"How To Make Agriculture Policies Comparisons In The EU-MERCOSUR relations"

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Abstract:

It seems obvious that fruitful negotiations can not succeed if negotiators have not a precise and clear picture of the object of trade talks. Looking at the EU-Mercosur bilateral negotiations, the agriculture issues are the core elements. However due to their complexity and the large scope of what is it called "agriculture policies", it appears that this sensitive topic suffers from a deficit of information and that making comparisons of the policies implemented in the two regions has never be done. This paper is aimed at defining a methodology for answering this question. First, looking at existing literature, we emphasizes that no standard methodological framework exists. Then, we analyse the different issues that have to been tackled and define the criteria for making a rationale comparison of agriculture policies. Applying these criteria, we define the policies perimeter of investigation and make the list of variables that will allow you to capture the tools implemented and to get an assessment of their success and failures.

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1 Introduction

Making systematic assessments of a free trade agreement between two countries or trade blocks has become the rule. Policy makers want to have a realistic view of the possible outcomes of such a decision. They need it to detect winners and loosers and provide side policies in order to strengthen the probability of success of the economic integration of both regions. Indeed, free trade agreements and more largely preferential trade agreements could bring important efficiency gains due to the reallocation of resources following the comparative advantages pattern of the partners. In an imperfectly competitive world, having an access to a bigger market, like a free trade area, allows the firms to benefit from economies of scale. This mechanism has a direct impact on the domestic welfare but also strengthens the offensive capacities of FTA exporters to third markets, an important requisite to survive at the age of globalization.

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Detecting domains of complementarities and substitutability in the production and trading structure of the two blocks are crucial. This is traditionally done using tools such as general or partial equilibrium models. These models should represent a relevant world with the most important economic mechanisms and good data. In order to make this explanatory work, quantitative and qualitative analysis should be performed to assess the actual situation, and in particular, the policies applied by the partners.

It is well known that conducting non cooperative policies is Pareto inferior and could have huge social costs. Inside a FTA, that can reduce by a huge amount the expected gains and at the end, that may lead to a failure of the agreement. In many cases, such problems do not come from an explicit will of both sides but rely more on the lack of knowledge.

So, to see where overlapping exists in the agricultural and agrifood policies space and contrarily, where synergies could be emphasized is the first step in any assessment of the EU-MERCORUR relationship. Due to the importance of this task, a robust methodology and an exhaustive investigation have to be conducted. Taking a few figures with a partial point of view may lead to serious mistakes. Unfortunately, this low-cost strategy is very widespread in the literature and gives a short vision of the issues at stake.

We will have to ask us several questions: What are the relevant policies? What are their main goals? Who is responsible to implement them? Using what resources? In fine, do they meet success or not?

Indeed, neglecting one of these dimensions will be very misleading and will limit the impact of any policy recommendations. By example, what will be the relevance to recommend changes in exchange rate policies if they depend of an independent Central Bank? Why asking for a cut in a sectoral support program if it appears to have only marginal distortive effects? At the opposite, understanding the reason of a success of a policy in one country could bring positive insights for another partner.

To perform this task, the main challenge will be to build an analytical grid aimed at comparing policies that have been developed in strongly differentiated institutional and historical background. The definition of common indicators, directly comparable, is a first requisite.

This first part of this paper is aimed at making a methodological survey to provide a rationale framework for conducing policy comparisons (D8). The second part is focused on the definition of relevant indicators and variables that will allow us to describe and compare the implemented policies.

The next section will discuss the basic concepts about policies comparisons. Section III will make a brief literature survey of existing comparison methodologies. In section IV, we will define the policies we are going to examine. In section V, the relevant variables are listed and described. Finally, we draw some conclusions for future works.

2 Basic concepts and typologies of comparison

Before any comparative study, it is fundamental to define what is going to be compare and how. In many cases this preliminary and fundamental stage is dropped, leading the researchers to compare incomparable concepts or/and figures and to make a descriptive analysis without any scientific relevance.

In this section we will define several axes of comparison in order to allow us to build a clear methodology.

2.1 Comparing the goals

Basically, comparing the goals of a policy will allow understanding why the policies are implemented by the governments and public agencies. Here, the first challenge is to make the discrimination between official and unofficial goals. Is a health measure really aimed to improve the sanitary level of the food sector or does is it a protectionist tool?

We think that is highly subjective and potentially dangerous to want to substitute our judgment to the official position about the goals of the policy. By example, if a public authority defines a measure as an environmental one, we have to keep this classification. Nevertheless, that does not mean that we have a naïve approach. We will underline the potential side – and negative – effects of the different measures.

So, for every policy measure we will include in our comparison, we will identify the official goals. This will allow us **to detect common subjects of interest for policymakers** in the EU and in MERCOSUR, and **to analyze how they handle them**. It is a crucial point if we want to detect possible political synergies between both customs unions. In the institutional framework of a bilateral agreement, this approach is highly relevant since official partners are not going to negotiate on unofficial policy goals. Making this clear definition and classification of policy objectives will lead us to look at the degree of achievement of the different measures and to give some recommendations.

2.2 Comparing the scope of policies

A policy is a set of measures that can have a very narrow or large scope. Does a policy is sector specific or product specific? What is its geographical area of implementation?

These elements are very important to understand what we are talking about, and what do we compare exactly. At the basic level, knowing the scope of policy is necessary to understand its relative impact. One euro of subsidy in a EU-wide general program aimed to support farmer income has not the same impact than one euro invested in a cotton-focused project in Southern Greece.

However, it is misleading to think that we can compare "only policies with identical scopes". We will have to compare policies with different scopes due to the specificities of each institutional framework (see below) or due to product specializations. By example, comparing soy beans and maïze programs are necessary since both products are substitute for animal feeding.

So, for every policy studied we must clearly determine:

- The product coverage of the measures
- The geographical area of implementation

Both kind of information should be provided **in absolute and relative terms**. Indeed, speaking of "regional", i.e. sub-national, policies has not the same meaning when you deal with Denmark and Brazil. Here the number of farmers and the land use patterns matter. In the same way, a "one product policy" that represents 50% of the agricultural exports of one country should be analyzed with care.

2.3 Comparing the Institutional framework

Policies are conducted by public institutions. The "Who" question is a very sensitive one and in many cases, it will also determine the way a policy is implemented. Here we have three points to examine:

- What belongs to the **legislative** and **executive** structures? What is the **time horizon** of a policy?
- What is the **geographical level** of the public institution who **makes the decision** and who **implements it**?²

² there is no automatic correlation between the regional "scope" of a policy and the level of public authority that will implement it. By example, some regional projects in EU affected a small area (up to a village in NUTS5 classification) but are implemented by the EU Commission (cohesion policy) in partnership with local authorities without any role of the national government. In this case with a very narrow geographical scope conducted by the supra national authority.

• What is the **hierarchical position of the institution**? Is it an independent agency, a ministry, a supranational organization?

The first point is not trivial that in many cases the failures of many policies in South America are linked to the incapacity to transform political will in effective and implemented policy measures. This may due to the weakness of the institutions and the lack of confidence from private agents to public powers due to their incapacity to bind themselves to their commitments.

The institutional framework plays also an important role in an international negotiation. MERCOSUR and EU could only negotiate and make an agreement on policies that are under the control of their authorities. By example, even if the exchange rate is an important determinant of trade issues, it will be possible to integrate it in an agreement since it is a policy conducted by national – in MERCOSUR – and independent – such as the European Central Bank³ – agencies.

2.4 Comparing the tools

Previously, we have defined and answered to several questions: what are the goals of policies? What are their subjects? Who decides and conducts them? Now, we have to look at the tools that are used to implement them. The first stage is to split **market incentive tools** (subsidies, taxes) from **legal solutions** (restrictions, norms). Economic literature teaches us that the first category has in general less negative efficiency effects that the second one. Moreover, they could be more easily modeled and their impacts will be well assessed. Nevertheless, data about the market structure (e.g. degree of competition) and information available to policy makers (e.g. cost structure) are highly valuable to make the right assumption about private agents' behavior.

Then, we have to define quantitative indicators (variables) that will allow to make comparisons. They have **to capture the same (or very similar) concepts**. Here, two strategies of comparison should be performed:

• **Indirect comparison**. In order to avoid most of "comparability" problem, we compare the evolution of each policy in its own framework. That means no direct comparison between EU and MERCOSUR policies. In this case, we will detect **common trends** and divergences.

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³ For the EURO land countries. Most of other EU members have strongly independent Central Banks.

Direct Comparison. Comparable policies and Comparable variables are contrasted.
 Here, relative indicators (such as shares) are preferable to absolute value. This help to neutralize differences in accountability methods, currencies conversion etc.

Last point, it is very important to have **disaggregated variables** and **aggregated indicators** that can sum up in a relevant way all the available information.⁴

2.5 Comparing the results

The last stage in a comparison is to look at the results of the policies. Here the teachings are twofold. First, we will able to assess the degree of success and the efficiency of the different measures. Then, the side-effects, and sometimes collateral damages, have to be looked at. In particular, the effects, or the cost, on the partner economies have to be well captured in this negotiation framework. If the support policies and the decoupling issue are good illustrations. In general, it will allow to make a discrimination between measures enhancing competitiveness that are in many cases, beggar-thy-neighbour ones in a zero-sum game, and structural policies that will enhance efficiency and beneficial to every partners.

This section has allowed us to build an analytical grid of policies that should be completed before conducting any policy comparisons. It is displayed in Annex A.1 and will be our guideline for further works.

3 Applied works about Comparisons

3.1 International Organizations

3.1.1 OECD

Agricultural sectors is the OECD. In 1987, OECD members' ministries have decided to reduce progressively the level of support to agriculture and to adopt more market oriented tools. Since these days, OECD measured support to agriculture using the Producer Support Estimate (PSE) and Consumer Support Estimate (CSE). With the reform of agricultural policies in OECD countries, the number and complexity of policy measures has increased significantly and the OECD classification of policy measures has evolved. The current OECD classification of total transfers associated with agricultural policies (TSE), groups the policy measures according to their implementation criteria — independently of their objectives and

The most efficient organization in performing policy comparisons, in particular in the

⁴ We stop here the general discussion about the variables needed to make the comparison since they are policy dependant and this issue will be handled in the details in the following *Working Paper (D.6.3)*.

effects – into three main categories; transfers to producers individually (PSE), transfers to consumers individually (CSE) and transfers to general services to agriculture collectively (GSSE). The classification procedure follows a sequential questions-based approach:

- Does the policy measure create a transfer to (from) consumers of agricultural commodities? If yes, consider it under CSE and proceed to the following question. If no, proceed also to the following question;
- Does the policy measure (including those creating a transfer to (from) consumers)
 create a transfer to producers individually based on goods and services produced, on
 inputs used or on being a farming enterprise or farmer? If yes, consider it under PSE.
 If no, proceed to the following question;
- Does the policy measure create a transfer to general services provided to agriculture collectively? If yes, consider it under the GSSE. If no, do not consider it in the TSE calculation.

Box 1 displays the details of the three categories. Inside each category, a sequence of questions allows to determine to which sub-categories the measure belongs. The information is provided in monetary terms and as a share of domestic GDP and as a share of gross farm receipts. Other indicators are the Nominal Protection Coefficient (NPC, the ratio between producer and border prices) and the Nominal Assistance Coefficient (NAC, the ration between price farm receipts including support, and those generated by the market without support)

The main application of this method should be find in annual reports such as the *Agricultural Policies in OECD Countries -- Monitoring and Evaluation*, and for some monographs.

In order to perform comparison, OECD researchers emphasize the **evolution of:**

- the level of the support
- the different category shares
- the variation across products

When dealing with country specific studies, the analysis follows a three step procedure. It starts with a description of the **policy context**, by giving descriptive information about the agricultural sector. Then the **policy evaluation** is conducted reviewing the different policies (Domestic price and income support, Credit policies, tax policies, structural policies and general services, consumer measures, Trade policies). The level of support is evaluated and given using the PSE/CSE/GSSE approach. Aggregated figures and commodity profiles are displayed. The final part of such a study deals with the **impacts assessment** of the policies

measures. What is the welfare cost of distortive policies? Do they bring positive effects on poverty or gender issues?

One of the main limitations of OECD work is that it is applied only to OECD countries. So, developing countries are excluded from these analyses. Due to the importance of this emerging economies, the Agricultural policies in Brazil has been reviewed this year (OECD, 2005).

The PSE/GSSE/CES classification is very important since in many cases the level of the support is less important than its composition in order to assess the impact on production, inputs use, consumption, trade, income and environment effects. In particular, The PSE figures are often misused by medias or worst, by researchers. Playing with the level of PSE in nominal terms means nothing, in most of the cases. As we have already noticed, the OECD team emphasizes the importance to look the evolution country by country and in order to take into account exchange rate, inflation rate and sectoral structure to make international comparison using only PSE expressed as a share of gross farm receipts. Another mistake is to confuse PSE and net income transfer. By no way, one euro of PSE means that the net income of the farmers will rise by one euro. In fact, one euro of market price support actually results in the rise of no more than 25 cents of the farm incomes. The corollary is that the amount of support provided to farmers in the rich countries is not an indicator of the extra income that developing countries farmers will gain if agricultural policies are eliminated.

If the OECD support indicators are the most well-know and used indicators they still suffer from some limitations. The first one is the use of effective applied exchange rate that make the measure sensitive to exchange rate variations⁵. The second limitation is linked to the fact that only a part of the support is really measured (in average the real measure covers 75% of the farm sales). Rate of support are the extrapolated to the rest of the agricultural production. The last point is the more theoretically difficult to occult. The main assumption of MPS is that the country is a small one with no market power. So, this neglects that world prices are endogenous of agricultural and trade policies of the big players.

In our analysis, we will try to **stay close to the OECD classification of policies measures** and to follow the comparison methodology.

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⁵ This is not a crucial problem since it just makes the PSE to measure the effective level of support. The main reason of complaining here relies on the fact that a country that keeps the same level of price support from one year to another will see its PSE rising if its currency rises.

Box.1 Classification of policies measures included in the OECD indicators of support

I. Producer Support Estimate (PSE) [Total of A -- H]

- A. Market Price Support
- a. Based on unlimited output
- b. Based on limited output
- c. Price levies
- d. Excess feed cost
- B. Payments based on output
- a. Based on unlimited output
- b. Based on limited output
- C. Payments based on area planted/animal numbers
- a. Based on unlimited area or animal numbers
- b. Based on limited area or animal numbers
- D. Payments based on historical entitlements
- a. Based on historical plantings/animal numbers or production
- b. Based on historical support programmes
- E. Payments based on input use
- a. Based on use of variable inputs
- b. Based on use of on-farm services
- c. Based on use of fixed inputs
- F. Payments based on input constraints
- a. Based on constraints on variable inputs
- b. Based on constraints on fixed inputs
- c. Based on constraints on a set of inputs
- G. Payments based on overall farming income
- a. Based on farm income level
- b. Based on established minimum income
- H. Miscellaneous payments
- a. National payments
- b. Sub-national payments

II. General Services Support Estimate (GSSE) [Total of I -- O]

- I. Research and development
- J. Agricultural schools
- K. Inspection services
- L. Infrastructure
- M. Marketing and promotion
- N. Public stockholding
- O. Miscellaneous

III. Consumer Support Estimate (CSE) [Total of P -- S]

- P. Transfers to producers from consumers
- Q. Other transfers from consumers
- R. Transfers to consumers from taxpayers
- S. Excess Feed Cost

IV. Total Support Estimate (TSE) [I + II + III R]

- T. Transfers from consumers
- U. Transfers from taxpayers
- V. Budget revenues

3.1.2 The World Bank

Up to now ⁶, the most exhaustive and country-wide work on agricultural policies comparisons performed by the **World Bank** are the "comparative study of the political economy of agricultural pricing policies" by Anne O.Kruger, Maurice Shciff and Albert Valdès at the end of the eighties. The basic goals of the study were "to provide a detailed history of pricing policies to measure the degree of intervention affecting agriculture, and to analyze the reasons for these and their effects on output, consumption, traden the budget, intersectoral transfers and income distribution." It was focused on developing countries The comparability across countries is reached by defining a common methodology that had been implemented by every researchers in their country specific study. The methodology could be summarized as follow:

- For each country, four to six agricultural commodities have been selected (75% of net agricultural exports)
- Country researchers obtained estimates of the commodity prices at different stage: producer, consumer, border adjusted by transport costs, storage costs, quality differences and marketing margins.
- The reference price is the price that would have prevailed under an intervention-free regime. The most challenging here is to determine the real exchange rate that keeps the current account at a sustainable level if all trade policy measures affecting imports and exports are excluded.
- Then, price gap differences allow to assess direct and indirect distortions.

This methodology provides a measure of direct and indirect distortions by product and by countries. One of the most interesting point of the approach is to look at the exchange rate role and in particular to the implicit taxation linked to an overvalued currency.

3.1.3 FAO

In order to compare public policies in the agricultural sector and rural areas among American countries, the FAO has built the FAO Rural Public Expenditures Database⁷ that provides statistics and indicators on the public resources used in agriculture and rural areas for 19 Latin American countries, covering the years 1985-2001.

Public expenditures comprise the resources directly assigned to agriculture, livestock, forestry and fishery activities, as well as social and infrastructure investments in rural areas. This

⁶ A similar study should be currently performed by the WB, with more countries and updated data, under the direction of Kym Anderson.

http://www.rlc.fao.org/prior/desrural/gasto/presentacion.asp

information is classified according to the objectives of the programs and projects financed with public resources.

Macroeconomic data (total and agricultural GDP, total public expenditures, population and employment), a set of indicators that link sector data to macroeconomic data (see the methodological section below) and a list of key institutions and instruments to the implementation of agricultural policies are also included in the database.

In order to make possible an international comparison, some criteria were adopted in the process of data compilation. First of all, only the public resources effectively spent in agricultural/rural policies were considered.

Besides public resources directly assigned to agriculture through sector institutions (Ministry of Agriculture, National Institute for Agricultural Research, etc), it was also taken into account the resources allocated to rural areas in issues such as education, health and infrastructure.

To select the municipalities corresponding to rural areas, a demographic approach was taken in most of cases, that is, national definitions of rural space based on the population size .

The information gathered this way was then classified according to the objectives of the policies financed by public resources into the following general categories: production promotion (general, focalized and rural development) and support to rural areas (infrastructure and social services).

Once the country sample in the database is very heterogeneous, a set of indicators were calculated in order to carry out international comparisons. A first set of indicators refers to the relative importance of the agricultural sector in total public expenditures, while the measures concerning the intensity of the support to agriculture and rural areas constitute a second group of indicators. The following table summarizes the main indicators that form the above categories.

Kerrigan (2001) and Kjöllerström (2004), among other authors, used the standard indicators included in FAO Rural Public Expenditure Database to carry out international comparison analysis, for Latin American countries and other developing regions. First of all, they analyzed the evolution of public resources assigned to the agricultural sector and how the different policy categories performed in last years.

They also compared the relative indicators available in FAO database, stressing eventual differences in the primary data that might slightly change the indicators' meaning for some countries.

3.2 National structure

3.2.1 ERS/USDA

The Economic Research Service of the U.S. Department of Agriculture has a recognized expertise in agricultural policies and policy comparison between US and the most challenging agricultural exporters. A recent report, "U.S.-EU Food and Agricultural Comparisons" (2004), gives a good illustration of their method. If they rely on OECD figures for the policy support to farmers, they provide a clever analysis from a prospective point of view. The starting point of the comparison is a statistical description of both agricultural sectors emphasizing such aspects as farm size, average farmer age and part time agricultural job. Then, they briefly give the basics of US and EU commodity policy in order to see similarities and divergences in EU-US farm policy. The basic classification is: Income support, price support policies and other programs, looking to these policies at the product level. Then they proceed to a comparison point by point: price support, income support, border measures, planting feasibility, supply control, surplus disposal and Total support. The historical background is summarized as well existing and coming constraints linked to budget limits or trade agreements. This last point is especially relevant.

The growing importance of **new issues** such as environmental protection or the safety and quality of food is also underlined. The rest of the study is focused on **future trends and hot topics**: **risk management tools** in Europe, **evolution of productivity** (technical change and rise in total factors productivity) in EU and US with the excepted impacts for acceding countries, the growing importance of the **environmental dimension** and the changes in **consumer preferences**.

On the overall, the comparison is based on a dynamic perspective and aimed to emphasize the upcoming challenges that the two regions will meet and how they can handle them. The EU enlargement and its impacts on the European supply and demand, but also on its capacity to sustain high level of support for an exploding farmer population are central in the analysis. Any prospective work incorporating the EU agricultural policies should follow a similar approach.

3.2.2 OTHERS

Botterill(2003) proposes a means for identifying the nature of the balance that is struck by governments between different values competing for support through agricultural policy settings. This approach may clarify why different governments arrive at different policy settings in attempting to achieve an acceptable balance between competing interests.

The two dimensional schema used divides values into "economic" and "non-economic". The non-economic category encompasses a broad sweep of possible issues from security to environmental protection or rural development. Although this is not entirely satisfactory in that it bundles together values which may themselves be in conflict, it reflects much of the tone of the international policy debate which often sets economic arguments in juxtaposition to the non-economic.

Mapping the agricultural policy settings of different countries in this two dimensional space (see Annex 2) and identifying the non-economic values which are important in the policy debate can help to understand core differences in approach. Identifying the mix of values driving agricultural policy may suggest alternative policy options for addressing both economic and non-economic values more effectively. Whether attempting to ensure the continuation of the family farm, preserve rural landscapes or improve the efficiency of the farm sector, governments in democracies will continue to introduce policies which reflect important values within their communities. Identifying the importance of those values and the political force behind them has the potential to make a useful contribution to international debate over the appropriate role of governments in agricultural policy.

When dealing with transition economies, specific issues arise. In a study of Jaza Folefack (2003) it is shown that countries have left central planning systems in the last decade, have experimented drastic changes in agricultural policies. Land reform policy and marketing policy play a central role.. This emphasizes the necessity to have an analytical grid matching the main characteristics of the studied countries.

This section has shown that, excluding the OECD works, no systematic and periodic comparisons on a large set of agricultural policies exist. In many cases, concepts and analyzed policies differ. Worse a real comparison could not be conducted due to the lack of a clear definition of methodology. (such as given in section 2.) and these studies stay for mere monographs.

4 The relevant policies to compare

Since we know how to perform a relevant comparison, and based on existing literature, we could now define the relevant policies to include in our following works.

It is well known that a large range of policies have an impact on agricultural and agrifood sectors. Basically, like every sector in the economy they are impacted by specific and macroeconomic policies. If agricultural policies such as production subsidies are directly aimed to the sector, we could not ignore that education policies in rural areas or infrastructure investments on the transport side have drastic impacts on the productivity and at the end, on competitiveness. Moreover, many results - see Krueger et al.(88) – have shown that indirect effects dominate positive direct effects. In particular, trade policy about manufacturing inputs for the agricultural sectors, and overvalued currency have tremendous negative impacts⁸.

Nevertheless, due to time constraint⁹, it is important to limit the scope of policies we want to analyze and compare. Three criteria have led us to pick up the policies:

- The **sectoral** dimension. A policy focused on agricultural sector should not be omitted. The Ethanol issue is an illustration of such a policy.
- The **bilateral agreement** argument. A policy that could not be included in a bilateral agreement framework or which effects could not produce overlapping or synergies, is less important to study.
- The **data availability** issue. Every researcher knows that data gathering takes a lot of time. Policies that will demand too much resources for being able to perform a comparison on a relatively good quality set of data will be excluded. (Educational policies or fiscal policies are good examples).

Table 1 displays the list of relevant policies with their items(seen annex III for the details of our scoring procedure for selecting policies to be studied). It is important to notice that a given item could be split into different measures (i.e. different lines in the analytical grid table). The exchange rates policy will have a different treatment. As it is a very important determinant to country competitiveness, we can not omit it. Nevertheless, this issue is driven by balance of payments constraints and institutional commitments. So, we will describe the different situations, the recent evolution in exchange rate policies and their current impacts on trade specialization, and the expected changes. But we will not conduct a real comparison that will be meaningless.

⁹ the comparison package will have only 4 month-persons to perform the comparative analysis of various policies for the EU and MERCOSUR. We have to keep in mind that for the MERCOSUR, most of policies are far to be similar in between countries and demand a specific analysis.

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⁸ "In addition, given that the impact of exchange rate and industrial protection policies was greater than that of agricultural policies, why did agricultural producers groups continue to focus their political attentions on issues pertaining to agricultural pricing, with little or on attention to exchange rate policies and other issues of greater importance?" Krueger et al. 1988.

Finally, we will also look at tax policy in some cases, when it is related to trade policy (free VAT for exporting sector by example) or other selected policies.

Table 1 Policies space

Tarabasana	To all the second of the secon
Trade policy	Tariffs protection
Trade policy	TRQs
Trade policy	Rules of Origin
Trade policy	NTBs
Trade policy	Export taxes/subsidies
R&D policy	R&D in agricultural sectors
Macroeconomic policy	FDI legislation
Macroeconomic policy	Financial market and risk management
Health policy	Sanitary and Phytosanitary measures
Environmental policy	Animal welfare policy
Environmental policy	Forest management
Environmental policy	Water management
Energy policy	"Ethanol issue" and other biofuel.
Agricultural policy	Domestic support to production (by product)
Agricultural policy	Domestic support to marketing and distribution
Agricultural policy	Domestic support to farmers income (direct payment)
Agricultural policy	Domestic support to final consumers
Agricultural policy	Domestic support to intermediate consumers
Agricultural policy	Labelling (quality - geographical)
Agricultural policy	Land ownership policies
Agricultural policy	Certification Capacity building

5 Relevant indicators and variables

This section is aimed at presenting variables of interest for conducing policy comparison and explain their

5.1 Trade policy

Table 2 displays the list of variables that will help us to analyze the trade policies applied by the partners.

For trade policies analysis, the main inputs are tariffs. Still high in Europe, with an average of 18% for the agriculture sectors, they are also characterized by tariff peaks (up to 450 % for some variety of meat). It is important to have a clear description of the tariff pattern by taking into account bound protection (WTO commitments) and applied protection (MFN and preferential rates). It is a key issue in order to understand the real implication of a regional agreement with the Doha Round in the background. Moreover, EU tariffs are often specific, mixed or compound, the choice of unit values made to convert these tariffs is extremely important. Indeed, the same specific tariff can have differentiated impact across partners given their export prices and may have an impact in the quality choice of producers by example.

The Tariff Rate Quotas that have appeared during the Uruguay Round to replace simple import quotas will be a specific kind of concession that the EU will make. Knowing their initial level, their allocation, the gap between inside and outside rate and the current filling rate is crucial to have a realistic description of the trade relations in agricultural goods between the two blocks.

It is also relevant to know how the partners manage their trade policy and use the different possibilities offered by the WTO rules (contingent protection, WTO dispute cases), it is a good indicator of the inner forces that influence trade policies and should lead to design more binding commitments in a bilateral agreement to avoid cheating behavior. It is well know that the trend to lower tariffs has led to an increase in the use of such contingent protection but also by non tariff barriers such as rules and norms. We will define synthetic indicators to understand the importance of these tools in the EU-MERCOSUR trade relations.

Since a bilateral agreement could be reached only in a fair competition environment, export distortions should be closely looked at.

Table 2 Trade policy variables

POLICY CATEGORY	VARIABLE NAME	DESCRIPTION
Trade information	Unit values of trade flows	Unit values in usd by ton
	Tariffs	Most Favoured Nation duties, Preferential
		duties and Bound duties
	Special Regime	Special Regime of imports
Tariffs Information	WTO cases	Number of WTO cases by product and
		country
	Tariff Rate Quota Size	Quota size and allocation
	Tariff Rate Quota Rates	Inside and Outside Rate
	Non Trade Barriers Frequency	Number of NTBs by HS6 products
NTB's	Ad Valorem Equivalent of NTBs	Assessment of NTBs by HS6 products
	Share of trade affected by NTBs	by Partner
	Antidumping measures	by product and country of origin
Contingent protection	Uruguay round SSG	by product
	Safeguard measures applied	by product and country of origin of imports
	Minimum export prices	by product
Export instruments	Export taxes	by product and market of destination
	Export subsidies	by product and market of destination
	Origin criteria	Basic criteria to determine origin and their
		exceptions
	Flexibilizing general rules	General rules that can make RoO more
		lenient (de minimis, type of cumulation,
Rules of Origin		absorption)
	Restricting general rules	General rules that can make RoO more
		stringent (operations insufficient to confer
		origin, method of certifying and other
		exceptions)

Last but not least, Rules of Origin (RoO) are one of the main characteristic and often limitations of regional trade agreements. RoO criteria and exceptions define the applicability of the preferential clauses. For some sensitive agricultural products, RoO exceptions can

make the difference in market access. The level of restrictiveness of RoO is not easily assessable through trade agreements clauses¹⁰ and in that sense, the calculation of additional indicators, based on effective rate of use of preferences, might be necessary.

5.2 Agricultural policy

Table 3 will present the core tools of agricultural policy.

The main focus will be applied on support policies: support to production and to income (main tools in European Union) and to marketing and distribution activities (widely spread in Mercosur). So, the comparison between the two blocks will not be conduced only by looking at level of support but also on the different way that agricultural support is provided.

The support on marketing and distribution side is more difficult to assess since there are many public-private partnership. Countries' embassies and representations can play an important role in promoting domestic products. Nonetheless, it is difficult to have access to private investment in this area. Even, the public expenditures in this area is a partial measure, it is still relevant since by definition policy are "public" and inside a bilateral agreement it is useless to define objective or constraints for the private sector.

Financial support through special conditions for agriculture, such as preferential interest rates, terms and conditions are also used by MERCOSUR countries. Brazil has special financial programs for several kinds of agricultural producers (small farmers, agrarian reform beneficiaries, agro-industries, etc). The Brazilian policy in this area has varied significantly during the last decades, which do not imply any continuity in the future but these tools represent still a support for agricultural activities. As for the CAP, a major argument of domestic support is the intrinsic risk of agriculture activities. It will be interesting to analyze how MERCOSUR countries and European Union try to solve this problem in presence of imperfect insurance and capital markets. By the way, we will have to look the existing market solutions (future and options) that are available for producers of both areas (see infra 5.5).

As in many developing countries, the efficiency of MERCOSUR agriculture is correlated to the management of the land ownership. Of course, efficiency objective should be balanced by equity and social objectives. Land reform is a historical issue also currently relevant in many

¹⁰ RoO are often expressed as percentage of Value added created in the country « of origin » or as a percentage of domestic intermediate consumptions used. Moreover, the "cumulative" aspect of the RoO is crucial in the way a trade block can benefit from regional integration to export to the partner block market.

Latin American countries. Moreover, property regularization is essential for expanding small farmers' access to bank credit and some policies.

At the same time, looking at the size distribution of farms is necessary to understand what is at stake also in Europe. More competition will be translated in more concentration and can drive unwanted results in European Union as an increase of regional inequalities.

Table 3 Agricultural policy

POLICY CATEGORY	VARIABLE NAME	DESCRIPTION
Support to production	MPS (Market price support)	by product and country, level and %
Support to production	List of main products receiving price suppor	by country
Income policy	PSE (Producer support estimate)	by product and country, level and %
		Public expenditures on programs for trade
	Marketing and export promotion	and export promotion and market information
	-	services
		Public expenditures in roads and other
	Infrastructure for transport and distribution	infraestructure investments (irrigation,
Marketing and		electrification, etc)
Distribution	Credit for the storage of agricultural	Value of the loans for the storage of
	products by farmers	agricultural products, special rates, terms and
	products by farmers	conditions.
	Financial instruments for agricultural	Description of the main financial instruments
	marketing	for facilitating agricultural marketing and the
	marketing	public resources used.
	Credit for the storage of agricultural	Value of the loans for the storage of
Intermediate	products by agroindustries	agricultural products, special rates, terms and
Consumption		conditions.
	Intermediate consumption subsidies	
	Property regularization	Public expenditures on deed property
	1 Toporty Togularization	regularization
		Public expenditures on land purchase for the
		agrarian reform
Land Ownership		Public expenditures, number of beneficiaries,
	Agrarian reform	area of farms and financial conditions and
		terms in agricultural land programs (agrarian
		reform and loans for the purchase of land -
		"credito rural")
	Size of farms	Mean and standard deviation
1 1 111 / 12:	Main concerns of labelling	List of topics
Labelling (quality -	Compulsory information on the labelling	V 44 5 1 1 1 1 1
geographical)	Ecolabelling measures	Yes/No; Public/Private rules
0 ("" (" "	GMO labelling	Yes/No; Public/Private rules
Certification capacity	Number of institutes	
building		

Finally, the labelling strategy and certification capacities of a country could have drastic impacts on the way its products are perceived and could be exported. Indeed, the main objective of labelling is consumer information. In principle, every norm regarding labelling falls under the TBT. Only in those cases where labelling requirements are directly related to the safety of the products (evidence of additives, contaminants) are these included in the SPS. The UE applies the concept of labelling related not only to safety issues but also to consumer protection and fair trade practices, incorporating demands that go beyond international

standards. This can include: (i) country of origin of foods and food ingredients and (ii) ecolabelling.

The UE regulations will require labelling on all GM foodstuffs or feedstuffs, no matter whether the GM material can still be detected. MERCOSUR and other countries in the multilateral sphere consider these regulations unnecessarily trade-restrictive and argue that less restrictive measures could be implemented to achieve the objectives pursued.

There are no harmonised MERCOSUR regulations on this matter. National legislation rules therefore in each of the four states.

GMO will certainly give rise to negotiation, whether or not they are included in the agreement. Their exclusion would subject the access of products derived from or containing GMO to the regulations of the importing country, and the Bilateral Agreement could not be invoked to facilitate the access of these products. Their inclusion would bring about heated debates over the EU's claim to impose a compulsory labelling system according to the production method. This would increase costs for MERCOSUR Members States.

Now, we have to give a closer look to SPS and environmental norms and policies.

5.3 Health and environmental policies

Table 4 SPS and environnemental policies variables

POLICY CATEGORY	VARIABLE NAME	DESCRIPTION
Sanitary and	Animal health measures	Number of measures
phytosanitary	Restrictiveness of SPS	Scoring based on a comparison with
measures		International Standards
measures	Share of trade affected by SPS	%
	Farming practices, including branding	Number of rules - Index of restrectiveness
Animal welfare policy	Transportation practices	Number of rules - Index of restrectiveness
	Slaughtering practices	Number of rules - Index of restrectiveness
Forest management	Certification	
rorest management	Biodiversity	Existence of a legislation
Motor management	Pollution control	Description of measures
Water management	Fiscal measures related to water use	Number and description

Mercosur has expressed its willingness to negotiate the sanitary aspects affecting trade in agricultural products on a country-by-country basis. This is mainly due to the four member States having different commercial priorities concerning the products of interest, as well as the need to maintain the sanitary standards of each country, since, unlike the UE, MERCOSUR does not form a single sanitary area. The negotiations on sanitary measures and wines will be negotiated bilaterally: between the EU and each member of the MERCOSUR.

Trade facilitation should aim at the gradual reduction of border controls, inspections and verifications in origin and the elimination of expensive administrative processes that delay trade operations. Another important objective is the use of transparency mechanisms that provide legal security and predictability (exchange of information, communication of any situation or the provision of information regarding sanitary issues, reliability of the sanitary services).

For the UE it is clearly preferable to achieve simultaneity and to end the four-party negotiations at the same time. For the MERCOSUR countries, simultaneity has the disadvantage that the pace of the negotiations will inevitably be that of the slowest. On the other hand, if the negotiations were not simultaneous, the MERCOSUR countries that fell behind in the process would be affected by market displacement and trade diversion.

There are substantial differences between the incorporation of international standards in the current law in the EU and MERCOSUR and it will be worthly to made a systematic comparisons of existing national and international (such as the FAO's *Codex Alimentarius*) standards.

The EU has harmonised its Community legislation, which in some cases has higher requirements than international standards, guidelines and recommendations, or establishes requirements when these have not yet been included within the international regulation;

Contrary to the situation in the UE, the harmonisation of sanitary and phytosanitary standards, as well as technical regulations, within MERCOSUR uses the standards set by international intergovernmental organizations.

Basically, traceability is an instrument that belongs to the TBT Agreement sphere. But taking into account the aim of the measure, it can also be considered to be within the scope of the SPS Agreement. The EU applies the concept of traceability related not only to safety matters (SPS Agreement), but also to consumer protection and fair trade practices (TBT Agreement). Beef, GMO, fish are all products that require traceability in the EU. There are opposing views in relation to traceability in the international debate: some countries admit that traceability could permit to remove a product from the market when a health risk has been detected and to trace back each participant in the chain until the problem is found. This constitutes a procedure *ex post* to the emergence of a sanitary problem. In this sense, MERCOSUR has repeatedly pointed out that traceability should not be incorporated into the control and certification system when the safety of a product can be guaranteed through other management measures

For the EU and other countries, traceability is an ex ante procedure, which documents the production process from the origin to the supermarket shelf.

On the animal welfare topic, EU legislation sets rules that are not taken into account in international regulations. Rules on animal welfare refer to (i) agricultural exploitation, (ii) transportation and (iii) slaughter. The MERCOSUR countries use extensive farming practices that "naturally" adapt to European Standards. Overall, it can be said that animal welfare in the MERCOSUR countries is of superior quality to that of countries where production is intensive and confined.

5.4 R&D and Energy policies

Table 5 Research and Bio energy variables

POLICY CATEGORY	VARIABLE NAME	DESCRIPTION
R&D	Public R&D	Public expenditures on R&D as a percentage of Agricultural GDP
	Qualitative information on public and private R&D	Main firms and public institutions with R&D activities, public-private and primary sector-industry partnerships
	Researchers and/or research units	Number of researchers by educational level and/or number of public research units
	Public expenditures	Public expenditures on and number of beneficiaries on the biofuel programs
Ethanol/Biofuel Policies	Agroenergy policy objectives and implementation	Policies to promote the production of ethanol and biodiesel, considering the following areas: production capacity and demand, innovation and technology, social inclusion, environmental sustentability, legislation and promotion mechanisms

For MERCOSUR countries, public R&D in agriculture represents an important part of total R&D, even if private R&D can be important for some products and probably more dynamic. Information on R&D is especially hard to obtain. Public expenditures on R&D allow having only a partial view of investments in this area, since for some products private investments can be relevant11. In Europe, the share of agricultural R&D is less important but biotechnology development and the expectation of a "Green Chemistry" revolution attract more resources in this field. The number of PhD scientists (public and private sector) in this domain is a good indicator of the research potential.

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¹¹ Trends in private R&D for the selected chain products will be tackled through qualitative information (interviews, basically), which can be both, partial and biased by data availability and WP4 methodology.

On the bioenergy issue, if European Union has decided to launch an ambitious project, following the US initiative, Brazil has a robust experience in this field. Its ethanol policy has effects in the national sugar and ethanol production. Since Brazil is the leading sugar exporter, any change in this policy also affects the world sugar market. Brazilian ethanol policy has varied significantly since its beginning and its current features do not imply any continuity in the future. However, the constant rise of fossil energy prices will emphasize the attractiveness of this sector.

5.5 Financial environment and Investment framework

In regional agreements, Foreign Direct Investments take an important role. Most agreements include a specific part defining common rules for promoting investment flows and increasing the trust of investors. In order to have a precise picture of the current situation and the recent trend, we will look at FDI flows and stocks. Since Mergers and Acquisitions dominate green field investments, specific variables will be gathered about them, including the specific cases of privatizations. Using OECD assessment of the existing legislation, we will compare the situation of the different MERCOSUR countries about their attractiveness of investment.

Last element, as previously noticed, the possibilities offered by financial markets as tools for risk management are core elements in a liberalized agriculture framework. Moreover, open markets are often linked to an increase in the level of risk.

Table 6 FDI and Financial variables

POLICY CATEGORY	VARIABLE NAME	DESCRIPTION
	FDI flows by sector	values
	FDI flows by partner	values
	FDI stocks by partner	values
FDI legislation	FDI stocks by sector	values
	FDI restrictiveness index	OECD index
	Merger and Acquisition	Number and volume
	Privatization and Tenders involving FDI	Number and volume
Financial market and	Commodity exchanges offering futures and	
risk management	option markets	Number and description
	Annual Trading volume on future markets	

6 Conclusion

Through this paper, we have defined the relevant questions to ask before performing a comparative analysis of agricultural policies. What are the goals of policies? Who implements them and how? What are their subjects and the tools used? At the end, we manage to define an analytical grid for conducing policy comparisons.

A survey of literature has shown that no standard procedure is frequently used. Moreover, it has underlined the risk to make some common mistakes (like the (ab-)uses of the OECD's PSE).

In the following section, we have defined the list of policy items we are going to include in our comparison. They belong to seven broad categories: Agricultural policies, Trade policies, Macroeconomic policies, R&D policy, Health, Environmental and Energy policies.

Last section establishes the list of variables that will allow us to define and compare these policies. Thanks to this work, we define the framework for the database building (Deliverable 7) and future analysis..

7 References

Apey, A. & Kerrigan, G. (2001). *Gasto público para el desarrollo agrícola y áreas rurales: Chile 1996-2000*. Paper presentado en el seminario "Gestión del gasto público para el desarrollo agrícola y rural en América Latina y el Caribe, Santiago de Chile, Agosto.

Botterill L. (2003), "Balancing values in the agricultural policy process." National Europe Centre Paper n°106.

de Janvry, Alain; Elisabeth Sadoulet et Rinku Murgai (2002), "Rural Development and Rural Policy," B. L. Gardner and G. C. Rausser, *Handbook of Agricultural Economics*. Amsterdam: Elsevier Science B.V., 1593-658.

Gasques, J. (2001). Gasto público para o desenvolvimento agrícola e de áreas rurais: O caso do Brasil. Documento de consultoría preparado para la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO).

Jaza Folefack, Antoine Jean (2003), "Analysis and comparison on the agricultural policy in developing countries: principles and cases studies form Asia (China) and Africa (Ethiopia). Seminar paper, Justus-Liebig-Unversität Giessen.

Kerrigan, G. (2001). *Gasto público hacia el sector agrícola y desarrollo de las áreas rurales: ALC, tendencias y desafíos.* Paper presentado en el seminario "Gestión del gasto público para el desarrollo agrícola y rural en América Latina y el Caribe, Santiago de Chile, Agosto.

Key, Nigel; Elisabeth Sadoulet et Alain de Janvry (2000), "Transaction Costs and Agricultural Households Supply Response." *American Journal of Agricultural Economics*, 82(2), pp. 245-59.

Kjöllerström, M. (2004). Competitividad del sector agrícola y pobreza rural: El papel del gasto público en América Latina. Serie Desarrollo Productivo 155. Santiago de Chile: CEPAL.

Krueger, Anne O., Maurice Schiff, and Alberto Valdès. (1988), "Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies". The World Bank Economic Review, Vol 2. No. 3, pp 255-271.

Navajas, D. (2001). *Matrices del gasto público con los programas, proyectos y acciones de apoyo al sector agrícola, pecuario, forestal y áreas rurales: El caso de Bolivia*. Documento de consultoría preparado para la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO).

Normile, Mary Anne and Susan E. Leetmaa, (2004), "U.S.-EU Food and Agriculture Comparisons", Agriculture and Trade Report No. (WRS04-04) 97 pp, February. ERS/USDA. http://www.ers.usda.gov/publications/WRS0404/

OECD (????), Luis Portugal, "METHODOLOGY FOR THE MEASUREMENT OF SUPPORT AND USE IN POLICY EVALUATION"

OECD, (1999) "DISTRIBUTIONAL EFFECTS OF AGRICULTURAL SUPPORT IN SELECTED OECD COUNTRIES", AGR/CA(99)8/FINAL

OECD, (2001), AGRICULTURAL POLICY REFORM AND FARM EMPLOYMENT, Working Party on Agricultural Policies and Markets. AGR/CA/APM(2001)10/FINAL.

OECD, (2002), METHODOLOGY FOR THE MEASUREMENT OF SUPPORT AND USE IN POLICY EVALUATION", http://www.oecd.org/dataoecd/36/47/1937457.pdf

OECD, (2004), "Agricultural Policies in OECD Countries: At a Glance - 2004 Edition", http://www.oecd.org/dataoecd/63/54/32034202.pdf

OECD, (2005), "Agricultural Policies in OECD Countries: Monitoring and Evaluation 2005", OECD, (2005), "Review of Agricultural Policies – Brazil"

Sánchez, H. (2001). *Matrices del gasto público con los programas, proyectos y acciones de apoyo al sector agrícola, pecuario, forestal y áreas rurales: República Argentina*. Documento de consultoría preparado para la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO).

Schnepf, Randall D. Erik Dohlman, and Christine Bolling; (2001), "Agriculture in Brazil and Argentina: Developments and Prospects for Major Field Crops"; Agriculture and Trade Report No. (WRS013) 85 pp, ERS/USDA. http://www.ers.usda.gov/publications/wrs013/

Tangermann, Stefan (2005), "Is the Concept of the Producer Support Estimate in Need of Revision?", *OECD Food, Agriculture and Fisheries Working Papers*, No. 1, OECD Publishing.

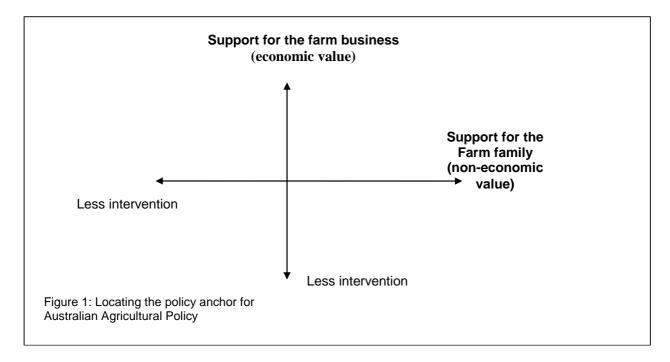
Toth; Laszlo. (2002) "The Agricultural Policy of the EU and Hungarian Agriculture in preparation for the EU Accession", European Integration Studies, Miskolc, Volume 1, Number 2, pp.37-54

Annex I

				Policy	scope	Institutional framework				Tools of implementation		Results			
Policy Broad Category	Policy measure name	Official goals	OECD classificati on	Product coverage	Geographical coverage	Legislative / Executive	Time Horizon	Decicision making authorities	Implementing authorities	Hierarchical level	List of variables	List of aggregated indicators	Success assessment	Side effects	adverse effects for partners
Energy policy Environmental policy Health policy Macroeconomic policy R&D policy Trade policy Agri. Pol. Price support Agri. Pol. Income support Agri. Pol. Supply control Agri. Pol. Surplus disposal Agri. Pol. Gen. Services										Independent agency National Government Regional Government Supranational Organisation					

Annex II

Policy map approach to understanding the balancing act (Botterill, 2003)



Each of the four quadrants represents policy approaches which have struck different balances between competing values or reflect different socio-political contexts in which the policy was developed. On the vertical axis are indicated varying levels of support aimed at achieving economic outcomes such as productivity improvements, increased output... The horizontal axis represents government intervention in support of non-economic values. These non-economic values will vary from country to country, reflecting different dominant ideas within the community which push up against each other in competing for policy space.

Annex III

Alliex III						
categori	Harre	gei	ic ingated of Link	ed to a tidad.	streets Data and thirt	
Trade policy	Tariffs protection	Yes	Yes	Yes	Yes	ĺ
Trade policy	TRQs	Yes	Yes	Yes	Yes	
Trade policy	Rules of Origin	Yes	Yes	Yes	Yes	
Trade policy	NTBs	Yes	Yes	Yes	Yes	
Trade policy	Export taxes/subsidies	Yes	No	Yes	Yes	
R&D policy	R&D in agricultural sectors	Yes	No	Yes	Medium	
Macroeconomic policy	FDI legislation	Yes	Yes	Yes	Medium	
Macroeconomic policy	Financial market and risk management	Yes	no	Yes	yes	
Macroeconomic policy	Infrastructure and Transport policies	No	No	Yes	Difficult	
Macroeconomic policy	Redistribution issue / Cohesion issue	No	No	Yes	yes	
Macroeconomic policy	Exchange rate policy	No	No	No	Yes	
Macroeconomic policy	Education policy	No	No	No	Difficult	
Macroeconomic policy	Tax policy	No	No	No	Difficult	
Macroeconomic policy	Poverty issue	No	No	No	Medium	
Health policy	Sanitary and Phytosanitary measures	yes	No	Yes	Yes	
Environmental policy	Animal welfare policy	yes	No	Yes	Yes	
Environmental policy	Forest management	yes	No	No	Yes	
Environmental policy	Water management	yes	No	No	Yes	
Energy policy	"Ethanol issue" and other biofuel.	yes	No	yes	Yes	
Agricultural policy	Domestic support to production (by product)	yes	No	Yes	Yes	
Agricultural policy	Domestic support to marketing and distribution	yes	No	Yes	medium	
Agricultural policy	Domestic support to farmers income (direct payment)	yes	No	Yes	Yes	
Agricultural policy	Domestic support to final consumers	yes	No	Yes	medium	
Agricultural policy	Domestic support to intermediate consumers	yes	No	Yes	medium	
Agricultural policy	Labelling (quality - geographical)	yes	No	Yes	Yes	
Agricultural policy	Land ownership policies	yes	No	Yes	Yes	
Agricultural policy	Certification Capacity building	yes	No	Yes	Yes	