

LMC INTERNATIONAL

**EVALUATION OF MEASURES RELATING
TO THE DURUM WHEAT SECTOR WITHIN
THE CONTEXT OF THE COMMON
AGRICULTURAL POLICY**

Final

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Short Executive Summary

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Table of Contents

Contents

1. Introduction	E1
1.1 Background.....	E1
1.2. Methodology	E1
2. Intervention measures	E1
2.1 Measures affecting the durum wheat market.....	E1
2.2. Budgetary cost	E2
3. Overview of the sector	E2
3.1 EU position in the world market	E2
3.2 EU durum wheat area and production.....	E2
3.3 EU processing capacity.....	E3
3.4 Prices	E3
4. Effects on primary production and structures of production	E4
Evaluations questions Q1.1: Maintaining durum wheat production in traditional areas and Q2.1: Effects on the geographical distribution of production.....	E4
4.1 Maintenance of production and geographical distribution of production	E4
4.2 Structural change	E5
Evaluation question 1.2: Effects on income	E5
Evaluation question 1.3: Effects on quality in traditional production areas	E5
5. Effects on downstream sector	E6
Evaluation question 3.1: Impact on the supply to the downstream sector and changes in the geographical distribution of the processing industries.....	E6
Evaluation question 3.2: Impact on the supply to the downstream sector in traditional production areas	E6
6. Effects on markets	E6
Evaluation question 4.1: Promoting market stabilisation and EU participation in international trade.....	E6
7. Effects on rural areas	E7
Evaluation question 5.1: Promoting rural development in traditional areas	E7
8. Efficiency, management and administration	E7
Evaluation questions 6.1: Efficiency of the measures and 6.2: Simplification and effective administration of the CAP	E7
9. Relevance and coherence	E7
Evaluation question 7.1: Effects on the environment.....	E7
Evaluation question 7.2: Coherence of the measures.....	E8
10. Recommendations	E8
10.1 Production	E8
10.2 Quality.....	E8

List of Tables

Table EXEC 1:	EU-27 Durum wheat area by country.....	E2
Table EXEC 2:	EU-27 durum wheat production by country.....	E3

List of Diagrams

Diagram EXEC 1:	Canadian and US wheat hard amber durum	E3
Diagram EXEC 2:	Gross margins, pre- and post-reform	E4
Diagram EXEC 3:	Evolution of protein content of French, Italian, Spanish and US durum wheat.....	E5

Executive Summary

1. Introduction

1.1 Background

This evaluation examines the impact of measures of the Common Agricultural Policy (CAP) to durum wheat. Its focus is all CAP measures defined under Regulation (EC) No 1782/2003. The regulation was implemented in the period 2004-2006.

1.2. Methodology

A key component of this evaluation is the calculation of gross margins. These are used as a basis for calculating simple supply elasticities to analyse the effect of a change in gross margin on the area under durum wheat. Questionnaires are used to gain farmers' and processors' responses to the change in regime.

The use of gross margins means that in evaluating the impact of the reform, it is the effect of the combination of the various measures that is analysed as this is what producers see with the change in gross margins. It is not possible to attribute effects to individual measures.

In addition, changes in gross margins and the area under durum wheat are not just caused by the measures. Market forces, as revealed by the underlying level of prices, also have an impact. This is apparent in the post reform period, when durum wheat prices and input costs rose to very high levels in 2008.

Case studies were undertaken for France, Greece, Italy and Spain. Specific regions for field research were: Centre (France); Central Macedonia (Greece); Puglia (Italy); and Andalucia (Spain).

2. Intervention measures

2.1 Measures affecting the durum wheat market

The Regulation established common rules for direct support schemes under the CAP. It introduced a Single Payment Scheme (SPS) in the EU-15. The SPS took direct aids from a number of sectors and placed them into a single payment. Under the reform:

- Aid was decoupled. Area payments on cereals, the durum wheat supplement for traditional areas and the special aid for non-traditional areas were included within the SPS. Member States (MS) could retain up to 25% of their coupled payments on COP crops (as occurred in France and Spain), or 40% of the durum wheat supplement (no country did this).
- Article 69 permitted the MS to grant payments, outside of the SPS, either to protect or enhance the environment or to improve quality and marketing. This was used in Greece and Italy to support quality improvement.
- A quality premium of €40 per hectare in traditional areas was introduced, subject to the use of a minimum quantity of eligible seed varieties and a maximum guaranteed area (MGA).
- Intervention prices remained unchanged and the system of export refunds was maintained.

The reform was introduced in 2005 in Italy and Portugal and 2006 in France, Spain and Greece.

With EU enlargement, the 12 new MS were permitted to opt for either a simplified Single Area Payment Scheme (SAPS), which decoupled area payments, or the SPS. The new MS were also allowed to make Complementary National Direct Payments (CNDP), on a coupled or decoupled basis, for specific crops, within national budgetary envelopes. Where the CNDP covered arable crops, durum wheat was included.

The CAP was simplified in 2007 when the individual Common Market Organisations (CMO) were placed into one CMO. Obligatory set-aside was set at 0% for 2008.

The CAP Health Check in 2009 further decoupled payments. The quality premium is to be incorporated into the SPS from 2010 and the choice by the French and Spanish governments to retain 25% of arable crop direct payments will also disappear. However, Article 68 permits MS to make certain coupled payments. Set aside was abolished and durum wheat was removed from the intervention measures.

2.2. Budgetary cost

Prior to the reforms, support measures to the sector cost in the order of €1 bn annually. Following the reform, the direct cost of support measures fell to €247 mn in 2008.

3. Overview of the sector

3.1 EU position in the world market

Global durum wheat output averaged 37.7 mn tonnes per annum over the last five years, with production peaking in 2004. The EU-27 accounts for 26% of global production. The global durum wheat area is around 18 mn hectares. EU-27 accounts for 14% of this area.

In terms of trade, extra EU-27 exports accounted for 15% of global exports in 2006/07. Extra EU-27 imports accounted for 22% of trade in 2006/07.

3.2 EU durum wheat area and production

The area under durum wheat in the EU-27 grew steadily between 2000/01 and 2003/04. The area then fell, although it partially recovered in 2007/08. Table EXEC 1 shows areas by MS.

Table EXEC 1: EU-27 Durum wheat area by country ('000 ha)

	1999/2000	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Bulgaria	15	23	21	23	22	18	0	6	8
Germany	9	5	5	7	8	10	12	8	7
Greece	669	699	713	704	719	719	633	568	580
Spain	868	885	926	913	949	910	614	496	529
France	338	306	336	353	407	423	454	456	436
Italy	1,663	1,664	1,733	1,689	1,772	1,520	1,343	1,437	1,577
Cyprus	6	5	6	7	8	5	7	5	5
Hungary	15	14	11	11	12	9	10	8	9
Austria	16	12	13	17	18	16	16	15	18
Portugal	139	134	188	144	152	2	3	1	2
Romania	2	3	3	1	4	4	4	2	2
Slovakia	4	9	3	5	7	5	4	4	8
United Kingdom	1	1	2	4	2	2	2	0	0
EU 27	3,744	3,759	3,960	3,878	4,079	3,644	3,100	3,005	3,180

Source: Eurostat

After peaking in 2003/04, production of durum wheat has fallen but recovered in 2007/08 (Table EXEC 2). Production is concentrated in traditional areas: in France the traditional area averages 70% of the total area, in Italy it averages 97%, in Greece, 99% and Spain and Portugal close to 100%.

Table EXEC 2: EU-27 durum wheat production by country ('000 tonnes)

	1999/2000	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Bulgaria	40	63	57	45	70	78	0	14	0
Germany	43	24	26	35	50	51	62	38	39
Greece	1,784	1,721	1,635	1,375	1,724	1,677	1,402	1,218	1,594
Spain	1,939	1,900	2,153	1,989	2,708	935	1,643	1,227	1,146
France	1,685	1,352	1,614	1,427	2,086	2,042	2,100	1,991	2,126
Italy	4,310	3,624	4,268	3,718	5,546	4,431	3,989	3,923	5,067
Cyprus	10	11	13	14	10	9	7	11	10
Hungary	45	49	43	24	54	39	40	29	36
Austria	44	46	50	64	89	63	77	53	91
Portugal	173	103	327	113	235	1	8	3	4
Romania	4	10	8	2	14	10	8	1	7
Slovakia	11	34	12	13	32	22	18	14	37
United Kingdom	6	6	19	14	12	12	12	0	0
EU 27	10,093	8,941	10,224	8,832	12,628	9,369	9,365	8,521	10,156

Source: Eurostat

3.3 EU processing capacity

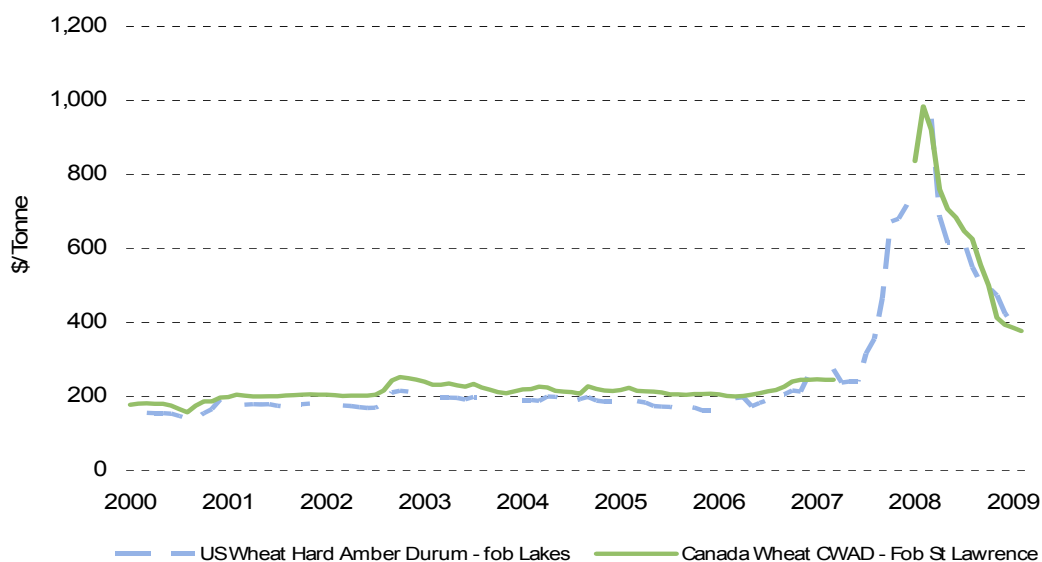
The processing sector consists of: milling grain into semolina; and processing of semolina into pasta and couscous.

In 2007, the number of durum wheat mills in the EU-27 totalled 209 units. This compares with 233 mills in 2000. The number of pasta processors in the EU has declined from just below 200 in 2002 to around 180 in 2008.

3.4 Prices

Following seven years of stability, the world price of durum wheat rose substantially in 2007/08 partly as underlying cereal prices rose (Diagram EXEC 1).

Diagram EXEC 1: Canadian and US wheat hard amber durum



Note: Gaps in the series occur as US production is not traded in all winter months

Source: US Wheat Associates

4. Effects on primary production and structures of production

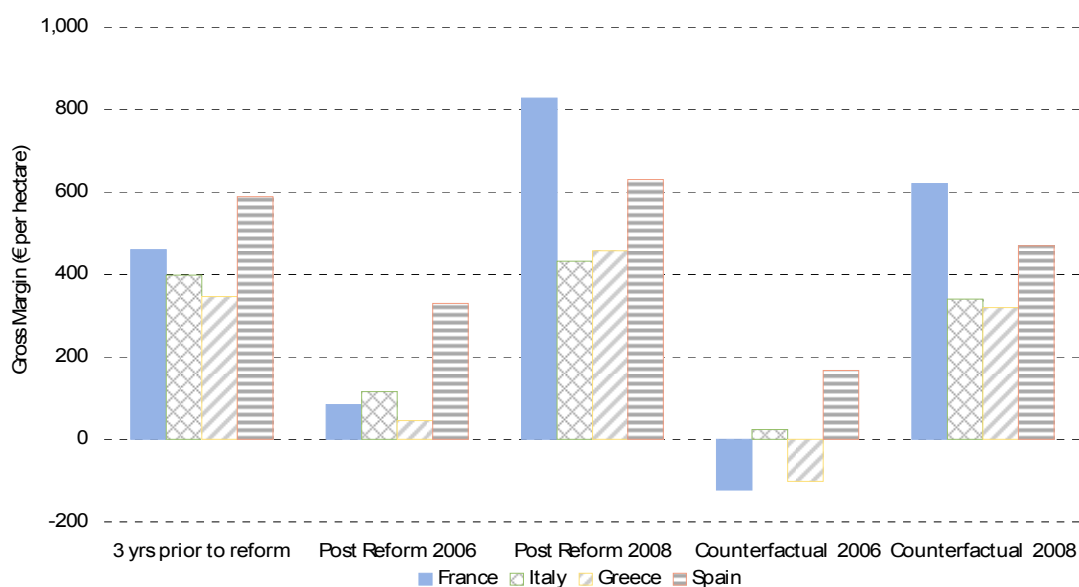
Evaluations questions Q1.1: Maintaining durum wheat production in traditional areas and Q2.1: Effects on the geographical distribution of production.

4.1 Maintenance of production and geographical distribution of production

Following the introduction of the reform, the most important measures affecting production decisions are: the decoupling of aid; the Quality premium in traditional areas; partially decoupled aids (France and Spain); and Aid under Article 69 (Greece and Italy).

The reduction in coupled payments following the reform resulted in a fall in gross margins (Diagram EXEC 2). However, with higher prices in 2008, gross margins recovered. In the counterfactual case, when decoupled payments are set to zero, gross margins become negative in France and Greece at 2006 prices.

Diagram EXEC 2: Gross margins, pre- and post-reform



Source: FADN and farmers questionnaires

Lower gross margins resulted in a 7% fall in production, including a 13% fall in traditional areas. The decline in area was greater. Therefore, the objective of maintaining production has not been met. In some cases, the area under common wheat has increased, but in most cases, the total utilised agricultural area (UAA) has fallen. There are differences between countries following the reform.

- In France, there has been little change in area or production in traditional areas. In non-traditional areas, production has increased.
- In Italy, the area under durum wheat has fallen, however yields have risen and the net effect as been little change in durum wheat output in traditional areas. The non-traditional area has increased, albeit from a low base.
- In Greece and Spain both the area under durum wheat and production have fallen.
- Of the other EU-15 producers, the area collapsed in Portugal as margins fell as producers switched to common wheat.

The counterfactual case enables us to assess the extent that the measures have ensured the maintenance of production. In the absence of CAP measures, the effect on the area planted

(and hence production) is dependent upon the level of prices. While the effect on individual countries is different, with countries with the highest coupled aid having the most to lose, our analysis points to the area falling by a further 4% in the absence of support (at 2008 cost and price levels) and by 18% if prices reverted to 2006 levels.

4.2 Structural change

The reform of the CAP has led to little structural change although three years is a short time period to make this judgement. Trends that were apparent prior to the reform have continued. In particular, there is weak evidence pointing towards a larger farm size.

For input use, there is no strong evidence pointing to a significant change in the intensity of input use following the reform. Labour use in durum wheat production (in terms of hours per hectare) has not changed, while the level of investment has either increased or been maintained.

Evaluation question 1.2: Effects on income

Total farmer's income per hectare remained broadly unchanged after the reform. While coupled support fell, this was broadly matched by the decoupled payment.

Coupled payments now account for a lower proportion of revenue than was the case pre-reform. How much lower depends on the level of prices. While the reform has lowered gross margins for both durum wheat and competing crops, the ranking of durum wheat has not changed. The only exception is Spain, where common wheat ranks above durum wheat.

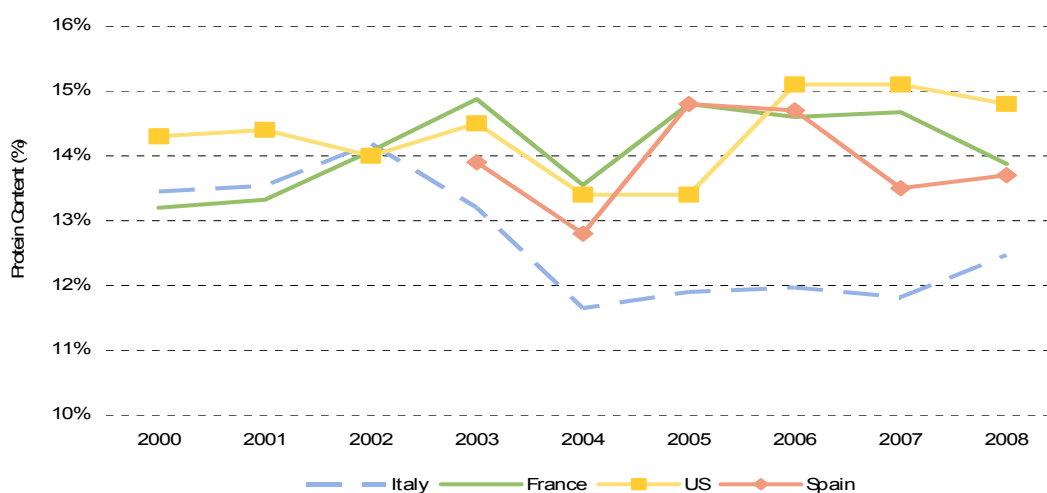
By lowering gross margins, the measures have reduced the implicit return to (unpaid) family labour. With higher prices, returns recovered in 2008.

Evaluation question 1.3: Effects on quality in traditional production areas

There are two measures that are specifically targeted towards quality. The quality premium and Article 69 measures in Italy and Greece.

Processors state that quality (as measured by the protein content) has not changed post reform. Evidence on the protein content in Italy, it has been unchanged since 2004 (Diagram EXEC 3).

Diagram EXEC 3: Evolution of protein content of French, Italian, Spanish and US durum wheat



Source: CRA,, ONIGC, IGC, AETC

While the reform period only covers three years, there are a number of reasons why quality has not improved:

- A large number of varieties are eligible for the premium and the protein content of these varieties varies.
- The amount of minimum certified seed required to be used per hectare is less than total seed used within current agricultural practices in some countries.
- This and the small farm size mean that there is little consistency in quality.
- Weather conditions, high level of rainfall during the growing season adversely affects quality.

Our analysis over this limited time period suggests that the reform has not met its objective of improving quality.

5. Effects on downstream sector

Evaluation question 3.1: Impact on the supply to the downstream sector and changes in the geographical distribution of the processing industries

The volumes processed by the milling industry have increased by 1% per annum on average since 2000. There has been no change in the trend pre- and post-reform. In order to ensure adequate availability, the reduction in output has been met by higher imports and a reduction in stocks.

Over time, the number of durum wheat mills has fallen. The process of consolidation was apparent before the reform and there is no evidence that the reform has caused any change to industry structure or location.

In the pasta industry, the average number of plants has fallen by 1% since the reform. Where plants have closed, it was due to consolidation rather than the regime change. The change did not effect geographical location of factories.

Evaluation question 3.2: Impact on the supply to the downstream sector in traditional production areas

There is general consensus among the processors that sufficient domestic production is important. The desirability of domestic production is due to higher costs associated with imports and greater perceived risk in terms of exchange rate movements and availability.

6. Effects on markets

Evaluation question 4.1: Promoting market stabilisation and EU participation in international trade

The 2003 reform retained existing CAP measures such as intervention prices, export refunds and border measures. Over the evaluation period there has been no intervention buying. Import duties for durum wheat are zero and there have been no export refunds since early 2000.

There is no clear evidence that the measures promoted price stability within the EU market. With regard to stability of supply, over the evaluation period, the share of durum wheat imports increased. This suggests that the measures have not promoted stability of domestic

supply, but the measures have not interfered with the ability of the processing sector to access the world market.

In terms of participation in international trade, traded volumes have increased, both for export and import.

7. Effects on rural areas

Evaluation question 5.1: Promoting rural development in traditional areas

Following the reform, farm employment has fallen due to a smaller number of farms growing durum wheat and a larger farm size and a lower crop area. This has been partly compensated by switch to common wheat. However, where the farmed area has fallen, rural employment requirements have decreased.

Within the processing industry, employment levels have fallen as the industry has consolidated. This consolidation is not attributed to the reform.

The reform did not promote the economic viability, when this is assessed in terms of gross margins and return to unpaid labour. However, increased decoupled payments have reduced farmers' risk.

8. Efficiency, management and administration

Evaluation questions 6.1: Efficiency of the measures and 6.2: Simplification and effective administration of the CAP

The reform can be considered efficient in terms of maintaining production as coupled costs have fallen by some 70%, while durum wheat production declined by 7%, although this is partly due to higher non-traditional area production.

In terms of quality improvement, the reforms have not been efficient as quality has not improved.

The reform has not added to the overall administrative cost of the CAP measures for the national paying agencies. The administrative requirements for farmers have not been simplified.

9. Relevance and coherence

Evaluation question 7.1: Effects on the environment

Following the reform, there has been little change in input use for durum wheat or competing crops on a per hectare basis. This means that the effect of the reform on the environment is dependent upon cropping patterns after the reform. The area under durum wheat fell. In a minority of cases durum wheat was replaced by common wheat, but in most cases the UAA area fell.

Where the area has switched to common wheat, as far as can be judged, this has not had a negative influence on the environment. The effect of a fall in the farmed area depends on whether the land is maintained in good agricultural condition or abandoned. The former is assumed to have environmental advantages. Our analysis suggests that both set aside and the non-farmed area have increased.

Evaluation question 7.2: Coherence of the measures

The reform has broadly been coherent with the objectives of the CAP reform, although it must be stressed that this judgement is made on just two to three years worth of evidence. Some of the impacts require a longer time period to work themselves out:

- Market orientation has increased, as coupled payments have decreased and international trade has increased.
- Reasonable prices to producers have been maintained. International and local prices generally move together.
- Producer incomes have been maintained. The fall in coupled payments has been offset by higher decoupled payments.
- The environmental impact has been neutral as there has been no change in input use. With a lower farmed area, an increase in set aside as advantages, while a fall in farmed area (after making an allowance for set aside) is less positive.
- There has been no change in employment in the processing sector; and
- For farm employment, this has fallen as areas have been taken out of production.

10. Recommendations

10.1 Introduction

Under the CAP Health Check, coupled support to durum wheat is to be phased out in 2010. Our analysis suggests that this will likely lead to a further reduction in the area under durum wheat as gross margins fall. For some producers, at certain prices, gross margins will probably even become negative. Where this happens producers will either switch production to crops where margins are higher, or cease farming these areas all together (with the land either being abandoned or maintained in good agricultural condition in order to benefit from the single farm payment).

10.2 Recommendations

- One of the expected impacts of decoupling in the longer term would be to see the least efficient farms leave the industry, while more competitive operations expand their area. Our analysis of FADN data suggests that variable costs are lower for larger farms. This suggests that an alternative solution to a reduction in area, in areas where agricultural and climatic conditions mean that there are no alternative crops, could be to encourage the farming of larger areas. The benefit of an increase of area size is that per hectare production costs are found to be lower on larger farms, this then leads to higher gross margins. However, farmers must also foster competitiveness in other ways e.g. by organising economies of scale, pooling of costs, equipment and labour, cooperation in financing of activities and marketing and by training that is beneficial for increasing productivity.
- The ending of the quality premium could have ramifications on durum wheat research. At present a proportion of the quality premium is used to cover the higher cost of certified seed. In many markets, with the exception of Italy, durum wheat production is relatively small compared to total COP crop production. In the absence of the quality premium, there is a danger that certified seed use falls and durum wheat research

declines. Maintaining and enhancing competitiveness of the sector in the long run would require that enough funds are available for research.

- Our analysis suggests that the quality objective has not been met, despite the introduction of a quality premium and Article 69 in Italy and Greece. The quality premium is to be abolished in the 2010 reform and as improvement of quality is still relevant for competitiveness, the issue of a reward mechanism for higher quality from the perspective of the industry needs therefore to be addressed. With the ending of the quality premium this will no longer be a public policy issue (unless payments are made under Article 68). As the examples in the report show the private sector is already paying in some cases.