is in terms of ad valorem equivalents, for example, we would then contemplate defining scenarios in terms of reductions in these base rates. However, it is of course desirable to consider scenarios based on the existing protection instruments. For Morocco, for example, the EU has a wheat quota of one million tonnes with an in-quota tariff of 38%. The MFN duty is about 100%. Any future agreement is likely to involve an expansion of that quota rather than a reduction in the tariff duty. As far as possible, efforts will be made to introduce realistic changes in protection instruments into the models used in the project.

5.1.3. Outlook

The emphasis in this project on the impact of the regional liberalisation process does not mean that the broader context of multilateral trade liberalisation over the same period can be ignored, even though the latter will probably not fundamentally affect the results of liberalisation at regional level. For instance, on the EU import side, the products of interest are of course fruits, vegetables and olive oil. It is likely that the most 'sensitive' among these will be declared as such within the WTO context, partly to avoid preference erosion and to permit the EU to have something left to give the Mediterranean countries in regional and bilateral negotiations. Thus, it is likely that the only significant changes for these products would come through the EU-Med negotiations. However, given its global nature, the CAPRI model will be run under different assumptions as to the possible results of the Doha Round. Plausible assumptions will be made at the time when the model is run, on the basis of what will then be known regarding the future of the Doha Round and following the guidance of Commission officials.

Detailed information on the projects and results may be found at: <http://eumed-agpol.iamm.fr/>

5.2. *MEDFROL: Market and Trade Policies for Mediterranean Agriculture: The case of fruit/vegetables and olive oil*

By Aikaterini Kavallari and P. Michael Schmitz

5.2.1. Presentation of the project

In recent years, the Mediterranean countries have encountered a number of agricultural policy changes that could significantly influence their agricultural sector and thus their overall economy. They are faced with ongoing trade liberalisation, the reform of the Common Agricultural Policy (CAP) of the European Union (EU), which is one of the major trade partners of the Mediterranean countries, and the establishment of a Free Trade Area between the EU and the Mediterranean countries after 2010. The latter will be accomplished through the Euro-Mediterranean Association Agreements, as decided at the Barcelona Summit in 1995

and hence also known as the Barcelona Process. Ten years on, the Barcelona Agreement was brought up to date in 2005, the Year of the Mediterranean as declared by the Commission.

These changes have brought about the need, on the one hand, to analyse the existing structure of the agricultural sector in the countries of the Mediterranean basin and, on the other hand, to empirically examine the impacts of the new policy regimes with appropriate modelling tools, so as to enable us firstly to evaluate the policies and propose further changes if needed and secondly to base the discussion for the future of Mediterranean agriculture on sound empirical analysis.

The MEDFROL project analyses the macroeconomic environment and the agricultural sector of the eleven non-EU Mediterranean countries, namely **Turkey, Morocco, Algeria, Tunisia, Egypt, Lebanon, Libya, Syria, Israel, Gaza Strip and West Bank, and Jordan**. These countries form a group of states that, despite their extensive heterogeneity, continue to share certain common characteristics, ranging from cultural and political aspects to overall economic situations.

Moreover, the inclusion of four EU Member States (**Greece, Spain, Malta and Cyprus**) in the project serves not only comparison purposes, but also provides projectional cases allowing for the assessment of alternative possible effects of EU membership and the identification of any specific lessons that could thereby be learned for the Mediterranean countries.

More specifically, the goal of the project is to:

- Provide a quantitative and qualitative insight into the agricultural sectors of the above-mentioned countries with analytical and up-to-date descriptive statistics, a presentation of national agricultural policies and a description of relevant supply chains;
- Compare the fruit/vegetable and olive oil sectors in these regions with EU countries that produce similar products and to specify the future course of action in these sectors;
- Provide analytical tools for assessing potential impacts of trade liberalisation with the EU by applying four different models; and
- Evaluate the consequences of trade liberalisation on the EU as a whole (consumer prices, market effects, budget burden) as well as on individual Member States, and to generate appropriate policy recommendations.

To achieve these objectives, a multidisciplinary analysis is performed. The project is divided into 8 work-packages:

- WP1: Presentation of the general economic environment through 13 National Agricultural Policy Reports (for Cyprus, Israel, Lebanon, Malta, Turkey, Syria, Jordan, Morocco, Libya, Algeria, Tunisia, Gaza Strip, Egypt), 15 Agricultural Policy Reports (same countries + Greece and Spain) and 2 Executive Summary Reports;
- WP2: Fruit/vegetables and olive oil supply chain analysis in the EU with the emphasis on Germany and the Netherlands as case studies;
- WP3 – WP4: Productivity/efficiency and import demand models, specification and analysis of 4 countries – 2 products (Morocco, Tunisia, Greece, Spain – fruit/vegetables and olive oil) and 3 countries – 3 products (Germany, France, EU – citrus, tomatoes, olive oil);
- WP5: Trade and policy analysis with the AGRISIM model;
- WP6: Input – output model;
- WP7 – WP8: Dissemination of knowledge (runs throughout the whole duration of the project) and final report on the project, in which all the findings are summarised.

The project is coordinated by the Mediterranean Agronomic Institute of Chania (MAICh / CIHEAM), Greece, while the consortium comprises the following organisations: Universidad Polit cnica de Catalu a (CREDA), Spain; Agricultural Research Institute (ARI), Cyprus; Swedish University of Agricultural Sciences (SLU), Sweden; Ege University (EUZF), Turkey; Institut f r Agrarpolitik und Marktforschung (IAM/JLU), Germany; National School of Agriculture Meknes (ENA), Morocco; Wageningen Agricultural Univ., the Netherlands; Institut National de la Recherche Agronomique de Tunisie (INRAT), Tunisia.

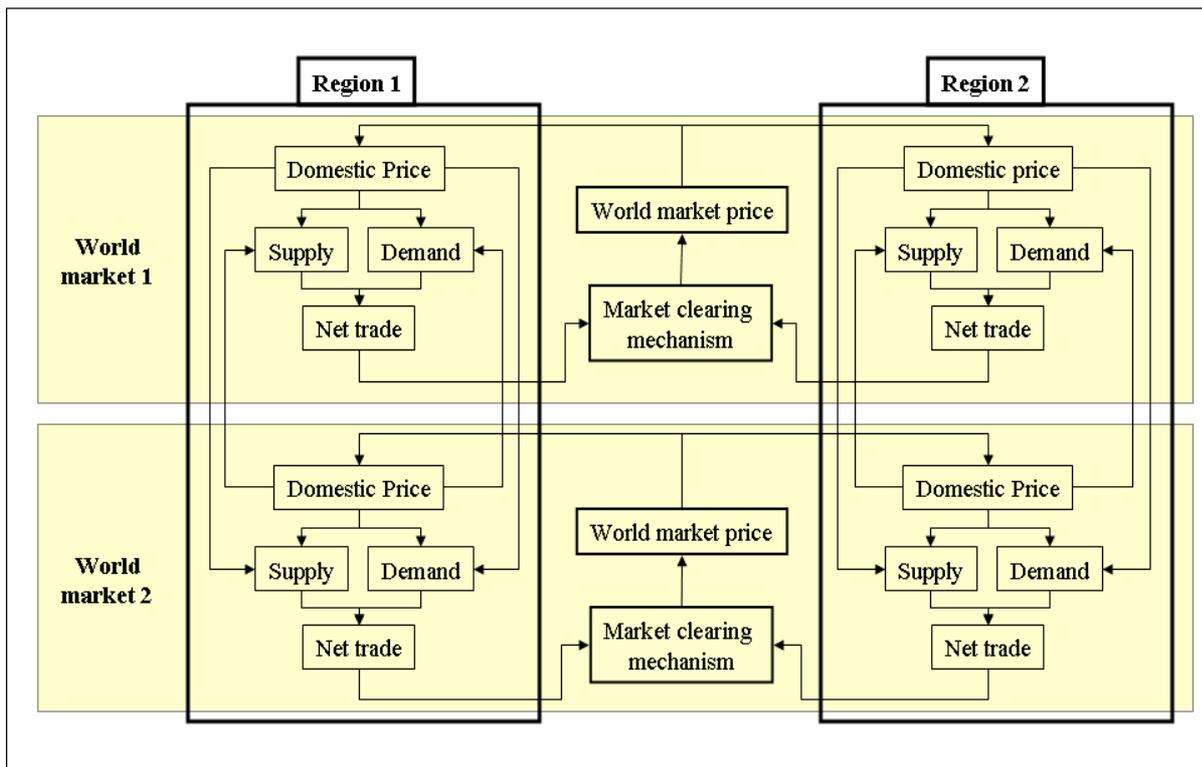
Following this short overview of MEDFROL, the second part of this paper focuses on the 5th WP and provides more insights into the AGRISIM trade model. More specifically, the methodological issues connected with the model and its modifications are explained and the basic structure of the model is briefly described¹⁷. The outlook for the model, its limitations and the remaining tasks are given in the last part of the presentation, along with some preliminary illustrative results of the modelling exercises already carried out.

5.2.2. Trade policy analysis with AGRISIM; basic model description.

For the empirical analysis, the AGRISIM model will be used. AGRISIM (Agricultural Simulation Model) is a partial equilibrium, multi-commodity, multi-region model. It is comparatively static in nature, with non-linear supply and demand functions and constant elasticities. Trade is modelled as net trade (for more details, see PUSTOVIT, 2003; SCHMITZ, 2002). The base version of the model includes 9 commodities: wheat, coarse grains, rice, oilseeds, sugar, milk, beef, pig meat and poultry meat. The database was recently updated up to the year 2001 and was extended to include three commodities, namely cotton, olive oil and tobacco, in an effort to better illustrate the effects of the latest reform of the EU's Common Agricultural Policy (CAP).

The main structure of the model is shown in Figure 1. The regions are connected with each other by a market clearing mechanism, while the world market price that results from this mechanism is fed into the domestic markets through domestic prices. The net trade summed from all regions, which is given by the difference between supply and demand, is fed back again to the world market clearing mechanism.

¹⁷ For a broader model description the reader should refer to KAVALLARI, et. al. 2005a.

Figure 5-3: Simulation routine in AGRISIM; example of 2 markets – 2 commodities

Source: Own illustration based on RONINGEN (1997)

Policy interventions are in general considered as changes in the nominal protection rate, price transmission elasticities, minimum producer prices, production quotas and subsidies. On the other hand, through shift coefficients in the demand and supply functions, additional variables such as population and income growth can be simulated (for more details see PUSTOVIT, 2003; SCHMITZ, 2002).

Main equations

The remainder of this section takes a detailed look at the main equations of the model, where:

r = all regions

$m(r) = x(r)$ = Mediterranean regions with modelled bilateral trade

i, j = all markets

$s(i)$ = markets without modelled bilateral trade

$t(i)$ = markets with modelled bilateral trade

Supply function

The supplied quantity is given by an iso-elastic function. Cross-price effects between the markets are considered through cross-price elasticities. The price that influences supply is the producer incentive price (eq. 1a). Nevertheless, when production quotas are applied the relevant price is the quota equivalent price (see eq. 1b).

$$S_{i,r} = s_{i,r} \cdot \prod_j (p_{i,r}^P)^{\epsilon_{i,j,r}^S} \cdot \Delta_{i,r}^S \quad (1a)$$

$$S_{i,r} = s_{i,r} \cdot \prod_j (p_{j,r}^{Quo})^{\epsilon_{i,j,r}^S} \cdot \Delta_{i,r}^S \quad (1b)$$

$S_{i,r}$ = Domestic supply of product i in region r

$s_{i,r}$ = Calibration parameter of supply function

$p_{i,r}^P$ = Producer incentive price

$p_{j,r}^{Quo}$ = Quota equivalent price

$\varepsilon_{i,j,r}^S$ = Own- and cross-price elasticity of supply

$\Delta_{i,r}^S$ = Supply shifter (yield and other shifts)

Food consumption

Food consumption or demand for human consumption is determined in turn by an iso-elastic Cobb-Douglas function. Although the model is static in nature, using a shifter for this function allows us to take into consideration dynamic effects such as changes in income or population.

$$D_{i,r}^{NA} = d_{i,r}^{NA} \cdot \prod_j (p_{j,r}^C)^{\varepsilon_{i,j,r}^{NA}} \cdot \Delta_{i,r}^{NA} \quad (2)$$

$D_{i,r}^{NA}$ = Food consumption of product i in region r

$d_{i,r}^{NA}$ = Calibration parameter of domestic non-agricultural demand function

$\varepsilon_{i,j,r}^{NA}$ = Own- and cross-price elasticity of non-agricultural demand

$\Delta_{i,r}^{NA}$ = Non-agricultural demand shifter (e.g. change in income, population)

Other components of demand are feed and seed demand, waste and stock.

There are four price definitions in the model: border price, domestic price, producer incentive price and consumer price.

Border price

The border price is defined in relation to a reference price. The reference country used for this model is the USA, so the reference border prices are American border prices. Therefore, the border price of a region for a certain commodity is calculated as the US border price plus the difference between the border price of the region and reference border price in the base year.

$$p_{i,r}^B = p_{i,ref}^B + (p_{i,r}^{BY} - p_{i,ref}^{BY}) \quad (3)$$

$p_{i,r}^B$ = Border price of product i in region r

$p_{i,ref}^B$ = Reference border price of product i (USA border price)

$p_{i,r}^{BY}$ = Border price in base year for product i in region r

$p_{i,ref}^{BY}$ = Reference border price in base year of product i

Domestic price

The domestic price is determined by the nominal protection coefficient, i.e. the relationship between the border and domestic prices, and by the price transmission elasticity, which determines the gradient of the relationship between border price and domestic price: where $\varepsilon_{i,r}^P = 0$, then changes in the world market price (and thus the border price) do not affect domestic prices, and where $\varepsilon_{i,r}^P = 1$, then changes in the world market prices are fully

transmitted to the domestic market. Depending on the levels of the nominal protection coefficient and the price transmission elasticity, various trade policies can be simulated. In using AGRISIM for MEDFROL, it is assumed that $\varepsilon_{i,r}^p = 1$

$$p_{i,r}^D = NPC_{i,r} \cdot (p_{i,r}^B)^{\varepsilon_{i,r}^p} \quad (4)$$

$p_{i,r}^D$ = Domestic price of product i in region r

$NPC_{i,r}$ = Nominal protection coefficient

$\varepsilon_{i,r}^p$ = Price transmission elasticity

Producer incentive price

The producer incentive price is calculated endogenously, and is equal to the domestic price plus that part of subsidies that influence production, as given in equation (5). The “production effectiveness” coefficient is used to model the effects of decoupling, i.e. how much the introduction of decoupled payments acts as an incentive for production, influences the produced quantity and thus the prices that farmers actually receive.

$$p_{i,r}^P = p_{i,r}^D + \sum_{Sub} \alpha_{Sub} Z_{Sub} \quad (5)$$

α_{Sub} = Production effectiveness

Z_{Sub} = Subsidy per ton

Consumer price

Due to lack of data, the consumer price is considered to be the same as the domestic price. Theoretically, if the data were to exist, it would be possible to add retail margins as a further factor affecting the consumer price.

$$p_{s,r}^C = p_{s,r}^D \quad (6)$$

$p_{s,r}^C$ = Consumer price

Net trade in markets without modelling of bilateral trade

Net trade is calculated as the difference between the supplied quantities plus the stock and all the components of demand, i.e. seed demand, feed demand, non-agricultural demand and waste.

$$NT_{s,r} = S_{s,r} + ST_{s,r}^{BY} - D_{s,r}^S - D_{s,r}^F - D_{s,r}^{NA} - W_{s,r} \quad (7)$$

$NT_{s,r}$ = Net trade of product s in region r

$ST_{s,r}^{BY}$ = Change in stocks of product s in region r in base year (constant)

$D_{i,r}^S$ = Seed demand of product i in region r

$D_{i,r}^F$ = Feed demand of product i in region r

$W_{i,r}$ = Waste of product i in region r

Market clearing mechanism

The equilibrium conditions are given in equations 18 and 19. The market is cleared when the sum of the net trade for all regions and for all commodities is equal to zero.

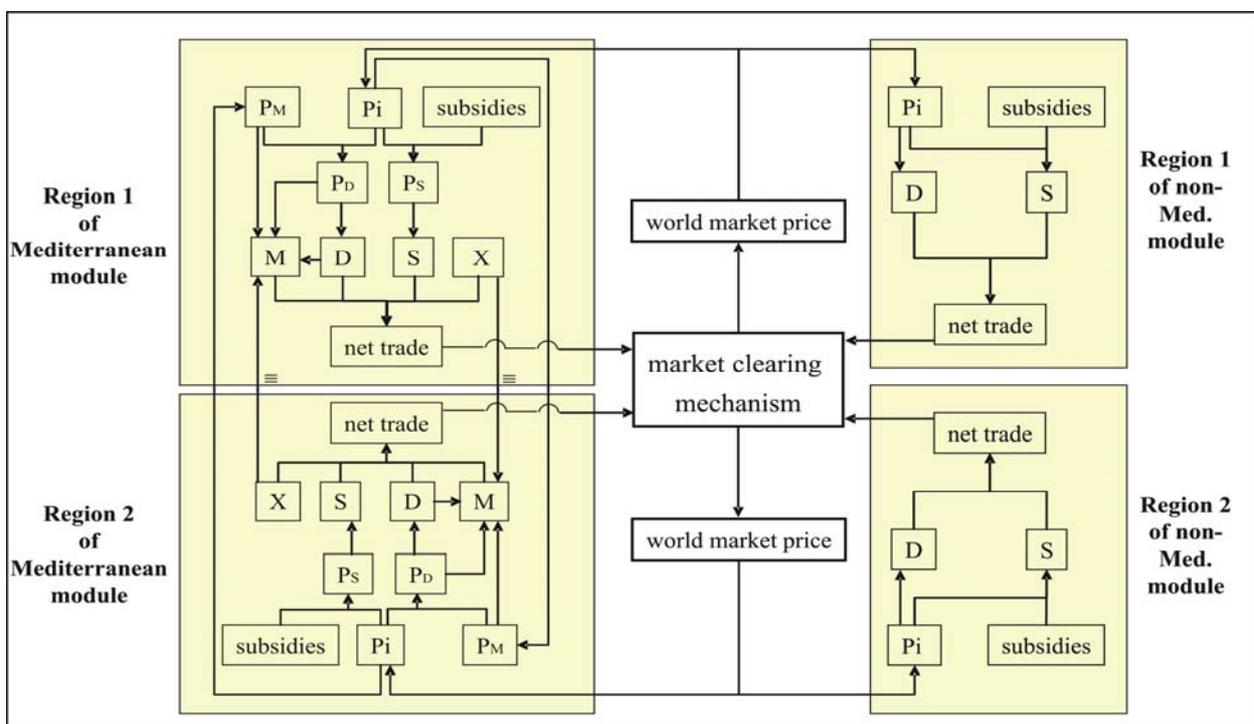
$$\sum_r NT_{i,r} = 0 \quad (8)$$

$$\sum_i \sum_r NT_{i,r} = 0 \quad (9)$$

Mediterranean Module

In order to make AGRISIM a suitable tool to analyse the trade flows in the Mediterranean basin, important adjustments and modifications are required. A major modification is the transformation of the model so as to model bilateral trade flows in the Mediterranean. For this purpose, a special module — the Mediterranean Module — has been constructed for the Mediterranean basin regions. As seen in detail in **Error! Reference source not found.**, the Mediterranean Module distinguishes between products from two regions. This assumption is in line with ARMINGTON (1969).

Figure 5-4: Structure of the Med Module and connection between the regions of the Med Module and the other regions in the model / Illustration for one market



* with PM : import price, P_i : domestic price, PD : demand price, PS : producer incentive price, M : imports (volume), D : demand, S : supply, X : exports

Source: own illustration

The demand in one region of the Med Module comprises demand for domestically produced commodities and demand for imported commodities from the other region of the Med Module and the remaining regions of the model.

The quantity imported into one region is determined by the supplied quantity (i.e. domestic production), a calibration parameter, a share parameter and the price reaction (equation 10).

$$M_{t,m,x} = m_{t,m,x} \cdot (b_{t,m,x})^{\sigma_{t,m}} \cdot D_{t,m}^{NA} \cdot \left(\frac{P_{t,m,x}^M}{P_{t,m}^C} \right)^{-\sigma_{t,m}} \quad (10)$$

$M_{t,m,x}$ = Imported quantity of product t in region m from region x

$m_{t,m,x}$ = Calibration parameter of import function

$b_{t,m,x}$ = Share parameter

$\sigma_{t,m}$ = Elasticity of substitution

$p_{t,m,x}^M$ = Price of imported quantity of product t in region m from region x

The bilateral trade flows must be consistent, i.e. the quantity one region/country imports from another must be equal to the quantity the second region/country exports to the first.

$$X_{t,m,x} = M_{t,x,m} \quad (11)$$

$X_{t,m,x}$ = Exported quantity of product t in region m from region x

The consumer price is determined by the ratio of the import price and quantity plus the domestic price multiplied by demand quantities for nationally produced commodities to the aggregate demand.

$$p_{t,m}^C = \frac{\sum_x (p_{t,m,x}^X \cdot M_{t,m,x}) + p_{t,m}^D \cdot \left[(D_{t,m}^S + D_{t,m}^F + D_{t,m}^{NA} + W_{t,m}) - \sum_x M_{t,m,x} \right]}{D_{t,m}^S + D_{t,m}^F + D_{t,m}^{NA} + W_{t,m}} \quad (12)$$

The export price is determined by the domestic price, ad-valorem export subsidies or taxes and specific export taxes.

$$p_{t,m,x}^X = p_{t,x}^D \cdot (1 + tx_{t,m,x}^{av}) + tx_{t,m,x}^{sp}$$

$tx_{t,m,x}^{av}$ = Ad-valorem export tax or subsidy

$tx_{t,m,x}^{sp}$ = Specific export tax or subsidy

The import price is calculated the same way.

The net trade in each region is given as before (equation 8) by the quantities produced domestically, plus the existing stocks and the quantities imported from all regions, minus the various components of demand and the exports to all regions.

$$NT_{t,m} = S_{t,m} + ST_{t,m}^{BY} - D_{t,m}^S - D_{t,m}^F - D_{t,m}^{NA} - W_{t,m} + \sum_x M_{t,m,x} - \sum_x X_{t,m,x} \quad (13)$$

The regions in the Med Module are connected to the other modelled regions through a market clearing mechanism.

Database

The update and extension of the comprehensive AGRISIM database is the second crucial modification of the model and, at the same time, one of the most time-intensive tasks. Basically, the database contains raw information for primary and processed commodities and feeds the model with all necessary exogenous parameters.

The model covers the whole world, aggregated into regions depending on the focus of the simulations, whereby 56 countries can be modelled as separate regions. It also covers 29 commodities, which are also aggregated into commodity markets (for example, all oilseeds are aggregated together to form one commodity market), again depending on the focus of the analysis to be carried out.

The time series data on volumes of production, commodity balances and population dating from 1975 to 2001 are derived from FAOSTAT, whereas the time series from 1986 to 2001 containing information on trade policies are taken from the PSE and CSE databases of the OECD. For countries and/or commodities not included in the PSE databases, other sources are

used. Ad-valorem tariffs applied are derived from AMAD, TARIC and the Market Access Database of the EU. The same sources are used to obtain — where they exist — specific tariffs, compound tariffs, mixed tariffs and technical tariffs, which are first converted to ad-valorem equivalents and then fed into the model, while export subsidies from 1995 to 2001 are obtained from the WTO secretariat.

For the Mediterranean module, the bilateral trade flows (volumes and prices of exports and imports) from 1995 to 2001 between the EU and the non-EU Mediterranean countries are taken from COMTRADE, whereas the bilateral applied tariffs and tariff rate quotas are taken from MacMaps¹⁸.

The elasticities are derived mainly from three sources. Initially, they were taken from SWOPSIM and, for the central and eastern European countries, from the CEEC-ASIM model developed in IAMO. Following the subsequent updates and extensions of the model, additional sources such as the FAPRI and USDA databases have been used.

Table 5-6: Commodities and country list

Commodities	Apples* Coarse grains (barley, maize, millet, oats, rye, sorghum, triticale, other cereals) Beef Cotton Milk	Rice Oilseeds (rape and mustard seed, soybeans, sunflower seed) Sugar Olive oil* Oranges*	Pig meat Poultry meat (chicken, duck, goose, turkey meat, other poultry) Tobacco Tomatoes* Wheat
Countries	Australia Algeria* Brazil Belarus Bulgaria Canada China Cuba Cyprus* Czech Republic Egypt* Estonia EU-15 (data for each country) Hungary	Iceland India Israel* Japan Jordan* Korea, Republic of Latvia Lebanon* Libya Lithuania Malta* Mexico Morocco* New Zealand Norway	Norway Poland Romania Russian Federation Slovakia Slovenia South Africa Switzerland Syria* Thailand Tunisia* Turkey Ukraine USA Rest of World

* New commodities and countries added in AGRISIM for the MEDFROL project

Source: AGRISIM database

¹⁸ Special thanks to Prof. Yves Surry, co-partner within the MEDFROL project for providing us with the bilateral applied tariffs and tariff rate quotas.

Illustrative results

The results comprise changes in prices (domestic and world market prices), quantities produced, consumption, net trade and welfare.

Because the programming of the Mediterranean Module is not yet complete, simulation results for the liberalisation of trade between the EU and the Mediterranean Partner Countries cannot be shown with this version of AGRISIM.

Nevertheless, modelling exercises with older versions of the model have been carried out, which the reader can refer to. In Kavallari et al. 2005b, for example, the impact of the CAP reform of April 2004 on Mediterranean products has been modelled, while the effects of the CAP reform on three Mediterranean Member States of the EU (namely Greece, Italy and Spain) are discussed in Kavallari et al. 2005c. Overall, the introduction of the Single Farm Payment indicates a reduction in the producer incentive price, followed by a decrease in the quantities produced. Demand remains unaffected, as the decoupling of direct payments is supposed to influence only the supply side. As a result, due to reduced production, exports fall and imports rise. The change in the producer surplus is negative but the change in the quota owner surplus is positive. The reform of the CAP results in less budget expenditure for the EU, which was one of the initial motives behind the introduction of the reform.

Outlook

The forthcoming change in the agricultural policy regime of the Mediterranean countries and especially the creation of a Free Trade Area between the EU and the non-EU Mediterranean countries, combined with a lack of empirical studies, calls for an empirical analysis of their impacts. Within MEDFROL, an empirical analysis is carried out with the partial equilibrium model AGRISIM. In order to perform the analysis, AGRISIM has had to be extended and adjusted.

The extensions comprise an update of the database for the model, covering new commodities and with a different regional composition. The commodities are typical for the Mediterranean region and are at the same time important for the external trade of the Mediterranean countries and their main trading partners.

The adjustments to the model involve transformations to allow the model to cover the bilateral trade relationships of the EU and the non-EU Mediterranean countries. This task emerged from the need to model comprehensively the Euro-Mediterranean Association Agreements.

Even though a lot of effort and attention has been given to the transformation of the model, there are still certain limitations that need to be taken into account in the interpretation of the results.

The model is static in nature and, although some dynamic aspects can be captured through shift factors and the possibility to model population growth, the results must be seen as static. For example, non-trend changes in prices and quantities or in the actual behaviour of consumers and producers can be reproduced in the model only by making assumptions.

The second limitation has to do with the exogenous parameters of the model. Several data sources have been used, which are not always consistent with each other. Although it is fairly easy to obtain time series of quantitative data, it is very difficult to find reliable data for time series on domestic prices or world market prices, thus making it necessary to use different data sources. It is assumed that domestic prices are determined by a reference world market price, applied tariffs and export subsidies. Nevertheless, there can be other barriers to trade, such as non-tariff barriers and negative protection, which are difficult to quantify and measure, so are not taken into consideration.

A further problem has to do with the elasticities used in the model. Although they are calibrated taking into account the restrictions of microeconomic theory, questions can be

raised regarding the reliability of the initial elasticities, which are mainly derived from SWOPSIM, refer back to 1989, and in some cases are missing, i.e. for apples, oranges and tomatoes, so are guessed by the researchers based on the USDA elasticities for fruit and vegetables. It would be ideal to be able to estimate econometrically all the initial elasticities. However, such an estimation would require reliable time series on domestic prices for all countries of the world, which at the moment, as explained above, do not exist. The construction of such a database would require a lot of time and effort, as it is an intensive task quite beyond the scope of MEDFROL. A second option would be to carry out a sensitivity analysis based on the initial elasticities. The simulations could be run by using different values for the initial elasticities, thereby allowing the effects of the elasticities to be tested against the results.

Nevertheless, the existence of limitations does not make AGRISIM a less valuable tool for empirically analysing the effects of an altered policy regime for the Mediterranean countries. Compared to other partial equilibrium, multi-commodity and multi-region models, it covers typical commodities for the Mediterranean region and countries at a non-aggregated level and takes into account the bilateral trade flows of the Mediterranean countries with their major trading partner, the EU, all elements that make it suitable for the purposes of MEDFROL. AGRISIM is thus an appropriate tool to project future trends and to provide policy-makers with valuable insights into changes that may occur, although a sensible and careful formulation of scenarios is recommended in order to produce sensible results.

The remaining tasks are completion of the programming of the Mediterranean Module and the formulation of liberalisation scenarios under the Barcelona Agreement.

Literature

- ARMINGTON P. S. (1969). A Theory of Demand for Products Distinguished by Place of Production. IMF Staff Papers No. 16. Washington D. C.: International Monetary Fund.
- KAVALLARI A., R BORRESCH and P. M. SCHMITZ (2005a). Description of the Trade Model AGRISIM. Deliverable prepared for the Project No SSPE-CT-2004-502459 (STREP) "MEDFROL Market and Trade Policies for the Mediterranean Agriculture: the case of fruit/vegetable and olive oil", December. Available at <http://medfrol.maich.gr>.
- KAVALLARI A., R. BORRESCH and P. M. SCHMITZ (2005b). Modelling CAP Reform for the Mediterranean Countries - The Case of Tobacco, Olive Oil and Cotton. In Arfini F. (ed.) Modelling Agricultural Policies: State of Art and New Challenges, Proceedings of the 89th European Seminar of the European Association of Agricultural Economists. Parma: Monte Università Parma, 694-716.
- KAVALLARI, A., R. BORRESCH and P. M. SCHMITZ (2005c). CAP Reform and the Mediterranean EU-Member States. Poster background paper, XIth Congress of the European Association of Agricultural Economists "The Future of Rural Europe in the Global Agri-Food System", Copenhagen, August, 24-27, available on the conference CD-ROM and on the Internet at http://www.eaae2005.dk/POSTER_PAPERS/SS15_901_Kavallari.pdf
- PUSTOVIT N. (2003). EU-Osterweiterung und WTO-Liberalisierung aus Sicht der ukrainischen Agrarwirtschaft – Wirkungsanalyse und Bewertung mit Hilfe eines partiellen Gleichgewichtsmodells. Agrarökonomische Monographien und Sammelwerke, Kiel: Wissenschaftsverlag Vauk Kiel KG.
- RONINGEN V. O. (1997). Multi-Market, Multi-Region Partial Equilibrium Modelling. In: FRANCOIS, J. F and A. REINERT (eds.): Applied Methods for Trade Policy Analysis. A Handbook. Cambridge: Cambridge University Press, p. 242.

SCHMITZ K. (2002). Simulationsmodel für die Weltagrarmärkte – Modellbeschreibung. In: SCHMITZ P. M., Nutzen – Kosten – Analyse Pflanzenschutz. Kiel: Wissenschaftsverlag Vauk Kiel KG, Anhang III.

Further information can be found at <http://medfrol.maich.gr>.

5.3. *TRADEAG: Agricultural Trade Agreements*

By J.C. Bureau, coordinator

5.3.1. Presentation of the project

The TRADEAG project ("Agricultural Trade Agreements", CT513666), is a Specific Targeted Research Project funded under the 6th Framework program. It started in April 2005 and is expected to last for 3 years. The project includes 13 partners. The coordinator is the French Institut National de la Recherche Agronomique. One partner is a private company that specialises in project management (Vitamib Sarl), which will ensure high management standards. Other partners include European universities and research centres (see table below).

Table 5-7: Partners in the TRADEAG project

Role	Number	Organisation name	Short name	Country
CO	1	Institut National de la Recherche Agronomique	INRA	France
CR	2	Association pour le Développement de l'Enseignement du Perfectionnement et de la Recherche à l'Institut National Agronomique	Adeprina	France
CR	3	VITAMIB	VITAMIB	France
CR	4	Università della Calabria	UNICAL	Italy
CR	5	The Provost Fellows and Scholars of the College of the Holy and Undivided Trinity of Queen Elizabeth near Dublin	TCD	Ireland
CR	6	Universidad Politécnica de Valencia	UPV	Spain
CR	7	Centre d'Etudes Prospectives et d'Informations Internationales	CEPII/CIREM	France
CR	8	Pellervon taloudellisen tutkimuslaitoksen kannatusyhdistys r.y.	PTT	Finland
CR	9	Università degli Studi del Molise	UNIMOL	Italy
CR	10	University of Nottingham (Centre for Research in Economic Development and International Trade, School of Economics)	CREDIT	United Kingdom
CR	11	Slovak Agricultural University in Nitra	SAU	Slovakia
CR	12	Mediterranean Agronomic Institute of Chania - CIHEAM	MAICH	Greece
CR	13	Institut National Agronomique Paris-Grignon	INAP-G	France (silent partner)

The overall objective of the project is to provide information, expertise and operational instruments for policy makers involved in trade negotiations and agricultural policy design.

The objectives addressed by the various work packages include the delivery of conceptual and empirical tools to:

- understand the main drivers towards regionalisation and to monitor the evolution of regional integration processes;
- assess the degree of openness, trade restrictiveness and protection of the EU25, in comparison with other developed countries;
- analyse the problems raised by the articulation of preferential agreements with multilateral negotiations and with future agreements under discussion;
- quantify the effect of trade agreements on trade flows and on the agricultural sector of the EU25;
- provide objective analysis of the particular issue of trade with developing countries, including non-tariff barriers and tariff escalation;
- provide an assessment of the nature of the various 'generations' of EU agreements, their depth integration and their efficiency in reaching trade, welfare and, where relevant, development objectives.

The development of detailed databases is central to the project and accounts for a large share of the resources devoted to it. The purpose is to make it possible to assess the effects of EU25 trade agreements on world trade, on EU25 imports and exports, and on the economy of partner countries such as African and Mediterranean countries. The measurement of market openness and preferential access (degree of protection, utilisation of preferences, tariff escalation, etc.) in the EU and the comparison with other developed countries are intended to shed light on the trade relations of the EU with the rest of the world, using recent methodology. The development of quantitative instruments, including two large-scale models, should make it possible to provide a forward-looking assessment of future agreements, including their effects on EU25 trade and on the Common Agricultural Policy (new agreements, multilateral negotiations, resulting in a possible erosion of preferences and trade diversion), and to answer the Commission's need for quantitative simulations. A strategic objective is also to integrate the scattered research on multilateral and regional trade agreements so as to bring in various specialists on EU trade with particular regions and to analyse the effects of the various agreements and the way they interact with each other. The purpose here is to provide information (datasets, indicators, simulations) and objective assessments of key questions in ongoing negotiations and to deliver tools for simulating the effect of future agreements on trade and welfare as well as their impact on the Common Agricultural Policy.

The expected outputs include: a set of detailed databases on EU25 tariffs, barriers and trade, including trade under preferential agreements; similar databases for selected countries; a critical review of existing instruments and analyses; analyses of agricultural trade, tariffs and quotas under preferential agreements; indicators of openness of the EU25 and other developed countries; a general equilibrium model to simulate the impact of trade preference policy schemes and the effect of multilateral negotiations on trade flows and welfare; an original modelling tool to simulate the impact of trade agreements on the EU25 common market organisations; several sector/region-focused partial equilibrium tools; an analysis of the effectiveness of EU25 trade agreements for developing countries, and a comparison with preferential treatment granted by the US in the case of Africa; prospective analyses of possible future agreements with Mercosur and Russia and their effects on the agricultural sector in the EU25; case studies such as the impact of deepening the Euro-Mediterranean and Balkan agreements on specific EU25 regions and sectors (e.g. fruits and vegetables); an analysis of the effects of future multilateral agreements on existing preferential trade schemes of the EU25.

5.3.2. The Mediterranean section of the project

EU-Mediterranean aspects are present in many elements of the project. Indeed, the focus of the project is on a comprehensive representation of EU preferential trade and a detailed representation of the regional, bilateral and multilateral agreements, together with the modelling of the interactions between regional agreements and bilateral negotiations. EU-Mediterranean agreements are therefore included in many elements of the project, namely for:

- Assessing the degree of openness of the EU. The objective here is a detailed description of the existing agreements of the EU and the quantification of their effects on trade and welfare. Meeting this objective requires the construction of detailed databases on tariffs, non-tariff barriers and trade, and the calculation of specific indicators of trade restrictiveness and effective protection.
- Analysing the main elements of EU trade with the beneficiaries of different preferential trade schemes. This includes a precise assessment of the various features of these agreements and their impacts on trade and welfare. The effect of agreements with the ACP (Africa, Caribbean, Pacific) and Mediterranean countries receive particular attention.
- Analysing the articulation of multilateral negotiations with the preferential status provided to particular countries. In particular, one objective is to assess the erosion under a multilateral agreement of preferential margins that benefit Mediterranean countries.
- Analysing the effects of future agreements involving the EU on trade flows (including those under historical preferential trade arrangements). Relevant cases are the ongoing EU-Mercosur negotiations and the deepening of the Barcelona process.
- Assessing the impact of trade agreements on a reformed Common Agricultural Policy with a particular focus on ongoing negotiations, both regional and multilateral, and future agreements.

However, there are two other elements of the project devoted more particularly to EU Mediterranean issues.

The first is a particular task calling for "*An assessment of the EU agreements with Mediterranean countries*". The EU has granted preferential treatment to Mediterranean countries since the 1970s. However, the fall in tariffs under the WTO, as well as the successive EU enlargements and successive bilateral agreements (South Africa, Chile), have eroded the preferences granted to North African and Middle East countries. This task is intended to assess the effect of existing agreements. Particular importance is attached to Mediterranean products (fruit and vegetables, wine and olive oil). The teams involved in this task, coordinated by the Universidad Politécnica de Valencia, are analysing trade instruments (entry prices, bilateral tariff quotas, reference quantities, calendars) and domestic support. Particular work is devoted to the modelling of the olive oil and cotton sector (Mediterranean Agronomic Institute of Chania – CIHEAM). This work includes a comprehensive database to permit the monitoring of calendars, entry price reductions, tariff quotas and other instruments included in the agricultural protocols. It will also include monitoring and impact assessment of the way trade instruments have worked and estimation of the various subsidies. Particular attention will be paid to the comparison of the Agricultural Protocols annexed to the Euromed Association Agreements. This includes an *ex ante* assessment of quota rents and the 'potential quota rents', assuming that the quotas granted by the Protocols are completely met.

A second task focuses on *the effect of the deepening of the Barcelona process on the CAP*. The Barcelona process, launched in 1995, has provided a framework for agreements between the EU and 12 Mediterranean countries. One of the aims of the Barcelona process is a free trade agreement by 2010. However, a free trade agreement with southern Mediterranean countries that fully includes agriculture could have a significant impact on some of the common market organisations, including those for politically sensitive products such as

tomatoes, citrus, grapes, melons, strawberries, wine and flowers. The reluctance of some EU countries to liberalise trade in the agricultural sector is partly due to the low cost of labour and the comparative climatic advantages in fruits, vegetables and horticulture in North Africa. Because of the particular importance for some sectors and some regions, this task is devoted specifically to the issue of deepening agricultural liberalisation between the EU and other Mediterranean countries. Partial equilibrium models and databases on preferential tariffs will provide the input for an analysis of the erosion of the preferences provided to the Maghreb and Mashreq as a consequence of multilateral trade liberalisation. In addition, specific instruments will make it possible to analyse particular aspects. These include a study of the trade impact of a further liberalisation of horticultural trade between the southern Mediterranean countries and the EU, based on actual trade flows and simulation models using a partial equilibrium approach and product differentiation. The work also includes an assessment of local effects on particular regions specialised in fruit and vegetable production, by combining the results of equilibrium models with the data from a specific database.

Regarding EU-Mediterranean trade, the various outputs produced by the project, and those that are under way, include:

Datasets: preferential trade and tariffs under the Euromed agreements. This work is the responsibility of Dr Jacques Gallezot (INRA) and Dr J.M. Garcia Alvarez Coque (UPV). The outputs so far produced include the datasets DBTAR and TRADEPREF. They contain complete information on EU tariffs at a very detailed level, including the tariffs applied within each preferential agreement for each product. Ad valorem tariff equivalents are also included. TRADEPREF matches the quantities imported under each agreement at the HS8 level. This information is original since it is based on the reconstruction of actual trade flows from the Single Administrative Unit declarations of importers. Because some of the data used were provided by DG TAXUD under a special agreement, and include data that could be used to track a given importer in some sectors where there are few imports, dissemination is subject to restriction.

Partial equilibrium model for cotton and olive oil in the EU. This work is not yet complete. It is the responsibility of G. Baourakis, C. Clapan and G. Gadanakis (MaiCh, Crete). The first version should be available by July 2006. This work will be used for policy simulations on cotton.

Models of EU-Mediterranean trade, focusing on fruits and vegetables. Responsibility: J.M. Garcia Alvarez-Coque and M. Villanueva (UPV). In initial work leading to a working paper (see list below), the authors have examined the methodological problems of defining a modelling approach to assess the impact of full or limited bilateral liberalisation of agricultural trade flows in the Euro-Mediterranean region. The bilateral trade liberalisation process in the region is marked by complexity, in terms of both policy instruments and product characteristics, particularly for fruits and vegetables. The advantages and disadvantages of the general equilibrium and partial equilibrium approaches to simulating trade policy impacts are assessed. The caveats of existing models are seen in the representation of specific policy instruments (tariffs, entry prices and other non-tariff measures) and in the seasonal nature of horticultural trade, which is of major importance in a Euro-Mediterranean Free Trade Area. The paper provides an illustration of how an imperfect substitute product model could be helpful in describing the trade effects of bilateral price changes, for given seasons.

Future work will include a spatial, static, single-commodity, partial equilibrium model to capture the real-world determinants of trade in the fruit and vegetable sector, i.e. the instruments (Tariff Rate Quotas and entry prices) related to seasonality. Other work will include a gravity model to capture the impact of non-tariff barriers in EU-Med trade. Collaboration with researchers from the University of Calabria should also lead to the use of such a gravity model to assess the value of the preferential agreements.

Outlook. The partial equilibrium models should be completed by the summer of 2006. The whole dataset will be updated for 2004 (Mac Map). Then, the work on the effect of a deepening of the Barcelona Process on the CAP should start in 2007. It will use the various models that have been developed and focus on the interaction between the regional and WTO negotiations. The whole project should be completed by April 2008.

WEBSITE AND DOCUMENTS AVAILABLE

Information on the project is available at: <http://tradeag.vitamib.com>

So far, four papers dealing with EU-Mediterranean issues have been uploaded onto the project intranet:

Database on European Agricultural Tariffs DBTAR, by Jacques Gallezot, TRADEAG working paper 05/07, December 2005

Data Base on EU Preferential Trade TRADEPREF by Jacques Gallezot, TRADEAG working paper 05/08, December 2005

A Consistent Picture of Applied Protection Across the World by Antoine Bouët, Yvan Decreux, Lionel Fontagné, Sébastien Jean and David Laborde, TRADEAG working paper 05/05, September 2005

Modelling Euro-Mediterranean Agricultural Trade, by Jose-Maria Garcia-Alvarez-Coque, Victor Martinez-Gomez and Miquel Villanueva-i-Margalef, TRADEAG working paper 06/05, February 2006 (Draft, restricted access)

5.4. ENARPRI: European Network of Agricultural and Rural Policy Research Institutes

By Jo Swinnen and Marjike Kuiper

5.4.1. Presentation of the project

Most decisions on agricultural and, increasingly, rural policy are prepared and implemented in Brussels by the European Commission. However, most of the research capacity in the EU on these issues is in member countries within institutes that constitute a privileged conduit between the academic community and (national) policy makers. This has important advantages, as these institutes assist the Member State governments in preparing their positions on agricultural and rural policy. It also allows local concerns and specific structural conditions to be incorporated into the analysis.

Yet the absence of a central EU research institute constrains both policy preparation and the decision-making process. Moreover, in certain Member States agricultural and rural policy research is dispersed or confined within a limited number of small academic units. Furthermore, the growing importance of international trade negotiations for agricultural and rural policy reinforces the need for an EU-level research capacity. This certainly holds for trade issues negotiated at EU level, where such a tool would strengthen the EU in international negotiations with countries such as the US, where the US government can rely upon a strong central research capacity, e.g. in the US Department of Agriculture.

The purpose of the European Network of Agricultural and Rural Policy Research Institutes (ENARPRI) is to change this by bringing together leading (national) institutes and research teams from 13 countries among the EU-25 Member States and by institutionalising regular

meetings between this research network and users of policy research, both inside and outside the EU institutions¹⁹.

The first achievement was therefore the creation of an institutional structure, which has led to an improved exchange of information and policy research insights among the research community and between the research community and policy-makers. By improving information exchange and providing a forum for the exchange of ideas, the network also contributes to the development of tools and methods and the formulation of EU-wide research programmes that are closer aligned with the interests and demands of the users of policy research.

In addition, there is scope for significant positive spill-over effects and economies of scale within the network by avoiding overlap in the development of models for quantitative evaluations and in developing policy scenarios, and by linking the comparative advantages of various institutes through network collaboration.

The central theme of our network is the impact of the regional, bilateral, and multilateral trade agreements that the European Union has concluded or is negotiating, including WTO, Enlargement, Everything But Arms (EBA), EuroMed and Mercosur. The impact of each of these agreements differs across commodities and sectors, over time, and, within the EU, between Member States and regions. Most of the agreements are complex in nature and require significant modelling efforts to analyse the effects in sufficient detail in order to make the results useful. The agreements have impacts not only on efficiency and growth but also on income and welfare distribution within the EU. In order to analyse these effects in detail, collaboration among various institutes with a detailed knowledge of local circumstances and data benefits the overall effort. Furthermore, several of the trade agreements have significant interaction effects. The interaction of the trade agreements complicates their impact, and further complicates the modelling effort. This further underscores the benefits of a concerted effort. Within this general theme of looking at trade agreements, the network pays specific and extensive attention to the impact of the EuroMed trade proposals/agreements, and their interaction with other trade agreements. Several of the institutes involved in the network already model the impact of the trade agreements with Mediterranean third countries.

Another central theme of the network is the multifunctional model of European agriculture and the sustainable development of rural areas. The impact of the trade agreements on the structure of EU agriculture and the livelihoods of rural areas is of particular importance, as is the interaction of the trade agreements with EU policies. For example, the EU has made “non-trade” concerns and the multifunctional role of agriculture a key aspect of its WTO negotiation strategy. At the same time, a significant debate is taking place in the EU on the need to revise some EU agricultural and rural policies to address existing concerns as to the sustainability of EU agriculture and rural areas. Obvious questions emerge as to whether some of the proposed policies, such as payments for good farming practice or for agri-environmental purposes, are consistent with some of the trade agreements. Hence, the interaction between EU multifunctionality and sustainable development policies and trade agreements is an important focus of the network.

In terms of methodology, all these issues require quantitative analyses, as policy-makers require such tools to evaluate policy options. The institutes involved in the proposed network have extensive experience with the use of trade and policy models in the field of agriculture

¹⁹ The activities of ENARPRI include the organisation of workshops and conferences, the publication of working papers and policy papers and the formulation of joint research programmes. The network is financed by the European Commission under its 5th Research Framework Programme and its coordinator is Prof. Jo Swinnen, Senior Research Fellow, CEPS / Professor, K.U.Leuven. Additional information on the network’s activities and research can be obtained from the ENARPRI website, www.enarpri.org.

and some have already started work on explicitly modelling the impact of the Mediterranean trade agreements. Other institutes in the network provide complementary expertise in the use of models and impact studies of external shocks on efficiency and distributional effects at sectoral and farm level, as well as impacts on rural/regional modelling and environmental interaction effects — some of which are especially relevant for studying the impact of changes in Mediterranean trade.

The project has implications for other EU projects as well as for EU legislation. The most direct implications for other EU projects concern those projects which deal with trade and rural policy, such as the AGMEMOD project and the GTAP project. Implications for EU legislation come in a variety of forms. Several members of the participating institutions in the network are involved in advising their respective Member State governments on EU legislation, and some are also active at EU level.

In summary, the expected achievements of the network are:

- the creation of an institutional structure linking together key research institutes with major benefits in the form of an improved exchange of information and policy analysis in both the short and long run,
- the development of improved tools for impact assessment,
- a more effective impact assessment of trade agreements for a variety of important social, economic, and environmental indicators and an assessment of multifunctionality,
- clearer analysis of the need for EU policy adjustments.

5.4.2. The EuroMed agreements from an economy-wide perspective²⁰

After the Barcelona meeting in 1995, the EU and its Mediterranean Partner Countries (MPCs) engaged in an ambitious venture of increased economic, political and social cooperation, consisting of Euro-Mediterranean Association Agreements and financial cooperation. Ambitions for economic cooperation were especially high, aiming at a Free Trade Area by 2010. The goal was to create an area of shared prosperity, fostering peace and stability along the turbulent southern borders of the EU. So far, association agreements have been concluded with Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Authority, Syria and Tunisia. In March 2004, Libya was invited by the European Commission to actively participate in the Barcelona Process. Reciprocity is an important feature of the association agreements. This contrasts with earlier agreements from the 1970s, consisting of the unilateral elimination of European barriers to Mediterranean industrial goods.

The economic interests of the EU and MPCs in the agreements differ widely. The MPCs are of little economic interest to the EU. Imports from the MPCs account for only 2 percent of EU imports, while exports to the MPCs account for only 3 percent of total EU exports. The major part of EU imports from the MPCs consists of oil, followed at a distance by Mediterranean horticultural products. Given the limited size of the agricultural trade flows, the European Commission does not consider the MPCs a threat to European farmers (Garcia-Alvarez-Coque, 2002).

The very limited economic interests of the EU contrast with the clear economic interests of the MPCs: fifty percent of their imports and exports are with the EU, which is their largest trading partner. The MPCs have a comparative advantage in typical Mediterranean products like fresh fruit and vegetables, citrus, tomatoes and olive oil. Improved access to European agricultural markets could provide a positive stimulus to their economies. Such a positive stimulus is badly needed. Economic growth in the MPCs is lagging behind the growth rates attained in the rest

²⁰ The analysis presented here is based on different papers on the EuroMed agreements by Crescenzo dell'Aquila (INEA), Marijke Kuiper and Frank van Tongeren (both LEI), available from the ENARPRI website.

of the world, while the MPCs combine a young population with unemployment rates between fifteen and thirty percent.

Given the limited economic interest in the MPCs, the association agreements *de facto* mainly serve the EU's political interest in having stable southern borders. This mainly political interest in the countries along the southern part of the Mediterranean can also be adduced from references to the Barcelona process in the security strategy launched by Solana (2003). A second indication of the political interests in the Mediterranean is a recent speech on the link between the European Neighbourhood Policy and the Euro-Mediterranean Partnership (Wallström²¹, 2005). Looking at the association agreements in the light of this political interest in stability and prosperity at the EU's southern borders, there appears a contradiction between the political interests of the EU as a whole and economic interests at sectoral or regional level.

The EU already unilaterally removed its protection on manufactured goods in the 1970s, while maintaining its high levels of protection in agriculture. The association agreements are thus plainly aimed at opening the MPCs to industrial imports from the EU. Since MPC industrial producers are not internationally competitive, implementation of the agreements will decimate MPC industry. The resulting reduction in already limited employment will not contribute to stability in the MPCs. Tunisia, which leads the region in terms of economic reforms, has therefore postponed its reduction in industrial protection for some time, despite implementing far-reaching reforms in other parts of its economy.

In addition to a loss of employment in the industrial sector, implementation of the agreements will result in a decrease in tariff revenues. Government expenditures in the MPCs are high due to a bloated public sector: the share of non-military public employment in total employment is twice the world average (Bulmer, 2000). In addition, producers of grain, meat and milk are subsidised to reduce dependence on imports, while the impact on consumers is limited through subsidies on staple foods. Reduction of government revenues through trade liberalisation would thus have a direct impact on employment and consumer prices, with all its consequences in terms of social stability.

The current agreements thus conflict with the political interest of the EU in attaining stability at its southern borders, by having detailed schemes for abolishing protection on manufactured goods, but not for agricultural products. From the perspective of stability at the southern borders, and given the comparative advantage of the MPCs in (labour-intensive) horticulture, the trade agreements should aim at relaxing the complex EU trade barriers for Mediterranean food products. Current EU concessions in this area are marginal, since MPC producers compete directly with producers from southern EU Member States. Although concessions would have a marginal impact on the EU as a whole, relaxing restrictions on Mediterranean agricultural products would be noticeable in southern EU Member States. The current trade agreements reflect these regional interests.

European trade barriers, however, are only one of the factors limiting economic growth in the MPCs. Next to a bloated public sector and market interventions, governments also play a direct role in MPC economies through inefficient state enterprises, for example accounting for 30 percent of GDP in Egypt and Tunisia. The region furthermore belongs to the most protected in the world, and the competitiveness of the private sector is limited by this high trade protection. In addition, there is an inflow of foreign exchange into the MPCs through oil revenues and remittances. This inflow of foreign exchange stimulates domestic demand for services and causes the appreciation of exchange rates by increasing demand for imports, thus hampering exports. As a result, MPC economies are oriented towards non-trade sectors.

Trade protection distorts the structure of the economy while creating an interest in maintaining protection measures that hamper reform. An example is the industrial sector in the MPCs.

²¹ The speech delivered on 14 March 2005 in Cairo "The European Neighbourhood Policy and the Euro-Mediterranean partnership" can be downloaded from <http://europa.eu.int/>.

Access to European markets has not led to a competitive sector, because continuing MPC trade barriers do not provide an incentive to restructure industries. A comparable scenario is possible with an unconditional and unilateral reduction in European trade barriers for agricultural products. The complexity of the current protection implies that producers have invested in information and contacts to be able to export to the EU, and thus have an interest in maintaining the current protection structure. If the MPCs retain their barriers to imports from the EU, there are no incentives for restructuring agricultural production.

Given the limited economic interest of the MPCs for the EU as a whole, there is room to support the necessary domestic reforms in the MPCs through careful sequencing of liberalisation. The sequence of liberalisation should aim at minimising social unrest, if only because of the security interests of the EU. The aim of this study is to complement studies focusing on the impact of the EuroMed agreements on Mediterranean agriculture by looking at the agreements from an economy-wide perspective. Apart from allowing an analysis of the agreements in terms of welfare and employment, this also examines the impact on specific agricultural products from the perspective of the overall economic impact of the agreements.

The study is structured as follows. The first section discusses the applied methodology, in terms of aggregation and in terms of model structure, relating it to existing models aimed at analysing the association agreements. The second section discusses the changes in tariffs following the current EuroMed agreements that exclude agriculture. The third section presents preliminary model results focusing on employment in Morocco and Tunisia and agricultural production in Mediterranean and northern EU Member States. The last section concludes and provides a brief outlook for future research.

Methodology

The aim in this study is to analyse the Euro-Mediterranean association agreements taking economic and political objectives into account. This imposes a set of requirements on the methodology to be applied. Kuiper (2004) provides a review of existing general equilibrium analyses of the association agreements in the light of these requirements. Here, we will focus on the main implications of this review for the current modelling exercise.

In order to address diverging economic interests among EU Member States, a multi-regional model is required. Similarly, a multi-regional model is also needed in order to address the prospects of south-south integration for evening out the hub-and-spoke nature of the bilateral agreements between the EU and MPCs. Most existing studies, however, employ relatively standard single-country models for the MPCs. Version 6 of the GTAP database includes Morocco and Tunisia as separate countries, as well as allowing differentiation between southern and northern EU members. Of the other MPCs, Algeria, Egypt and Libya are grouped as the rest of North Africa. The remaining MPCs (Israel, Jordan, Lebanon, the Palestinian Authority and Syria) are part of a larger aggregate region for the Middle East, which also includes countries that are not part of the Barcelona Process. Use of the GTAP database thus allows the construction of a multi-regional model with a focus on Morocco and Tunisia and an aggregate representation of the effects on North African MPCs.

Use of the GTAP database allows us to work with a multi-regional model, but it does not allow a detailed analysis of the myriad restrictions on horticultural trade, like for example the seasonal import restrictions for specific crops. While being restricted in terms of sectoral detail, the economy-wide analysis possible with GTAP data does allow an analysis of the trade-offs between agricultural and non-agricultural sectors and the employment effects of the agreements. Most of the detail in the current association agreements concerns the lowering of restrictions by the MPCs on trade in manufactures, so we feel that a more aggregated but economy-wide perspective on the association agreements in the context of a multi-regional model is warranted.

Given the labour-intensive character of horticultural crops and the comparative advantage of MPCs in this sector, we expect that liberalisation of agricultural trade may create employment. The employment effect of agricultural liberalisation depends on the possibilities for substitution between different types of agricultural activities and between labour and other inputs. Furthermore, the ease with which labour can shift between agricultural and non-agricultural sectors will determine to what extent reductions in manufacturing industries can be absorbed by agricultural sectors. To capture these aspects of trade liberalisation we use the GTAPEM model, which differs from the standard GTAP model in (i) a more detailed crop-specificity of land through a nested 3-level CET for land allocation; (ii) substitutability of factors and intermediates; and (iii) segmented labour and capital markets (Huang et al., 2004). To capture the importance of employment, we use an unemployment closure condition for the MPCs.

The aggregation of countries in this study is based on the divergent interests of the northern and Mediterranean EU Member States, which are thus two separate regions in the model. We furthermore distinguish EU accession countries in order to account for the recent accession of the new EU member states as well as the upcoming accession of Bulgaria and Romania. MPCs are represented by Morocco, Tunisia and the rest of North Africa as an aggregate. We furthermore distinguish the rest of the Middle East, which includes some of the MPCs, to allow future analysis of the impact of the accession agreements on South-South trade. Finally, to allow future analyses of the impact of trade agreements between the MPCs and the USA, we keep the USA separate from the rest of the world.

The sectoral aggregation is based on an analysis of the scope of the current association agreements and the expected employment impacts. We linked data from association agreements at HS6 level to factor shares from GTAP to determine an appropriate grouping of sectors. Fruit and vegetables are kept as a separate sector because of the comparative advantages of the MPCs in horticultural products, while spices and other crops are kept separate because of different patterns in the elimination of protection. Tariff reductions in manufacturing do not show much variance across sectors, apart from various types of equipment, which are thus kept as a separate sector (Various types of equipment). The remaining sectors are grouped according to the labour share in production.

After aggregating regions and sectors, we arrived at a model with 9 regions and 17 sectors. We then ran a set of pre-simulation experiments to arrive at a baseline that accounts for EU-25 enlargement, China's accession to the WTO, the implementation of remaining URAA commitments, preference schemes (including EBA), EU MTR CAP reform (Luxembourg agreement) and the MFA quota phase-out.

The impact of the association agreements in terms of tariffs and scenario definitions

Each of the aggregated sectors used in the GTAP model can be linked to detailed (six-digit) liberalisation information in the Association Agreements of Morocco and Tunisia. The Association Agreements contain detailed schemes for Morocco and Tunisia to lower import tariffs on manufactured goods over a period of up to twelve years. Schemes for the elimination of trade barriers vary from the immediate elimination of tariffs, stepwise elimination over a short period (three to five years), stepwise elimination over a long period (up to twelve years), elimination of tariffs after twelve years and exemption of products from the tariff reductions. We have ignored differences in the speed of liberalisation and have developed a scenario which removes all trade barriers on imports from the EU for all industrial tariff lines mentioned in Annexes 3 through 6 of the Association Agreements, detailing the liberalisation of industrial goods (see Annex 2 for the procedure for computing the percentage changes in tariffs). Specifications for the reductions to be applied by the EU are much simpler, with the immediate elimination of all protection except for the agricultural component of imported

industrial goods. This reflects the previous lowering of trade barriers on manufactured imports from MPCs, implying a very limited number of remaining barriers.

Comparing Tunisia and Morocco, the generic character of the Association Agreements becomes apparent. In both cases, for example, there is complete liberalisation of the industrial sectors. Even though we limit our analysis to liberalisation in industrial goods, an interesting feature emerging from the detailed information in the agreements is that there is some liberalisation in agricultural GTAP sectors. This is because some of the tariff lines mentioned in the Annexes on industrial liberalisation are linked to agricultural GTAP sectors.

Despite the generic structure of the EuroMed agreements, the percentage changes in tariffs in Table 1 show significant differences between Morocco and Tunisia. These differences are due to computing the tariff reductions at six-digit level and using trade flows for determining tariff reductions at GTAP sector level. Computing tariff reductions at the detailed level instead of for GTAP sectors thus yields different tariff reductions despite similar association agreements.

Table 1 reflects the removal of trade barriers in the seventies by the EU. We have computed the effects of the removal of tariffs on industrial goods (HS Chapters 18 through 97) and on fishery products (Chapter 3 and some additional six-digit lines mentioned in Protocol 2 to the Association Agreements). As Table 1 shows, few tariffs remain on trade in industrial goods. The only significant reduction in percentage terms is in food (61 and 77 percent). The remaining tariff barriers are due to protection for the agricultural components of industrial goods as specified in Annex 1 to the agreements, which we cannot isolate because of lack of data. Despite the considerable reduction in percentage terms, the reduction applies to an initial tariff of 1.5 percent for Morocco and 1.6 percent for Tunisia, thus not granting much in terms of additional market access. Overall, the current agreements require a significant lowering of trade barriers by Morocco and Tunisia, while their access to the EU market does not significantly improve.

Table 5-8: Association agreement scenario by sector and region (% reduction in tariffs)

<i>Sector</i>	<i>Tariffs on imports from the EU</i>		<i>EU tariffs on imports from MPCs</i>	
	<i>Morocco</i>	<i>Tunisia</i>	<i>Morocco</i>	<i>Tunisia</i>
1 Cereals	0.0	0.0	0.0	0.0
2 Oils seeds & vegetable oils	-11.6	-2.4	0.0	-0.2
3 Vegetables, fruits & nuts	0.0	0.0	0.0	0.0
4 Spices and other crops	-3.0	-11.5	-0.4	-17.7
5 Plant-based fibres	0.0	0.0	0.0	0.0
6 Sugar cane, sugar beet, sugar	0.0	0.0	0.0	0.0
7 Animal products and wool	-0.2	-0.4	0.0	0.0
8 Milk & dairy products	-1.9	-0.9	-0.1	0.0
9 Natural resource extraction	-22.6	-81.8	0.0	0.0
10 Food & beverages	-65.5	-58.8	-60.6	-77.2
11 Textiles & leather	-100.0	-99.7	0.0	0.0
12 Petro-chemicals	-100.0	-99.9	0.0	0.0

13	Wood, paper & mineral products	-100.0	-100.0	0.0	0.0
14	Metals and metal products	-100.0	-100.0	0.0	0.0
15	Various types of equipment	-95.1	-100.0	0.0	0.0
16	Motor vehicles & manufactures	-100.0	-84.4	0.0	0.0

Source: Annexes 2 through 6 of the Association Agreements, MacMap (authors' computations)

Table 5-9: Income effects by region, based on EV (US\$ 2001)

		<i>AA_no</i>	<i>AA_yes</i>	<i>FTA_no</i>	<i>FTA_yes</i>
EV per capita:					
EU	Mediterranean (4 MS)	3	3	6	5
	North (23 MS)	2	2	2	2
MPC	Morocco	89	-48	114	-47
	Tunisia	91	-51	212	6
EV in percentage of base GDP:					
EU	Mediterranean (4 MS)	0	0	0	0
	North (23 MS)	0	0	0	0
MPC	Morocco	8	-4	10	-4
	Tunisia	5	-3	11	0

Scenarios: *AA_no* = Association Agreements with no replacement of tariffs; *AA_yes* = Association Agreements with replacement of tariffs; *FTA_no* = Mediterranean Free Trade Area with no replacement of tariffs; *FTA_yes* = Mediterranean Free Trade Area with replacement of tariffs.

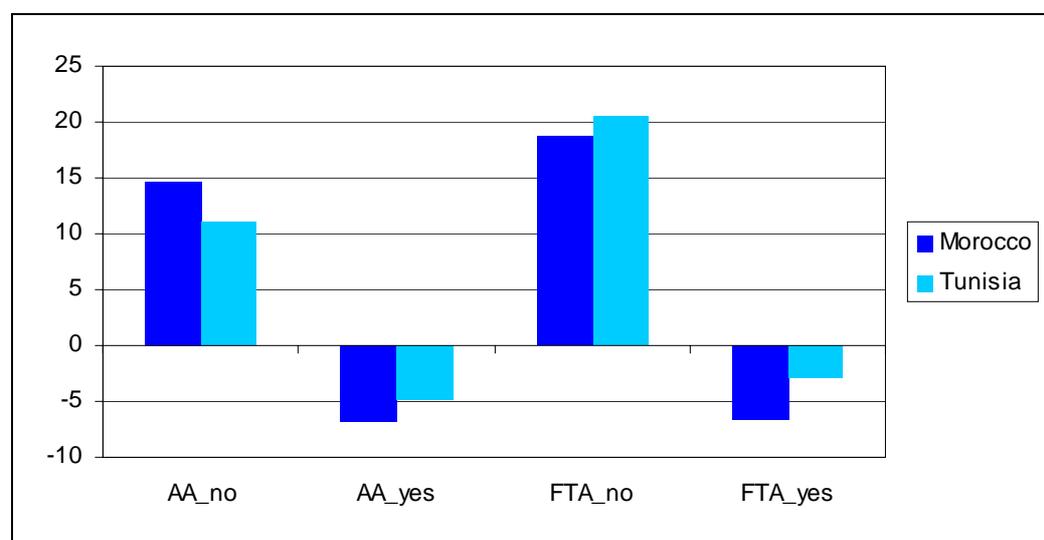
To analyse the impact of the current Association Agreements, we have implemented the tariff reductions presented in Table 1 in the model. One of the key political issues for the MPCs that came to the fore in the review of the Association Agreements in dell'Aquila and Kuiper (2003) is the loss of tariff revenues when the Association Agreements are implemented. As a first analysis of the importance of tariff revenues for the outcomes of the agreements, we analyse the outcome of both the Association Agreements without tariff replacement (*AA_no*) and with tariff replacement (*AA_yes*). A second set of scenarios analyses the impact of a complete liberalisation of Mediterranean trade, implying a 100 percent reduction in all tariffs, including those on agriculture. Again, we have scenarios for the establishment of a Mediterranean Free trade Area with no tariff replacement (*FTA_no*) and one with tariff replacement (*FTA_yes*).

A preliminary assessment of the impact of the Association Agreements

We now turn to the analysis of the impact of the Association Agreements in terms of three main indicators: employment (in Morocco and Tunisia), welfare and production. The modelling work is still ongoing and the results presented here are therefore preliminary.

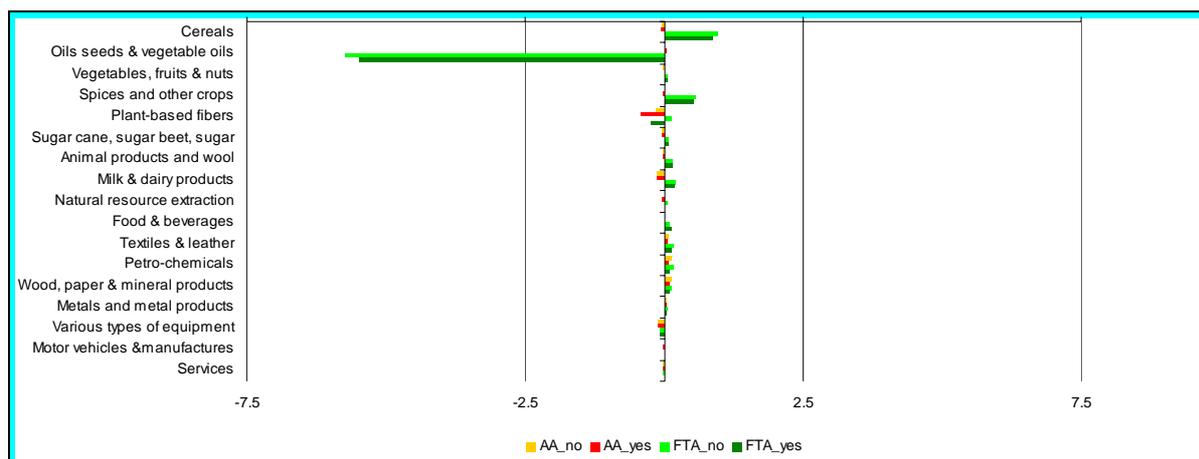
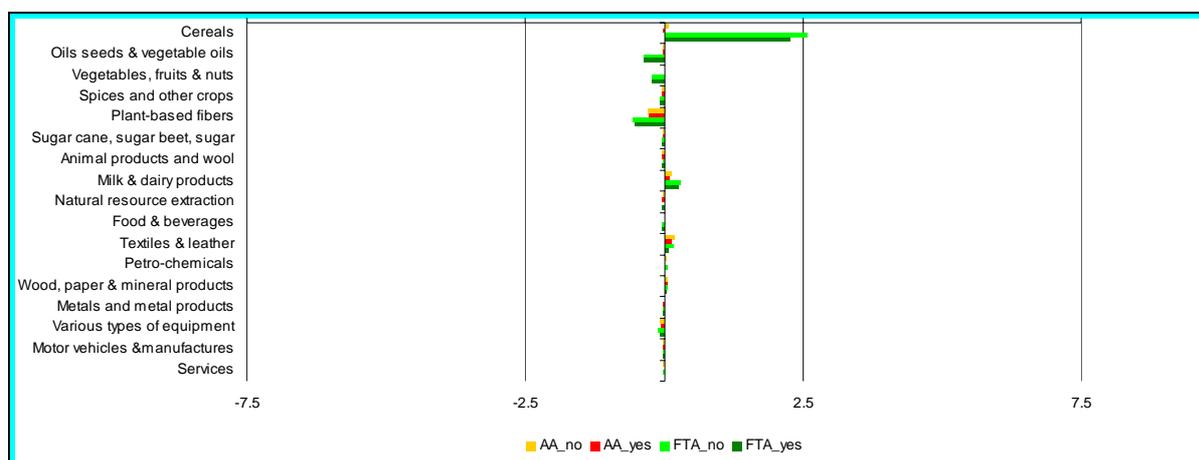
For employment, domestic policies turn out to be crucial (Figure 1). If the MPCs replace lost tariff revenues by a consumption tax, the employment effects of the agreements turn out to be negative. The introduction of a consumption tax reduces domestic demand, causing a contraction in domestic production and employment. This reduces domestic demand further, necessitating an increase in the tax rate in order to offset the lost tariffs. The end result of this process is a contraction in domestic industry that outweighs the positive effects of liberalising trade. This preliminary finding underscores the need to align trade liberalisation policies with changes in domestic policies.

Figure 5-5: Employment in Morocco and Tunisia by scenario (% change)



Scenarios: AA_no = Association Agreements with no replacement of tariffs; AA_yes = Association Agreements with replacement of tariffs; FTA_no = Mediterranean Free Trade Area with no replacement of tariffs; FTA_yes = Mediterranean Free Trade Area with replacement of tariffs.

The liberalisation of Mediterranean trade in agricultural products is hampered on the European side by the expected negative effects on Mediterranean agricultural production. Figures 2 and 3 present the changes in agricultural trade separately for the Mediterranean and northern EU Member States. The models are qualitatively in line with the impacts identified in dell'Aquila and Kuiper (2003): an increase in products in which temperate zones have a comparative advantage (cereals and dairy products) and a decrease in the production of Mediterranean commodities (mainly olive oil). The reduction in vegetable oil production in the Mediterranean EU Member States (around 5.5 percent when agricultural trade is liberalised) is the result of a surge in olive oil production in Tunisia (over 700 percent). This increase is unlikely to materialise, and follows from the absence of water constraints and the difference in supply response between annual and perennial crops in GTAPEM.

Figure 5-6: Agricultural production in Mediterranean EU Member States (% change)**Figure 5-7: Agricultural production in northern EU Member States (% change)**

We measure the overall impact of the scenarios in terms of the ‘equivalent variation’ (EV), i.e. *‘what change in income would be equivalent to the proposed policy change.’* In other words, the EV is the amount of income that would be given to (or taken away from) households to achieve a welfare effect equivalent to that which occurs when a certain policy change comes into effect. This tells us about the *potential* welfare change, but not about distributive effects. However, if the EV is positive, we know that the effect is such that those gaining from the policy move can potentially compensate the losers.

Even with the unrealistically high supply response of olive oil production in Tunisia, we still find the highest positive welfare impact of the agreements for Mediterranean EU Member States (see Table 2). Trade flows increase following liberalisation and, as they are nearest to the MPCs, the Mediterranean EU Member States benefit most from this increase. However, the benefits are small and insignificant compared to the baseline Mediterranean GDP. The same holds for the northern EU Member States. The limited size of the benefits reflects the small size of the MPCs compared to the size of the EU economy, underscoring the limited economic interest of the EU as a whole in the MPCs.

The opposite holds for Morocco and Tunisia, for which the agreements do have sizeable effects. The opposite signs of the scenarios with and without tariff replacement mirror the findings on employment. The one positive exception for Tunisia (FTA with tariff replacement,

FTA_yes) is on account of the unrealistic surge in olive oil production discussed above. This implies that the positive impact on Tunisia is overestimated and is most likely to be negative as well.

Conclusions and outlook

This study presents the preliminary results of the economy-wide analysis of the Euro-Mediterranean Association Agreements using a multi-sector, multi-region model. Our numerical analysis, which focuses on Morocco and Tunisia, is based on a detailed commodity profile of the Association Agreements. The Agreements are found to be very asymmetric: the EU basically does not give any concessions, maintaining the protection of agricultural sectors, while the North African countries have to open their manufacturing markets to competition from the EU.

The impact of the Agreements on Morocco and Tunisia depends on whether or not they replace the lost tariff revenues through a consumption tax. With no replacement, we find positive welfare effects of between 5 and 11 percent. With replacement, in contrast, we find negative welfare effects of around 4 percent. Changes in employment, a key issue in the MPCs, follow a similar pattern. These findings stress the need to align the Association Agreements with domestic policies in order to promote economic growth and employment in the MPCs.

The impact on the EU Member States is found to be positive, but insignificant when compared to GDP. We do find a 5.5 percent decrease in olive oil production for Mediterranean EU Member States, due to an unrealistic surge in olive oil production in Tunisia. Even with this unrealistic olive oil response, the economy-wide impacts are positive for the Mediterranean EU Member States. Being geographically closest to the MPCs, they also benefit most from the expansion of trade following liberalisation.

The results in this study are the preliminary findings of ongoing modelling work. In the light of the findings so far, we will focus on decomposing the tax replacement effects and analysing in more detail the responses of agricultural and non-agricultural sectors.

The economy-wide study under the ENARPRI project complements the other more agriculture-focused research projects on the Association Agreements. Given the European interest in stability at its southern border, we see three worthwhile strands of future research on the Association Agreements:

- more detailed analyses than so far permitted by the GTAP data as to how the agreements affect, and possibly promote, economic growth and employment in the MPCs;
- analysis of the interactions between trade and domestic policies and the sequencing of reforms in the manner most favourable to economic growth and development in the MPCs;
- analysis of the impact on employment, poverty and income distribution in order to assess the impacts of the agreements, and possibly adjustments following policy changes, on social stability and welfare.

References

- Bulmer, E. R. (2000). Rationalizing Public Sector Employment in the MENA region. Working Paper Series 19, World Bank, Washington D.C.
- dell'Aquila, C. and M. Kuiper (2003) Which Road to Liberalization? A First Assessment of the EuroMed Association Agreements. ENARPRI Working Paper no.2 (<http://www.enarpri.org/publications.htm>).

- Garcia-Alvarez-Coque, J.-M. (2002). "Agricultural trade and the Barcelona Process: is full liberalization possible?", *European Review of Agricultural Economics*, Vol. 29, No. 3: 399-422.
- Huang, H., F. van Tongeren, J. Dewbre and H. van Meijl, (2004), A New Representation of Agricultural Production Technology in GTAP, Paper presented at 7th annual conference on global economic analysis, Washington DC. 17-19 June 2004.
- Kuiper, Marijke (2004) Fifty ways to leave your protection, comparing applied models of the Euro-Mediterranean association agreements. ENARPRI Working Paper no.6 (<http://www.enarpri.org/publications.htm>).
- Solana, J. (2003). A Secure Europe in a Better World. Reports High Representative for CFSP S0138/03, Common Foreign and security Policy, European Council, Brussels.

6. General discussion and conclusions

By S.H. Gay, R. M'barek, P. Wobst

Moderator: Michel Petit

This section draws on the final discussion session of the workshop and on the discussions following the single presentations. Firstly, it focuses on specific issues concerning the ongoing research, then shifts to a longer-term perspective and finally ends with future research questions.

WTO negotiations

The major point regarding important future developments concerned the ongoing WTO negotiations. Opinions concerning the likely date for reaching a WTO agreement in the current Doha Development Round were diverse. The European Commission has indicated that a new comprehensive EU proposal will be put forward by June 2006. The discussion between the participants was whether this proposal should be taken as a baseline model scenario or if a so-called "likely outcome scenario" should be developed prior to the final Doha agreement. Everybody agreed on employing some kind of WTO baseline scenario and it was noted that some issues had already been decided during the Hong Kong meeting and that TRADAG could develop a baseline scenario on the basis of DG TRADE's expectations concerning the agreement anticipated for June 2006. In this respect, it was pointed out that a small technical meeting should be arranged to agree on the detailed implementation of such a baseline scenario, for example with respect to decoupling, etc. Also mentioned was the need to bear in mind the potential differences between what might be agreed under the Doha negotiations and what could be actually be implemented in the various modelling frameworks.

Bilateral trade agreements

With regard to bilateral trade agreements like the Euro-Med Association Agreements, preference erosion is an important aspect and can be assessed only in relation to the WTO agreement. Information on the interaction between the WTO and bilateral trade agreements will be made available in the coming months by the TRADEAG consortium.

The WTO agreement is less important for the Euro-Med Association Agreements than, for example, for trade negotiations between the EU and Mercosur. The most important agricultural products under the Euro-Med Association Agreements are olive oil along with fruits and vegetables. In the case of olive oil, the combined production of the EU and the Mediterranean Partner Countries (MPCs) almost equals the world production. Sensitive products for the EU, especially in the field of fruits and vegetables, are important information for modelling the impact of the Euro-Med Association Agreements. Tariff capping is not likely to be important in the field of fruits and vegetables for the EU. The discussion on the future development of the EU entry price system for fruits and vegetables is ongoing and different possibilities exist. Tariff-rate quotas under the Euro-Med Association Agreements will come with a zero in-quota tariff, and the volumes are envisaged to be sufficiently large to be regarded as de facto liberalisation.

Simulation horizon

A common final simulation year is seen as desirable, and most indications favour 2013. The framework for the Common Agricultural Policy (CAP) of the EU is fixed until then, as is the

EU financial perspective. Turkey will most likely not be part of the EU by 2013 and the Euro-Med Association Agreements should be implemented by then. The WTO agreement following the Doha Development Round is also likely to have been implemented by then.

Collaboration within projects

Regarding the longer-term research perspective for the Euro-Med Association Agreements and trade agreements in general, the EU research focus has been questioned. In the current projects, the focus is on the implications for the EU and its Member States but only to a lesser extent on the partner countries. Experience has shown that this makes it difficult to collaborate with institutions in the partner countries. It appears that institutions in the MPCs would be more interested in collaboration if there was also a considerable focus on the effects on their countries. This issue is known and will be among the considerations for the 7th Framework Programme.

Issues of economic modelling

A problematic issue with regard to modelling concerns the substitution of products. For example, the difference between locally consumed and exported olive oil in Tunisia, or Tunisian olive oil bottled in Europe and exported to the US as EU olive oil. This can be taken into account in an economic model only with a careful selection of substitution elasticities.

Due to the high variability of yields in arid regions (e.g. MPCs), the base year for the data used in model development is fundamental. This issue is of greater importance if only one year is chosen and not the average over several years.

The incorporation of perennial crops in annual models is generally difficult, but options include the selection of low substitution elasticities of supply as well as the allocation of a specific land category to perennial products.

In CGE models, closure rules can considerably influence the results, so the selection has to be made carefully and should be reported clearly. For example, the assumption of full employment might not be applicable in the context of MPCs.

Holistic approach

The issue of ‘resources’ in all senses — labour, land, water, finances, technologies and education — needs to receive more attention within trade modelling to obtain more reliable results. With regard to trade between the EU and the MPCs, for example, water constraints are highly important for any agricultural supply model. All kinds of models should tackle the different resource constraints within their respective scopes.

Rural development should be analysed in a wider context beyond agriculture, since, for example, the population of rural areas in MPCs is still increasing in absolute terms. The analysis may also be extended to the entire economy, looking especially at employment aspects in the MPCs.

Another important issue is the aspect of risk, which should be a core focus of future model development to better replicate the behavioural responses of producers.

The aspect of product quality in international trade is seen as an important topic. In this regard, not only public standards but also private standards have been mentioned and there is the question whether this may exclude large portions of the production of developing countries. There is a research call focusing on the cost of quality standards and cross-compliance within the EU, which would be suitable for addressing this issue.

Interaction of different modelling approaches

The most important issue raised with respect to modelling is the aspect of triangulation, which means the comparison of different (macro and micro) modelling approaches to analysing trade agreements. In this regard, SEAMLESS is the first project at EU level focusing on this aspect. At international level, there is an initiative by T. Hertel and T. Rutherford with a meeting scheduled for this year in Brisbane. The importance of this aspect has also emerged during this workshop, as the disadvantages of single and isolated approaches became clear. The earlier presentation of G. Anania stressed this in detail. The developments in the field of triangulation and the interaction between different modelling approaches should be closely followed, as there will not be a 'one size fits all' model.

Euro-Med agricultural trade research under the new 7th Framework Programme

Two main points with regard to the 7th Framework Programme were raised. Firstly, the importance of including MPCs from the beginning was mentioned. DG RTD explained that in FP6 only the implications for the EU and accession countries were addressed. This created difficulties for research projects, as MPC institutions wanted to participate only if impacts on their own countries would be considered as well.

Secondly, the problem of the maintenance of economic models within EU research was raised by several modellers, and the European Commission was aware of this. The possibilities to maintain existing modelling tools instead of always delivering new tools should be investigated for the new Framework Programme. However, there were certain limitations and DG RTD, DG AGRI and JRC were working on this issue under the existing rules.

Further issues raised concerned the importance of smaller research projects with good links to the European Commission, the dynamics of supply in southern countries, the importance of updating analytical approaches, and the importance of case studies on particular issues (e.g. cotton in Greece).

Important further research questions

For almost any trade analysis, an important question is the effect of the outcome of the WTO Doha Development Round. The erosion of preferences in a bilateral agreement might increase competition from other sources. With regard to fruits and vegetables from the MPCs, competitors could for example be Brazil (oranges) or China (tomatoes).

The enlargement of the EU may also influence trade relations with the MPCs, with higher EU demand for fruit and vegetables from the MPCs but also with the threat of internal competition to supply the MPC grain market.

The 'Everything But Arms' (EBA) initiative has improved the competitive position of the least developed countries in comparison with MPCs. An example is Kenya's increasing supply of cut flowers, which has substantially reduced the EU demand for Moroccan cut flowers.

The compensation of groups (for example southern European fruit and vegetable producers) negatively affected by Euro-Med trade liberalisation may be an option. To evaluate this option, the possibilities for transitional and non-transitional transfers could be considered. However, this would have to be financed under the prevailing financial restrictions, which would imply the redistribution of current support.

The issue of quality in international trade has to be considered, as rising public and also private quality standards in the EU are likely to reduce considerably the possible supply to the

EU market. Until now, this issue has been rarely considered by economic models. If models include this issue, it would be also easier to capture new trade opportunities.

Outlook

The workshop provided a comprehensive overview of the current status of the Euro-Mediterranean agricultural trade agreements and the ongoing EC-financed research projects analysing the economic impacts of the agreements. Furthermore, the workshop served as a constructive forum for identifying relevant future research questions concerning the Euro-Mediterranean trade agreements as well as identifying current methodological challenges. While the projects funded under the 6th Framework Programme have generated a great wealth of information from their respective angles of analysis, the conceptual design of funding under the 7th Framework Programme will also have to take several additional thematic issues and methodological aspects into consideration. Among others, the most interesting thematic issues comprise (i) the direct and indirect economic impacts of the Euro-Mediterranean agreements on the MPCs; (ii) the dynamics of agricultural supply in Mediterranean countries; (iii) the developments in individual commodity markets (such as olive oil or cut flowers); and (iv) competition from other (emerging) economies such as China, Brazil, Mexico and India. Some interesting and challenging methodological issues comprise (i) the consideration of risk in the modelling frameworks applied, (ii) the integration of microeconomic and macroeconomic approaches as well as the consideration of linkages between sector and economy-wide analytical approaches.

The design of the new set of projects funded under the 7th Framework Programme and the choice of the appropriate methodologies will have to be based on an intensive exchange between policy-makers and researchers in order to adequately address the most crucial issues and methodological aspects mentioned above. Furthermore, the possibilities for the maintenance of existing models and the integration of MPC partners in the projects from the beginning should be considered.

Annex 1: Euro-Mediterranean roadmap for agriculture

Introduction

Within the framework of strengthening the Barcelona process, the Euro-Mediterranean foreign ministers have asked the Commission to draw up, at senior level, a roadmap for the process of liberalising agricultural trade. In this connection, one of the conclusions of the foreign ministers at The Hague (November 2004), following the Dublin Declaration (May 2004) and the conclusions of the Venice conference of agriculture ministers (November 2003), was that: *“the strategy for accelerating the liberalisation of trade in agriculture has begun to be addressed through a meeting at senior expert level, with a view to Ministers agreeing later on measures for reciprocal agricultural trade liberalisation within a package – containing a specific roadmap – including trade in processed agricultural products and non-trade aspects (rural development, quality policy, etc.)”*.

Euro-Mediterranean relations in agricultural trade, agro-industrial trade and rural development will be strengthened within the framework of the new European neighbourhood policy.

Euro-Mediterranean roadmap for agriculture

Over the ten years that have passed since the Barcelona process, the generally adopted approach of liberalising agricultural trade, based on traditional trade, has led to a limited degree of liberalisation by both sides under a certain number of tariff headings. The negotiations have often been laborious, being limited to sensitive issues which were hardly conducive to making major advances.

A high degree of liberalisation must be achieved for agricultural products, processed agricultural products and fishery products. There is a need to move towards progressive trade liberalisation, as foreseen in the Barcelona process and the European neighbourhood policy, with the possibility of excluding a limited number of sensitive products given the negative impact on the economic and social equilibrium in certain regions or sectors. A liberalisation of agricultural trade (including processed agricultural products and fishery products) would create benefits for all the countries concerned. It is a source of wealth and job creation, and boosts productive investments.

However, this process must be achieved progressively in order to facilitate the adaptation of the different partners to free trade. To take account of the agricultural policies and specific characteristics of each partner, the timetable and the limited list of products to be excluded from liberalisation should be adapted flexibly on a case-by-case basis. The development gap between the partner countries of the two sides of the Mediterranean should also be recognised by means of asymmetrical timetables for liberalisation. Non-tariff aspects should be duly dealt with in this liberalisation process so as to eliminate unwarranted barriers to trade.

In light of the ministerial statement in Venice, Euro-Mediterranean cooperation should, and in some cases must, be developed in areas which complement agricultural trade, in particular rural development, agricultural productivity, and the development and promotion of quality products. This is necessary for sustainable development, but also as a complement to trade liberalisation. Complementary measures will in fact reduce certain risks associated with liberalisation. These measures should permit the development of agriculture, agro-industry and rural areas in the Mediterranean partners, in particular thanks to the support for appropriate reform measures.

This could be achieved by implementing certain agricultural measures in the context of the different bilateral action plans drawn up for each Mediterranean partner and for regional cooperation. The following fields of action could be covered and supported:

- identify and adopt accompanying measures providing for the structural, institutional, legal and administrative support necessary in order to ease access to export markets;
- identify and adopt measures of cooperation and technical assistance in the health and plant-health sectors;
- identify and adopt specific programmes to modernise agriculture in countries on the southern rim of the Mediterranean;
- identify and adopt measures in the rural development sector relating to the development of quality products (local products, organic products, geographical indications, etc. within the national regulatory context), which could diversify activities and create new profitable and sustainable trade outlets. These measures could include the promotion of typically Mediterranean products destined for other regions of the world;
- identify and develop measures designed to create the regulatory framework for encouraging private investment;
- identify and support projects in sectors which may be financed under the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) established by the EIB.

Rationale for liberalising agricultural trade in the Euro-Mediterranean Partnership (Barcelona Process)

1. The EU trade balance in agriculture with its Mediterranean partners is positive. Exports of basic agricultural products amount to €3.6 billion (mainly cereals, meat and dairy products). Imports amount to €2.1 billion (mainly fresh fruit and vegetables). The imbalance is even bigger for processed agricultural products (exports: €1.6 billion; imports: €0.4 billion). In contrast, the trade balance in fish and fishery products is negative with imports of €0.7 billion and exports of €0.15 billion. The FEMISE²² study carried out in 2003 at the request of the Euro-Mediterranean ministers underlines that exports for the individual partners are concentrated on a few products, creating a context of strong internal complementarities amongst them, thus minimising the risk of general competition between Member States and the Mediterranean partners.
2. As regards agricultural trade, and considering the value of existing trade, 80% of imports into EU and 20% of exports from EU are duty-free. However, of a total 1 800 agricultural tariff headings, only 39% on average are at zero duty for the EU (17% of which are already free at MFN level) and 9% on average for the Mediterranean partners (4% of which are free at MFN level). As regards processed agricultural products, out of 327 tariff headings only 30% of average trade is at zero duty for the EU (14% of which is already free at MFN level) and 10% for the Mediterranean partners (4% of which is free at MFN level). With regard to current trade in fish and fishery products, 100% of imports into the EU in value terms are duty-free. This reflects the high degree of liberalisation on the Community's side in its agreements with Morocco and Tunisia, which are the main suppliers amongst the Mediterranean partners of fish and fishery products to the EU market. In contrast, EU exports benefit from little if any liberalisation.

²² Euro-Mediterranean Network bringing together more than 80 independent economic institutes analysing the economic and financial chapter of the Euro-Mediterranean Partnership.

3. This shows that the liberalisation process has up to now produced rather limited results as regards EU offensive interests. There are, therefore, possibilities for deepening and diversifying trade liberalisation, including in processed agricultural products.
4. External elements are also contributing to the pressure to liberalise. The United States has expressed its intention to establish bilateral FTAs with all the countries of the region. It already has such agreements with Israel, Jordan and Morocco. Tunisia and Egypt could be next. Latin America is also very active and recently Mercosur and Morocco agreed to start negotiations. Nevertheless, the EU remains the main trading partner.
5. It is proposed that the gradual approach (consisting of periodical reviews limited to mutual concessions based on traditional trade) be abandoned, with a move instead to a reciprocal liberalisation process for all sectors. Nevertheless, a negative list could be established with each negotiating party excluding a limited number of sensitive products from total liberalisation.
6. For some of these sensitive products, the possibility of progressive liberalisation within a tariff quota should be examined. Provision could also be made for the possibility of abolishing a certain number of those tariff quotas at the end of a transitional period. The time schedule should allow for a sufficiently high rate of liberalisation during the first few years to reach a reasonably high level of liberalisation on both sides by 2010. The timing should also allow for timely implementation of necessary structural adjustments.
7. This new ambitious approach should overcome concerns in mainly southern EU regions, particularly related to defensive interests in the fruit and vegetable sector, by keeping a negative list and taking account of larger offensive interests, such as processed agricultural products, dairy and meat products, cereals, etc.
8. The new approach should also be sufficiently attractive for the Mediterranean partners. Alongside efforts to achieve free trade in agriculture, full consideration should also be given to non-trade concerns in the fields of rural development and quality production, with a view to developing an ambitious regional cooperation programme.

Annex 2: Participants

Anania	Giovanni	Dipartimento di Economia e Statistica Università della Calabria
Angelitis	George	MEDFROL
Asbil	Alexandre	DG AGRI AII
Baourakis	George	MEDFROL
Bascou	Pierre	DG AGRI G.2
Bassols	Andres	DG RELEX F.1
Bocherau	Laurent	DG RTD E.3
Bokias	Efthimios	DG AGRI G.1
Britz	Wolfgang	EU-MED Agpol
Buchholzer	Florence	DG AGRI G.5
Bureau	Jean-Christophe	TRADEAG
Chaumet	Jean-Marc	ENGREF
Dell'Aquila	Crescenzo	ENARPRI
Fernandez Garcia	Eugenio	DG AGRI B3
Florence	Jacquet	EU-MED Agpol
Garcia Alvarez-Coque	Jose Maria	School of Agricultural Engineering Polytechnic, University of Valencia
Garcia Azcarate	Tomas	DG AGRI C2
Gautier	Anne	ENGREF
Gay	Hubertus	JRC-IPTS, Seville
Ghib-Campistron	Marie-Luce	ENGREF
Henry	Guy	EU-Mercopol
Hervieu	Bertrand	CIHEAM
Janny	Amaury	ENGREF
Jenezova	Ingrid	DG AGRI B3
Kaditi	Eleni	ENARPRI
Kavallari	Katarina	MEDFROL
Kuiper	Marijke	ENARPRI
Lipchitz	Anna	Ministry of the Economy, Paris,
Löh	Wolfgang	German Ministry of Agriculture
Lutzeyer	Hans-Joerg	DG RTD E.3
Martinez	Alexandre	French Ministry of Agriculture
Mattas	Konstadinos	MEDFROL

M'Barek	Robert	JRC-IPTS, Seville
Morrison	Jamie	Food and Agricultural Organisation, Commodities and Trade Division.
Nolte	Stephan	Humboldt University of Berlin
Padisak	Gabor	DG AGRI C.2
Petit	Michel	Institut Agronomique Mediterranean, Montpellier, France
Plaza	Placido	CIHEAM
Rames	Christophe	DG TRADE D2
Saez Gomez	Ramiro	DG AGRI G.3
Schmitz	Peter Michael	MEDFROL
Smeulders	Johan	DG AGRI.EI
Sørup	Per	JRC-IPTS, Seville
Swinnen	Jo	ENARPRI
Wobst	Peter	JRC-IPTS, Seville

Annex 3: Agenda Euro-Med Association Agreements – Agricultural Trade – Regional Impacts in the EU

Workshop, 14.2.2006, European Commission, Brussels, Building Charlemagne, rue de la loi 170, conference room S2

	Time	Description	Speaker
General introduction <i>Chair: Per Sorup</i>	9:00 – 9:30	- Welcome - Outline of the DG Agri-Research Network - Background of the workshop	Laurent Bochereau, Efthimios Bokias Per Sorup
Presentation of DG interests <i>Chair: Per Sorup</i> DG RELEX DG TRADE DG AGRI	9:30 – 10:00	Policy outline and expectations with respect to research - Barcelona process - Trade relations - Agricultural trade	Andres Bassols Christophe Rames Alexandre Asbil
Coffee Break	10:00 – 10:15		
Scientific overview <i>Chair: Per Sorup</i> <i>Moderator: Michel Petit</i>	10:15 – 11:15	- Introductory presentation (20 minutes) - Statements by experts (each approx. 5 minutes)	J. Alvarez-Coque G. Anania A. Lipchitz H. Grethe/S. Nolte J. Morrison
Presentation of research projects <i>Chair: Laurent Bochereau</i> <i>Moderator: Michel Petit</i> - EU-MED AGPOL - MEDFROL	11:15 – 12:45	Project outline, modelling part, results, outlook 25 min presentation, 20 min discussion on each project and general discussion <i>Impacts of agricultural trade liberalisation between the EU and Med Countries</i> <i>Market and Trade Policies for Mediterranean Agriculture: the case of</i> <i>fruit/vegetables and olive oil</i>	Florence Jacquet, Wolfgang Britz P.M. Schmitz
Lunch Break	12:45 – 14:00	(sandwich buffet)	
Presentation of research projects <i>Chair: Efthimios Bokias</i> <i>Moderator: Michel Petit</i> - TRADEAG - ENARPRI	14:00 – 14:30 14:30 – 15:00	Project outline, modelling part, results, outlook (20 min presentation, 10 min discussion on each project) <i>Agricultural Trade Agreements</i> <i>European Network of Agricultural and Rural Policy Research Institutes – Thematic</i> <i>Network on Trade Agreements and European Agriculture</i>	J.C. Bureau M. Kuiper, J. Swinnen
Coffee Break	15:00 – 15:15		
Final discussion <i>Chair: Alexandre Asbil</i> <i>Moderator: Michel Petit</i>	15:15 – 17:15	Topics: - Liberalisation scenarios (multilateral, regional scenarios) - Contribution of research projects to the policy process/negotiations - Possibilities and limitations of modelling the Euro-Med trade negotiations (common challenges for research projects) - Identification of important topics for FP7 - Others	All

European Commission

DG Joint Research Centre, Institute for Prospective Technological Studies

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Abstract

Background

The workshop provided a comprehensive overview of the current status of the Euro-Med agricultural trade agreements and the ongoing EU-financed research projects analysing the economic impacts of the agreements. Furthermore, the workshop served as a constructive forum for identifying relevant future research questions concerning the Euro-Med trade agreements as well as identifying current methodological challenges.

Through the 6th FP the Commission supports research projects aiming to provide policy tools to assess regional and multilateral trade integration, including aspects of agricultural trade liberalisation within the Euro-Med partnership. To allow for the exchange of information between EU-funded research projects and policy-makers DG AGRI suggested a workshop to be jointly organised by DG RTD and DG JRC. The workshop was organized in four parts, namely (i) the perspective of various Commission services, (ii) presentations of experts from research/academia, (iii) presentations of EU-funded projects, and (iv) open discussion.

i) European Commission perspective

L. Bochereau (DG RTD) presented the objectives of the Community Research Programmes with special regard to the Research in Support of International Negotiations, in particular Euro-Med trade projects.

E. Bokias (DG AGRI) gave an overview on the requirements for analysis tools for world agriculture and trade.

Per Sørup (DG JRC) explained the mission of DG JRC to provide customer-driven support to the EU policy-making process by researching science-based responses to policy challenges, focusing on the Euro-Med trade issue.

A. Bassols (DG RELEX) pointed out that the EU is an example of successful regional integration, which can be exported and promoted. Further liberalisation of agriculture and services as confirmed at the Barcelona summit in November 2005 must consider the dual characteristic of the agricultural sector in the Mediterranean Partner Countries (MPCs), i.e. being poor but competitive.

C. Rames (DG TRADE) stressed the importance of developing South-South trade in the context of regional integration. The liberalisation of trade in services and investment would enhance the attractiveness of EU investment in the MPCs.

A. Asbil (DG AGRI) stressed that the complexity of the Euro-Med agricultural trade relations is further compounded by water scarcity in the region, new products, globalisation, and sociological impacts.

ii) Expert presentations

J.-M. Garcia-Alvarez-Coque (Technical University of Valencia) gave in his introductory note an overview of the current status of implementation of the bilateral agreements between the EU and the individual MPCs, provided some illustrative agricultural facts, pointed out the most relevant features of agricultural trade liberalisation, drew lessons from existing research, and sketched out important issues for the future Euro-Med research agenda. He concluded that agricultural trade liberalisation in the Euro-Med region remains incomplete and that the process can still be directed in many possible ways.

G. Anania (University of Calabria) referred in his contribution to the challenges in modelling agricultural trade liberalisation in the Euro-Med framework. He stressed that the solution to the modelling challenge was the integrated use of different (coherently designed) models.

A. Lipchitz (French Ministry of Economy) raised the need for a progressive approach in the process of liberalisation in the Euro-Med area. The main argument was that agricultural liberalisation could mitigate the harmful short-term consequences of industrial liberalisation in the MPCs.

H. Grethe and S. Nolte (Humboldt-University of Berlin) discussed the future of agricultural trade preferences under the Euro-Med agreements and the EU import regime for fresh fruit and vegetables, pointing out that the final results of the Doha round remain uncertain, but will inevitably lead to further erosion of preferences for MPCs.

J. Morrison (FAO) discussed whether the use of flexibilities for “special products” will necessarily dilute the potential “gains” to developing countries from further liberalisation of trade in agricultural products.

iii) Project presentations

Extensive presentations were provided for the following EU-funded Euro-Med projects:

- EU-MED Agpol: Impacts of Agricultural Trade Liberalisation between the EU and Mediterranean countries (F. Jacquet and W. Britz).
- MEDFROL: Market and Trade Policies for Mediterranean Agriculture - The case of fruit/vegetables and olive oil (A. Kavallari and P.M. Schmitz).
- TRADEAG: Agricultural Trade Agreements (J.C. Bureau).
- ENARPRI: European Network of Agricultural and Rural Policy Research Institutes (J. Swinnen and M. Kuiper).

iv) Discussion round

While the projects funded under the 6th FP have generated a great wealth of information from their respective angles of analysis, the conceptual design of funding under the 7th FP will also have to take additional thematic issues and methodological aspects into consideration. Among others, (i) direct and indirect economic impacts of the Euro-Med agreements on the MPCs; (ii) dynamics of agricultural supply in Mediterranean countries; (iii) developments in individual commodity markets; and (iv) competition from other (emerging) economies. Some challenging methodological issues comprise (i) the consideration of risk and (ii) the consideration of linkages between sector and economy-wide analytical approaches.

The design of the new projects funded under the 7th FP and the choice of the appropriate methodologies have to be based on an intensive exchange between policy-makers and researchers in order to adequately address the most crucial issues and methodological aspects mentioned above. Furthermore, the possibilities for the maintenance of existing models and the integration of MPC partners in the projects from the beginning should be considered.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.