

Evaluation of the Common Organisation of the Markets in the Sugar Sector

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List of abbreviations

AA	=	Agricultural Area
ACP	=	African, Carribean and Pacific
AWU	=	Annual Work Unit
CAP	=	Common Agricultural Policy
CEC	=	Commission of the European Communities
CEFS	=	Comité Européenne des Fabricants de Sucre
CIF	=	Costs of Insurance and Freight
CIUS	=	Committee of Industrial Users of Sugar
CMO	=	Common Market Organisation
COP	=	Cereals, Oilseeds and Pulses
EAGGF	=	European Agricultural Guidance and Guarantee Fund
EC	=	European Community
EDF	=	European Development Fund
FADN	=	Farm Accountancy Data Network
FFI	=	Family Farm Income
FIRS	=	Fonds d'Intervention et de Remboursement de Sucre
FNVA	=	Farm Net Value Added
FOB	=	Free on Board
FWU	=	Family Work Unit
GATT	=	General Agreement on Tariffs and Trade

GDP	=	Gross Domestic Product
HFS	=	High Fructose Syrup
HHI	=	Herfindahl-Hirschman Index
HIS	=	High Intensity Sweeteners
ISO	=	International Sugar Organisation
m.e.s.	=	minimum efficient scale
MFN	=	Most Favoured Nations
MSN	=	Maximum Supply Needs
OECD	=	Organisation for Economic Cooperation and Development
PPP	=	Purchasing Power Parities
PSE	=	Producer Subsidy Equivalent
PS	=	Preferential Sugar
SCES	=	Storage Costs Equalisation Scheme
SPS	=	Special Preferential Sugar
TRQ	=	Tariff Rate Quota
UK	=	United Kingdom
URAA	=	Uruguay Round Agreement on Agriculture
WSE	=	White Sugar Equivalent
WTO	=	World Trade Organisation

Summary

The Commission of the European Community (CEC) has requested the Netherlands Economic Institute to evaluate the effectiveness, efficiency and impact of the Common Market Organisation (CMO) for sugar in the European Community. The evaluation is focused on the post 1993/94 period, but where relevant and possible a longer period has been analysed. The CEC has defined the scope of the study and structure of the report in the form of a number of specific evaluation questions. The answers on those questions are summarised in the following paragraphs, which are preceded by a short overview of the CMO Sugar.

Context

The European Community is by far the largest beet sugar producer in the world, with an annual production of 16 to 18 million tonnes of sugar. This production level is comparable to Brazil and India, the world's biggest cane sugar producers. EC sugar production amply covers domestic consumption needs of around 13 million tonnes. The EC is the biggest exporter of white sugar in the world, and the second biggest exporter - after Brazil, but before Australia, Thailand and Cuba - when both raw and white sugar are considered.

The CMO Sugar

The Community's sugar policy is set out in various rules and regulations under the CMO Sugar, which was established in 1968. Not having been subject to the two major policy reforms of the 1990s (the 1992 MacSharry reform and the 1999 Agenda 2000 decisions), the CMO Sugar is the last major market regime under the EC's Common Agricultural Policy (CAP) that has been left relatively unchanged so far. The CMO Sugar not only covers sugar and sugar beet, but also isoglucose (since 1977) and inulin syrup (since 1992). The CMO Sugar in its present form is in force until 30 June 2001.

Like any other CMO, the CMO Sugar in principle pursues the five objectives of the CAP (see Art 33, Treaty of Amsterdam), namely:

- ▲ to increase agricultural productivity;
- ▲ to ensure a fair standard of living for the agricultural community;
- ▲ to stabilise markets;
- ▲ to assure the availability of supplies;
- ▲ to ensure that supplies reach consumers at reasonable prices.

The CMO Sugar comprises a vast array of policy instruments, part being similar to traditional instruments applied in other CMO's, such as:

- ▲ an intervention price system through which minimum guaranteed prices for beet growers are maintained;
- ▲ a system of import levies and export refunds to protect the EC internal market from outside (world market) influences.

However, a number of the instruments of the CMO Sugar differ from arrangements used under the more 'traditional' CMO's. These include:

- ▲ a system of A and B production quotas allotted to each Member State, in order to limit the total quantity eligible for price support;
- ▲ production refunds for sugar being used by the chemical and pharmaceutical industry to make up for the difference between the EC sugar price and the world market sugar price;
- ▲ production levies to be paid by the sugar producers to finance both the export refunds for the exported quota sugar and the production refunds for the chemical and pharmaceutical industry;
- ▲ preferential arrangements for importing (raw) sugar (predominantly) from former colonies of EC Member States.

The CMO sugar furthermore contains a number of very specific instruments, including a storage cost equalisation scheme, minimum stock arrangements, a carry-forward of stocks mechanism, and special national aid arrangements.

Impact of the CMO Sugar on the smooth development of international trade

The contribution of the CMO Sugar to the smooth development of international trade has been analysed in terms of (i) impact on stability of the world market price of sugar, (ii) the degree of (cost) price distortions, (iii) the degree of market access and (iv) the degree of non-discrimination in trade relations.

The CMO Sugar has a negative influence on *the stability of the world market price*, because it insulates most of the EC sugar production and consumption from the world market. The same applies to sugar imported under preferential trade agreements. As a consequence the volume on the world market is lower and the number of trading partners smaller than would have been the case in the absence of the CMO Sugar. This implies that changes in supply and demand of some countries operating on the world market cause greater price fluctuations on the present market than on a market not regulated by the CMO Sugar.

EC sugar *export prices are highly distorted* in the sense that they are far below the actual production costs in the EC. The export at prevailing world market prices is made possible and profitable because of (i) the system of production levies and export refunds, and (ii) the fact that all fixed and overhead costs are covered by the profitable production of quota sugar for the EC markets. The fact that a high-cost sugar producer like the EC is capable of exporting substantial quantities of sugar has a downward effect on the world market price of sugar. If 'smooth development of international trade' is defined in terms of 'trade based on differences in comparative advantage' then the driving forces of the present sugar exports of the EC can not be considered as a contribution to the smooth development of international trade.

Access to the EC sugar market is highly limited. The level of the import duties on sugar has been prohibitive for any sugar import, other than imports under preferential trade agreements. Moreover, preferential trade agreements cause unequal market access,

diminish market transparency, redirect trade flows, increase price instability on the world market and may cause discontent among other third countries. From the point of view of (equal and sufficient) market access, the CMO Sugar has not contributed to the smooth development of international trade.

Impact of the CMO Sugar on stabilisation of the sugar markets in the EC

The CMO Sugar has a direct stabilising impact on the *supply* of sugar in the EC, through a system of fixed quota and preferential import arrangements on the one hand, and an effective disposal mechanism for exporting all surplus production to the world market on the other. Furthermore, non-preferential imports into the EC are effectively discouraged by high import duties.

The CMO Sugar has also helped to stabilise the EC sugar market in terms of price, predominantly through its system of intervention prices, which effectively creates a (price) floor in the market. Although in theory the intervention price is the same in all Member States, the effective minimum revenue for sugar producers varies across Member States and over the years. This is caused by (i) differences in regional premiums, (ii) differences in B/A sugar quota ratios that cause differences in the average levy per tonne of sugar, (iii) national support for sugar production in Italy and Spain, and (iv) agricultural exchange rates that differ from the financial exchange rates. Differences in effective minimum revenues per tonne of sugar produced across Member States have been in the order of 8-10%, apart from Italy and Spain where the minimum effective revenues were notably higher. These differences in producer revenues may have caused some instability of the sugar market prices in the EC. Nevertheless, it can be concluded that the Community sugar prices have been much more stable than the world market price, although at a much higher level. The minimum effective revenues per tonne have varied from 170% to 300% of the world market price of sugar in the period 1992/93-1998.

Security of supply at Community level

The *security of sugar supply* at Community level has not been threatened during the last 10 years. On the one hand, this can be attributed to the CMO Sugar, because the CMO has created favourable conditions for producing sugar in the EC. On the other hand, it has to be observed that also in the absence of the CMO Sugar, when most likely very little beet sugar would be produced in the EC, 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.

The mechanism to *carry-forward* surplus quota sugar from one season to the next is not really needed from the point of view of assuring the security of supply at the level of the entire EC. Quota production has always been sufficient to meet demand, even when disregarding the preferential imports. Also at the level of Member States, the carry-forward mechanism is not really essential for the security of supply, because a national deficit can be met easily by imports from other Member States. For some Member States the carry-forward mechanism was of some importance for making better use of their allocated production quota.

The *minimum stock requirement* is not of great importance for maintaining the security of sugar supply, either at the level of the EC or individual Member States. The overall sugar surplus in the EC is large enough and there are sufficient trade relations across markets to assure sufficient sugar supply in all Member States at any time. Only in a few cases the minimum stock requirement has helped to control sugar price increases as a consequence of a temporary insufficient supply in a particular Member State.

Reasonableness of sugar prices for industrial users

Due to the CMO Sugar, industrial user prices of sugar are high in comparison with world market prices. From that point of view industrial users may feel that sugar prices are unreasonably high. Nevertheless, the industrial users of sugar in the EC are not specifically disadvantaged by these high prices, because the CMO Sugar has been able - through an intricate system of export refunds and production refunds - to maintain a reasonable level-playing-field for all industrial sugar users in the EC as compared to extra-EC competitors. From this point of view sugar prices in the EC are not unreasonable for the industrial sugar users in the EC.

In a common sugar market, one would expect prices in the various Member States to converge rather than diverge. However, unofficial price data from the sugar using industries indicate that industrial user prices have diverged over the last decade across the EC, and that sugar prices paid by industrial users are 8% to 24% higher than the minimum guaranteed price across the Member States. These figures are, however, heavily disputed by the sugar industry asserting that the differential is substantially lower than 10%.

In view of the surplus of sugar on the EC market -about 20% of the quota sugar plus preferential imports have to be sold on the world market- one would expect the actual price-costs differential to be small, unless there is too little competition on the sugar markets. There are indications that the latter could be the case, namely: little sugar trade among Member States; most national markets controlled by one to three large sugar producers; the four largest companies in the EC accounting for almost half of the EC sugar production; low market transparency in terms of price information; and a number of anti-trust cases investigated by the EC and national authorities.

Industrial users may perceive prices as unreasonable if prices are much higher than the costs of producing sugar. The average production costs in the EC during the 1990s are estimated at about US\$ 450 per tonne in low cost producing Member States (the Netherlands, Belgium and the UK) and in the range of US\$ 660-750 per tonne on average for the entire EC. These figures point at a considerable profit margin per tonne, especially for low cost producers in the EC.

Reasonableness of final consumer prices

There are considerable differences in nominal sugar retail prices across Member States (up to 40% during the 1990s). Price comparisons on the basis of Purchasing Power Parities indicate price differences of even up to 70%. There are good reasons to believe

that existing price differences between Member States may be perceived as unreasonable by consumers.

Price differences are difficult to explain by differences of production costs or scarcity arguments. The relatively high level of retail prices in some Member States and especially the differences in levels between Member States are less related to the CMO Sugar than to other factors. The ex-factory price of sugar is but one cost item that matters in determining the retail price. Differences in costs, profit margins and competitive pressures in the distribution and retail sectors between Member States are most likely the main causes of the observed differences in retail prices.

Competitive position of sugar and other sweeteners

Of all sweeteners, presently only High Fructose Syrups (HFS, or isoglucose) can be considered as a real *potential* substitute for industrially used sugar. Cost competitiveness of HFS relative to sugar in the EC has improved in recent years, predominantly due to (i) a reduction of the raw material input cost (wheat and corn), and (ii) technical progress, which have made it economically feasible to use potato and wheat as raw material.

The existing quota system under the CMO Sugar has prevented HFS production increases and HFS becoming a real threat to the EC sugar industry. The current production volume of HFS in the EC is only approximately 2% of the total quantity of sugar produced in the EC.

Inulin syrup is produced in the EC only. It has been developed as a response to the high price of sugar in the EC under the CMO Sugar. Inulin syrup producers do not use their entire quotas, which is an indication that production, at *current* cost and price levels, is only marginally profitable. Inulin syrup can therefore not be considered as a serious threat to the competitive position of sugar.

The other sweeteners - polyols and high-intensity sweeteners - do not form a threat to the competitive position of sugar either. Although some of them are much cheaper than sugar in the EC, the functional properties and the use of these sweeteners are for a great deal different from sugar. However, technological developments, which improve the functional properties of the sweeteners concerned, could enlarge the range of possible applications and thereby increase their competitive position vis-à-vis sugar in the future.

Price differentiation between A, B and C-sugar and external competitiveness

When the average cost of production of refined *beet* sugar is taken as a basis of comparison, the EC is a medium-cost producer on average, while some Member States produce at notably lower cost (the Netherlands, the UK and Belgium). When compared with refined *cane* sugar the EC is not competitive. The average production costs in the EC are 1.8 to 2.3 times higher than those in the major cane sugar exporting countries.

Surplus quota sugar can be sold profitably on the world market due to the system of export refunds and production levies. The difference between the world market price and the intervention price is covered by the export refund.

Due to the relatively high prices of quota sugar in the EC, sugar producers in the EC are able to recover most or all of the fixed and overhead costs through the sale of quota sugar. As a consequence, producers are able to produce and export C-sugar profitably as long as the world market price is higher than the marginal costs of producing C-sugar.

Income derived from sugar beet production

During the 1980s and early 1990s, gross and net margins of beet production per hectare have developed favourably, despite decreasing real beet prices. Lower production costs and increased efficiency contributed to a higher net result. The upward trend came to an end in the course of the last decade, mainly due to the (further) decrease (in real terms) of the basic beet price. Looking over a period of 20 years, margins per hectare obtained from beet production have been fairly stable, despite the decrease of the real beet prices. In view of the fact that beet prices are fixed under the CMO Sugar, it can be concluded that the CMO Sugar has protected and maintained the level of the margins per hectare derived from sugar beet production. Reductions of the real beet price were not higher than the gains in terms of yield increases and cost reductions.

Gross margins of sugar beet production compared to gross margins of wheat and maize production

The gross margin per hectare of beet production has improved relative to the gross margin of wheat production in the Northern Member States (including France) and maize production in the Southern Member States during the 1980s. This was mainly caused by the fact that the price ratios of beet/wheat and beet/maize increased. During the 1990s the trend reversed. The ratio of the gross margins per hectare of beet/wheat and beet/maize declined, mainly due to the decline of the effective gross revenue per tonne of beets and the increased effective gross revenue per tonne of cereals. The latter is caused by the relative attractive world market prices of cereals in the mid-1990s and the area subsidies for cereals, which more than compensated the decline of the intervention prices of cereals. Nevertheless, beet production is still financially more attractive than growing cereals in terms of gross margins per hectare.

Impact of the CMO Sugar on farm income of sugar beet producers

Most of the farms growing beets generate higher incomes than farms not growing beets in terms of Farm Net Value Added (FNVA) and Family Farm Income (FFI), both in terms of the total amount of the farm as well as per working unit and (in most cases) per hectare. This can be explained by the relatively favourable gross margins of sugar beet production compared to that of the production of other arable crops. Obviously, the CMO Sugar has had a significant impact on the attractive profitability of beet production, particularly by protecting relatively high beet prices and providing a secured market in the EC. As such the CMO Sugar has greatly contributed to improving the income of beet growers as compared to farmers not engaged in beet production.

Time series of farm income data of a number of Member States over the period 1989-91 to 1994-96 indicate that, on average, the percentage increase of the income of beet farms was lower than the percentage increase of the income of non-beet farms. Thus, the income of beet farms deteriorated in relative terms. Although comprehensive farm income data are not available regarding the 1980s, it can be assumed that during that period, the income of beet farms improved relative to non-beet farms, because during the 1980s the ratio of 'gross margin of beet/gross margins alternative crops' increased.

Impact CMO Sugar on different categories of sugar beet producers

Farm incomes per hectare are higher when the degree of specialisation in beet production is higher (defined as beet area as percentage of total area). That positive effect is caused by the relatively high gross margin derived from beet production, which is attributable to the CMO Sugar for a great deal. This relationship could not be established for farm income per work unit.

In the UK, France, Sweden, Finland, Denmark and Germany, beet farmers have relatively large beet areas per farm. Thus in those countries the benefits of the CMO Sugar per farm are larger than in the other Member States.

The degree of specialisation in beet production per farm is highest in Finland, Italy, Portugal, Greece, Belgium and the Netherlands. Thus in relative terms the CMO Sugar is of more importance to the beet farmers in those Member States than beet farmers in other Member States.

The percentage of all farmers in a particular Member State engaged in beet production is relatively high in Belgium, the Netherlands and Denmark. Thus in those Member States a large percentage of the farmers can benefit from the CMO Sugar

Impact of C-beet production on total income derived from beet production

Most beet farmers plant a number of hectares of beets sufficient to produce their entire quota even in case of unfavourable weather conditions. Because weather is not always and everywhere unfavourable, there is generally a structural overproduction equal to 6% of the quotas on average. This 'unintended' C-beet production contributes by definition to the total income derived from beet production, because any surplus produced on the hectares planted to meet the quotas can be considered as an additional income with hardly any additional costs.

In the case of intentionally produced C-sugar, the gross margin has to be higher than the variable costs of beet production in order to contribute to total beet income of the farmer, assuming that all fixed costs are covered by the revenues from the production of quota beets. In most Member States the gross margin of C-beet production was positive during the 1990s and C-beet production contributed thus to the total income derived from beet production. However, in 1998 the gross margin of C-beet price had dropped to close to zero and was possibly negative in some regions.

The decision of a farmer whether or not to grow C-sugar (intentionally) depends on the question whether the gross margin from growing C-beets is higher than what can be earned from growing an alternative crop. When using average EC figures, it appears that during the 1990s gross margins of C-beet production were mostly smaller than the gross margins of wheat or maize production. However, when analysing the figures of a typical C-beet producing Member State like France, it appears that the gross margin of C-beet production was higher than the gross margin of wheat production in the years 1993 to 1997. However, not any more in 1998 due to the low C-beet price caused by the decline of world market prices for sugar.

Concentration of sugar beet production

The original allocation of B-quota, in the 1970s, favoured regional specialisation. Since the early 1980s quotas per Member States have not been changed any more, while there was also very little change in quotas per beet processing firm and per farm. As a consequence (further) regional specialisation was hardly possible.

The price incentive system of the CMO Sugar did not favour regional specialisation. In fact the price system favoured regions less suitable for beet production through a more favourable B/A quota ratio, regional premiums and national aid programmes. As a result gross revenues per average tonne of quota beet were higher in the regions less suitable for beet production than in those more suitable for beet growing.

The average level of specialisation of beet farms in the ECD, in terms of percentage of agricultural land used for beet cultivation, has decreased slightly from 13.1% to 12.6% (from 1990-1997). This is caused by the fact that, given the fixed quotas and the increasing yields per hectare, farmers will use a smaller percentage of their total land for beet cultivation. Thus, the CMO Sugar has had a slightly negative impact on the concentration of production in terms of degree of specialisation.

Concentration of sugar industries

A major process of concentration has taken place in the European sugar manufacturing industry. In eight Member States sugar manufacturing is now taken care off by one company only, while in three other Member States a single company controls more than 60% of the sugar production.

Technical change and a search for decreasing overall production costs were the main driving forces of the process of concentration. The CMO Sugar has stimulated and facilitated that process by assuring stable market conditions (prices and volume). On the one hand these stable conditions provided the companies with a more or less stable cash flow, which made it easy to take decisions on new investments. On the other hand the fixed prices and quotas made that profits could not be increased through increases of volumes or output prices. Thus the only option for improving financial performance was reducing production costs, particularly through concentration of processing in large plants.

However, concentration has not occurred everywhere. There are still 46 small processing plants in the EC. As far as these small plants are located in regions less suitable for sugar production, their continued existence can be explained by the fixed quotas allocated to them, and in some cases also by national support programmes (sanctioned by the CMO Sugar). In these cases, the CMO Sugar impedes further concentration of processing capacity. The relatively high number of small processing plants in France is mainly caused by ownership structures rather than the CMO Sugar.

Enlargement of the average scale of production has had a negative impact on labour intensity and employment. Decreases in direct employment in the EC sugar processing industry (12% in the last 3 years) can only be ascribed to the CMO Sugar in as far as the latter has speeded up the process of concentration and scale enlargement.

Adequate distribution of production between Member States

Whether or not the distribution of sugar production is adequate depends on the (implicit or explicit) objectives of the CMO Sugar regarding distribution. If it was the objective that each Member State should reach a self-sufficiency ratio of at least 100%, the distribution of sugar production in the EC can be judged as adequate. Only three Member States (Portugal, Spain and Greece) have a self-sufficiency ratio slightly less than 100%, while the ratios of Sweden and Finland are close to 100%. The ratios of the other Member States are substantially higher than 100%, even up to 200%.

If it was the objective to concentrate sugar production in regions with the strongest comparative advantage in sugar production, the distribution of sugar production can be judged as *modestly adequate*. About 69% of the total EC sugar production is produced from beets grown in regions that have an average sugar yield per hectare higher than the average sugar yield per hectare of the entire EC.

If it was the objective to reach a self sufficiency ratio of 100% in all Member States and that the surplus production should be distributed as much as possible on the basis of comparative advantages, the distribution of sugar production can be judged as *adequate*, because there is a positive correlation (of 62%) between the sugar yield per hectare and the self-sufficiency ratio of Member States. Thus, Member States with high yields have relatively high levels of surplus production.

The relatively high surplus of quota production in Member States with high yields per hectare is caused by the CMO Sugar because:

- (i) originally the level of A-quotas was based on historical production figures, which were already the result of a certain degree of regional specialisation based on comparative advantages, and;
- (ii) Member States with high yields got a relatively high B-quota on top of the A-quota.

Thus, the CMO Sugar has preserved the level of specialisation existing at the time the quotas were fixed (during the 1970s). At the same time, the CMO Sugar prevented further specialisation, as far as quota sugar was concerned, because the quotas have not been changed since 1981. Further specialisation at the level of individual Member

States was only possible through the production of more C-sugar. Such a specialisation has indeed materialised because there exists a positive correlation between the volume of C-sugar production and the average sugar yield per hectare per Member State.

Budgetary Impact of the CMO Sugar

In about 10 years time, the gross expenditures of the CMO Sugar (including storage refunds; excluding non-annex I products) have decreased from about 8% of the EAGGF budget to on average 4.3% in recent years (5.4% including non-annex I products). The net budgetary costs of the CMO Sugar, thus gross expenditures minus levy and duty receipts (excluding non-annex I products), have declined from about 2.4% of total EC expenditures about 10 years ago to on average 0.9% in recent years (1.1% including non-annex I products). About 80% of these net costs originate from the export refunds of exporting a quantity of sugar equivalent to the preferential imports of sugar.

The administration fee withheld by the Member States (10% of the levy receipts) are not included in the calculations for determining the levels of the production and storage levies. Consequently the administration fees add to the EC's budgetary deficit of the CMO Sugar. There are no logical reasons why this administration fee should not be covered by the levies because it is part and parcel of the implementation of the CMO Sugar.

Suppliers of Preferential Sugar receive the intervention price, in some cases reduced with an amount equivalent to a highly reduced duty to be paid by the purchaser. The main justification for paying a relatively high price for the import of preferential sugar is that the implicit subsidy should be seen as a sort of development aid. It is logical therefore that the costs of that system, in the form of the export refunds for exporting an equivalent quantity, should be financed from EDF resources.

The Storage Costs Equalisation Scheme

EC's net budgetary costs of the Storage Costs Equalisation Scheme (SCES) are equal to the 10% administration fee withheld by the Member States; presently about 30 million Euros per year. Furthermore the CEC and the companies experience costs in administering and implementing the scheme. The benefits of the system are said to be stable prices throughout the year. However, in the absence of the SCES, the sugar companies and traders will design their own storage costs equalisation systems in order to avoid price increases caused by storage costs throughout the year. In case there will be no equalisation system, price increases due to storage costs will be no more than about 6% throughout the year. Thus the benefits of the SCES are meagre and do not justify the costs. It is advised to elaborate a plan on how the SCES could be phased out.

When the SCES would be abolished, a new financing arrangement has to be designed for the minimum stock requirement, in case that instrument will be maintained. Commercial entities should be compensated for additional storage costs when they are required to keep minimum stocks at a higher level than the stocks they would keep on the basis of commercial considerations.

The fact that C-sugar carried forward to the next season (and then becoming quota sugar) qualifies also for storage costs refunds is not logic in view of the objectives of the CMO Sugar in general and of the SCES in particular. The main argument against this arrangement is that there is no need, in view of stabilising markets and/or securing sufficient supply, to carry C-sugar forward to the next season. Moreover, this facility might stimulate C-sugar production at the costs of a higher storage levy imposed on quota sugar production.

The CMO Sugar, regional development and social cohesion

The CMO Sugar has preserved beet production in regions less suited for it, through the system of fixed and non-tradeable quotas. As such the CMO Sugar has contributed to regional development. The other side of the coin is that preserving beet production in regions less suitable for it, works against (further) concentration of beet production in regions with a comparative advantage in beet production.

The CMO sugar has not made a specific contribution to the Economic and Social Cohesion Policy of the EC, because beet growing was not particularly concentrated in the Priority Regions at which that policy was focused. Moreover, in most of the Priority Regions where beet was grown, the profitability of beet production and the level of specialisation in beet production was less than the EC average. The Priority Regions were also over-represented in the category of regions that experienced a decrease of sugar production between 1990 and 1997.

Looking at the financial solidarity principle of the CMO Sugar, it can be noted that four Member States (Germany, the Netherlands, Austria and Sweden) are net-payers of the financing system of the CMO Sugar, while France, Belgium, Italy and the UK are the largest net-receivers. Many beet producing Priority Regions are situated in three Member States which are also net-receivers (Greece, Portugal and Italy). Those Priority Regions take thus advantage of the financial solidarity principle.

In terms of income transfers from consumers to producers across Member States, it is noted that consumers of sugar importing Member States (Spain, Greece, Portugal and Sweden) indirectly subsidise farmers in other Member States, through the relatively high sugar prices. Because almost all regions of these four Member States are Priority Regions, the direction of this income transfer is mostly in contradiction with the aim of Economic and Social Cohesion Policy of the EC.

The CMO Sugar has allowed Italy and Spain to provide special national support to the sugar industry. Because a substantial part of those national aid programmes is aimed at Priority Regions in Italy and Spain, the national aid has supported the Economic and Social Cohesion Policy of the EC.