The 2024 prospects for EU agricultural markets: drivers and uncertainties

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1. Introduction

If there were ever any doubts about the challenges faced when developing the market outlook for EU agricultural products, this is the Conference to be! Rarely have we seen such a dramatic change in the global environment affecting agricultural markets as the one we witnessed since the summer harvest.

One would be tempted to say that we witness the mirror image of the spring of 2008 - with the mirror turned 90° sideways. In 2008, all factors that could potentially affect agricultural prices, from weather and energy prices to the value of the dollar and export bans, created what was then termed the "perfect storm", leading agricultural prices "north".

Yet the 2014 harvest came as a reminder that a particular law of "price gravity" characterises commodity markets. Slowdown of the world economy, collapse of oil prices, Russian import ban, and exceptionally positive weather conditions, all combined to push prices lower. The higher US dollar came to put further pressure on the dollar-denominated commodity prices, to add further concerns for producers, and to bring relief for consumers.

We have often referred to developments in agricultural markets during the past several years as being by all accounts exceptional. Price spikes or troughs, associated with excess price volatility, have been features of agricultural markets also witnessed in the past.

Yet agricultural price developments since the mid-2000 have been characterised by a confluence of factors that led agricultural and food prices to move in parallel with the prices of other commodities and, more importantly, to stay at a higher level than their historical past, even after declining.

We need to identify the reasons why this happens so that we can better take these factors into account when developing the long-term outlook of markets related to EU food and agriculture. We also must place the influence of the various factors that impact price developments in their broader context and perspective.

The macroeconomic environment, climate, trade, energy, or the food chain have been identified as such factors, and will be addressed by different interventions during this day.

From these factors, I will in summary:

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1 Presentation at the Conference on "2024 prospects for EU agricultural markets", Brussels, 5December 2014. The views expressed here are not necessarily those of the European Commission.
• address the big, and uncertain, picture of the macroeconomic factors affecting prospects for EU agricultural markets,

• identify the most important market drivers contributing to recent price moves, and

• use the EU's dairy market as an example to demonstrate how we, DG AGRI and JRC, address uncertainty in developing the EU's agricultural market outlook.

2. The big (and uncertain) macroeconomic picture

One of the few promising spots in an otherwise subdued world economy is agricultural trade, which has seen steady increases in recent years. Since the outlook of EU agriculture depends heavily on world market prospects, a snapshot of existing trade patterns is useful as a background.

In this world map (Slide 5) we have added the current average agricultural trade position of the four major world players for 2011-13, in US dollar terms. The US and the EU are roughly at equal levels when it comes to their export levels (close to 150 billion dollars annually), with the US enjoying a better food trade balance since its imports amount to 105 billion dollars against 134 billion dollars for the EU.

It is interesting to note that, while US exports and imports are increasing at a similar pace since 2000, in the EU exports grew faster than imports. This has turned the EU into a net exporter of agri-food that stands out distinct in terms of the diversity of its trade flows in both directions; and this despite a rather unfavourable exchange rate until recently.

China has increasingly been felt in world agricultural markets, with imports now exceeding 100 billion dollars, while exports approaching only half of this level. Brazil on the other hand has a clear trade surplus, with its exports outpacing its imports almost 8 times.

The manner by which trade flows will develop in the future crucially depends on changes in supply and demand trends. From the factors that affect such trends, GDP growth usually stands out as the main driver, especially for food demand, providing some explanation for price developments, with recent declines attributed to some extent to the economic slowdown.

GDP growth has already slowed down in the developed world. It has also done so in China when compared to its exceptional 10% average annual growth rate that lasted 40 years (Slide 6). Slowdown also characterises the BRICs, with a pronounced growth slowdown evident in Brazil and Russia, while growth in India is showing similar patterns of lower levels with that of China (Slide 7).

However, our analysis, similarly to that of others, indicates that the impact of GDP growth in food demand, obviously present, is lower for agricultural products that it is in other primary sectors, such as metals and minerals, or energy. A much stronger impact comes from exchange rate fluctuations. These are shown here in their moves against the Euro, which reflects a rather wide range of variability (Slide 8).
Even more interestingly, when looking at the price of the same commodity in local currency, maize for example, one could see the very different level of price developments since 2000, when expressing maize price in Euros, US dollars, the Real, the Yuan or the Ruble (Slide 9).

In this diverse and uncertain environment, the assumptions we have retained both for the Euro rate with a respect to the dollar and the long term annual GDP growth are rather mainstream. We expect the gradual recovery of the euro and moderate GDP growth, both in the EU and the world (Slide 10). These, of course, are not forecasts of what will happen in the future, but assumptions based on international expert opinion. More difficult on the other hand has been our assumption on the price of crude oil, a price which has direct and indirect impacts for agriculture by affecting GDP growth and input costs.

In May, the outlook for the crude oil price of the Energy Information Administration (EIA) was rather positive in the medium-term, with the OECD-FAO baseline of last July even more optimistic, reflecting pre-summer expectations. Both were higher than the assumption we retained in 2013, and led us reluctantly to revise the crude oil price outlook, while noticing that the World Bank has come out with a more moderate expected crude oil price path (Slide 11).

We have no doubt that the recent turmoil in energy markets will generate alternative price path scenarios, but at this stage we can only stick to what was available when we finalised our outlook exercise, and flag this issue as clearly one of major uncertainty. We were not able to incorporate these developments in our outlook because these were very recent in nature and very uncertain in duration.

But we would like to stress here once more a point that we have repeatedly raised in recent years - it is the energy link of agriculture that complicates enormously any attempt to determine the future outlook of agricultural markets.

Even more so since this difficulty has been further complicated by developments in the US energy markets. US natural gas prices, previously linked to the crude oil prices, are now basically aligned to the world coal prices (Slide 12). The natural gas market is in its turn broken in three distinct segments, with the US retaining a significant cost advantage vis-à-vis Europe or Asia (Slide 13).

The shale gas "revolution" in the US has brought a new dimension to this complex link through its direct and indirect impacts on commodity prices. The change in the relative production costs of the overall economy and agriculture between the US and its other major trading partners, and the impact of relative gas price changes on the fertilizer market, are evidence for that. (In the report you will find an assessment of the impact of this competitive advantage on US and world agricultural markets.)

What was described above begs the next question:

3. **What is happening in agricultural markets?**

If you were to take a snapshot of price developments of the three main crops during the past two years, the picture emerging would be one of significant price declines – of almost 30 %
for wheat and soybeans, and close to 50% for maize when compared to their January 2013 level (Slide 15).

Take a step backwards, at the start of the commodity price boom in 2006, and the picture changes. A more volatile picture emerges, but the nominal prices of wheat, maize and soybeans are more than 50% higher than their January 2006 level; and this is a low inflation period (Slide 16). Complete the retrospective to the turn of the century and, when compared to their January 2000 level, the nominal prices of wheat, maize and soybeans are now 125%, 75% and 100% higher (Slide 17).

Up until past summer, similar was the situation in all major commodities. Yet today, after the slowdown in world economy and latest developments, the World Bank nominal indexes for agriculture and fertilisers stand 80% above their January 2006 level, while the respective indexes for energy, and for metals/minerals, are now just 16% higher (Slide 18).

These developments raise some new questions, which are best demonstrated by taking into account the longer-term picture.

As the graph of commodity price movements since the 1950s (Slide 19), in real terms this time, indicates, three different, but parallel dimensions characterise commodity price movements after 2006:

- higher volatility,
- significant price co-movement,
- a higher price level for all commodity price indexes.

Price co-movement, which initially led the debate on the causes of price developments, seems to be on the decline, but what can we expect about prospects for price volatility and the level of agricultural prices for the foreseeable future?

We have looked into this by comparing volatility and price changes for five distinct time periods, 1961-73, 1973-85, 1985-1997, 1997-2009, 2009-13, each period distinguished by some common features (Slide 20). The recent period of commodity price developments (2009-2013) is not the one characterised by higher agricultural market volatility than in the past.

Following the steady decline in real terms that has lasted for almost a quarter of a century and resulted in under investment in agriculture, the most important of recent developments is the very significant increase in the annual growth rate of real prices.

Is this mainly a sign of supply constraints, of a demand pull, of the increase in input costs, or the combination of all of the above? The debate still continues but the facts are clear. If anything, it is the level of agricultural prices that has been more surprising than the volatility.

This result is admittedly counterintuitive. It is true that from the point of view of a farmer used in seeing annual variations of the price of grains in the range of 20 dollars per tonne around a rather steady long term trend, the significant increase in price variations in recent years, often in excess of 50 or even 100 dollars per tonne, comes as a complicating factor. Farmers after all are more used in responding to changes in nominal prices than in
converting them through complex volatility formulas. These are the facts, and they tell their own story, adding more uncertainty to market prospects.

4. **How to address market uncertainties?**

The impact of what was discussed previously for developing the outlook of agricultural markets should by now be evident. Both in terms of the expected price level and the degree of volatility, such an outlook will be characterized by uncertainties. How to address them and arrive at a base line which could receive the necessary credibility?

We opted to respond to this valid question by using the dairy market as an example of how we take into account uncertainty in developing such an outlook.

Developments in the dairy market are summarised by three prices, expressed in milk equivalent of euros per tonne - the EU milk equivalent support price, the average EU milk market price, and the world equivalent milk price (Slide 22). The latter two move much more in parallel in recent years than in the past, and clearly above the EU support price level.

When future milk prices are projected, it is evident that the observed price volatility is hard to capture (Slide 23). This is a natural result of linear assumptions for many economic variables (from GDP growth, or the price of crude oil, to yields). This outlook price, however, is not developed without taking a close look on alternative price paths that could arise in different situations.

Three different price paths have been selected here - an average price path, a high price path and a low price path. All three are characterised by higher volatility, closer reflecting real market events (Slide 24).

They were selected from successively running almost 600 such scenarios, where a set of coherent combinations reflects situations observed in the past (for example, a strong euro and low cereal prices also implies lower feed cost), allowing us to define a price range that lies between the lower 10th and higher 90th percentiles.

The average price scenario reflects average macro-economic assumptions and the favourable for the dairy sector in the EU and other major suppliers in the "baseline" scenario (Slide 25). The high price scenario corresponds to higher crude oil prices and feed costs, and the deterioration of market conditions of other players (Slide 26). The low price scenario reflects lower crude oil prices and feed costs, and a stronger euro (Slide 27).

These scenarios have been presented here in the hope that they will help clarify what this outlook exercise primarily is: an attempt aiming, to the degree possible, to narrow down the range of the most likely future price outlook in an environment of increasing market uncertainties.

I hope this will help you better understand the results that this outlook exercise produced for EU agricultural markets, and which my colleague Pierluigi Londero will now present.

Thank you for your attention.