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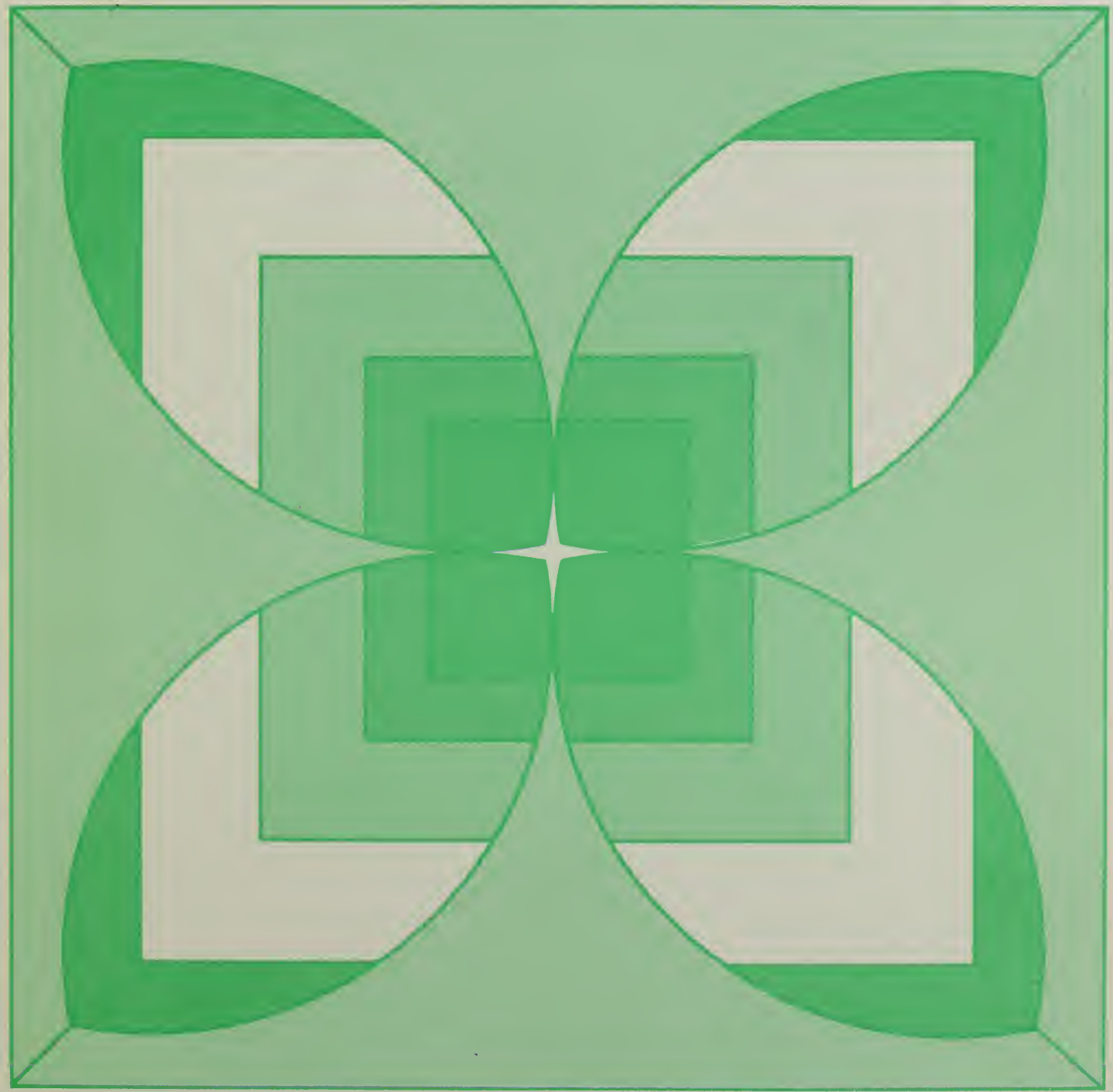# Developments in the Common Agricultural Policy of the European Community

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Abstract

Present trends in the Common Agricultural Policy (CAP) of the European Community (EC), particularly increasing expenditures for agricultural support, will seriously affect the EC's ability to meet other policy needs and hinder enlargement of the Community to include Spain and Portugal. EC policymakers must either keep prices low directly or with producer taxes, or limit quantities covered by support measures. This report examines directions which the CAP may take in view of budgetary and enlargement pressures and indicates potential changes in EC policy.

Keywords: European Community, Common Agricultural Policy, agricultural support, enlargement

Acknowledgments

Foreword

The European Community (EC), the largest market for U.S. agricultural exports, is in the process of its second enlargement. The second enlargement began when Greece joined the EC on Jan. 1, 1981. Enlargement is expected to extend to Spain and Portugal by the mideighties.

The second enlargement appears to be even more significant than the first (which took place in January 1973 when Denmark, Ireland, and the United Kingdom joined the original six members) because it will considerably increase the economic and agricultural diversity in the EC. The second enlargement also will occur in the context of a serious dialogue on modification of the Common Agricultural Policy (CAP) necessitated by an impending budget crisis. In recent years, the expansion of surplus agricultural production in the EC has lead to massive and rapidly increasing expenditures under the CAP for surplus disposal. Expenditures are on the verge of exceeding revenues available to the EC through their own resources provided by the basic treaties. Significant adjustments of the CAP appear inevitable.

To assess the implications of EC enlargement and modification of the CAP on U.S. agriculture, the Western Europe Branch, International Economics Division, Economic Research Service, USDA, initiated a major research program beginning in late 1979. This program included cooperative efforts between USDA researchers and those at various U.S. universities. Researchers at Stanford University have developed a framework for analysis of probable developments in the CAP, presented in this publication. At the University of California (Berkeley), researchers are studying the implications of EC enlargement for trade in fruits, vegetables, and nuts. Michigan State University researchers are examining the grains-oilseeds-livestock sectors of the prospective member countries. Additional research is underway in the Western Europe Branch.

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Summary

The European Community (EC) must reduce expenditures for agricultural support programs to avert a budget crisis and maintain funds for other EC programs. Policymakers have a choice of keeping prices low directly or with producer taxes, or of limiting quantities covered by support measures. This study examines future price levels and possible changes in EC policy, and the possible timing of those changes.

Present trends of rising agricultural support expenditures will not leave adequate funds to finance enlargement of the Community to include Spain and Portugal. EC expenditures are close to exceeding revenues, with the Common Agricultural Policy (CAP) accounting for almost 70 percent of these expenditures. EC revenues increase roughly in proportion with national income, but CAP expenditures increase in proportion to agricultural surpluses, which have risen 15 to 20 percent annually over the last 5 years. An increase in revenue to solve the budget problem would require modifications of basic treaties, which appear politically infeasible.

Thus, expenditure increases must be contained. Budget costs cannot be controlled if farm prices are allowed to rise enough to cover inflation. Price increases much smaller than past increases would control budget expenditures, or a nominal rise in agricultural prices may be possible if coupled with policy changes restricting production or the quantities which qualify for support.

All alternatives which can reduce EC budget costs also reduce subsidized exports and the protection of EC agriculture, thus easing tensions with EC trading partners. Countries outside the EC which export the products in which the EC has a surplus have a direct interest in the outcome of the Community's internal debate. The United States will be particularly interested because the EC is the largest market for U.S. agricultural exports. Any policy changes or reductions in price increases which adequately control the EC budget, however, may also be too restrictive on farm income and perhaps lead individual EC governments to return to national agricultural support.

Glossary

European Community (EC)

Original six:
  Belgium
  France
  Italy
  Luxembourg
  Netherlands
  West Germany

Members since January 1973:
  Denmark
  Ireland
  United Kingdom (England, Scotland,
    Wales, Northern Ireland)
Member since January 1981:
  Greece

European Currency Unit (ECU)—The monetary denominator for the exchange rate, credit, and intervention mechanisms of the European Monetary System.

European Monetary System (EMS)—A common monetary arrangement for the EC implemented in March 1979, including credit mechanisms and compulsory intervention to ensure greater stability of European exchange rates.

Green rate of exchange (green rates)—The exchange rate used to convert ECUs into national currencies in all financial and commercial transactions by the Common Agricultural Policy (CAP).

Monetary Compensatory Amounts (MCAs)—Border taxes or subsidies applied to offset the divergence between the green rate of exchange and the actual market rate of exchange. For those countries whose currencies have depreciated, MCAs (negative MCAs) act as subsidies on imports and taxes on exports. For those countries whose currencies have appreciated, MCAs (positive MCAs) act as a tax on imports and a subsidy on exports.

Developments in the Common Agricultural Policy of the European Community

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Introduction

The Common Agricultural Policy (CAP) of the European Community (EC) has always demanded attention. To many it is the cornerstone of the Common Market; it is certainly the most significant creation of the Community's institutions, accounting for nearly three-fourths of the EC budget and a similar amount of time and energy. The CAP generates stronger feelings and more intense controversy than any other EC policy issue, and understandably so. Unless the Community changes some of its agricultural support practices under the CAP, the proposed enlargement of the Community to include Spain and Portugal may be impossible.

Portugal, Spain, and the newest EC member, Greece, have a strong interest in EC agricultural markets and policy. EC countries which produce Mediterranean crops —fruits and vegetables, olives, grapes, and durum wheat —will be watching enlargement proceedings closely to ensure that they are not disadvantaged. Countries outside the Community will also be interested in developments in the EC, particularly the United States since the EC is the largest market for U.S. agricultural exports.

This report examines the directions in which the CAP may develop in light of the pressures from enlargement and the possible budget crisis. It indicates price levels that could emerge in various EC countries from the developments in the CAP and potential changes in policy instruments. We have attempted to maintain consistency with macroeconomic developments by emphasizing the role of inflation and exchange rates in setting agricultural prices. Finally, we indicate the total trade balances resulting from these policy developments, suggesting further analysis of possible trade implications for the United States and other outside countries.

Agricultural Policy in the Community

The CAP shares a number of features with the policies of other developed countries. Its rationale is the apparent need for governments to intervene in product markets to both raise and stabilize farm income. The CAP attempts to preside over adjustment in agricultural factor markets in response to the belief that uncontrolled market forces would lead to hardship in rural areas. In the process of supporting incomes and influencing change in the agricultural sector, the policy becomes involved with side issues of food prices, supply security, and trade patterns. As with most such policies, the CAP has developed a complex set of regulations governing commodity marketing, which necessitates a sizable bureaucracy and considerable funding. Both the fund recipients and the administrators develop strong ties to the program and tend to inhibit changes in it.

The term policy can mean various aspects of this set of programs. The underlying policy can refer to the basic attitudes that prevail in a country toward the role of government in agriculture. In the Community, this attitude is both protectionist and interventionist. The place of government in guiding agricultural markets is rarely questioned, and the free market is assumed to be an unsatisfactory medium for the development of a healthy agricultural sector. Most of the Community's actual policy mechanisms were set down in a series of basic regulations for each commodity during 1962-67. They include a variable levy system on imports of major products, which raises their price to a level consistent with domestic objectives, and an intervention-buying system backed up by export subsidies (refunds or restitutions) to rid the domestic market of oversupply at internal price levels. A variety of producer subsidies, fixed import duties, consumer subsidies, and storage aids complement these main instruments. A set of policy prices corresponding to these programs is agreed on annually.

Another particularly interesting aspect of the CAP might be called metapolicy—the policy toward the policy. European agriculture is not in serious difficulties at the moment; the CAP, however, is fighting for its survival. The consuming issue at present is what to do about the CAP—not the future of the Community's farm sector.

The main reasons for this state of affairs relate to the intergovernmental nature of the policy and Community institutions. Besides being a policy for Europe's agriculture, the CAP is an elaborate compact among member states involving significant financial transfers, determining the terms of trade for agricultural products, influencing investment patterns, and limiting national sovereignty over agricultural and food marketing. This imparts both a strongly conservative flavor (because change has to be acceptable to all member states) and a distinctly nationalistic cast to policy discussions. Developments that might

be acceptable within a single country—the running down of crop production in one region or the shift of relative prices to control overproduction, for example—become more difficult when several national, political, and economic interests are involved. The policy process moves from finding the most acceptable solution to a set of agricultural problems to discovering a path that allows each minister of agriculture to claim a national advantage from Community decisions.

This study of policy developments focuses on this interplay of national forces. The dominant issue is, and will be, further modification of the CAP itself to get around the problems of surplus production and the consequent cost to the common budget. These problems are numerous. A serious imbalance exists in several commodity markets, most notably those for dairy products, wheat, sugar, beef, and several fruits. Surpluses of wine are frequent and quantities of olive oil are occasionally taken from the market.[1] The cost of such surplus disposal in the EC has been rising rapidly during the last few years.

History of the CAP

The CAP has gone through a number of stages since its inception in 1968. The period before 1968 was one of rapid and reasonably harmonious policy development. Once agreement had been reached on the policy's scope, the two choices to be made were the method of price support and the level at which internal prices should be fixed. Protecting borders with variable levies for the major commodities tied to a domestic target price level seemed a natural choice for a Community of six countries struggling to expand their markets, save scarce foreign exchange, and develop free internal movement of goods. Direct financial subsidies were clearly infeasible without a large Community budget, and supply control was not considered conducive to modernization of Europe's agriculture. The levy system had been used in France and West Germany and seemed suited to the CAP. In the spirit of compromise that helped launch the Community, a common price level was agreed on which involved a general decrease in prices in West Germany and an increase in those in France. A transition to these common prices during 1964-67 completed the move toward a uniform system of support based on free internal trade and protection at the Community border.

This period of harmony was short lived. By 1969, two of the suppositions on which the policy was based began to look less secure. First, a chronic oversupply on world markets (as seen by agriculturalists and program administrators, not consumers) had widened the gap between international and European price levels. Surpluses began to appear as the modernized agricultural sector applied more intensive farming methods in response to firm price guarantees, and the burden of disposing of these surpluses on foreign markets was absorbed by the Community. The second event was the dislocation of the international financial system, which sent currencies in different directions as the stable dollar-gold regime of the postwar era was replaced by floating rates and ad hoc currency alliances. Anxious to isolate the agricultural sector from such inconveniences, the Community reintroduced internal trade impediments to stabilize national price levels in the face of currency fluctuations.

This period after 1969 saw not only the common support system compromised by border taxes and different price levels, but also the loss of authority by Community institutions. The Commission, responsible for proposing policies and administering programs, became more a broker among the member governments than a leader in Community action. The initiative passed to the Council of Ministers, who presided over a partial renationalization of policy actions in agricultural matters, keeping essential control over structural policy, decisions on green rates, and even policy instruments in some cases. The architects of the CAP had envisaged a transition to common policy-making with majority voting, a federal budget, and a strong executive. By the early seventies, however, national positions prevailed, supported by the power of the veto and abetted by a Commission with no clear direction for agricultural policy.

Enlargement of the Community in 1973 to include Denmark, Ireland, and the United Kingdom (UK) was an opportunity for reappraisal. As a major importer of temperate-zone farm products, the UK brought a large market for French and Dutch agriculture. Whether the CAP could have been changed at that time to meet the needs of the EC-9 better remains moot. Shortages in international markets of petroleum and grains, the acceleration of inflation, the subsequent worldwide recession, the divergence among currencies, and the UK's lack of commitment to Community activities all took their toll. The period before 1978 saw no serious attempt to put agricultural policy on a secure footing. The promise of the Community's early years was lost.

While too soon to be sure, it is possible to see a change in direction since 1978. Aided by events such as a strengthened pound sterling and a weakened deutsche mark, European currencies have been less wayward in recent years. The new European Monetary System (EMS) appears to have added stability to currency markets and allowed farm prices to converge. A new government in the UK promises a temporary respite from carrying a reluctant UK along the European path. The prospect of additional members adds a new dimension to EC policy discussions that helps divert attention from other, more moribund, issues. Finally, a temporary solution to the problem of UK contributions to the EC budget (discussed later), an issue that threatened the foundations of the Community, has removed another point of contention from the agenda.

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[1]Although one might argue that a surplus can exist even for an imported commodity, if the (marginal social) resource cost exceeds the value of the output to society, the practical definition of a surplus is limited to situations where a product is removed from the market and disposed of at a financial cost.

Budgetary Issues

The cost of surplus disposal raises several issues, the most pressing of which is a potential budget ceiling. Since the sources of the Community's budget revenue are defined by an April 1970 financial decision that has the power of a treaty, they may not be adequate to support present programs for much longer. The probable date for the exhaustion of own resources—revenues from customs duties, agricultural import levies, and a tax of 1 percent on Community value added—is 1982. When the ceiling is reached, the EC will either have to find other income sources or curtail spending.

The absolute size of spending under the CAP is related to the share of expenditures on agriculture relative to other Community programs. The CAP has rarely taken less than 70 percent of total EC spending (table 1). There is, of course, no reason why one sector with particularly pressing and expensive problems should not absorb a proportion of a government budget higher than indicated by the economic size of the sector. Since the CAP was the Community's first full-scale common policy (besides the establishment of a common tariff on nonagricultural products, which was achieved without financial outlay), the dominance of that policy in early years was understandable. But there is no doubt that the development of other programs is now held in check by the size of farm policy costs. This caused conflict between Community institutions when the 1980 budget was considered and is likely to precipitate a similar crisis over future budgetary deliberations.

The third budget issue has to do with national distributions of budget contributions and receipts. Although in a strict sense the revenues are technically Community property rather than national subventions, all countries view their contributions in comparison to the benefits received from the Community. Income comes primarily from countries that import the most from outside the Community and from those with the largest economies; expenditures tend to go to countries that produce agricultural goods in excess of their domestic requirements and hence benefit from export subsidies and intervention payments.

Three major importers—West Germany, Italy, and the UK—have generally been net contributors to the EC budget. This situation has been criticized because revenue is being raised from countries with below-average income levels (the UK and Italy) to the advantage of those more affluent. Again, domination of agricultural spending is seen to be behind this apparent imbalance.

The fourth budgetary issue arises from the additional cost of enlargement. Greece, Portugal, and Spain are expected to be net recipients of agricultural funds, subject to future CAP policies pertaining to Mediterranean products (principally olive oil, fruits and vegetables, tobacco, and wine), and the development of exchange rates.[2] Moreover, all the new members anticipate becoming substantial net recipients of EC budget transfers for structural improvements, including sums from the guidance portion on agricultural accounts, the regional and social funds, and the European Investment Bank. In this respect, the budgetary implications of enlargement for the CAP also depend on EC decisions to assist economic development in the poorer Mediterranean regions of the proposed expanded Community.

Enlargement Issues

The issue of enlargement, however, goes beyond the budgetary impacts. The act of incorporating new members, in particular a country the size of Spain, necessitates a whole range of policy decisions. The effects on agricultural policy are likely to be far reaching. This study considers the impact of enlargement as it contributes to or exacerbates already existing policy pressures on the CAP.

One approximate indicator of the extent that the proposed members' policies will have to be altered to conform with the CAP is the ratio of producer prices in the applicant countries to EC prices. Most, though not all, agricultural prices in the three Mediterranean countries have recently been below comparable CAP levels. Thus, prices in the new countries in general will have to be raised during the transition period to conform with the CAP regime.

The sources of enlargement-related policy pressures on the CAP—budgetary transfers, competition with current member producers, and third country effects—can be summarized by the recent trade positions of the current EC and Greece, Spain, and Portugal (table 2). The budget cost will be adversely affected by the inclusion of large producers of olive oil (Spain and Greece) and table wine (Spain and Portugal). Additional costs could come from support for the tomato industry. On the other hand, the fact that these three countries are importers of cereals, dairy products, and meat has encouraged the notion that the existing Community might be able to provide a greater

Table 1—Expenditures for EC agricultural support programs, 1976-81

Year	Agricultural expenditure	Increase over previous year	Share of total EC budget
	Million EUA[1]	—Percent—	
1976	5.6	24	71
1977	6.8	21	77
1978	8.7	28	71
1979	10.4	19	71
1980	11.5	11	73
1981 preliminary	12.9	12	65

[1] European unit of account.
Source: EC Commission.

[2]Because of the large amounts that will have to be paid in import levies, especially on feed grains, Portugal could be a net contributor to the EC budget on agricultural trade account.

Table 2—Trade position of the EC and of Greece, Portugal, and Spain, selected agricultural commodities

Greece, Portugal, and Spain	European Community—	
	Imports	Exports
Imports	Sheep meat	Milk and milk products
	Pigmeat	Poultry meat
	Vegetable oilseeds	Sugar
	Maize	Wheat
	Rice	Barley
	Tobacco	Beef and veal
Exports	Olive oil	Wine
	Vegetables (fresh)	
	Fruits and nuts	

Source: Derived from *FAO Commodity Review and Outlook,* 1979-80, Rome, 1979.

share of these imports, thus reducing the budget cost of enlargement.[3]

The loudest concerns during the EC negotiations with Portugal and Spain have been voiced by French and Italian producers of fruits and vegetables (mainly citrus and tomatoes) and of low-quality wine. Italy will exert additional pressure if the current support for olive oil is reduced. Fears of increased competition have already resulted in calls by France and Italy for greater protection of Mediterranean commodities, despite negative effects on third country suppliers, some of which have preferential trade arrangements with the EC.

Other potential negative developments for third country suppliers are associated with the application of variable levies on feed grain imports into the new members and the possibility of a change in policy affecting vegetable oilseed use in the expanded EC. The Community has considered introducing a tax on the use of oils from oilseed, both to protect the animal fats market and to increase olive oil demand. This idea resurfaced during discussion of enlargement, with the additional attraction of raising revenue for the budget.[4] The main losers would be overseas suppliers of oilseeds, the United States in particular. Within the Community, opposition comes from consumers of oilseed products and from the well-established oilseed processing industry in West Germany and the Netherlands, which would lose business to southern Europe.

Budgetary and Enlargement Linkages

The EC has a problem with overproduction of certain products because financing this surplus is growing too ex-

pensive for the present budget. Enlargement threatens to add to these costs both by requiring net flows of funds toward the south and by adding olive oil and possibly other southern crops to the list of surpluses. Solving the problem of budget cost will require difficult decisions regarding the extent that the Community is prepared to underwrite the expanding output of European agriculture. Unlimited market support was considered essential in the process of modernizing farming structure in the present Community. A stable and remunerative market for farmers was provided at the expense of consumer interests and external political considerations. The success of this rapid development, assisted by the CAP and national investment policies, is partly reflected in the emergence of surpluses. The task of making the sector economically as well as technically efficient—by tailoring output to market demand and by sharpening competition among regions—now requires priority.

Agriculture of the southern European countries is, to varying degrees, lagging in this process. The most logical Community approach would be to provide to new member farmers market guarantees similar to those enjoyed by farmers in member countries. The economies of the Mediterranean basin would be assisted by support to their large farm sectors through development of rural incomes and employment and investment opportunities. Providing a lower level of financial support to the south would be to treat these agricultural sectors as overexpanded and wasteful of resources and to impose on them a different pattern of development. This, then, is perhaps the major agricultural issue of enlargement: Can assistance for southern Europe be reconciled with curtailment of agricultural spending in northern Europe?

One such reconciliation would involve transferring funds into Mediterranean agriculture, using budget savings from policy modifications in dairy, beef, cereal, and sugar programs to provide market support for the southern crops. The extent that this will be politically possible is not clear; at present it seems precluded both by national and sectoral interests in the north and by a lack of bargaining power in the south. Other ways which require less direct finance may have to be devised to assist southern agriculture. These would include further limitations on imports to expand domestic markets and, in effect, to place the burden on consumers (and foreign suppliers) instead of the taxpayer.

Alternatively, the Community could adopt policies of improving marketing structures to increase profitability and meet consumer needs. How these issues are resolved will have a major bearing on both the Community and other countries that trade with northern and southern Europe. The strategy developed for the agriculture of the new members is unlikely to be evident for a decade. The more immediate task is control of spending under the present CAP and the conclusion of negotiations for Spain and Portugal to enter the EC.

[3]It should be remembered that revenue from import levies on third country imports into new member countries will be lost to the Community if such a trade pattern change takes place.

[4]Spain at present discriminates against the use of seed oils (as does Greece), a fact which may lend additional support to the idea that the Community should adopt a similar stance.

Timing of Policy Change

The likely timing of changes in the CAP is as important as the changes themselves. The timing of enlargement and of national elections are two time-specific elements which serve as an institutional framework for economic and political developments. The timing of enlargement will clearly determine when various budgetary and trade pressures will affect the CAP. National elections are important because national governments ultimately make policy decisions, and they think primarily of their own electorates and the interest groups important to their political survival.

Timing of Enlargement

The Community expanded from 9 to 10 countries in January 1981 when Greece became a new member. Greece then began a 5-year transition period during which it will adapt to the agricultural prices and other policies of the CAP.[5]

Negotiations are underway to provide EC membership for Portugal and Spain, but entry dates and transition periods are still uncertain. Indications are that both applicants might enter the EC at the same time, although the lengths of their transition periods could differ. It appears highly unlikely that the two Iberian countries will join the EC in January 1983, as originally intended; a feasible if optimistic date for entry seems to be January 1984. The lengths of the transition periods are also still under discussion. Negotiators from both countries and the EC expect that the transition for each applicant will take 7 to 10 years. Hence, although Greek agricultural policies will be aligned with the CAP by 1986 (1988 for

tomatoes and peaches), Portuguese and Spanish policies will not have adapted before the early nineties (table 3).

Enlargement negotiations are both a technical and political event. Technically, they are designed to facilitate the applicant country's adoption of the *acquis communautaire* —the body of primary and secondary legislation already in force in the Community. Accession negotiations, strictly speaking, should not call this legislation into question. All prospective members so far have agreed to accept the *acquis*. The emphasis is therefore on the modifications needed in the applicant country to conform with these regulations, coupled with minor technical adaptations of EC legislation to make its operation explicit in the new member.

If this procedure were to be strictly followed for Spain and Portugal (as it was for Greece), the direct influence of enlargement on the CAP could be dismissed. Not only would the admission of new members make changes in the CAP unnecessary; it would act as an inhibitor of change in that the *acquis* itself might be more difficult to modify significantly at the same time that negotiations are proceeding.

This interpretation is less secure in practice. The entry of Spain in particular is considered a major problem for producers of Mediterranean crops in Italy and southern France. The CAP responded to this problem in 1979 with a package of measures designed to assist these regions.[6] This package will undoubtedly continue so long as the challenge from Spain can be used as an argument for the redirection of spending toward the south. The political appeal of Spanish and Portuguese entry—as buttressing democratic systems of government—can also carry a price tag if one country in the EC decides to extract concessions from other current members in exchange for its

[5]The 5-year transition applies to all commodities except fresh and processed tomatoes and peaches, which will be adapted during a 7-year transition that also began in January 1981.

[6]This "Mediterranean" package includes finance for marketing, afforestation, irrigation, extension, and other structural measures.

Table 3—Timing of accession to the EC: Actual and projected timetable

Stage	UK[1], Denmark, Ireland	Greece	Spain[2]	Portugal[2]
Formal application	May 1967	June 1975	July 1977	March 1977
Start of negotiations	[3]June 1970 (37)	July 1976 (13)	February 1979 (19)	October 1978 (15)
End of negotiations	January 1972 (31)	May 1979 (34)	December 1982 (46)	December 1982 (46)
Entry into EC[4]	January 1973 (12)	January 1981 (20)	January 1984 (23)	January 1984 (23)
End of transition	December 1977	December 1985	December 1990	December 1990

[1] Refers to successful UK application. A previous attempt to accede failed in 1961–63. Norway successfully negotiated accession in 1972, but chose not to become a member.

[2] Dates for end of negotiations and subsequent stages are predictions.

[3] Number in parentheses in months since previous step.

[4] Full membership at entry date, but with transition period for policy harmonization, extended for sensitive products.

acquiescence. France, for instance, might use this occasion to renew its demand that other member countries stop questioning certain aspects of the CAP. Moreover, the Community could easily choose to accelerate certain decisions to avoid dealing with them in an enlarged community. This was tried with limited success in 1973, when a fisheries policy was concluded before the accession of the UK, Denmark, and Ireland—a partial explanation for Norway's decision not to join the Community. Attempts to solve the olive oil and tomato concentrate problems in advance of enlargement are probable in this context, though the applicant countries would doubtless object.

In spite of these caveats, it is likely that the twin issues of CAP revision and enlargement will be formally separate for the next few years. Their main link will be through the budget. This would suggest that the enlargement timetable can be a useful framework in which to examine price and budget cost developments.

Timing of National Elections

Another set of time-specific events—the national elections in member states and applicant countries—is an important element in the political climate in which both enlargement and CAP revision will take place. On the assumption that no national parliament is dissolved before its full term, the calendar of elections is based on the most recent election in each country (table 4). The array of 4- and 5-year terms gives an interesting scatter to the decade.

Without putting too much weight on one aspect of decisionmaking, it seems reasonable to point out some of the potential problems and possibilities. After the French presidential and parliamentary elections and the Spanish parliamentary elections during the summer of 1981, enlargement negotiations may well be accelerated. Until mid-1984, action such as the replenishment of the budget with additional sources of income may be taken on Community policies. There are no major political events scheduled during the 3 years from June 1981 to May 1984, when the British parliamentary term expires. It is reasonable to expect these 3 years to be crucial in resolving some of the Community's emerging problems.

The British election could, of course, occur earlier than indicated here, which would be very important to the Community. The Labour Party, now in opposition, is likely to enter the next election with a platform highly critical of the EC and perhaps seek a mandate for withdrawal. Whether this in itself would predispose other member states to agree to action favorable to the UK is a moot point, but it would make it impossible for the British Government to concur in decisions that might further weaken UK support for EC membership.

The years 1984 and 1985 will likely see national governments preoccupied with domestic issues and unwilling to make major Community decisions. The same coincidence of national elections occurs again in 1988 and 1989. The period June 1985 to March 1988 offers some respite and could be another period of Community activity providing an opportunity to develop an agricultural policy appropriate to the needs of an EC of 12 countries.

Macroeconomic and Other External Influences on the CAP

Agricultural policy developments within a country must be placed squarely in a broader economic context. The in-

Table 4—Schedule of European national and EC elections, 1980-90

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
France (Deputies)	—	June	—	—	—	—	June	—	—	—	—
France (Presidential)	—	May	—	—	—	—	—	—	May	—	—
West Germany	Oct.	—	—	—	Oct.	—	—	—	Oct.	—	—
United Kingdon	—	—	—	—	May	—	—	—	—	May	—
Italy	—	—	—	—	June	—	—	—	—	June	—
Greece	—	Nov.	—	—	—	Nov.	—	—	—	Nov.	—
Spain	—	June	—	—	—	June	—	—	—	June	—
Portugal	Oct.	—	—	—	Oct.	—	—	—	Oct.	—	—
Belgium	—	—	Dec.	—	—	—	Dec.	—	—	—	Dec.
Netherlands	—	May	—	—	—	May	—	—	—	May	—
Denmark	—	Feb.	—	—	—	Feb.	—	—	—	Feb.	—
Ireland	—	—	June	—	—	—	—	June	—	—	—
Luxembourg	—	—	—	—	June	—	—	—	—	June	—
EC Commission[1]	Dec.	—	—	—	Dec.	—	—	—	Dec.	—	—
EC Parliament	—	—	—	—	June	—	—	—	—	June	—

— = No elections.

[1] Assuming parliaments run to their full term.

flation rate and the exchange rate stand out in this context as influencing agricultural policy decisions in Europe. Other economic variables such as world prices, income trends, population movements, interest rates, unemployment, and the trade balance also have an impact, though somewhat less direct.[7] Inflation affects both the cost of inputs that farmers must buy and the purchasing power of their incomes. Governments commonly use price policy to protect farmers from a sudden fall in income due to inflation.[8] Exchange rates have a particular impact on agriculture in the EC because the denomination of policy prices in a common currency unit implies that changes in exchange rates should directly influence domestic farm prices.

Inflation and Exchange Rates

Both economic theory and observation suggest that inflation and exchange rates are linked. A decline of the internal value of a currency will normally be reflected in a roughly similar depreciation of its external value. In this sense, these two macroeconomic forces eventually act to offset each other. These links with macroeconomic trends in the EC are both complex and important. Inflation rates differ in the various member states. But if the exchange rate changes completely reflect inflation differentials, this need not cause problems. A high rate of inflation in one country will lead to a depreciation of the exchange rate; producers of traded goods will lose from inflation but gain from the higher prices on domestic markets of competing foreign goods and from the increased demand for exports. Producers will lose only to the extent that the government does not allow farm prices to rise following currency depreciation.

The Community, for sound economic and administrative reasons, has fixed farm prices in terms of a common currency or unit of account—now called the European Currency Unit (ECU). These prices were originally translated into national currencies at the relevant exchange rates as necessitated by the provision of free trade within the Community. But when the French franc was devalued and the deutsche mark revalued in 1969, a derogation was introduced which has since haunted the Community. Farm prices were translated from units of account to local currencies at special green rates of exchange that follow the market exchange rates up or down, usually with a lag, at the discretion of member governments.[9] This practice added stability to agricultural prices in national currency terms by postponing the impact of exchange rate changes, but necessitated taxes and subsidies

on trade to prevent relative national prices from reflecting the new market exchange rates. These monetary compensatory amounts (MCAs) were assessed as contributions to and payments from the Community budget.

Once the direct link between inflation and exchange rates for agriculture was broken, countries had regained some control over national farm prices. A strong currency country could refuse to revalue its green rate, at least in the absence of a corresponding increase in unit of account prices, and hence prevent farm prices from falling in terms of domestic currency. This has been West Germany's position for the past decade. A weak currency country, concerned specifically with the control of inflation even at the expense of farm incomes, can delay depreciation of the green rate and hence resist the consequent increase in farm and food prices. This was the line taken by the British Government until recently.[10] This national autonomy was obtained at a significant cost—the Community lost both its common price level and the possibility of free intra-EC trade.

The impact of macroeconomic events on agricultural prices and profits has been changed subtly but significantly by this policy. Farmers in the weak currency countries now depend on their governments to grant them price increases through green rate devaluations to offset high domestic inflation. At the same time, farmers in strong currency countries insist on protection against price decreases through avoidance of green rate revaluations. This interplay of government influence over the agricultural exchange rate and the rate of domestic inflation helps define the set of prices that are fixed annually under the CAP.

In light of these comments, it is important to establish a consistent relationship between inflation and exchange rate changes in the Community. This is done by assuming that exchange rates reflect inflation rate differentials—a relationship known as purchasing power parity (PPP). Strict parity is unlikely to occur at all times; interest rate differences and other short-term influences on exchange rates will often dominate inflation effects temporarily. But over time, this assumption seems plausible as a working hypothesis, and its applicability during the first 12 years of the full CAP (1967-78) has been examined empirically (see appendix B). Differing inflation rates can thus be translated into exchange rate movements, providing a macroeconomic context for development of the CAP.

The ordering of assumptions on inflation rates in this study is more reliable than the absolute numbers, with all countries resuming their position in the hierarchy of currency strength after the inflationary burst of 1979 and 1980 (table 5). West Germany settles down to a rate of

[7]World prices have a direct influence on some sectors through the link with market prices, though more often this link is indirect through the budget cost of disposing of surpluses.

[8]Inflation is also used by policymakers to encourage adjustments in particular agricultural sectors by varying the extent to which farmers are compensated for cost changes.

[9]The responsibility for proposing green rate adjustments rests with the EC Commission. By convention, such a proposal is not made until the government concerned has agreed to such a change.

[10]The recent strength of sterling, combined with the advent of a government more favorable to farm interests, has eliminated this option for the moment.

about 4 percent, followed by the United States (7 percent), France and the UK (9 percent), Spain and Italy (12 percent), Greece (13 percent), and Portugal (18 percent). Although it is hazardous to use such long-term projections of inflation rates, they are necessary to provide a starting point for later calculations. For the price projections made, the relative rates of inflation, rather than the absolute levels, are critical.

As explained, exchange rates are assumed to move in response to inflation differentials. Table 6 is thus derived from the projected inflation rates of table 5, and shows the movement of EC currencies with respect to the dollar. (The exchange rates against the ECU are given in appendix B.) The projected rates show the dollar weakening slowly against the ECU and even more slowly against the strong currencies such as the West German mark, the Dutch florin, and the Belgian franc. The French franc stays roughly at par with the dollar, while the lire and the pound sterling depreciate against both the ECU and the dollar. As with the inflation rates from which they were derived, these exchange rate movements are taken as a starting point for examining the influence of currency values on farm prices and on the CAP.

World Prices

World price levels for agricultural commodities indirectly influence development of the CAP. The variable levy system of protection against imports and of the open-ended export subsidy as a means of surplus disposal does sever the direct link between world market prices and domestic price levels. But, world price levels do affect the cost of export subsidies and the revenue from levies. The expenditures on subsidies in the Community exceeds the income from agricultural levies and, in general, falling world prices tend to increase budget costs while declining prices reduce them.

It should also be noted that a few commodities—the most significant being oilseeds—are not covered by levy/subsidy schemes. Duties on these products are fixed at 0, under an arrangement in the General Agreement on Tariffs and Trade (GATT). Several other feed ingredients also enter at low fixed duty rates. This assymmetry between cereal and other feedstuffs has had an important influence on European agriculture. By providing an additional link between world market conditions and those on the protected Community market, it has allowed feed

Table 5—Assumed annual rates of inflation, 1980-90

Year	United States	West Germany	France	United Kingdom	Italy	Denmark
			Percent			
1980	14.0	4.4	12.6	15.2	16.9	10.4
1981	9.0	3.1	11.1	12.1	14.6	8.4
1982	8.0	3.4	9.9	9.6	13.3	7.1
1983	7.5	2.9	8.4	8.3	12.9	6.0
1984	7.0	3.5	9.0	8.4	12.2	5.5
1985	7.0	3.7	9.1	8.9	12.3	5.5
1986	7.0	3.6	9.3	9.4	13.0	5.5
1987	7.0	3.7	9.3	8.8	13.0	5.5
1988	7.0	3.9	9.1	8.9	11.9	5.5
1989	7.0	4.0	9.0	9.0	12.0	5.5
1990	7.0	4.0	9.0	9.0	12.0	5.5

Year	Belgium/ Luxembourg	Ireland	Netherlands	Greece	Spain	Portugal
			Percent			
1980	5.9	13.2	5.9	18.0	18.5	24.3
1981	5.8	11.8	6.1	12.6	20.3	21.1
1982	5.7	8.8	6.1	10.2	17.5	19.9
1983	5.1	7.3	5.9	10.1	17.7	17.9
1984	5.4	8.4	4.8	10.0	13.4	18.5
1985	5.0	8.9	4.4	10.0	12.9	18.0
1986	4.4	9.4	4.6	10.0	12.4	18.0
1987	4.2	8.8	4.5	10.0	12.1	18.0
1988	4.5	8.9	5.4	10.0	12.2	18.0
1989	4.5	9.0	5.0	10.0	12.0	18.0
1990	4.5	9.0	5.0	10.0	12.0	18.0

Source: Averages of independent econometric estimates of inflation levels supplied by International Economics Division, Economic Research Service, U.S. Department of Agriculture, extrapolated by the authors.

compounders to take advantage of both high protein feed ingredients such as soybean meal, and various starchy materials such as manioc, which have become available on world markets. The rapid development of a cost-conscious feed industry with sophisticated purchasing policies has kept costs to livestock producers down, and resulted in a higher output of livestock products and a lower use of cereals, both tending to exacerbate surpluses. Thus, overseas suppliers such as the United States, Brazil, and Thailand have an increasing stake in the EC market for animal feed, but EC farmers are not pleased to see the steady growth of imports when markets for domestic produce are in oversupply.

Both the absolute price levels of commodities imported into and exported from the Community and the relative prices among products influence future policy developments. This study projects a stable set of world prices which can then be varied to assess the sensitivity of policy to such variations. The base assumptions are thus that world prices remain constant in 1979 dollars, increasing in nominal terms by the rate of U.S. inflation. They will therefore rise slightly more slowly in ECU terms because

of a depreciating dollar, but also, by virtue of the assumed link between inflation and exchange rates, world prices stay constant in terms of the purchasing power of each European country. The level of protection for Community agriculture under these assumptions will fall if policy price increases are kept below inflation rates and rise if such rates are exceeded. Internal policy prices can then be measured against comparable world prices to give an indication of both budget and protection effects (see appendix C).

Incomes

Of the other macroeconomic or general influences on agriculture, the level of income, with the growth of population, has clear implications for demand growth. Though not directly measured in this study, demand trends will obviously influence budget costs and trade flows. The combination of a low propensity to consume basic foodstuffs from the grain-livestock sector and a very small anticipated population growth in Europe implies that domestic demand is likely to be sluggish, growing 1 to 1.5

Table 6—Projected exchange rates, 1980-90

Year	European currency unit	West German mark	French franc	British pound sterling	Italian lire	Danish kroner
	U.S. dollars per 1,000 currency units					
1980	1,431	569	245	2,366	1.189	182.80
1981	1,447	602	239	2,293	1.122	183.90
1982	1,462	630	235	2,256	1.063	185.55
1983	1,482	659	233	2,238	1.006	188.34
1984	1,493	682	228	2,207	.953	191.16
1985	1,490	704	223	2,165	.903	194.03
1986	1,488	728	218	2,113	.849	196.94
1987	1,490	752	213	2,074	.798	199.89
1988	1,491	776	209	2,035	.759	202.89
1989	1,494	799	205	1,995	.721	205.93
1990	1,499	823	200	1,955	.685	209.02

Year	Belgian franc	Irish punt	Dutch florin	Greek drachma	Spanish peseta	Portuguese escudo
	U.S. dollars per 1,000 currency units					
1980	35.60	2,125	519	23.40	14.20	20.50
1981	36.74	2,066	534	22.56	12.60	18.02
1982	37.58	2,049	545	22.06	11.40	15.88
1983	38.49	2,053	553	21.49	10.24	14.22
1984	39.10	2,024	565	20.84	9.58	12.59
1985	39.88	1,986	580	20.20	9.02	11.20
1986	40.92	1,938	594	19.61	8.53	9.97
1987	42.07	1,903	609	19.02	8.09	8.87
1988	43.12	1,867	619	18.45	7.67	7.90
1989	44.20	1,830	631	17.90	7.29	7.03
1990	45.30	1,793	644	17.36	6.92	6.26

percent per year.[11] It is also at the lower end of the range of likely supply increases in Europe, assumed to be from 1.0 to 3.0 percent a year.

There are several policy conclusions: (1) That pressure on internal markets will continue unless supply is considerably restrained; (2) that relief for this pressure from exports to developing countries will be expensive; and (3) that exports from other countries to European markets will continue to be vulnerable as EC policymakers search for outlets for domestically produced goods. Though the pressure will vary by commodity, its influence will be felt in all areas.

Growth rates in Europe will have other, more oblique influences on agricultural policy: (1) The income level to which farmers aspire and towards which farm policy will attempt to steer them will depend on growth in the economy; (2) the resources available to the Community for supporting agriculture as well as financing other programs are tied proportionately to income levels; (3) a healthy and growing Community can more readily absorb those who choose to leave farming; and (4) the credibility of the Community is related to the extent to which prosperity is perceived to accompany European integration. The continued diversity of growth rates within the Community will affect its political cohesion, as well as necessitating periodic reassessments of budgetary costs and receipts and the position of currencies within the EMS. Some of these income-related issues will be examined in this study, but many would require consideration in a much broader framework.

Pressures for Change in the CAP

The CAP, like other agricultural policies of developed countries, responds to the demands placed on it by changing circumstance. These policy pressures come both from those directly interested in the workings of the policy itself, such as producers, consumers, traders, or manufacturers, and from others indirectly influenced by the place of the CAP in the activities of the Community and by its implications for international trade. Four such pressures will be emphasized in the context of this study: (1) The pressure to support farm income in the Community from the deprivations caused by domestic inflation and foreign competition, (2) the pressure to operate a common policy as required by the Treaty of Rome (which established the EC in 1957), involving uniform support methods and prices and financing by the Community, (3) the pressure to reduce the dominance of agricultural spending in the EC budget to allow the development of other Community programs within imposed financial constraints, and (4) the pressure on the Community to

respect the interests of other countries, both developed and developing, affected by the CAP's impact on trade patterns.

Farm Income and Prices

Farm income pressure is the most straightforward. Farmers in the member states expect the Community to grant protection for their livelihood, in particular from foreign competition, from overproduction at home, from sudden adverse changes in exchange rates, and from the effects of inflation. The CAP basically meets these needs. For the most important products, the variable levy system of border protection ensures that foreign competitors cannot sell at prices below support levels in EC markets. Where such protection is absent for oilseeds, other nongrain animal feedstuffs, and many fruits and vegetables, farm groups argue for a completion of the policy to avoid the impact of competition. Though pressures from traders and consumer interests offset these demands, they indicate the unwillingness of the farm sector to accept competitive pressures as a stimulus to adaptation and change.

Self-sufficiency has increased over time, and protection from domestic overproduction has come to be just as important as the removal of foreign competition. Intervention buying, subsidized exports, and various marketing aids have been used increasingly to support the domestic market. Floor prices are guaranteed for many commodities regardless of the market's ability to absorb them. The surpluses so generated are symptoms of markets from which the normal signals of overproduction have been removed. Despite attempts to reintroduce such signals through the coresponsibility levy on milk and the levy on sugar production above a basic quota, the expectation still remains that Community finance will be available to remove overproduction without significant price reductions (see appendix A).

In a period of changing exchange rates, a farm policy that denominates support prices in terms of foreign currency will render the agricultural sector vulnerable to price movements seemingly unrelated to market conditions. The use of the ECU and formerly the European unit of account (EUA) for fixing CAP prices and subsidy levels is seen as a threat in strong-currency countries to farm incomes. The political response has been to introduce a system of import taxes and export subsidies at national borders to prevent the reduction in farm prices that would otherwise have followed changes in the exchange rate. Removal of these MCAs from trade in the stronger currency countries has been both slow and incomplete, and has generally required compensation by general support price increases. Farm groups in depreciating-currency countries have pressed for removal of MCAs on their own trade, since these are designed to keep farm prices down.

Protecting farmers from inflation is not easily achieved in times of rapid price rises. During such times, governments can reduce the relative prices of agricultural goods by raising them less than the rate of inflation. Recoupment

11. Export demand growth is likely to be much larger, but EC produce is generally uncompetitive in world markets without substantial subsidy. The growth of the domestic market thus has an important implication for the quantities of such goods which have to be disposed of by means of an export subsidy.

of costs, however, is important in European agricultural policies, and will seem fair to the public in economies where wage negotiations and other public pay and price decisions stress compensation for loss of purchasing power. Farm prices have lost some ground to inflation over the past decade, although the real income of farmers has not suffered to the same degree if productivity change is taken into account.

Consumers have nothing to gain from (1) the reduction of foreign competition, (2) the purchase of surpluses by government agencies (particularly if those goods are then provided to overseas consumers at lower prices through export subsidies), (3) the support of farm prices when a strong currency would otherwise have caused them to fall, or (4) the effective indexing of food prices to other cost of living items. But farm price decisions in the EC are made each year by the ministers of agriculture, who meet to consider the health of the farm sector. The consumer voice is but one of a number of general political constraints which act on the ministers and as such gets little direct attention.

This farm income component of policy pressures on the CAP is best thought of as a set of national expectations transmitted to Brussels (EC headquarters) both through direct lobbying (such as by COPA, which is the association of farm organizations) and through the objectives of the individual ministers. One almost inviolable rule in the search for a set of prices each year is that no price may decrease in terms of a national currency.[12] To agree to such a decrease would signal a defeat for any of the ministers in the eyes of their national constituencies. This means that a minimum price increase is dictated annually by countries that revalue their agricultural rates of exchange (green rates) to reduce the level of MCAs. With the exception of occasional policy adjustments, such as when butter and cheese prices were lowered and skimmed milk prices raised to achieve a different balance of surplus milk products, nominal support prices have not declined in member states during the last decade (see appendix B). This pressure can be assumed to continue and is used as a floor to possible policy price changes.

In spite of the pressures for recoupment of cost increases, the Community appears to have avoided overcompensation for inflation, at least in countries with fairly stable exchange rates. The farm price decisions in recent years have barely been enough to offset the previous year's inflation in the country with the least inflation; for those with higher rates of inflation, the price decision has implied less than full recovery of increased costs. In light of the significant pressures on agricultural spending, it is likely that this policy will continue, at least implicitly, in

the future. This relationship between inflation and farm prices, taking into account changes in green rates, was used to project future price levels.

Thus, pressure will continue for a price policy which raises nominal prices as a kind of wage increase for the farm sector and attempts to cover at least a large portion of farm cost increases. It is also reasonable to project the survival of the green rate/MCA system for delaying farm price adjustment in the face of exchange rate appreciation. Farmers will continue to press for more complete protection from outside competition and domestic overproduction on Community markets. Constraints on such pressures can be expected to be felt less at the national than the Community level, where the responsibility lies for financing the price policy and squaring its development with other Community aims and broader international objectives.

Community and National Policies

The second set of pressures on farm policy emerges from the requirements for European integration. The Treaty of Rome requires that agriculture be subject to the same rigors of free internal trade and common levels of external protection as other sectors. The farm sector, however, was to benefit from a common policy that would attempt to achieve various general goals. As with other Community policies, it was to be jointly financed and would employ common mechanisms administered from Brussels. Though the idealism which characterized the early years of the EC has largely passed, *communautaire* attitudes are still strong for agriculture. The Commission of the European Communities, charged with proposing legislation and administering Community programs, has both an institutional preference for and a constitutional obligation to provide common solutions to agricultural problems and to avoid backsliding toward national policy options. Powerful national groups that benefit from the Community also have a tendency to see derogations to common policies as a threat to the whole system—the thin end of the wedge that could undermine the Community's existence.

Three factors are of particular concern to those groups troubled by the potential renationalization of agricultural policies. First, the divergence of prices, which followed the introduction of green rates and MCAs, is seen as breaching the principle of common marketing arrangements. Support prices in some parts of the Community (West Germany) have been as much as 40 percent above those in other member states (Italy and the UK). At such times, common prices have been largely a fiction perpetuated in the hope that member states would eventually return to the spirit of the agricultural regulations. Patience has been rewarded in this respect; prices are now more closely harmonized than they have been for many years, partly because of the establishment of the EMS, and also because of a perhaps temporary strength in historically weak currencies and a weakness in those that have been strong. But while the MCA system exists, there is always potential for price divergences.

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[12]This convention does not apply to commodities not produced in a particular country. The nominal price of olive oil, for instance, has often declined in the Netherlands and West Germany, but has always increased in Italy, the only significant producer among the first nine members.

The second concern is the continuation of extensive national policies, particularly in the field of structural programs and social policy towards agriculture. During the early stages of integration, the continued existence of national policies seemed less important than the development of common border policies and price support systems which were considered more fundamental steps in the integration process. Creation of a common market in agricultural goods, however, has increased the significance of national nonprice measures in influencing competitive conditions. These measures range from investment aids and capital taxation policies to farm marketing institutions, social security systems, and labor legislation.

There is also evidence that, besides becoming more visible with the removal of national price policies, these nonprice measures are proving more useful to governments that want to influence agricultural development despite the existence of the CAP. Attempts by the EC Commission to persuade member states to abandon such policies at the national level have proved fruitless, even though the cost to member state governments has been estimated at almost twice the financial cost of the CAP itself.

The third concern to those who favor the dominance of Community instruments of policy out of principle or self-interest is the budget. This federal instrument was designed to finance common policies with resources belonging to the Community—the revenue from duties and agricultural levies and from a national tax on value added at a maximum rate of 1 percent. This budget has to balance every year, and additional financial resources can only be granted by treaty amendment subject to ratification by national legislatures. The member states (including those that gain from the budget as well as those that lose) regard the share of resources that originates in their country as their contribution ("own resources") to be balanced against receipts. This leads to concern about the equity of national transfers as an element of Community policy. The predominance of agricultural spending in the budget and the mechanisms for raising the revenue ensure that agricultural exporting countries—in particular, exporters of surplus commodities—do relatively well from the financial regulations, whereas nations that import both manufactured and agricultural products from third countries but add little to surplus production of farm goods are significant net contributors to the common budget.

It is unlikely that these tensions will be quickly resolved. Pressures for uniform prices will be strong whenever exchange rate changes give countries the opportunity to influence their own price levels. The EMS could have a favorable effect on this problem if it can prevent short-term divergences in exchange rates. The PPP assumption, however, implies that even with a fully operating EMS, different inflation rates in member states will show up in regularly changing central rates.

One attempt has been partially successful in preventing price divergences under the CAP. As part of the agreement introducing both the EMS and the use of the ECU in agricultural pricing, a serious effort was made to phase out new MCAs—those arising from central-rate changes subsequent to the establishment of the EMS—within 2 years of their introduction. This informal agreement does not have the force of a regulation since the UK was unwilling to go along with explicit linking of green rate changes with the annual price decisions. It is, however, widely regarded as obliging the eight full participants in the EMS to attempt to comply in good faith.

As for attempts to increase the predominance of the CAP by dismantling national agricultural policies of a non-price nature, it is doubtful that any major developments might persuade governments to relinquish their remaining national policy instruments. One would expect, particularly in the context of enlargement, renewed emphasis on Community regional and social problems, including the location of processing industries, alternative employment for rural families, and better coordination of production decisions with market outlets. But these structural programs certainly would be implemented through the somewhat permissive framework of directives rather than regulations, implying national legislation consistent with common goals and qualified for Community financial assistance, rather than centrally run policies imposed uniformly in all member states. Regression towards national commodity policies is a possibility if individual country objectives are not met by Community policy.

Agricultural Expenditures and the Budget

The future of the EC budget as an instrument of joint financial responsibility for Community policy depends on pressures from the CAP. The CAP, in turn, is seriously affected by the limits of own resources. It is, however, convenient to distinguish between a short-term and a long-term budgetary problem. The longer term issue—establishment of a secure financial base for the development of agricultural and other programs—for the enlarged Community probably will not be resolved within the next 3 years. The short-term budgetary issue concerns the level of spending and income over the next 2 or 3 years. Apart from some payments to Greece through the regional and agricultural funds, this issue is not closely tied to enlargement, but to living within the limits of available resources.

The short-term issue can be illustrated in the following way. The Commission presents a draft budget annually to the EC Parliament and the Council of Ministers. This budget must include an estimate of own resources for the next budget (calendar) year and the Commission's proposals for spending under various programs. The expenditure cannot exceed the available resources. So far, total spending has stayed within this limit, but the 1981 draft budget proposed expenditures of 98 percent of the expected income from own resources. Given more rapid increases in expenditure than in income, the question becomes whether the Commission can offer a credible budget that keeps spending within available income in its proposals for 1982. Thus, where in national budgets there is pressure at any level of spending on government programs, in the Community there is no strong pressure to

restrain spending until the limit of available resources is met. This limit then becomes, in principle, an absolute constraint. Even if it were possible to frame a budget for 1982 within this constraint, the problem would reemerge in the next year.

Room for maneuvering in the budgetary process is limited. Spending is either obligatory under established EC programs—largely the agricultural component, Fonds Europeen d'Orientation et de Guarantie Agricole (FEOGA)—or discretionary.[13] Obligatory spending is forecast by the Commission, and these forecasts can be neither challenged nor reduced by the EC Parliament. Moreover, the agricultural forecasts cannot anticipate decisions on farm prices which will affect spending in the latter part of the budget year. The budgetary implications of farm price decisions are estimated on those prices, and a supplementary budget is required to cover any increases. This implies that agricultural spending has essentially been outside budgetary scrutiny and has had first call on Community income. Farm programs could conceivably escape serious challenge on budgetary grounds for a few years if nonagricultural spending can be cut. The cost of this in terms of Community development and the distributional implications among countries would be high and the relief only temporary; the longer run problem would remain.

The longer run problem is basically that the two elements that dominate the present budget, the revenue from up to 1 percent of the value added tax (VAT) on the income side and the spending on farm support on the expenditure side, are growing at different rates. The VAT revenue grows at the rate of nominal GNP for the Community, perhaps 2 or 3 percent above the inflation rate. If spending on the CAP were a constant share of the value of agricultural output, it might also grow at a manageable rate, since both output and price increases over time would probably be less for agriculture than for the economy as a whole. But spending on surplus disposal increases with the size of the surplus rather than expansion of production. If consumption growth is sluggish and world prices do not rise rapidly, this surplus disposal cost will rise considerably faster than the value of output. In fact, the FEOGA cost has risen at annual rates of 18 to 25 percent in recent years, far outstripping budget income growth. No short-term cosmetics or cuts in other programs can reconcile this inconsistency. The policy must either be modified to control spending, or the level of available budget resources must increase more rapidly.

One recent development has potential significance for both shortrun and longrun policy: The UK has argued for and received a temporary offsetting payment to reduce its budgetary burden in response to perceived inequities in the net national contributions to Community finance. Important consequences are apparent. The budget must include the payment to the UK as an item, thus reducing the amount available for other spending, and this payment must be covered by other countries through a higher share of VAT contribution, up to the current limit of 1 percent. The agreement also promises increased spending on policies that are financially advantageous to the UK and also must be financed from own resources.

Consequences of the agreement could be significant. The national contributions to EC expenditure increases will be shifted for the duration of the agreement. The UK will be less affected by increased expenditures, and other countries will pay more of the marginal budget cost.[14] As the marginal budget cost changes for different countries, so will the national interest in the price levels set under the policy. One would expect the UK to be less insistent on price restraint, a position reinforced if the pound sterling remains strong in spite of domestic inflation. Such a development would remove the main ally of the Commission in pushing for moderate price increases. But other countries (particularly France), which until now have benefited from price increases, may feel that they, not the UK, should be on the side of price restraint. How such changes would affect the development of policy over the long run depends on whether the UK offset agreement is renewed after the present 3-year period. Renewal in turn depends largely on the balance of spending in the budget and the source of any new funds.

External Trade Effects

The final policy pressure relates to external trade. In one sense, it is possible to argue that external influences have had little impact on agricultural policy. The Community's trade policy in agricultural markets has always been subservient to domestic policy needs, and international discussion of domestic policy has been studiously avoided. Nevertheless, the Community has never felt completely free in domestic policymaking, and maintaining rigid separation between its domestic and foreign agricultural policy decisions has proved increasingly difficult. Enlargement to include Greece, and potentially Portugal and Spain, will only accentuate this trend.

One clear avenue of pressure is from agreements among the Community and other members of the GATT which bind the rates of certain customs duties. Products with bound duties include the oilseeds and a number of products not considered important to European agriculture at the time of negotiation. Trade in these products has grown considerably since they have become increasingly competitive in European markets as the prices of domestic products have risen. To unbind (or deconsolidate) such duties would require significant concessions to trading partners.

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[13]FEOGA is also known as the European Agricultural Guidance and Guarantee Fund (EAGGF). It is the fund from which all expenditures are financed for management of agricultural markets.

[14]The temporary agreement of May 1980 allowed for payments to the UK estimated at 1.2 and 1.4 billion ECUs in 1981 and 1982, covering 1980 and 1981, respectively, and an unspecified level in 1983, covering 1982. The assumption was that the causes of the UK budgetary imbalance would be removed by 1983.

Other constraints on policy include arrangements negotiated with the 52 former colonies known as the African, Caribbean, and Pacific states (ACP), and a variety of bilateral trade agreements with the Mediterranean countries. These treaties have agricultural components, though they generally are worded to avoid direct challenge to the CAP. The most important of these international agreements relates to sugar sales from the ACP. A total of 1.3 million tons is imported each year at a price within the range of Community prices, in effect giving these countries quotas at high EC prices as if they were member states. Any change in EC sugar policy has to take this arrangement into account, which influences both internal price decisions and marketing arrangements. By comparison, trade agreements with the Mediterranean countries are largely in fruits and vegetables and relate to tariff-free quotas and other concessions linked to the seasonality of EC production. The Community will have the difficult task of absorbing new members without unacceptably reducing access for the other, generally poorer, Mediterranean countries.

The dictates of the CAP have led to a series of external trade problems. Border measures such as import restrictions and export subsidies, used to protect the EC market against price fluctuations on world markets, have placed the Community in a difficult situation. In its international commercial relationships, the Community is at odds with many of its trading partners, including the United States, Canada, Australia, and Japan.

Success in providing a stable domestic market for producers and consumers has had its counterpart in a reduced role in international price stabilization. Commodity agreements, long recommended by the Community for world markets, have not proved to be compatible with the autonomy required by the CAP. Thus, the EC has not been able to accept either the disciplines of the International Sugar Agreement or a full role in the management of grain stocks. These problems will persist over the next decade, and only a change in attitude toward the need for international negotiation on internal matters can reduce tensions in this area.

A more immediate pressure comes from the fears of major suppliers to the three new members that these markets will be lost. If that trade is threatened by adoption of the CAP in those countries, a series of negotiations under the GATT (Article 24.6) would be necessary to consider compensation outside the EC.

Ranges of Price and Budget Cost Under the CAP

The CAP is strongly influenced by macroeconomic trends, particularly the rate of inflation and the pattern of currency movements in the Community. These trends affect the common policy demands concerning producer price levels, which in turn affect expenditures on price supports. These supports act as both a constraint on prices and a stimulant to change in policy mechanisms. These contentions are now translated into quantitative terms by projections of price levels and associated budget costs.

It is convenient to start with a set of basic projections based on reasonable assumptions of values for the relevant variables. These assumptions are then varied to indicate their relative importance. The method used is detailed in appendices B and C.

Method

The method of generating price and budget projections can be illustrated as a system of four interrelated blocks that incorporate the necessary assumptions and manipulations to arrive at CAP prices, world prices, traded quantities, and EC budget cost (see fig. 1). These blocks can be summarized as follows:

The CAP Price. Starting with projected inflation rates and the assumption of PPP, dollar exchange rates are calculated. Together with an assumption about the future composition of the ECU, these determine the rates of exchange between national currencies and the ECU. Green rates and associated MCAs are found using a set of behavioral rules on green rate changes. Finally, three common price decision rules which link national pressures for price changes to inflation lead to ECU prices that are then translated into national prices for the major commodities (see appendix B).

The World Price. Assumptions on trends in international commodity prices in real terms, together with inflation and exchange rate projections, give world prices in ECU and local currencies (see appendix C).

The Quantities Produced and Traded. Crude assumptions on future growth rates of EC production and consumption and levels of extra-EC imports are made for principal commodities in the EC budget. The levels of exports and imports are then calculated for use in the

Figure 1—Scheme for projecting prices and budget cuts.

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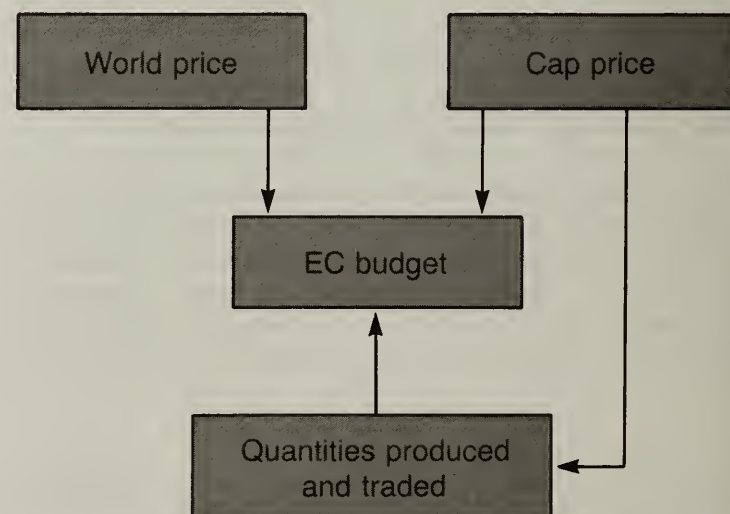
budget projections. These quantity assumptions are made to vary with the alternative levels of CAP prices (see appendix C).

The EC Budget. The budget calculations involve assumptions about income levels in the EC, and thus on VAT revenue to the budget, the growth of customs duty revenue, and from the other three blocks, the CAP price level, the world price level, and the quantities produced and traded domestically (see appendix C). Export restitution, domestic intervention, and storage costs are calculated separately and then added to obtain total FEOGA guarantee expenditures. The amount available for non-agricultural spending is a residual.

The possible combinations in the model could be unmanageable with such a large number of assumptions. To simplify, attention is focused on four key variables—the CAP pricing decision, the world price level, the growth of production, and the growth in consumption. Although it would have been possible to explore the impact of different inflation assumptions, since these enter symmetrically into domestic and world prices as well as budget income, it was decided to keep to one basic set of inflation projections.

Price Levels

The decision rules that determine common price levels lead to an upper bound price level, which fully compensates all member states for the previous year's inflation, a lower bound which protects any member state from a decrease in nominal prices (in local currency), and the basic assumption of prices that fully compensate producers only in the country with the lowest rate of inflation the previous year. If one refers to the price level that preserves nominal prices as the minimum for each country, and to the level that fully compensates all countries' producers for inflation as the maximum, the Community price rules can be thought of as a MAXMIN (respecting each country's minimum), a MAXMAX (the maximum possible without overcompensating all countries), and a MINMAX (which fully compensates only the country with the least inflation and does not overcompensate any country.)[15]

If all countries receive full cost recoupment over the next decade (MAXMAX) (that is, prices rise by at least the previous year's inflation, adjusted for green rate changes in all countries), then the rate of price increase moderates from about 11 percent in 1981/82 to 7 percent in the late eighties under the inflation assumptions used (table 7). This is probably a reasonable maximum, subject to the caveat that another burst of inflation later in the decade would obviously increase these figures.

Table 7—Implied annual price increases for CAP commodities under three decision rules, 1980-90

Year	Full cost recoupment MAXMAX rule	No over recoupment MINMAX rule	No price declines MAXMIN rule
	Percent		
1981/82	10.9	6.4	2.0
1982/83	8.1	6.7	3.6
1983/84	7.3	6.4	3.0
1984/85	6.7	5.5	2.6
1985/86	6.9	6.2	2.7
1986/87	7.4	6.8	3.1
1987/88	7.0	6.5	2.9
1988/89	7.0	6.4	2.7
1989/90	7.0	6.4	2.5
Average, 9 years	7.6	6.4	2.8

Note: For explanation of method used, see appendix B.

The more realistic rule, representative of recent experience, sets a common price that does not overcompensate costs in any country. This, the MINMAX rule, gives a price rise of 5.5 to 6.8 percent per year, implying a steady decline in real prices in the EC by 1.5 to 2.0 percent per year. A tough price policy (MAXMIN) which gives no compensation for inflation but prevents nominal prices from falling would yield the more modest price increases of 2.0 to 3.6 percent annually. These would be necessary solely to offset currency appreciation against the ECU, primarily in West Germany.

FEOGA Expenditures

To see what bounds these prices put on budget spending under the guarantee section of FEOGA, one must match price levels with production and consumption quantities. The basic assumption is that prices are set under MINMAX rules, with no overcompensation of costs in any member, and that this causes production to increase at 2 percent and consumption at 1 percent each year. Under the higher MAXMAX price rule, it is assumed that production increases by 2.5 percent and consumption by 0.5 percent per year. The corresponding growth rates for the MAXMIN price rule are 1.5 percent for both production and consumption. World prices are assumed to remain constant in 1980 dollars in all cases.[16]

The estimated items of expenditure are given in table 8. A residual category for other products is calculated on the basis of past trends. Total FEOGA guarantee spending under the basic scenario could exceed 40 billion ECUs by the end of the decade. Milk product spending would be over half of that total in 1990, and cereals and beef would also become increasingly expensive as surpluses grew. Under the same world commodity price assumptions, the

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[15] These decision rules appear more representative of past behavior if only the countries with fixed MCAs, those that participated in the European joint float, are included. This omits the UK, Italy, and Ireland, whose real and nominal price levels have been much less stable.

[16] For world price assumptions, see appendix C.

Table 8—Budget costs associated with different price increases, 1985 and 1990

Budget item	1985			1990		
	MINMAX	MAXMIN	MAXMAX	MINMAX	MAXMIN	MAXMAX
	Million ECU[1]					
Export refunds:						
Cereal	2,000	918	3,064	3,502	539	6,470
Milk products	8,804	1,893	17,458	21,280	1,400	48,021
Beef and veal	866	354	1,377	1,566	135	3,011
Sugar	805	805	805	1,469	1,469	1,469
Intervention costs:						
Cereals	678	576	743	981	689	1,130
Milk products	4,509	3,424	5,198	7,719	4,624	9,288
Beef and veal	1,100	862	1,251	1,804	1,125	2,148
Sugar	335	335	335	503	503	503
Olive oil	443	443	443	443	443	443
Oilseeds	227	227	227	352	352	352
Fruits and vegetables	290	290	290	383	383	383
Wine	81	81	81	82	82	82
Other costs	1,790	1,790	1,790	3,866	3,866	3,866
Total	21,928	11,997	33,061	43,951	15,611	77,176

[1] FEOGA guarantee expenditures, constant real world prices assumed.
Source: Appendix table 9.

MAXMAX common pricing rule, which at least compensates for past inflation in all countries but overcompensates in some, would lead to FEOGA guarantee costs of 33 billion ECUs in 1985 and 77 billion in 1990. By contrast, the MAXMIN pricing rule, granting nominal price increases in member states but not offsetting inflation would cost an estimated 12 billion ECUs in 1985 and less than 16 billion ECUs in 1990. Such an outcome would represent a slow growth in expenditure on agricultural support (from 9.5 billion ECUs in 1980).[17] These results show the range of likely FEOGA costs under different pricing regimes.

Sensitivity to Assumptions

The sharply varying budgetary cost under the three decision rules indicates the importance of price decisions for budget growth. Table 9 provides some results of undertaking sensitivity analysis on the total FEOGA guarantee expenditure. The first row shows the FEOGA guarantee expenditure with MINMAX pricing (that is, average

6.4-percent price increase each year), constant world commodity prices in real terms, and increases of 2 percent and 1 percent in production and consumption, respectively. For comparison, rows 2 and 3 show the effects of production increases of 1 percent and 3 percent but with the same price increases. It is clear that the rate of growth of production is itself a key variable in determining budget expenditure. With production growth of 3 percent per year (against a consumption increase of 1 percent), spending is estimated to reach 30 billion ECUs by 1985 and 67 billion by 1990. If production can be held to 1 percent, a growth rate similar to consumption, the rise in the budget is much more modest—to 15 billion ECUs in 1985 and only 23 billion in 1990.

The impact of differing CAP pricing rules with the same production and consumption growth (2 percent and 1 percent, respectively) as in the basic case can be seen in table 9. High annual price increases, averaging 7.6 percent under the MAXMAX price rule, increase budget cost to 23 billion ECUs in 1985 and 45 billion in 1990. By contrast, the MAXMIN price rule—a 2.8-percent increase on average in CAP prices—holds CAP spending to 17 billion ECUs in 1985 and 22 billion in 1990. Thus, both the price decisions and the growth in output can affect budget cost markedly. In practice, a lower price policy will tend to restrict production, giving a doubly effective constraint on spending, but quantity restraint alone can be used.

All estimates are clearly sensitive to world price assumptions. Table 9 shows the impact of world commodity price changes of 2 percent up or down each year in real terms. Somewhat surprisingly, these world price trends

[17]The total FEOGA guarantee expenditure for 1980 is 9.47 billion ECUs. This differs from the latest Commission estimates of expenditure of 11.51 billion ECUs for several reasons. First, certain items such as payments for MCAs are omitted from this category of spending and picked up under other headings. Second, the refunds on exports are based on assumptions derived from the preliminary 1980 budget, before the numbers were revised upward due to exceptional spending on export refunds. Use of these higher figures would have overstated future spending. Third, intervention costs are estimated by equations and are below actual levels in 1980. In this case, the rationale for staying with estimated values is to avoid the discontinuity that would have been introduced by mixing projected and actual values. Last, the residual item is projected by trend, with the actual 1980 level above this trend.

Table 9—Sensitivity of estimated FEOGA guarantee expenditures to varying production growth, CAP and world price levels

Scenario	Assumption				FEOGA guarantee expenditure	
	CAP price	World price	Production	Consumption	1985	1990
			—Percent—		—Million ECU—	
1	MINMAX	Constant	2	1	21,928	43,951
2	MINMAX	Constant	1	1	14,699	23,078
3	MINMAX	Constant	3	1	29,445	66,748
4	MAXMAX	Constant	2	1	23,373	44,977
5	MAXMIN	Constant	2	1	16,626	22,489
6	MINMAX	Plus 2 percent	2	1	20,486	36,916
7	MINMAX	Minus 2 percent	2	1	23,266	49,895

do not have a dominant effect on the budget. A comparison with the basic case shows that annual price rises of 2 percent on world markets reduce the budget cost only marginally. FEOGA guarantee spending would still be 20 billion ECUs in 1985 and 37 billion ECUs in 1990 if world prices rose by 2 percent a year in real terms (MINMAX). A decrease of 2 percent a year adds somewhat to budget cost, implying an outlay of 23 billion ECUs in 1985 and about 50 billion ECUs in 1990.[18]

Examination of these possible price levels and budget costs confirms that the Community walks a tightrope between the demands of agricultural policy and the budget constraints. Either prices themselves have to be controlled, largely removing any compensation to farmers for inflation, or quantities of production must be limited if budgetary constraints are to be respected. This would require modification of policy instruments.

Implications for Policy and External Trade

The projected values of prices and budget cost under various assumptions are significant for possible changes in the CAP itself. Enlargement adds to the pressure for change, but is not the major concern for the present CAP.

Policy Change

The budget crunch for the CAP is clearly immediate and real. The Commission must prepare a draft budget for 1982, knowing that a significant cut in the rate of increase in agricultural spending will be necessary to keep within the own resources limit. But major policy changes take some time when 10 governments must agree. An increase

in financial resources for the regular needs of the Community would probably take even longer because the required changes would have to be ratified by national parliaments. West German and British Government leaders have both indicated that they could not support such increases in present circumstances, and their respective legislatures may be even more difficult to convince.

Since this report concentrates on changes during the 1980s, short-term problems will not be overemphasized. It is reasonable to assume that short of a major fall in world prices for cereals, beef, milk products, and sugar, problems during the 1981 fiscal year will not bring down the CAP. A number of devices can postpone the day of reckoning. One such device is the unloading of considerable quantities of stored produce onto international markets, which (1) gives the Commission more flexibility in the next 2 years when such stocks can be rebuilt, and (2) will result in rapidly rising budget costs to stimulate the Council of Ministers.

Debate on the longer term issues has already begun, with Commission officials publicly discussing various reform schemes and national politicians letting their own attitudes toward such changes be known. To forestall dilution of the new policy proposals, the Commission has even stated a new principle of the CAP—producer sharing of surplus disposal costs. This coresponsibility principle is the major contribution of the document which the outgoing Commission presented in December 1980 as its reflections on the CAP, and its suggestions for a new start in controlling budget cost. The Council of Ministers has yet to take action on any specific proposals on policy change.

One should recognize, however, that the Commission's report only initiates a lengthy debate of the issues. The approach taken here is to look at the types of action the Community will have to take to restrain spending. Besides the basic case described, which can be taken as representing no major change in policy, four variations on the theme of controlling spending on the surplus commodities are considered. These include a policy of price moderation, similar to the prudent price policy attempted by

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[18]Because world prices are likely to be much more volatile than indicated here, further budgetary problems can arise from the unexpected increase (or decrease) in the cost of support of particular items from large but temporary world price shifts.

the EC in 1979 but abandoned within a year. Such a policy is assumed to follow the MAXMIN rule of merely preserving nominal prices for surplus commodities in all countries. The benefit to the budget comes from enhanced consumption as well as slower production growth, coupled with a price level that generally declines relative to world prices.

The related coresponsibility levy on surplus commodities would also act, though less directly, on price levels (see appendix B). This policy is assumed to keep prices to producers net of the levy at the MAXMIN level, avoiding nominal declines. The impact on consumption, however, is lost by this policy relative to one of price moderation because prices to consumers are not lowered. In compensation, the income from the levy helps offset program costs. The height of the levy is assumed to be the difference between the MAXMIN and the MINMAX price paths.[19]

Two quantity control policies are also explored. These are a quantum system that limits the amount purchased by intervention agencies and a superlevy that has a similar impact by imposing a tax on sales above a specified level. Neither is assumed consistent with a policy of undercompensation of costs in all countries. In other words, the rigorous control of intervention purchases or production quantities qualifying for full support implies some increase in price levels above those that would be expected if price restraint were the chosen method for reducing surpluses. The results thus assume price levels along the MINMAX path so that producers in every country are not burdened with both support limits and price increases that fail to cover costs. It is assumed in both cases that the volume of production increases by only 1.5 percent each year, the same increase as that assumed for the price-control policies. For the superlevy, this implies a tax on production above this level high enough to discourage such increases or at least to cover the cost of their disposal. The superlevy does not necessarily lead to lower consumer prices because extra production is still purchased, albeit at a lower net price, by intervention agencies and disposed of mainly on international markets. The quantum system, however, will lead to market price declines and consumption increases, since production not sold into intervention finds its way onto the domestic market. The resulting market-clearing price is assumed to follow the MAXMIN path.

The budget implications are calculated for the adoption of the five policy variants for the major surplus commodities—cereals, milk products, and beef (table 10).[20] The

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[19]This involves a large and growing levy; more timid policies will yield less revenue and have a smaller impact on production. One could argue that there would be little need to keep raising the levy if producer prices were kept (net of levy) to the MAXMIN level. In that case, however, the effects would be similar to those of the price-moderation alternative.

[20]Sugar is already subject to a policy of quantity control. Revenue from the sugar levy and spending on intervention and export subsidies are assumed not to vary with these policy changes.

Table 10—Policy alternatives in budget projections[1]

Alternative	Average producer price increase	Average consumer price increase	Growth in production	Growth in consumption
	Percent			
Basic case	6.4	6.4	2.0	1.0
Price moderation	2.8	2.8	1.5	1.5
Coresponsibility levies	2.8	6.4	1.5	1.0
Quantum system	[2]6.4	2.8	1.5	1.5
Superlevy	6.4	6.4	[3]1.5	1.0

[1] Each case is associated with three alternative assumptions about world price levels (constant real prices, and increases/decreases of 2 percent per annum).

[2] Full price applied to a limited quantity of intervention buying only. Market price increases at 2.8 percent on average.

[3] Production refers to that which qualifies for full support.

balance of the budget in the next few years depends on programs adopted for these three commodity groups. Because the cost will be related to world price developments, each policy variant is associated with three world price trends—stability of real prices and a trend of 2 percent per year up or down. Therefore, 15 combinations of policy and world price levels are identified—the 5 main policy variants, each under 3 different assumptions about world prices. Which of these alternative scenarios falls within the budget constraints of the EC remains to be seen.

A viable agricultural price support policy, in terms of other Community activities, must leave room in the budget for real growth in spending on social and regional programs as well as overseas development, research, structural programs in agriculture, and administration. This study does not make any precise estimates of these items. It is useful, however, to have an idea what future demands might be placed on the budget by those other programs. The Commission's preliminary draft budget for 1981 contained a request for 6.7 billion ECUs for spending other than on agricultural price support. Though this was cut back by the Council, it might be taken to represent the level at which other programs might be running if not constrained by the present cost of the agricultural program. Advancing this figure at a modest 10 percent per year gives a requirement of 9.8 billion ECUs by 1985 and 15.8 billion by 1990.

Added to this must be the costs of enlargement. The Commission has estimated such expenditures, as if Greece, Spain, and Portugal had been members in 1978, at about 2.7 billion ECUs.[21] The calculations of income

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[21]No complete analysis of the possible enlargement costs can be done in advance of studies on the response of the new members to the CAP and other programs. The net cost of enlargement, of course, has to include contributions by the new members to own resources.

used here include the VAT and customs duty contribution by new members, though separate estimates of agricultural and sugar levies were not made. Using the Commission estimate of 450 million ECUs for these agricultural levies, the net charge on remaining funds (see table 11), spending on nonagricultural items for an example, would be 2.25 billion ECUs. This sum will also rise over time, with inflation if for no other reason, and thus could reach 3.6 billion and 5.8 billion ECUs in 1985 and 1990, respectively.

The cost of agricultural MCAs will also have to come from the remaining funds. A detailed calculation of MCA costs would require projected trade patterns by country, broken down into intra- and extra-EC trade by commodity; such calculations are not attempted in this study. The recent trend in MCAs, however, provides some guidelines. The cost of MCAs reached a peak of 990 million ECUs in 1977, but presently runs about 270 million. The main cost item is payments on UK imports at times when the sterling green rate is overvalued. Since the projections do not call for MCAs of the size experienced in the late seventies, it is unlikely that these costs will reach the 1977 figure again. However, there will be some increase in MCA cost with the addition of Greece and later Spain and Portugal. An average cost of 400 million ECUs per year after enlargement is a reasonable estimate.

Adding these items together gives a total demand on remaining funds of perhaps 13.9 billion ECUs in 1985 and 22.0 billion in 1990. Much more could doubtless be absorbed into energy programs, regional development, employment aids, and so forth. But any projected level of agricultural spending that leaves much less than these amounts will severely constrain nonagricultural programs. In the absence of increases in own resources, which looks unlikely for the next few years, budget pressures on agriculture will be felt if spending exceeds about 16 billion ECUs in 1985 and 24 billion ECUs in 1990, or 54 and 52 percent, respectively, of total available income in those years.

The calculations for various policy alternatives can be seen in this light. The results of estimating the budget cost and the amount of budget income left for nonagricultural spending (remaining funds) are given in table 11.[22] The first row shows the estimated budget impact of the basic case. Under constant (real) world price levels, this case

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[22]More complete results for these policy options are reported in appendix C. In brief, income from the VAT contribution and nonagricultural duties are assumed to rise with GNP (in nominal terms) while agricultural levies are influenced by policy price assumptions. Fixed import volume from third countries are assumed, although if these vary there will be offsetting impacts on the export subsidy costs.

Table 11—Estimated FEOGA guarantee expenditures and surplus funds

Policies[1]	1985		1990	
	FEOGA guarantee	Remaining funds	FEOGA guarantee	Remaining funds
		Billion ECU		
Constant world prices:				
Basic case	21.9	8.9	44.0	4.7
Price moderation	12.0	17.9	15.6	30.6
Coresponsiblity levy[2]	18.3	25.5	33.3	51.8
Quantum system	15.0	15.9	23.8	24.8
Superlevy	18.3	12.6	33.3	15.3
World prices rising at 2 percent, 1980 dollars:				
Basic case	20.5	10.0	36.9	10.6
Price moderation	11.3	18.2	13.7	31.4
Coresponsibility levy	17.2	26.1	28.9	55.1
Quantum system	14.3	16.2	21.9	25.6
Superlevy	17.2	13.2	28.9	18.6
World prices falling at 2 percent in 1980 dollars:				
Basic case	23.3	7.9	49.9	− .4
Price moderation	12.6	17.7	17.2	29.9
Coresponsibility levy	19.2	24.9	37.0	49.0
Quantum system	15.5	15.6	25.5	24.1
Superlevy	19.2	12.0	37.0	12.5

[1] Policies described in text.

[2] Coresponsibility levy revenue (included in "remaining funds") is assumed to be collected even if it exceeds the cost of surplus disposal for each product. In practice it is unlikely that this amount of revenue would be collected. The remaining funds would be less, in 1990, by some 16 billion ECUs if the levy revenue actually collected was limited to the cost of surplus disposal on a commodity basis.

Source: Appendix table 9.

implies a budget cost rising at over 16 percent per year. This keeps the share of agricultural spending in the total budget rising slowly, to 71 percent in 1985 and 90 percent in 1990. If world prices rise, this share is marginally reduced. The residual left for nonagricultural spending in either case is totally inadequate for any reasonable expansion of these programs, and would certainly create difficulties in freeing resources to pursue a policy of social or investment aids to the new members. No new agricultural programs would be possible, and spending under the guidance fund would be restricted. This price policy is barely viable under the assumption that production of the surplus commodities increases 1 percent faster than consumption. If this margin is exceeded, the policy would put additional pressure on the budget. Good harvests would also put a severe strain on financial resources. Under a regime of lower real world prices, agricultural spending would rise to exhaust the Community's total budget by 1990. In any case, price or quantity schemes can clearly be effective in holding costs down to a reasonable level.

Price moderation as a policy, guarding Community farmers against nominal price decreases (for surplus commodities) but not attempting to offset inflation, keeps CAP spending to levels allowing a steady expansion in real spending on other programs as well as making room in the budget for enlargement-related costs. This is true for all three trends in world price levels. The introduction of a coresponsibility levy which has a similar effect on net producer price (and hence also induces production increases of only 1.5 percent per year) will have even more impact on constraining the burden of agriculture on the budget. Budgetary savings are somewhat less because the levy entails slightly higher consumer prices and thus does not stimulate additional growth in consumption. The additional revenue from the levy is substantial, however, offering the possibility of a reduced net agricultural cost.[23]

The two quantity control policies perform somewhat less well as a means of controlling budget cost. Though both are assumed to have the effect of limiting production to an increase of 1.5 percent per year, the quantum system puts less strain on the budget because consumption is stimulated by any weakness in market price arising from excess production above this level.[24] The market price cannot drop in the case of the superlevy. Surpluses are still purchased at intervention prices, though proceeds

from the superlevy are assumed to be devoted to removing this excess from regular domestic markets. Under the assumptions used here, the quantum system appears to be the more successful policy for keeping agricultural spending in check. The cost of agricultural price support would be just under half of the total budget over the period. Enlargement would be financially possible without an increase in own resources, but the budgetary balance would be vulnerable to shocks arising from sudden world price changes. The superlevy does less well than the quantum and allows for only slow growth, in nominal terms, in nonagricultural spending over the decade. If world prices were to fall steadily, the superlevy scheme could again threaten to exhaust present budgetary sources of income.

What conclusions might one draw from such calculations? First, it would seem possible to control budget cost without imposing nominal declines in farm prices. It is somewhat easier to do this when market prices can adjust through limiting intervention buying to a particular quantity (the quantum system), by merely controlling the rise in policy prices (price moderation) so that consumers can assist in restoring market balance, or by instituting taxes on overall output (coresponsibility levy). It is made more difficult if taxes are levied on surplus output (superlevy), because market prices will stay high. But is it easier to operate through the price to producers as in the price moderation or coresponsibility schemes, or to specify quantities as with the superlevy and the quantum scheme? The Commission has not been very successful in keeping prices down or introducing a dairy coresponsibility levy substantial enough to curb the increase in net producer prices; this would argue that the quantum or superlevy schemes will likely be tried in the future.

The second conclusion is that although it is possible to contain costs, the political strain might be enormous. It may be possible to peg prices for a few years or to introduce a superlevy to get rid of surplus stockpiles. The fact that the Community will have to keep either CAP price increases to about 3 percent per year or supported production increases to 1.5 percent annually stresses the difficulties ahead. Indeed, while it is possible to bring about a financially acceptable CAP, it is not likely that the present institutional structure will achieve this task. Instead, it is highly probable that national governments will be unable to resist the pressure to aid their own farmers as a supplement to the market support afforded by the CAP. One could imagine FEOGA guarantee expenditures being limited to 15 to 20 billion ECUs, and perhaps another 10 to 15 billion ECUs being supplied in various ways by national governments.

Present agricultural problems and enlargement are made somewhat more complex by the fact that negotiations for Spanish and Portuguese entry will be underway during 1982 at the same time that decisions on agricultural policy must be made. Enlargement will add urgency to the CAP debate, and add to the financial demands of southern agriculture (including Greece) in the Community. If one member, say France, should choose to withhold its blessing on the entry negotiations until agricultural policy and

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[23]The remaining funds calculation for the coresponsibility levy almost certainly overstates the revenue from such a levy. For cereals and beef, the revenue from the levy exceeds the cost of disposing of surpluses in these commodities by mid-decade. Whether at that point the producer price would be raised more or the consumer price less is moot. To avoid making an assumption on this question, it is assumed that the full levy is collected for the whole period.

[24]The quantum on which the full intervention price is paid is calculated as the difference between production and consumption. The cost represents the maximum commitment of the Community to support buying, but these funds could be paid at a lower rate on a higher intervention quantity. The cost calculation would be unaffected.

budgetary matters are resolved, the two issues will be very much intertwined. In such circumstances, the Community may have to agree to an increase in the resources available to the budget to retain a united approach to enlargement. The pressure on the CAP could thus be temporarily lessened.

Protection and External Trade

The way that EC members deal with the budgetary crisis is important to countries outside the Community. Access to the EC market will be influenced by price trends under the CAP, as will the degree of competition faced by other exporters as surpluses are removed from the markets by subsidies. Quantitative control policies also influence trade because constraints on domestic production tend to reduce pressure to find overseas outlets for surpluses. It is appropriate to interpret calculations of price level and budget cost in terms of their influences both on the quantities of products to be disposed of on third markets and on the levels of protection given to import commodities (through levies) and export commodities (through refunds).[25]

The quantities moving under subsidized export programs indicate the effectiveness of policy changes, as seen from outside the EC. These quantities of exports will not depend on world prices, though the implied level of export subsidy will be affected. The export quantities can therefore be interpreted as a rough estimate of the extent that EC policy is successful in containing surpluses by price and quantitative control. In the basic case of 2-percent production growth, 1-percent consumption growth, and

[25]The Community, as with any large economic region, has both imports from and exports of the same commodity to third countries. Without a detailed projection model for trade patterns, it is not possible to estimate both the imports and exports of the Community separately. For surplus commodities, the assumption has been that the variation on the EC market due to different prices and policies shows up in exports to third countries rather than influencing imports from third countries. Another way of justifying this assumption is to say that imports of surplus products are either contracted by agreement (as is the case with New Zealand butter and Lome sugar) or have a quality difference, such as high protein wheat, which makes them less susceptible to policy changes and EC price levels.

CAP prices increasing at an average of 6.4 percent per year (MINMAX price rule), the cereals surplus increases from a present level of 16 million tons to almost 30 million tons by 1990 (table 12). Under the two producer tax policies (coresponsibility and superlevy), the exported surplus increases less rapidly, to 23 million tons. The quantum system of limiting support to a particular quantity of production and the policy of price moderation both keep subsidized exports to their present levels. The additional domestic consumption under these two alternatives also keeps budget cost down and avoids problems of surplus disposal.

With no policy control, milk product exports grow to a staggering level, assuming there are markets to absorb these quantities. Producer taxes reduce these exports somewhat, whereas price moderation and a quantum system both keep subsidized exports to about their present level.

Although export volume is a function of domestic policy and not world prices, the level of protection at the border against third country imports depends on both domestic and world price levels. Nominal rates of protection, measured as the proportion that the domestic price exceeds the world price, can be calculated for the different policy and world price assumptions used. These protection levels for 1985 and 1990 give an idea of the importance of policy prices in the EC for overseas suppliers (table 13).

With constant real prices and the basic CAP price assumption of increases that do not compensate for inflation in all member states, the level of protection decreases slowly over time. If world prices rise by 2 percent a year, the protection on cereals falls to a modest 12 percent by 1990; it rises to 63 percent if world prices trend the other way. For milk products, the level of protection remains high no matter which world price assumption is used. Full-cost recoupment, on the other hand, implies a rising average real price level in the EC for farm products, which is reflected in increases in the level of protection with constant world prices. Rising world prices in real terms saves this policy and keeps protection levels modest. A policy that merely prevents nominal price declines in the EC leads to the rapid disappearance of the

Table 12—Estimated EC exports of surplus products to third world countries, 1985 and 1990[1]

Policy assumption	1985			1990		
	Cereals	Milk products	Beef	Cereals	Milk products	Beef
	Million tons					
Basic policy	22.6	7.56	1.23	29.6	13.64	1.68
Price moderation or quantum	16.3	2.45	.87	16.1	2.62	.91
Coresponsibility levy, or superlevy	19.4	4.95	1.04	22.8	7.95	1.27

[1] Because sugar is already subject to a quota system and a tax on above-quota production, this commodity was not included in the policy simulation.
    Source: Appendix table 8.

Table 13—Nominal rates of protection on selected import commodities

Policy assumption and world prices	1985			1990		
	Cereals	Milk products	Beef	Cereals	Milk products	Beef
	Percent					
Basic—						
MINMAX prices:						
Constant	37.8	170.0	33.4	35.3	165.2	31.0
Plus 2 percent	29.3	145.4	21.3	12.1	119.6	8.5
Minus 2 percent	51.0	196.0	46.2	63.0	219.4	57.8
Full-cost recoupment—						
MAXMAX prices:						
Constant	49.2	192.4	44.5	50.2	194.3	45.4
Plus 2 percent	35.7	165.8	31.4	24.4	143.8	20.5
Minus 2 percent	63.6	220.6	58.4	80.9	254.5	75.1
No price decline—						
MAXMIN prices:						
Constant	16.8	128.8	13.1	− 4.3	87.6	− 7.3
Plus 2 percent	6.1	108.0	2.8	− 20.7	55.4	− 23.2
Minus 2 percent	28.0	150.8	23.9	15.3	125.9	11.6

Source: Appendix table 2.

gap between Community and world prices, except where world prices decline by 2 percent.

A convenient measure of the overall level of protection for the three surplus commodities can be derived from an aggregation of the individual levels of protection. Since both imports and exports of these commodities have been assumed to persist, two such aggregate measures can be calculated. The total export subsidy cost for these commodities divided by the value of such exports at world prices (disposal prices, as defined in appendix C) will indicate the average percentage disposal cost, or export subsidy, implied by the policy alternative. Similarly, the total revenue from import levies divided by the world market value (at offer prices) of those imports gives the average protection level of the domestic market. The two measures would tend to give the same results if the quality (and hence the unit price) of both exports and imports were similar. In practice, the disposal prices have been below offer prices, indicating a difference in quality (and type) between EC imports from third countries of cereals, beef, and dairy products, and exports under surplus disposal programs of these commodities. The projected value of these two measures reinforces the conclusion that CAP reform is of vital interest to other trading countries (table 14).

Conclusions

The continuation of present trends in expenditure on the CAP is not consistent with the general aims of the Community and will hinder the assimilation of new members. EC policymakers can either keep prices low directly or

Table 14—Projected measures of average protection levels for three surplus commodities, 1985 and 1990

Police and trend in real world prices	Export measure[1]		Import measure[2]	
	1985	1990	1985	1990
	Percent			
Basic policy:				
Constant world prices	78.6	76.3	44.1	41.5
Plus 2 percent	62.8	46.5	31.0	17.2
Minus 2 percent	96.3	113.0	58.0	70.4
Price moderation:				
Constant world prices	48.7	22.0	22.1	.1
Plus 2 percent	35.5	1.4	11.0	− 17.0
Minus 2 percent	63.4	47.4	33.9	20.6
Coresponsibility levy:				
Constant world prices	77.6	75.4	44.1	41.5
Plus 2 percent	61.9	45.7	31.0	17.2
Minus 2 percent	95.2	112.0	58.0	70.4
Quantum system:				
Constant world prices	46.3	31.7	44.1	41.5
Plus 2 percent	36.8	18.9	31.0	17.2
Minus 2 percent	57.0	47.3	58.0	70.4
Superlevy:				
Constant world prices	75.5	72.5	44.1	41.5
Plus 2 percent	60.0	43.3	31.0	17.2
Minus 2 percent	92.9	108.0	58.0	70.4

[1] Cost of export refunds as a proportion of world value of exports.

[2] Revenue from import levies as a proportion of world value of imports.

with producer taxes (thus discouraging an expansion of production), or limit quantities covered by support measures with a quantum or superlevy on additional output. Both approaches are likely to be difficult in political terms and may lead to a partial return to national financing of policies.

Countries outside the EC which export the products in which the EC has a surplus have a direct interest in the outcome of the Community's internal debate. The same policies that control budget cost also reduce protection and limit subsidized exports. If world prices rise, the financial problems of the Community are eased somewhat and the level of protection declines. A fall in world prices in real terms, however, would reverse this trend unless CAP prices were kept to modest increases well below inflation.

The prospects for individual commodities or the impact of enlargement on the exports of a particular country cannot be judged from the results presented here. But the fortunes of the CAP determine in large part the overall stance of the EC as a trading partner. Developments in the CAP, particularly toward surplus products, significantly affect other countries. A long-term solution to the Community's internal agricultural policy problems is in the interests of overseas suppliers and world trade stability.

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Appendix A—Recent Developments and Policy Options for the CAP

The CAP leads a double life. It serves as the farm support policy for an economically integrated Community, commonly financed and administered, and defines the collective position of the member states in international agricultural trade. As such it has objectives, instruments, legislation, bureaucracy, tradition, and the other qualifications for a major economic program. At the same time, it is a fragile intergovernmental pact, relying on last minute compromises among ministers attempting to play the Community game for national political reward. In this guise, the CAP stumbles from one crisis to the next, surviving out of the fear that its collapse would bring about the demise of the Common Market itself. This ambivalence between an imaginative policy for Europe and an often ad hoc set of short-term expedients is now more evident than at any time in the policy's 20-year history.

External threats of an economic or security nature could revive the spirit that led to the bold experiment in integration in 1957, when the EC was established. Alternatively, divergent economic trends could irreparably strain the institutions of the Community and lead to a looser alliance among the member states. Again, prosperity could smooth the transfer of responsibility to supranational authorities, as in the sixties, or adversity could lead to more national protectionism and to the abandonment of much of the present integration. It is useful to keep in mind that the political context in which agricultural decisions will be made is more important than trends in dairy production, budget expenditure, the price of soybeans on the European market, or other narrower issues.

Budgetary Effects of Policy Options

Payments for the disposal of surplus farm products have been rising 15 to 20 percent annually over the past 5 years. The ceiling on permissible spending by the Community is set by its income from duties, agricultural levies, and the notional yield of a 1-percent VAT; this limit is likely to be reached within 2 years. Whatever differences of opinion exist among those interested in the CAP, there is near-universal acceptance of the proposition that farm support spending must be curtailed. All other issues in the CAP, including those surrounding enlargement, are overshadowed by the budgetary problem. The imminent exhaustion of funds available for price support has crystalized the issues facing the CAP.

The amount of money involved is not the cause of concern. The CAP takes less than 1 percent of Community GNP (in direct financial outlays); such spending could easily be supported if it were seen to fulfill a vital economic and social purpose. The problem is broader than financial cost, which is merely a symptom. The basic issues have to do with the roles of government in the agriculture of industrial societies, and of agricultural policy

in solving national and regional problems. A shortage of funds makes the EC face up to these issues, much as the excessive cost of U.S. farm programs during the sixties made the United States reconsider the direction of its farm policy. These fundamental issues will not be resolved easily or quickly, but the relationship between government and agriculture will likely be different in 1990.

As in the political process, policy change can proceed from crisis to temporary expedient to viable resolution. The crisis is one of excessive spending to support a relatively few farm products. Dairy products, cereals, beef, and sugar account for 65 percent of such spending and (except for a temporary respite for sugar) would seem to be increasing their dominance. Open-ended guarantees of markets for these products (again with the exception of sugar, where quotas operate) are no longer viable at the Community level and would certainly not be tolerated if financial responsibility were returned to national governments.

Shortrun Budgetary Expedients

The budget crisis can be delayed in a number of ways. First, spending on nonagricultural items such as regional and social policy can be cut. In considering the 1981 budget submitted by the Commission, the Council eliminated much of the proposed increase under these headings. The EC Parliament, which together with the Council constitutes the budgetary authority, indicated in 1981 that it would like to restore some of these cuts, but seemed unwilling to repeat the confrontation of the previous year when it exercised its right to reject the budget as a whole. On that occasion, the compromise budget allowed for increased expenditures on the same items that the Parliament had felt were too dominant—the farm support measures.

Second, the timing of payments can be changed, in particular by building up stocks. National intervention agencies are then forced to carry the cost of the surpluses because the Community does not pay these agencies until disposal of commodities. As these stocks are run down, the cost of FEOGA is made apparent, but it can be hidden for a year or more.

A third method of avoiding the budgetary crisis for agriculture is to tinker with various budget headings to give the illusion of control. One such method is to cut back or eliminate the 10-percent rebate to national governments on customs duty and levy revenue collected to cover administrative costs. However, reducing this figure to 5 percent, as the Parliament has recently considered, would also be subject to the scrutiny of national legislatures. This adjustment would yield over 400 million ECUs and thus allow another 3.3-percent increase in farm support spending.

A similar expenditure switch would be to isolate some part of present expenditures and declare it to be financed from national contributions rather than from own re-

sources; the rebate to the UK is one such item that might be deemed outside the responsibility of Community finance. Just as the structural, social, and regional payments are partly financed by national governments, one could also imagine some reclassification of program headings to allow member states to pick up some of the cost of present market support policies as being of a structural nature.

Longrun Policy Options

The shortrun expedients would undoubtedly allow more time for fundamental adjustments. They may, for instance, make it possible to present a 1982 budget which is within the limits of own resources. If actual spending exceeds the budget in that year, as is entirely possible given the uncertainties of market conditions, national governments would no doubt pay for the difference. It is a budget over the limit that appears constitutionally improper, particularly a supplementary budget as has often been required after the annual price decision. However, the shortrun expedients cannot alter the longrun options, which are to find additional financing or to curb spending.

Additional revenues. Extra financing could come either through an increase in the 1-percent VAT contribution, a partial return to national funding, or new taxes. All three methods raise serious problems. Any change in the structure of own resources, such as an increase in the VAT ceiling, would require ratification by national legislatures and seem out of the question unless combined with a restructuring of expenditures, probably with program limits or other constraints to prevent the reemergence of similar problems. A return to national financing for individual programs or making the Community responsible for a proportion of costs would be viewed as a fundamental retreat from the principle of federal financing for EC policies.

The two methods of raising more funds under consideration are the extension of coresponsibility levies, already a feature of the dairy policy, and the introduction of a tax on the use of vegetable oils. The latter approach is likely to be opposed both by the industrial producers of such oils in the Community and those that supply the raw materials (oilseeds) to those producers. Variants of the vegetable oil tax, discussed for many years in Europe, include a tax on imports (presently not allowed under GATT without negotiation with and compensation for suppliers), a tax on all oils except olive oil, or a uniform tax across all vegetable oils. The extension of coresponsibility taxes faces fewer objections and appears to be one of the frontrunners in the CAP reform possibilities. Essentially, this tax would reduce net revenue to producers of the products concerned but not affect consumer prices. It would have to be set at a substantial level to be effective, and it is possible that a significant price increase would be implemented to compensate producers for the effect of the tax, thus delaying any impact on FEOGA spending.

Reduced expenditures. The option to curb spending also has a number of variants. One variant which has been tried unsuccessfully is limiting price increases in the hope that inflation will erode profit margins. Prices are so politically sensitive that a strict policy is probably infeasible. Price increases in general have lagged behind inflation since the inception of the CAP, but output has grown steadily. Although some price decline would clearly arrest the expansion of Community agriculture, it is not so clear that it would be economically sound to move directly to that price level during the next 2 years. Reduced prices can remain a longer run objective but would not be an effective shortrun budget remedy, in particular since expensive income compensation to small farmers would undoubtedly accompany such a price change.

Obviously some form of quantitative control will be necessary even if combined with a prudent price policy. Quantity limits can be applied in at least four ways: on production, marketing, trade, or support payments. Instituting quotas on production would cause serious problems for the administration of policy, in particular if run from Brussels. Quotas administered at the national level would raise other problems, such as the comparability of enforcement and farmer eligibility. In general, too great a reliance on national governments for control of output raises doubts about the effectiveness of such schemes in light of the national interest of many members in maintaining production. Quotas are also criticized because production patterns would tend to be less responsive to economic criteria, though that would depend on how quotas were allocated and whether farmers themselves could trade the production rights.

Control at the marketing level is much more practicable in the Community, particularly where the product enters a processing stage before being widely traded. Current sugar policy relies on commonly agreed national quotas (called basic, or A quotas) allocated to individual beet factories, which in turn translate these quantities into farmer allotments. Sales above these quotas are taxed, reducing the net price on B quota sugar. Production above the level of both A and B quotas is not supported and must be sold on world markets without a subsidy. Two defects are generally associated with such programs. First, the initial negotiation of quotas by country leads to a situation where no country has an incentive to keep such quotas in line with market demand. Second, once a marketing quota is in operation, the tendency is to compensate farmers by higher prices for their presumed loss in income from expansion of output. Since compliance with the quota is enforced by the tax on excess production, this method is often referred to as a superlevy scheme.

Quantity controls at the point of international trade with third countries could involve either enlargement of the domestic market through import quotas or restriction of exports. It is difficult to see where any scope for quotas on imports exists for the present surplus commodities because their imports are already discouraged by the levy system. Extending trade controls to other commodities

such as oilseeds runs foul of EC obligations to trading partners through the GATT and would incur heavy diplomatic costs and require large equivalent trade concessions. To control exports merely places additional burdens on the intervention and storage schemes, and could be more expensive than present surplus disposal methods. The fact that the economic cost of disposal abroad is greater than dumping on the domestic market does not seem to be a major factor in program design.

A more direct method of quantitative restriction is to operate at the level of support payments. Such systems are usually referred to as quantum schemes, implying a limit to the obligations of the Community to buy into intervention quantities above that quantum. A quantum system was applied to cereals in France prior to membership, but operated on the basis of a reduction in prices for all output sold to the state marketing agency (ONIC) in times of surplus, rather than just on intervention sales. These quantums would presumably be set at historical levels, such as intervention in the year before the program's initiation. They could either be operated on a first-come, first-served basis, which would distort seasonal marketing patterns, or be administered by quotas at the level of first-stage marketing, such as the creamery or the wheat merchant.

The choice between or the combination of coresponsibility taxes, superlevies, and quantum limits, or any other control scheme, is ultimately political, and their effectiveness depends more on how assiduously the policy is applied than on its actual form. On past record one would expect such schemes to be introduced slowly to gain experience in their administration and calm fears of adverse effects on the farm sector. But the situation now appears different. Spending on the farm programs cannot increase at more than about 10 percent each year without a virtual collapse of other Community programs.

National Attitudes

Some aspects of the debate on CAP modifications are of an institutional nature. The relationship between Community and national policies is a major topic. Many of the more radical proposals for reform see a diminution of the Community role in both the operation and the financing of agricultural policy. These range from national income supplements to run parallel with somewhat lower EC prices, to a return to national price support policies linked only by some common conventions on intra-EC trade. If such proposals do gain support, it will be because the Community mechanisms for reaching agreement have broken down. The threat of renationalization is an ever-present spur to reaching a compromise position: It could become a reality if the compromises ceased to be satisfactory to one or more of the larger countries.

The Commission is naturally anxious to avoid the impression that such drastic action is necessary. It points out that the Council has repeatedly turned down proposals for changes in the CAP that would have mitigated the problems of the last few years. Commission proposals have included the Mansholt Plan (1968) which would have emphasized structural adjustment rather than price support; the Memorandum on Improvement of the CAP (1973) which introduced the objective method of price fixing; the Stocktaking Paper (1975) which argued for a cautious price policy geared to market needs; the Action Program for the dairy sector (1976) which introduced the notion of coresponsibility levies; and Reflections on the Common Agricultural Policy (1980) which elevated coresponsibility to a principle. The Commission hopes to persuade the Council that, with no more funds available, it is time to try the reform options while staying within accepted CAP principles.

The individual governments have their own ideas of how to reform the CAP. The small countries are generally defensive of the Community and are most concerned about any diminution of the CAP's role. These countries are the major beneficiaries, on a per capita basis, of farm spending and would object to paying once more for their own subsidies. They are unlikely, however, to block reform agreed on by the larger countries (particularly France and West Germany), and they are aware that their present benefits depend on a reasonably stable CAP rather than one in constant crisis.

Italian interests in CAP reform are less clearcut. Because Italy is a major importer of northern agricultural commodities, its economic interest lies in lower prices and budget costs for these items. Benefits from the budget come from olive oil support and structural programs. The governments in Italy have tended to be oriented toward industrial interests, and have appeared willing to let others take the lead in agricultural policy reform. As the country most directly affected by enlargement, Italy will no doubt concentrate on this issue.

The French have always been noted for a strong support of CAP principles, though not for support of federal policy initiatives. Recently, concern over the loss of European markets and the inability to persuade others of the role of exports to third countries has led to more pragmatism. Control over the budget through constraint in price increase would be acceptable to France if it also checked the expansion of other members' production and if the CAP's system of protection against imports were completed, particularly for manioc and oilseeds. Because of more overt linkages between EC issues and domestic politics (and by seemingly always being close to an election), French attitudes appear to be taken into account more so than those of other members. The key role of the French in setting the tone of the enlargement discussions, as well as their general interest in the CAP, will ensure that the pace of change will be largely regulated in Paris.

West Germany's attitude toward the CAP has had an ambivalence which makes its role in reform difficult to judge. For several years, an expansionist and expensive farm policy has depended on West Germany's compliance as the major contributor, and on its unwillingness to press for reform. West German national interest clearly would call for lower prices and a limit to spending, and

the EC policy is often publicly criticized by this country's leaders. In the negotiating room, the West Germans, through the farm minister, resist such pressures and argue for higher protection. This split-personality is attributed to the need to support the minor coalition partner, the Free Democrats, whose votes come from rural areas. This party performed well in recent elections, and time will tell whether its strength will be used to assist farm interests further or will broaden to include other aspects of economic policy.

The UK has been preoccupied with domestic political issues to the detriment of a clear position on Community policy. Unlike France or West Germany, the UK's domestic problems are not widely respected by other members as constraints on the political decisions in Brussels. The influence of the UK has been further diminished by arrangements for a refund of a part of its budget contribution, in effect buying off the British objections to the CAP for 3 years. Because the strength of sterling has removed the option for the UK Government to periodically devalue the green rate and give British farmers periodic price increases, it is more difficult for a British minister to argue for the price and budget cost restraints. But the fact that the budget contribution issue will re-emerge in 3 years, the political clout that comes with owning a source of European petroleum (fields in the North Sea), and the inconvenience that a future anti-EC government in the UK could cause for other members may make it necessary to heed British concerns. The current UK administration appears isolated in seeking to explore renationalization of agricultural policy, but would presumably not block other more mainstream Community proposals.

Another important institutional issue is the autonomy of farm ministers in making decisions on agricultural prices. The budget limit is a somewhat heavy-handed restraint on a policy that has so far not had to account for its financial consequences. One aspect of reform often mentioned is the negotiation of limits on farm support expenditure, which could be the price for an increase in the Community's financial resources. It is inevitable that finance ministers will have greater influence on agricultural policy. Rigid budget limits in advance of farm policy changes would most likely lead to national financing of a part of farm support and hence to a weakening of federal control. This is the tightrope the CAP must walk.

Enlargement to Include Spain and Portugal

Enlargement of the Community to include Spain and Portugal will come too late to have a great bearing on the budget question. The Community could in effect ignore the consequences of Spanish membership until the middle of the decade, by which time the spending crisis will have been averted by some means. Measures taken in 1982 will have been in operation for 2 years by the time Spain joins the EC. If these measures have been effective, then the whole issue of agriculture and finance may give way to other issues, and an increase in own resources would seem

desirable to facilitate nonagricultural programs and investment in southern Europe.

Spanish membership will be a greater issue if agricultural problems have not been resolved. Indeed, it is difficult to see how Spain and Portugal could be admitted into full membership of a Community where the finance available for nonagricultural programs was being continually eroded. These countries could hardly accept a position of net contributor to the budget, and the expenditure necessary to cushion member producers against competition from the south would not be available. Under these circumstances, new institutional arrangements might well be explored. A form of modified membership, implying a two-tier Community, could be forced on the EC not by political design, but by the inability of existing institutions to react to the demands of enlargement.

Appendix B—CAP Price Projections

The Community's annual decision on common nominal price increases is the single most important policy influence on farm income, market balance, budget costs, levels of protection, and trade. Such emphasis on price policy requires little defense. The CAP is essentially a means of protecting the level and stability of farm incomes in the EC, subject to restraints of macroeconomic trends, EC budget costs, international pressures from third country trading partners, and domestic consumer concerns. To date, both common and national prices appear to have been set principally to improve farm incomes without unmanageable budget cost in the face of differential rates of inflation and movements in exchange rates.

Community decisions on agricultural prices have two principal components—the setting of common prices each marketing year for the various commodities, and the choices of the green exchange rates, still effectively influenced by national governments. Governments have a set of reasonable outcomes for national price levels in mind in making these decisions. The approach taken in this study is to simulate the annual negotiation for a common price decision that, when combined with pressures to realign green rates, will satisfy these national aspirations. The forecasted increases in common prices can then be translated into national equivalents. This balance between national acceptability and a satisfactory drift of Community prices is at the heart of the EC policy problem. A decision to start with common prices reflects the basic policy process of searching for a set of prices for Community agriculture subject to national constraints.

Method and Assumptions

The model to project common and national prices is summarized in the flow chart (app. fig. 1). The main inputs of data (or assumptions) are the inflation rates for Community countries, and the primary outputs are the projected prices. These are linked by rules which correspond

Appendix figure 1—Flow chart for method of projecting
farm prices

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┌─────────────────────────────────────────┐
│                                          │
│         Inflation rates                  │
│              │                           │
│              ▼  ◄ (PPP rule)             │
│                                          │
│         Exchange rates                   │
│              │                           │
│              ▼  ◄ (ECU composition)      │
│                                          │
│         Value of ECU                     │
│              │                           │
│              ▼  ◄ (green rate rules)     │
│                                          │
│         Green rates/MCAs                 │
│                                          │
│  ◄ (price decision rules)                │
│                                          │
│         Farm price                       │
│         decisions (ECU)                  │
│              │                           │
│              ▼                           │
│                                          │
│         Farm prices                      │
│         (local currency)                 │
└─────────────────────────────────────────┘
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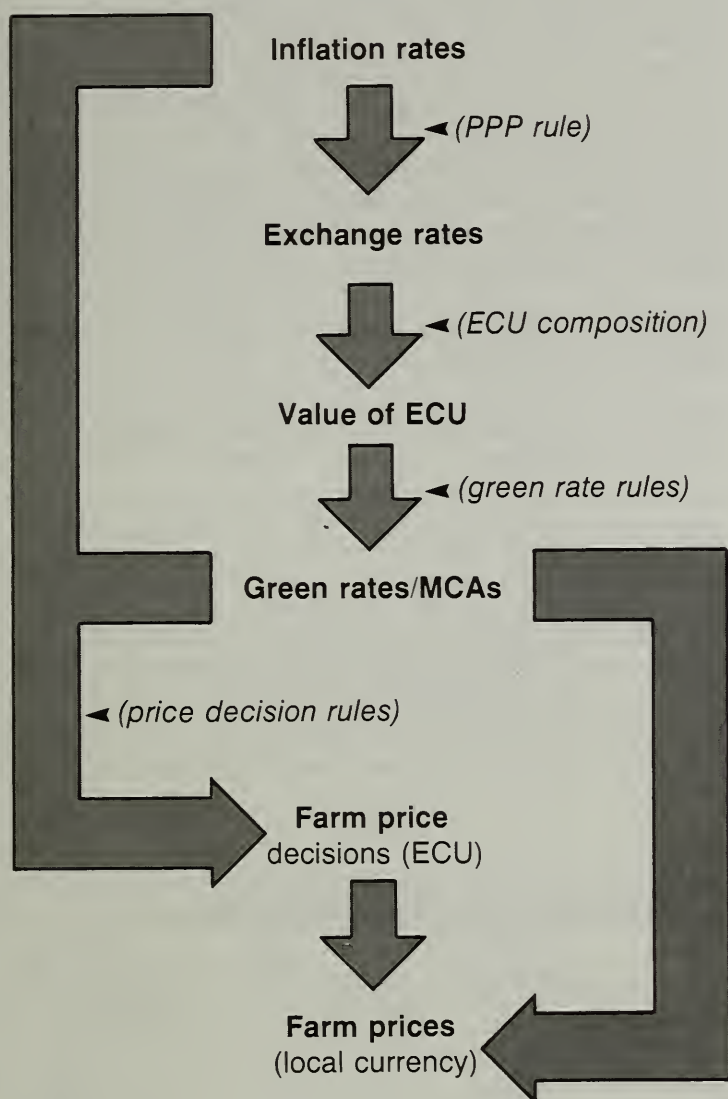
to either decision processes or assumed economic
relationships.

Inflation and Exchange Rates

The main exogenous inputs required for the price model
are annual assumptions on inflation rates for the eighties,
covering each original member of the EC-9; the tenth
member, Greece; the two applicants, Portugal and Spain;
and for comparison, the United States.

A set of inflation rates were assumed as the beginning
point for the analysis (see text, table 5). Assuming that in-
flation and exchange rates are directly linked in a way
that generally maintains PPP, a set of exchange rates was
developed from the inflation rates assumed (see text,
table 6).[1]

Empirical tests were carried out to examine the extent to
which PPP applied between EC countries and West Ger-

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[1]For a full discussion of both the concept and its empirical support,
see McKinnon, *Money in International Exchange: The Convertible
Currency Rates,* 1979.

many during 1967-78, with 1975 used as the base year.
The results show a marked relationship between inflation
and exchange rate movements.[2] One must keep in mind,
however, that PPP may not apply in some shortrun situa-
tions. Temporary factors like interest rate differentials
can cause high inflation and a stable or even appreciating cur-
rency, as in the UK. The trend in price movements over
the decade is more important than annual variations.

The European Currency Unit (ECU)

The Community's currency, the ECU, was introduced as
part of the EMS in March 1979. All EC members except
the UK and Greece participate in the EMS, and must sup-
port cross exchange rates within defined limits and
declare central rates with the ECU. Although the UK is
not in the EMS, the pound sterling is represented in the
composition of the ECU. The ECU is used for other pur-
poses as well as currency stability, including the denomi-
nation of agricultural prices and subsidies.

ECU values of national currencies can be estimated from
assumptions about the composition of the ECU and the
dollar rates.[3] The ECU is currently the sum of:

0.828	West German marks
.0885	Pounds sterling
1.15	French francs
109	Italian lire
.286	Dutch florin
3.66	Belgian francs
.14	Luxembourg francs
.217	Danish kroner
.00759	Irish punt

Since each element of the ECU has a dollar value, the
dollar equivalent of the ECU itself is simply the sum of
the member currencies' dollar value.

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[2]The empirical relationships are as follows:

France	Y = 0.97 X	s.e. = 0.03	R² = 0.990
UK	Y = 1.10 X	s.e. = .04	R² = .985
Italy	Y = 1.09 X	s.e. = .05	R² = .976
Denmark	Y = .98 X	s.e. = .01	R² = .999
Belgium	Y = 1.00 X	s.e. = .01	R² = .997
Ireland	Y = 1.08 X	s.e. = .03	R² = .990
Netherlands	Y = .96 X	s.e. = .01	R² = .998

$$\text{where} \quad Y = \frac{(\text{local currency per deutsche mark})_t}{(\text{local currency per deutsche mark})_{1975}}$$

$$X = \frac{(\text{CPI for country})_t}{(\text{CPI for West Germany})_t}$$

CPI = consumer price index, 1975 = 100
s.e. = standard error of estimate

Bilateral purchasing power parity would require all the coefficients to
be equal to 1. The pure hypothesis is rejected (at the 95-percent level)
for the UK, Ireland, and the Netherlands, but even in these cases the
coefficient is close enough to unity to allow use of the PPP model in the
absence of other information.
   [3]Changes in central rates and the corresponding alterations in cross-
rates are assumed to take place without a significant lag. The assump-
tion is that central rates are adjusted to reflect inflation differentials at
least once a year, before the annual farm price decision.

Price projections, however, require assumptions about the future composition of the ECU, which in turn is influenced by enlargement. It is not clear to what extent new members will participate in the European monetary arrangements. The accession treaty for Greece specifies that the drachma will be included no later than the end of 1985, but must be incorporated earlier if the ECU were revised before that date. If similar provisions were made for the other applicants, they would probably be included on the same date. The EMS regulations also call for a review of the ECU composition if the weight of one member currency changes by more than 25 percent because of central rate changes. Given the inflation rates and the corresponding exchange rate changes, Italy could demand such a review in 1984. Though the decision on a new basket would be political, it is assumed for simplicity that this revision restores the ECU weights to their 1979 levels. Assuming that the Community takes advantage of the opportunity, the ECU basket could include all three new members' currencies beginning in 1984.[4]

Including the new members does not change the trend of ECU values greatly. Their combined share of Community GNP is only about 6 percent, and even if allowances were made for trade patterns and other factors, as was done in setting up the original ECU, their weight in the new ECU would not likely exceed 9 percent. Their inclusion will marginally weaken the ECU relative to the dollar, but by fractions of a percentage point per year. There could be a possible shift in the weighting of currencies in the ECU over the decade, assuming no change in the composition of the basket until 1984 (app. table 1). In that year, the new members' currencies would be included in the ECU at somewhat greater weights than indicated by their GNP shares in order to respect the influence of trade patterns.[5]

The weights in 1984 are also altered to revert to a modification of those in 1979.

Given the European currency/U.S. dollar exchange rates, and the composition of the ECU basket of currencies,

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[5]The original weights (which in turn define the composition of the basket) were based on the national GNP shares adjusted for the importance of trade. Since no exact formula was used, the weights chosen for new members are purely ad hoc estimates based on the apparent relationship between GNP shares and weights for the present members. The distinction between the composition of the ECU and the currency weights is easily explained. With a basket comprising the same combination of currencies, the weight of the appreciating currencies increases over time, a larger share of the value being contributed by the strong currencies.

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[4]This is also the end of the first 5-year period of the EMS, when a review of the working of the system is mandatory.

Appendix table 1—Projected weighting factors for currencies in the ECU basket, 1980-90

Year	West German mark	French franc	British pound sterling	Italian lire	Danish kroner	Belgian franc
			Number			
1980	0.329	0.197	0.146	0.091	0.028	0.095
1981	.345	.190	.140	.085	.028	.096
1982	.357	.185	.137	.079	.028	.098
1983	.368	.181	.134	.074	.028	.099
1984	.302	.181	.125	.086	.026	.086
1985	.313	.178	.123	.081	.026	.088
1986	.324	.174	.120	.076	.026	.090
1987	.335	.170	.118	.072	.027	.092
1988	.345	.166	.115	.068	.027	.095
1989	.354	.162	.113	.065	.027	.097
1990	.364	.159	.110	.061	.028	.099

Year	Irish punt	Dutch florin	Greek drachma	Spanish peseta	Portuguese escudo
			Number		
1980	0.011	0.104	0.000	0.000	0.000
1981	.011	.106	.000	.000	.000
1982	.011	.107	.000	.000	.000
1983	.011	.107	.000	.000	.000
1984	.011	.095	.016	.059	.014
1985	.011	.097	.016	.056	.012
1986	.011	.100	.015	.053	.011
1987	.010	.102	.015	.050	.010
1988	.010	.104	.014	.047	.009
1989	.010	.106	.014	.045	.008
1990	.010	.107	.013	.042	.007

U.S. dollar/ECU and European currency/ECU exchange rates can be projected. The results (app. table 2) are used as inputs into the price decision model and as conversion factors in budget and protection calculations (see appendix C).

Green Rate Decision Rules

Since 1969, the Community has permitted member countries to use green rates of exchange to convert agricultural commodity prices to offset exchange rate changes relative to the ECU (formerly the unit of account).[6] The green rates are buttressed by tax adjustments at the border (MCAs). The existence of green rates and MCAs shifts some of the risk of exchange rate movements away from agriculture, but at a high opportunity cost in terms of foregone common pricing and net budgetary revenues.

This practice has allowed national governments to exert strong influences on their own agricultural price levels.

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[6]The introduction of the ECU necessitated all common prices and subsidies expressed in the previous unit of account (the u.a.) to be multiplied by a factor of 1.21, the 1979 value of the u.a. in terms of ECU, to preserve the same value in national currencies.

Although the Commission must propose changes in green rates, the wishes of member governments are routinely respected. Because each member government can actually control its own green rate, the pricing model requires an assumption that allows simulation of government behavior in changing green rates.

Both internal and external pressures on governments influence their choice of green rates. The Commission attempts to prevent increases in MCAs and eliminate those in existence. In particular, MCAs that have a direct cost to the Community, subsidies on imports into countries with depreciating currencies, and subsidies on exports from appreciating currency countries come under pressure from the Commission. Domestic producers tend to oppose MCAs in depreciating currency countries and support them in appreciating countries, and domestic consumers tend to oppose MCAs in the appreciating countries and support them in the depreciating one. Thus, each country has a preferred rate of adjustment of its green rate, depending on the balance of these political forces.

Examination of past government decisions yields a statistically significant relationship between changes in green

Appendix table 2—Projected national currency/ECU exchange rates, 1980-90

Year	U.S. dollar	West German mark	French franc	British pound sterling	Italian lire	Danish kroner
				Number		
1980	1.431	2.516	5.849	0.6047	1,203	7.826
1981	1.447	2.403	6.044	.6312	1,289	7.870
1982	1.462	2.320	6.222	.6479	1,375	7.877
1983	1.482	2.249	6.365	.6621	1,474	7.868
1984	1.493	2.190	6.545	.6767	1,567	7.812
1985	1.490	2.116	6.673	.6885	1,651	7.682
1986	1.488	2.044	6.821	.7045	1,754	7.558
1987	1.490	1.980	6.987	.7180	1,868	7.452
1988	1.491	1.922	7.145	.7327	1,966	7.350
1989	1.494	1.871	7.306	.7493	2,074	7.257
1990	1.499	1.822	7.479	.7670	2,190	7.172

Year	Belgian franc	Irish punt	Dutch florin	Greek drachma	Spanish peseta	Portuguese escudo
				Number		
1980	40.19	0.6733	2.755	61.14	100.8	69.8
1981	39.39	.7007	2.708	64.16	114.9	80.3
1982	38.89	.7133	2.684	66.25	128.2	92.1
1983	38.50	.7218	2.678	68.96	144.8	104.2
1984	38.19	.7377	2.641	71.64	155.9	118.6
1985	37.37	.7505	2.569	73.72	165.3	133.0
1986	36.37	.7679	2.506	75.90	174.5	149.3
1987	35.41	.7827	2.446	78.31	184.0	167.9
1988	34.58	.7987	2.411	80.82	194.3	188.8
1989	33.81	.8167	2.369	83.50	205.0	212.6
1990	33.09	.8360	2.329	86.35	216.5	239.6

rates and changes in market rates and existing levels of MCA percentages. The estimated equation was as follows:

$$\Delta GR - \alpha \Delta MR + \beta MCA$$

where GR is the change in green rates, MR the change in market rates, and MCA the existing MCA level for each country. Data were pooled and the coefficient was constrained to be the same for all countries. The coefficients are given below for all members except Denmark, which maintained its green rate at the same level as the market rate over this period.

Country	Market rate effect (t value)	Existing MCA effect (t value)
Germany	0.288 (4.77)	− 0.09 (0.22)
France	.288 (4.77)	− .48 (.54)
Italy	.288 (4.77)	− .85 (.64)
Belgium/ Luxembourg	.288 (4.77)	− .12 (2.65)
Ireland	.288 (4.77)	− .35 (8.54)
Netherlands	.288 (4.77)	− .28 (4.27)
UK	.288 (4.77)	− .27 (3.15)

Although one can use these results to indicate the likely changes in green rates implied by the projected exchange rates, more important is the degree to which the informal agreement on MCA adjustments (previously discussed) is implemented. In the price levels calculations, it is assumed that the eight members honor this agreement, and that the UK follows the statistically estimated adjustment path (app. table 3).

Predicting the behavior of new members poses a problem. Without historical observation, one has to speculate on their attitude toward green rate changes. Since they stand to gain financially from negative MCAs—by delaying green rate adjustments—it is tempting to predict behavior similar to that of the UK or Italy during the past few years. Because MCAs do not generally apply to Mediterranean goods, these countries would receive a subsidy on their imports (of grains, dairy products, and meat) while not having their exports taxed. The new members would have greater flexibility, however, by adhering to the gentlemen's agreement, since this might be required of them on entry or on joining the EMS (this behavior pattern is assumed in app. table 3).

Gross MCAs are relevant for price projections. To make estimates of the likely budgetary implications of future MCAs, however, some additional complications need to be introduced. Gross MCA percentages are reduced by a franchise of 1.5 percent for negative MCAs and 1.0 percent for positive MCAs. A new noncumulation rule calls for the post-franchise MCA percentage to be set at 1 percent if it would otherwise fall in the range between 0 and 1.1 percent (excluding the end point values). This rule applies separately for both positive and negative values. If the noncumulation rule is not applicable, a rule provides for retention of the existing MCA percentage unless the implied change exceeds 1 percent.

Categorization of Commodities

Price projections need to be made separately for three groups of commodities: Those for which prices are set in ECUs and for which MCAs are levied or paid on trade (both within the Community and with third countries); those that, while having price or subsidy levels set in ECUs, bear no MCAs on trade; and those that are not subject to ECU price decisions. The impact of exchange rate changes on each commodity group is distinctly different.

For the ECU/MCA commodities, an exchange rate change has no direct impact on local currency equivalents of support prices so long as green rates do not adjust—as if support prices were set in terms of the local currency. By declining to change its green rate, the government of the country can prevent the exchange rate variation from impinging on local prices. If the green rate is not changed, the nominal price change for each product is the percentage rise in ECU prices. For countries with depreciating currencies, this nominal price change is the minimum change in local currency prices because subsequent devaluation of the green rate will add to the price increases. For countries with appreciating currencies, such ECU changes are the maximum increases, since any realignment of green rates (which can only reduce the divergence between green and market rates) will imply local currency declines. This asymmetry links the setting of ECU prices with macroeconomic variables because of the tie between inflation and exchange rate movements.

The situation is somewhat different for commodities where no MCA operates, even in the presence of common ECU price levels. Depreciation (or appreciation) will not appear to change the domestic equivalent of the ECU prices, since green rates are still used to translate to local currency. On the other hand, the market prices in other countries in the Community will tend to rise (or fall) to the full extent of the exchange rate change if the policy effectively supports the price structure.[7] It is more appropriate under these circumstances to project prices using the market rates rather than the green rates applied to the ECU levels.

The third case refers to products where the ECU price is either not operative or where no such administered price exists. The impact of exchange rate changes in these instances depends on the trading position of the country. A major importer or exporter may find that the price rise (or fall) is smaller in domestic terms than indicated by the exchange rate depreciation (or appreciation). The use of ECU prices in this instance is inappropriate, and the price changes are more conveniently put in terms of the dollar.

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[7]This is analogous to the impact of an exchange rate change under the small country assumption of international trade analysis, where a country has no measurable influence on the world commodity price level. If ECU prices are not effectively maintained, perhaps because of a major shift in trade volume following the exchange rate movement, this case becomes similar to the third case with no ECU prices.

Appendix table 3—Green rates of exchange and monetary compensation amounts, 1980-90

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Green rates of exchange											
Units of local currency/ECU											
West Germany	2.752	2.695	2.598	2.520	2.455	2.389	2.315	2.247	2.187	2.132	2.082
France	5.847	5.944	6.131	6.291	6.453	6.607	6.745	6.902	7.064	7.223	7.391
U.K.	.619	.624	.630	.639	.649	.660	.672	.685	.698	.712	.727
Italy	1,157.790	1,200.850	1,286.730	1,378.860	1,474.620	1,563.330	1,657.110	1,765.330	1,871.230	1,974.390	2,086.360
Denmark	7.826	7.848	7.873	7.872	7.840	7.747	7.620	7.505	7.401	7.304	7.215
Belgium/Luxembourg	40.519	40.121	39.471	39.026	38.677	38.111	37.203	36.224	35.329	34.531	33.785
Ireland	.659	.673	.693	.704	.716	.730	.745	.761	.777	.794	.812
Netherlands	2.793	2.770	2.734	2.719	2.698	2.643	2.576	2.514	2.467	2.428	2.387
Greece	.000	62.648	65.203	67.605	70.302	72.682	74.809	77.102	79.561	82.156	84.922
Spain	.000	.000	.000	.000	150.310	160.588	169.917	179.279	189.194	199.684	210.753
Portugal	.000	.000	.000	.000	111.399	125.829	141.153	158.564	178.331	200.705	226.115
Percent											
Monetary compensation amounts:											
Germany—											
Gross MCA	8.8	10.8	10.7	10.8	10.8	11.4	11.7	11.9	12.1	12.3	12.5
Adjusted	7.8	9.8	9.8	9.8	9.8	9.8	9.8	10.9	10.9	10.9	10.9
France—											
Gross MCA	.0	−1.7	−1.5	−1.2	−1.4	−1.0	−1.1	−1.2	−1.1	−1.2	−1.2
Adjusted	.0	−1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
UK—											
Gross MCA	1.7	−1.2	−2.8	−3.6	−4.2	−4.3	−4.8	−4.9	−5.0	−5.3	−5.6
Adjusted	1.0	.0	−1.3	−1.3	−2.7	−2.7	−2.7	−.27	−2.7	−3.8	−3.8
Italy—											
Gross MCA	−1.7	−7.4	−6.9	−6.9	−6.2	−5.6	−5.9	−5.8	−5.1	−5.0	−5.0
Adjusted	−1.0	−5.9	−5.9	−5.9	−4.7	−4.7	−4.7	−4.7	−3.6	−3.6	−3.6
Denmark—											
Gross MCA	.0	−.3	.0	.1	.4	.8	.8	.7	.7	.6	.6
Adjusted	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Belgium/Luxembourg—											
Gross MCA	1.7	1.8	1.5	1.3	1.3	1.9	2.2	2.2	2.1	2.1	2.1
Adjusted	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.2	1.2	1.0	1.0
Ireland—											
Gross MCA	.0	−4.1	−2.9	−2.6	−3.1	−2.8	−3.0	−2.8	−2.8	−2.9	−2.9
Adjusted	.0	−2.6	−1.4	−1.0	−1.6	−1.6	−1.6	−1.6	−1.6	−1.6	−1.6
Netherlands—											
Gross MCA	1.7	2.2	1.8	1.5	2.1	2.8	2.7	2.7	2.3	2.4	2.4
Adjusted	1.0	1.2	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Greece—											
Gross MCA	.0	−2.4	−1.6	−2.0	−1.9	−1.4	−1.5	−1.6	−1.6	−1.6	−1.7
Adjusted	.0	−1.0	−1.0	−1.0	−1.0	.0	.0	−1.0	−1.0	−1.0	−1.0
Spain—											
Gross MCA	.0	.0	.0	.0	−3.7	−3.0	−2.7	−2.7	−2.7	−2.7	−2.7
Adjusted	.0	.0	.0	.0	−2.2	−2.2	−2.2	−1.2	−1.2	−1.2	−1.2
Portugal-											
Gross MCA	.0	.0	.0	.0	−6.5	−5.7	−5.8	−5.9	−5.9	−5.9	−6.0
Adjusted	.0	.0	.0	.0	−5.0	−5.0	−5.0	−5.0	−5.0	−5.0	−5.0

The full ECU/MCA system applies to commodities with a comprehensive market support system involving variable levies, intervention buying, and export refunds. This group includes the major cereals, sugar, and livestock products. The price projections for these commodities must be based on the ECU price changes and the adjustment of green rates. The ECU/non-MCA commodities include most of the important Mediterranean products and the main fruits and vegetables grown in the northern regions. The absence of fixed national intervention prices for these commodities makes MCAs less necessary for running of the policy. Suggestions, in particular by France, that the MCA system be extended to include southern products have not been enthusiastically received by the Commission. It is assumed here that the current coverage of the MCA system will remain unchanged over the decade.

For the third group of commodities, either no ECU price supports are set, or support is given solely by subsidies that do not directly influence the market price. This group includes soybeans and many of the less significant fruit and vegetable products. It seems reasonable to assume that the prices of such commodities adjust to exchange rate changes independently of any decisions on ECU and MCA amounts for other products. Hence, it is appropriate to track these commodity prices in dollars and translate back into local currencies where necessary at the appropriate dollar exchange rate.

CAP Policy Price Decision Rules

The final analytical step needed for the model of price projections is the establishment of rules to represent common price decisions made by the EC Commission and Council. Conditions on price decisions are based on past behavior of national governments. Two such conditions that give lower and upper bounds to the range of price changes acceptable to each member state are:

(1) That there is no decrease in nominal domestic prices (in local currency terms), and

(2) That the increase in nominal domestic prices, including the impact of green rate changes, does not exceed the rate of inflation in the previous year (reflecting increases in production costs) so long as the EC has surplus commodities and financial problems.[8]

The first of these rules is a national constraint—no agriculture minister is likely to agree to a defeat in the Brussels

[8]Countries are assumed to allow nominal price decreases in commodities in which they have no producer interest. In addition, the first rule shows the strong position of appreciating currency countries, such as West Germany, in the price fixing process. These rules refer to price changes; they do not discount the evidence given by Heidhues and others (1978) that different countries would be happy with different levels of prices. The question of price levels is more closely linked with the green rate adjustment behavior noted.

negotiations. Indeed, the gentlemen's agreement on green rates provides that agreement changes should not force nominal price declines and that the price negotiations should compensate for such potential declines. The second rule can be rationalized as a concession by governments to the EC to keep some disincentives through undercompensation for cost increases.

Price Decision Rules by Commodity Category

The implications of these price decision rules can be seen most clearly for the second group of commodities, those with ECU prices but no MCA system. For this group, the ECU price change, together with the change in the market rate of the ECU in local currency, determines the domestic price. The rules can then be written as:

(1) ECU price change ± exchange rate change ≥ 0

(2) ECU price change ± exchange rate change ≤ inflation rate of the previous year

where a currency depreciation relative to the ECU is an increment to price and an appreciation diminishes the local currency value of the ECU price increase. Assuming that exchange rate changes reflect inflation differentials, it is clear that rule (2) is common to all members and can be interpreted as implying that the ECU price increase must be less than or equal to average previous year's inflation in the Community. This average is the inflation in member states weighted by the importance of those countries in the ECU basket. It is approximately the average inflation rates obtained by using GNP shares. Countries whose inflation rate is higher than average will be compensated by ECU rate changes which will increase their domestic prices. Hence, for the non-MCA commodities, the prior year inflation rates in the Community will determine the upper bound to the ECU price changes, while the lower bound will be determined by the country (among those producing the good in question) whose currency appreciates most (or depreciates least) relative to the ECU.[9]

For the first group of commodities, those subject to MCAs, it is necessary to introduce green rate changes to explore the feasible range of policy prices. At one extreme, one can imagine a situation where the green rates are not adjusted from their 1979 levels. In this case, rules (1) and (2) simplify to:

(3) ECU price change ≥ 0

(4) ECU price change ≤ 0 inflation rate of previous year

[9]These observations also apply to the unlikely case of an agreement to abolish the MCA system so as to make green rates equivalent to market rates (or, if all MCAs were frozen at their present level.) Under these rules, Denmark, which has consistently changed its green rate to equal the market rate of the kroner, is also effectively constrained to price increases tied to average prior year inflation rates.

Again, the implications for policy prices are clearcut. The highest inflation country will provide the acceptable ceiling to price changes, since any greater ECU price change will more than compensate for prior year cost increases in that country. The lower bound is a 0 increase in ECU prices, since nominal price increases can only come about through ECU price changes if green rates are fixed. Because the implication of fixed green rates is that the level of MCAs will increase rapidly over the decade, it must be assumed that such a development is unlikely.

To make the case of ECU/MCA commodities more realistic, it is necessary to introduce the decision rule on green rate and MCA adjustments. The decision rules become:

(5) ECU price change ± green rate change ≥ 0

(6) ECU price change ± green rate change ≤ inflation rate of the previous year

where a devaluation of the green rate reduces negative MCAs and hence increases prices in local currency, while a revaluation reduces positive MCAs and leads to lower price levels in local currency.

A simple test of these propositions shows that most price increases have fallen within the bounds implied by the two decision rules (app. figs. 2, 3, and 4).

It would be useful to define the implicit price rule somewhat more narrowly. The average price change for all commodities in most years has been near the level just adequate to cover only one country's previous year's inflation.[10] The Community appears to have been successful in preventing any appreciable overcompensation for

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[10]The relationship holds better for countries with stable MCAs—that is, those associated with currencies which (prior to the EMS) were kept in line with each other by central bank operations.

Appendix Figure 2:

Annual Increases in CAP Prices for Selected Animal Products

Percentage change
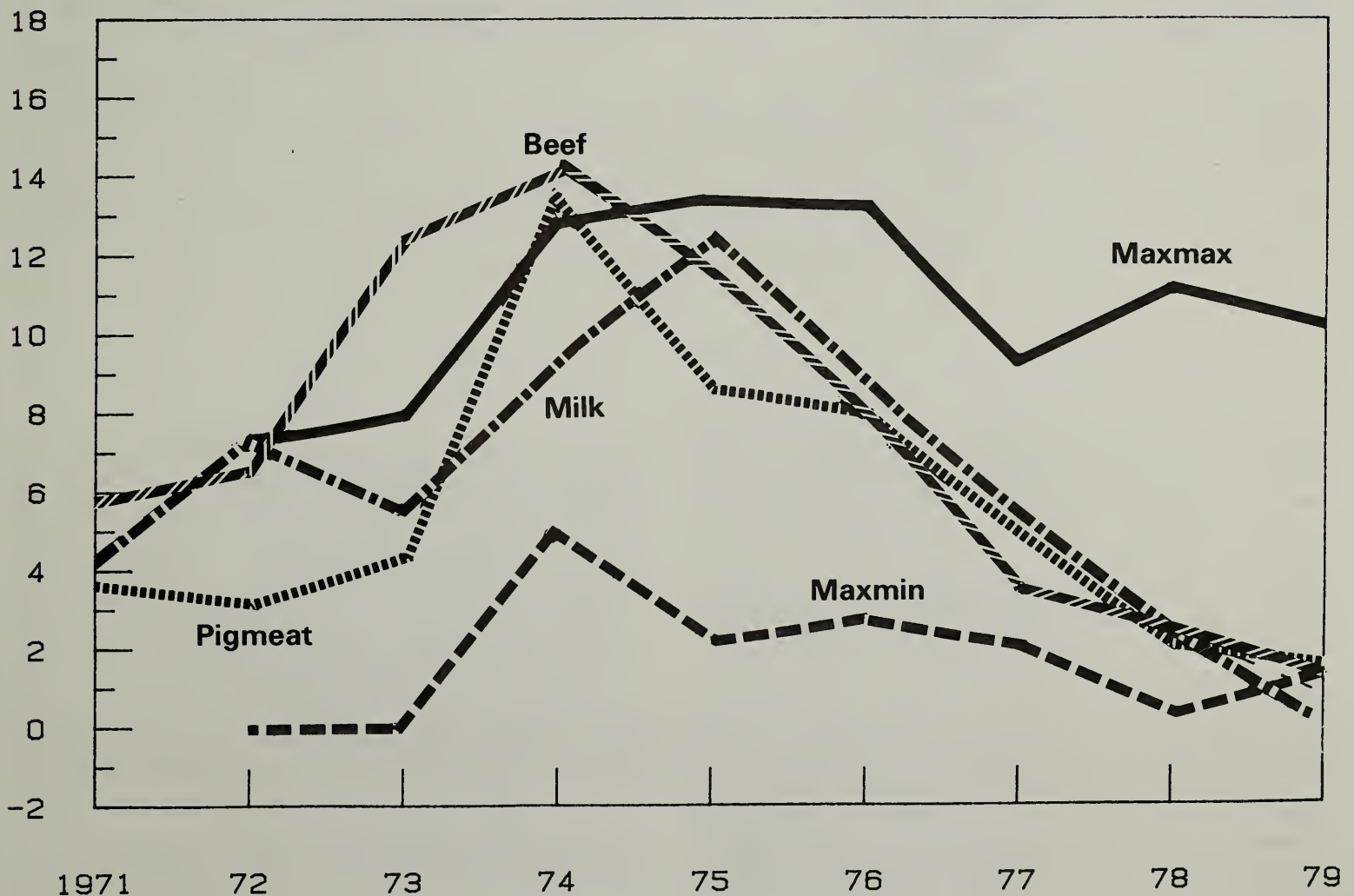
Annual Increase in CAP Prices for Selected Crops

Percentage change
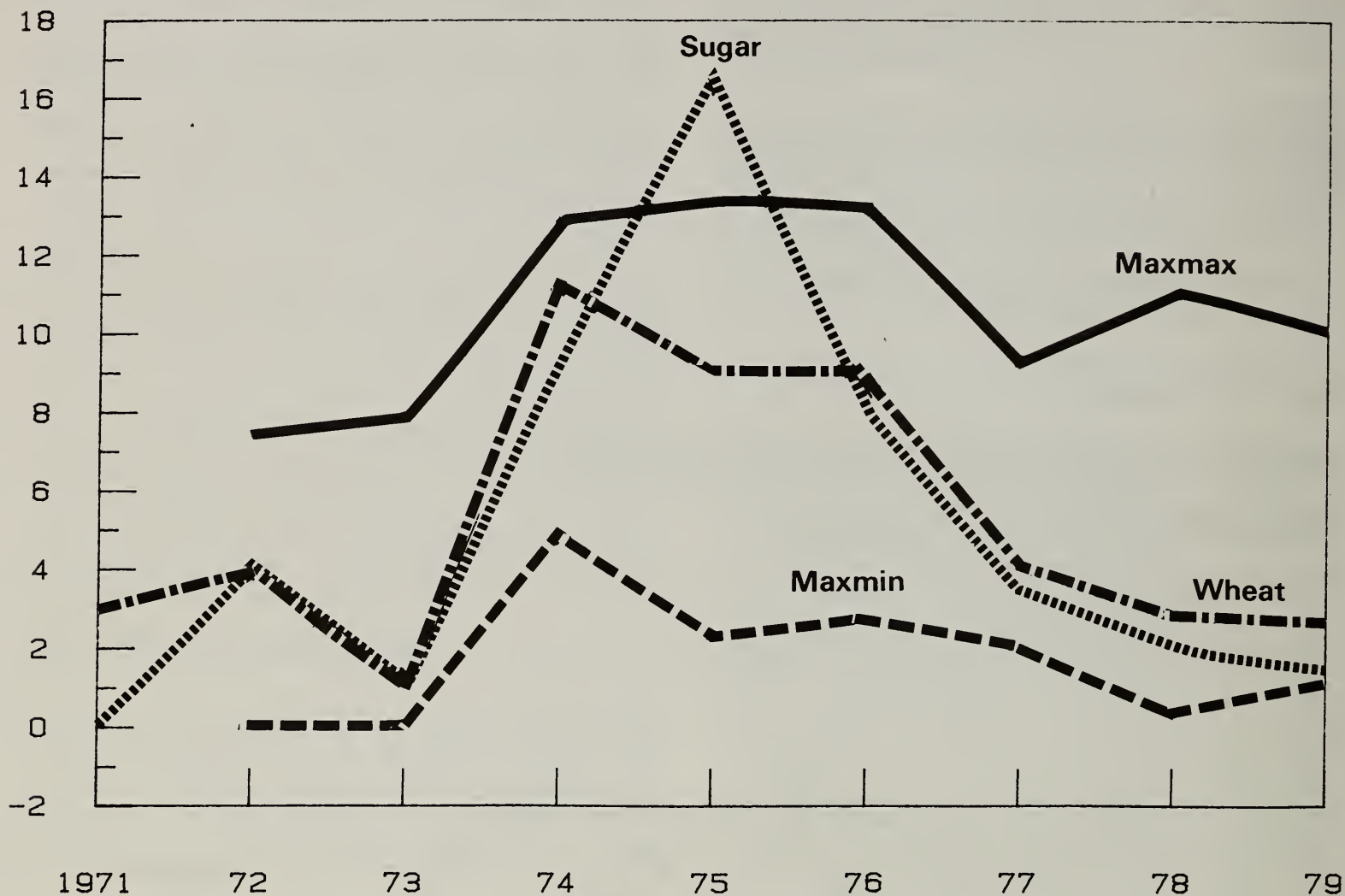
inflation in all countries except West Germany. This observation suggests a MINMAX rule of pricing to hold prices to the minimum of the maximum price that would not overcompensate farmers in any country for cost changes in the previous year. The MINMAX rule is used in the basic case of the projections reported in this study. For comparison, price projections are also made on the basis of the MAXMAX and MAXMIN rules that provide full compensation and under-compensation for all countries, respectively.

Community and National Prices

Prices are projected for seven commodities or groups of commodities. Six of these—cereals, milk products, sugar, beef and veal, pigmeat, and oilseeds (rapeseed)—receive full support under the CAP. Rapeseed is protected by a modest variable levy although soybeans are not. For both, there are guide prices which do not control the market price but are used to calculate a subsidy paid to the users of European rapeseed to allow them to pay a higher price to domestic producers or to calculate a subsidy paid directly to soybean growers. The target, guide, or basic prices (depending on the commodity) are used for convenience, though these will not always correspond to market prices.[11] The remaining commodity, olive oil, is an example of a product with an ECU price decision but no MCAs, of interest particularly to southern members and applicants and also to overseas suppliers; its production target price is used as the basis for projec-

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[11]Threshold and intervention prices can be derived from the target prices, as can the seasonal step in administered prices used to encourage storage.

Annual Average Increase in CAP Prices

Percentage change
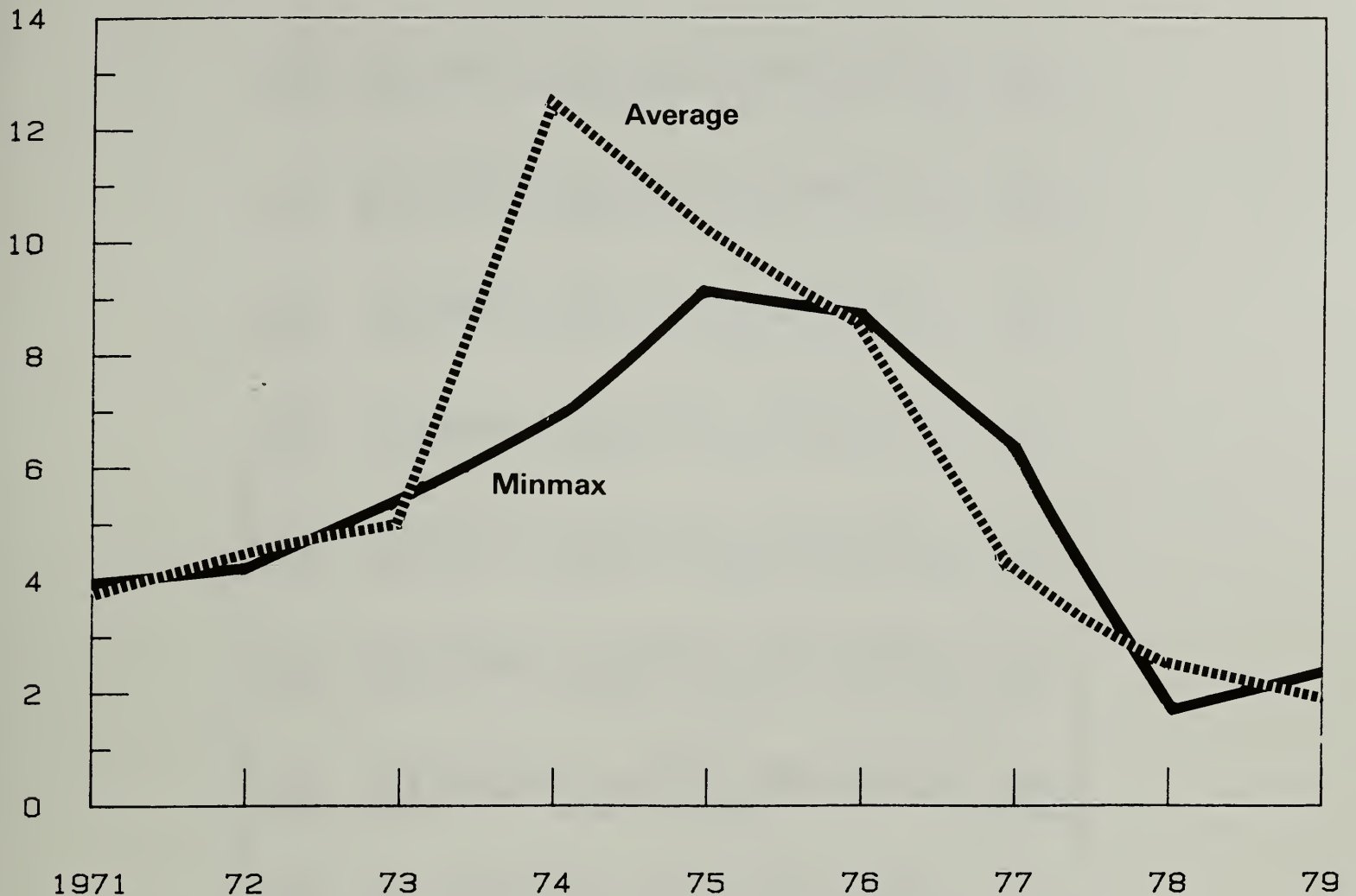
tion.[12] No projections are made for commodities for which prices are not set in ECUs and which therefore react essentially to world market conditions.

The postulated macroeconomic relationships coupled with a plausible set of decision rules lead to a reasonably narrow range of outcomes for European farm prices. The implied ECU prices for the seven commodities are shown in appendix table 4, under the MINMAX, MAXMAX, and MAXMIN assumptions. The current and constant 1980 dollar equivalents are given for comparison (app. tables 5 and 6). The average annual percentage increases in ECU prices over the decade are 6.4, 7.6, and 2.8 percent, respectively, for MINMAX, MAXMAX, and

[12]The olive oil support system employs a market target price, set at a level which keeps olive oil attractive in consumption, and a production target price aimed at supporting incomes in Italy. The difference between the two is made up of aids shared between the producers and the crushers.

MAXMIN. The implications of these price paths are explored in appendix C. These ECU price levels can be translated into national currency equivalents, which can also be expressed in real terms or dollar terms using the relevant inflation and exchange rate tables. These conversions are not reported here but are available from the authors on request.

Appendix C—Budget and Protection Projections

Because price policy—including both Community decisions on common price increases and national decisions on green rate changes—is the single most important lever of the CAP as currently constituted, the principal analytical focus of the study is on projected prices in the eighties (see appendix B). Price increases affect many interest groups, including producers, consumers, and Community and third country trading partners. But the critical

Appendix table 4—Projected target prices, ECUs

ECU/ton

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Wheat:											
MINMAX	214	228	243	259	273	290	309	330	351	373	397
MAXMAX	214	237	257	275	294	314	337	361	386	413	441
MAXMIN	214	218	226	233	239	246	253	261	268	274	281
Milk products:											
MINMAX	223	237	253	269	284	301	322	343	365	388	413
MAXMAX	223	247	267	286	306	326	351	375	401	429	458
MAXMIN	223	227	235	242	249	255	263	271	278	285	292
Sugar:											
MINMAX	452	481	513	546	576	612	653	696	740	788	838
MAXMAX	452	501	542	581	620	663	712	762	815	872	930
MAXMIN	452	461	478	492	505	519	534	550	565	579	593
Olive oil:											
MINMAX	2,480	2,807	3,016	3,201	3,391	3,601	3,828	4,076	4,361	4,640	4,933
MAXMAX	2,480	2,807	3,016	3,201	3,391	3,601	3,828	4,076	4,361	4,640	4,933
MAXMIN	2,480	2,388	2,217	2,058	1,915	1,800	1,692	1,581	1,487	1,405	1,325
Oilseeds:											
MINMAX	387	412	440	468	493	524	559	596	634	675	717
MAXMAX	387	429	464	498	531	567	609	652	698	746	796
MAXMIN	387	395	409	421	432	444	458	471	484	496	508
Beef and veal:											
MINMAX	1,608	1,711	1,826	1,943	2,049	2,177	2,324	2,476	2,634	2,803	2,981
MAXMAX	1,608	1,783	1,928	2,068	2,206	2,358	2,532	2,710	2,898	3,100	3,309
MAXMIN	1,608	1,641	1,700	1,751	1,796	1,845	1,901	1,957	2,010	2,060	2,109
Pigmeat:											
MINMAX	1,587	1,690	1,803	1,918	2,023	2,149	2,294	2,445	2,601	2,767	2,943
MAXMAX	1,587	1,761	1,903	2,042	2,178	2,328	2,500	2,675	2,861	3,061	3,267
MAXMIN	1,587	1,620	1,679	1,728	1,773	1,821	1,877	1,932	1,984	2,034	2,082

Appendix table 5—Projected target prices, current dollars

Dollars/ton

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Wheat:											
MINMAX	306	330	355	383	407	432	460	491	523	558	595
MAXMAX	306	344	375	408	439	468	502	537	575	617	660
MAXMIN	306	316	331	345	357	366	377	388	399	410	421
Milk products:											
MINMAX	318	343	370	399	424	449	479	511	544	580	619
MAXMAX	318	357	390	424	456	487	522	559	598	642	687
MAXMIN	318	329	344	359	371	381	392	404	415	426	438
Sugar:											
MINMAX	647	696	750	809	860	912	972	1,037	1,104	1,177	1,256
MAXMAX	647	726	792	861	926	988	1,059	1,135	1,215	1,303	1,394
MAXMIN	647	667	698	729	754	773	795	819	842	865	889
Olive oil:											
MINMAX	3,548	4,062	4,407	4,743	5,064	5,367	5,698	6,071	6,503	6,934	7,396
MAXMAX	3,548	4,062	4,407	4,743	5,064	5,367	5,698	6,071	6,503	6,934	7,396
MAXMIN	3,548	3,455	3,240	3,050	2,860	2,683	2,518	2,356	2,217	2,099	1,986
Oilseeds:											
MINMAX	554	596	642	693	737	781	832	888	945	1,008	1,076
MAXMAX	554	621	678	737	793	846	907	971	1,040	1,115	1,194
MAXMIN	554	571	598	624	645	662	681	702	721	741	761
Beef and veal:											
MINMAX	2,300	2,477	2,669	2,879	3,060	3,244	3,459	3,688	3,928	4,189	4,469
MAXMAX	2,300	2,581	2,817	3,064	3,294	3,514	3,768	4,036	4,322	4,634	4,960
MAXMIN	2,30	2,374	2,485	2,594	2,682	2,749	2,830	2,915	2,997	3,079	3,1616
Pigmeat:											
MINMAX	2,271	2,445	2,636	2,842	3,022	3,203	3,415	3,641	3,878	4,135	4,412
MAXMAX	2,271	2,548	2,781	3,025	3,253	3,469	3,720	3,985	4,267	4,575	4,897
MAXMIN	2,271	2,344	2,453	2,561	2,648	2,714	2,794	2,878	2,959	3,040	3,121

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Appendix table 6—Projected target prices, 1980 dollars

1980 dollars/ton

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Wheat:											
MINMAX	306	265	265	266	264	261	261	260	258	258	257
MAXMAX	306	277	279	283	284	283	284	284	284	285	285
MAXMIN	306	254	246	239	231	222	213	205	197	189	182
Milk products:											
MINMAX	318	276	275	276	275	272	271	270	269	268	267
MAXMAX	318	288	291	294	296	295	295	296	296	296	296
MAXMIN	318	265	256	249	241	230	222	213	205	197	189
Sugar:											
MINMAX	647	560	559	561	557	552	550	548	546	544	542
MAXMAX	647	584	590	597	600	598	599	600	600	602	602
MAXMIN	647	537	520	505	488	468	450	433	416	400	384
Olive oil:											
MINMAX	3,548	3,269	3,284	3,288	3,281	3,250	3,224	3,211	3,214	3,203	3,192
MAXMAX	3,548	3,269	3,284	3,288	3,281	3,250	3,224	3,211	3,214	3,203	3,192
MAXMIN	3,548	2,781	2,414	2,114	1,853	1,624	1,425	1,246	1,096	970	857
Oilseeds:											
MINMAX	554	480	479	480	477	473	471	469	467	466	464
MAXMAX	554	500	505	511	514	512	513	514	514	515	515
MAXMIN	554	460	446	433	418	401	385	371	356	342	328
Beef and veal:											
MINMAX	2,300	1,993	1,989	1,995	1,983	1,965	1,957	1,950	1,941	1,935	1,929
MAXMAX	2,300	2,077	2,099	2,124	2,134	2,127	2,132	2,134	2,136	2,140	2,141
MAXMIN	2,300	1,911	1,852	1,798	1,737	1,665	1,601	1,542	1,481	1,422	1,365
Pigmeat:											
MINMAX	2,271	1,968	1,964	1,970	1,957	1,939	1,932	1,926	1,917	1,910	1,905
MAXMAX	2,271	2,051	2,073	2,097	2,107	2,100	2,105	2,107	2,109	2,113	2,114
MAXMIN	2,271	1,886	1,828	1,775	1,715	1,643	1,581	1,522	1,462	1,404	1,347

policy pressures of recent and near future price hikes are brought about through the associated increments in EC budgetary costs. This appendix presents a method and some results of translating future price changes into budgetary costs, indicates how budget costs are related to levels of protection against third country trade, and provides calculations of measures of protection.

Assumptions, Data, and Results

Projections of budget cost and protection require data or assumptions on three variables for each tradable commodity—policy price, world price, and quantity traded. The first is emphasized because the intent of this study is to indicate the likely future levels of policy prices, and then to sketch broadly what their impact might be on budget cost and protection. For this reason, the more carefully obtained policy price projections (appendix B) are combined with fairly crude assumptions on future world prices and traded quantities.

The framework used for estimating budget costs and levels of protection (app. fig. 4) contains three principal inputs (agricultural policy prices, world prices, and traded quantities) and two final outputs (budget costs and revenues, and protection levels). The first input, farm target prices, is introduced exogenously from appendix B, with certain qualifications. The two other inputs and both outputs are discussed in terms of the blocks of data and assumptions (app. fig. 5).

World Price Block

The basic assumption for the projections of world prices for the nine commodities studied is that world prices will remain constant in real terms at 1979 levels (app. table 7). This assumption holds for prices denominated in U.S. dollars, and given the assumption of PPP (see appendix B), also for the local currencies of EC countries and applicants. Sensitivity analysis is carried out to test the results from changing the world price assumption to permit an annual real increase of 2 percent for all prices and an annual real decrease of the same percentage (shown in app. table 7 as Assumptions II and III).

The 1979 base year prices for imports into the EC are EC offer prices for 1978 (the last year for which data are available), adjusted for U.S. inflation in 1979. These dollar offer prices are inflated by ECU price level changes (the average EC inflation) to obtain nominal levels in ECUs which can be converted to national currencies using local currency to ECU exchange rates. The same procedure is used for commodities exported from the EC, except that appropriate disposal prices rather than other prices are used, reflecting quality differences. These disposal prices are calculated in the base year (1979) as the entry price less the average cost of disposal on overseas markets, estimated by dividing total export refund cost by extra-EC exports. These projected offer and disposal prices are then carried forward to be used in analyses of budget costs (export subsidies) and revenues (import levies), and of measures of protection.

Quantity Block

The policy analysis and price projections of this study provide perspective and input into detailed quantitative analyses of projected trade between the current and expanded Community and third countries. It has not been possible to make anything other than very crude projections of traded quantities.

Projection of quantities of net trade with third countries are needed for estimating the budgetary effects of price decisions associated with alternative policy scenarios. For cereals, milk products, and beef and veal, production and consumption are assumed to increase at the various combinations of growth rates; net trade with third countries is found as a residual (app. table 8).

All other commodities are projected under the basic policy assumption. Third country imports into the EC are projected to remain constant at these 1980 levels: Cereals, 19.104; milk products, 0.149; and beef and veal, 0.415 million tons (app. table 9).

Budget Block

Analysis of the future budgetary effects of policy decisions on price support levels requires examination of the main categories of EC budgetary income and expenditure. Once again, some rather crude assumptions are needed to project certain budgetary items.

The projected budget on agricultural account gives separate estimates for all six policy assumptions, A through F, and the three world price assumptions, I through III (app. tables 10-45). Income from agricultural levies on principal commodities is calculated in a synthetic manner, using the projected farm and offer prices and traded quantities. The recent trend in levies is projected forward for other agricultural imports. Spending on agriculture is divided into two categories—export subsidies ("refunds" or "restitutions"), and intervention costs on domestic markets (app. tables 10-45). Export subsidies are calculated synthetically as projected export quantities times the per unit costs of disposal (that is, the difference between the internal price and the world price). The synthetic approach relies on straightforward calculations from projected data. The expression $BC = Q \cdot (P_d - P_w)$, where BC is the budget cost of the export refund, Q is the export quantity, and P_d and P_w are the domestic and world prices, respectively, is calculated by commodity using projections of farm prices and the assumptions on world prices and trade quantities. Problems with the synthetic approach arise if the calculated base year budget costs do not closely approximate the actual values for that year, reflecting omissions in coverage. To test the validity of using the synthetic approach with data from the seventies, the following relationship was estimated for each principal commodity:

$$BC = \alpha_1 + \alpha_2 (P_d - P_w)Q$$

Apendix figure 5—Framework for estimating budgeting costs and levels of protection
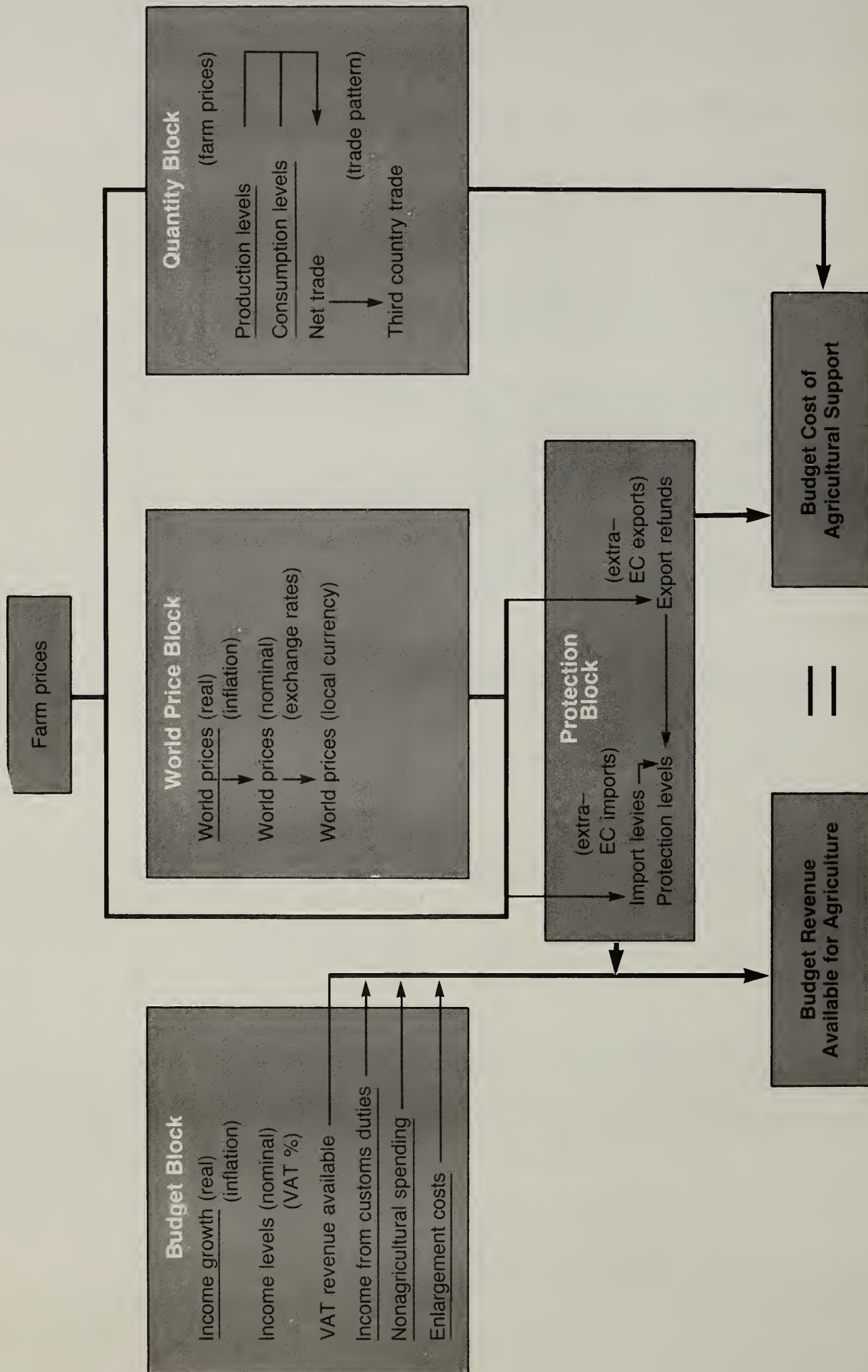
Note: Underlined items are exogenous.

Appendix table 7—Projected world commodity prices[1]

Commodity and assumption[2]	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Dollars/ton					
Wheat:											
I	188	205	221	238	254	272	291	311	333	357	382
II	188	209	230	252	275	299	326	356	388	422	461
III	188	201	213	225	236	248	261	274	287	302	317
Maize:											
I	163	178	192	207	221	237	253	271	290	310	332
II	163	182	200	219	239	261	284	310	337	368	401
III	163	175	186	196	206	216	227	238	250	263	276
Sugar:											
I	276	301	325	349	374	400	428	458	490	524	561
II	276	307	338	370	404	440	480	523	570	621	677
III	276	296	314	331	348	365	383	402	422	444	466
Skim milk:											
I	528	575	621	668	715	765	818	876	937	1,003	1,073
II	528	587	646	708	772	841	917	1,188	1,090	1,188	1,295
III	528	565	599	633	665	698	733	769	808	848	891
Butter:											
I	1,372	1,496	1,615	1,736	1,858	1,988	2,127	2,276	2,435	2,606	2,788
II	1,372	1,525	1,678	1,840	2,007	2,187	2,383	2,598	2,832	3,087	3,366
III	1,372	1,469	1,558	1,645	1,727	1,813	1,904	1,999	2,099	2,205	2,315
Olive oil:											
I	2,021	2,203	2,379	2,558	2,737	2,928	3,133	3,352	3,587	3,838	4,107
II	2,021	2,246	2,472	2,710	2,955	3,221	3,510	3,827	4,171	4,548	4,958
III	2,021	2,164	2,295	2,422	2,544	2,671	2,804	2,945	3,092	3,247	3,410

See footnote at end of table.

Continued—

Appendix table 7—Projected world commodity prices[1]—continued

Commodity and assumption[2]	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Dollars/ton					
Oil seeds:											
I	432	471	509	547	586	626	670	717	767	821	879
II	432	480	529	580	632	689	751	819	892	973	1,061
III	1,372	1,469	1,558	1,645	1,727	1,813	1,904	1,999	2,099	2,205	2,315
Beef and veal:											
I	1,368	1,491	1,610	1,731	1,852	1,982	2,120	2,269	2,428	2,598	2,779
II	1,368	1,520	1,673	1,834	2,000	2,180	2,376	2,590	2,823	3,078	3,356
III	1,368	1,464	1,553	1,639	1,722	1,808	1,898	1,993	2,093	2,198	2,308
Pigmeat:											
I	1,493	1,627	1,757	1,889	2,022	2,163	2,314	2,476	2,650	2,835	3,034
II	1,493	1,659	1,826	2,002	2,183	2,379	2,593	2,827	3,081	3,359	3,663
III	1,493	1,598	1,695	1,789	1,879	1,973	2,072	2,175	2,284	2,399	2,519

[1] EC offer prices

[2] Assumption I = constant real 1979 dollars.
Assumption II = annual real increase of 2 percent per year.
Assumption III = annual real decrease of 2 percent per year.

Appendix table 8—Scenario assumptions

Scenario assumption[1]	Policy	Producer price rule	Production increase	Consumption increase
			Percent	
A-I/II/III	Basic policy	MINMAX	2.0	1.0
B-I/II/III	No control	MAXMAX	2.5	.5
C-I/II/III	Price moderation	MAXMIN	1.5	1.5
D-I/II/III	Coresponsibility levy	MAXMIN	1.5	1.0
E-I/II/III	Superlevy	MAXMIN	1.5	1.0
F-I/II/III	Quantum	MAXMIN	1.5	1.5

– For each scenario, A through F, there are three possible assumptions for changes in world commodity prices, designated "I/II/III" as in appendix table 7.

The results for all major commodities showed that α_1 was not significantly different from 0 and α_2 was not significantly different from 1, thereby providing justification for use of the synthetic approach.

Intervention costs (IC) are projected using empirically estimated equations for each commodity of the form, IC $= \alpha_1 + \alpha_2 \, P_e \cdot Q$ where P $\equiv$ entry or intervention price, and Q $\equiv$ quantity supplied to intervention. The estimated parameters are given at the bottom of this page.

Residual FEOGA guarantee expenditures are projected with a time trend. Guarantee expenditures are expenditures to manage agricultural markets.

The agricultural spending entries are then matched with projections of income and expenditure for the entire Community budget for all 18 scenarios. The income side of the budget is projected with the aid of the following assumptions and procedures. Revenue from the VAT is assumed to remain at the current legislated ceiling of 1 percent. Income from this source is then calculated from the assumed levels of nominal income and the inflation rates discussed in appendix B. Sugar levies are assumed to increase by the MINMAX price increase for sugar. Customs duties, mostly on industrial goods, are projected to grow at the same rate as nominal GNP, reflecting an assumption of a constant ratio of duties to GNP. This leads to a residual category of remaining funds to cover all nonagricultural spending under the Community budget.

Protection Block

Before setting out details of the method to project future levels of protection, it is desirable to present some definitions and show the underlying relationships among changes in policy prices and corresponding changes in budget and protection.

The following variables enter into both budget and protection calculations:

P_d = domestic policy price for tradable commodity,

P_w = world price for tradable commodity (assumed not to be affected by changes in P_d because of a small country assumption),

Q = quantity of tradable commodity that is traded internationally (exported or imported) by the EC.

These three variables can be used in defining three other variables, V, BC, and NRP:

V = value of tradable commodity at world price,

BC = budget cost of tradable commodity (subsidy costs on exports or levy revenue on imports)

NRP = nominal rate of protection afforded to tradable commodity

Commodity	α_1 (t-value)	α_2 (t-value)	R^2
Cereals	85.66 (0.36)	0.000019 (1.17)	0.19
Milk products	– 1758.54 (– 2.39)	.000037 (4.35)	.76
Wine	– 72.55 (– .35)	.00105 (.75)	.10
Fruits and vegetables	– 2258.72 (– 2.00)	.05963 (2.12)	.53
Beef and veal	– 274.73 (– .89)	.000101 (2.12)	.43
Oilseeds	– 68.02 (– .86)	.000557 (1.99)	.40
Sugar	15.36 (.158)	.000052 (1.57)	.29

Such that:

(1) $V \equiv P_w \cdot Q$

(2) $EC \equiv Q \cdot (P_d - P_w)$

(3) $NRP \equiv \dfrac{(P_d - P_w)}{P_w}$

Budget cost covers only those items in the agricultural budget that arise from the imposition of taxes on imports or subsidies on exports, driving a wedge between domestic and world prices. Other budget expenditure items are costs of intervention, storage costs, consumer subsidies, producer subsidies, and MCA. These payments are not included. If the commodity is imported, the budget cost will be negative since revenue from import levies will be collected.

In this study, consideration of the nominal rate of protection, defined above (3) as the ratio of the increment of policy price over world price to the world price, is more appropriate than use of the effective rate of protection (ERP). ERP is a measure of the extent that the policy price permits value added in domestic prices to exceed value added in world prices. Interest here focuses on output price levels of agricultural commodities, indicated by NRP, rather than on the amount of effective protection given to processing.

The relationship between budget costs and protection is seen easily by rearranging the terms of (1), (2), and (3):

(4) $BC = NRP \cdot V$

(5) $NRP = \dfrac{BC}{V}$

These relationships are used for generating levels of protection. The commodity protection levels use equation (3), and the average (or aggregate) protection levels are calculated from equation (5).

As noted, quality differences account for the difference between a commodity's offer price for imports and disposal price for exports (for example, Community imports of wheat are generally high-quality bread wheat and EC subsidized exports of wheat are usually low-quality feed wheat). Hence, import levies are calculated as the difference between the entry and offer prices, multiplied by the level of extra-EC imports, whereas export subsidies are based on the difference between the intervention and disposal prices times the level of extra-EC exports.

Appendix tables 46-49 contain projections of these two different nominal rates of protection (NRP) afforded by EC agricultural policy against third country suppliers.

The level of aggregate EC agricultural protection against imports from all third countries is found by dividing the total of import levy revenue by the value of imports at world prices, both summed over the commodities (app. table 50). The counterpart measure of aggregate EC protection of agricultural exports consists of the ratio of the total budget cost of export subsidies to the world price value of exports (app. table 51).

Appendix table 9—Projected EC exports of selected commodities

1,000 tons

Commodity and scenario[1]	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Scenarios A-I/II/III:											
Cereals	16,500	17,647	18,829	20,046	21,301	22,592	23,922	25,291	26,701	28,151	29,643
Milk products	2,280	3,275	4,300	5,355	6,441	7,558	8,708	9,891	11,107	12,358	13,644
Beef and veal	837	911	987	1,065	1,145	1,227	1,312	1,399	1,489	1,581	1,676
Sugar	2,800	3,164	3,528	3,892	4,256	4,620	4,984	5,348	5,712	6,076	6,440
Oilseeds	66	67	68	70	71	73	74	75	77	79	80
Olive oil	15	15	16	16	16	17	17	17	18	18	18
Scenarios B-I/II/III:											
Cereals	16,500	18,833	21,236	23,712	26,261	28,886	31,590	34,373	37,238	40,187	43,222
Milk products	2,280	4,239	6,256	8,334	10,473	12,675	14,942	17,275	19,676	22,148	24,691
Beef and veal	837	978	1,123	1,273	1,427	1,585	1,749	1,916	2,089	2,267	2,450
Sugar	2,800	3,164	3,528	3,892	4,256	4,620	4,984	5,348	5,712	6,076	6,440
Oilseeds	66	67	68	70	71	73	74	75	77	79	80
Olive oil	15	15	16	16	16	17	17	17	18	18	18
Scenarios C-I/II/III:											
Cereals	16,500	16,461	16,421	16,381	16,340	16,299	16,256	16,214	16,170	16,126	16,081
Milk products	2,280	2,312	2,344	2,377	2,411	2,445	2,479	2,514	2,550	2,586	2,622
Beef and veal	837	843	850	856	863	870	876	883	890	898	905
Sugar	2,800	3,164	3,528	3,892	4,256	4,620	4,984	5,348	5,712	6,076	6,440
Oilseeds	66	67	68	70	71	73	74	75	77	79	80
Olive oil	15	15	16	16	16	17	17	17	18	18	18
Scenarios D-I/II/III and E-I/II/III:											
Cereals	16,500	17,060	17,635	18,225	18,829	19,449	20,084	20,735	21,402	22,086	22,787
Milk products	2,280	2,788	3,309	3,843	4,389	4,948	5,521	6,107	6,707	7,321	7,950
Beef and veal	837	876	916	957	998	1,041	1,085	1,130	1,175	1,222	1,270
Sugar	2,800	3,164	2,528	3,892	4,256	4,620	4,984	5,348	5,712	6,076	6,440
Oilseeds	66	67	68	70	71	73	74	75	77	79	80
Olive oil	15	15	16	16	16	17	17	17	18	18	18

[1] For an explanation of scenarios, see appendix table 8.

Appendix table 10—Projected FEOGA guarantee expenditures, Assumption A-I

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Export refunds:											
Cereals	1,122	1,256	1,425	1,619	1,798	2,000	2,250	2,522	2,814	3,140	3,502
Milk products	2,029	3,057	4,271	5,674	7,140	8,804	10,783	12,992	15,433	18,190	21,280
Beef and veal	459	520	598	689	773	866	982	1,109	1,245	1,397	1,566
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	516	554	594	633	678	731	787	846	911	981
Milk products	2,434	2,794	3,197	3,619	4,027	4,509	5,067	5,659	6,291	6,977	7,719
Beef and veal	645	724	812	905	994	1,100	1,222	1,352	1,491	1,641	1,804
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	8	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	11,422	13,715	16,298	18,925	21,928	25,490	29,418	33,728	38,562	43,951

Appendix table 11—Projected EC budget revenues and expenditures, Assumption A-I

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,794	1,909	2,041	2,130	2,228	2,364	2,503	2,642	2,794	2,956
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,437	22,366	24,357	28,247	30,864	33,766	37,018	40,564	44,423	48,621
FEOGA guarantee expenditure	9,471	11,422	13,715	16,298	18,925	21,928	25,490	29,418	33,728	38,562	43,951
Remaining funds	8,975	9,015	8,652	8,060	9,323	8,936	8,276	7,600	6,836	5,861	4,671

Appendix table 12—Projected FEOGA guarantee expenditures, Assumption A-II

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,225	1,353	1,496	1,610	1,731	1,881	2,030	2,173	2,321	2,470
Milk products	2,029	2,992	4,085	5,299	6,495	7,780	9,253	10,804	12,402	14,100	15,875
Beef and veal	459	503	560	622	670	716	775	831	879	926	969
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	516	554	594	633	678	731	787	846	911	981
Milk products	2,434	2,794	3,197	3,619	4,027	4,509	5,067	5,659	6,291	6,977	7,719
Beef and veal	645	724	812	905	994	1,100	1,222	1,352	1,491	1,641	1,804
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	11,310	13,418	15,733	17,988	20,486	23,383	26,460	29,691	33,183	36,916

Appendix table 13—Projected EC budget revenues and expenditures, Assumption A-II

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,737	1,786	1,843	1,848	1,849	1,875	1,889	1,886	1,879	1,862
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,380	22,244	24,159	27,965	30,485	33,277	36,405	39,809	43,508	47,527
FEOGA guarantee expenditure	9,471	11,310	13,418	15,733	17,988	20,486	23,383	26,460	29,691	33,183	36,916
Remaining funds	8,975	9,071	8,826	8,427	9,976	9,999	9,894	9,945	10,118	10,326	10,611

Appendix table 14—Projected FEOGA guarantee expenditures, Assumption A-III

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,287	1,495	1,738	1,975	2,250	2,587	2,961	3,375	3,845	4,374
Milk products	2,029	3,123	4,454	6,035	7,751	9,753	12,177	14,948	18,092	21,712	25,848
Beef and veal	459	536	636	754	870	1,005	1,171	1,358	1,565	1,802	2,070
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	516	554	594	633	678	731	787	846	911	981
Milk products	2,434	2,794	3,197	3,619	4,027	4,509	5,067	5,659	6,291	6,977	7,719
Beef and veal	645	724	812	905	994	1,100	1,222	1,352	1,491	1,641	1,804
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	11,535	14,006	16,842	19,810	23,266	27,408	32,062	37,269	43,194	49,895

Appendix table 15—Projected EC budget revenues and expenditures, Assumption A-III

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,846	2,020	2,217	2,379	2,560	2,789	3,030	3,281	3,556	3,852
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,489	22,478	24,534	28,496	31,196	34,191	37,546	41,204	45,186	49,517
FEOGA guarantee expenditure	9,471	11,535	14,006	16,842	19,810	23,266	27,408	32,062	37,269	43,194	49,895
Remaining funds	8,975	8,954	8,472	7,692	8,686	7,930	6,783	5,483	3,935	1,992	−378

Appendix table 16—Projected FEOGA guarantee expenditures, Assumption B-I

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,472	1,815	2,202	2,616	3,064	3,607	4,206	4,877	5,643	6,479
Milk products	2,029	4,316	6,957	10,054	13,540	17,458	22,151	27,440	33,448	40,353	48,021
Beef and veal	459	622	783	968	1,164	1,377	1,636	1,922	2,243	2,610	3,011
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	536	585	635	686	743	809	880	956	1,040	1,130
Milk products	2,434	3,009	3,523	4,049	4,593	5,198	5,899	6,642	7,451	8,340	9,288
Beef and veal	645	771	884	999	1,118	1,251	1,405	1,568	1,745	1,940	2,148
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	13,282	17,404	22,105	27,276	33,061	39,960	47,655	56,328	66,232	77,176

Appendix table 17—Projected EC budget revenues and expenditures, Assumption B-I

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,994	2,188	2,387	2,563	2,727	2,938	3,149	3,371	3,616	3,862
Sugar levies	506	559	545	541	538	539	541	539	539	539	538
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,659	22,652	24,708	28,686	31,367	34,343	37,667	41,296	45,249	49,528
FEOGA guarantee expenditure	9,471	13,282	17,404	22,105	27,276	33,061	39,960	47,655	56,328	66,232	77,176
Remaining funds	8,975	7,377	5,248	2,602	1,410	−1,695	−5,618	−9,988	−15,031	−20,983	−27,647

Appendix table 18—Projected FEOGA guarantee expenditures, Assumption B-II

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,439	1,734	2,057	2,384	2,720	3,120	3,538	3,984	4,474	4,974
Milk products	2,029	4,232	6,686	9,471	12,490	15,741	19,525	23,618	28,079	33,023	38,239
Beef and veal	459	604	740	888	1,036	1,184	1,360	1,541	1,730	1,936	2,139
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	536	585	635	686	743	809	880	956	1,040	1,130
Milk products	2,434	3,009	3,523	4,049	4,593	5,198	5,899	6,642	7,451	8,340	9,288
Beef and veal	645	771	884	999	1,118	1,251	1,405	1,568	1,745	1,940	2,148
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	13,147	17,008	21,296	25,867	30,808	36,571	42,783	49,553	57,058	65,015

Appendix table 19—Projected EC budget revenues and expenditures, Assumption B-II

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,937	2,065	2,188	2,281	2,349	2,449	2,535	2,616	2,701	2,767
Sugar levies	506	559	545	541	538	539	541	539	539	539	538
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,602	22,530	24,509	28,404	30,988	33,854	37,053	40,541	44,334	48,434
FEOGA guarantee expenditure	9,471	13,147	17,008	21,296	25,867	30,808	36,571	42,783	49,553	57,058	65,015
Remaining funds	8,975	7,456	5,521	3,213	2,537	180	−2,717	−5,730	−9,012	−12,724	−16,582

Appendix table 20—Projected FEOGA guarantee expenditures, Assumption B-III

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,505	1,895	2,343	2,834	3,383	4,052	4,804	5,661	6,649	7,751
Milk products	2,029	4,401	7,224	10,616	14,532	19,051	24,541	30,856	38,158	46,665	56,288
Beef and veal	459	639	826	1,045	1,286	1,556	1,887	2,262	2,692	3,191	3,749
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	536	585	635	686	743	809	880	956	1,040	1,130
Milk products	2,434	3,009	3,523	4,049	4,593	5,198	5,899	6,642	7,451	8,340	9,288
Beef and veal	645	771	884	999	1,118	1,251	1,405	1,568	1,745	1,940	2,148
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	13,418	17,793	22,885	28,609	35,153	43,047	52,010	62,271	74,131	87,451

Appendix table 21—Projected EC budget revenues and expenditures, Assumption B-III

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	2,046	2,299	2,563	2,812	3,060	3,363	3,677	4,011	4,379	4,758
Sugar levies	506	559	545	541	538	539	541	539	539	539	538
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,711	22,764	24,884	28,935	31,699	34,768	38,194	41,936	46,012	50,425
FEOGA guarantee expenditure	9,471	13,418	17,793	22,885	28,609	35,153	43,047	52,010	62,271	74,131	87,451
Remaining funds	8,975	7,294	4,971	1,999	326	−3,453	−8,279	−13,815	−20,335	−28,119	−37,027

Appendix table 22—Projected FEOGA guarantee expenditures, Assumption C-I

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
					Million ECU						
Export refunds:											
Cereals	1,122	1,058	1,042	1,018	977	918	863	801	725	638	539
Milk products	2,029	1,966	1,980	1,981	1,954	1,893	1,838	1,769	1,671	1,548	1,400
Beef and veal	459	428	419	406	386	354	323	287	244	193	135
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	496	517	537	556	576	598	621	644	666	689
Milk products	2,434	2,584	2,810	3,016	3,213	3,424	3,663	3,906	4,146	4,385	4,624
Beef and veal	645	678	727	772	816	862	914	968	1,020	1,073	1,125
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	9,766	10,351	10,929	11,461	11,997	12,652	13,349	14,058	14,807	15,611

Appendix table 23—Projected EC budget revenues and expenditures, Assumption C-I

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
					Million ECU						
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,599	1,560	1,510	1.430	1,310	1,195	1,069	916	741	546
Sugar levies	506	514	522	519	517	518	519	519	518	517	516
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,219	22,002	23,809	27,532	29,928	32,579	35,566	38,820	42,351	46,190
FEOGA guarantee expenditure	9,471	9,766	10,351	10,929	11,461	11,997	12,652	13,349	14,058	14,807	15,611
Remaining funds	8,975	10,453	11,650	12,880	16,071	17,931	19,927	22,217	24,762	27,545	30,580

Appendix table 24—Projected FEOGA guarantee expenditures, Assumption C-II

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Export refunds:											
Cereals	1,122	1,030	979	917	834	724	612	486	337	168	−21
Milk products	2,029	1,920	1,879	1,815	1,712	1,562	1,402	1,212	975	692	361
Beef and veal	459	412	385	353	308	248	184	112	25	−74	−187
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	496	517	537	556	576	598	621	644	666	689
Milk products	2,434	2,584	2,810	3,016	3,213	3,424	3,663	3,906	4,146	4,385	4,624
Beef and veal	645	678	727	772	816	862	914	968	1,020	1,073	1,125
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	9,676	10,154	10,608	10,997	11,366	11,827	12,302	12,756	13,215	13,690

Appendix table 25—Projected EC budget revenues and expenditures, Assumption C-II

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,542	1,437	1,312	1,147	931	707	455	161	−174	−549
Sugar levies	506	514	522	519	517	518	519	519	518	517	516
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,163	21,879	23,611	27,250	29,550	32,090	34,953	38,065	41,436	45,096
FEOGA guarantee expenditure	9,471	9,676	10,154	10,608	10,997	11,366	11,827	12,302	12,756	13,215	13,690
Remaining funds	8,975	10,487	11,725	13,003	16,252	18,184	20,263	22,651	25,309	28,221	31,406

Appendix table 26—Projected FEOGA guarantee expenditures, Assumption C-III

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,087	1,103	1,115	1,114	1,098	1,091	1,083	1,065	1,041	1,012
Milk products	2,029	2,012	2,080	2,142	2,182	2,200	2,234	2,266	2,281	2,285	2,278
Beef and veal	459	443	451	458	459	452	449	444	435	423	407
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	496	517	537	556	576	598	621	644	666	689
Milk products	2,434	2,584	2,810	3,016	3,213	3,424	3,663	3,906	4,146	4,385	4,624
Beef and veal	645	678	727	772	816	862	914	968	1,020	1,073	1,125
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	9,856	10,545	11,238	11,899	12,582	13,403	14,285	15,200	16,177	17,234

Appendix table 27—Projected EC budget revenues and expenditures, Assumption C-III

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,651	1,671	1,686	1,678	1,642	1,621	1,597	1,556	1,504	1,442
Sugar levies	506	514	522	519	517	518	519	519	518	517	516
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,271	22,113	23,985	27,780	30,261	33,004	36,094	39,460	43,114	47,087
FEOGA guarantee expenditure	9,471	9,856	10,545	11,238	11,899	12,582	13,403	14,285	15,200	16,177	17,234
Remaining funds	8,975	10,415	11,568	12,747	15,882	17,678	19,601	21,809	24,260	26,936	29,853

Appendix table 28—Projected FEOGA guarantee expenditures, Assumption D-I

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,214	1,335	1,472	1,589	1,722	1,889	2,067	2,255	2,464	2,692
Milk products	2,029	2,603	3,287	4,071	4,865	5,763	6,836	8,022	9,320	10,777	12,399
Beef and veal	459	500	555	620	674	735	812	895	982	1,080	1,186
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,877	12,533	14,374	16,194	18,278	20,751	23,450	26,386	29,659	33,283

Appendix table 29—Projected EC budget revenues and expenditures, Assumption D-I

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,794	1,909	2,041	2,130	2,228	2,364	2,503	2,642	2,794	2,956
Sugar levies	506	3,125	5,231	7,782	10,233	13,435	17,208	21,301	25,896	31,155	37,039
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	23,026	27,059	31,604	37,948	43,764	50,435	57,783	65,924	75,042	85,125
FEOGA guarantee expenditure	9,471	10,877	12,533	14,374	16,194	18,278	20,751	23,450	26,386	29,659	33,283
Remaining funds	8,975	12,149	14,526	17,229	21,754	25,486	29,684	34,332	39,538	45,384	51,842

Appendix table 30—Projected FEOGA guarantee expenditures, Assumption D-II

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Export refunds:											
Cereals	1,122	1,184	1,267	1,360	1,423	1,490	1,579	1,664	1,742	1,821	1,898
Milk products	2,029	2,547	3,143	3,802	4,425	5,093	5,866	6,671	7,490	8,354	9,250
Beef and veal	459	484	520	559	584	608	641	670	694	716	734
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,775	12,287	13,933	15,498	17,250	19,300	21,471	23,754	26,229	28,888

Appendix table 31—Projected EC budget revenues and expenditures, Assumption D-II

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,737	1,786	1,843	1,848	1,849	1,875	1,889	1,886	1,879	1,862
Sugar levies	506	3,125	5,231	7,782	10,233	13,435	17,208	21,301	25,896	31,155	37,039
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	22,969	26,937	31,406	37,666	43,385	49,947	57,169	65,169	74,127	84,030
FEOGA guarantee expenditure	9,471	10,775	12,287	13,933	15,498	17,250	19,300	21,471	23,754	26,229	28,888
Remaining funds	8,975	12,193	14,650	17,472	22,168	26,135	30,647	35,698	41,415	47,898	55,143

Appendix table 32—Projected FEOGA guarantee expenditures, Assumption D-III

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,244	1,401	1,580	1,746	1,937	2,172	2,428	2,706	3,017	3,362
Milk products	2,029	2,659	3,428	4,330	5,281	6,385	7,720	9,230	10,925	12,863	15,061
Beef and veal	459	516	590	677	759	852	968	1,096	1,235	1,393	1,569
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,978	12,775	14,799	16,852	19,232	22,073	25,219	28,695	32,611	36,997

Appendix table 33—Projected EC budget revenues and expenditures, Assumption D-III

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,846	2,020	2,217	2,379	2,560	2,789	3,030	3,281	3,556	3,852
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,489	22,478	24,534	28,496	31,196	34,192	37,546	41,204	45,186	49,517
FEOGA guarantee expenditure	9,471	10,978	12,775	14,799	16,852	19,232	22,073	25,219	28,695	32,611	36,997
Remaining funds	8,975	9,511	9,702	9,734	11,644	11,964	12,118	12,327	12,509	12,575	15,520

Appendix table 34—Projected FEOGA guarantee expenditures, Assumption E-I

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,214	1,335	1,472	1,589	1,722	1,889	2,067	2,255	2,464	2,692
Milk products	2,029	2,603	3,287	4,071	4,865	5,763	6,836	8,022	9,320	10,777	12,399
Beef and veal	59	500	555	620	674	735	812	895	982	1,080	1,186
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,877	12,533	14,374	16,194	18,278	20,751	23,450	26,386	29,659	33,283

Appendix table 35—Projected EC budget revenues and expenditures, Assumption E-I

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,794	1,909	2,041	2,130	2,228	2,364	2,503	2,642	2,794	2,956
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,437	22,366	24,357	28,247	30,864	33,766	37,018	40,564	44,423	48,621
FEOGA guarantee expenditure	9,471	10,877	12,533	14,374	16,194	18,278	20,751	23,450	26,386	29,659	33,283
Remaining funds	8,975	9,560	9,833	9,983	12,053	12,586	13,015	13,568	14,178	14,765	15,338

Appendix table 36—Projected FEOGA guarantee expenditures, Assumption E-II

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Export refunds:											
Cereals	1,122	1,184	1,267	1,360	1,423	1,490	1,579	1,664	1,742	1,821	1,898
Milk products	2,029	2,547	3,143	3,802	4,425	5,093	5,866	6,671	7,490	8,354	9,250
Beef and veal	459	484	520	559	584	608	641	670	694	716	734
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,775	12,287	13,933	15,498	17,250	19,300	21,471	23,754	26,229	28,888

Appendix table 37—Projected EC budget revenues and expenditures, Assumption E-II

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Million ECU					
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,737	1,786	1,843	1,848	1,849	1,875	1,889	1,886	1,879	1,862
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,380	22,244	24,159	27,965	30,485	33,277	36,405	39,809	43,508	47,527
FEOGA guarantee expenditure	9,471	10,775	12,287	13,933	15,498	17,250	19,300	21,471	23,754	26,229	28,888
Remaining funds	8,975	9,605	9,957	10,226	12,466	13,236	13,977	14,933	16,055	17,279	18,639

Appendix table 38—Projected FEOGA guarantee expenditures, Assumption E-III

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,244	1,401	1,580	1,746	1,937	2,172	2,428	2,706	3,017	3,362
Milk products	2,029	2,659	3,428	4,330	5,281	6,385	7,720	9,230	10,925	12,863	15,061
Beef and veal	459	516	590	677	759	852	968	1,096	1,235	1,393	1,569
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,978	12,775	14,799	16,852	19,232	22,073	25,219	28,695	32,611	36,997

Appendix table 39—Projected EC budget revenues and expenditures, Assumption E-III

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,846	2,020	2,217	2,379	2,560	2,789	3,030	3,281	3,556	3,852
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,489	22,478	24,534	28,496	31,196	34,191	37,546	41,204	45,186	49,517
FEOGA guarantee expenditure	9,471	10,978	12,775	14,799	16,852	19,232	22,073	25,219	28,695	32,611	36,997
Remaining funds	8,975	9,511	9,702	9,734	11,644	11,964	12,118	12,327	12,509	12,575	12,520

Appendix table 40—Projected FEOGA guarantee expenditures, Assumption F-I

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,171	1,243	1,323	1,379	1,443	1,529	1,617	1,704	1,799	1,900
Milk products	2,029	2,158	2,329	2,519	2,673	2,847	3,070	3,302	3,543	3,806	4,090
Beef and veal	459	481	515	554	582	614	656	700	744	793	845
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,371	11,443	12,608	13,700	14,962	16,469	18,085	19,819	21,736	23,840

Appendix table 41—Projected EC budget revenues and expenditures, Assumption F-I

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,794	1,909	2,041	2,130	2,228	2,364	2,503	2,642	2,794	2,956
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,437	22,366	24,357	28,247	30,864	33,766	37,018	40,564	44,423	48,621
FEOGA guarantee expenditure	9,471	10,371	11,443	12,608	13,700	14,962	16,469	18,085	19,819	21,736	23,840
Remaining funds	8,975	10,066	10,923	11,749	14,548	15,901	17,297	18,934	20,745	22,688	24,781

Appendix table 42—Projected FEOGA guarantee expenditures, Assumption F-II

Million ECU

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Export refunds:											
Cereals	1,122	1,142	1,180	1,222	1,235	1,249	1,278	1,301	1,316	1,330	1,340
Milk products	2,029	2,112	2,227	2,352	2,431	2,516	2,634	2,746	2,847	2,950	3,051
Beef and veal	459	466	482	501	505	508	518	524	526	526	523
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,281	11,246	12,287	13,237	14,331	15,644	17,038	18,517	20,144	21,919

Appendix table 43—Projected EC budget revenues and expenditures, Assumption F-II

Million ECU

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,737	1,786	1,843	1,848	1,849	1,875	1,889	1,886	1,879	1,862
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,380	22,244	24,159	27,965	30,485	33,277	36,405	39,809	43,508	47,527
FEOGA guarantee expenditure	9,471	10,281	11,246	12,287	13,237	14,331	15,644	17,038	18,517	20,144	21,919
Remaining funds	8,975	10,100	10,998	11,872	14,728	16,154	17,633	19,367	21,291	23,364	25,608

Appendix table 44—Projected FEOGA guarantee expenditures, Assumption F-III

Expenditure	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
					Million ECU						
Export refunds:											
Cereals	1,122	1,200	1,304	1,420	1,515	1,623	1,758	1,898	2,044	2,203	2,373
Milk products	2,029	2,204	2,428	2,679	2,901	3,155	3,467	3,800	4,153	4,543	4,967
Beef and veal	459	496	548	606	656	712	782	857	936	1,023	1,118
Sugar	384	450	532	628	713	805	919	1,042	1,170	1,313	1,469
Interventions:											
Cereals	482	514	550	586	622	664	712	763	817	876	938
Milk products	2,434	2,772	3,149	3,540	3,915	4,357	4,869	5,408	5,981	6,599	7,265
Beef and veal	645	719	802	887	970	1,067	1,179	1,297	1,423	1,558	1,704
Sugar	225	244	266	288	310	335	365	396	429	465	503
Olive oil	443	443	443	443	443	443	443	443	443	443	443
Oilseeds	141	157	174	191	208	227	250	273	298	324	352
Fruits and vegetables	197	215	234	253	271	290	309	327	346	364	383
Wine	80	80	81	81	81	81	81	81	82	82	82
Other	829	967	1,128	1,316	1,535	1,790	2,088	2,436	2,841	3,314	3,866
Total	9,471	10,461	11,637	12,917	14,138	15,548	17,220	19,021	20,961	23,107	25,463

Appendix table 45—Projected EC budget revenues and expenditures, Assumption F-III

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
					Million ECU						
Receipts:											
Value added tax	10,552	11,779	12,959	14,170	16,645	18,281	20,079	22,105	24,322	26,734	29,359
Agricultural levies	1,719	1,846	2,020	2,217	2,379	2,560	2,789	3,030	3,281	3,556	3,852
Sugar levies	506	537	538	536	532	535	538	537	536	536	536
Customs duties	5,668	6,327	6,961	7,611	8,941	9,820	10,785	11,873	13,064	14,360	15,770
Total income	18,445	20,489	22,478	24,534	28,496	31,196	34,191	37,546	41,204	45,186	49,517
FEOGA guarantee expenditure	9,471	10,461	11,637	12,917	14,138	15,548	17,220	19,021	20,961	23,107	25,463
Remaining funds	8,975	10,028	10,841	11,616	14,358	15,648	16,971	18,525	20,242	22,079	24,054

Appendix table 46—Projected nominal rates of protection on imports, MIN MAX policy prices

Assumption and year	Cereal	Milk products	Beef and veal	Pigmeat	Sugar	Olive oil	Oilseeds
				Percent			
Assumption I:							
1980	41.5	177.3	37.0	6.8	71.1	44.1	13.3
1981	39.8	174.0	35.4	5.5	68.3	51.3	11.9
1982	39.5	173.4	35.1	5.3	67.8	52.0	11.7
1983	40.0	174.3	35.5	5.6	68.4	52.2	12.1
1984	39.1	172.5	34.6	5.0	66.9	51.9	11.3
1985	37.8	170.0	33.4	4.0	64.9	50.4	10.3
1986	37.3	169.0	32.9	3.6	64.1	49.2	9.9
1987	36.8	168.1	32.5	3.3	63.3	48.6	9.5
1988	36.2	166.8	31.8	2.8	62.3	48.8	9.0
1989	35.7	165.9	31.4	2.4	61.6	48.3	8.6
1990	35.3	165.2	31.0	2.1	61.0	47.8	8.3
Assumption II:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	13.3
1981	37.1	168.7	32.8	3.5	86.3	48.4	9.8
1982	34.3	163.1	30.0	1.3	82.4	46.3	7.5
1983	32.1	158.9	27.9	− .3	79.5	43.6	5.8
1984	28.8	152.3	24.7	− 2.8	75.0	40.6	3.1
1985	25.3	145.4	21.3	− 5.5	70.2	36.8	.3
1986	22.5	140.1	18.6	− 7.5	66.5	33.2	− 1.9
1987	19.9	134.9	16.0	− 9.5	62.9	30.2	− 4.1
1988	17.1	129.5	13.4	− 11.6	59.1	28.0	− 6.3
1989	14.5	124.4	10.9	− 13.6	55.6	25.1	− 8.3
1990	12.1	119.6	8.5	− 15.4	52.3	22.4	− 10.3
Assumption III:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	− 64.3
1981	42.3	178.9	37.8	7.4	93.4	54.1	− 64.1
1982	44.7	183.5	40.1	9.2	96.6	57.6	− 63.5
1983	47.8	189.6	43.1	11.5	100.8	60.7	− 62.7
1984	49.6	193.1	44.8	12.9	103.2	63.4	− 62.3
1985	51.0	196.0	46.2	14.0	105.2	64.9	− 61.9
1986	53.4	200.5	48.5	15.8	108.4	66.7	− 61.3
1987	55.7	205.2	50.8	17.5	111.6	69.2	− 60.7
1988	58.0	209.5	53.0	19.2	114.6	72.6	− 60.1
1989	60.4	214.3	55.3	21.1	118.0	75.2	− 59.5
1990	63.0	219.4	57.8	23.0	121.4	78.0	− 58.9

Appendix table 47—Projected nominal rates of protection on imports, MAXMAX policy prices

Assumption and year	Cereal	Milk products	Beef and veal	Pigmeat	Sugar	Olive oil	Oilseeds
				Percent			
Assumption I:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	13.3
1981	45.7	185.5	41.1	10.0	98.0	51.3	16.6
1982	47.2	188.5	42.6	11.1	100.1	52.0	17.9
1983	49.0	191.9	44.3	12.4	102.4	52.2	19.3
1984	49.7	193.3	44.9	13.0	103.4	51.9	19.8
1985	49.2	192.4	44.5	12.6	102.8	50.4	19.5
1986	49.6	193.1	44.8	12.9	103.2	49.2	19.7
1987	49.7	193.4	45.0	13.0	103.4	48.6	19.9
1988	49.8	193.6	45.1	13.1	103.6	48.8	19.9
1989	50.1	194.2	45.4	13.3	104.0	48.3	20.2
1990	50.2	194.3	45.4	13.4	104.1	47.8	20.2
Assumption II:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	13.3
1981	42.9	180.1	38.4	7.9	94.2	48.4	14.4
1982	41.7	177.7	37.2	7.0	92.5	46.3	13.4
1983	40.6	175.5	36.1	6.1	91.1	43.6	12.6
1984	38.6	171.6	34.2	4.6	88.3	40.6	11.0
1985	35.7	165.8	31.4	2.4	84.3	36.8	8.6
1986	33.5	161.6	29.2	.7	81.4	33.2	6.9
1987	31.2	157.0	27.0	− 1.0	78.2	30.2	5.0
1988	28.8	152.5	24.7	− 2.8	75.1	28.0	3.1
1989	26.7	148.3	22.7	− 4.4	72.2	25.1	1.4
1990	24.4	143.8	20.5	− 6.1	69.0	22.4	− .4
Assumption III:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	− 64.3
1981	48.3	190.7	43.6	12.0	101.5	54.1	− 62.6
1982	52.7	199.2	47.8	15.2	107.4	57.6	− 61.5
1983	57.3	208.2	52.3	18.7	113.7	60.7	− 60.3
1984	61.0	215.5	55.9	21.5	118.8	63.4	− 59.4
1985	63.6	220.6	58.4	23.5	122.3	64.9	− 58.7
1986	67.1	227.4	61.8	26.1	127.0	66.7	− 57.8
1987	70.4	234.0	65.0	28.6	131.6	69.2	− 57.0
1988	73.8	240.6	68.3	31.2	136.1	72.6	− 56.2
1989	77.4	247.7	71.8	33.9	141.1	75.2	− 55.2
1990	80.9	254.5	75.1	36.5	145.8	78.0	− 54.4

Appendix table 48—Projected nominal rates of protection on imports, MAXMIN policy prices

Assumption and year	Cereal	Milk products	Beef and veal	Pigmeat	Sugar	Olive oil	Oilseeds
				Percent			
Assumption I:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	13.3
1981	34.0	162.6	29.8	1.2	82.1	28.7	7.3
1982	29.9	154.5	25.7	− 2.0	76.5	11.8	4.0
1983	26.1	147.1	22.1	− 4.8	71.4	− 2.1	1.0
1984	21.9	138.8	18.0	− 8.0	65.6	− 14.2	− 2.4
1985	16.8	128.8	13.1	− 11.9	58.6	− 24.8	− 6.5
1986	12.3	120.1	8.7	− 15.2	52.6	− 34.0	− 10.1
1987	8.1	111.9	4.7	− 18.4	46.9	− 42.3	− 13.4
1988	3.9	103.6	.6	− 21.6	41.2	− 49.3	− 16.8
1989	− .3	95.5	− 3.4	− 24.7	35.5	− 55.1	− 20.2
1990	− 4.3	87.6	− 7.3	− 27.8	30.1	− 60.3	− 23.4
Assumption II:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	13.3
1981	31.5	157.6	27.3	− .8	78.6	26.3	5.2
1982	25.0	144.9	21.0	− 5.7	69.8	7.6	.1
1983	19.0	133.3	15.3	− 10.2	61.7	− 7.6	− 4.7
1984	12.8	121.1	9.3	− 14.8	53.3	− 20.6	− 9.7
1985	6.1	108.0	2.8	− 19.9	44.2	− 31.6	− 15.0
1986	.2	96.4	− 2.9	− 24.3	36.2	− 41.1	− 19.8
1987	− 5.3	85.6	− 8.3	− 28.5	28.7	− 49.5	− 24.2
1988	− 10.7	75.1	− 13.5	− 32.6	21.4	− 56.4	− 28.5
1989	− 15.8	65.0	− 18.5	− 36.5	14.4	− 62.1	− 32.6
1990	− 20.7	55.4	− 23.2	− 40.2	7.7	− 67.1	− 36.5
Assumption III:							
1980	41.5	177.3	37.0	6.8	92.3	44.1	− 64.3
1981	36.4	167.4	32.1	3.0	85.4	31.1	− 65.6
1982	34.6	163.9	30.4	1.6	83.0	15.9	− 66.0
1983	33.2	161.0	28.9	.5	80.9	3.3	− 66.4
1984	31.1	156.9	26.9	− 1.1	78.1	− 7.7	− 66.9
1985	28.0	150.8	23.9	− 3.4	73.9	− 17.6	− 67.7
1986	25.5	145.9	21.5	− 5.3	70.5	− 26.3	− 68.3
1987	23.1	141.2	19.2	− 7.1	67.3	− 34.3	− 68.9
1988	20.5	136.2	16.7	− 9.0	63.8	− 41.2	− 69.6
1989	17.9	131.0	14.2	− 11.0	60.2	− 46.9	− 70.3
1990	15.3	125.9	11.6	− 13.0	56.6	− 52.2	− 70.9

Appendix table 49—Projected nominal rates of protection on exports

Item	Assumption I			Assumption II			Assumption III		
	Cereals	Milk products	Beef and veal	Cereals	Milk products	Beef and veal	Cereals	Milk products	Beef and veal
	Percent								
MINMAX:									
1980	77.4	89.0	60.9	77.4	89.0	60.9	77.4	89.0	60.9
1981	75.1	86.6	58.9	71.9	83.2	56.0	78.4	90.1	61.9
1982	74.6	86.1	58.4	68.3	79.3	52.7	81.3	93.2	64.5
1983	75.0	86.5	58.8	65.6	76.4	50.2	85.2	97.4	68.1
1984	73.2	85.2	57.7	61.4	72.0	46.4	87.5	99.8	70.1
1985	72.2	83.5	56.3	57.0	67.3	42.4	89.3	101.7	71.8
1986	71.6	82.9	55.7	53.6	63.6	39.3	92.2	104.8	74.4
1987	71.0	82.2	55.2	50.2	60.1	36.3	95.2	108.0	77.1
1988	70.2	81.4	54.5	46.8	56.4	33.2	98.0	111.0	79.6
1989	69.6	80.7	53.9	43.6	53.0	30.3	101.1	114.2	82.4
1990	69.1	80.2	53.4	40.5	49.7	27.5	104.3	117.7	85.3
MAXMAX:									
1980	77.4	89.0	60.9	77.4	89.0	60.9	77.4	89.0	60.9
1981	82.5	94.4	65.5	79.1	90.9	62.5	85.9	98.1	68.7
1982	84.3	96.4	67.2	77.6	89.3	61.1	91.3	103.9	73.6
1983	86.3	98.5	69.0	76.2	87.8	59.9	97.2	110.1	78.9
1984	87.1	99.4	69.8	73.7	85.1	57.6	101.8	115.0	83.1
1985	86.6	98.8	69.3	70.0	81.2	54.3	105.0	118.5	86.0
1986	87.0	99.2	69.7	67.3	78.3	51.8	109.4	123.1	90.0
1987	87.2	99.4	69.8	64.4	75.2	49.2	113.6	127.6	93.8
1988	87.3	99.6	69.9	61.5	72.1	46.5	117.8	132.1	97.6
1989	87.6	99.9	70.2	58.8	69.2	44.1	122.4	137.0	101.8
1990	87.7	100.0	70.3	55.9	66.1	41.5	126.7	141.6	105.7
MAXMIN:									
1980	77.4	89.0	60.9	77.4	89.0	60.9	77.4	89.0	60.9
1981	67.8	78.8	52.3	64.8	75.6	49.5	71.0	82.2	55.2
1982	62.5	73.2	47.5	56.7	66.9	42.1	68.8	79.8	53.1
1983	57.7	68.1	43.1	49.2	59.0	35.4	66.9	77.8	51.4
1984	52.3	62.3	38.2	41.4	50.7	28.3	64.3	75.1	49.1
1985	46.0	55.5	32.4	33.0	41.8	20.7	60.4	70.9	45.6
1986	40.4	49.6	27.4	25.6	33.9	14.0	57.3	67.6	42.7
1987	35.2	44.0	22.7	18.7	26.5	7.7	54.3	64.4	40.0
1988	29.9	38.4	17.8	12.0	19.3	1.6	51.1	61.0	37.1
1989	24.7	32.8	13.1	5.5	12.4	-4.3	47.8	57.5	34.1
1990	19.6	27.5	8.5	-.6	5.9	-9.8	44.5	54.0	31.1

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Appendix table 50—Projected aggregate rates of protection on EC imports

Assumption	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Percent						
A-I	48.0	46.2	45.9	46.4	45.4	44.1	43.6	43.1	42.4	41.9	41.5
B-I	48.0	52.4	54.0	55.8	56.6	56.1	56.4	56.6	56.7	57.0	57.1
C-I	48.0	40.2	35.8	31.9	27.4	22.1	17.5	13.1	8.7	4.3	.1
D-I	48.0	46.2	45.9	46.4	45.4	44.1	43.6	43.1	42.4	41.9	41.5
E-I	48.0	46.2	45.9	46.4	45.4	44.1	43.6	43.1	42.4	41.9	41.5
F-I	48.0	46.2	45.9	46.4	45.4	44.1	43.6	43.1	42.4	41.9	41.5
A-II	48.0	43.4	40.4	38.2	34.7	31.0	28.1	25.3	22.5	19.8	17.2
B-II	48.0	49.5	48.2	47.1	45.0	41.9	39.6	37.2	34.7	32.5	30.1
C-II	48.0	37.5	30.7	24.5	18.0	11.0	4.8	− .9	− 6.6	− 12.0	− 17.0
D-II	48.0	43.4	40.4	38.2	34.7	31.0	28.1	25.3	22.5	19.8	17.2
E-II	48.0	43.4	40.4	38.2	34.7	31.0	28.1	25.3	22.5	19.8	17.2
F-II	48.0	43.4	40.4	38.2	34.7	31.0	28.1	25.3	22.5	19.8	17.2
A-III	48.0	48.8	51.3	54.6	56.4	58.0	60.4	62.9	65.2	67.8	70.4
B-III	48.0	55.1	59.7	64.5	68.4	71.1	74.7	78.3	81.8	85.6	89.2
C-III	48.0	42.7	40.8	39.3	37.1	33.9	31.2	28.7	26.0	23.3	20.6
D-III	48.0	48.8	51.3	54.6	56.4	58.0	60.4	62.9	65.2	67.8	70.4
E-III	48.0	48.8	51.3	54.6	56.4	58.0	60.4	62.9	65.2	67.8	70.4
F-III	48.0	48.8	51.3	54.6	56.4	58.0	60.4	62.9	65.2	67.8	70.4

Appendix table 51—Projected aggregate rates of protection on EC imports

Assumption	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Percent						
A-I[1]	80.5	79.4	79.7	80.7	79.9	78.6	78.2	77.8	77.2	76.7	76.3
B-I	80.5	87.8	90.7	93.4	94.7	94.4	95.1	95.4	95.7	96.2	96.3
C-I	80.5	70.9	65.5	60.6	55.2	48.7	43.1	37.8	32.4	27.1	22.0
D-I	80.5	78.9	78.9	79.8	78.9	77.6	77.3	76.9	76.3	75.8	75.4
E-I	80.5	69.6	62.3	56.9	51.3	46.3	42.6	39.3	36.4	33.9	31.7
F-I	80.5	78.2	77.8	78.3	77.1	75.5	74.9	74.3	73.5	73.0	72.5
A-II	80.5	76.1	73.2	71.0	67.0	62.8	59.5	56.2	52.8	49.5	46.5
B-II	80.5	84.3	83.8	82.9	80.7	77.2	74.5	71.7	68.7	66.0	63.1
C-II	80.5	67.8	59.5	51.9	44.1	35.5	28.0	21.0	14.2	7.6	1.4
D-II	80.5	75.6	72.5	70.1	66.1	61.9	58.6	55.4	52.0	48.8	45.7
E-II	80.5	66.7	57.2	49.9	42.9	36.8	32.1	28.1	24.6	21.5	18.9
F-II	80.5	75.0	71.4	68.6	64.4	60.0	56.5	53.1	49.6	46.4	43.3
A-III	80.5	82.8	86.6	91.3	94.0	96.3	99.6	103	106	109	113
B-III	80.5	91.3	98.0	105	110	114	118	123	128	133	137
C-III	80.5	74.1	71.8	70.0	67.4	63.4	60.3	57.3	54.0	50.7	47.4
D-III	80.5	82.2	85.8	90.3	93.0	95.2	98.6	102	105	108	112
E-III	80.5	72.6	67.8	64.5	60.6	57.0	54.5	52.4	50.4	48.7	47.3
F-III	80.5	81.6	84.6	88.6	91.0	92.9	95.9	99.0	102	105	108

[1] Assumptions are as defined in appendix table 8.

Appendix D—Selected Data Used in Analysis

Appendix table 52—EC institutional prices

Price	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
						U.A./100 kg.				
Milk target	10.30	10.75	11.56	12.18	13.32	14.98	16.29	17.16	17.57	17.70
Butter:										
Threshold	NA	194.68	199.83	194.79	192.94	212.34	237.51	249.53	254.66	256.34
Intervention	173.50	176.89	181.28	179.64	177.79	197.17	218.06	228.60	233.88	235.72
Cheese threshold	NA	144.80	153.75	160.69	173.16	190.73	205.69	215.16	219.48	220.91
Beef:										
Guide	68.00	72.00	76.63	86.20	98.41	109.84	118.74	122.90	125.97	127.86
Intervention	NA	NA	NA	NA	NA	99.42	106.87	110.61	113.37	115.08
Pigmeat:										
Basic	77.25	80.00	82.50	86.00	97.65	106.00	114.48	120.00	122.60	124.45
Sluicegate	53.87	58.62	55.47	73.84	94.50	79.89	91.64	69.66	68.06	NA
						U.A./ton				
Rapeseed:										
Target	20.25	20.25	20.85	21.06	23.00	25.53	27.57	28.53	29.67	30.12
Intervention	19.65	19.65	20.25	20.45	22.33	24.79	26.77	27.71	28.82	29.25
Olive oil:										
Target	115.25	118.75	124.70	137.17	144.03	185.00	185.00	187.78	191.54	194.42
Intervention	64.85	68.35	72.35	87.75	94.61	142.71	137.64	134.62	141.14	143.26
Indicative market	72.10	75.60	79.60	95.00	101.86	149.96	144.89	141.91	128.91	NA
Threshold	70.70	74.20	78.20	93.00	99.86	146.96	141.89	138.91	145.43	NA
						U.A./ton				
Wheat:										
Target	106.25	109.44	113.80	114.94	127.93	139.44	152.00	158.08	162.39	166.61
Threshold	104.38	107.25	111.60	112.80	125.10	136.45	149.30	155.15	159.40	163.32
Intervention	98.75	100.72	104.75	105.80	115.53	125.93	131.00	135.59	136.96	139.01
Barley:										
Target	95.44	100.21	104.25	105.29	116.08	126.99	137.80	144.97	147.23	151.28
Threshold	93.19	97.85	102.00	103.10	113.25	124.00	135.10	142.00	144.25	147.98
Intervention	88.48	92.02	95.70	96.66	101.43	110.96	116.00	120.06	121.57	123.39
						U.A./100 kg.				
Maize:										
Target	95.94	96.90	101.75	102.77	114.92	126.41	137.80	144.97	147.23	151.28
Threshold	93.69	94.55	99.55	100.65	112.05	123.40	135.10	142.00	144.25	147.98
Intervention	79.31	79.31	83.25	84.08	94.03	103.43	112.20	118.03	121.57	123.39
Sugar:										
Quota	17.00	17.00	17.68	17.86	19.51	22.75	24.57	25.43	25.94	26.33
Intervention	18.50	19.22	19.85	20.05	22.16	25.84	28.15	27.25	27.81	28.23
						U.A./degree hectoliter				
Red wine:										
Guide	1.35	1.35	1.45	1.46	1.70	1.84	1.96	2.03	2.07	2.10
Threshold	1.66	1.71	1.84	1.93	2.22	2.37	2.50	2.60	2.68	NA
Distillation	1.28	1.28	1.35	1.41	1.60	1.71	1.82	1.89	1.93	NA

U.A. = Unit of account.
NA = Not available.

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Appendix table 53—Green rates of exchange for EC countries

Year	Belgium/Luxembourg	Netherlands	West Germany	France
	Local currency units/U.A.			
1971	50.00	3.62	3.66	5.55
1972	50.00	3.62	3.66	5.55
1973	50.00	3.62	3.66	5.55
1974	50.00	3.44	3.66	5.55
1975	49.64	3.42	3.58	5.63
1976	49.35	3.40	3.48	5.63
1977	49.35	3.40	3.41	5.78
1978	49.35	3.40	3.40	6.23
1979	49.08	3.39	3.36	6.66

	Italy	United Kingdom	Ireland	Denmark
	Local currency units/U.A.			
1971	625	NA	NA	NA
1972	625	NA	NA	NA
1973	625	0.462	0.462	7.58
1974	801	.462	.462	7.58
1975	857	.510	.510	7.58
1976	963	.570	.570	7.58
1977	1,030	.587	.587	8.57
1978	1,154	.634	.634	8.57
1979	1,268	.702	.702	8.57

U.A. = Unit of account.
NA = Not available.
Source: EC Commission.

Appendix table 54—EC imports[1]

Year	Cereals	Sugar	Oilseeds	Olive oil
	1,000 tons			
1972	16,388	103	332.2	242.6
1973	24,407	1,560	193.0	204.0
1974	24,211	2,203	156.8	254.7
1975	26,116	1,943	279.1	93.4
1976	26,493	1,575	399.0	140.6
1977	19,107	1,489	207.0	102.4

	Skim milk	Beef and veal	Pigmeat	Butter
	1,000 tons			
1972	NA	905.3	310	NA
1973	1.0	356.0	352	156.2
1974	7.0	287.0	303	159.3
1975	6.5	501.0	251	132.0
1976	7.7	378.0	184	120.3
1977	10.0	415.0	222	139.4

NA = Not available.
[1]Does not include intra-EC trade.

Appendix table 55—EC exports[1]

Year	Cereals	Sugar	Wheat	Fruits	Vegetables
			1,000 tons		
1971	10,281	1,307	3,954	1,000	500
1972	12,039	1,023	5,207	1,000	400
1973	9,287	270	3,608	NA	904
1974	10,807	854	4,050	581	797
1975	12,581	1,503	4,990	575	1,003
1976	6,607	1,898	5,099	606	1,018
1977	10,635	3,706	5,922	518	1,341

Year	Oilseeds	Olive oil	Butter	Skim milk	Beef and veal	Pigmeat
			1,000 tons			
1971	35.3	22.2	79.0	96.0	23.7	275
1972	43.9	14.9	410.0	226.0	29.8	322
1973	218.7	12.3	118.5	339.0	178.0	271
1974	22.9	9.5	59.7	132.0	248.0	207
1975	90.0	20.7	103.9	192.0	221.0	197
1976	46.0	9.5	245.4	435.9	152.0	198
1977	3.0	16.9	245.0	435.0	168.0	184

NA = Not available.
[1]Does not include intra-EC trade.
Source: EC Commission, *Agricultural Situation in the Community,* various issues.

Appendix table 56—EC import and export prices

Year	Wheat	Sugar	Beef and veal	Pigmeat	Skim milk powder	Olive oil	Oilseeds	Maize	Butter
				U.A./100 kg.					
Import prices:									
1970	10.95	22.35	68.00	69.47	54.00	115.25	20.97	9.62	191.25
1971	11.28	23.80	72.00	78.50	60.00	118.75	21.01	9.81	195.80
1972	11.74	24.55	76.63	77.46	67.00	124.70	21.72	10.32	201.15
1973	11.86	24.80	85.23	85.82	77.59	137.17	21.96	10.43	192.33
1974	12.99	27.53	95.51	95.64	94.28	144.03	24.19	11.52	195.69
1975	14.40	32.05	110.35	105.28	101.90	185.00	27.22	13.10	218.53
1976	15.70	34.87	118.74	109.41	106.35	185.00	29.31	14.28	241.74
1977	16.31	34.56	122.90	110.87	110.12	187.78	30.87	14.99	251.38
1978	16.73	35.25	125.97	107.17	111.86	191.54	32.23	15.22	255.73
Export prices:									
1970	5.79	10.99	48.51	52.03	24.83	74.30	16.04	6.88	39.80
1971	5.39	15.75	53.96	60.14	53.61	77.51	14.32	5.58	114.35
1972	7.67	19.30	68.26	52.69	46.25	99.76	16.58	7.24	80.82
1973	14.94	37.52	77.51	65.59	49.72	142.52	28.60	10.68	60.07
1974	12.11	66.60	58.79	88.07	67.70	127.88	30.37	10.90	61.84
1975	11.61	29.47	56.27	93.57	38.25	85.45	21.42	10.25	68.23
1976	7.68	19.85	61.83	87.64	18.63	96.16	24.16	8.77	60.32
1977	7.56	13.55	62.75	80.96	22.27	88.90	20.16	7.39	64.87
1978	8.69	12.77	63.25	69.04	24.42	93.46	20.00	7.56	63.45

U.A. = Unit of account.
Source: EC Commission, *Agricultural Situation in the Community,* various issues.

Appendix table 57—EC budget costs, by commodity program

Item	1972	1973	1974	1975	1976	1977	1978	1979
				Million U.A.				
Cereals:								
Export refunds	555.80	529.00	76.20	343.60	380.90	325.70	749.38	1,000.33
Storage	54.00	72.40	32.20	56.20	53.70	21.10	54.29	54.43
Price subsidies	298.40	428.10	290.90	221.00	175.20	239.90	221.20	229.00
Aid to durum wheat	109.60	138.40	83.30	130.70	114.40	170.10	94.57	104.55
Production refund	188.80	167.00	189.80	89.40	46.60	67.80	101.46	111.83
Denaturing premium	—	121.10	17.30	.40	—	—	—	—
Subsidy, Italy	—	1.00	—	.40	—	—	—	—
Total	908.20	1,029.50	399.80	620.90	609.80	586.70	1,112.50	1,574.20
Milk products:								
Export refunds	155.50	767.20	344.00	328.50	697.40	1,237.00	1,336.67	1,681.47
Storage	68.60	115.10	93.50	196.10	617.80	488.00	1,008.00	589.33
Price subsidies	301.60	558.50	697.70	625.40	736.30	813.80	1,164.30	1,562.80
Skim milk aid	224.20	361.40	481.00	511.50	603.20	634.40	830.47	899.09
Casein aid	28.60	62.40	82.00	61.90	89.80	112.30	144.24	167.16
Nonmarketing premium	.00	.00	.00	.00	.00	6.20	79.90	92.80
Coresponsibility levy	.00	.00	.00	.00	.00	−21.80	−139.73	−79.40
Food aid	50.50	56.20	85.40	—	—	—	—	—
Total	573.70	1,497.00	1,221.00	1,149.80	2,051.50	2,545.00	4,014.70	4,420.00
Wine:								
Export refunds	.30	.60	.10	.30	1.60	1.10	1.60	2.10
Storage	28.30	6.70	25.90	36.40	40.90	36.10	35.30	26.00
Withdrawals from market	.00	2.50	15.40	102.30	127.90	52.50	20.70	43.70
Price subsidies	29.10	2.60	.60	.20	2.40	1.20	6.10	22.60
Intervention	57.40	11.80	41.80	138.60	168.80	82.30	62.10	92.30
Other (distilling)	25.10	2.50	15.30	102.20	167.90	46.20	17.00	55.20
Obligatory distilling	.00	2.60	.60	.20	2.50	7.50	9.80	11.10
Total	57.70	12.40	41.90	139.10	172.90	90.90	63.70	94.40
Fruit and vegetables:								
Export refunds	34.90	26.10	17.90	34.80	57.30	52.00	46.04	29.45
Withdrawals from market	21.30	5.50	44.20	48.50	165.90	104.50	24.00	71.70
Price subsidies	7.00	3.30	4.80	6.90	21.20	29.70	28.80	309.20
Intervention	28.30	8.80	49.00	55.50	187.10	134.20	50.92	315.05
Total	61.40	34.90	66.90	90.30	244.40	186.20	100.70	416.50
Pigmeat:								
Export refunds	49.30	96.70	55.50	39.40	22.10	24.90	26.67	56.74
Storage	.20	—	6.80	14.40	—	7.00	—	—
Price subsidies	—	—	4.00	—	5.70	—	12.80	16.30
Intervention	.00	.00	11.00	14.40	5.80	7.00	10.92	13.48
Total	49.50	96.70	66.50	53.80	27.90	31.90	45.00	84.90
Beef and veal:								
Export refunds	7.40	3.20	55.50	144.20	135.70	114.20	129.74	202.40
Storage	.00	13.40	250.30	438.20	350.80	239.60	362.53	300.66
Price subsidies	.00	.00	2.40	397.50	156.60	4.70	3.40	8.50
Orderly marketing premium	.00	.00	16.30	85.60	69.30	52.30	80.85	59.22
Intervention	.00	13.40	268.90	835.80	507.50	296.60	493.30	443.60
Total	7.40	16.60	324.40	980.00	643.20	410.80	638.70	688.30

See footnote at end of table.

Continued—

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Appendix table 57—EC budget costs, by commodity program—continued

Item	1972	1973	1974	1975	1976	1977	1978	1979
				Million U.A.				
Oilseeds (rape and colza):								
Export refunds	4.30	1.80	.00	.00	9.80	1.00	.10	6.00
Price subsidies	95.30	84.50	10.90	26.20	85.70	81.80	131.70	174.60
Intervention	91.70	84.50	10.30	25.40	85.70	82.50	131.10	174.60
Total	99.60	86.30	10.90	26.20	95.70	82.70	131.80	180.60
Sugar:								
Export refunds	65.80	55.40	8.00	37.10	55.80	363.30	572.26	621.84
Storage	78.30	72.70	76.80	91.80	146.20	163.20	203.74	193.30
Price subsidies	7.60	8.50	24.00	180.30	24.40	10.20	9.60	19.10
Intervention	85.90	81.10	100.80	272.10	167.30	189.30	206.47	209.10
Total	151.70	136.50	108.80	309.20	226.50	536.70	878.00	1,004.60
Olive oil:								
Export refunds	1.00	.80	.80	.70	.20	.00	.00	1.10
Storage	.10	.00	.00	.00	12.80	9.20	30.90	16.10
Price subsidies	235.10	281.40	135.00	204.30	199.60	212.40	169.51	256.21
Intervention	171.20	281.40	129.60	203.70	191.10	205.10	182.20	390.60
Total	236.20	282.20	135.80	205.00	212.60	221.60	182.10	391.70

U.A. = Unit of account.
— = Not applicable.

Source: EC Commission, *Agricultural Situation in the Community,* various issues.

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