GOVERNMENT SERVICES

DECEMBER 2007

Directorate General Agriculture

Evaluation of market measures in the beef and veal sector

Executive summary

ERNST & YOUNG

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In cooperation with AND International and the French Livestock Institute

This study was funded by the European Commission and was carried out by Ernst & Young Government Services, in cooperation with AND International and the French Livestock Institute. The points of view presented here are the authors' alone and do not necessarily reflect those of the Commission.

The evaluation of market measures concerning the Common Market Organisation was conducted by the Ernst & Young – Government Services firm, in cooperation with the AND International firm and the French Livestock Institute, between the months of January and November 2007.

1 Presentation of the measures and objectives of the evaluation

1.1 Summary of sector characteristics and presentation of market measures

- **Europe produces 12% of world output and is no longer self-sufficient since 2002**

With an output of eight million tons, the production of beef represents 19% of the total production of meat in the European Union, far behind pork (51%) and poultry (27%). At the world level, the European Union is the third producer of beef, after the United States and Brazil. Production of beef in the European Union represented 12.3% of world production in 2005.

During the period of the study (1990 to today) the terms of commercial exchanges have reversed: whereas Europe exported more than 1 million tons in carcass weight equivalent (CWE) until 1997, it dropped into deficit after 2002. Despite two BSE crises (Bovine Spongiform Encephalopathy), European consumption did not drop between 1994 and 2005.

- **A substantial share of the European Union's agricultural budget**

At more than 8 billion euros in 2005, the weight of expenditure for beef in the EAGGF-Guarantee doubled between 1994 and 2005, from 10 to 20%, in particular by the introduction of direct aid (special male premium, suckler cow premium, extensification payment).

The budget devoted to market measures represented 83% of expenses in 1989 (i.e. 2 billion euros) versus 5% in 2005 (i.e. 400 million euros), direct aid making up most of the expenditure.

The main beneficiaries of the market measures are the big producers: France, United Kingdom, Germany, Ireland and Spain. Slovenia and Poland alone receive 74% of Union expenditure towards new Member States, for beef.

- **Five types of measure**[1]

The market measures concerning the Common Market Organisation for beef, set up progressively from 1964, groups the following measures:

- **The public intervention purchase** consists of buying meat by national intervention organisations to remove meat surpluses from the market and therefore, by rationing supply, maintaining prices.
- **Export refunds** are allotted to exporters depending on changes in price in the member country and in the world market for certain products, and vary according to the destination of the product.
- **Customs duties "ad valorem" and fixed or variable levies**, the setting of which is designed first, to note and to some extent control the prices of imported products, and to constitute a financial resource for the Community.
- **The tariff quotas** are specific volumes of imported products, subject to reduced customs duties, thus favouring access to the European market.

[1] Assistance to private storage is not covered by this evaluation

– **The exceptional measures** taken in the context of the BSE crises are designed to balance the market, following a brutal drop in demand.

So-called measures "related" to the market measures were also integrated into the analysis: The classification and observation system for carcass prices, the traceability of live animals and meat products, the promotional and information campaigns, the health and animal welfare measures.

Until 1993, the refunds and storage operations represented most of CMO expenditure. From that date, public storage decreased greatly and direct assistance progressively took on a more important share in the budget of the CMO (95% of CMO expenditure in 2005). The exceptional BSE measures set up in 1996 constitute a large part of the expenses devoted to the market measures from that date.

Table 1 – Changes in amount of expenditure related to market measures between 1989 and 2005

millions of euros	Export refunds	Public and private storage	Direct aid related to BSE	*Total share in CMO beef expenses*
1989	1 343	663	-	*83%*
1990	1 110	998	-	*74%*
1991	1 282	2 312	-	*84%*
1992	1 333	2 191	-	*80%*
1993	1 711	1 383	-	*78%*
1994	1 708	-209	-	*43%*
1995	1 761	-215	-	*38%*
1996	1 559	621	1 047	*48%*
1997	1 499	750	1 079	*50%*
1998	774	145	498	*27%*
1999	595	-37	342	*20%*
2000	661	-83	322	*20%*
2001	363	326	513	*20%*
2002	387	104	640	*15%*
2003	296	3	254	*7%*
2004	251	-8	227	*6%*
2005	159	0	231	*5%*

Source : DG Agri - EAGGF-Guarantee expenditure

1.2 Objectives of the evaluation and its scope

The evaluation focuses on the measurement of effects of market measures on the market balance, the stability of prices and the internal and external competitiveness of European beef. Additionally, it then tries to analyse the consequences at the micro-economic level, on producer income and on their behaviour and analyses the other effects of the measures (on public and animal health, the preservation of farms in less favoured areas).

These analyses are used to judge the relevance of the objective of stabilisation of market measures given recent developments in the CAP and to assess the effectiveness of these measures for production and, more globally, for the economy.

The evaluation covers the period 1990 to now and the European Union with 25 members (EU-12 until 1995, then mainly EU-15 over the rest of the study period, related to the lack of recent data). However, the major reforms on market measures adopted during the period (three reforms of the CAP and the BSE crises), four sub-periods were identified: 1990-1992, 1993-1999, 2000-2003 and 2004 to today.

1.3 Evolution of context and measures over the period

The first period, 1990-1992, corresponds to the final period of the old CAP where priority was given to support of agricultural production via price supports. This period was marked by the entry of the ex-German Democratic Republic into Europe, entailing a temporary surplus of

supply related to the massive slaughter of cull cow, and overuse of the intervention mechanism.

The second period, 1993-1999, was characterised by the implementation of a new agricultural policy, based on income supports for producers via combined direct assistance that took over from the income supports by price, consistent with the signing of the GATT (WTO) agreements, which restrict the utilisation of two market measures: Export refunds and border protection. In 1996, the first BSE crisis created a profound shock throughout the beef sector which justified the implementation of exceptional measures and the reactivation of intervention purchases.

The period 2000-2004 corresponds to a transition period marking the end of the regime of price supports with a drastic drop in the intervention price, reduced to a safety net in 2002. The Agenda 2000 reform outlines the next reform. The BSE crisis in 2001 led to the application of new exceptional measures.

The last period, 2005-2006, corresponds to that of the current policy, the main innovation of which is the decoupling of aid. However, the uniform application of this principle dilutes over time and space its effects on livestock farmers' production choices. The member states that chose to keep the coupling of SCP represent 61% of the suckling herd. About the market measures, intervention and OTMS[2] are no longer active. The safety net remains a usable reference in case of crisis, but it has not been used during the last few years. Customs duties and import quotas remain unchanged.

2 Method and tools

2.1 The chosen approach

The evaluation was broken into three phases:

- A structuring phase to establish a typology of cattle farming using Europe's FADN[3] , characterise the logic of when the scheme is to be implemented, and define an analytical method to respond to evaluation questions.
- An observation phase by conducting interviews, studying regional cases and by leading an inquiry of the national authorities.
- An analytical and judgement phase to come up with responses to evaluation questions based on statistical analyses and results from data collecting in the field.

2.2 Data used and analysis tools

The statistical analyses are based on different sources of quantitative data:

- physical and financial monitoring data supplied by DG AGRI: Financial data from EAGGF – Agriview databases
- micro-economic data on farms making in-depth use of the FADN database
- price data collected from DG EUROSTAT and DG AGRI (community prices), and at the national level (consumer prices, Argentine and Australian prices)

[2] Over thirty months scheme: elimination from the food chain of animal meat older than 30 months compensated financially for livestock farmers. Article 39 of Council regulation 1254/1999

[3] The Farm Accountancy Data Network (FADN) is an instrument used to assess farm revenue and the impact of the common agricultural policy.

– Physical data on import and export volumes supplied by the COMEXT and COMTRADE databases.

The quantitative data was supplemented by qualitative data via interviews conducted face to face in the nine member states most concerned by the measures and Poland, by a questionnaire survey for the 6 other member countries of EU 15 (3 answered) and by five case studies (Ireland, Cornwall in England, Pays de la Loire and Burgundy in France, Venetia in Italy and Bavaria in Germany). A questionnaire was sent to the national authorities of the new member countries.

Finally, using the FADN, the impacts on income are qualified according to a suggested typology of 5 farming groups based on the farming system employed: suckler farms, fatteners, pure milk farms, milk+ meat, very small farms.

2.3 Analysis tools and limitations

The evaluation met several obstacles that led to the formulation of hypotheses and the reorientation of methodological choices.

■ **Limits due to the sources used:**

– The average EU prices are representative of the general trends within the Union, but blur the diversity of situations.

– The intracommunity commerce data is partial since the establishment of the single market: the calculation of national consumption per results is unreliable.

– Certain comparisons are made between the price trends of carcasses and those of cuts prices, the only way to compare retail prices and slaughterhouse entry prices[4].

– The FADN also shows some operating limits (absence of correspondence between FADN regions and NUTS regions in some cases, no availability of data after 2004, etc.): The microeconomic developments over the recent period are integrated only through certain comments.

■ **Analyses and limitations at the macro-economic level**

The main limitations to this evaluation are in the constraints on time and resources devoted to the evaluation, which do not permit the development of econometric estimation models of the net impact of the measures. Pragmatic approaches and initiatives were emphasised.

– The multiplicity of explanatory factors for the evolution of market prices limits the possibility of isolating the effects of market measures.

– Prices are results whose formation differs substantially from production and from one sector to another or even one season to another.

– The external factors (life of the dairy sector, direct aid to the beef sector, consumption crises) are very important. Some of these effects (changes in the dairy herds, drop in beef consumption) can mask the specific effects of the market measures.

– In the absence of recent and usable work on the elasticity of demand and supply, it is not possible to have a quantified approach of the market measure effects on prices or of prices on volumes consumed.

[4] Since livestock farmers do not sell cuts and consumers do not buy carcasses. Also, the quotation of Argentine cattle is based on carcasses and their sales in Europe are muscles

■ **Analyses and limitations at the micro-economic level**

– Very small farms with very small herds and who take most of the production from other markets and from specialised farms such as dairy farms + major crops that depend on several CMOs were not selected in the proposed analyses

– A pragmatic approach based on cost/benefits analyses was used in order to determine the efficiency of the measures, both on production and on the overall economy.

■ **Limits of relevance analysis of the market stabilisation objective**

The purpose of the operation was not to conduct the a priori evaluation of the measures and instruments of the post-2003 CAP and make a preliminary evaluation of the probable impact on market stabilisation (balance between supply and demand, price stability), but only to determine the links of complementarity, contradiction, or redundancy between the objective of market stabilisation and each objective of the new CAP, using the results of this evaluation.

3 Summary of analyses

3.1 Impact of measures at macro-economic level

3.1.1 Impact on market balance

The implementation period for the market measure reforms was followed by a progressive reduction of surpluses from the beef market.

■ **Proven effects on market balance**

At the beginning of the study period (1990-1992), the market measures played a crucial role in balancing the market, particularly because the intervention and the export refunds concerned respectively 12% and 14% of European production thus making up for a major structural outlet, which weighed heavily on the European budget. The evaluation identifies qualitative deadweight effects regarding exports: some of the meats could have been exported without refunds.

The 1992 reform limited the intervention stocks and the market measures played a strong part in balancing the market during the two BSE crises of 1996 and 2001, by withdrawing surpluses either permanently or on a temporary basis. The related measures facilitated the resumption of consumption after these crises. The refunds continued to represent a major part of European production, providing the countries who had surpluses, to benefit from an outlet for a part of their production. This role fades after the reform of the 2000 Agenda which saw a significant drop in the volumes exported with refunds, and a decrease in the level of refunds.

Over the last period, since 2002, moving to a situation of market deficit has reversed the situation. Consequently, the measures related to imports (customs duties and tariff quotas) take on a greater importance.

■ **A market balance dictated by the dairy sector and stimulated by direct aid**

Modifications in the herd remain the prime factor in explaining beef production. The beef market measure reforms had no effect on the development of the dairy herd and did not prevent the restructuring of the dairy sector. But the exceptional BSE measures, by preventing a drop in beef prices, slowed down the trend towards a decrease in the dairy herd.

The suckling herd increased significantly until 1996 and then stabilised because of changes in direct aid policy. The market measures, modified after 1992, maintained an incentive to produce beef, thus slowing down the rise of the average productivity of dairy cows and encouraging owners of suckler cows to maintain a number of heads higher than the number of bonuses. Without this incentive effect, gross indigenous production would have been, at the scale of a 15-member European Union:

- higher by about 330,000 tons in CWE in 1992 and 1993 [5],
- then lower by 240,000 tons in CWE from 1994, the difference growing regularly to reach 900,000 tons in CWE in 2001.

The end of intervention and the decrease in refunds encouraged livestock farmers to modulate the increase in weight of carcasses to better meet the needs of the EU internal market.

3.1.2 Impact on price levels and stability

■ **Prices that follow the levels of institutional prices at the beginning of the period**

At the beginning of the study period, institutional prices served as a reference price for the community market: the price of young cattle is close to the threshold price for intervention. This phenomenon is partly explained by the volumes involved with intervention purchases that make intervention the top outlet for European production. The variations observed on institutional prices are reflected by the market price of young cattle, which has a ripple effect on the price of other categories of cattle. Despite the 1992 reform and the drop in the intervention price, the institutional price remains a reference for the second period (1992-1999).

■ **A disconnect after 2002: Customs duties keep prices high**

In 2002, the intervention threshold is lowered to the level of the safety net. This level led to a significant disconnection between low institutional prices and the price level for young cattle: The price level (in list prices) increases after 2002 to a level similar to that of 1990, particularly because of the level of self-sufficiency that decreased over the period leading to deficit market.

Customs duties were maintained at discouraging levels at the beginning of the period (€3,060/t), playing an important part in supporting community prices, then they decreased after 1992 to reach, in 2002, €1,770 /ton, i.e. 126% of the safety net. The Marrakech agreements in 1994 put an end to variable debits. At the end of the period, by slowing imports, they helped to maintain a price difference between the community market and the world market.

Refunds constitute one way to value cattle carcasses, but they have no strong influence on price levels as the value of the volumes exported is lower than on the community market.

A counterfactual analysis is used to estimate the price difference allowed by market measures, using an estimate of floor prices corresponding to the expected price of beef in the absence of market measures. The table below shows the average prices of two substitute products and offers hypothetical floor prices according to period.

[5] It amounts to 8582 millions tons in CWE in 1992, 7798 million tons in CWE in 1993 and 7286 million tons in CWE in 2001.

Table 2 - Hypothetical floor prices

Period	Average novillo price*	Average price of EU pork	Market price of cow O3** - EU	Market price of young bull R3***	Cow floor price	Young bull floor price	Difference in % cow	Difference in % young bull R3
1990-1992	150	139	217	296	**139**	**150**	**56%**	**97%**
1993-1999	158	129	228	270	**129**	**158**	**77%**	**71%**
2000-2004	158	143	186	232	**143**	**158**	**30%**	**47%**
2005-2006	134	141	221	290	**141**	**156**	**57%**	**86%**

* With transport to EU – period 1: 91-92 (AND estimate on FAO source). ** Period 1 and beginning period 2: Germany

*** Period 1 and beginning period 2: France Sources: AND according to SENAPA - EUROSTAT – FAO

The figure, as well as the use made of them, should be taken with precaution. They are, in fact, the lowest floor prices[6] imaginable for extreme values. By integrating these floor prices into the calculations of the effects of market measures on livestock farm revenues, an estimation of the maximum effect on these revenues can be obtained.

3.1.3 Impact on competitiveness

The competitiveness of European beef is studied from two angles: The competitiveness of beef in the internal market compared to other meats and the competitiveness of European production on the world market.

- **A competitiveness upheld in the internal market**

The balance of the market in terms of price and volumes made possible by the measures, has not encouraged any improvement in internal competitiveness: the period is characterised by a loss of market share for beef in favour of white meats and by a decrease of individual consumption in most of the large member states.

Tariff quotas allow producers exporting to the European Union to make substantial profits.

Some of the answers provided by producers (development of industrial units for sale to consumers, innovation/diversification) and the setting up of quality assurance systems have helped to maintain the attractiveness of European beef on the internal market, in connection with the related measures.

- **But a loss of competitiveness in the world market**

Conversely, in the external market, the competitiveness of European production is very low given the price levels of beef on the world market. Only export refunds enable EU meat to remain competitive. Between 1990 and 1992, high refund levels, sometimes representing up to 50% of the intervention threshold, enabled European meat to find outlets, in the context of selling off surpluses. The decrease in refund amounts after 1995, was simultaneous with the reduction in exports, also caused by the reduction in available supply.

During the third period (2000-2004), European prices became partially free of institutional prices and veered strongly away from world rates (the reference of which is the Argentine

[6] This analysis is limited in two ways: 1. The hypothesis of European meat at Argentine prices supposes that EU demand decreases greatly or that the MERCOSUR players increase their production by 20 to 30% within 2 years. If the final outline for establishing the "world price" in Europe, combined with maintaining consumption, on the basis of 30 to 50% imports from MERCOSUR, can be imagined, there is no way it can be set up in less than 4 or 5 years. During this time period prices can vary greatly. 2. Moreover, the hypothetical elimination of beef market measures supposes that this would be identical for pork, the price of the latter would also decrease because of more competitive costs in western hemisphere countries, which would lower the floor price.

price) greatly reducing the competitiveness of European meat, despite persistent refunds. Sales then focused on Russia, to sell off products difficult to sell in the EU. The end of some refunds in 2006 led to the demise of certain exchanges, such as livestock sales.

European meat is competitive, without refunds on the world market, during the last period, to the extent of 1% of European Union production.

3.2 Impact of measures at a micro-economic level

3.2.1 Impact of measures on farm incomes

From 1992 to 2000, revenues drawn from the market per agricultural work unit (AWU) remained lower in constant euros than their level at the beginning of the period, mainly because of a negative price effect not compensated by the effect of the volume per AWU (in growth). After 2000, revenues per AWU progressed significantly under the combination of a positive price effect and an equally favourable volume per AWU.

- **Market measures provide a significant revenue surplus during the entire period**
  - The surplus paid to producers from the market measures correspond to 45% of revenues per farm at the beginning of the period (1990-1992) when all instruments were activated. Despite the decrease in market support and the drop in institutional prices after 1992, the maintenance of customs duties alone sustained a revenue surplus attributable to market measures estimated at 33%, corresponding to a significant part of income per family AWU: 45% at beginning of period, 22% at end of period[7].
- **But remuneration with strong links to direct aid at end of period**

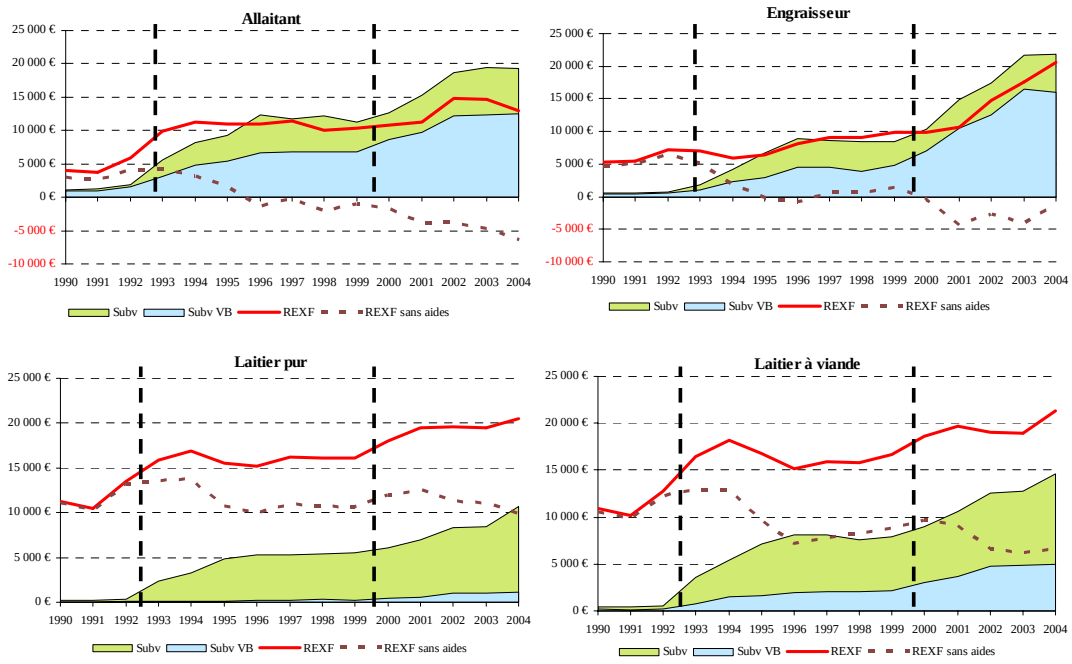
These results should be analysed sector by sector and with caution, especially because the indexes of price and gross added value per AWU tend to decorrelate during the period. The balance between direct aid and revenues drawn from the market has changed over the evaluation period, consistently with the successive reforms of the CAP: aid now provide a substantial part of farmers' remuneration.

- For fatteners, after 1995, family farm income is lower than total aid, which leads to a deficit in farm operating income taken from the market (excluding aid). The decrease in market support has made these cattle producers much more dependent on direct financial assistance, which provides a substantial part of their remuneration. Thus, the market contribution[8] to fatteners' income amounts to 33% in 2002-2004, compared to 95% at the beginning of the period.
- For suckling farms, this contribution amounts to 25% in 2002-2004 vs. 87% at the beginning of the period.
- For pure dairy and "milk + meat", in 2002-2004, again 77% and 67% of resources are from the market. They alone maintain a positive family farm income without aid.

[7] This estimation of revenue share of producers attributable to market measures is limited in several ways: 1. First, the difference between the floor price and community price corresponds to a maximum difference, assuming that the total difference between the two prices is attributable to market measures (see demonstration shown previously). 2. Also, the analyses do not integrate the restructuring effects of the market that might affect the sector in case of significant price decreases.

[8] Via the gross operating added value (product of sales minus intermediate consumption)

Figure 1- Compared evolution of subsidies and farm operating income between 1990 and 2004 (Suckling farms, Fatteners, Dairy farms, Milk + meat)



Source : FADN

- **High budgetary efficiency, economic efficiency degraded by the latent loss of farm productivity**

The budgetary efficiency of market measures seems strong: for 1 euro invested (cost of market measures), the impact on farm resources is 3.6 euros at beginning of period and increases to 6 euros at end of period. The budgetary efficiency therefore improves over the 2000-2003 period, mainly under the effect of a decrease in the costs of market measures.

Although they provide effective leverage at the budget level, their economic efficiency on incomes appears much more limited: integrating the loss of productivity[9] induced by the absence of competition with products from the world market at significantly lower prices, the ratio of economic efficiency is lower than 1 over the entire evaluation period. This means that the cost of market measures (budget cost + latent productivity gains) exceeds the gains provided by price supports.

3.2.2 Modification of income distribution

The reduction in market support was compensated by the setting up of direct financial assistance, which significantly modified the distribution of revenues between the various farm categories between regions.

[9] The loss of productivity of meat production (latent efficiency gain) is integrated by considering that the intermediate consumption per beef LU would be at the best quartile level of European production, excluding "pure diary", in a hypothetical market without market measures. The hypothetical best quartile remains conceivable despite the inequalities in production costs related to the socio-economic characteristics of each member country. We thus compare the intermediate consumption level per LU of all farms with that of one quarter of the most productive farms at time t, supposing that all livestock farmers could have reached this level of productivity if they had been forced to by policy and economic conditions. With this intermediate hypothesis (common process in this type of approach), we maximise "the latent loss of productivity"

- **A change in the revenues of beef cattle, which benefited to suckling farms, but was independent of market measures**

During the period, changes in revenue from beef have been to the advantage of suckling farms for two reasons:

- direct aid has increased the attractiveness of suckling farms leading to an increase in the size of the nursing herd in Europe;
- also, a decapitalisation of the dairy herd has occurred, related to both the massive slaughter of milk cows from East Germany and the increase in productivity of cows combined with the capping of quotas.

This new distribution of revenues from beef over the period has been to the advantage of suckling farms, to the detriment of dairy farms, for reasons external to market measures.

- **More revenue for the larger farms**

The distribution of revenues from beef production changed to the advantage of farms with more than 100 units of large cattle (LU) due to the increase in the number of farms of this size and a stronger growth in revenue per AWU for this class between 1990 and 2004. This development is in part due to market measures and their development during the period. Given the negative price effect on revenues until 2001, resulting in part from market measures, only the growth in volumes and improved productivity, provided by larger farms, compensated the drop in revenues from the market.

- **Changes in revenue distribution at the geographic level mainly follow the specificities of regional sectors**

At the member state level, the historic suckling and fattening regions improve their market share, in particular in France and in Italy, where the pre-eminence of the Po valley is significant. In these regions, where generally other types of production are not or little developed (mountain, seaside areas, etc.), the use of direct aid may have stimulated production. The traditionally dairy areas saw their absolute revenue level drop over the period, corroborating the results shown in the new revenue distribution between sectors.

In the UK, in Austria, in Spain, a phenomenon of concentration of beef revenues in certain historic production regions has been noted, in particular those closest to consumer markets.

3.2.3 Impact of the measures on the choices made by the producers

The growing weight of direct aid in the operating resources of livestock farmers led to a cut in the contribution of the market price effect to the income of livestock farmers. While the gross added value from the market represented nearly 98% of resources of livestock farms at the beginning of the 1990s, it was only 68% in 2000-2004, and less than a quarter of total sales, including aid, of suckling farms. In fact, livestock farmers are less sensitive to prices.

Also, the overall reduction in prices paid to the meat producers observed since 1990 until 2001 entailed the erosion of the added value taken from the market in value, and farms were led to use the volume effect to maintain the level of their gross margin. This resulted in the consolidation of the beef production sector.

In the short term, only fatteners are capable of balancing between fattening a calf and the sale of their cereal production and are thus naturally more sensitive to variations in market prices.

In the long term, market reaction is also seen by the levels of investment practiced, which indicate the confidence of producers in the sector. The investment effort[10] went from 32.3% in

[10] ratio of gross investments excl. subsidies, out of total gross added value from the market and direct production aid

1990-1992 to 30.6% in 1993-1999 for the entire beef sector, illustrating the lack of improvement in production resources.

If the dairy farmers, for requirements specific to dairy production, maintain a high level of equipment, suckling farms and especially fatteners, have reduced their investments over the period 1990-2000. The decrease in profitability of beef and the growing importance of direct aid suggest that livestock farmers are reducing their structural risk related to price reductions: They are not encouraged to take on debt due to the security represented by aid and the poor prospects of the market.

3.3 Other effects of the measures

The measures related to market measures, designed to improve animal health and welfare in particular, have had mixed effects, inasmuch as the effects on animal and human health are positive, but they represent a cost for the consumer.

- **Related measures are costly but supported by high community prices**

According to estimates provided by the French Livestock Institute, 741 million are spent for compliance of community production with regulations in force, i.e. €0.11/kg of beef, and €0.13/kg for veal.

- **A spillover effect on imports from constraints imposed on community meat**

Community legislation (in particular animal welfare) and the specifications required for tariff quotas ("Hilton Beef" in particular) have had a spillover effect on the legislation and practices of the countries for which the EU market is a priority, despite real progress being slower than officially acknowledged.

- **Effect on development of underdeveloped areas unproven**

Market measures did not prevent herds from decreasing a little faster in underdeveloped areas than in the rest of the EU. But the herds of farms in underdeveloped areas followed overall changes observed in the Union; it is the herds of non-specialised farms which have decreased the most. The lower productivity of farms in underdeveloped areas has caught up with that in developed areas, with no link to market measures being established.

During the evaluation period, if the income of farms improved in underdeveloped areas compared to developed areas, it is direct aid that played the most significant role, greater than market measures.

3.4 Relevance of the objective of market stabilisation in relation to the new CAP

Market stabilisation, as defined in article 33 of the Treaty, in concrete terms means an objective of production price stability (limiting fluctuations and maintaining prices at a certain level) and a market balance between supply and demand. Given the recent developments on the CAP, new instruments were set up and serve new objectives. In this context, is the objective of market stabilisation by market measures still relevant?

The 2003 reform supported a readjustment of CAP objectives, focused on the following objectives defined by the Council:

- Strengthening the competitiveness of a sustainable European agriculture, more oriented towards the market;
- Stabilising farm incomes while providing stability of budget costs;
- Producing quality food commodities that correspond to the expectations and requirements of society;
- Encouraging rural development.

- **The objective of market stabilisation does not encourage competitiveness in the sector and its sustainable development**

The competitiveness analysis shown previously indicates that market stabilisation, via market measures serving this objective, constitutes an impediment to improving the competitiveness of European production and is not a factor in the development of a sustainable agriculture. However, given the characteristics of beef production (and its long cycle, in particular), the objective of stabilisation and its application via interventions limited in time are effective in crisis situations and thus seem to be necessary to prevent structural disturbances of production, the discontinuance of a farm being definitive.

- **The objective of stabilisation encourages the production of quality commodities but not reasonable prices**

Market stabilisation is an indirect response to regulatory and market requirements in terms of quality, food safety and animal welfare by facilitating the absorption of additional costs related to compliance with requirements, even if market stabilisation plays no direct role in ensuring the application of these measures.

Conversely, the objective of market stabilisation does not seem to respond to the consumer's requirement for reasonable prices.

- **A matching with the objectives of differentiated rural development by sector**

The compatibility of the objective of market stabilisation and those of rural development should be analysed in terms of sectors.

Dairy farms receive the majority of their income from milk production. The latter has a spillover effect on their beef production which thus bears more greatly meat price variations.

However, the evaluation showed that the measures applied to the objective of market stabilisation benefited more specifically to suckling farms located in underdeveloped areas where soil & climate constraints leave no choice for the type of farming. Considering that prices contribute to a significant part of the incomes for these farms, a price cut and greater price instability could threaten their survival. In that case, three outcomes are possible:

- the capacity of these farms to put forth their production, provided that the consumer is ready to pay a higher price for a better quality product.
- a change or more often an end to activities and their negative consequences on rural development: Preservation of the land and in particular fields, preservation of landscapes, maintenance of an economic activity and jobs, etc.
- the mobilisation of specific instruments of the new CAP, dedicated to the problems of rural areas. They constitute an alternative to the objective of stabilisation and a response to the problems of activity, jobs, preservation of landscapes and occupation of land in fragile rural areas, if they compensate for the price decreases following the possible discarding of market stabilisation instruments.

- **An objective not opposed to decoupling and conditionality**

Totally decoupled aid is designed to increase the capacity of farmers to react to market signals. Decoupling is not an instrument for managing supply and is linked to a more unstable market. Production, freed from its former constraints, will vary more over time and the price instability will interfere more often in producer choices.

Dairy farmers can support some price volatility, or even a decreasing price trend since their prosperity depends mainly on the milk market. Conversely, suckling farms are more vulnerable to market variations for meat and might be faced with major difficulties in adaptation in a situation of greater instability of demand and prices.

Decoupling increases the possibility of a change or a halt to activity, unless other support instruments take over.

The conditionality of aid requires a modification of production rules: It is both a factor for stabilisation of European supply (requirement for long term investments) but also an additional constraint for European farms in relation to outside supply.

3.5 Cost for the consumer and overall efficiency of measures in relation to the Lisbon Strategy

The effects of market measures on producer revenues and income were shown in the previous questions, by underscoring the fact that the additional prices[11] resulted in a gain of revenues of 45% to 33% over the period.

- **An annual cost for the consumer valued at 13% of his annual beef budget**

At the consumer's level, the cost of market measures is reflected in product prices: the additional cost of market measures is absorbed by all consumers. The annual additional cost related to market measures for the consumer is estimated at 25 euros during the first period (1990-1992), and 15 euros at end of period (2000-2003), corresponding to an additional cost of 13% in relation to the annual budget for beef for European consumers.

- **A limited efficiency for the sector, but the absence of market measures would have led to other effects**

Economic efficiency at the production level remains inferior to 1 for the overall period and thus indicates a loss: one euro invested shows a return of less than one euro for the beef production sector. The decrease in budget costs and the increase in volume effects do not compensate the latent loss in productivity and drop in price effect during the period.

- **Constant efficiency for the economy over the period 1990-2004**

At the global level, the efficiency of market measures for the economy remains constant for the entire evaluation period: €1 invested returns €0.5 to the economy, taking into account the loss of productivity at the farms as a result of price supports, the budgetary cost of the market measures for the citizen and the cost for the consumer.

The gains in added value, and the production maintained via the market measures do not compensate the gains in productivity that might have been observed on the farms in the absence of market measures.

However, other external effects of the market measures should be considered: the absence of market measures probably would have given rise to other imbalances for the entire European beef sector and probably would have had repercussions on the world balance: the assumption of a contraction of community supply by 12%[12] would certainly have had an impact on world supplies (equivalent for example to the loss of 2 times the production of Uruguay)[13].

This sector, historically ill-disposed towards innovation, is gradually integrating the dynamics of the Lisbon Strategy

Finally, although the beef sector was structurally a poor match for the Lisbon strategy (not very profitable, poor communications and little innovation), recent years have shown structural developments in the sector and in particular the beginning of a process of consolidation of processing and distribution (almost comparable to the food processing

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[11] cf. above - estimate of the price difference due to market measures. According to the pragmatic method chosen, the estimate of the difference is maximal. The estimated impact on the resources is also maximal.

[12] See Q1, at end of evaluation period

[13] A hypothetical reduction of 40% of EU production (which represents 5% of world production) would impact a volume equivalent to more than half of world exchanges

industries) and the development of marketing strategies and product innovation more in phase with the deciding factors of a competitive and innovative economy.

4 Conclusions and recommendations

The evaluation recognises the overall effectiveness of market measures and of the reforms that supported them: The weight of each instrument changed over the evaluation period and strongly affected the types and degrees of effects on the supply/demand balance, the maintenance and stability of prices and the competitiveness of community production on the internal and world markets.

At the macro-economic level, the effects of the market measures gradually diminished, but their influence on internal prices remained.

At the micro-economic level, the effects diminished as the market measure reforms were adopted: direct aid progressively took over in supporting producer revenues.

4.1 Conclusions

The effects of the market measures should be differentiated according to period, and to the intensity of their implementation.

The 1990-1992 period was the one during which maximum effects were observed: all market measures were active and complementary. The community price guaranteed a surplus of resources representing more than 40% of farm revenues. However, they gave rise to counterproductive effects (emergence of a market for intervention) and the balance of the market in terms of price and volume did not encourage an improvement in internal competitiveness (market share of beef decreased in favour of white meats).

The 1993-1999 period was marked by the 1st BSE crisis and saw a reform of the measures. The activation of intervention purchases in 1996 coupled with the OTMS prevented an excessive imbalance between supply and demand and related measures either taken or strengthened contributed strongly to restoring demand: the effects on the balance of the market were thus maintained. Conversely, effects on revenues were reduced with the drop in price supports: direct aid has started taking over.

During the 2000-2004 period, the effects observed during the previous period were extended following the measures taken in the context of the 2nd BSE crisis. Also, the switch to a deficit market reduced the advantages of exports with refunds: the deadweight effect also diminished. The increase of above-quota imports showed the poor competitiveness of meat on the internal market and the drop in sales without refunds reflected poor competitiveness on the world market. Although direct aid was strengthened during the period, market measures continued to provide significant additional revenue. The maintenance of customs duties alone provides livestock farmers a revenue surplus estimated at 33% of revenues per AWU[14] and 22% of revenues for the 2000-2003 period, on average.

Finally, for the 2005-2006 period, only customs duties are active and continue to affect the level of internal prices. The price difference with Mercosur favours imports of meat at full rate of duty, without these volumes destabilising the market.

Over the entire period, other effects could be observed

[14] Annual work unit

Technically, the mandatory national price monitoring systems are representative. In addition to their role in implementing the CAP, they are useful to operators, who use them as references and indicators.

Market measure reforms contributed to the restructuring of the beef production sector by favouring farm consolidation, to the advantage of larger farms (more than 100 LU). Conversely, given the reduction in market measures, they had little effect on modifications to the distribution of revenues between sectors, the geographic distribution of livestock farms, and the increase in their specialisation. The developments observed are the result - first - of the specific effects of the dairy sector and the effects of direct aid.

Finally, market measures had positive effects in terms of public and animal health and animal welfare. The implementation of new health and animal welfare regulations led to additional costs but these were lower than the increase in market prices during the period in question (1997-2005).

However, despite price effects and as a consequence of revenue effects, the economic efficiency of market measures is lower than 1, both in terms of contribution to incomes at the micro-economic level as in production and in the sector as a whole.

Finally, the objective of market stabilisation is not relevant in the context of the new CAP, except in periods of crisis: the objective does not seem compatible with the deciding factors of sustainable development and reasonable prices favoured by the consumer. Also, given the reduction and greater instability of prices, encouraged by the decoupling which might threaten the survival of suckling farms located in rural grasslands[15], for which no other activity is possible, the instruments of the reformed CAP must take over.

4.2 Recommendations

The evaluation therefore makes the following recommendations on possible developments of the various intervention instruments.

- Maintenance of the option of intervention and the option of activating exceptional measures: the evaluation has shown the effectiveness of intervention and of the exceptional measures taken during the two BSE crises. The safety net set up in 2002 as an automatic triggering threshold for intervention is defined at a level recognised as very low by all interested parties of the sector, often historically lower than prices in exporting countries. Triggering intervention at this level would mean waiting for the crisis to reach a climax. Conversely, community regulations provide the option of a targeted intervention, in particular by private storage, before prices drop to the so-called "safety net". This option, coupled with the exceptional measures, makes up a reaction mechanism which can be used quickly and effectively in case of crisis and price collapse.
- The maintenance of related measures and in particular information and communication measures, which have proven their effectiveness.
- Putting an end to the "refunds" tool: the evaluation concluded that the "refunds" tool was obsolete at the end of the period given its low efficiency in a deficit market and given the rise in internal prices, the rates remaining unchanged. Refunds are nonetheless effective to sell off lower quality products, but for increasingly marginal volumes. But the logic of international commercial negotiations and production structurally lower than internal demand are compelling reasons for elimination of the tool in the near future.

[15] Insofar as price contributes a significant part of farm revenues

- Maintenance of the carcass price observation system given its efficacy and its usefulness for market analysis, the setting up of forecasts and control of agricultural policy.
- Gradual changes in customs duties and tariff quotas. To take into account the need to improve the competitiveness of community production, the need to offer consumers reasonable prices and prevent market imbalances with the elimination of community protection, this change must take place while observing the following guiding principles:

1. The context of structural decrease of production in Europe and thus an increase in import requirements;
2. The combination of lower duties and an increase in quotas must be carried out in a targeted and specific fashion, depending on the type of product so as to integrate the current level of market openness: situation already liberalised in the case of cooked preparations; barriers to non-tariff exchanges such as live animals or cuts containing bone; small price difference between the world market and the European market for front cuts; maximum for rear cuts, which represent 2/3 of carcass valorisations on the European market.
3. Tariff quotas seem well adapted: they enable better management of imports according to requirements, both in volume and in definition of quality and reducing imported price instability by limiting the incentive to import at full rates of duty.