Analysis of the Impact of the Abolition of Milk Quotas, Increased Modulation and Reductions in the Single Farm Payment on UK Agriculture

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Executive Summary

This report presents the results of the following analyses conducted using the FAPRI-UK modelling system of the dairy, beef, sheep, arable, pig and poultry sectors in the UK:

(1) Abolition of EU milk quotas

(a) with existing Uruguay Round Trade Rules

(b) with full export subsidy elimination

(2) Increased rate of modulation to 25% in the UK

(a) with 100% matched funding

(b) with no matched funding

(3) Reduction in and elimination of the Single Farm Payment

(a) 25% reduction in the SFP throughout the EU

(b) elimination of the SFP throughout the EU

(c) 25% reduction in the SFP in the UK only

(d) elimination of the SFP in the UK only

The key findings of the three analyses are summarised below for the year 2016, the end of the projection period.

Abolition of milk quotas

- Abolition of milk quotas exerts a significant downward impact on UK dairy prices and production. This effect is more pronounced when export subsidies are also eliminated.

Increased modulation

- Increasing the total UK modulation rate to 25% yields a very small negative production impact in the UK beef and sheep sectors and negligibly small price increases.
- The other sectors (dairy, crops, pork and poultry) show virtually no response to increased modulation.
- The presence of matched funding restricts the reduction in farm receipts.

Reduction in and elimination of the Single Farm Payment

- UK beef production declines slightly following the reduction in the SFP by 25%, whether throughout the EU or in the UK only.
- The decline in UK beef production following elimination of the SFP throughout the EU is moderate. This decline is more pronounced when the SFP is only eliminated in the UK.
- Sheep meat production declines slightly when the SFP is reduced by 25% in the UK only. This impact is partially dampened by slightly higher prices, when the reduction is implemented throughout the EU.
- The decline in UK sheep meat production is significant when the SFP is eliminated. When the SFP elimination is implemented only in the UK, this decline is greater, due to the lack of a positive price response.
- The SFP reduction/elimination scenarios do not show any discernible production and price impacts on the other sectors analysed (dairy, crops, pork and poultry).
- Reducing the SFP in the UK only has a significant impact on total farm receipts. Market receipts for the total agricultural sector remain largely unchanged but the reduction in decoupled payments reduces the total farm receipts. This impact is slightly smaller when the reduction is implemented EU-wide, due to the corresponding price increases.
- Elimination of the SFP, whether in the UK only or throughout the EU, has a large negative effect on UK farm receipts. Most of the effect comes from the disappearance of the decoupled payments from the farm accounts.

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Analysis of the Impact of Abolition of Milk Quotas, Increased Modulation and Reductions in the SFP on UK Agriculture

1. Methodology & Baseline Assumptions

1.1 Introduction

The following analyses were conducted using the FAPRI-UK modelling system to analyse the impact on UK agriculture of: (1) abolishing the EU milk quota regime; (2) increased levels of modulation in the UK; and (3) reduction in and elimination of the Single Farm Payment throughout the EU and in the UK only. In Chapter 1, an overview of the methodology underlying the policy analyses is described together with assumptions relating to the Baseline. In Chapters 2 to 4 the various policy scenarios are detailed and the results for each main sector presented.

1.2 Methodology

The FAPRI-UK modeling system, which is integrated into the FAPRI European model, produces Baseline projections, over a ten year period, of key variables in the beef, sheep, dairy and cereal sectors for each country in the UK, under the assumption that current policies remain in place and specific macroeconomic assumptions hold. The Baseline does not constitute a forecast, but provides a benchmark against which projections of the policy scenarios can be compared and interpreted. The modeling system was simulated under the following scenarios:

Abolition of Milk Quotas Scenarios;

1(a) Abolition of EU milk quota with Uruguay Round Trade Rules

1(b) Abolition of EU milk quota with full export subsidy elimination

Increased Modulation;

2(a) 25% rate of modulation (UK only) with 100% match funding

2(b) 25% rate of modulation (UK only) with no match funding

Reduction in and Elimination of the Single Farm Payment;

3(a) 25% reduction in the SFP throughout the EU

3(b) 100% reduction in the SFP throughout the EU

3(c) 25% reduction in the SFP in the UK only

3(d) 100% reduction in the SFP in the UK only

1.3. Baseline Assumptions

The following assumptions pertain to the Baseline projections:

- The Baseline incorporates the Fischler CAP Reforms. Of particular importance is the replacement of coupled direct payments with the decoupled Single Farm Payment (SFP). It is assumed that the SFP has a production stimulating effect but that this effect declines over time. Milk production is a function of an incentive price, which includes the production impact of the SFP. The dynamic hybrid model of implementation of the SFP in England leads to English dairy farmers receiving correspondingly less SFP than elsewhere in the UK.

- Compulsory EU Modulation is applied to all direct payments (including the SFP, but excluding the first €5000 paid to each farmer). Additional modulation is applied in each country in the UK at different rates. It is assumed that the financial discipline further reduces direct payments by a limited amount (maximum 5%) over the projection period (further details available from the authors).

- The dairy quota system remains in place. The asymmetric cuts in dairy support prices are implemented as agreed under the Fischler CAP reforms.

- It is assumed that the UK will reallocate 1 million tonnes of grains for ethanol production and domestically source 420 thousand tonnes of rapeseed oil for biodiesel production (which is equivalent to 821 thousand tonnes of rapeseed). Overall, EU biofuels production rises to around 3% of domestic fuel use.

- Set-aside restrictions are assumed to remain in place.

- Assumptions are made regarding the behaviour of the European Commission. In particular, it is assumed that if market prices exceed their intervention levels, the European Commission will not continue to provide export refunds to the dairy sector. Consequently, dairy export refunds would be reduced so that the commodity prices fall close to their intervention levels. Additionally, it is assumed that the Commission will continue its current practice of actively managing the market, so that the export refunds expenditure on the key agricultural products declines over time.

- The EU export subsidy limits and import tariffs, agreed under the Uruguay Round Agreements Act (URAA), remain in place.

- The key macro-economic assumptions incorporated in the Baseline are provided by Global Insight and are reproduced in Appendix A.

2. Abolition of Milk Quotas

2.1. Scenarios Analysed

1(a) Abolition of EU milk quota with Uruguay Round Trade Rules

Under this scenario the EU milk quotas are abolished in 2010 and the EU export subsidy limits and import tariffs that were agreed under the URAA remain in place. In conjunction with the abolition of milk quotas, it is assumed that intervention prices are lowered where necessary to allow the markets to clear, thus avoiding the build up of stocks. It is assumed that no compensatory aid is provided.

1(b) Abolition of EU milk quota with full export subsidy elimination

This scenario maintains the same assumptions as scenario 1(a) with the exception that the permitted value of export subsidies, agreed under the URAA, is reduced in equal steps over the five-year period 2008 to 2012. Hence, by 2012 all export subsidies are eliminated. This time frame was selected so that the full effects of the quota elimination could be incorporated by the end of the projection period.

2.2 Results

Milk Quota Abolition with Uruguay Round Trade Rules - Scenario 1(a)

- The abolition of milk quotas throughout the EU generates a surplus of EU milk production (Figure 2.1). This production surplus results in increased production of EU dairy commodities and corresponding reductions in EU prices (Figure 2.2).
- Projected UK dairy commodity prices decrease significantly under the milk quota abolition scenario 1(a) relative to the Baseline (Table 2.1).
- Under this scenario, the intervention price for butter is lowered to allow the markets to clear, thus avoiding the build up of stocks. Therefore this product experiences the greatest projected price reduction following quota abolition.

Dairy Sector Projections under the Baseline and the Milk Quotas Abolition Scenarios

Figure 2.1: EU (25) Milk Production

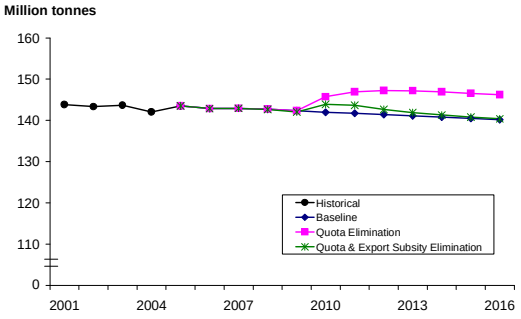


Figure 2.2: EU (25) Milk Price

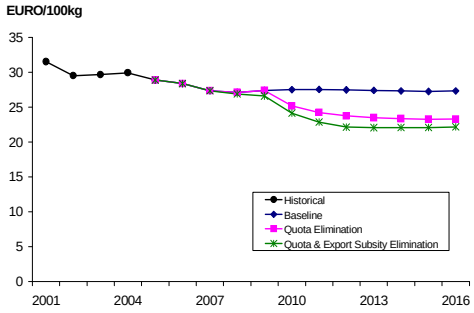


Figure 2.3: Producer Milk Price*

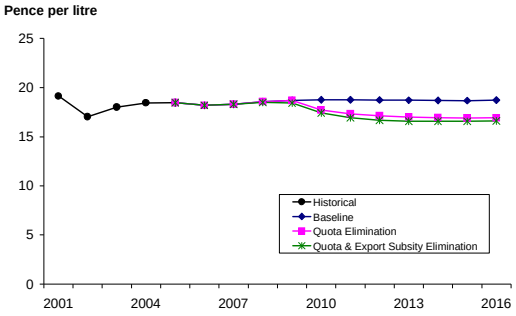
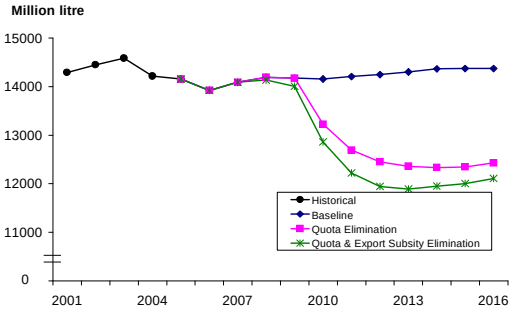


Figure 2.4 UK Milk Production



* English producer price of milk

Figure 2.5: Change in Milk Production for each UK Country

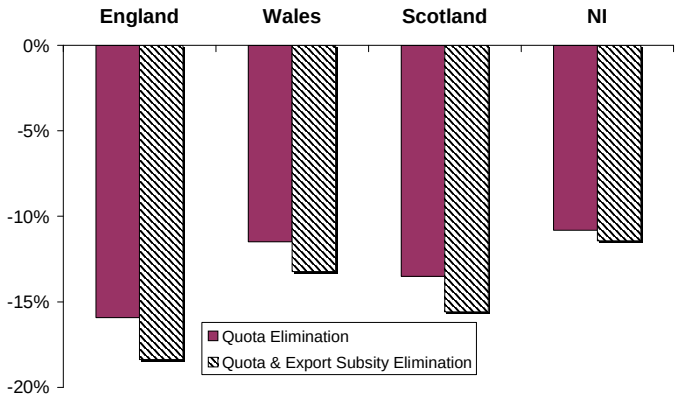


Table 2.1: Percentage Differences in UK Dairy Prices and Production between the Baseline and each Quota Abolition Scenario (year 2016)

	Quota Abolition	Quota Abolition + Export Subsidy Elimination
	(%)	(%)
Prices		
Producer milk price*	-9	-11
Cheese price	-12	-14
Butter price	-21	-30
Skim milk powder price	-12	-10
Whole milk powder price	-12	-24
Production		
Milk production	-14	-16
Dairy cows	-14	-16
Cheese production	-29	-32
Butter production	-27	-32
Skimmed milk powder	-36	-35
Whole milk powder	-20	-44

* English producer price of milk

- The projected fall in UK dairy product prices under this scenario leads to a significant decline, relative to the Baseline, in the projected milk producer price in the UK (Table 2.1).

- The fall in projected milk producer price leads to a decline in UK milk production under the milk quota abolition scenario 1(a) (Table 2.1). This decline in milk production in the UK contrasts with a rise in EU milk production (Figure 2.1).

- Milk production impacts are unevenly distributed across the UK regions. England experiences the largest drop in milk production, followed by Scotland and Wales. NI milk production is the least affected.

- Given the decline in UK milk production; there is less milk available for processing. As a result, UK production of all dairy commodities is significantly lower under the milk quota abolition scenario 1(a) compared to the Baseline, particularly SMP production which experiences the greatest fall. WMP production falls the least. (Table 2.1).

- The decline in milk production also exerts a downward impact on the number of dairy cows. By the end of the projection period there are 14 % fewer dairy cows under the milk quota abolition scenario 1.a. compared to the Baseline (Table 2.1).

- The fall in dairy cow numbers, coupled with slightly higher cereal prices (+2%) leads to a significant decrease of 8% in beef production, compared to the baseline.

Milk Quota Abolition with Export Subsidy Elimination - Scenario 1(b)

- EU milk production does not change significantly under this scenario compared to the Baseline (Figure 2.1). Dairy commodities, that previously would have been exported, remain in the EU market and exert a downward pressure on prices.

- Projected UK dairy commodity prices decrease significantly under the milk quota abolition with export subsidy elimination scenario, relative to the Baseline. The fall in commodity prices is more pronounced for butter and WMP than when the Uruguay Trade Rules apply (Table 2.1). This reflects the fact that export refunds are used extensively for butter and the internal EU prices for these commodities are generally significantly higher than those that prevail on world markets.

- The projected fall in dairy product prices leads to a significant decline, relative to the Baseline, in the milk producer price (Table 2.1).

- The fall in the projected milk producer price in turn, leads to a greater decline in UK milk production than occurs under Uruguay Trade Rules (Table 2.1).

- Milk production impacts are unevenly distributed across the UK regions. Similarly to Scenario 1(a), England experiences the largest drop in milk production, followed by Scotland and Wales. Northern Ireland's milk production is the least affected.

- Production of dairy commodities declines by a greater amount when export subsidies are eliminated. Moreover the products mix changes. In contrast to Scenario 1(a), WMP production falls by the greatest amount, while cheese is least affected, due to the relative price impacts (Table 2.1).

- The decline in milk production also exerts a downward impact on the number of dairy cows. By the end of the projection period there are 16% fewer dairy cows under the milk quota abolition Scenario 1(b), compared to the Baseline (Table 2.1).

- Under scenario 1(b) cereal prices actually fall (-1%), compared to the Baseline, but this is more than offset by the larger decline in dairy cow numbers (due to lower dairy prices). As a result, the 9% decline in UK beef production compared to the Baseline is the same for both Scenarios 1(a) and 1(b) .

Market Receipts and Decoupled Payments Projections under the Baseline and Milk Quotas Abolition Scenarios

- Market receipts for the dairy sector decrease significantly by 26% and 29% respectively under quota abolition and quota abolition plus export subsidy elimination scenarios (Table 2.2). The substantial decline in market receipts under both these scenarios reflects the combined impact of production and price decreases.

- Under the quota abolition scenario market receipts for cereals increase due to higher prices. Beef market receipts decline significantly, while better prices drive up poultry market receipts (Table 2.2).

- When quota abolition is accompanied by full export subsidies elimination, however, market receipts decline in virtually all sectors (Table 2.2).

- Total market receipts for the UK agricultural sector decrease by 8 per cent and 11 per cent respectively (Table 2.2).

- The projection of the market receipts plus decoupled payments for the UK agricultural sector decrease by 6% and 9% respectively under Scenarios 1(a) and 1(b) compared to the Baseline (Table 2.2).

Figure 2.6: UK Market Receipts and Payments

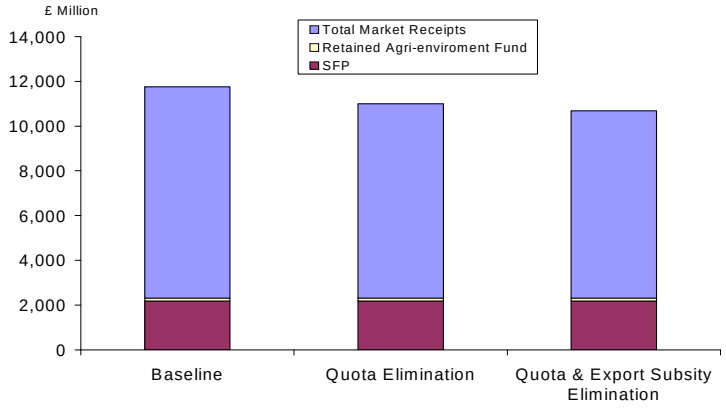


Table 2.2: Percentage Differences in Market Receipt and Decoupled Payments between the Baseline and each Quota Abolition Scenario (year 2016)

	Scenario I(a) Quota Abolition		**Scenario I(b) Quota Abolition + Export Subsidy Elimination**	
Market Receipts	(%)	£ million	(%)	£ million
Wheat	3	34	-2	-18
Barley	2	9	-1	-3
Oats	5	3	-2	-1
Rapeseed	1	2	0	-1
Total Crops	2	47	-1	-23
Beef	-8	-136	-9	-156
Pig	0	2	-1	-12
Sheep	0	-3	0	-3
Poultry	2	35	-6	-91
Total Livestock	-2	-103	-5	-262
Milk	-26	-694	-29	-788
Total Market Receipts	-8	-750	-11	-1,073
Decoupled Payments				
SFP	0	0	0	0
Retained Agri-Environmental Funds	0	0	0	0
Market Receipts + Decoupled Payments	-6	-750	-9	-1,073

2.3 Conclusions

- Abolition of milk quotas exerts a significant downward impact on UK dairy prices and production. When the current Uruguay Round trade rules are maintained, the UK production impact contrasts with the rest of the EU, where abolishing the milk quota leads to a moderate increase in milk production.

- When, in addition to abolishing milk quotas, export subsidies are also eliminated, the production and price impacts in the UK are more marked. Total EU milk production remains unchanged.

3. Increased Modulation With and Without Matched Funding

3.1 Scenarios Analysed

2(a) 25% rate of modulation (UK only) with 100% matched funding

In this scenario a 25% national modulation rate is levied with 100% matched funding by the Treasury. This increase in modulation is phased in from 2007 to 2010 in equal steps. By 2010 the total rate of modulation, (compulsory plus voluntary) in all countries in the UK is equal to 25%. Since different regions have their own voluntary modulation rates, this involves different modulation rate increases across the regions with England increasing by much less than the other regions. The compulsory modulation (of up to 5%) is assumed to be subject to franchise, while the voluntary modulation is not. The modulation rates across the rest of the EU remain as in the Baseline. Money raised via modulation is assumed re-distributed into agri-environmental schemes with no production impacts.

2(b) 25% rate of modulation (UK only) with no matched funding

Under the Increased Modulation Scenario 2(b), the assumptions are the same as 2(a) with the exception that there is no matched funding by the Treasury.

3.2 Results

Dairy Sector Projections for the two Increased Modulation (UK only) scenarios

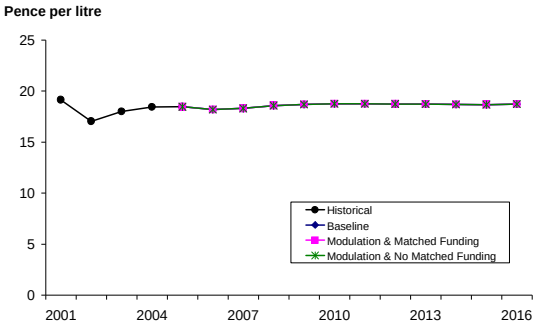
- UK dairy commodity prices do not change when there is 25% modulation in the UK only, relative to the Baseline. Consequently, the UK milk producer price does not change either (Figure 3.1). The UK producer milk price remains relatively strong throughout the projection period and as a result, reducing the SFP via modulation has no impact on production. The presence or absence of matched funding makes no difference.

- There are no discernible impacts on UK dairy production (Figure 3.2). As in the Baseline, UK milk production stays at the quota level at the end of the projection period.

- Production of the dairy commodities shows no significant change.

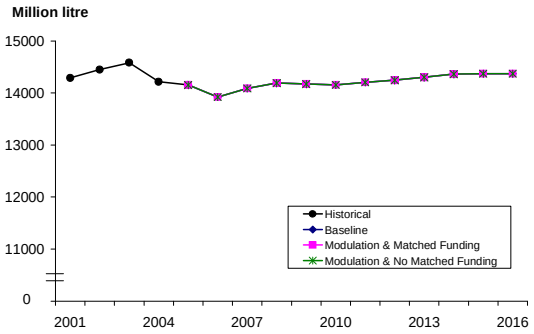
Dairy Sector Projections under the Baseline and the two increased Modulation Scenarios

Figure 3.1: Producer Milk Price*



* English producer price of milk

Figure 3.2: UK Milk Production



Beef Sector Projections for the two Increased Modulation (UK only) scenarios

- There is a very slight beef production impact (Figure 3.4) since increased modulation reduces the value of the SFP. The impact is slightly more marked in Wales relative to elsewhere due to the lower baseline level of modulation in Wales.

- Increased modulation has a negligible upward impact on projected cattle prices in the UK. (Figure 3.3 and Table 3.1) since this policy change is applied to the UK only and thus the production changes at the EU level are insufficient to generate sizeable price response.

Beef Sector Projections under the Baseline and the Increased Modulation (UK only) Scenarios

Figure 3.3: Average UK Producer Price of Clean Marketings

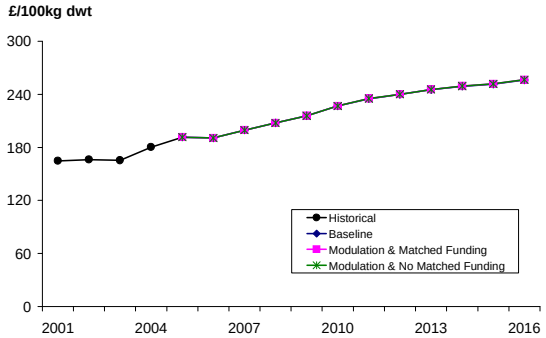


Figure 3.4: UK Beef Production

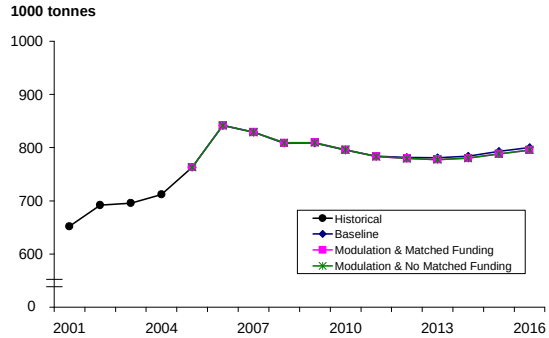


Table 3.1: Percentage Differences in Beef Sector Price and Production between the Baseline and each Modulation Scenario (year 2016)

	25% Modulation + 100% Matched Funding	25% Modulation + No Matched Funding
	(%)	(%)
Suckler cows	-1	-1
Total cows	-1	-1
Beef production	-1	-1
Average UK Producer Price of Clean Marketings	0	0

Sheep Sector Projections for the two Increased Modulation (UK only) Scenarios

- Projected UK ewe numbers decrease by 1% under the modulation scenarios compared to the Baseline in response to the reduced value of the SFP (Figure 3.6 and Table 3.2).

- Following the drop in the UK production the projected sheep meat price is only marginally higher than in the Baseline (Figure 3.5 and Table 3.2). Presence or absence of matched funding makes no difference.

Sheep Sector Projections for the Baseline and Increased Modulation (UK only) Scenarios

Figure 3.5: Average UK price of Finished Sheep and Lambs

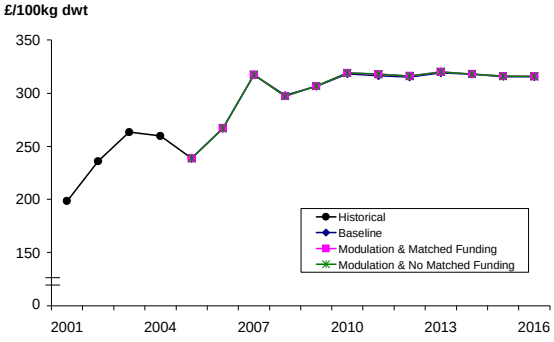


Figure 3.6: UK Sheep Meat Production

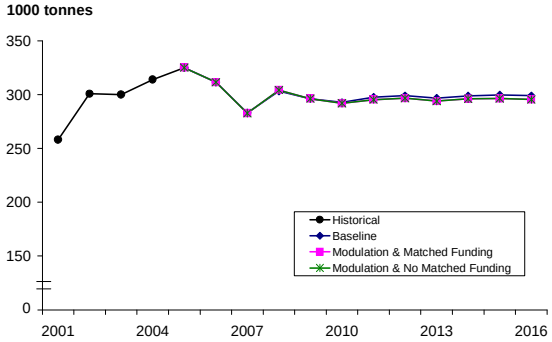


Table 3.2: Percentage Differences in Sheep Sector Price and Production between the Baseline and each Scenario (year 2016)

	25% Modulation + 100% Matched Funding	25% Modulation + No Matched Funding
	(%)	(%)
Ewes	-1	-1
Sheep production	-1	-1
Average UK price of finished sheep and lambs	0	0

Arable Sector Projections for the two Increased Modulation (UK only) scenarios

- Increased modulation has a negligible impact on the production of wheat, barley and rapeseed. This is partly due to the assumed smaller production impact of the SFP in the crop sector.

- Crop prices remain unchanged compared to the Baseline due to the negligible production impacts (Figures 3.7 and 3.8).

- It should also be noted that the pig and poultry sectors do not show any discernable impacts. These sectors are not directly supported and all changes there are due to cross price effects. The negligible price changes in the other sectors are not sufficient to significantly affect pigs and poultry.

Arable Sector Projections under the Baseline and the Increased Modulation (UK only) Scenarios

Figure 3.7: UK Wheat Price

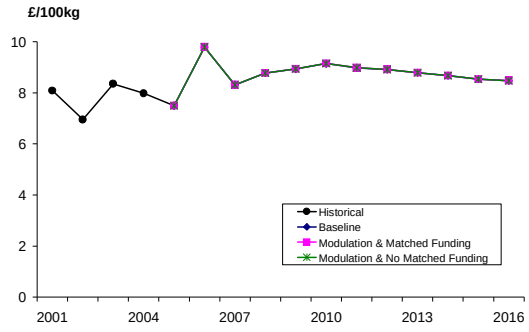
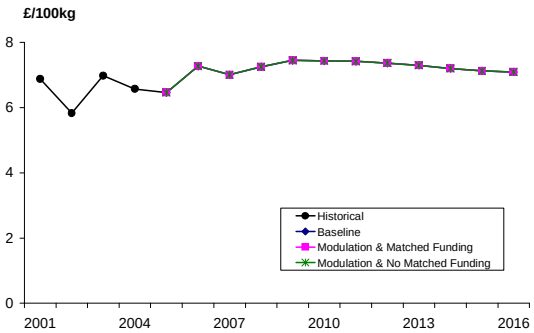


Figure 3.8: UK Barley Price



Market Receipts and Decoupled Payments Projections for the two Increased Modulation (UK only) Scenarios

- Market receipts for each sector do not change under the two increased modulation scenarios.

- The projection of total receipts for the UK agricultural sector decrease by 1% and 3% respectively, compared to the Baseline for each modulation scenarios. The greater reduction is due to the absence of matched funding (Table 3.3

Market Receipts and Decoupled Payments Projections under the Baseline and the Increased Modulation (UK only) Scenarios

Figure 3.9: UK Market Receipts and Payments

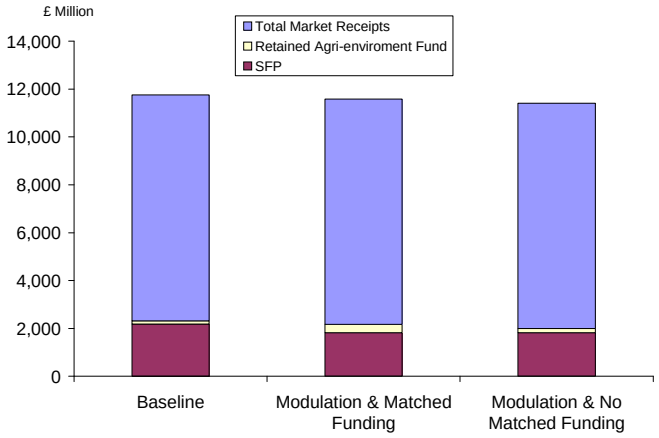


Table 3.3: Percentage Differences in Market Receipt and Other Payments between the Baseline and Increased Modulation Scenarios (year 2016)

	25% Modulation +100% Matched Funding		**25% Modulation + No Matched Funding**	
	(%)	£ million	(%)	£ million
Market Receipts				
Total Crops	0	-1	0	-1
Total Livestock	0	-17	0	-17
Milk	0	0	0	0
Total Market Receipts	0	-18	0	-18
Decoupled Payments				
SFP	-16	-358	-16	-358
Retained Agri-Environmental Funds	163	215	31	41
Market Receipts + Decoupled Payments	-1	-161	-3	-334

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3.3 Conclusions

- Increasing the total UK modulation rate to 25% yields a marginal production impact on the UK beef and sheep meat sectors and negligibly small price increases, irrespective of presence or absence of matched funding.

- The other sectors (dairy, crops, pork and poultry) show virtually no response.

4. Reduction in and Elimination of the Single Farm Payment

4.1 Scenarios Analysed

3(a) 25% reduction in the SFP throughout the EU

The SFP and the partially coupled payments are reduced by 25% throughout the EU. The reduction in the SFP is phased in from 2007 to 2010 in equal yearly increments. Since Financial Discipline amounting to 5% is already applied in the Baseline, the SFP is effectively reduced by 20% under this scenario compared to the Baseline.

3(b) 100% reduction in the SFP throughout the EU

This scenario maintains the same assumptions as scenario 3(a), except that the reduction in the SFP throughout the EU is 100%.

3(c) 25% reduction in the SFP in the UK only

The 25% reduction of the SFP is applied only in the UK, with the rest of the EU maintaining the same level of financial discipline as in the Baseline.

3(d) 100% reduction in the SFP in the UK only

The 100% reduction of the SFP is applied only in the UK, with the rest of the EU maintaining the same level of financial discipline as in the Baseline.

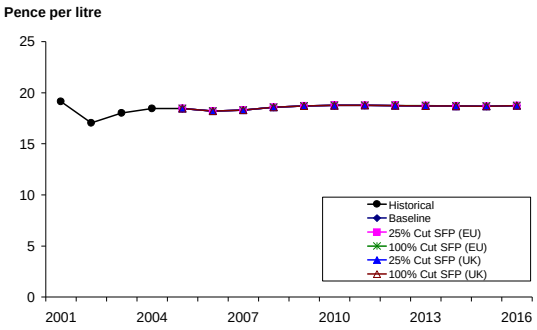
Scenarios 3(c) and 3(d) are purely hypothetical since the EU legislation does not allow member states to apply different rates of financial discipline. In Scenarios 3(b) and 3(d) where appropriate the modulation rates are also reduced (to zero by 2010), while in the other two scenarios the corresponding modulation rates are the same as in the Baseline.

4.2 Results

Dairy Sector Projections for Reductions in the SFP Scenarios 3(a), (b), (c) & (d)

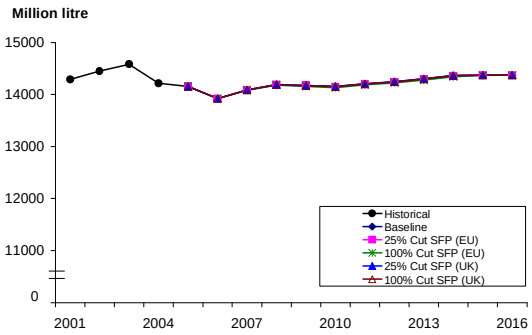
- Reductions in the SFP have no discernible impact on UK dairy production and prices (Figures 4.1. and 4.2), because the production enhancing impact of the dairy component of the SFP is small and insufficient to drive production below quota.

Figure 4.1: Producer Milk Price*



* English producer price of milk

Figure 4.2: UK Milk Production



Beef Sector Projections for Reductions in the SFP Scenarios 3(a), (b), (c) & (d)

Scenario 3(a) 25% reduction in the SFP throughout the EU

- The EU-wide 25% reduction of the SFP has a slightly negative impact on UK beef cow numbers and beef production (Figure 4.4). Although decoupled, the SFP is still assumed to have some residual production enhancing impact. Hence reducing its value leads to a slight drop in production.

- The decrease in supply results in slightly higher beef prices (Figure 4.3).

Scenario 3(b) 100% reduction in the SFP throughout the EU

- Eliminating the SFP throughout the EU leads to moderate decreases in the UK beef herd size and production (Figure 4.4). The removal of the SFP under this scenario is offset to a certain extent by the positive price impact (Figure 4.3). Thus, the drop in UK production is less than might be expected.

- This price impact reflects the fact that under the baseline some direct payments in certain EU countries remain linked to production and thus the complete removal of the payments has significant production impact throughout the EU. In the UK, suckler cow numbers are 4% lower, and beef production falls by 4% relative to the Baseline.

- The UK beef price is 5% higher under this scenario compared to the baseline (Table 4.1).

Beef Sector Projections for Baseline and Reductions in the SFP Scenarios 3(a), (b), (c) & (d)

Figure 4.3: Average UK Producer Price of Clean Marketings

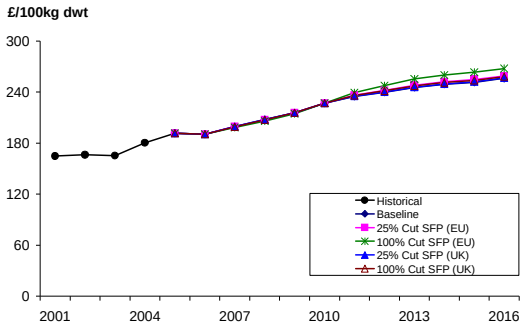


Figure 4.4: UK Beef Production

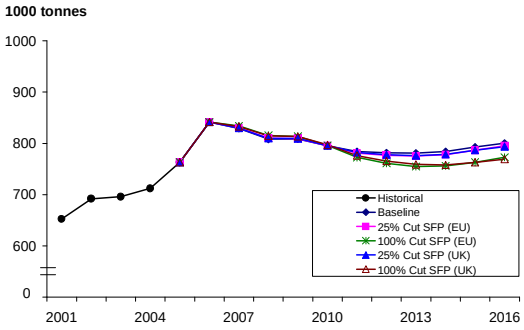


Table 4.1: Percentage Differences in Beef Sector Price and Production between the Baseline and SFP Reduction Scenarios (year 2015)

	25% Reduction of SFP (EU)	**100%Reduction of SFP (EU)**	**25% Reduction of SFP (UK)**	**100%Reduction of SFP (UK)**
	(%)	(%)	(%)	(%)
Suckler cows	-1	-4	-2	-7
Total cows	0	-2	-1	-3
Beef production	-1	-4	-1	-4
Average UK Producer Price of Clean Marketings	1	5	0	1

Scenario 3(c) 25% reduction in the SFP in the UK only

- Reducing the SFP by 25% only in the UK has a modest production impact in the beef sector. Under this scenario UK suckler cow number are 2% below the baseline in 2016 (Table 4.1).

- Since the policy change applies only to the UK, there is no impact on the rest of the EU. Consequently, unlike in scenario (3a), the beef price does not change significantly, relative to the baseline.

Scenario 3(d) 100% reduction in the SFP in the UK only

- Eliminating the SFP only in the UK exerts a negative impact on the UK cattle herd size and beef production. Suckler cow numbers are down 7% compared to the Baseline, while beef production is 4% lower (Table 4.1).

- The production impact exceeds that which occurs under the equivalent EU-wide scenario (3b) since the elimination of the SFP (in the UK only) is not offset by a significant price impact.

Sheep Sector Projections for Reductions in the SFP Scenarios 3(a), (b), (c) & (d)

Scenario 3(a) 25% reduction in the SFP throughout the EU

- The EU-wide 25% reduction in the SFP has a slight downward impact on ewe numbers and sheep meat production (Figure 4.6).

- The decrease in supply results in slightly higher sheep meat prices (Figure 4.5).

Figure 4.5: Average UK price of finished sheep and lambs

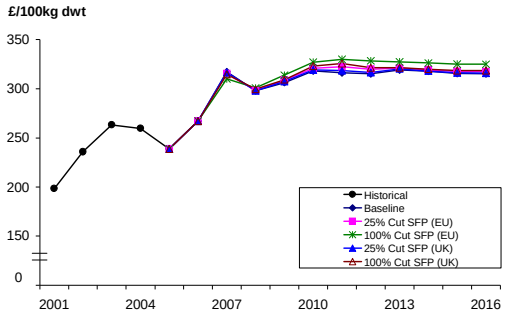


Figure 4.6: UK Sheep meat Production

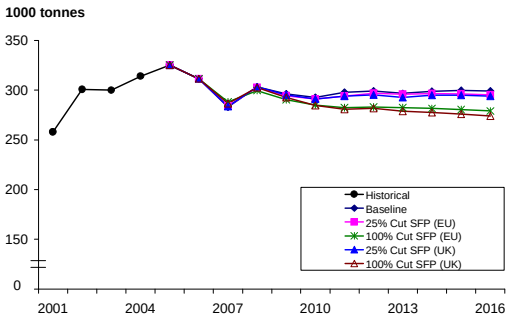


Table 4.2: Percentage Differences in Sheep Meat Price and Production between the Baseline and each SFP reduction scenario (year 2016)

	25% Reduction of SFP (EU)	**100%Reduction of SFP (EU)**	**25% Reduction of SFP (UK)**	**100%Reduction of SFP (UK)**
	(%)	(%)	(%)	(%)
Ewes	-1	-6	-2	-8
Sheep production	-1	-7	-2	-8
Average UK price of finished sheep and lambs	1	3	0	1

Scenario 3(b) 100% reduction in the SFP throughout the EU

- Eliminating the SFP in the EU leads to significant decreases in the UK ewe herd size (-6%) and UK sheep meat production (-7%) (Table 4.2). This is due to the fact that the SFP assists in maintaining some marginal sheep production.

- Sheep meat production declines elsewhere in Europe and as a result the UK sheep meat price rises relative to the baseline (Figure 4.5).

Scenario 3(c) 25% reduction in the SFP in the UK only

- Applying the 25% reduction in the SFP only to the UK has a small negative impact on UK ewe herd size and sheep meat production (Table 4.2).

- Due to the lack of impact in the rest of the EU, however, prices do not change significantly (Figure 4.5).

- The downward production impact of a UK-only reduction in the SFP is slightly greater than when the 25% reduction is applied throughout the EU.

Scenario 3(d) 100% reduction in the SFP in the UK only

- Eliminating the SFP only in the UK exerts a downward impact on UK ewe herd size and sheep meat production (Table 4.2). Both ewe numbers and sheep meat production are 8% lower, compared to the Baseline, by the end of the projection period.

- While the value of the SFP in the rest of the EU remains the same as in the Baseline, the decline in the UK sheep sector causes the UK lamb price to increase slightly.

Arable Sector Projections under the Baseline and Reductions in the SFP Scenarios

- The SFP reduction scenarios have a negligible impact in the crop sector (Figures 4.7 and 4.8). It is projected that in the Baseline crop prices increase over the projection period due to increased demand for cereals and oilseed for bio-fuel production. These high crop prices are more than sufficient to offset the negative impact of the reductions of the SFP and allow cereal and oilseed production to remain profitable.

Figure 4.7: UK Wheat Price

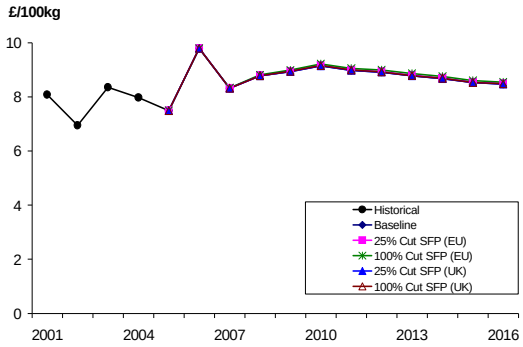
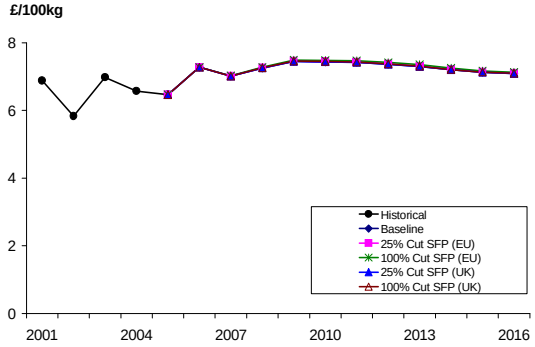


Figure 4.8: UK Barley Price



- The SFP reduction scenarios have negligible impact of the pork and poultry sectors.

Market Receipt and Other Payments Projections for the Reductions in the SFP Scenarios

- Market receipts for each sector do not change significantly under the 25% reduction in the SFP, whether throughout the EU or in the UK only (Table 4.3).

- Owing to the franchise, the 25% reduction in the nominal SFP only yields a 22% reduction in the funds actually received by the farming sector (Table 4.3).

- The projection of market receipts plus other payments to the UK agricultural sector decreases by 4% and 5% respectively in response to the 25% reduction in the SFP Scenarios (EU & UK) compared to the Baseline (Table 4.3).

- Crop market receipts remain largely unchanged under the 100% reduction in the SFP Scenarios (Table 4.3).

- Market receipts in the livestock sector experience moderate increases, except in the sheep sector, where they decrease by 7%, under the 100% reduction in the SFP throughout the EU scenario. However, total market receipts for the livestock sector as a whole remain largely unchanged (Table 4.3).

Market Receipt and Other Payments Projections for the Baseline and Reductions in the SFP

Figure 4.9: UK Market Receipts and Other Payments

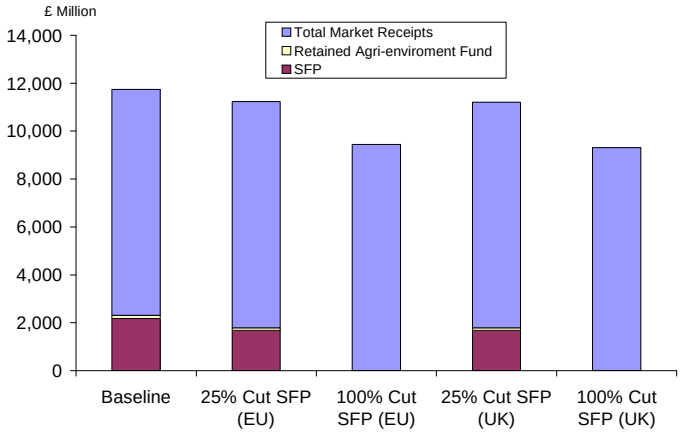


Table 4.3: Percentage Differences in Market Receipt and Decoupled Payments between the Baseline and the Reductions in the SFP Scenarios (year 2016)

	25% Reduction in SFP (EU)		**100%Reduction in SFP (EU)**		**25% Reduction in SFP (UK)**		**100% Reduction in SFP (UK)**	
	(%)	£ million	(%)	£ million	(%)	£ million	(%)	£ million
Market Receipts								
Total Crops	0	4	1	13	0	-1	0	-4
Beef	0	6	1	14	-1	-11	-3	-53
Pig	0	1	1	7	0	0	0	1
Sheep	-1	-10	-7	-53	-2	-14	-9	-67
Poultry	0	5	2	24	0	0	0	2
Total Livestock	0	2	0	-9	-1	-24	-2	-117
Milk	0	0	0	1	0	0	0	0
Total Market Receipts	0	6	0	5	0	-25	-1	-121
Decoupled Payments								
SFP	-22	-487	-100	-2,180	-22	-487	-100	-2,180
Retained Agri-Environmental Funds	-22	-29	-100	-132	-22	-29	-100	-132
Market Receipts + Decoupled Payments	-4	-511	-20	-2,307	-5	-542	-21	-2,433

- Total market receipts decrease by 2% in the livestock sector under the 100% reduction in the SFP scenario (UK only). Sheep sector market receipts decrease by 9 per cent and beef sector decrease by 3 per cent. (Table 4.3)

- The projected market receipts plus payments for the entire UK agricultural sector decrease significantly by 20% and 21% respectively under the 100% reduction of SFP scenarios (EU & UK) compared to the Baseline (Table 4.3 & Figure 4.9). The reductions in the SFP largely contribute to the decline in total income for the UK agricultural sector.

4.3 Conclusions

- Reductions in the SFP by 25% both EU wide and for the UK only, produce a small decrease in UK beef production. In the latter case the decline is slightly greater, as there is no corresponding price increase.

- Eliminating the SFP throughout the EU leads to a moderate decline in UK beef production. This decline is more pronounced when the SFP is eliminated only in the UK.

- Reducing the SFP EU-wide or for the UK only has a small negative impact on sheep meat production. The production impact is partially dampened by slightly higher prices.

- When the SFP is eliminated, either throughout the EU or in the UK only, however, the decline in sheep meat production is significant.

- The SFP reduction scenarios do not show any discernible impact in the other sectors (dairy, crops, pork and poultry). Pork and poultry are not directly supported by the SFP. The contribution of the SFP to the dairy sector is relatively small, and the comparatively strong milk price at the end of the projection period ensures the quota is filled. The demand for energy crops leads to high cereal and oilseeds prices.

Appendix A

Macroeconomic Assumptions

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP growth - percent													
EU-15	percent	1.5%	1.9%	1.8%	2.1%	2.2%	2.0%	2.0%	1.9%	1.9%	1.9%	1.9%	2.4%
France	percent	1.5%	1.8%	1.7%	1.8%	2.1%	1.8%	1.8%	1.9%	1.9%	1.8%	1.7%	4.2%
Germany	percent	1.1%	1.7%	1.0%	1.6%	1.7%	1.8%	1.7%	1.6%	1.6%	1.5%	1.6%	1.3%
Italy	percent	0.2%	1.0%	1.2%	1.4%	1.6%	1.3%	1.4%	1.4%	1.4%	1.3%	1.3%	2.2%
United Kingdom	percent	1.6%	2.2%	2.7%	3.0%	2.8%	2.6%	2.6%	2.5%	2.5%	2.4%	2.4%	2.9%
Other EU	percent	2.3%	2.6%	2.4%	2.4%	2.6%	2.4%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
NMS-10	percent	4.1%	4.5%	4.6%	4.6%	4.5%	4.3%	4.2%	3.6%	3.4%	3.4%	3.4%	7.7%
Poland	percent	3.3%	4.5%	4.9%	5.3%	5.2%	4.9%	4.7%	3.5%	3.3%	3.1%	3.2%	3.0%
Hungary	percent	4.0%	4.0%	4.0%	4.0%	4.1%	3.7%	3.6%	2.9%	2.9%	2.8%	2.9%	4.2%
Other NMS	percent	5.4%	5.1%	5.1%	4.7%	4.5%	4.3%	4.2%	4.1%	3.9%	3.9%	3.9%	3.2%
Bulgaria	percent	5.6%	4.5%	4.4%	4.1%	3.8%	3.9%	3.5%	3.2%	3.1%	3.2%	3.3%	3.2%
Romania	percent	5.2%	6.2%	6.4%	6.2%	6.2%	6.0%	6.2%	5.2%	4.9%	4.6%	4.2%	3.7%
Inflation (GDP deflator) - percent													
EU-15	percent	1.6%	1.8%	2.2%	1.9%	1.7%	1.7%	1.8%	1.8%	1.9%	1.8%	1.8%	1.8%
France	percent	1.3%	1.9%	1.8%	1.7%	1.6%	1.7%	1.8%	1.7%	1.8%	1.9%	1.9%	1.9%
Germany	percent	0.4%	0.8%	1.7%	1.1%	1.1%	1.1%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%
Italy	percent	2.0%	2.4%	2.6%	2.4%	2.0%	2.0%	2.2%	2.4%	2.4%	2.3%	2.0%	2.0%
United Kingdom	percent	2.4%	2.6%	2.3%	2.6%	2.4%	2.4%	2.3%	2.3%	2.3%	2.4%	2.4%	2.4%
NMS-10	percent	2.8%	2.2%	2.4%	2.4%	2.5%	2.4%	2.3%	2.3%	2.4%	2.4%	2.3%	2.3%
Poland	percent	2.1%	2.0%	2.3%	2.3%	2.4%	2.4%	2.4%	2.3%	2.5%	2.4%	2.3%	2.4%
Hungary	percent	3.5%	2.4%	2.5%	2.5%	2.5%	2.4%	2.2%	2.2%	2.3%	2.3%	2.3%	2.2%
Bulgaria	percent	7.9%	6.1%	5.6%	4.3%	2.7%	2.7%	2.2%	2.2%	2.2%	2.3%	2.3%	2.3%
Romania	percent	9.3%	5.7%	3.7%	3.7%	3.2%	2.4%	2.3%	2.3%	2.0%	1.9%	1.8%	1.9%
Exchange rate vs. dollar													
EU-15	euro/$	0.79	0.79	0.71	0.66	0.70	0.72	0.72	0.71	0.70	0.69	0.68	0.67
France	FF/$	5.19	5.18	4.64	4.36	4.59	4.74	4.74	4.67	4.60	4.54	4.47	4.41
Germany	DM/$	1.55	1.54	1.38	1.30	1.37	1.41	1.41	1.39	1.37	1.35	1.33	1.32
Italy	IL/$	1532.89	1528.79	1370.12	1285.90	1355.18	1398.33	1398.04	1377.78	1358.09	1338.96	1320.36	1302.28
United Kingdom	£/$	0.55	0.54	0.51	0.49	0.52	0.54	0.54	0.53	0.52	0.51	0.51	0.50
NMS-10	euro/$	0.79	0.79	0.71	0.66	0.70	0.72	0.72	0.71	0.70	0.69	0.68	0.67
Poland	ZL/$	3.22	3.10	2.77	2.60	2.74	2.82	2.82	2.78	2.74	2.70	2.67	2.63
Hungary	FL/$	195.51	200.11	179.23	168.21	177.27	182.92	182.88	180.23	177.65	175.15	172.72	170.35
Bulgaria	lev/$	1.55	1.55	1.39	1.30	1.37	1.41	1.41	1.39	1.37	1.35	1.34	1.32
Romania	lei/$	2.87	2.89	2.95	3.01	3.06	3.09	3.09	3.12	3.26	3.26	3.26	3.21
Exchange rate vs. euro													
France	FF/euro	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56	6.56
Germany	DM/euro	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Italy	IL/euro	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27	1936.27
United Kingdom	£/euro	0.69	0.69	0.72	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Poland	ZL/euro	4.06	3.93	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91
Hungary	FL/euro	246.96	253.45	253.29	253.29	253.29	253.29	253.29	253.29	253.29	253.29	253.29	253.29
Bulgaria	lev/euro	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Romania	lei/euro	3.62	3.66	4.17	4.53	4.37	4.28	4.28	4.38	4.65	4.71	4.78	4.78
Other exchange rates													
Dollars per euro	$/euro	1.26	1.27	1.41	1.51	1.43	1.38	1.38	1.41	1.43	1.45	1.47	1.49
Dollars per UK pound	$/£	1.82	1.84	1.96	2.03	1.92	1.86	1.86	1.89	1.92	1.95	1.97	2.00
Euro per UK pound	euro/£	1.44	1.45	1.39	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Population													
EU-15	million	382.98	383.83	384.61	385.33	385.99	386.61	387.21	387.80	388.34	388.87	389.38	389.86
France	million	60.72	60.90	61.09	61.28	61.45	61.61	61.77	61.92	62.05	62.18	62.31	62.42
Germany	million	82.56	82.61	82.66	82.70	82.74	82.75	82.76	82.76	82.76	82.75	82.74	82.72
Italy	million	57.43	57.49	57.54	57.57	57.57	57.58	57.58	57.58	57.58	57.57	57.55	57.51
United Kingdom	million	60.02	60.25	60.48	60.71	60.93	61.17	61.40	61.64	61.88	62.12	62.37	62.62
Other EU	million	122.25	122.57	122.84	123.08	123.30	123.51	123.70	123.90	124.07	124.25	124.42	124.59
NMS-10	million	81.51	81.37	81.23	81.08	80.94	80.79	80.60	80.41	80.21	80.02	79.75	79.60
Poland	million	38.49	38.48	38.46	38.45	38.43	38.42	38.37	38.32	38.27	38.22	38.17	38.13
Hungary	million	10.03	9.97	9.90	9.84	9.78	9.71	9.65	9.59	9.52	9.46	9.32	9.28
Other Candidates	million	32.99	32.92	32.86	32.79	32.73	32.66	32.58	32.50	32.42	32.34	32.25	32.19
Bulgaria	million	7.71	7.67	7.62	7.57	7.52	7.46	7.40	7.34	7.28	7.23	7.17	7.11
Romania	million	21.66	21.59	21.53	21.46	21.40	21.34	21.27	21.19	21.10	21.02	20.93	20.85