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The future of CAP market measures

Lately a lot of attention has been focused on the development of agricultural markets. This increasing attention is explained by the developments of both long-term agricultural prices and by the short-term fluctuations. The questions asked by many, causing agricultural economists around the world big headaches, are whether the declining price trend has come to an end, and whether the increasing volatility of recent years is a temporary or more permanent phenomenon?

Price fluctuation and market volatility means different things to different people. Some fluctuation is part of the normal functioning of markets, and allows demand and supply signals to be passed to producers. However, extreme or excessive fluctuation, that do not always seem to reflect the fundamentals of the market, causes major uncertainty. Whereas some see a potential in benefitting from increased volatility, the focus is mainly on two issues; concerns related to food security and increasing input costs.

What impact does the natural as well as the excessive fluctuation of prices have on the supply of food? This concern has brought a lot of attention to the role of market instruments in stabilising markets, as well as stabilising farmers' incomes. How can traditional and new market instruments contribute to ensuring a stable supply of food?

On top of price volatility, farmers around the world are increasingly worried about the cost of inputs. For the past five years, input costs have, on average, increased more than output prices, leaving farmers with a 'squeezed' margin between revenues and input costs. Thus, stabilising farmers' incomes is no longer achieved through merely focusing on stabilising the prices farmers receive. Rather, it requires a more complex approach, taking into account also the cost side of the income equation.

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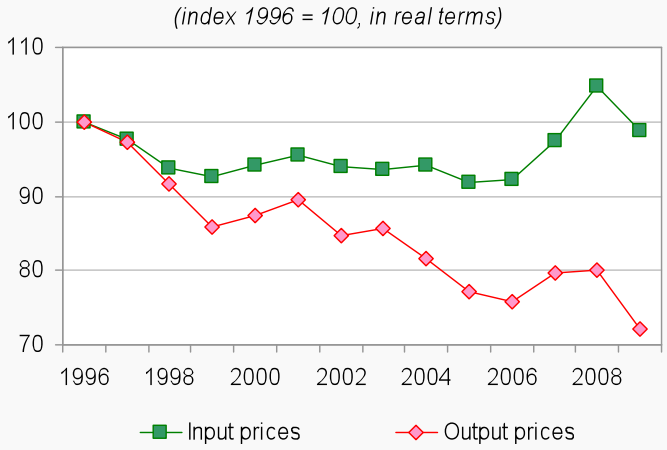
1. Farmers' income is not only determined by the prices farmers receive

The numerous reforms of the CAP in the past two decades have, as explained in the following chapter, increased European farmers' exposure to global markets. This was the intended objective of the reforms, which aimed at increasing market orientation of the sector and thereby contributing to enhancing its competitiveness. At the same time direct payments were introduced, ensuring a certain degree of income stability to producers.[1]

However, the increased market orientation has also had the effect of exposing EU farmers to more volatile agricultural markets. Excessive volatility of prices makes it more difficult for farmers to undertake long-term planning, if market fundamentals are not reflected in prices, thereby the increased market orientation may be having the adverse effect than the one aimed for, as farmers who are risk averse may not undertake the necessary investments to sustain the level of competitiveness. (Figure 1).

Another factor causing concern lately with regard to farmers' incomes is the development of input costs. (Figure 2). In the past, input costs (fertilizers, gas prices etc) were decreasing (on average), but they were decreasing slower than the decrease of output prices received by farmers.[2] The gap was compensated for with productivity increases. Recently this trend was reversed, when input prices increased to a greater extent than agricultural prices, and then remained at a higher level when the prices came down again. The gap between the two price indexes has therefore increased significantly, causing farmers' income margins to be 'squeezed'.

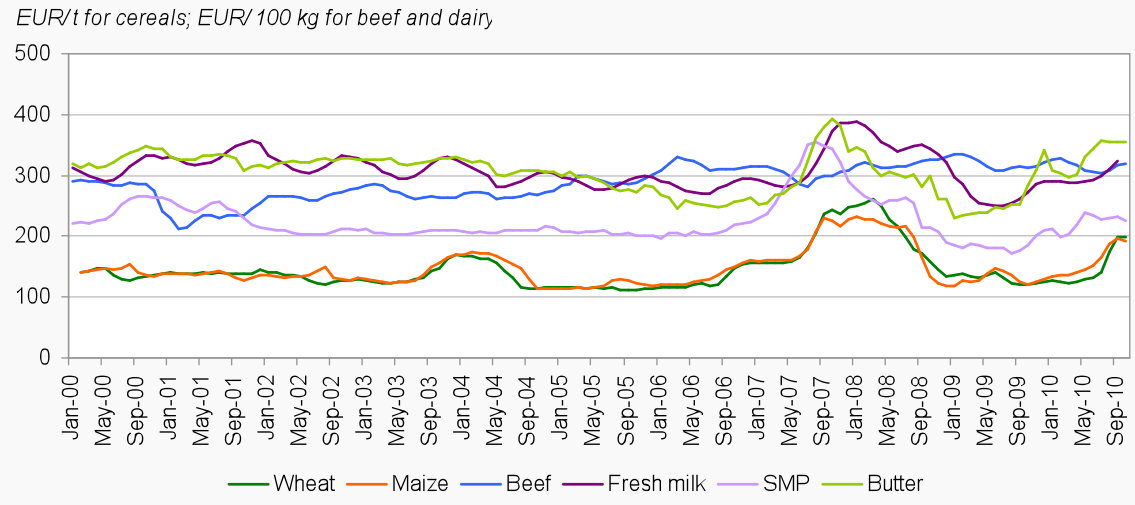
Figure 2: Recent evolution of agricultural input and output prices for EU-27.



Source: Eurostat.

[1] See *Brief* No 1: 'The CAP in perspective: from market intervention to policy innovation'.
[2] Note that input and output prices are reflected in indexes, thus the actual prices are not comparable.

Figure 1: Recent evolution of some EU agricultural commodity prices.



Source: DG Agriculture and Rural Development.

2. The role of price support and other market instruments

As developments in agricultural income have become more complex to forecast, price support, the main tool of the CAP in the preceding decades, has less of a role to play in the current CAP.

Since the beginning of the CAP, price support was the main instrument for ensuring market stability and a reasonable income to farmers. Price support, referred to as intervention, was based on institutional prices set for agricultural products which guaranteed a fixed price to farmers for their products. Because of the guaranteed price levels, set at high levels and above world market price levels, the EU agricultural markets could be kept relatively stable. The effective operation of this price system relied on significant border protection (tariffs). As European farmers were essentially isolated from world market signals, this system of high guaranteed prices led to overproduction which became a recurrent problem for many sectors.

To re-establish market balance, quantities were withdrawn from the domestic market through public intervention and/or exported to third countries. In these cases, export refunds were paid to bridge the gap between EU and world market prices. As a result, budgetary costs escalated, leading to the EU budget crisis of the 1980s and triggering the reforms of the CAP starting in the early 1990s.

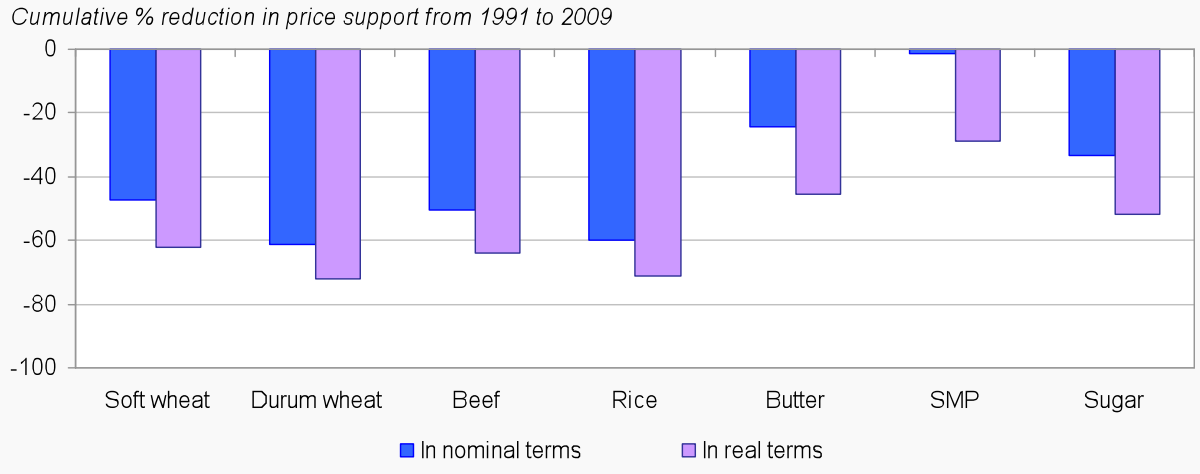
In today's CAP, intervention systems represent a targeted product safety-net. Intervention prices are set at levels that ensure they are used only in times of real price crisis and when there is a risk of market disruption.

In today's CAP, intervention is a targeted safety-net

Figure 3 illustrates the severity of price reductions having taken place for different sectors. These price cuts allowed the drastic decrease of public stocks in the EU between the early 1990s and recent years, which has in turn reduced the budget pressure stemming from overproduction (see figure 4).

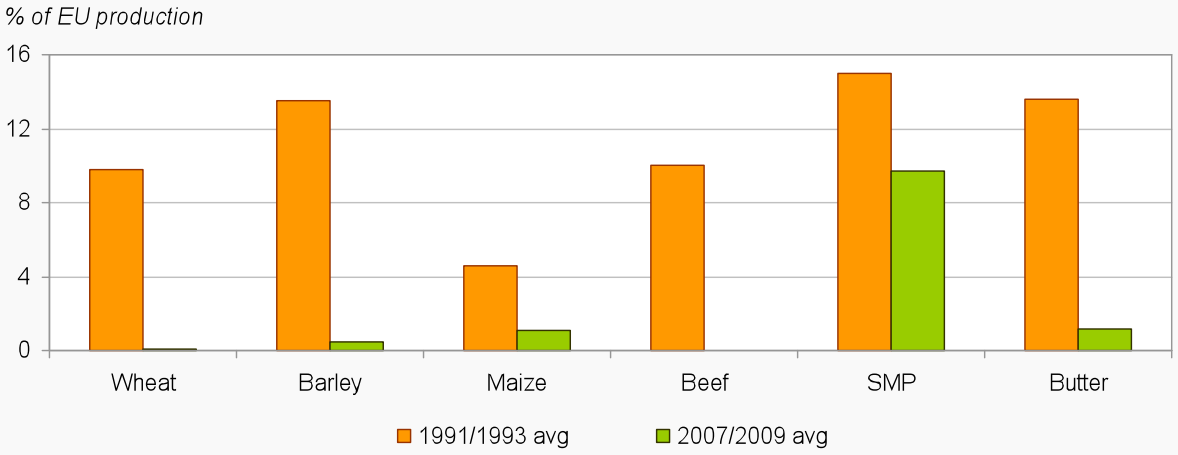
The wheat example (figure 5) illustrates the shift that has taken place of market instruments in the CAP. In the past, intervention prices were driving the prices on the European market, whereas today, EU prices reflect world market prices, and intervention prices guarantee a floor price to producers.

Figure 3: Reductions in EU price support.



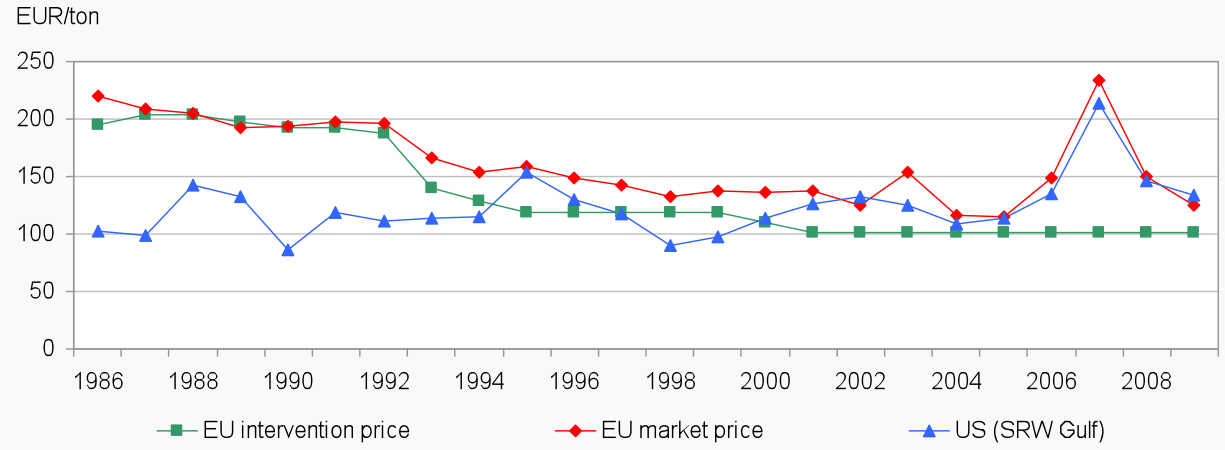
Source: DG Agriculture and Rural Development.

Figure 4: Evolution of EU public stocks as a share of EU production.



Source: DG Agriculture and Rural Development.

Figure 5: The evolving role of EU support prices – the example of wheat (in nominal prices; years are July-June market years).

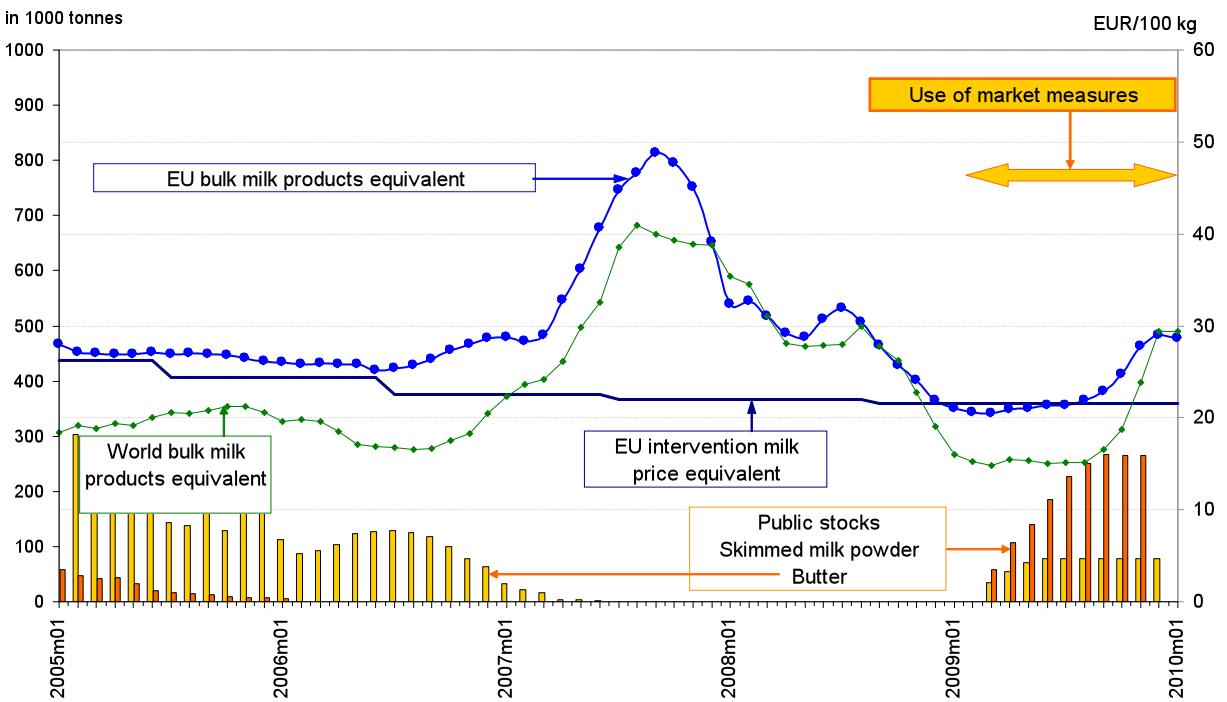


Sources: DG Agriculture and Rural Development and World Bank.

Although public intervention for some sectors may have almost become redundant or irrelevant, the recent dairy crisis show that intervention still has a role to play when there is a real crisis. The use of available market measures from January 2009 to beginning 2010 has been effective in limiting the drop in EU prices. The purchase of public stocks provided a necessary buffer to mitigate the downward path of prices, although their accumulation could delay the pace of price recovery to some extent.

Intervention still has a role to play when there is a real crisis

Figure 6: EU and world milk price developments



Source: DG Agriculture and Rural Development.

In the past, when overproduction became an apparent problem, one way of limiting production was to introduce quantitative restrictions. This was done for the sugar and dairy sectors through production quotas. Although production quotas contributed to reducing budgetary expenditures and to improve the market balance in the past, the rigidity they enforced had detrimental effects on price stability as demand (or supply) shocks could not be responded to with appropriate supply adjustments.

The questioning of the effectiveness of quotas in stabilising markets led to the decision to phase-out dairy quotas by 2015. Some claim that this decision was the main cause of the dairy crisis, as the decision to abolish quotas would have upset the markets.

However, the dairy crisis was triggered by the shift in market fundamentals and revealed some of the weaknesses of the European dairy sector, stemming partly from the lagging behind in reforming the sector (the dairy instruments were not reformed in the 1992 reform, but are 10 years behind the cereals sectors in structural adjustments). Due to successive severe droughts in Oceania (the main exporters of dairy products) supply on the global market was limited. As dairy products are only traded to a limited extent across global borders (about 11% of global production is being exported[3]), supply shocks have large price impacts. At the same time, some of the most competitive producer countries in Europe were restricted by their national production quotas, whereby they could not react to the global supply drop, which then upset price developments internally in Europe. Thus, the existence of production quotas therefore caused instability on the dairy market, rather than contributing to stability.

The problems experienced by the sector over the last couple of years has rather been related to the functioning of the whole dairy supply chain. Quotas, as well as public intervention, are no longer as relevant as in the past, as the context in which the tools are operated has changed considerably.

[3] *Source:* DG Agriculture and Rural Development.

3. The price signals farmers receive should be coming from the market – which requires a well-functioning food chain

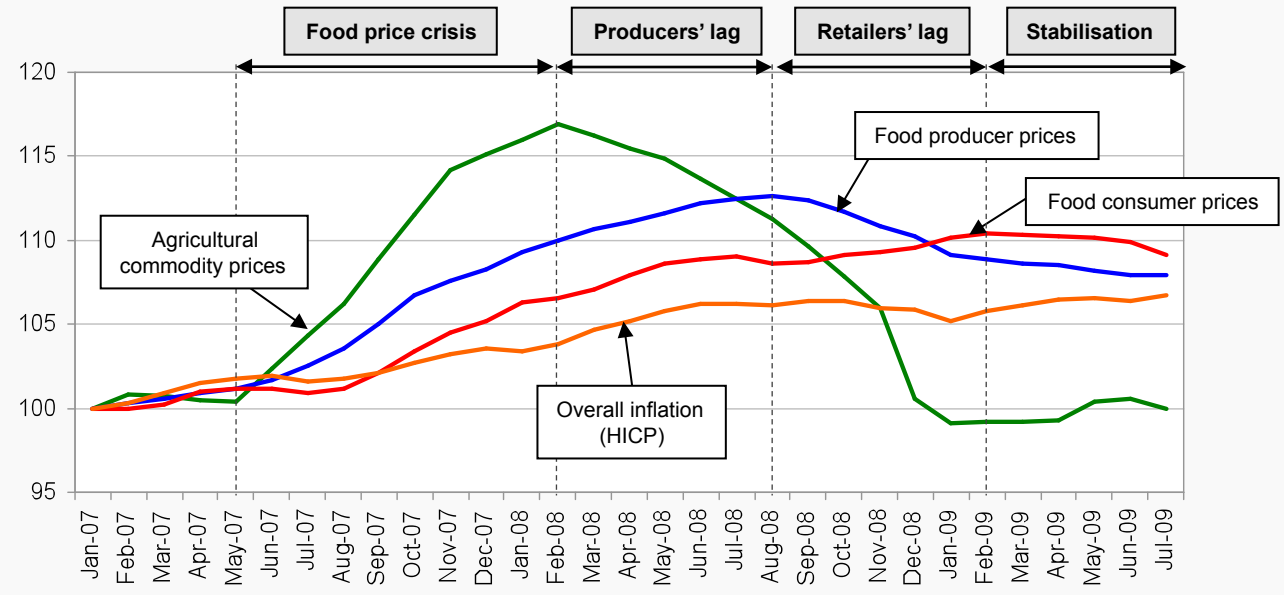
The experience of the dairy sector has revealed some intriguing issues in the functioning of the dairy supply chain, which in some cases can also be extended to other sectors. For example, after the peak of dairy prices in 2007, there was a sharp decline of prices in 2008. However, this decline never really translated into lower dairy prices at consumer level, which in turn prevented demand for dairy products to adjust to low commodity prices. Due to this, the price recovery was slowed down whereby the impact on milk producers was exacerbated. At the same time, analysis has shown that the distribution sector and the food industry have experienced growing value-added and profits, driven by growing volumes and prices, while the agricultural sector has been receiving a declining share of value-added and struggled to maintain the farm income level. Linked to this is the fact that there is a clear lack of transparency of prices along the food supply chain, which prevents market signals from reaching all economic agents active along the chain, and thereby prevents the market from functioning properly.

Hence, it is clear that there are problems in the functioning of the food supply chain related to price transmission, bargaining power and transparency[4]. However, the extent of the problem is difficult to determine analytically, as for example the price transmission along the food supply chain is a complex phenomenon which is difficult to assess, explain and foresee. The price transmission may be influenced by several factors, some of which are not necessarily linked to the malfunctioning of the chain (such as the limited share of agricultural commodities in final food prices, adjustment costs and constraints from changing the prices for both producers and retailers, and the long-term contracts between economic actors). Also, the price transmission is highly diverse at each step of the chain, both between Member States and between different dairy products. The high variability reflects the wide diversity in the market structure and functioning of dairy food supply chain across Europe.

Slow, limited and asymmetric price signalling along the food supply chain is one of its shortcomings

[4] See http://ec.europa.eu/economy_finance/articles/structural_reforms/article16028_en.htm - 'A better functioning food supply chain in Europe'.

Figure 7: Short-term price evolution along the food supply chain.



Source: DG Economic and Financial Affairs, based on Eurostat and DG Agriculture and Rural Development data.

4. New instruments – better solutions?

Excessive volatility of agricultural markets is a phenomenon that we are likely to see more of in the future. This is related to three developments, which raise questions about the efficient functioning of the market. First, there is an increasing integration of global commodity markets with financial markets, implying that agricultural prices will to some extent be driven by what happens on the financial markets, including being subject to speculative activity. There is also a closer link between energy markets and agricultural markets, to some extent linked to bioenergy demand. Last but not least there are the insecurities related to impacts from climate change, and what this will imply for agricultural production.

Around the globe agricultural policy experts have been looking for new solutions to solve the issue of soaring market volatility and farmers' income instability, aiming at ensuring food security. Some have focused on the role of stocks.

Responding to political unrests resulting from high food prices, a number of individual countries, both net food exporting and importing, started building strategic physical grain reserves, often to provide subsidised rations for the most vulnerable. In addition to national stocks, coordinated (pooled) regional and global initiatives were discussed. Regional and global schemes rely on risk pooling in an event of harvest failure. It is often argued that a similar scheme works for oil. However, the difference between the oil market and the agricultural market is that only a limited number of countries produce oil, the production process is continuous and not seasonal as for agricultural products, and the scheme is complemented by restraint in demand, something which would be challenging to achieve for food commodities.

In Europe, which in an international comparison has a rather stable level of food security, there has been increasing attention on the risks associated with agricultural production, and the public's role in helping farmers deal with these risks. The aim with public involvement is to ensure a steady food supply, ensuring food security both in Europe and in the rest of the world.

At the same time, the focus of the CAP has shifted away from supporting agricultural prices towards supporting producers[5]. The main physical production risk, which has always been a factor in agricultural production, concerns the uncertainties associated with weather conditions. In recent times these uncertainties have however been exacerbated as the effects of climate change become more and more noticeable.

Insurances are useful tools as they ensure a more stable income level when there are production threats

One way a farmer can deal with risks related to drought, flooding, hail, frost etc is through production insurances. The most common insurance in Europe is referred to as 'single crop, single peril' insurance, in this case the peril insured is mostly hail. Slowly, the market for 'multi crop, multi peril' insurances is also developing, so that in some parts of Europe insurances against several weather related risks, for several types of crops, are now available. To a limited extent, animal disease insurances are also becoming available to European producers. Insurances are useful tools in allowing farmers to do more long-term planning, as they ensure a more stable income level when threats to production exist. The introduction of insurance subsidies in the CAP with the Health Check reform in 2008 intended to further boost the uptake and provision of insurances in Europe.

[5] See *Brief* No 1: 'The CAP in perspective: from market intervention to policy innovation'.

Although insurances are useful as tools for farmers to help managing production risks, they are still not developed to the extent that they can help a farmer manage income variation stemming from other factors than production problems (for example market prices). As discussed above, the problem of increasing input costs at the same time as farmers struggle to receive a fair share of the value added in the food chain means that from time to time farmers face severe income problems. Analysis in DG Agriculture shows that approximately 20% of the European farmers suffer an income drop of more than 30% compared to his/her average income. Thus, when the revenue side of the income equation does not match the cost side, there may be a need for a more holistic approach.

There may be a need for a more holistic approach to deal with farmers income variation

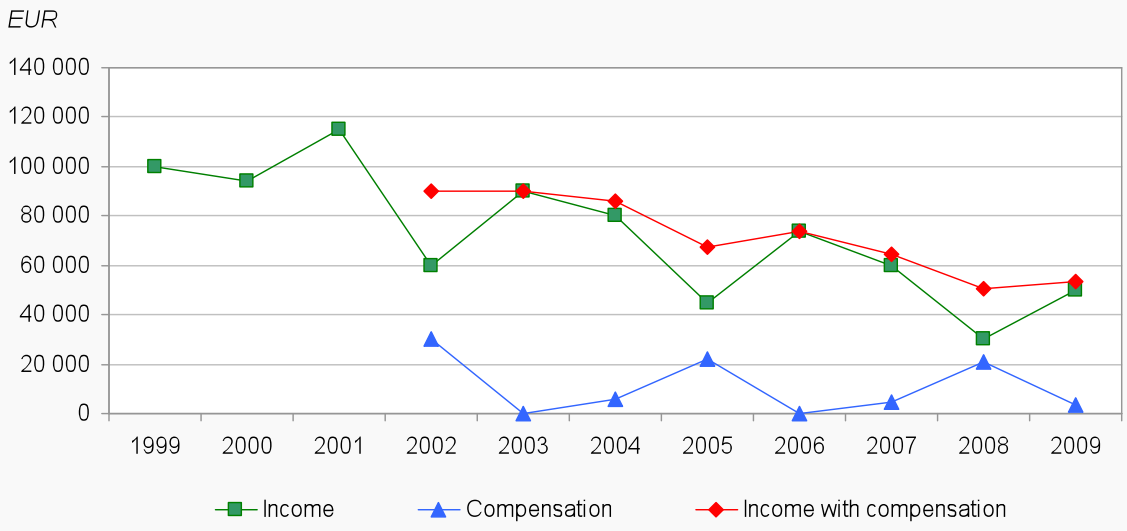
One approach, currently used in Canada, is an income stabilisation tool. Such a tool pays compensation payments to farmers suffering from a severe loss of income compared to the same farmers' average income. In order for the tool to be in compliance with WTO green box rules, the compensation can only be paid to farmers suffering from an income drop of more than 30%, and maximum 70% of the loss could be compensated.

An income stabilisation tool could be an interesting option for the future if the objective is to support farmers' income stability. The instrument does not guarantee a certain level of revenue, as it varies with the level of income over time; instead it is aimed at minimizing excessive income variability. See for example the illustration of a farmer in figure 8, where the farmer has a decreasing income over time. The level to which the farmer is compensated when there is a severe income drop decreases over time, as the farmer's average income decreases over time. Thus, if the objective is to support a certain revenue level, then clearly the direct payment is a more effective tool.

Analysis in DG Agriculture[6] shows that if such a tool was to be implemented in EU-27, then average levels of compensation could amount to somewhere in the order of 6 bio EUR (see figure 9). Clearly, this level would depend on what definition is used for income, where one sets the thresholds for compensation etc. However, this figure still gives an indication of the magnitude of payments required in order for this tool to be effective.

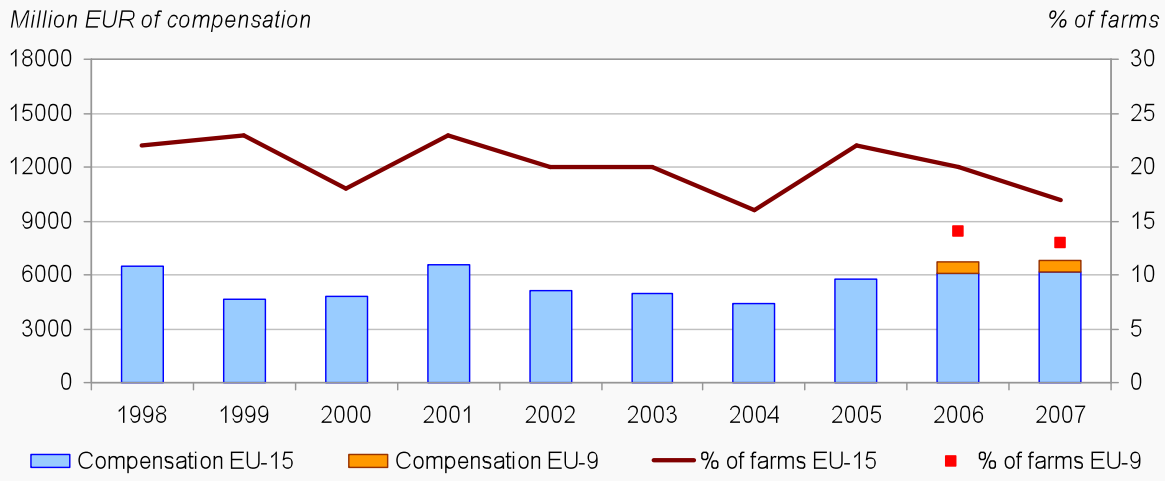
[6] See http://ec.europa.eu/agriculture/rica/pdf/hc0102_income.pdf - 'Income variability and the potential cost of income insurance for EU'.

Figure 8: Example of an income compensation tool.



Source: DG Agriculture and Rural Development.

Figure 9: Income stabilisation scheme.



Source: DG Agriculture and Rural Development.

5. The debate on future instruments to secure farmers' prices and incomes

It is clear that an essential piece when putting together the puzzle on the future CAP will be to find the right balance between old and new instruments to help farmers enhance their economic situation and deal with income variation, and thereby contribute to global food security.

A relatively stable income level for farmers is important in order to ensure sustainable agricultural production and maintain competitiveness.

Safety nets play a role when prices collapse, but intervention no longer plays its traditional role as a structural outlet for agricultural products. With intervention prices at low levels, while input costs are continuously increasing, intervention can therefore no longer play its traditional role of supporting farmers' incomes.

Income support therefore has to be provided through other channels. This can be done in two ways. One way is the path the EU has followed, providing decoupled direct payments which ensures a fixed revenue stream to farmers. By ensuring a basic income payment, any variation of income will be smoothened, because part of the farmers' income is not dependent on market variability. A more direct way of supporting income variation is through an income stabilisation tool as discussed in chapter 4. An income stabilisation tool would only compensate farmers who experience a loss of income, thus it would not provide a general income support to all farmers but focus on farmers in a difficult situation, whereby this tool would be more targeted. However, increasing the targeting of a policy tool also implies increasing the complexity of managing the tool. In this case, the costs have to be weighted against the benefits to decide for whether or not this is good complement to the already existing income support instruments.

The policy dilemma is that the differences between Member States and sectors are so big that the policy tool best responding to the challenge may not be the same throughout Europe. Opening up for alternative approaches may therefore best contribute to increasing overall competitiveness among European farmers.