091 2328511

THE CAP IN 1995
A Survey of Expert Opinion

(With Special Reference to Milk Policy)

Andrew Fearne
Christopher Ritson

Report No. 30

Department of Agricultural & Food Marketing
University of Newcastle upon Tyne
Price: £15.00

THE CAP IN 1995

A Survey of Expert Opinion

(With Special Reference to Milk Policy)

Andrew Fearne and Christopher Ritson

University of Newcastle upon Tyne
February 1987

Contents   Page

1. INTRODUCTION – THE NEED FOR POLICY FORECASTING IN AGRICULTURE

Forecasting for agriculture is a growth business. As uncertainty over future developments in agricultural marketing increases, so does the need, in agriculturally related businesses, for market forecasts. The popularity of the Agra Europe and Aberdeen Outlook Conferences are examples of the thirst for informed views concerning future developments in agricultural markets. These kinds of events, together with the market outlook work produced by organisations such as the British Meat and Livestock Commission, are extremely valuable as an aid to short-term marketing decisions. But from the point of view of longer-term planning/investment decisions in business, virtually all agricultural forecasts suffer from either one of two disadvantages (and sometimes both). These are that:

(a) the forecasts are very short-term – usually less than one year; or

(b) they assume a constant policy environment.

The traditional approach to longer-term forecasting for agriculture is based on market balance. Usually using quantitative techniques, an attempt is made to identify the main factors (e.g. income growth, and technological change) influencing the demand and supply of the commodity. By predicting how these factors are likely to develop, the price path necessary to maintain market balance can be determined. Such an approach is of obvious relevance in many circumstances, particularly in relation to international commodity markets. However, for a business whose prosperity is related to European agricultural markets, such an approach is inadequate. The markets for agricultural

products within the European Community (EC) are now so heavily
controlled by policy mechanisms - mechanisms which seem increasingly
subject to change - that an effective forecast presupposes a forecast
of policy decisions.

Faced with this reality, most commentators have tended to concentrate
on short-term outlook work. This will cover a period during which the
policy can be expected to remain stable (within the marketing year);
or can be based on known (or highly likely) policy decisions (eg the
annual price agreement) yet to be implemented. Other specialists have
simply concluded that agricultural markets were "unforecastable".

For example, speaking about the outlook for the UK milk industry, a
senior economist from the Milk Marketing Board stated ". . . like the
rest of UK agriculture, the prospects for the dairy industry depend,
to some extent, on the future value of the ´green´ pound. But since
this is in the area of political decision, there is little point in
speculating upon it." (Churcher 1977)

Where attempts have been made to explore the future direction of
agricultural policy decisions in the European Community, much of the
work has suffered from another serious disadvantage when viewed as an
objective forecast. This is the tendancy, whether consciously or not,
to substitute what is desired for what is likely. For this reason,
the European Commission is not a reliable source for prediction of
developments in European agricultural markets. Either the forecasts
are simple extrapolations - to "frighten" Ministers into taking action

4

to curb surpluses - or they will be over-optimistic concerning the likelihood of Commission proposals becoming Council action.

Similarly, in the academic world there is a plethora of literature on the "reform" of the Common Agricultural Policy. Naturally, if an academic proposes what he believes to be a desirable development in the Policy, he will want to be confident that the proposal has a chance of success - and may give the impression to the commercial world that what he would like to happen, _is_ likely to happen.

Against this background, for several years, the Department of Agricultural & Food Marketing at Newcastle University has been exploring methods of forecasting European agricultural policy decisions. The work has been guided by two closely related principles. First, we have attempted to eradicate from our work our own views on what _should_ happen to the CAP, and concentrated on methods of predicting what _will_ happen to it. Second, we have tried to ensure that work is commercially relevant - that is, is directed towards answering questions of relevance to agriculturally related businesses. The latter principle has been tested in the course of commissioned work for ICI Agricultural Division, part of which was subsequently published (Fearne, Oughton & Ritson, 1985).

This report describes one approach to agricultural policy forecasting which we have undertaken at Newcastle - an application of the Delphi method of surveying expert opinion.

2. THE DELPHI METHOD

Many people appear to associate forecasting with quantitative rather than qualitative techniques, regarding it as a purely numerical process. However, in recent years the use of qualitative forecasting methods has increased significantly, for two basic reasons:

1. the lack of adequate data - either on an historical basis, where data simply does not exist, or one of reliability, due to technological or environmental changes; and

2. the existence of influential factors, notably of a political nature, which are not easily quantified and thus lend themselves more readily to qualitative assessment than to quantitative analysis.

Both of these characteristics apply to forecasting CAP decisions, a task for which only a relatively small amount of historical data exists and one which requires the analysis of a number of politically influenced factors not readily quantifiable.

The Delphi method itself is perhaps the most popular of the range of qualitative forecasting techniques which have developed over the past thirty years. Named, of course, after the famous oracle of Ancient Greece, the Delphi concept evolved during the 1950s, following a United States defence research project, called "Project Delphi", in which defence experts were used to piece together an optimal individual target system from the point of view of a Soviet strategic

planner.

During the 1960s, the use of the Delphi method was confined largely to the aerospace and electronics industries, in which rapid technological developments rendered trend extrapolation inadequate. However, more recently, Delphi forecasting has been adopted in management science and operations research, in recognition of the need to incorporate subjective information (such as risk analysis) directly into models of complex social problems.

The methodology, which is summarised in Figure 1, basically involves a long-range conferencing procedure, aimed at establishing a concensus among representative experts. The experts chosen are unlikely to communicate with one another and their views are obtained either via a postal survey or through individual telephone interviews. The questionnaire is constructed according to the purpose for which it is designed and submitted to each of the participants at the same time. After a specified time period, the responses received are summarised, the data reduced and a second questionnaire is issued in which participants are asked to revise their original estimates in the light of the group response, or to give specific reasons for refusing to move towards the consensus view. In principle a Delphi exercise may extend to three or four rounds, but in most cases, two rounds should suffice.

<u>Figure 1</u>

<u>A</u> <u>Summary</u> <u>Flow</u> <u>Chart</u> <u>of</u> <u>the</u> <u>Delphi</u> <u>Methodology</u>

```
┌─────────────────────┐
│ Design and submit   │  ⎫
│ first questionnaire │  ⎪
└─────────────────────┘  ⎪
          │              ⎬   DELPHI ROUND 1
          ▼              ⎪   To establish prior
┌─────────────────────┐  ⎪   probabilities
│ Summarise responses │  ⎪
│ and reduce data     │  ⎭
└─────────────────────┘
          │
          ▼
┌─────────────────────┐  ⎫
│ Design and submit   │  ⎪
│ second questionnaire│  ⎪
└─────────────────────┘  ⎬   DELPHI ROUND 2
          │              ⎪   To establish posterior
          ▼              ⎪   probabilities
┌─────────────────────┐  ⎪
│ Summarise responses │  ⎭
│ and reduce data     │
└─────────────────────┘
          ┊
          ▼
    ┌───────────────┐
    │ Final Results │
    └───────────────┘
```
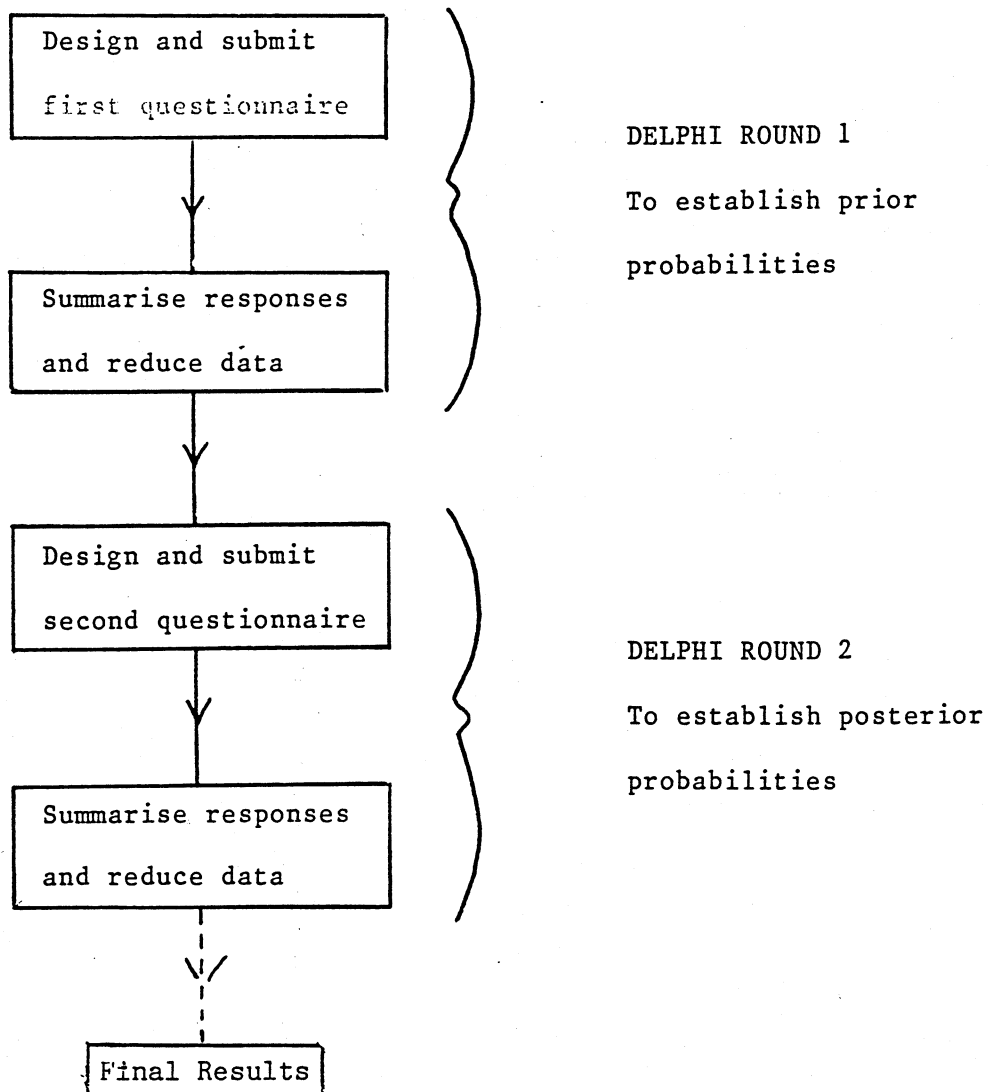
By keeping participants apart, the intention is that effects such as
personality and rank are minimised. The final forecast is then a
distillation of the views of the entire group, and the opportunity to
revise estimates allows participants to respond to factors which they
may not have considered during the first round. The double round
technique has the great attribute that it forces consensus, where
consensus is possible, but reveals <u>genuine</u> divergence.

8

3. <u>BACKGROUND</u> <u>TO</u> <u>THE</u> <u>NEWCASTLE</u> <u>SURVEY</u>

Although the first work at Newcastle concentrated on quantitative
approaches to Agricultural Policy Forecasting (Ritson 1983),
subsequent research (Fearne 1987) recognised that long-term
forecasting of the CAP would have to incorporate a significant amount
of qualitative/judgemental inputs. Although the Delphi survey was
initially envisaged as a means of obtaining qualitative forecasts of
the development of the CAP in general (see Fearne 1987), the
significant qualitative element in the grassland-based livestock
forecast for ICI Agricultural Division (Fearne, Oughton, Ritson 1985)
led to the inclusion of a section devoted to future EC dairy policy.
A brief discussion of the earlier exercise therefore provides a
necessary background to this part of the Delphi survey.

Two issues underlay the commission by ICI Fertilizer Marketing
Department of a ten-year forecast of the future for UK grassland-based
livestock. The first was the growing conviction that certain changes
in the British diet might be having substantial implications for the
pattern of demand for food products in the UK. Second was the
realisation that agricultural policy was unlikely to continue to
underwrite the steady increase in agricultural production experienced
in the UK over the past 30 years. The apparantly inexorable growth in
farm output had led to the view that the increase in agricultural
production was technology led and carried on almost irrespective of
market conditions. A more realistic view was that agricultural policy
has simply been prepared to underwrite the (technology-led) growth in
production, but that the (then) recent imposition of milk quotas provided

9

the first concrete evidence that this period of "passive" policy response to production growth was coming to an end.

Although the initial approach concentrated on demand forecasting, further discussions led to the conclusion that what was required was a forecast of production. Thus, the evolution of demand is considered only as a factor influencing the level of production.

Figure 2 illustrates the range of factors which, at the onset, we hypothesised might influence the production of milk, beef and sheepmeat in the U.K. To some extent this represented a "traditional" view of the interaction between the market and the production of agricultural products; price is the key signal which "translates" changes in market factors into a simple question of how much is produced of the particular product.

Discussion of these models led to an important conclusion: that the dominant influence on the level of production was likely to be policy decisions. For this reason, we concluded that a conventional commodity market analysis, in which a forecast of underlying forces influencing supply and demand are brought together, by price, in market equilibrium, would not be appropriate. Thus the forecast, although not originally viewed as such, became a part of our general interest in policy forecasting.

A second consequence of the view that policy decisions would be the dominant influence was to alter the role (and reduce the importance of) the demand forecast. Rather than influencing production through

10
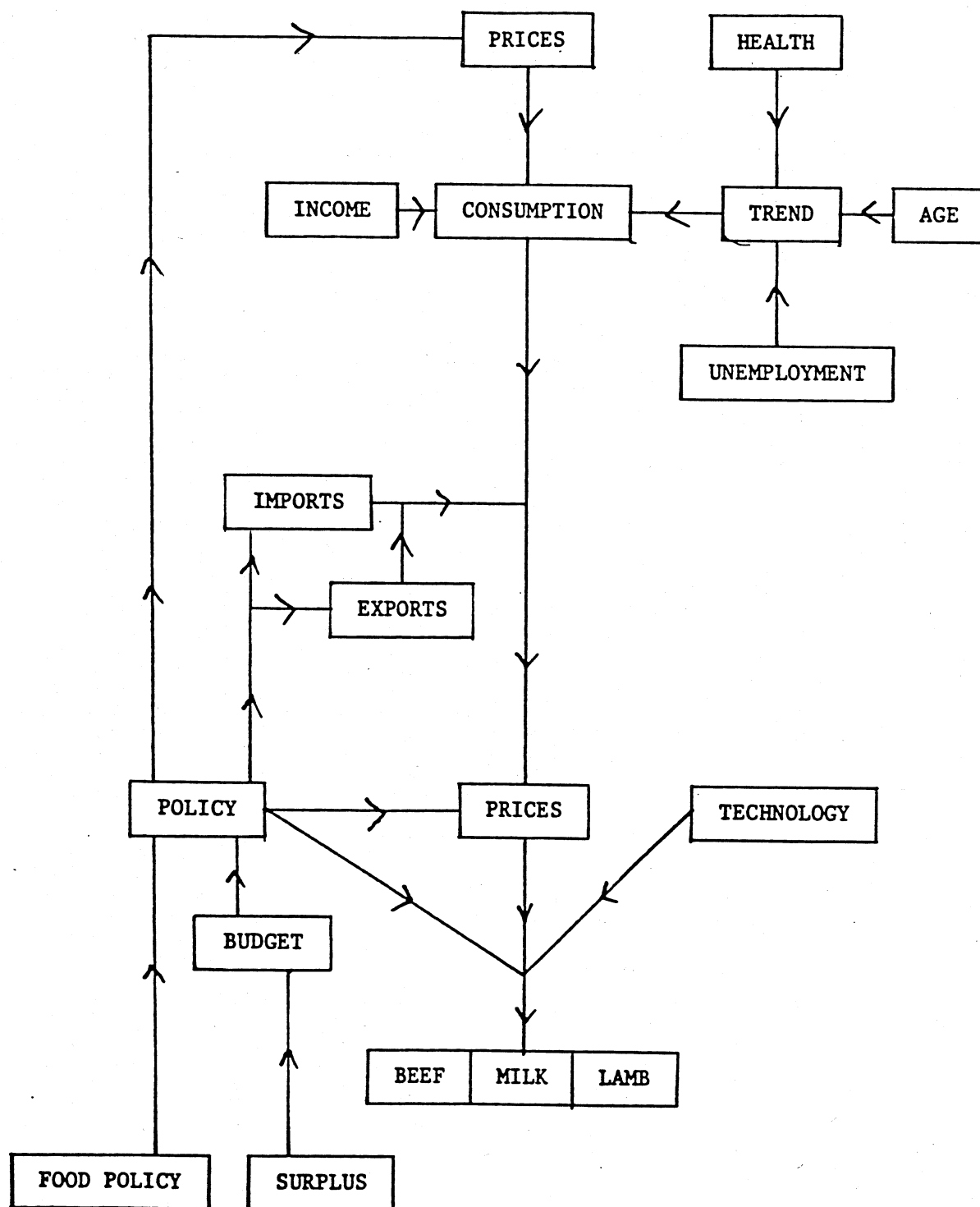
Figure 2: UK Marketing Flow-chart - Milk, Beef and Sheepmeat

the market mechanism (implicit in our initial discussions), demand is likely to affect production predominantly by its effect on policy decisions. This in turn implied that, in the main, it would be demand at an EC, rather than UK, level which would be critical.

The most substantial (and difficult) part of the livestock products forecast concerned milk production. We concentrated on milk, partly because of the importance of the UK dairy sector as a user of nitrogen, but also because the strong links between the dairy herd and beef supply in the UK meant that, once equipped with a milk production forecast, the beef forecast largely amounted to a numerical (quantitative) exercise.

Figure 3 shows the reduced form of Figure 2, which underlay our approach to milk production.

The market price is no longer the major "signal" to producers, but changes in market circumstances (particularly the difference between consumption and production) are communicated to producers via the various policy mechanisms, with quotas being the dominant instrument. Management and technology remain directly significant but are clearly influenced by policy decisions (with a ceiling on production, the incentive for increasing yields may be reduced) and so in turn become policy influenced.

Thus, the "traditional" market-orientated approach to forecasting supply and demand is exchanged for a more direct policy-orientated approach, which necessarily requires the forecasting of political
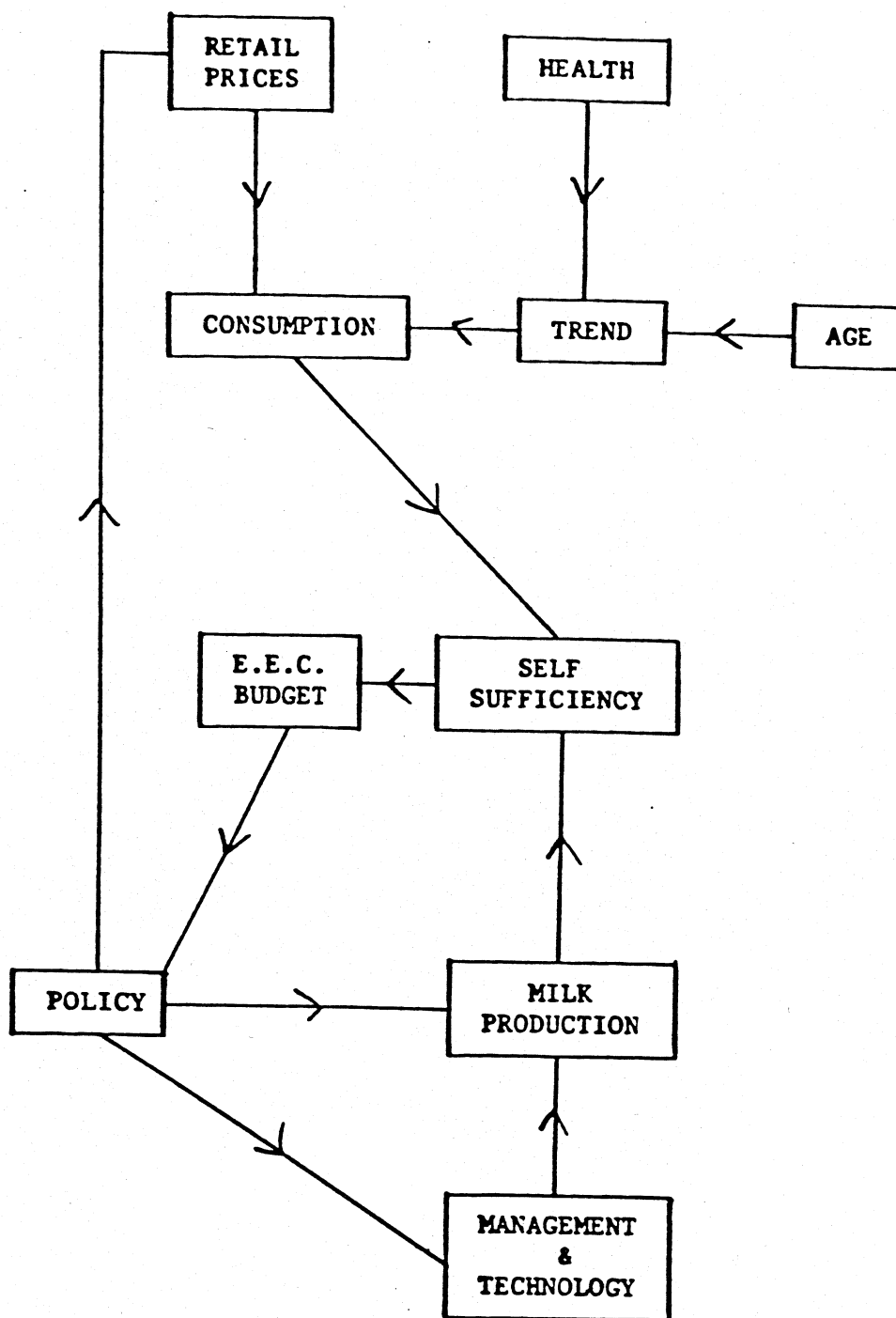
Figure 3:   Production Flow-chart - UK Dairy Sector

decisions.

In one sense, the imposition of EC milk quotas simplified the task of
forecasting milk supplies in that, arguably, the task became "simply"
one of forecasting the quota. Certainly, both available evidence and
logic suggested that, if the quota system was properly applied,
national production would approximate to the national quota. However,
this involved the necessity of forecasting political decisions. Apart
from the intrinsic difficulty of (and, one might add, lack of
established methodology for) doing this, there was the added
complication that alternative policy decisions may lead to divergent
paths; thus, whereas with conventional commodity forecasts it is
usually possible to establish a range of outcomes surrounding a most
likely value, this is not appropriate with policy forecasting. For
this reason, we developed a probability tree approach in which we,
first, specified alternative developments to the CAP dairy policy, and
then attached probabilities to the various outcomes. We allowed for
three basic scenarios:

1. the retention of the quota system;

2. its replacement by an EC alternative; and

3. the nationalisation of milk policies.

Scenarios 1 and 2 were, in turn, given alternatives. For 1, an
increased, reduced or constant quota; for 2, the application of price
policies, or an expanded flat rate (co-responsibility) levy. The
outcome is summarised in Figure 4.

<u>Figure 4</u>

<u>UK</u> <u>Milk</u> <u>Production</u> <u>–</u> <u>1995</u>

```
                              ┌──────── Current
EC Quota      ────────────────┼──────── Increased
                              └──────── Reduced


                              ┌──────── Price Policy
EC Alternative  ──────────────┴──────── Co-responsibility levy


No CAP        ───────────────────────── Price policy
```
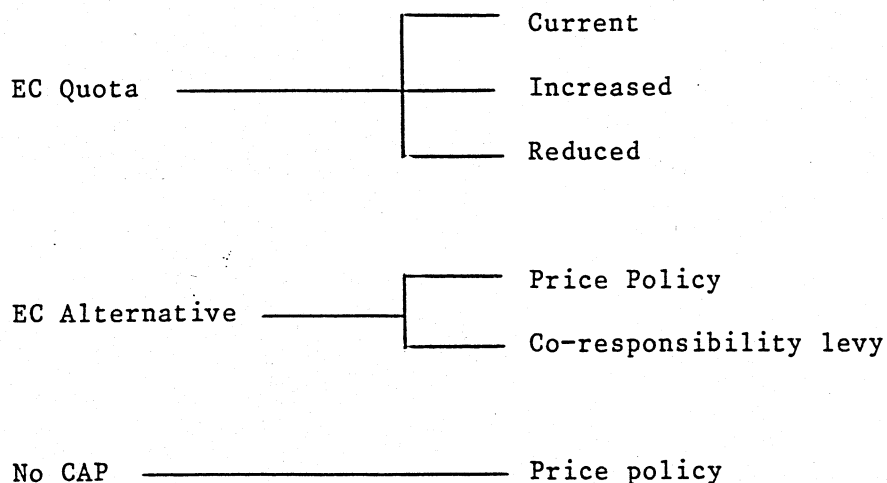
Both the alternatives, and the probabilities, were based on our own

judgement, but derived after discusion with a small number of experts.

The technique appeared, to us, robust. A natural consequence was to

attempt to improve its reliability by surveying a much wider and more

representative range of expert opinion. The technique was therefore

incorporated into the Delphi forecast.

4. THE SURVEY

4.1 Questionnaire Design

The first round questionnaire was subject to a particularly careful design procedure. After several revisions, it was first piloted by colleagues in Newcastle, revised, and then piloted again by three "sample" experts, one in the South of England, one in Germany and one in Brussels. As often happens in these cases, one main consequence of piloting the questionnaire was that the final version was much shorter than the first. A French translation was then prepared. Ideally, we should have liked to provide the questionnaire in more languages, but the whole exercise was based on such limited resources that this was not feasible. The questionnaire was divided into three sections. (The first and second round questionnaires are included in the Appendix.)

The first covered a range of issues (re-nationalisation, enlargement, majority voting and increased financial resources) which are likely to be of major relevance to the future development of the CAP and the ability to predict the direction of change. The second section required explicit numerical forecasts of specific variables and was designed to ascertain to what extent the balance of the policy will shift, from market support (FEOGA guarantee expenditure) to structural policy (guidance section) and between products, and how this will affect farm incomes and support prices in the Community. The third section was based on the technique developed for our livestock forecast, discussed in Section 3 above. It was designed to obtain

16

probability estimates for alternative scenarios on the future of EC

dairy policy, with respondents encouraged to insert their own ideas on

policy movements as well as attaching the relevant probability

estimates.

It will be noted that the second round questionnaire contains fewer

questions and that the format of some of them is different. This was

the result of two conclusions from the first round: first, that

despite the pruning after the pilot survey, the questionnaire remained too

long; and second that some of the open-ended questions regarding changes in

the policy and the influential factors at the price review needed to be

restructured to enable a more accurate interpretation of the factors listed.

We were very encouraged by the number of respondents who commented

favourably on, and expressed their interest in, the whole exercise.

4.2 Sample Selection

The selection of experts is often cited as the main source of error in

many Delphi studies, and in this instance the task proved to be

particularly problematical. Because of the specific requirements of

the survey - a good general knowledge of the CAP with particular

interest in the dairy policy and a good understanding of English or

French, it was not possible to conduct a random search among

acknowledged CAP experts. Instead, it was decided to obtain a

selection of names in seven Member States - the UK, Ireland, France,

Germany, Italy, Denmark and the Netherlands. The names were provided

by nine professional colleagues of ours in the Member States involved. Greece, Spain and Portugal were excluded from the survey on the grounds that they were "inexperienced players" in the Community game, and Belgium because we felt it would be difficult to prevent a Belgium sample being dominated by "Brussels thinking".

It would, of course, have been interesting to see how opinion in the "new" Member States differed from that of the more established States. But that was not the function of the survey. We were sampling expert opinion in different countries, first, because to obtain the best qualified sample to forecast the future of the CAP, this would be necessary, and second, because we took the view that, to the extent that - say - the "French view" differed from the "English" - then the most likely future would be a balance of the "English" and "French" forecasts. But we were not interested, per se, in contrasting views between Member States.

Table 1 shows the breakdown of respondents by country and occupation, from which it is evident that the sample is heavily biased towards the Northern Member States. However, on the basis of occupation, a fairly even distribution was achieved in the overall sample, with only a slight bias towards the academics. Respondents from the agri-business sector included people from trade organisations, the agricultural supply industry and agricultural co-operatives, while participants from the public sector included farm union representatives and civil servants (from Agricultural Ministries, the Commission and the European Parliament).

Table 1

Breakdown of Respondents by Member State and Occupation

Country	Number in Population	Number in sample (1)	(2)	Response Rate (%) (1)	(2)	Occupation (%) (1) Academic	Agri-Business	Public Sector
Germany	21	15	14	71	93	60	7	33
France	33	15	10	45	66	27	40	33
UK	25	19	15	76	79	47	21	32
Eire	17	11	9	65	82	36	55	9
Netherlands	18	11	9	69	82	27	46	27
Denmark	21	12	11	57	92	33	34	33
Italy	21	8	7	38	87	62	0	38
Total	156	91	75	58	82	40	30	30

Although only 156 people were originally contacted, 91 responded to the first questionnaire, representing an overall response rate of 58%, which is exceptionally high for a postal survey. However, not surprisingly the response rate was far from uniform across Member States, with France and Italy in particular showing disappointing response rates. In the second round, 82% of those participating in the first survey returned the second questionnaire, which is also a high figure given the time of the year (June/July) and the length of the exercise.

Considerable thought was given to the question of weighting responses and how this should be achieved. The decision to weight, and if so on what basis, depends on how one categorises the participant group. If,

for example, one assumes that each participant is unaffected by national bias and is able to maintain objectivity, then there is no reason to weight responses in relation to the proportion from each Member State. If, on the other hand, one assumed the participants to be inherently chauvinistic, or at least partly influenced by their Member State's position (geographical, political or economic) within the Community, then some form of equalising weights would be necessary. One could also take the view that differential weights should be applied, to reflect the fact that, given the structure of Community decision-making and the distribution of voting power in the Council of Ministers and the European Parliament, the significance of contributions from each Member State is not uniform.

It was thus decided to analyse the responses to both questionnaires using three alternative weighting structures. The first contained no weights at all, implying that national bias did not exist; the second included a set of weights such that the responses from each Member State were accorded equal importance; and the third incorporated weights based on the distribution of votes in the Council of Ministers. In the event, the overall consensus results were largely unaffected by the weighting structure.

5. THE RESULTS

Although the data provided an opportunity for interesting comparison between responses in different Member States, and between the three main professional groups, since the main intentions of the exercise was to obtain the most reliable view possible of the CAP in 1995, we concentrate here on the consensus view of the full sample. The analysed results of each question are presented as follows:

(a) The data shown in the tables is mainly from the first round questionnaire (because of the larger sample involved). However:

(b) In the case of some tables, mention is made of any significant changes as a consequence of the second round, and sometimes the second round results are also given. Often, the second round results produced greater consensus (as, of course, intended).

(c) The responses are usually ranked, to indicate the consensus view of future developments. In arriving at the "European Consensus", equal Member State weights have been used.

(d) Where there appears to be an interesting and significant departure of the view in one Member State from the consensus, this is indicated to the right of the table.

(e) Each table is accompanied by a brief comment, indicating what we believe to be the main message of the response.

5.1 Section One - General Policy Developments

Question 1 - What is the likelihood of either the total or partial re-nationalisation of the CAP by 1995?

The CAP, it seems, will still be with us in 1995, but it is likely to undergo a certain amount of re-nationalisation.

Table 2

Probability of Total Collapse of CAP

Probability Range	% of Respondents	Country Disagreement Netherlands	France
0 or .1	74.9	91	60
.2 or .3	20.0	9	20
>.3	5.1	0	20

(Second Round - greater consensus for low probability (82% gave a probability of 0 or 0.1 and no respondents attached a probability greater than 0.3.)

Table 3

Probability of Partial Collapse of the CAP

Probability Range	% of Respondents	Country Disagreement		
		Italy	France	Germany
.3-.5	49.7	37.5	53.3	40.0
.6-.7	26.5	25.0	33.3	20.0
.8-1.0	15.7	25.0	15.4	33.3
0-.2	8.1	12.5	0	6.7

(Second Round - significant increase in probability of partial re-nationalisation, with only 16% regarding this as unlikely (probability of less than 0.5).)

Interestingly, the French respondents seemed less confident about the prospects for maintaining the CAP in its present form.

Question 2 - Measures likely to be adopted by Member States if agricultural policy is re-nationalised

Here the consensus seems to be that Member States would continue to control agricultural markets by similar mechanisms to those adopted under the CAP.

Table 4

Measures Likely to be Adopted by Each Member State if CAP Re-nationalised

Policy Measure	% of Responses*	Country Disagreement	
		UK	Italy
Price Support	16.3	13.0	20.0
Import Levies	16.2	14.3	20.0
Structural Aid	15.1	16.9	24.0
Export Subsidies	13.9	5.2	16.0
Quotas	11.6	13.0	0
Direct Income Payments	9.3	11.7	12.0
Co-responsibility Levies	8.8	5.2	0
Deficiency Payments	3.7	13.0	0
Other	5.0	7.8	8.0

* "Responses" rather than "Respondents", as respondents could cite several measures

(Question not included in second round.)

Questions 3 and 4 - Probability of Enlargement

Further enlargement of the Community by 1995 is regarded as unlikely - particularly on the basis of the second round questionnaire. Only Turkey is given a reasonable chance of membership - though a surprising number of respondents cited Norway and Sweden as possible members.

Table 5

How Likely is the Further Enlargement of the Community by 1995

Probability Range	% of Respondents	Country Disagreement		
		Denmark	Ireland	France
0-.1	47.6	25.0	18.2	80.0
.2-.3	34.5	25.0	45.5	20.0
>.3	17.9	50.0	36.4	0

(Second Round – strong consensus on a probability of .1 (68% of respondents) though some Danish respondents continuing to disagree.)

Table 6

Countries Most Likely to Become EC Members

Country	% of Responses	Country Disagreement			
		Ireland	Italy	Denmark	UK
Turkey	37.0	23.8	85.7	17.6	40.0
Norway	19.0	14.3	0	52.9	8.0
Sweden	10.7	19.0	0	29.4	0
Austria	9.1	19.0	0	0	8.0
Switzerland	5.9	9.5	0	0	12.0
Cyprus	5.3	0	0	0	20
Morocco	4.2	0	14.3	0	4.0
Finland	3.8	9.5	0	0	0
Israel	2.6	4.8	0	0	0
Malta	1.8	0	0	0	8.0
Hungary	0.7	0	0	0	0

(Question not included in second round.)

<u>Question 5</u> - <u>Possible Policy Changes</u>

Questions five and six on the first round questionnaire are perhaps
the most interesting in section one. In the first round, respondents
were asked to list likely changes in the nature of CAP support. These
are listed in Table 7. This reveals a clear concensus over the shift
in emphasis away from market support - towards limited intervention,
more quotas and extended co-responsibility, and towards direct income
supplements.

<u>Table 7</u>

<u>In What Way is the Method of Support Under the CAP Likely to Change by</u>
<u>1995</u>?

Policy Change	% of Responses	Country Disagreement Germany	France
Limited Intervention	28.4	25.0	36.4
Direct Income Aids	22.3	33.3	13.6
More Quotas	15.5	19.4	22.7
Extended Co-responsibility	14.0	5.6	27.3
Structural Aid	8.0	8.3	0
Set Aside	3.6	5.6	0
No Change	3.5	0	0
Less Border Protection	2.5	2.8	0
Extended Guarantee Threshold	2.3	0	0

In the second round, respondents were presented with a list, drawn up
on the basis of the first round responses, and were asked to tick

those which were considered likely to occur over the next ten years. As Table 8 reveals, the emphasis remained with restrictive market support arrangements and direct income support, although the percentages were notably smaller. Presumably, this was because the second round list stimulated some respondents to consider a wider range of measures - though, for whatever reason, quotas have dropped down the league table. Perhaps surprisingly, no country stood out as having a very different view from the rest as to the likely policy developments.

Table 8

In Which Way is the Method of Support Under the CAP Likely to Change by 1995 (Second Round)?

Policy Change	% of Responses
Limited Intervention	17.9
Extended Co-responsibility	16.1
Direct Income Aids	15.6
Structural Aids	13.8
Extended Guarantee Thresholds	11.6
Less Border Protection	8.1
Set Aside Schemes	7.3
More Quotas	5.6
Other	3.9

Question 6 - Factors Influencing Price Review

A similar approach was adopted with question 6, in which respondents were asked to list the main influential factors at the price review. Table 9 shows the breakdown of all the factors cited, irrespective of ranking, with budgetary pressure, farm incomes, surpluses and the world market situation coming out as the most commonly cited. Although the results from this table show that only 21.6% of responces were budgetary pressure, 50.7% of respondents cited this factor as the most important.

Table 9

Factors Affecting Price Review (First Round)

Factor	% of Responses	Country Disagreement UK
Budget Pressure	21.6	22.8
Farm Income Pressure	21.0	16.5
Size of Surplus	17.5	8.9
World Market	16.9	19.0
National Issues	8.1	10.1
Inflation	6.4	5.1
EMS and Exchange Rates	2.9	1.3
Environmental Issues	2.3	10.1
Consumer Issues	2.3	6.3
Majority Voting	0.6	0

Having established the range of factors considered to be influential
by the respondents in the first round, the question was re-structured
in the second round, with respondents given the alternatives cited by
respondents in the first round and asked to rank them from one to ten
in order of importance. As a result, a much clearer indication of
relative importance was achieved. Budgetary pressure is clearly
considered to be the most important factor, with concern over
surpluses second and a tie for third place between farm incomes and
the world market situation. There is little concensus over the
importance of national elections, with 50% of Italians voting it the
second most important factor and 30% of the Danish respondents ranking
it only eighth. Similarly, the importance of currency movements is
clearly seen from a different perspective from one corner of the
Community to another, with a third of the Italian respondents ranking
it tenth, while a quarter of the British participants ranked it third.
Inflation came out as the sixth most important factor, with majority
voting, environmental issues and consumer interests clearly the least
influential of the factors listed.

Question 7 - Majority Voting

Question seven refers to the possibility of majority voting being
introduced into the Council of Ministers (something which is supposed
already to exist but which has not been much used). Given the
implications which majority voting would have for the development of
the CAP, it is perhaps not surprising that a clear divergence of
opinion over the likelihood of its occurrence emerged from the first
round (Table 10) with approximately 50% of respondents thinking it

more likely, and 50% less likely, than not. However, the second round

revealed a definite move towards the latter, with a clear majority of

respondents giving a probability of 0.5 or less.

Table 10

Removal of Council Veto

Probability Range	% of Respondents	
	First Round	Second Round
0-.1	18.5	8.6
.2-.3	20.7	35.7
.4-.5	23.1	30.7
.6-.7	25.7	15.8
.8-1	12.1	9.1

Questions 8 and 9 - Countries with most Influence

Question eight (Table 11) suggests that the historic dominance of

Germany, France and the UK over the development of the policy is

likely to continue in the future, with the Southern Members considered

more powerful as a block than as individual forces. (Curiously,

respondents in Germany, the UK and France all regarded the influence

of their own country as rather less than did the average view.)

Similarly, the traditional position of the USA, among the non-member

countries with an influence over the CAP, appears likely to continue,

as the responses to question 9 (Table 12) reveals, along with the

USSR, whose import requirements are likely to remain an important

influence on the prospects for cereal exports.

Table 11

Which Member States Will Have Most Influence Over the Development of the CAP

Country	% of Responses
Germany	31.0
France	28.1
UK	16.0
Southern States (not specified)	10.6
Spain	4.7
Northern States (not specified)	3.7
Netherlands	2.9
Italy	2.7
Greece	0.4

(Question not included in second round.)

Table 12

Which Non-Member States Will Have Most Influence on the CAP

Country	% of Respondents	Country Disagreement Denmark
USA	57.9	70.6
USSR	13.5	5.9
Australia & New Zealand	9.6	17.6
Mediterranean Countries	4.8	0
ACP States	4.7	0
Other	9.4	5.9

(Question not included in second round.)

Questions 10 and 11 - Growth of Own Resources

Many commentators on the recent financial problems facing the Community have indicated that, rather than agreeing to the wholesale reform of the CAP, the Community's leaders are more likely to seek more money for the Community budget. This belief appears to be largely confirmed by the responses to question ten (Table 13) to which the vast majority of respondents gave a probability of 0.5 or more that the VAT ceiling would be further increased by 1995, with 48% giving a probability of 0.9 in the second round. In the event, the general concensus over the likely level of the new VAT ceiling is between 1.8% and 2% (Table 14).

Table 13

Probability of VAT Ceiling being Raised

Probability Range	% of Respondents		Country Disagreement (First Round)	
	Round 1	Round 2	UK	France
0-.2	2.0	1.4	0	13.4
.3-.4	5.9	0	0	0
.5-.6	17.5	16.4	21.0	26.6
.7-.8	34.0	27.4	21.1	40.0
.9-1	30.6	54.9	57.9	20.0

Table 14

Likely Level of VAT Ceiling by 1995

% VAT	% of Respondents	
	Round 1	Round 2
1.5 or 1.6	17.0	6.4
1.7 or 1.8	29.4	22.2
1.9 or 2.0	37.9	57.3
2.1-2.5	12.1	11.3
2.6-3.2	3.5	2.7

33

5.2 <u>Section 2 - Incomes, Prices and CAP Expenditure</u>

Section two of the questionnaire provided a more difficult task for
respondents in that they were required to provide numerical forecasts of
variables which we know to be influenced by a range of conflicting forces -
as indicated by some of the answers in Section One. The average (mean)
forecasts of respondents are presented in Tables 15-19 below. The
relatively wide range associated with some of the estimates suggests that
this section of the survey was less successful in establishing a concensus;
rather it revealed a genuine conflict of views.

Question eleven concerned the level of FEOGA expenditure as a
percentage of total expenditure, and the proportion spent on the
guarantee side. The responses to the first round (Table 15) produced
average figures of 63% and 58%, with a inter-quartile range of 15.0 for
total FEOGA expenditure and 25.0 for the guarnatee section. In the
second round the figures did not change much and the range surrounding the
guaranteed expenditure was only slightly improved. The inference here
is that the proportion of total agricultural expenditure will fall but that
the guarantee section will continue to have the lion's share. However,
the lack of concensus renders this conclusion only a tentative
one. Given the relative stability of these figures over the past ten
years - figures given to respondents in the questionnaire - the range
of estimates for 1995 is somewhat surprising.

34

Table 15

CAP Expenditure as a Proportion of Total EC Expenditure

Year	FEOGA expenditure as a % of total expenditure	FEOGA (Guarantee) as a % of total expenditure
1976	72.0	69.3
1977	77.3	74.1
1978	74.1	71.4
1979	75.5	72.7
1980	73.1	69.4
1981	64.7	61.5
1982	63.1	59.9
1983	60.6	58.0
1984	69.9	67.6
1995 Forecast		
Average (Mean)		
Round 1	63.1	57.7
Round 2	61.9	57.7
Range ($\pm$)		
Round 1	42.5	54.0
Round 2	45.0	27.0
Inter-quartile Range ($\pm$)		
Round 1	15.0	25.0
Round 2	15.0	21.0

Question twelve required respondents to break down the proportion of FEOGA expenditure on the main commodity sectors. A number of respondents found it impossible to answer this question, which resulted in it being omitted from the second round. Nevertheless, the responses to the first round (Table 16) did suggest that the balance of expenditure will shift slightly away from the Northern products

(cereals, milk and beef) and towards the Southern products (wine and fruit and vegetables) with some respondents drawing attention to the implications of Spanish membership.

Table 16

Question 12 – Breakdown of FEOGA Expenditure by Sector

Year	Milk	Cereals	Beef	Sugar	Fruit & Veg	Wine	Sheep	Others
1973	39.2	27.0	0.4	3.6	0.9	0.3	0	28.6
1974	39.3	12.9	10.3	3.5	2.2	1.4	0	30.4
1975	31.3	13.1	13.7	6.5	1.9	2.9	0	30.6
1976	36.8	11.0	11.6	4.1	4.4	3.1	0	29
1977	42.8	9.6	7.0	8.8	3.4	2.5	0	25.9
1978	46.3	12.8	7.4	10.1	1.2	0.7	0	21.5
1979	43.4	15.0	7.2	9.0	4.2	0.6	0	20.6
1980	42.0	14.8	12.0	5.1	6.1	2.6	0.5	16.9
1981	30.0	17.2	12.9	6.9	5.8	4.1	1.7	21.4
1982	26.8	14.7	9.3	10.0	7.4	4.6	2.0	25.2
1983	27.6	15.3	10.9	8.3	7.5	4.1	1.9	24.4
1984	31.6	10.5	11.2	8.7	7.3	6.0	2.8	21.9
1995 Forecast (Mean) Average Round 1	25.6	14.1	9.8	6.8	10.4	7.7	3.9	22.6
Range (±) Round 1	20.0	23.0	20.0	10.0	15.0	13.0	6.0	31.0
Inter-quartile Range (±) Round 1	8.0	5.0	2.0	3.0	1.0	4.0	1.0	7.0

(Question not included in second round.)

Question thirteen (Table 17) required estimates of the level of real

farm incomes (net value added at factor cost) in the EC as a whole,

and in the respondent's own Member State in 1995. Perhaps not

surprisingly, the majority of respondents settled for a value equal to

or close to 100 for the Community average, indicating a belief that

real farm incomes in 1995, for the EC as a whole, will be sustained

at their current level. In the first round, just over 20% of

respondents gave this estimate, while almost 30% agreed on a value of

100 in the second round. There was a greater proportion of responses

of less than 100 for the "own" Member State estimates than for the

Community-wide figure, indicating some degree of pessimism towards

domestic economic circumstances in some Member States. Again, the

range of estimates is surprisingly large.

Table 17

Question 13 – Net Value Added at Factor Cost

1995 as a % of 1984

	Ger-many	France	UK	Eire	Hol-land	Den-mark	Italy	EC (10)
Average (Mean)								
Round 1	84.1	96.8	92.4	96.9	100.0	110.0	101.6	100.0
Round 2	88.9	105.6	91.6	96.1	100.7	103.5	95.8	100.9
Range (±)								
Round 1	38	45	24	34	45	50	11	60
Round 2	35	40	18	20	35	35	8	45
Inter-quartile Range (±)								
Round 1	20	13	5	10	15	20	11	10
Round 2	12	18	10	10	20	20	6	9

N.B. Country figures are from each national group's estimate for their
own country.

The final question in Section Two (Table 18) required estimates of the

level of real support prices, in national currencies, for the EC(10)

and the respondent's country. In this case, a much stronger concensus

was achieved, particularly with regard to the EC figure, where, after

the second round, almost 50% of respondents agreed on a value of 90,

indicating a 10% fall in real support prices for the Community as a

whole over the next ten years. The estimates for the Member States

were less uniform; as with the income question, the majority of

respondents believed the level of support prices would be less in

his/her Member State than for the Community as a whole. (A simple average of the estimates of each national group concerning the prospects for the evolution of farm prices produces a figure of 87.5 for the EC as a whole.) Here, the second round inter-quartile range (±8.0) is much more acceptable - and it would be difficult to challenge this estimate of the fall in real support prices as the best forecast possible of this important variable for agricultural businesses.

Table 18

Question 14 - Real Support Prices in 1995 as a % of 1984

	Ger-many	France	UK	Eire	Hol-land	Den-mark	Italy	EC (10)
Average (Mean)								
Round 1	86.1	91.6	86.7	93.7	96.3	86.7	91.6	90.8
Round 2	83.4	90.3	86.4	91.9	87.7	86.1	86.8	90.3
Range ($\pm$)								
Round 1	16	28	34	22	25	33	35	40
Round 2	16	20	20	15	25	33	15	28
Inter-quartile Range ($\pm$)								
Round 1	13	8	13	8	10	12	20	10
Round 2	5	11	10	13	15	10	9	8

5.3 Section 3 - Dairy Policy Scenarios

As already explained, Section Three of the questionnaire was based on our previous attempt at forecasting milk production in the UK. As this involved a relatively sophisticated approach, it was necessary, in the

questionnaire, to explain with some care the methodology adopted. The
intention was to present, in the first round questionnaire, our own
view of the possible alternative scenarios (Figure 4) and to modify
this for the second round in the light of suggested alternatives by
the respondents. In the event, there was very little disagreement
with our own view of what were the possible alternative developments.
Indeed, all the responses to Section Three (in contrast to those in
Section Two) provide a good example of consensus forecasting. The
majority of respondents believed that the quota system will be
retained until 1995, with only a small chance of it being replaced
either by an EC alternative or by national dairy policies (Tables 19-
21). Moreover, the concensus was substantially increased in the second
round (Tables 22-24), with probabilities of 0.7, 0.2 and 0.1 respectively,
given to the three alternative scenarios.

The response to the alternative outcomes under the different scenarios
produced a wider range of probability estimates, although the majority
of respondents considered a reduction in the level of the quota most
likely. By the second round, the relative positions of these
alternatives were consolidated, with a broad consensus reached over
probabilities of 0.3 for the maintenance of the current quota, 0.1 for
its increase and 0.6 for its reduction.

Of the alternative outcomes under the EC alternative to the current
quota system, price cuts and a nationally financed quota system were
generally considered to be equi-probable, but following the second
round, price-cuts, perhaps surprisingly, became more likely than the
modification of the quota system to allow for national financing of

the super-levy (with probabilities of 0.7 and 0.3 attached to these outcomes).

Table 19

Scenario 1 - Probability of Retention of Current Quota System

(% of Respondents - Round 1)

Member State of Respondent

Prob	Germany	France	UK	Eire	Netherlands	Denmark	Italy	All Resp
0.1 - 0.2	0	0	5.9	0	0	0	0	0.9
0.3 - 0.4	0	21.4	5.9	0	0	9.1	37.5	11.8
0.5 - 0.6	21.4	50.0	35.3	33.3	0	9.1	37.5	28.4
0.7 - 0.8	28.6	21.4	41.1	66.6	83.3	72.8	25.0	45.6
0.9 - 1.0	50.0	7.1	11.8	0	16.7	9.1	0	13.5

Table 20

Scenario 2 - Probability of EC Alternative to Current Quota System

(% of Respondents - Round 1)

Member State of Respondent

Prob	Ger-many	France	UK	Eire	Nether-lands	Den-mark	Italy	All Resp
0.0 - 0.09	35.7	0	11.8	0	16.7	0	0	8.8
0.1 - 0.2	57.1	42.8	52.9	66.7	83.4	81.8	37.5	58.4
0.3 - 0.4	7.1	35.7	23.6	33.3	0	9.1	37.5	22.3
> 0.4	0	21.4	11.8	0	0	9.1	25.0	10.6

Table 21

Scenario 3 - Probability of National Policy in Place of the CAP

(% of Respondents - Round 1)

Member State of Respondent

Prob	Ger-many	France	UK	Eire	Nether-lands	Den-mark	Italy	All Resp
0.0 - 0.09	57.1	23.1	35.2	33.3	57.2	36.4	12.5	35.3
0.1 - 0.2	28.6	76.9	58.9	66.7	42.9	63.6	87.5	61.5
0.3	14.3	0	5.9	0	0	0	0	3.1

Table 22

Scenario 1 - Probability of Retention of Current Quota System

(% of Respondents - Round 2)

Member State of Respondent

Prob	Germany	France	UK	Eire	Netherlands	Denmark	Italy	All Resp
0.1 - 0.2	0	10.0	7.1	0	12.5	0	0	4.1
0.3 - 0.4	0	10.0	7.1	0	0	0	0	2.5
0.5 - 0.6	7.1	10.0	28.5	11.1	0	20.0	57.2	19.4
0.7 - 0.8	64.3	70.0	42.8	77.8	62.5	70.0	42.9	61.5
0.9 - 1.0	28.6	0	14.2	11.1	25.0	10.0	0	12.6

Table 23

Scenario 2 - Probability of EC Alternative to Current Quota System

(% of Respondents - Round 2)

Member State of Respondent

Prob	Germany	France	UK	Eire	Netherlands	Denmark	Italy	All Resp
0.0 - 0.09	14.3	0	14.2	11.1	0	0	0	5.8
0.1 - 0.2	85.7	70.0	49.9	77.8	87.5	80.0	42.9	70.3
0.3 - 0.4	0	10.0	21.3	11.1	12.5	10.0	42.9	15.5
> 0.4	0	20.0	14.2	0	0	10.0	14.3	8.5

Table 24

Scenario 3 – Probability of National Policy in Place of the CAP

(% of Respondents – Round 2)

Member State of Respondent

Prob	Ger-many	France	UK	Eire	Nether-lands	Den-mark	Italy	All Resp
0.0 - 0.09	35.7	20.0	28.5	22.2	62.5	20.0	14.3	28.6
0.1 - 0.2	64.2	80.0	71.5	77.8	25.0	80.0	85.7	69.8
0.3 - > 0.4	0	0	0	0	12.5	0	0	1.6

6.   CONCLUSIONS

The results from this exercise exhibit a number of contrasting characteristics typical of Delphi surveys. Certain questions, particularly those requiring descriptive rather than numerical answers, illustrate the problems of communication and the trade-off between accuracy and efficiency in interpretation. Others proved too complex (or perhaps too abstract) for some of the respondents, which suggests that their presentation could have been improved.

However, many of the questions provided interesting (if not always surprising) responses, and in most cases a reasonable degree of consensus was achieved.

As far as the forecasts themselves are concerned, it may be useful to summarise the main (broad) conclusions as follows:

  i) The CAP will remain (albeit somewhat more nationalised) in a Community of Twelve, to 1995.

 ii) The Policy will, however, become increasingly dominated by budgetary pressures, which will result in stricter limitation of intervention and an increase in the general application of producer co-responsibility.

iii) Budgetary resources will be increased, but the CAP (Guarantee Section) will continue to take the lion's share.

 iv) Average farm incomes across the Community will remain at current levels, although disparities between Member States will remain.

v) The level of price support over the next ten years will fall (in real terms) by around 10%.

vi) Dairy quotas are expected to remain beyond 1990, with the likelihood of further reductions in Member State allocations.

Given more resources, a number of changes could have been made to the survey (e.g. translation into each of the Member State languages, and an initial survey to establish what the experts themselves regarded as the key issues) which may have improved the reliability of the forecasts produced. However, the value of the results obtained should not be understated, for although there are limits to the conclusions one can draw from such an exercise, the identification of the broad issues likely to affect the development of the Policy over the next decade should be of interest to decision-makers at all levels in the agricultural and food sector.

REFERENCES

CHURCHER, E. (1977) Outlook for the Dairy Industry. Paper given at the Outlook for UK Agriculture Conference, Aberdeen.

FEARNE, A. P. (1986) Forecasting Agricultural Policy Decisions in the European Community. Unpublished Ph.D. Thesis, University of Newcastle upon Tyne.

FEARNE, A. P., OUGHTON, E. A. AND RITSON, C. (1985) UK Milk, Beef and Sheepmeat Production – Forecasts to 1990 and 1995. Report No. 29, Department of Agricultural and Food Marketing, University of Newcastle upon Tyne.

RITSON, C. (1983) Forecasting EEC Support Prices. Discussion Paper No. 2, Joint Discussion Paper Series, Departments of Agricultural Economics and Agricultural and Food Marketing, University of Newcastle upon Tyne.

ACKNOWLEDGEMENTS

We are extremely grateful to the following for their help in preparing the questionnaire and/or identifying the experts who formed the sample:

Kees Berger

Jean Marc Boussard

Alan Buckwell

Paolo Cesaretti

Lionel Hubbard

Arne Laarsen

Denis Lucey

Arie Oskam

Michel Petit

Stefan Tangermann

Secondo Tarditi

Kenneth Thomson

Michael Tracy

APPENDIX

The first and second round questionnaires.

Forecasting the Common Agricultural Policy

A Questionnaire on Future Developments

Department of Agricultural & Food Marketing

University of Newcastle upon Tyne

INTRODUCTION

This questionnaire has been designed to form the main qualitative input
into a research project on 'Forecasting EC Agricultural Policy Decisions'.
Various quantitative exercises have already been carried out in an attempt
to establish the factors influencing the decisions taken by the
Community's agricultural ministers. Much of this research has led to the
conclusion that it is largely the political and economic 'environment' in
which the annual price fixing takes place which determines the nature of
the policy measures adopted.

The aim of this particular exercise is to establish a basic framework
of possible future 'environments' which are likely to influence policy
decisions.

The information provided will be analysed using the delphi method of
judgemental forecasting. This is basically a 'long-range' conferencing
procedure, aimed at establishing a consensus among the representative
experts taking part in the exercise. The consensus is acheived by
processing the responses from the initial survey and then providing
summary information, along with a second questionnaire, in which
respondents are asked to revise their estimates in light of the overall
group response, or provide reasons for adhering to their original answers.

The questionnaire is divided into three sections. The first contains a
series of questions tackling issues of a general nature, to which you are

requested to select one of the responses given (or insert one of your own), or insert a probability (a number between 0 and 1) indicating the likelihood of occurrence or non-occurrence of the specified event. The second section consists of a series of tables which contain historical data on factors considered likely to be of importance in CAP decision-making over the next decade. You are requested to examine the information provided and complete the tables for 1995. Section three consists of a provisional scenario on future developments within the dairy sector. You are requested to insert probabilities for the alternative outcomes provided, or offer your own alternatives (and associated probabilities) with relevent comments, in the spaces provided and then complete the accompanying probability diagram.

Although we hope you will attempt <u>all</u> the questions, if you feel unable to do so, it would still be helpful if you could answer as many as you can.

You are reminded that this exercise is purely <u>explanatory</u>, designed to establish what farm ministers are considered <u>likely</u> to do, not what you think they should do over the next ten years.

When attempting questions which require probability estimates, you are
required to enter a number between 0 and 1, on the following scale:

(see attached card)

0.10 = very unlikely

0.20

0.30 = unlikely

0.40

0.50 = equally likely/unlikely

0.60

0.70 = likely

0.80

0.90 = very likely

It is hoped that completed questionnaires will be returned within one
month of receipt. The initial analysis will be carried out immediately
and a second questionnaire, with a summary of the results from the first
round (including your initial responses) will be sent to respondents as
soon as possible. The anonymity of individual responses is assured, since
no names will be attached to specific responses in feedback. The entire
exercise should be completed within three months and all respondents will
be sent a copy of the final analysis and results, which we hope will
provide a useful synthesis of informed opinion on future developments of
the CAP.

SECTION 1 - GENERAL POLICY DEVELOPMENTS

1. What do you consider is the probability of:

    a) the <u>total</u> re-nationalisation of the CAP by 1995 ?

    (enter a number between 0 and 1)

    ....

    b) the <u>partial</u> re-nationalisation of the CAP by 1995 ?

    (enter a number between 0 and 1)

    ....

2. If the CAP was to collapse, what measures do you think the UK would

    adopt to support its agricultural sector ? (tick box(es))

    price support   co-reponsibility levies

    deficiency payments   structural programmes

    production quotas   import levies

    direct income payments   export subsidies

    other measures (please specify)....................................

    ....

3. What is the probability of further enlargement of the EC by 1995 ?

    (enter a number between 0 and 1)

    ....

4. Which countries (if any) are most likely candidates and what is the probability of their accession by 1995 ?

    (a).....................................(Probability=   )

    (b).....................................(Probability=   )

    (c).....................................(Probability=   )

    (d).....................................(Probability=   )

    (e).....................................(Probability=   )

5. Assuming the CAP is maintained to 1995, is the <u>method</u> of support accorded at the <u>Community</u> level likely to change, and in what way ?

    ....

    ....

    ....

    ....

    ....

    ....

6. With regard to annual price decisions over the next ten years, what will be the most influential factors ? (list in descending order)

    (a)

    (b)

    (c)

    (d)

    (e)

    (f)

    (g)

55

7. What is the probability that the power of veto will be removed from the Agricultural Council by 1995 ? (enter a number between 0 and 1)

....

8. Which countries within the Community will be most influential with regard to future decisions on the CAP, and in what way ?

....

....

....

....

9. Which countries outside the Community will be most influential with regard to future decisions on the CAP, and in what way ?

....

....

....

....

10. a) What is the probability of a further increase in the ceiling on VAT contributions to 'own resources' by 1995 ?

    (enter a number between 0 and 1)

....

    b) If changed, what is the new VAT ceiling most likely to be ?

    (enter a percentage)

....

SECTION 2 - FARM INCOMES AND CAP SPENDING OVER THE NEXT DECADE

Each question includes a table. You are requested to fill in the
spaces provided for 1995 and comment on your reasoning.

11. Bearing in mind your answers to Qestions 9 and 10, what will be the
    CAP's share of total budgetary expenditure and the proportion of FEOGA
    spending on the guarantee section ? (enter a %)

CAP Expenditure as a proportion of total budgetary expenditure (%)

Year	FEOGA as % of total	FEOGA (Guarantee) as % of total
1976	72.0	69.3
77	77.3	74.1
78	74.1	71.4
79	75.5	72.7
80	73.1	69.4
81	64.7	61.5
82	63.1	59.9
83	60.6	58.0
84	69.9	67.6
1995		

Source: Agricultural Situation in the Community

Commission, 1980-84.

(Comment)..
....
....

57

12. What will be the proportion of FEOGA spending on the following sectors
in 1990 ? (enter a %)

Breakdown of FEOGA expenditure by sector (%)

Year	Milk	Cereals	Beef	Sugar	Fruit & Veg	Wine	Sheep	Others	Total
1973	39.2	27.0	0.4	3.6	0.9	0.3	---	28.6	100
74	39.3	12.9	10.3	3.5	2.2	1.4	---	30.4	100
75	24.3	13.1	20.7	6.5	1.9	2.9	---	37.6	100
76	36.8	11.0	11.6	4.1	4.4	3.1	---	20.0	100
77	42.8	9.2	7.0	8.8	2.6	1.3	---	21.9	100
78	46.3	12.8	7.4	10.1	1.2	0.7	---	21.5	100
79	43.4	15.0	7.2	9.0	4.2	0.6	---	20.6	100
80	42.0	14.8	12.0	5.1	6.1	2.6	0.5	16.9	100
81	30.0	17.2	12.9	6.9	5.8	4.1	1.7	21.4	100
82	26.8	14.7	9.3	10.0	7.4	4.6	2.0	25.2	100
83	27.6	15.3	10.9	8.3	7.5	4.1	1.9	24.4	100
84	31.6	10.5	11.2	8.7	7.3	6.0	2.8	21.9	100
1995									

Source: Agricultural Situation in the Community

Commission, 1973-84.

(Comment)...

....

....

....

13. By how much will average <u>real</u> farm incomes for the EC(10) and the UK change over the next ten years ? (enter an index number)

<u>Net value added at factor cost per unit of manpower employed</u>

<u>(1984=100)</u>

Year	EC(10)	UK
1973	109	120
74	96	103
75	98	101
76	100	108
77	99	98
78	101	94
79	98	90
80	92	85
81	93	81
82	103	98
83	96	90
84	100	100
1995		

Source: <u>Agricultural Incomes in the European Community</u>

Green Europe Newsflash, No.29, March 1985.

(Comment)..

....

....

....

14. By how much will average <u>real</u> support prices for the EC(10) and the UK

change over the next ten years ? (enter an index number)

Average increase in real support (target) prices in national

currencies (1985/86 = 100)

Year	EC(10)	UK
1973/74	108	98
74/75	116	115
75/76	115	120
76/77	118	120
77/78	116	129
78/79	115	127
79/80	113	126
80/81	106	110
81/82	109	108
82/83	109	111
83/84	107	110
84/85	104	105
85/86	100	100
95/96		

Source: <u>Perspectives for the Common Agricultural Policy</u>

Commission, 1985.

(Comment)..

....

....

....

SECTION 3 - POSSIBILITIES FOR FUTURE EC DAIRY POLICY

In this section an attempt is made to forecast changes in EC dairy policy over the next ten years. The following pages contain a synopsis of our opinion with regard to alternative policy developments for the EC Dairy sector. You are asked to read through these. Spaces are provided at the end of each section for you to comment if you wish.

The outcomes considered are summarised in the form of a probability tree. Having read the scenarios, you are requested to complete the diagram by inserting probabilities in the spaces () provided and/or altering the diagrams if you disagree with any of the alternatives presented.

Three basic scenarios are allowed for. These are:

1. The retention of the quota system in its present form;

2. Its replacement by an EC alternative to quotas, and

3. The introduction of national milk policies.

(Comment)..

....

SCENARIO No.1 - RETENTION OF THE QUOTA SYSTEM IN ITS CURRENT FORM

Our view is as follows: On the basis that financial pressures are likely

to continue to dominate developments over the next decade, and that

technological improvements will continue to increase milk yields, it seems

more likely than not that the quota system will be extended beyond

1989/90, when it is to be formally reviewed.

   If it should be retained in its current form, there are three

alternative outcomes which could evolve:

1. The maintenance of the quota at its current level,

2. an increase in the level of the quota, and

3. a reduction in the level of the quota.

However, in view of the in-built surplus (around 12%) with the quota at

its current level, and the probability that consumption in the EC will

rise only very slightly over the next ten years, a reduction in the quota

would appear the most likely outcome, with a _realistic_ target for the reduced quota to be a little above 100% self-sufficiency.

The same argument leads us to believe that it is less likely that the current quota level will be maintained to 1995.

Alternatively, should disposal costs fall and/or more money become available for agriculture expenditure, then farm ministers might choose to ease the pressure on dairy farmers by increasing the level of the quota. In such a case, the most _realistic_ target would be a quota level approximately equal to pre-quota deliveries. However, given the unfavourable outlook for the dairy market over the next ten years, it would seem extremely unlikley that ministers would agree an increase in the current quaranteed quantities.

(Comment)...

....

....

....

SCENARIO No.2 - AN EC ALTERNATIVE TO THE CURRENT QUOTA SYSTEM

If the current system was to breakdown before 1995, it is most likely that

a solution to the problem and an alternative dairy policy would be sought

at the Community level. Two alternatives which might evolve from within

the CAP are considered:

1. the introduction of a substantial price reduction for milk, and

2. national financing of an EC quota system.

(Comment)..

....

A substantial (quota equivalent) price reduction for milk was an

alternative considered when quotas were introduced, but one which received

little support from farm ministers. Neverthless, the Commission has

re-iterated in its "Perspectives" document that it favours price cuts to

quotas. Thus, if the quota system was to be replaced a substantial price

cut is likely to at least be considered. In the event, while difficult to

estimate, a price cut sufficiently large to bring production more or less

in line with consumption in the Community would seem the most likely

target.

(Comment)..

....

An alternative to a substantial price cut might evolve from the

breakdown of the quota system at farm level (perhaps prompted by some

member states choosing to pay super-levy payments out of national

64

budgets), and an agreement that quotas would be retained at national level, but that payment of the super-levy on over-quota production becomes a national responsibility. In such a case, member state governments would have to choose how to finance over-production penalties. The most likely solution in the UK would be for the Government to apply an average flat rate levy on all production (less than the current marginal levy applicable at farm level) such that over-quota production would be completely financed by levy revenue.

(Comment)...

....

....

....

SCENARIO No.3 - RENATIONALISATION OK MILK POLICIES

In the long term, the possibility of a total breakdown of the CAP, while still quite unlikely, becomes more feasable, as the degree of uncertainty over the Community's future increases the more distant the time horizon.

In the event of a total renationalisation of dairy support, it seems logical to assume that most member states would adopt the type of policies operating before the inception of the CAP. However, in the case of the UK, a more likely outcome would be the adoption of an output restricting price policy aimed at constraining milk production to a level

approximately equal to consumption in 1995, thus avoiding surplus

production and the associated disposal costs.

(Comment)...

....

....

....

Finally, we would like you to complete the probability diagram for 1995

overleaf. Please ensure that the probabilities attached to the scenarios

(1,2 and 3) sum to one, and that the probabilities attached to the

alternative outcomes under scenario No.1 (a, b and c) and scenario No.2 (d

and e) also each sum to one. No probability is attached to the outcome

under scenario No.3 (f) as only one outcome is considered. If you

disagree with any of the scenarios/outcomes outlined above, please alter

the diagram accordingly and insert the appropriate probabilities.

EC DAIRY POLICY - ALTERNATIVES TO 1995

Alternative Outcomes

(a)Current Quota(   )

Scenario No.1(   )

Current EC

Quota system

(b)Increased Quota(   )

(c)Reduced Quota(   )

(d)Price-Cut(   )

Scenario No.2(   )

EC Alternative

(e)National Financing of quota(   )

Scenario No.3(   )

National Milk

Policy

(f)................(insert option)

67

Forecasting the Common Agricultural Policy

A Questionnaire on Future Development (Second Round)

Department of Agricultural & Food Marketing

University of Newcastle upon Tyne

INTRODUCTION

In this second round of the 'Delphi' survey you are invited to re-examine the questions put forward and revise your estimates in the light of the group responses. The main objective of this second round questionnaire is to establish a higher degree of consensus with regard to the specific issues raised. Therefore, IF YOUR ORIGINAL ANSWER DOES NOT APPROACH THE CONSENSUS, WE ASK YOU EITHER TO JUSTIFY YOUR ORIGINAL RESPONSE OR AGREE TO MOVE TOWARDS THE CONSENSUS.

Some of the questions from the first round have been ommitted, to allow for a more detailed consideration of those questions which provided the most interesting/conflicting range of opinions. Spaces have been provided throughout the questionnaire for comments and you are encouraged to make full use of these where appropriate.

You are reminded that this exercise is purely explanatory, designed to establish what farm ministers are considered likely to do, not what you think they should do over the next ten years.

When attempting questions which require probability estimates, you are required to enter a number between 0 and 1, on the following scale:

0.00 = impossible

0.10 = very unlikely

0.20

0.30 = unlikely

0.40

0.50 = equally likely/unlikely

0.60

0.70 = likely

0.80

0.90 = very likely

1.00 = certain

It is hoped that completed questionnaires will be returned within one month of receipt. The responses will be processed immediately and all respondents will be sent a copy of the final analysis and results, which we hope will provide a useful synthesis of informed opinion on future developments of the CAP.

FORECASTING THE CAP - SECOND ROUND QUESTIONNAIRE ON FUTURE DEVELOPMENTS

SECTION 1 - GENERAL POLICY DEVELOPMENTS

1. What do you consider is the probability of:

    a) the <u>total</u> re-nationalisation of the CAP by 1995 ?

    Your original estimate=

    Consensus=0.1

    Revised estimate (enter a number between 0 and 1).....................

    Comment...

    ....

    b) the <u>partial</u> re-nationalisation of the CAP by 1995 ?

    Your original estimate=

    Consensus=0.7

    Revised estimate (enter a number between 0 and 1).....................

    Comment...

    ....

2. What is the probability of further enlargement of the EC by 1995 ?

    Your original response=

    Consensus=0.1

    Revised estimate (enter a number between 0 and 1).....................

    Comment...

    ....

3. If you think the <u>method</u> of CAP support is likely to change by 1995, which of the policy developments listed below (constructed from responses to the first questionnaire) do you think are most likely to to be adopted, and in which sectors ?

(tick box(es) and <u>comment</u> in spaces provided)

☐ Extension of Co-responsibility.......................................
....

☐ Limited Intervention...
....

☐ Direct Income Payments...
....

☐ Increased Structural Aid...
....

☐ Reduced Border Protection..
....

☐ Extension of Guarantee Thresholds..................................
....

☐ Extension of Quotas..
....

☐ Introduction of Set Aside..
....

Other(s) (please specify)..
....
....
....

4. With regard to decisions taken at the annual price review over the next ten years, which of the following factors (derived from responses to the first questionnaire) are likely to be most influential and in what way ?

(rank factors (1 to 10) in order of importance, and comment in spaces provided)

☐ Environmental Issues..
....

☐ Introduction of Majority Voting......................................
....

☐ Farm Income Pressure...
....

☐ Inflation..
....

☐ Timing of National Elections...
....

☐ Political concern over Surpluses.....................................
....

☐ World Market Situation...
....

☐ Budgetary Situation..
....

☐ Consumer Interests...
....

☐ Currency Movements...
....

5. What is the probability that majority voting will be introduced in the Agricultural Council by 1995 ?

    Your original estimate=

    Consensus=0.3

    Revised estimate (enter a number between 0 and 1).....................

    Comment..

    ....

6. a) What is the probability of a further increase in the ceiling on VAT contributions to 'own resources' by 1995 ?

    Your original estimate=

    Consensus=0.9

    Revised estimate (enter a number between 0 and 1).....................

    Comment..

    ....

    b) If changed, what is the new VAT ceiling most likely to be ?

    Your original estimate=

    Consensus=2.0%

    Revised estimate (enter a percentage)..............................

    Comment..

    ....

SECTION 2 - FARM INCOMES AND CAP SPENDING OVER THE NEXT DECADE

Each question includes a table. You are requested to fill in the spaces provided for 1995 and comment on your reasoning.

7. Bearing in mind your answers to Qestion 6, what will be the CAP's share of total budgetary expenditure and the proportion of FEOGA spending on the guarantee section ? (enter a %)

CAP Expenditure as a proportion of total budgetary expenditure (%)

Year	FEOGA as % of total	Year	FEOGA (Guar) as % of total
1976	72.0	1976	69.3
77	77.3	77	74.1
78	74.1	78	71.4
79	75.5	79	72.7
80	73.1	80	69.4
81	64.7	81	61.5
82	63.1	82	59.9
83	60.6	83	58.0
84	69.9	84	67.6
1995		1995	

Your original estimate=   Your original estimate=

Consensus=63.0%   Consensus=57.0%

(Comment)...

....

....

....

....

8. By how much will average <u>real</u> farm incomes for the EC(10) and the UK change over the next ten years ? (enter an index number)

Net value added at factor cost per unit of manpower employed

(1984=100)

Year	EC(10)	Year	UK
1973	109	1973	120
74	96	74	103
75	98	75	101
76	100	76	108
77	99	77	98
78	101	78	94
79	98	79	90
80	92	80	85
81	93	81	81
82	103	82	98
83	96	83	90
84	100	84	100
1995		1995	

Your original estimate=   Your original estimate=

Consensus=100   Consensus=90

(Comment)...

....

....

....

76

9. By how much will average <u>real</u> support prices for the EC(10) and the UK change over the next ten years ? (enter an index number)

Average increase in real support (target) prices in national currencies (1985/86 = 100)

Year	EC(10)	Year	UK
1973/74	108	1973/74	98
74/75	116	74/75	115
75/76	115	75/76	120
76/77	118	76/77	120
77/78	116	77/78	129
78/79	115	78/79	127
79/80	113	79/80	126
80/81	106	80/81	110
81/82	109	81/82	108
82/83	109	82/83	111
83/84	107	83/84	110
84/85	104	84/85	105
85/86	100	85/86	100
1995/96		1995/96	

Your original estimate=   Your original estimate=

Consensus=90   Consensus=85

(Comment)..

....

....

....

SECTION 3 - POSSIBILITIES FOR FUTURE EC DAIRY POLICY

In this section an attempt is made to forecast changes in the EC dairy policy over the next ten years. The following pages contain a summary of the probability estimates attached to the scenarios hypothesised in the original questionnaire. You are asked to read through these and revise your own probability estimates, where appropriate, in the spaces () provided on the probability diagram, or give reasons for adhering to your original view, where this does not approach the concensus.

You are reminded that the probabilities attached to scenarios 1,2 and 3 should sum to one and that the probabilities attached to the alternative outcomes a,b and c should sum to one, as should the probabilities attached to the alternative outcomes d and e.

EC DAIRY POLICY - FORECASTS TO 1995

Three basic scenarios are allowed for. These are:

1. The retention of the quota system in its present form;

2. Its replacement by an EC alternative to the current quota system, and

3. The introduction of national milk policies.

SCENARIO No.1 - RETENTION OF THE QUOTA SYSTEM IN ITS CURRENT FORM

Your original estimate=

Consensus=0.7

Enter a number between 0 and 1 under (1) on the diagram at the end

Comment...

....

ALTERNATIVE OUTCOMES

a) The maintenance of the global quota at its current level

Your original estimate=

Consensus=0.3

Enter a number between 0 and 1 under (a) on the diagram at the end

Comment...

....

b) An increase in the global quota

Your original estimate=

Consensus=0.1

Enter a number between 0 and 1 under (b) on the diagram at the end

Comment...

....

C) A Reduction in the global quota

Your original estimate=

Consensus=0.6

Enter a number between 0 and 1 under (c) on the diagram at the end

Comment...

....

SCENARIO No.2 - AN EC ALTERNATIVE TO THE CURRENT QUOTA SYSTEM

Your original estimate=

Consensus=0.2

Enter a number between 0 and 1 under (2) on the diagram at the end

Comment...

....

ALTERNATIVE OUTCOMES

d) Substantial (quota equivalent) price-cut

Your original estimate=

Consensus=0.7

Enter a number between 0 and 1 under (d) on the diagram at the end

Comment...

....

e) Partial re-nationalisation (national financing) of EC quota system

Your original estimate=

Consensus=0.3

Enter a number between 0 and 1 under (e) on the diagram at the end

Comment...

....

SCENARION No.3 - TOTAL RENATIONALISATION OF MILK POLICIES

Your original estimate=

Consensus=0.1

Enter a number between 0 and 1 under (3) on the diagram at the end

Comment...

....

ALTERNATIVE OUTCOMES

f) (Please specify)...

....

....

....

....

PROBABILITY DIAGRAM

EC DAIRY POLICY - ALTERNATIVES TO 1995

Alternative Outcomes

(a)Current Quota(   )

(1) Scenario No.1(   )

Current EC

Quota system

(b)Increased Quota(   )

(c)Reduced Quota(   )

(d)Price-Cut(   )

(2) Scenario No.2(   )

EC Alternative

(e)National Financing of quota(   )

(3) Scenario No.3(   )   (f).................(insert option)

National Milk Policy