Directorate A. Economic analyses, forward studies, evaluation A.4. Evaluation of measures applicable to agriculture

EVALUATION OF THE COMMON MARKET ORGANISATION IN THE **SUGAR SECTOR**

Quality judgement of the final report submitted by NEI in September 2000

0. PRELIMINARY REMARK

This text provides a global assessment of the above mentioned report in general terms. It has however to be taken into account that the quality of the answers to the individual evaluation questions is varying. The steering group responsible for this evaluation tried through intensive discussions with the evaluation team to explain its expectations as regards the methodological approach to be followed in this evaluation study.

The main task of this study was to identify the different impacts of the Common Market Organisation (CMO) for sugar by answering the evaluation questions as laid down in the terms of reference and to make a judgement whether and to which extent the objectives of this CMO have been achieved. The report submitted is judged here as an evaluation study as regards the methodological approach followed to answer the evaluation questions. As concerns conclusions and recommendations made in the report it has to be pointed out that it is not their content which is judged here but only the methods used for obtaining them.

This document is completed by an annex which contains additional information explaining specific points of of criticism laid down below.

1. MEETING NEEDS: Does the evaluation adequately address the information needs of the commissioning body and fit the terms of reference?

Generally speaking the evaluation questions have been understood and the main issues of this evaluation are addressed. All questions (except two, after agreement of the steering group) have been answered specifically.

This does however not mean that the responses to all questions are satisfactory. The main points of criticism are mentioned below.

Global assessment: good

2. RELEVANT SCOPE: Is the rationale of the policy examined and its set of outputs, results and outcomes/impacts examined fully, including both intended and unexpected policy interactions and consequences?

The report treats the different impacts of the CMO for sugar in a rather exhaustive way in taking into account the context of the Common Agricultural Policy (CAP), analysing relations with third countries and differentiating the analysis by Member State or region in several cases.

In some aspects the analysis undertaken goes even beyond the requirements of the Terms of Reference (e.g. extension of the examination period in some cases, analysis of security of supply and prices by Member State). Also unexpected policy interactions and consequences of the CMO for sugar are mentioned.

Furthermore it has to be taken into account that a considerable effort has been made by the evaluation team in order to collect and analyse data on the sector concerned. This work is not entirely visible in the report and only partly reflected in the annexes, but deserves to be acknowledged even if not all of it was directly oriented to the response of the evaluation questions.

Global assessment: excellent

3. DEFENSIBLE DESIGN: Is the evaluation design appropriate and sufficiently adequate to ensure that the full set of findings, along with their methodological limitations, can be accessed to answer the main evaluation questions?

It has to be noted that during the evaluation process there has been some misunderstanding between the evaluation team and the steering group as concerns the nature of this study. The contractor understood initially the task as an economic sector analysis and not as an evaluation. However it has to be recognised that at a later stage considerable efforts where made to follow an evaluation approach in the answers of the individual questions. These efforts are reflected in the final report.

However still some misunderstandings as concerns terminology persist. The steering group understands the term "criterion" as a basis for formulating the judgement for answering an evaluation question and indicators as tools to measure achievement or non-achievement of criteria. The evaluation team understands the term "criterion" as a way to measure the target level of chosen indicators. Due to this misunderstanding, the evaluation team skipped the definition of evaluation criteria (that means how the question can be answered) and defined straightaway indicators to be used for answering the questions.

It is therefore not surprising that the evaluation approach, introduced only at a late stage of the study, could not be carried through consequently in the answers to the individual questions. In many cases useful proposals were made to define the evaluation terms contained in the individual questions (e.g. "smooth" development of international trade in chapter 3) but these proposals are often made in several senses. This can be acceptable for a complex question but the different criteria have to be put together in order to obtain an unequivocal response to the question.

The most important default is however that the evaluation criteria defined and in some cases the definitions of factual terms (e.g. "competitiveness" in chapter 6.1) are not applied systematically in the response to the question in particular when conclusions are drawn. The use of criteria in a more consequent way could have allowed a clearer judgement (see point 7) on the different aspects of the CMO and a clear answer to the evaluation questions.

Given that the evaluation approach is still incomplete and given the weakness of the analysis made in many cases (see point 5) the overall judgement of the evaluation design is: *poor*

4. RELIABLE DATA: To what extent are the primary and secondary data selected adequate? Are they sufficiently reliable for their intended use?

In principle the data used are coming from reliable sources. The limits of their use are normally mentioned, in particular when data from stakeholders in the sector concerned is used. Attempts were made in some cases to obtain data from different sources in order to valid these data. When necessary data could not be obtained, an explanation for this is provided.

A lot of economic studies and literature has been consulted but the results of these studies quoted are not considered critically enough (e.g. in mentioning the assumptions on which they are based). This applies in particular for the quantitative studies on impacts of trade liberalisation quoted in the report.

The interviews made with different stakeholders and persons involved in the administration of this CMO could have been reflected better in the report. For instance at least the consumers' organisations official views could have been taken into account (see point 5.3 of the annex). The report gives the impression that mainly the view of sugar processors is quoted.

Global assessment: acceptable

5. SOUND ANALYSIS: Is quantitative and qualitative information appropriately and systematically analysed according to the state of the art so that evaluation questions are answered in a valid way?

The analysis undertaken is in principle orientated to the response to the individual questions and the statistical basic data are generally speaking used in a correct way. It reveals some interesting information (e.g. price differences between Member States in chapter 5, profitability of producing C-sugar in chapter 12).

However there is a lack of explanation of methods used in particular when quantitative methods are applied.

The main point of criticism is that there are important elements of the analysis which are difficult to follow because the *assumptions* on which they are based are *not laid down and explained sufficiently*. These assumptions are mainly based on economic theory (that means under the assumption of ideal and functioning markets) without empirical verification for the concrete case of the sugar market.

In principle it is useful also in evaluation studies to refer to economic theory, but when this is done one must check whether reality corresponds to the hypothesis developed in theory before conclusions can be drawn. In the report however this verification is not done sufficiently or at least not explained clearly enough.

Examples for this are laid down in the annex to this judgement.

- Rise of instability on the world market due to the CMO for sugar (Chapter 3, see point 3.3 of the annex)
- Only little sugar production in the absence of the CMO and
- Security of supply can be assured through imports from the world market (Chapter 4, see point 4.3 of the annex)

A second serious point of criticism is the *application of statistical analysis*.

When reference is made to statistical analysis (chapter 3: correlation between stock to consumption ratio and world market prices, chapter 15: correlation analysis on yields as explanatory factor for regional specialisation) this analysis is insufficiently explained, in particular as concerns its limits. In both cases the usefulness of application of statistical analysis is at least doubtful, since there are limited possibilities to draw valid conclusions on basis of correlation coefficients which do not provide for clear results and sometimes explain only 12% respectively 24% and 38% of the dependence of the variables concerned.

Either this analysis should have gone further (see points 3.4 and 15.1 of the annex) if the evaluation team wanted to endeavour a statistical analysis (which had not been specifically asked for), or the quantitative analysis should have been skipped.

There are also *other weak points of the analysis* which need to be mentioned:

Some aspects could have been analysed more in depth, e.g. response of C-sugar production to world market prices (chapter 7). In other cases the assumptions on which the analysis is made are not explained sufficiently (e.g. comparison of gross margins of C-sugar on a marginal cost approach with average gross margins of cereals, see point 12.1 of the annex).

Possible counterfactual situations are not discussed sufficiently. In regard of the context of the CAP on one side and the sugar market policy of the main competitors of the EU, it is at least debatable to assume a situation without any market support at all as it is done in many cases.

Global assessment: poor

6. CREDIBLE FINDINGS: Do findings follow logically from, and are they justified by, the data analysis and interpretations based on carefully described assumptions and rationale?

Despite several weaknesses of the analysis mentioned above the report contains a lot of useful factual information, which can serve for further consideration. One must take into account that the terms of reference contained also some questions of a more factual nature (e.g. competitiveness of sugar to other sweeteners) and that in particular the answers to these questions revealed interesting details.

However the presentation of the findings could have been done in a clearer way (e.g. in chapters 8 and 9).

The terminology used should have been defined and better explained. E.g. in chapter 4 the term "effective minimum revenue per tonne of sugar" is used for indicating minimum prices for sugar. This is in principle correct but can lead to confusion (see point 4.1 of the annex) since the term "revenue" could also be understood in the sense of "income".

Furthermore the findings are in some cases not presented clearly enough because principal results are not put together in a sufficiently consistent way (as e.g. the impact on international trade, see points 3.2 and 3.3 of the annex).

It is also regrettable that some important aspects which are relevant for the answers to several questions are only mentioned and have not been analysed and discussed more in depth (e.g. purchase prices of sugar quota, examination of the sugar processing industry under national and Community competition law).

Global assessment: acceptable

7. VALIDITY OF THE CONCLUSIONS: Does the report provide clear conclusions? Are conclusions based on credible results?

It has to be recognised that the report presents interesting conclusions on various aspects of the CMO for sugar and that considerable efforts have been made to formulate them in a clear way. However still many ambiguities and unclear formulations containing terms like "may" and "could" remain (e.g. the conclusions made on the reasonableness of sugar prices in chapter 5). There are also still contradictions in the sense that statements made are put into question by subsequent comments (see e.g. the impact of the CMO on stabilising the world market price quoted in point 5) and conclusions which are not formulated clearly

enough and/or based on simple evidence (in particular as concerns the chapters on income).

The main weakness of the conclusions results from the analysis (see point 5). Due to the lack of credibility of analysis which is in many cases based solely on considerations resulting from assumptions which are not explained (see point 3) and not on empirical evidence the conclusions are not sufficiently credible either.

Unfortunately also conclusions which are used for further recommendations are not reasoned sufficiently (e.g. the statement that the Storage Costs Equalisation Scheme is not necessary).

Another weak point of the conclusions results from the lack of structuring in the study. This is based on the essential misunderstanding explained in point 3 (no definition of evaluation criteria as preparatory stage to define indicators). Therefore the conclusions are often not sufficiently oriented to a clear response to the question and often not linked enough to the analysis undertaken.

Furthermore an overall view on the main conclusions obtained concerning the different aspects of this CMO is lacking.

The global assessment for this aspect is therefore: poor

8. USEFULNESS OF THE RECOMMENDATIONS: Are recommendations fair, unbiased by personnel or stakeholders' views, and sufficiently detailed to be operationally applicable?

It is regrettable that only very few explicit recommendations resulting from the analysis and the conclusions are made in the report (Storage Cost Equalisation Scheme, carrying forward of C-sugar, minimum stock requirement).

The recommendations made sound reasonable and interesting at first sight but, apart from the aspect that they are not sufficiently based on the analysis undertaken, they are not reasoned enough in particular in regard of possible negative consequences; in particular if all three elements mentioned above were abolished together. Even if it goes perhaps beyond the scope of the study to examine possible consequences of recommendations made in detail, at least need for further research could have been pointed out.

Furthermore for the recommendations also an overall view of the CMO is lacking. It has to be noted in this context that the criticism of the steering group on global recommendations put forward in an earlier version of this report did not concern the substance of these recommendations but the method to obtain them. In fact these recommendations were not based on the analysis made and conclusions drawn and not sufficiently linked to the rest of the study. It is therefore regrettable that the evaluation team refrained from making overall recommendations after this criticism.

Global assessment: poor

9. CLEAR REPORT: Does the report clearly describe the policy evaluated, including its context and purpose, together with the procedures and findings of the evaluation, so that information provided can easily be understood?

In principle the report shows a clear structure which is based on the logic of a scientific report. The main findings of the response to each question are presented in a rather clear way at the end of each chapter. A concise description of the policy evaluated is also provided for in chapter 2.

The core text of the total report is however with 217 pages still too voluminous (see below) even if the complexity of the evaluation task is admitted.

The executive summary presents also a clear overview of the principal results of this study. It has however to be criticised under formal aspects that this summary is with 11 pages much longer than provided for in the terms of reference.

In a report where a considerable number of questions concerning different aspects had to be treated, a separate chapter which provides for a synthesis of the conclusions and recommendations would have helped to obtain an overview of the different impacts of this CMO.

The individual chapters are drafted in a very heterogeneous way with the first chapters (1-6) being rather voluminous (parts of them could have been transferred to the annexes) and other chapters being in some cases rather short (e.g. chapters on income and concentration of sugar beet production and its regional specialisation). Therefore still a very intensive reading of this rather voluminous report and sometimes of its annexes is required in order to identify the reasoning for the main findings.

Global assessment: acceptable

10. FINAL REMARK

Taking into consideration all the aspects discussed above the overall judgement of this evaluation report is: *acceptable*

One must take into account that under evaluation aspects the report has weaknesses in core criteria (design, analysis, findings, conclusions and recommendations) which were considered as "poor".

However the steering group acknowledges that in factual terms interesting results could be found in the report and that a considerable work has been done by the evaluation team to collect and to put together all the data required.

Concerning these criteria, the evaluation report is:	Unaccept able	Poor	Accepta ble	Good	Excel- lent
1. Meeting needs: Does the evaluation adequately address the information needs of the commissioning body and fit the terms of reference?				X	
2. Relevant scope: Is the rationale of the policy examined and its set of outputs, results and outcomes/impacts examined fully, including both intended and unexpected policy interactions and consequences?					X
3. Defensible design : Is the evaluation design appropriate and adequate to ensure that the full set of findings, along with methodological limitations, is made accessible for answering the main evaluation questions?		X			
4. Reliable data: To what extent are the primary and secondary data selected adequate. Are they sufficiently reliable for their intended use?			X		
5. Sound analysis: Is quantitative and qualitative information appropriately and systematically analysed according to the state of the art so that evaluation questions are answered in a valid way?		X			
6. Credible findings: Do findings follow logically from, and are they justified by, the data analysis and interpretations based on carefully described assumptions and rationale?			X		
7. Validity of the conclusions: Does the report provide clear conclusions? Are conclusions based on credible results?		X			
8. Usefulness of the recommendations: Are recommendations fair, unbiased by personnel or shareholders' views, and sufficiently detailed to be operationally applicable?		X			
9. Clearly reported: Does the report clearly describe the policy being evaluated, including its context and purpose, together with the procedures and findings of the evaluation, so that information provided can easily be understood?			X		
Taking into account the contextual constraints on the evaluation, the overall quality rating of the report is considered			X		

Additional comments to the quality judgement of the final report submitted by NEI in September 2000 (Annex to the quality judgement)

Preliminary remark:

This document serves as a complement to the quality judgement and raises specific points concerning individual chapters of the report in order to make the quality judgement better understandable.

Chapter 3 (Impact of the CMO "sugar" on international trade):

3.1 The analysis undertaken for the answer to this question suffers from the general lack in structuring in this report (see point 3 of the quality judgement) and a different understanding of essential evaluation terms (see point 3 of the main text).

As the evaluation team understood the term "criterion" for indicating target levels for indicators chosen and not as a basis for formulating the judgement for answering an evaluation question, it skipped the definition of evaluation criteria and started straightaway with the definition of indicators.

In the case of chapter 3 different indicators are proposed: price stability, degree of distortion of prices, conditions of market access, degree of discrimination in trade relations and analysed. However the reasons for their choice is not sufficiently explained (e.g. why have volumes traded not been taken into account?).

- 3.2 It is understandable that for the answer to such a complex question several criteria are needed. However in order to obtain a concise answer to the question these different criteria should have been put better together in order to come to a final judgement as concerns the contribution of the CMO "sugar" to the "smooth" development of trade. In the report presented this judgement finally made can only be derived in taking into account the statements made in the summary. It is assumed that according to the authors of this study the impact of this CMO on the international trade is judged principally negative (which means destabilising).
- 3.3 However, in order to make better understandable the judgement made it would have been useful to make a weighting between negative and positive arguments as concerns the contribution of the CMO "sugar " to smooth development of trade. Positive arguments are however existing, e.g. production of C-sugar depending on world market prices.

Furthermore some arguments could have been better explained as e.g. the argument that the CMO "sugar" insulates "most of the EC production and consumption from the world market as well as the sugar imported under preferential trade agreements" and therefore "has a negative influence on the

- stability of the world market price". The underlying assumptions and their empirical evidence should at least have been mentioned.
- 3.4 The statistical analysis made on the correlation between the stock/consumption ratio and New York spot price, although having been revised for the final version of the report, is still not very convincing since the correlation demonstrated differs very much between the two periods chosen and provides only a limited basis for drawing conclusions.

Perhaps it would have been better to skip the statistical analysis if a sufficiently clear relationship between the two variables cannot be demonstrated (or to put it into the annex). In any case Figure 3.3 suggests that there must be a strong relation between the stock/consumption ratio and world market prices at least in qualitative terms.

Chapter 4 (Stabilisation of the EU market and security of supply):

- 4.1 The use of the term "effective minimum revenue" could be justified better and defined more clearly in the text since it also could be understood as an indicator for income, in particular when farmers' income is also one of the main issues of this study. Therefore this clarification would have also been useful in the introducing part of chapter 8 (income).
 - Furthermore also the application of the term "sugar producer" could be clarified better in the text, since this term could also be misunderstood as relating to primary production (in the study referred to as "beet producer")
- 4.2 Also in the context of this question the use of the world market price for sugar as reference should at least be commented and it should have been explained why other reference prices (e.g. the internal price for sugar in the USA) could not have been used in the context of this study.
- 4.3 The assumption made that "also in the absence of the CMO Sugar, when most likely very little sugar would be produced in the EC..." could have been reasoned better, at least in referring to other parts of the report.

The following statement, namely that "... there would have been no problem with the security of sugar supply because the EC sugar deficit could be met easily by purchases on the world market" should have been reasoned more thoroughly. Even if in a theoretical consideration there might be no problem to obtain sugar from the world market, in practical terms there could occur problems for assuring supply in the EC, e.g. in the case of extraordinary climatic events and natural disasters in several producing countries. Consequently the final statement made that "the CMO Sugar is therefore not indispensable to guarantee the security of supply for sugar" is difficult to follow.

Chapter 5 (Sugar prices for industrial users and final consumers):

5.1 In this chapter there are interesting findings on the price level for sugar and differences on prices of sugar for industrial users and consumer prices between Member States. It is regrettable that these findings have not been exploited more in order to give at least some indications regarding a possible impact of the CMO on the competition situation in the industries concerned.

It is admitted that it was not the scope of the study to analyse the competition situation in the sugar supplying industry and the following stages of transformation and processing. However the study could at least have provided some hints in order to direct further examination of this issue. In this context the mentioning of cases under EU anti trust and competition law could at least have been specified more.

5.2 As concerns the statement made that "Sugar using industries in the EC have to buy sugar produced in the EC at a relatively high price (compared to prices on the world market)" the doubts on the appropriateness of the world market price as benchmark and the problematic of comparing internal minimum prices with world market prices is recalled. Given that the main competitors of the EU on the world market apply also a set of protectionist measures in order to achieve higher prices on their internal market, it can be assumed that sugar users and consumers in these countries also have to pay higher prices than world market prices.

It is admitted that the examination of internal prices in major competing countries was not subject of the study. However the limits of using the world market price as only reference should have been pointed out, since at least for internal transactions this price has only limited relevance also in other countries, not only in the EU.

- 5.3 It is regrettable that as concerns reasonableness of sugar prices for final consumers at least the official views of consumers' organisations have not been taken into account. This could have avoided only to speculate on consumers' perceptions on sugar prices ("...the final consumer may feel that the sugar price is unreasonable".).
- 5.4 The final conclusion on the reasonableness of sugar prices for industrial users is not entirely clear. On the one side it is argued that "... EC industrial users are not specifically disadvantaged by these high prices", on the other side it is stated that "Industrial users may perceive prices as unreasonable if prices are much higher than the costs of producing sugar." Since according to the results of this chapter prices seem to be higher than costs of producing sugar this is however an argument which would have merited more consideration.

Chapter 6 (Competitiveness of sugar and sweeteners):

6.1 The issue of rising extra-EC exports from the Netherlands and Belgium with declining production at the same period would have merited more explanation (see tables 6.12 and 6.13), in particular with regard to the statement that even export of A-quota is not profitable (chapter 6.7.3).

Chapter 12 (Income from C-beet production)

12.1 As concerns the comparison of gross margins of C-beet with those of wheat and maize the underlying assumptions and limitations of the marginal costs approach could have been explained better. This means that the comparison of gross margins is only appropriate when marginal changes of the distribution of arable land between sugar beet and cereals are concerned (which indeed might be the case in most of the decision situations on the enterprises).

Chapter 15 (Distribution of production between Member States):

15.1 The limits of the statistical analysis undertaken and the problems to draw conclusions based on correlation coefficients of only 24% in figure 15.4 and 38% in figure 15.3 should have been laid down clearly (see point 5 of the quality judgement).

Chapter 16 (Budgetary impact of the CMO Sugar):

16.1 The possible consequences of the proposed abolishing of the Storage Costs Equalisation Scheme (SCES) should have been laid down in a more clear way. As concerns possible price effects the evaluation team did not take into account that as a consequence of abolition of the aid for storage costs the levy would disappear. The latter would have a diminishing effect on prices, so that the total effect of the proposed abolishing of the SCES could be neutral. This means that normally the average price would not rise but that prices could rise during the marketing year.