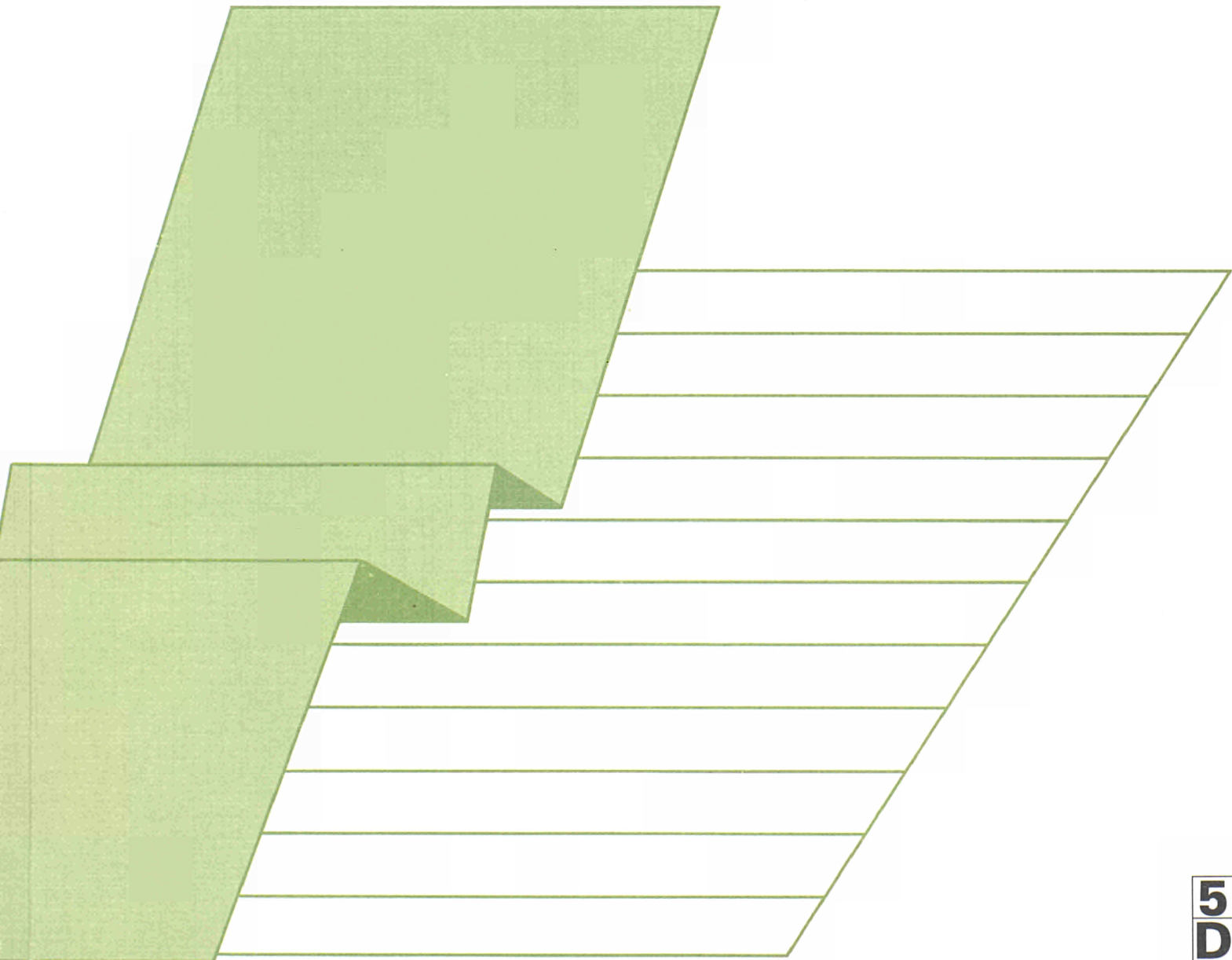


PRODUCTION, PRICES AND INCOME IN EC AGRICULTURE

**An analysis of the economic accounts
for agriculture 1973-88**





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Y. Franchet
Directeur général

PRODUCTION, PRICES AND INCOME IN EC AGRICULTURE

An analysis of the economic accounts
for agriculture 1973-88

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PREFACE

The focus of this analysis of the Economic Accounts for Agriculture in the EC is twofold. Firstly, the usefulness of the Economic Accounts for Agriculture for describing developments in EC agriculture between 1973 and 1988 is investigated, in particular volume and composition of agricultural output and input, agricultural prices, productivity and income. Secondly, developments in EC agriculture are compared with those in the agricultural branch in a number of non-EC countries and with those in the rest of the economy. The aim of this comparison is to provide a quantitative reference framework, that can be used to assess agricultural performance in the EC. This approach resulted in a sizeable database, for which sources outside the Economic Accounts for Agriculture have also been consulted. For convenience sake, these data are displayed in appendices of this report. Besides the quantitative basis for this analysis, these data can serve as a source of reference as well.

The author is indebted to Jaap Breedveld, Cees van Bruchem, Kees van der Meer, Jaap Post, Hans Rutten and David Verhoog, who gave valuable comments on earlier drafts of this report.

LIST OF SYMBOLS AND ABBREVIATIONS

0	Nil or figure less than half the unit used
:	No data available
AWU	Annual Work Unit
B	Belgium
CAP	Common Agricultural Policy
CEC	Commission of the European Communities
D	Federal Republic of Germany
DK	Denmark
E	Spain
EAA	Economic Accounts for Agriculture
EAGGF	European Agricultural Guidance and Guarantee Fund
EC	European Community
ECU	European Currency Unit
EUR 12	European Community
EUR 11	European Community without Portugal
EUR 10	European Community without Portugal and Spain
EUR 9	European Community without Portugal, Spain and Greece
Eurostat	Statistical Office of the European Communities
F	France
FAO	Food and Agricultural Organization
FSS	Farm Structure Survey
G	Greece
GDP	Gross Domestic Product
GVA	Gross Value Added
HA	Hectare
I	Italy
ILO	International Labour Organization
IRL	Ireland
L	Luxembourg
MGQ	Maximum Guaranteed Quantity
MIO	Million
NL	The Netherlands
NVA	Net Value Added
OECD	Organization for Economic Cooperation and Development
OPEC	Oil Producing and Exporting Countries
P	Portugal
PP	Partial Productivity
PSE	Producer Subsidy Equivalent
PPP	Purchasing Power Parity
PPS	Purchasing Power Standard
TP	Total Productivity
UK	The United Kingdom
US	The United States of America
USDA	United States Department of Agriculture
VAT	Value Added Tax

* Unless otherwise stated, data on EC agriculture have been obtained from Eurostat, CRONOS database.

SUMMARY

The Economic Accounts for Agriculture (EAA) provide a systematic and harmonised survey of transactions in the agricultural branch. The EAA are used as the main data source in this study of the performance of EC agriculture between 1973 and 1988. Agricultural developments in the EC are assessed by comparing them with developments in the rest of the economy and developments in five non-EC countries (the US, Canada, Australia, Japan and Sweden). This assessment could be made by analysing a large number of items. In this study the set of items has been reduced to those related to the CAP targets set out in art. 39 of the Treaty of Rome. The assessment is made more difficult by differences in statistical sources and differences in economic structures between EC and non-EC countries.

The volume of final agricultural output in the Community increased by almost 2% p.a. between "1974" 1) and "1986", although growth rates slowed down toward the end of the period. The annual growth of animal output was less than that of crop output. The growth of agricultural output resulted in increasing self-sufficiency in the EC. In "1986" the Community was self-sufficient in nearly all non-tropical agricultural products, except for maize, fruit, oilseeds and sheep meat.

Intermediate consumption in EC agriculture increased rapidly by 3.5% p.a. in the period "1974-79". Afterwards annual growth rates slowed down to about 1%. The agricultural labour force in the Community decreased by about 3% p.a. in the years "1974-1987". This decline was above that of the agricultural labour force in the non-EC countries. The reduction of agricultural area in use in the Community was moderate. It was less than that in the US, Japan and Sweden, but exceeded that in Canada and Australia. The relatively scarce data on capital input in the Community and the US suggest that the increase in capital consumption in the Community was above that in the US between 1975 and 1984.

Real prices of agricultural products in the Community declined by 2.7% p.a. between "1974" and "1986". The fall of real prices in the subperiod "1983-86" was well above that in the previous years. Real prices of potatoes, pigs and eggs were characterized by a sharp annual decrease, whereas the decline of real prices of milk and "other crops" was moderate. The annual decline of real prices of intermediate consumption of 1.8% was less than that of agricultural products in the years "1974-1986". This implies that agricultural producers in the EC faced relatively unfavourable trends in prices. The decline of real prices of agricultural products in the US and Canada exceeded that in the Community, whereas the decline of real prices in Australia, Japan and Sweden was less than that in the Community in the period "1974-1986". It is remarkable that in the non-EC countries real prices of animal products declined at a lower rate than prices of crop products, except for Japan. This tendency is not found in the EC. Agricultural producers in the EC faced a larger decline of real prices of intermediate consumption than agricultural producers in the non-EC countries.

1) "1974" = (1973 + 1974 + 1975)/3.

Net labour productivity in the Community increased by about 5% p.a. in the period "1974-87". This increase was above that of labour productivity in the rest of the economy (industry and services). Moreover, the trends in labour productivity in both parts of the economy moved in opposite directions over the subperiods. The annual increase in labour productivity in agriculture was highest in the period "1979-83", whereas that in the rest of the economy was lowest in that period. The level of labour productivity in agriculture in the non-EC countries was above that in the EUR 9 countries in the years "1974-1986", Japan being the exception. Since labour productivity in EUR 9 increased at a higher rate than that in the non-EC countries, the gap between the level of labour productivity in EUR 9 and Japan widened, and that between EUR 9 and the other non-EC countries diminished. A faster rate of growth in labour productivity in agriculture than in the rest of the economy, was also observed in the non-EC countries, Japan again being the exception.

Real net income from agricultural activity per AWU increased by less than 0.5% p.a. between "1975" and "1986" in the EC as a whole, although the picture varied among Member States. Real incomes improved in the Netherlands, Luxembourg, Denmark, Greece and Spain, whereas they deteriorated in the other Member States. Incomes in both parts of the economy have been compared by using the concept of relative agricultural income. This is defined as the ratio of agricultural income per AWU and income in the whole economy per worker. Relative agricultural income in the EC shows that the level of agricultural income was below the income level in the rest of the economy. Moreover, relative agricultural income in the EC deteriorated in the course of the years "1975-1986", since income in the rest of the economy increased at a higher rate than agricultural income. The decline of relative agricultural income is probably overstated, as many farmers earned an increasing share of their income from non-agricultural activities. Average agricultural income in the non-EC countries was also less than income in the rest of the economy. In these countries relative agricultural income decreased at a faster rate than in the EUR 9 countries. This does not apply to Sweden, where the decline of relative agricultural income was small.

In the conclusion of the report it is stated that the EC agricultural branch was successful in increasing its labour productivity between "1974" and "1987". EC producers were able to meet internal demand in the Community for a large number of agricultural commodities. However, the trend in the purchasing power of agricultural income was less favourable. This also applies to market balance. EC consumers benefited to some extent from the increased agricultural productivity, but the fall in real food prices was less than the reduction in agricultural producer prices.

RÉSUMÉ

Les comptes économiques de l'agriculture (CEA) fournissent un relevé systématique et harmonisé des transactions dans la branche agricole. Dans cette étude sur les résultats obtenus dans l'agriculture de la CE entre 1973 et 1988 les CEA sont utilisés en tant que source principale de données. L'évolution de la situation de l'agriculture dans la CE est évaluée par comparaison avec l'évolution du reste de l'économie et avec l'évolution de la situation dans cinq pays ne faisant pas partie de la CE (les Etats-Unis, le Canada, l'Australie, le Japon et la Suède). Cette évaluation peut être réalisée en analysant un grand nombre d'indicateurs. Dans cette étude, on s'est limité à ceux qui ont une relation avec les objectifs de la PAC visés à l'article 39 du Traité de Rome. L'évaluation est affectée par des différences au niveau des sources statistiques et au niveau des structures économiques entre les pays membres de la CE et les pays non membres de la CE.

Le volume de la production agricole finale dans la Communauté a augmenté de près de 2% par an entre "1974" 1) et "1986", malgré un ralentissement des taux de croissance vers la fin de cette période. La croissance annuelle de la production animale a été inférieure à celle de la production végétale. La croissance de la production agricole s'est traduite par une auto-suffisance croissante de la CE. En "1986", la Communauté couvrait ses besoins pour presque tous les produits agricoles non tropicaux, à l'exception du maïs, des fruits, des graines oléagineuses et de la viande ovine.

La consommation intermédiaire dans l'agriculture de la CE a augmenté fortement de 3.5% par an au cours de la période "1974-79", mais ce taux de croissance est ensuite tombé à près de 1% par an. La main-d'oeuvre agricole dans la Communauté a diminué d'environ 3% par an pour les années "1974-86". Cette diminution est supérieure à celle de la main-d'oeuvre agricole dans les pays non membres de la CE. La réduction de la surface agricole utilisée dans la Communauté a été modérée. Moindre qu'aux Etats-Unis, au Japon et en Suède, elle a été supérieure à la réduction opérée au Canada et en Australie. Le peu d'informations dont on dispose sur les ressources en capital dans la Communauté et aux Etats-Unis suggère que l'augmentation de la consommation de capital dans la Communauté aurait été supérieure à celle des Etats-Unis entre 1975 et 1984.

Les prix réels des produits agricoles dans la Communauté ont baissé de 2.7% par an entre "1974" et "1986". La baisse des prix réels au cours de la sous-période "1983-86" a été supérieure à celle des années précédentes. Les prix réels des pommes de terre, des porcs et des oeufs ont été caractérisés par une forte baisse annuelle, tandis que la baisse des prix réels des produits laitiers et des "autres produits végétaux" a été modérée. Pendant la période "1974-86", la baisse annuelle - de 1.8% - des prix réels des consommations intermédiaires a été moindre que celle des produits agricoles. Les producteurs agricoles dans la CE se trouvent, de ce fait, confrontés à une évolution relativement défavorable des prix. La baisse des prix réels des produits agricoles aux Etats-Unis et au Canada a été supérieure à celle de la Communauté, tandis que la baisse des prix réels en Australie, au Japon et en Suède a été inférieure à celle de la Communauté au cours de la période "1974-1986". Il est remarquable que dans

1) "1974" = (1973 + 1974 + 1975)/3.

les pays non membres de la CE - à l'exception du Japon -, les prix réels des produits animaux aient baissé plus lentement que ceux des produits végétaux, tendance qu'on ne trouve pas dans la CE. Les producteurs agricoles de la CE ont bénéficié d'une plus forte baisse des prix réels des consommations intermédiaires que les producteurs agricoles des pays non membres de la CE.

La productivité nette du travail dans la Communauté a augmenté d'environ 5% par an au cours de la période "1974-87". Cette augmentation a été supérieure à celle de la productivité du travail dans le reste de l'économie (industrie et services). En outre, les évolutions de la productivité du travail dans les deux parties de l'économie se trouvent inversées au cours des sous-périodes. L'augmentation annuelle de la productivité du travail dans l'agriculture a été plus forte au cours de la période "1979-83", alors même qu'elle était plus faible dans le reste de l'économie. Le niveau de la productivité du travail dans l'agriculture dans les pays non membres de la CE a été supérieur au niveau observé dans les pays EUR 9 au cours des années "1974-1986", à l'exception du Japon. Etant donné que la productivité du travail dans les pays EUR 9 a augmenté à un rythme plus rapide que dans les pays non membres de la CE, l'écart entre le niveau de la productivité du travail dans les pays EUR 9 et le niveau observé au Japon s'est élargi, et l'écart entre les pays EUR 9 et les autres pays non membres de la CE a diminué. Comme dans la CE, les taux de croissance de la productivité du travail dans l'agriculture ont dépassé ceux observés dans le reste de l'économie également dans les pays non membres de la CE, à l'exception, là encore, du Japon.

Le revenu net réel tiré de l'agricole par UTA a augmenté de moins de 0.5% par an entre "1975" et "1986" dans la CE dans l'ensemble, même si l'on constate certaines variations selon les Etats membres. Le revenu réel s'est amélioré aux Pays-Bas, au Luxembourg, au Danemark, en Grèce et en Espagne, alors qu'il s'est dégradé dans les autres Etats membres. Les revenus ont été comparés entre les deux parties de l'économie en utilisant le concept de revenu agricole relatif, qui se définit comme étant le rapport entre le revenu agricole par UTA et le revenu dans l'ensemble de l'économie par travailleur. Le revenu agricole relatif dans la CE montre que le niveau de revenu agricole a été inférieur au niveau de revenu dans le reste de l'économie. De plus, le revenu agricole dans la CE s'est dégradé au cours des années "1975-1986", dans la mesure où le revenu dans le reste de l'économie a augmenté à un rythme plus élevé que le revenu agricole. La baisse du revenu agricole relatif est probablement surestimée, étant donné que de nombreux agriculteurs ont tiré une partie croissante de leurs revenus d'activités non agricoles. Dans les pays non membres de la CE aussi, le revenu agricole moyen a été inférieur aux revenus dans le reste de l'économie. Dans ces pays, le revenu agricole relatif a baissé à un rythme plus rapide que dans les pays EUR 9. Ceci n'est pas valable pour la Suède, où la baisse du revenu agricole relatif a été faible.

Dans la conclusion du rapport, il est précisé que la branche agricole de la CE a réussi à augmenter la productivité du travail entre "1974" et "1987". Les producteurs de la CE ont été en mesure de satisfaire la demande intérieure de la Communauté pour un grand nombre de produits agricoles. Toutefois, l'évolution du pouvoir d'achat du revenu agricole a été moins favorable. Ceci vaut également pour l'équilibre des marchés. Les consommateurs de la CE ont bénéficié dans une certaine mesure de la progression de la productivité du travail, mais la baisse des prix réels des produits alimentaires a été moins forte que celle des prix à la production.

ZUSAMMENFASSUNG

Die Landwirtschaftliche Gesamtrechnung (LAWIG) bietet einen systematischen Überblick über die Transaktionen im Agrarbereich. In der vorliegenden Untersuchung über die Leistungen der EG-Landwirtschaft zwischen 1973 und 1988 wurde die LAWIG als Hauptdatenquelle verwendet. Die Bewertung der landwirtschaftlichen Entwicklung in der EG erfolgt durch einen Vergleich mit den Entwicklungen in der übrigen Volkswirtschaft und in fünf Nicht-EG-Staaten (USA, Kanada, Australien, Japan und Schweden). Eine solche Bewertung kann durch die Analyse zahlreicher Indikatoren vorgenommen werden. Die in dieser Untersuchung behandelten Sachverhalte beschränken sich auf jene, die mit den in Artikel 39 des EWG-Vertrags genannten Zielen der gemeinsamen Agrarpolitik in Zusammenhang stehen. Unterschiede in den statistischen Quellen sowie in den Wirtschaftsstrukturen der EG-Länder und der Nicht-EG-Länder erschweren allerdings die Bewertung.

Das Volumen der landwirtschaftlichen Erzeugung in der Gemeinschaft insgesamt erhöhte sich von "1974" 1) bis "1986" jährlich um nahezu 2%, obwohl die Zuwachsraten gegen Ende des Zeitraums abnahmen. Bei der tierischen Erzeugung lag der jährliche Zuwachs niedriger als bei der pflanzlichen Erzeugung. Das Wachstum der landwirtschaftlichen Produktion führte zu einem höheren Selbstversorgungsgrad der EG. "1986" war die Selbstversorgung in der Gemeinschaft bei fast allen nichttropischen Agrarerzeugnissen erreicht, mit Ausnahme von Mais, Obst, Ölsaaten und Schafffleisch.

Die Vorleistungen in der EG-Landwirtschaft verzeichneten im Zeitraum "1974-79" mit 3.5% jährlich einen erheblichen Zuwachs. Danach sanken die jährlichen Wachstumsraten auf ungefähr 1%. Die Zahl der landwirtschaftlichen Arbeitskräfte in der Gemeinschaft ging von "1974 bis 1987" um jährlich ungefähr 3% und damit stärker zurück als in den Nicht-EG-Ländern. Die Abnahme der landwirtschaftlichen Nutzfläche in der Gemeinschaft hielt sich in Grenzen. Sie war geringer als in den USA, Japan und Schweden, aber stärker als in Kanada und Australien. Die relativ wenigen Daten über den Kapitaleinsatz in der Gemeinschaft und in den USA lassen darauf schliessen, dass die Zunahme des Kapitalverbrauchs zwischen 1975 und 1984 in der Gemeinschaft grösser war als in den USA.

Die realen Preise der landwirtschaftlichen Erzeugnisse in der Gemeinschaft sanken zwischen "1974" und "1986" um jährlich 2.7%. Im Teilzeitraum "1983-86" war der Rückgang der realen Preise deutlich ausgeprägter als in den Jahren zuvor. Bei den realen Preisen von Kartoffeln, Schweinen und Eiern war eine starke jährliche Verringerung zu verzeichnen, während der Rückgang der realen Preise von Milch und "sonstigen Erzeugnissen" gemässigt war. Der jährliche Rückgang der Preise für Vorleistungen war von "1974 bis 1986" mit 1,8% geringer als bei den landwirtschaftlichen Erzeugnissen. Dies bedeutet, dass sich die landwirtschaftlichen Erzeuger in der EG mit einer relativ ungünstigen Preisentwicklung konfrontiert sahen. In den USA und Kanada fielen die realen Preise landwirtschaftlicher Erzeugnisse stärker als in der Gemeinschaft, wohingegen sie im Zeitraum "1974-1986" in Australien, Japan und Schweden weniger stark sanken als in der Gemeinschaft. Bemerkenswerterweise fielen die realen Preise tierischer Erzeugnisse in den Nicht-EG-Ländern mit Ausnahme Japans langsamer als die Preise pflanzlicher Erzeugnisse. Dieser Trend war in der EG nicht zu

1) "1974" = (1973 + 1974 + 1975)/3.

beobachten. Die landwirtschaftlichen Erzeuger in der EG verzeichneten einen stärkeren Rückgang der realen Preise von Vorleistungen als ihre Kollegen in den Nicht-EG-Ländern.

Die Nettoarbeitsproduktivität in der Gemeinschaft erhöhte sich im Zeitraum "1974-1987" jährlich um etwa 5%. Sie stieg damit schneller als die Arbeitsproduktivität in der übrigen Volkswirtschaft (Industrie und Dienstleistungen). Zudem entwickelten sich die Wachstumsraten der Arbeitsproduktivität in beiden Teilen der Volkswirtschaft in den Teilzeiträumen gegensätzlich. Die Jährliche Zuwachsrate der Arbeitsproduktivität der Landwirtschaft erreichte im Zeitraum "1979-83" ihren höchsten Stand, wohingegen sie in der übrigen Volkswirtschaft in diesem Zeitraum auf den tiefsten Stand fiel. In den Nicht-EG-Ländern lag das Niveau der Arbeitsproduktivität der Landwirtschaft in den Jahren von "1974 bis 1986" höher als in EUR 9, wobei Japan eine Ausnahme darstellt. Da die Arbeitsproduktivität in EUR 9 schneller zunahm als in den Nicht-EG-Ländern, vergrösserte sich der Abstand in der Arbeitsproduktivität Japans gegenüber EUR 9, während er sich in EUR 9 gegenüber den anderen Nicht-EG-Ländern verminderte. Die gegenüber der übrigen Volkswirtschaft höhere Wachstumsrate in der Arbeitsproduktivität der Landwirtschaft war auch in den Nicht-EG-Ländern zu beobachten, wobei Japan wiederum die Ausnahme bildet.

Das reale Nettoeinkommen aus landwirtschaftlicher Tätigkeit je JAE stieg von "1975" bis "1986" in der EG insgesamt um weniger als 0.5% pro Jahr. Allerdings war die Entwicklung in den einzelnen Mitgliedstaaten unterschiedlich: Während das Realeinkommen in den Niederlanden, Luxemburg, Dänemark, Griechenland und Spanien zunahm, sank es in den übrigen Mitgliedstaaten. Zum Vergleich der Einkommen in den beiden Bereichen der Volkswirtschaft wurde das Konzept des relativen landwirtschaftlichen Einkommens herangezogen. Dieses ist als das Verhältnis des landwirtschaftlichen Einkommens je JAE zum Einkommen pro Erwerbstätigen in der gesamten Volkswirtschaft definiert. Das relative landwirtschaftliche Einkommen in der EG zeigt, dass das Niveau der landwirtschaftlichen Einkommen unter dem Einkommensniveau der übrigen Volkswirtschaft lag. Zudem verschlechterte sich das relative landwirtschaftliche Einkommen in der EG im Laufe der Jahre "1975 bis 1986", da sich das Einkommen in der übrigen Volkswirtschaft schneller erhöhte als das landwirtschaftliche Einkommen. Allerdings wird der Rückgang des relativen landwirtschaftlichen Einkommens wahrscheinlich zu hoch ausgewiesen, da viele Landwirte einen wachsenden Anteil ihres Einkommens aus nichtlandwirtschaftlichen Tätigkeiten beziehen. Auch in den Nicht-EG-Staaten lag das durchschnittliche landwirtschaftliche Einkommen niedriger als das Einkommen in der übrigen Volkswirtschaft. In diesen Ländern sank das relative landwirtschaftliche Einkommen schneller als in den Ländern der Neunergemeinschaft (EUR 9). Dies gilt jedoch nicht für Schweden, wo das relative landwirtschaftliche Einkommen nur geringfügig abnahm.

Abschliessend wird in diesem Bericht festgestellt, dass die Landwirtschaft als Wirtschaftszweig in der EG bei der Steigerung ihrer Arbeitsproduktivität zwischen "1974" und "1987" erfolgreich war. Die Erzeuger in der EG konnten die innergemeinschaftliche Nachfrage nach einer grossen Zahl landwirtschaftlicher Erzeugnisse befriedigen. Allerdings entwickelte sich die Kaufkraft des landwirtschaftlichen Einkommens weniger günstig. Dasselbe gilt für das Marktgleichgewicht. Die EG-Verbraucher konnten aus der gestiegenen landwirtschaftlichen Produktivität bis zu einem gewissen Grade Nutzen ziehen, aber der Rückgang der realen Nahrungsmittelpreise war geringer als der Rückgang der landwirtschaftlichen Erzeugerpreise.

1. INTRODUCTION

1.1 Economic Accounts for Agriculture

This study has been undertaken at the request of Eurostat to analyse the figures of the Economic Accounts for Agriculture (EAA) in the twelve EC Member States and the Community as a whole between 1973 and 1988.

The purpose of the EAA is to provide a systematic and comparable survey of the transactions of the agricultural branch, which can serve as a basis for analysis, forecasting and policy. On the one hand the value of final agricultural output 1) is broken down into the products it is composed of. On the other hand, revenues of agricultural output are imputed to the factor and non-factor inputs used in the production process. The relation between these various items is shown in figure 1.1. Besides this review of production and origin of income, the EAA also provide information on the composition of fixed capital formation. Values in the EAA are both

Figure 1.1 Diagrammatic representation of output, value added and income

Final production			
Intermediate consumption	Gross value added at market prices		Subsidies
	Taxes linked to production	Gross value added at factor cost	
	Depreciation	Net value added at factor cost	
	Rents Interest	Net income from agricultural activity of total labour input	
	Compensation of employees	Net income from agricultural activity of family labour input	

1) Final agricultural output consists of processing by producers, own consumption, sales, own account produced fixed capital goods and change in stocks (Eurostat, 1987b: 28).

expressed in current and constant prices. The EAA are compiled according to the requirements of the European System of Integrated Economic Accounts.

1.2 EC agriculture

Western European agriculture has changed rapidly over the last four decades. Developments in Western European agriculture were largely determined by the creation of the European Community (EC) and its common agricultural policy. The original six Member States were successively joined by the UK (1973), Ireland (1973), Denmark (1973), Greece (1981), Spain (1986) and Portugal (1986). Agricultural production increased considerably and the EC was subsequently transformed from a net importer into a net exporter of protected agricultural products.

After World War II food shortages existed in Europe, as European farmers were unable to meet food demands. National governments took measures to encourage an increase in agricultural production, attempted to modernize agriculture and stimulated a more efficient use of factor inputs. These national policies were successful. A process of steady growth and adjustment of the agricultural branch started in the 1950s. Apart from meeting food demands, agriculture also contributed to the economic growth of other economic branches by providing inputs and foreign currency.

Agriculture was a main issue in the negotiations for the foundation of the EC. It was agreed that the common market for agricultural products required a common agricultural policy (CAP), which largely replaced the national agricultural market policies. This implied a reduction of national competence on agricultural policy in the Member States.

The CAP targets are laid down in article 39 of the Treaty of Rome (1958). These are:

- (a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilization of the factors of production, in particular labour;
- (b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
- (c) to stabilize markets;
- (d) to assure the availability of supplies;
- (e) to ensure that supplies reach consumers at reasonable prices.

The main instruments for achieving these targets were price and market policies, and to a lesser extent structural policies. Price and market policies involve a complex of market regulations and price support for a large number of agricultural products. Measures within the scope of structural policy are modernization of agricultural enterprises, improvements in infrastructure, farm business termination, retirement schemes and relief to less favoured areas. Expenditure on the CAP is financed from the European Agricultural Guidance and Guarantee Fund (EAGGF).

Potential conflicts between some of the CAP targets hamper a simultaneous realization. Contradictions between targets (a) and (c) emerged in the

1970s. The rise of productivity resulted in a continuous increase in output, but demand lagged behind due to its low income elasticity. The consequences of this surplus supply were milk pools, grain mountains, wine lakes etc. These disequilibria were partly solved by a reduction of agricultural imports from, and an increase in subsidized exports to non-EC countries. Another solution was found in subsidized selling of products in internal submarkets. These solutions implied considerable expenditure on export restitutions and subsidies by the Community and decline of income from import levies. The CAP became a focal point for criticism, since expenditure on the CAP absorbed a growing part of the EC budget in the surplus production of protected products. Discussions focussed on a more market-oriented agricultural production and the prevention of structural production surpluses. The establishment of milk quotas in 1984 was a first major adjustment of the CAP. The Green Paper of the Commission of the European Communities in 1985 cleared the way for further adjustments of the CAP. Co-responsibility levies on cereals were introduced in 1986. The introduction of stabilizers in 1988 related agricultural support for a large number of products to a maximum guaranteed quantity (MGQ). Moreover, in 1988 it was also decided that the guideline for the annual rise of the EAGGF expenditure should be limited to 74% of the growth rate of GDP in the Community for the next five years. This guideline acts as a ceiling on EAGGF expenditure.

1.3 Purpose and plan of this analysis

In this study of the EAA in the EC, agricultural developments between 1973 and 1988 in the twelve EC Member States are related to those in the rest of the economy. Next, agricultural developments in the EC countries are compared with those in some reference countries outside the EC, although these comparisons may be biased by differences in economic structure and natural circumstances. In a number of cases the comparison is hampered by shortcomings of the statistical data. An assessment of agricultural performance can be given by analysing a large number of items. We chose to limit this collection of issues mainly to the items mentioned in the CAP targets. By doing so, this study enables remarks to be made on the realization of the CAP targets between 1973 and 1988. It should be stressed that in this study the CAP only serves to provide viewpoints, from which agricultural performance is analysed. This means that no comments on the instruments or efficiency of the CAP will be made.

The US, Canada, Australia, Japan and Sweden serve as reference countries. These five countries are all members of the Organization for Economic Cooperation and Development (OECD). They are distinguished by different levels of agricultural protection. The general support of agricultural prices ¹⁾ in the US, Canada and Australia is less than in the EC. Agriculture in Japan and Sweden is characterized by high levels of protection, which are well above those in the EC.

This analysis consists of nine chapters. In chapter 2 some introductory remarks are made on the EAA concepts of final agricultural output, intermediate consumption and GVA. Chapter 3 provides a review of the main economic developments in the EC, the US, Canada, Australia, Japan, and Sweden between 1973 and 1988. The fourth chapter elaborates on the volume

1) Measured by Producer Subsidy Equivalents (PSE) (OECD, 1990a).

and composition of agricultural output in the EC from various viewpoints. One of those viewpoints is the rate of self-sufficiency of EC agriculture. Chapter 5 is devoted to the volume of inputs. The trends in inputs in the agricultural branch and the rest of the economy are described. Both prices of agricultural products and intermediate consumption in the EC and the non-EC countries are analysed in chapter 6. Trends in producer prices of agricultural products are compared with those in consumer prices of food. In chapter 7 the CAP productivity target is discussed. Growth rates of agricultural productivity in the EC are compared with those in the non-EC countries and with those in the other economic branches. Chapter 8 describes the trend in the purchasing power of agricultural income and that of agricultural income relative to income in the whole economy. In the last chapter the findings of this study are summarized to illustrate the realization of the CAP targets. This chapter also pays attention to the usefulness and shortcomings of the EAA for analyses of agricultural performance.

1.4 General remarks on the use of data in this study

This analysis covers the years 1973-1988 since from 1973 Eurostat has collected consistent time series for the EAA in all Member States except Portugal. EAA data for Portugal are available from 1980. The period 1973-1988 is divided into three subperiods: "1974"- "1979", "1979"- "1983" and "1983"- "1987". The notation "1974" refers to a three-year average 1), used for eliminating the effect of major annual fluctuations. "1979" has been chosen as benchmark year, since in that year the EC was disturbed by the second oil shock; "1983" as in this year the recession from 1979 ended. The choice of "1984" as benchmark year was considered, because of the establishment of milk quotas, but this would shorten the last subperiod too much 2).

EAA data are the main data source in this study, supplemented by other Eurostat data. Four EAA items are of major importance. These are final output, intermediate consumption, value added and net income. Other EAA items, like depreciation, rents and interest payments play a marginal role in this analysis, while no attention at all will be paid to fixed capital formation. For the non-EC countries data are mainly derived from OECD sources.

In this report EC data are given for each individual Member State and for the Community as a whole. In the text generally growth rates or figures for benchmark years are displayed, while the basic data are presented in appendices. Growth rates are calculated as compound growth rates, based on three year averages. They are given for the whole period "1974-1987" and for the three subperiods ("1974-79", "1979-83" and "1983-87"). Data for EUR 12 are not always available for lack of Portuguese data. In those cases

1) "1974" = $(1973 + 1974 + 1975)/3$.

2) In order to assess the consequences of benchmark year "1983" instead of "1984" for the growth rates of the last subperiod, table A.2.1 displays both a growth rate for "1983-87" and "1984-87" of final agricultural output. It can be perceived that differences between the two growth rates are small, except for Luxembourg, Ireland, Denmark and Spain.

figures for EUR 11 serve for the whole Community. Much of the data used is expressed in constant prices of 1980. These volume series are based on Laspeyres indices. Laspeyres indices are used as volume series in the EAA are based on them. Since volume indices are expressed as Laspeyres indices, price indices are Paasche indices.

It is not always possible to make comparisons between the agricultural branch and the other economic branches, due to the different nature of the economic activities in both parts of the economy. In a number of cases the comparability between EC data and non-EC data is limited by differences in statistical definitions. These differences, as far as we know them, are indicated in the discussion of the data. For convenience sake most tables on non-EC data are inclusive of a column with figures for the Community as a whole.

2. A FIRST INQUIRY INTO ECONOMIC ACCOUNTS FOR AGRICULTURE

2.1 Introduction

In this chapter some introductory remarks are made on trends in the main EAA items in this study: final agricultural output, intermediate consumption and value added. This discussion facilitates the analysis in the rest of the study. In the second and third sections a general examination is made of final output and intermediate consumption in agriculture in the Community. In the last section a brief description of GVA in agriculture in the EC and non-EC countries is given. In that section some attention is also paid to GVA in the rest of the economy.

2.2 Final agricultural output

In the EAA final agricultural output is divided into crop output and animal output¹⁾. Appendix I gives an overview of all products distinguished in the EAA. In this analysis we concentrate on all those (groups of) products, each of which covers at least 1% of total Community agricultural output in "1986". These (groups of) products are displayed in box 2.1.

BOX 2.1 Items of final agricultural output in this study

- cereals (wheat, spelt, rye, maslin, barley, oats and summer cereal mixtures, maize (grain) and other) and rice
- pulses
- potatoes
- sugar beet
- industrial crops (oil seeds and oleaginous fruit (excluding olives), fibre plants, tobacco, hop cones and other industrial crops)
- fresh vegetables
- fresh fruit (inclusive of citrus fruit and grapes)
- grape must and wine
- olive oil
- other crops (fodder and nursery plants, vegetable materials used primarily for plaiting, flowers and ornamental plants, seeds and other)
- cattle (including calves)
- pigs
- sheep and goats
- poultry
- milk
- eggs

1) Contract work, the third component of final agricultural output, is not considered since it is very small.

The trends in final agricultural output in the EC countries are presented in table 2.1. Annual growth rates of final agricultural output in the Community in the first two subperiods "1974-79" and "1979-83" are about 2%. Afterwards annual growth rates decline to about half the level of the first two subperiods. This decline can mainly be explained by the establishment of milk quotas in 1984. In Germany and the UK the decline of growth in the third subperiod is sharp, whereas it can be said to be moderate in Denmark. In Italy the decline of growth already started in the second period. Growth rates in Belgium, Luxembourg and Spain do not fit into this pattern. The rate of growth in the Netherlands is high, especially in the first two periods. Growth rates in the first and last period in Luxembourg lag far behind the Community average.

2.3 Intermediate consumption

In the EAA intermediate consumption (or non-factor input) is broken down into the entries which are presented in box 2.2.

BOX 2.2 Composition of intermediate consumption in the EAA

- seeds and plants
- livestock and animal products
- energy and lubricants
- fertilizers and soil improvers
- plant protection products
- pharmaceutical products
- feedingstuffs
- material, small tools, maintenance and repair
- services

Growth rates of intermediate consumption are given in table 2.2. The average annual rate of growth in the Community between 1973 and 1987 is about 2%. The quite high growth rates in the use of intermediate consumption in the first period and the sharp decline in the second period are remarkable. The increase is relatively high in the Netherlands, Ireland, Greece and Spain, whereas intermediate consumption increases at a low rate in Luxembourg and the UK.

The share of intermediate consumption in final agricultural output is displayed in figure 2.1. For the Community as a whole the share is 42% in "1974", rises to 45% in "1979" and declines to 43% afterwards. This pattern of a rise and a decline afterwards in the share of intermediate consumption in final output occurs in most countries. However, the share of intermediate consumption in final output in the UK declines steadily between "1974" and "1986", whereas it continuously rises in Greece and Spain. The shares of intermediate consumption in final output varies among Member States, depending on the production structure. Intensive livestock production processes require more inputs than extensive types of production. Shares of intermediate consumption are quite high in Germany, the Netherlands, Belgium, the UK and Denmark. They are low in Italy and Greece.

TABLE 2.1 ANNUAL GROWTH RATES (%) OF FINAL AGRICULTURAL OUTPUT IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	1.35	1.98	1.87	-0.35
France	1.99	2.28	2.59	1.05
Italy	1.59	2.22	1.29	1.12
Netherlands *)	3.47	4.09	3.65	2.23
Belgium	1.22	0.11	1.52	2.31
Luxembourg *)	0.23	-1.13	2.62	-0.62
UK *)	1.66	1.92	2.37	0.32
Ireland	2.27	2.90	2.57	1.20
Denmark *)	2.45	2.50	2.90	1.76
Greece	1.42	1.86	1.53	0.76
Spain	2.24	2.46	1.97	2.24
Portugal	:	:	:	1.18
EUR 11 *)	1.91	2.24	2.15	1.03
EUR 12 *)	:	:	:	1.05

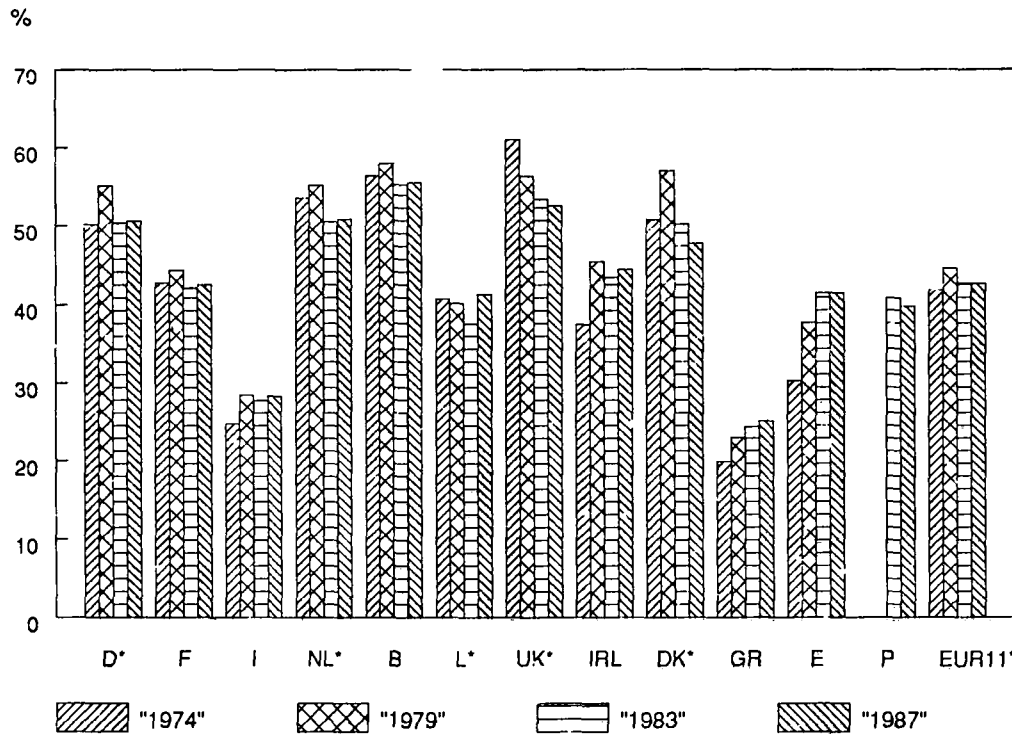
*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE 2.2 ANNUAL GROWTH RATES (%) OF INTERMEDIATE CONSUMPTION IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	1.42	3.91	-0.40	-0.21
France	1.95	3.03	1.25	1.30
Italy	2.65	5.10	0.66	1.65
Netherlands *)	3.02	4.71	1.39	2.42
Belgium	1.10	0.68	0.31	2.42
Luxembourg *)	0.36	-1.40	0.90	2.61
UK *)	0.42	0.31	1.00	-0.15
Ireland	3.64	6.99	1.31	1.88
Denmark *)	1.96	4.99	-0.41	0.20
Greece	3.25	4.78	3.02	1.58
Spain	4.75	7.08	4.39	2.25
Portugal	:	:	:	0.43
EUR 11 *)	2.08	3.57	1.06	0.96
EUR 12 *)	:	:	:	0.95

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

Figure 2.1 Share of intermediate consumption in final agricultural output in the EC (1980 prices)



*) "1987" refers to "1986".

2.4 Gross value added 1)

2.4.1 Gross value added in agriculture

GVA in agriculture at factor cost in the EAA in EC countries is only given in current prices. Since in this study GVA in agriculture at factor cost in constant prices (1980) is needed for several purposes, this has been obtained by dividing values in current prices by the price index of GVA in agriculture at market prices 2). Growth rates of GVA in agriculture in the Community are displayed in table 2.3. In all Member States growth rates of GVA in agriculture in the second period increase considerably with regard to the first period and return to a much lower level in the last period, Spain being the exception. Growth rates of GVA in the Netherlands and the UK in the first two periods and in Denmark in the last two periods are quite high.

1) Unless otherwise stated GVA refers to GVA at factor cost.

2) We prefer GVA at factor cost to GVA at market prices, since international comparisons of GVA at factor cost are not disturbed by different levels of taxes and subsidies between countries. The use of the price index of GVA in agriculture at market prices as deflator for GVA in agriculture at factor cost can be explained by the fact that the (implicit) price increase for GVA in agriculture at market prices is closest to that of GVA in agriculture at factor cost.

TABLE 2.3 ANNUAL GROWTH RATES (%) OF GVA IN AGRICULTURE AT FACTOR COST IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	1.51	-1.00	3.94	2.56
France	1.91	1.08	3.65	0.98
Italy	1.56	1.39	2.28	0.90
Netherlands *)	3.77	3.27	6.13	1.50
Belgium	1.20	-0.46	2.72	1.96
Luxembourg *)	0.27	-0.14	3.43	-3.13
UK *)	3.13	3.07	4.80	1.04
Ireland	1.99	-0.33	5.03	1.92
Denmark *)	3.30	-0.08	8.01	2.89
Greece	1.33	1.19	1.69	1.09
Spain	0.93	0.19	0.79	2.38
Portugal	:	:	:	5.66
EUR 11 *)	1.84	0.92	3.29	1.48
EUR 12 *)	:	:	:	1.54

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

Growth rates of GVA in agriculture in selected non-EC countries are presented in table 2.4. GVA in agriculture in the non-EC countries is inclusive of GVA in forestry and fisheries. The column for EUR 9 in this table is also based on GVA in agriculture, forestry and fishery. Growth rates of GVA in agriculture in the US and Canada steadily increase, although the pace at which growth rates increase, differs. Growth rates of GVA in agriculture in Australia show a rather high increase in the first and last period and a decline in the second period. Japan performs badly in this group of countries with negative growth rates in the first two periods and a growth rate just above zero in the last period. Growth rates in Sweden move according the general EC pattern: a considerable acceleration of growth in the second period and a return to a much lower level in the last period.

TABLE 2.4 ANNUAL GROWTH RATES (%) OF GVA IN AGRICULTURE, FORESTRY AND FISHERIES IN THE NON-EC COUNTRIES (1980 PRICES)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	2.31	0.39	1.88	6.17
Canada	2.17	1.41	2.72	2.71
Australia	3.43	5.69	-0.80	5.48
Japan	-0.86	-1.92	-0.22	0.09
Sweden	0.29	-1.83	3.57	-0.44
EUR 9	2.02	1.23	3.66	1.18

Source: OECD, National Accounts, various issues.

Growth rates of GVA in agriculture in the US and Canada between "1974" and "1986" are close to those in the Community, whereas those in Australia are higher. GVA in agriculture in Japan and Sweden increases at a slower rate than the Community.

The share of GVA in agriculture in GDP reflects the importance of the agricultural sector in the national economy. This share in the EC is given in figure 2.2. It is smallest in the UK (about 2%) and largest in Greece (about 17%). The share declines in all Member States except for the Netherlands, the UK and Denmark. In the non-EC countries the share of GVA in agriculture in GDP also decreases, except for Australia, as can be seen in figure 2.3. The share in Japan almost halved between "1974" and "1986". In Canada and Sweden the share of GVA in agriculture in GDP is roughly comparable with that in the Community, whereas the share in the US is clearly below and the share in Australia above that in the Community.

2.4.2 Gross value added in the rest of the economy

In table 2.5 growth rates of volumes of GVA in the rest of the economy in the Community are presented. The rest of the economy consists of industry, market services and non-market services 1). The pattern of growth rates of GVA in agriculture and GVA in the rest of the economy shows a remarkable contrast. Growth rates of GVA in agriculture reach a peak in the period "1979-83", whereas those of GVA in the rest of the economy reach a trough in that period. Growth rates of GVA in both parts of the economy are roughly the same for the whole Community between "1974" and "1987". However, this does not apply to individual countries. Growth rates differ considerably in a number of countries. GVA in agriculture increases at a higher rate than GVA in the rest of the economy in the Netherlands, the UK and Denmark.

Growth rates for GVA in the rest of the economy in the non-EC countries are displayed in table 2.6. In the US, Canada and Sweden growth rates decelerate in the second period and afterwards recover. The growth rate in Japan also decreases in the second period, although the decline is very small. Growth rates of GVA in the rest of the economy are well above those in the Community, Sweden being the exception.

1) The subsectors forestry and fishery are omitted.

Figure 2.2 Share of GVA in agriculture in GDP in the EC (1980 prices)

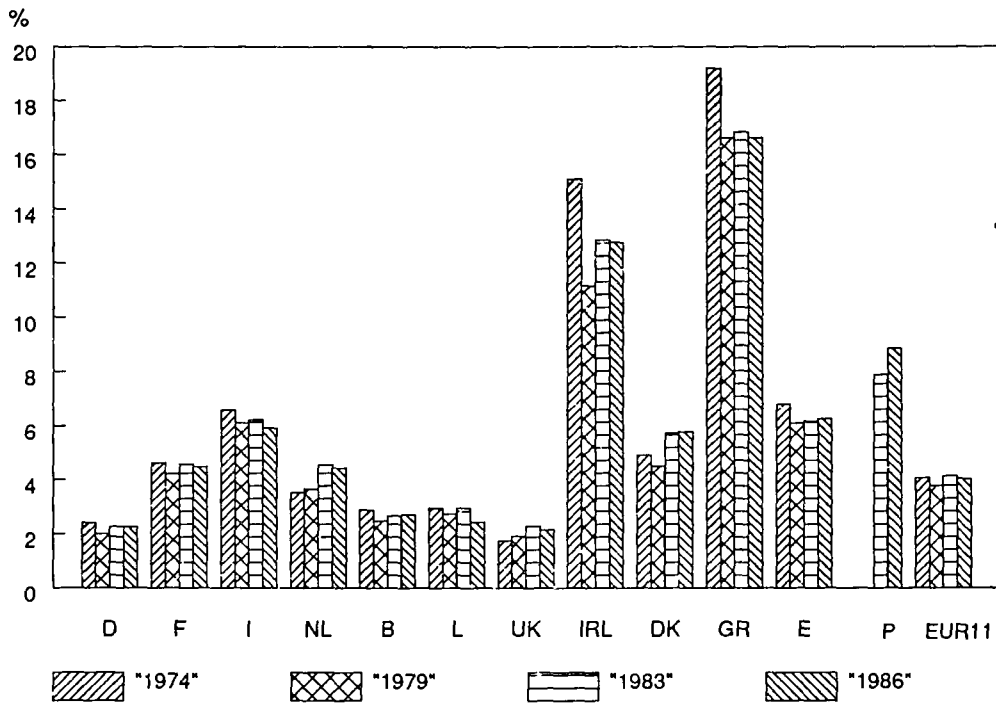


Figure 2.3 Share of GVA in agriculture, forestry and fishery in GDP in the non-EC countries (1980 prices)

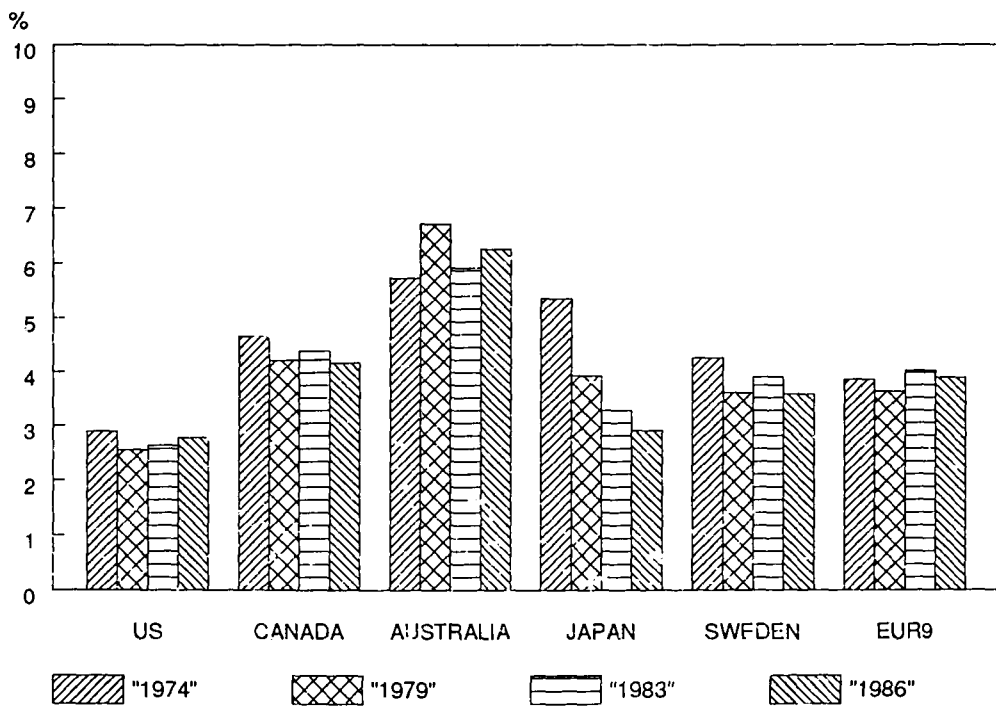


TABLE 2.5 ANNUAL GROWTH RATES (%) OF GVA IN THE REST OF THE ECONOMY IN THE EC (1980 PRICES)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	2.05	2.74	0.86	2.47
France	2.12	2.89	1.51	1.68
Italy	2.52	2.99	1.86	2.63
Netherlands	1.68	2.50	0.27	2.24
Belgium	1.75	2.76	0.67	1.50
Luxembourg	2.20	1.79	1.68	3.61
UK	1.25	1.14	0.05	3.06
Ireland	3.77	6.92	0.97	2.37
Denmark	1.98	2.01	1.38	2.72
Greece	:	:	1.08	1.58
Spain	:	:	:	1.83
Portugal	:	:	:	1.00
EUR 9	1.96	2.48	0.98	2.38
EUR 12	:	:	:	2.33

TABLE 2.6 ANNUAL GROWTH RATES (%) OF GVA IN THE REST OF THE ECONOMY IN THE NON-EC COUNTRIES (1980 PRICES)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	2.65	2.93	1.14	4.23
Canada	3.16	3.55	1.66	4.53
Australia	2.63	2.22	2.49	3.53
Japan	4.54	4.68	4.43	4.44
Sweden	1.79	1.61	1.42	2.58
EUR 9	1.96	2.48	0.98	2.38

Source: OECD, National Accounts, various issues.

3. AN OVERVIEW OF ECONOMIC DEVELOPMENTS 1973-1988

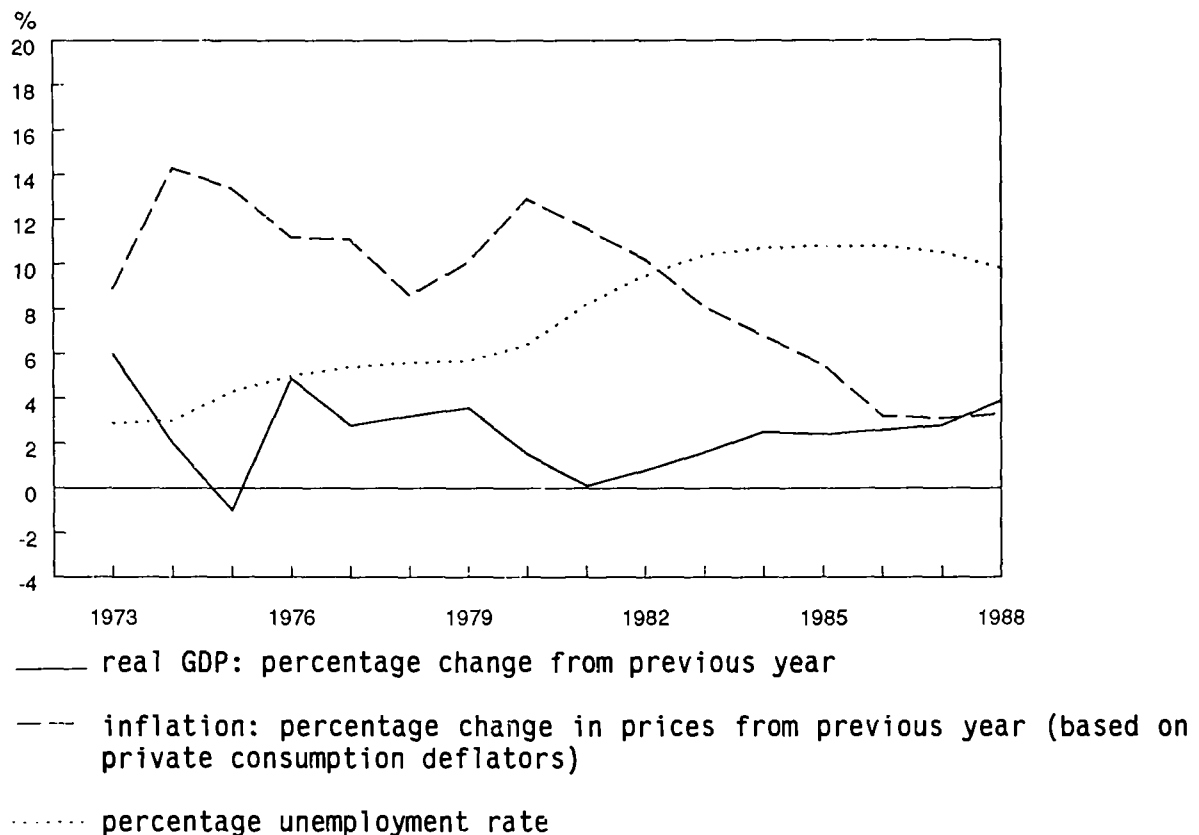
3.1 Introduction

In the last subsection of the previous chapter some developments outside agriculture were discussed. This chapter continues that discussion by providing information on the main economic developments in the EC, the US, Canada, Australia, Japan and Sweden between 1973 and 1988. This review serves as a reference framework, in which the analysis of agricultural performance can be placed. In the next section the focus is on economic developments in the EC. The third section describes economic performance in the non-EC countries.

3.2 Economic developments in the EC

This section begins with a review of economic trends in the Community as a whole. Main economic indicators (GDP growth, inflation and unemployment rates) for the EC are shown in figure 3.1. Next some remarks on economic developments in the individual Member States are made.

Figure 3.1 Main economic indicators in the EC, 1973-1988



Source: OECD, 1990b.

The collapse of the Bretton Woods system with pegged exchange rates in the early 1970s caused monetary expansion and a demand-led boom in 1972-73. High growth rates of real GDP in the Community of 4.3% in 1972 and 6% in 1973 were accompanied by increasing inflationary pressure. The first oil shock at the end of 1973 reinforced the upward pressure on prices. Oil prices quadrupled between 1972 and 1974. An economic recession followed in 1974-75. Economic growth in the Community slowed down to 2% in 1974 and even became negative in 1975, while inflation rates were pushed up by inflationary expectations. Public authorities reacted with restrictive monetary and fiscal policies, dictated by the unpredictability of the OPEC, the balance of payments deficits and the high inflation rates (Maddison, 1982: ch. 6). Between 1976 and 1979 economic growth was moderate, but unemployment rates and inflation hardly changed. The second oil shock in 1979 reversed the upswing of the economy in the Community. Growth rates of real GDP declined and those of inflation and unemployment accelerated again. From 1983 economic growth recovered, the inflationary pressure decreased, but unemployment rates remained persistently high.

Economic development in the Community as a whole is an average picture of the development in the individual Member States. Although the business cycle between 1973 and 1988 in the EC Member States is about the same, some countries are more affected than others, as can be seen in table 3.1. Growth of real GDP in Denmark and Greece is rather low, whereas that in Italy and the UK (in the 1980s) is quite high. Inflation rates reach high levels in the southern Member States, due to their weak currencies. By contrast, inflation rates are moderate in Germany, Netherlands, Belgium and Luxembourg. Unemployment rates in Ireland and Spain are above the Community average. They are low in Germany, Luxembourg and Greece.

3.3 Economic developments in non-EC countries

Economic performance in the non-EC countries broadly followed the EC pattern, due to the strong global economic interrelationships. Data on the main economic indicators are summarized in table 3.2. Growth rates of GDP in the non-EC countries show the same ups and downs as in the EC, except for Japan, where GDP growth was not interrupted from 1976. Recessions and booms in the US were more violent than those in the EC. Inflation rates in the US, Canada and Japan were well below those in the EC, while inflation rates in Australia and Sweden were generally lower in the 1970s and higher in the 1980s relative to the EC. Unemployment rates in Australia, Sweden and Japan were lower than those in the EC during the whole period. Unemployment rates in the US until 1982 and those in Canada until 1985 were above the Community level (OECD, 1990b).

TABLE 3.1 MAIN ECONOMIC INDICATORS IN THE EC

	1974	1979	1983	1987
GROWTH OF REAL GDP (percentage change from previous year)				
FR Germany *)	0.2	4.0	1.9	1.7
France	3.2	3.2	0.7	2.4
Italy	5.4	6.0	1.1	3.0
Netherlands	4.0	2.1	1.3	1.1
Belgium	4.2	2.2	0.4	2.0
Luxembourg	4.2	2.3	3	2.8
UK	-1.7	2.8	3.5	4.7
Ireland *)	4.3	2.7	-1.6	5.6
Denmark	-0.9	3.5	2.5	-0.6
Greece	-3.6	3.7	0.4	0.0
Spain	5.3	-0.1	1.8	5.6
Portugal	1.1	6.1	-0.2	5.3
EC	2.0	3.6	1.6	2.8
PRIVATE CONSUMPTION DEFLATORS (percentage change from previous year)				
FR Germany	7.0	3.9	3.2	0.6
France	14.8	10.7	9.7	3.1
Italy	21.3	14.5	15.2	4.9
Netherlands	9.5	4.4	2.8	-0.3
Belgium	12.8	3.9	7.0	1.5
Luxembourg	9.6	4.9	8.5	1.5
UK	16.9	13.6	5.0	4.1
Ireland	15.8	14.9	9.2	2.7
Denmark	15.0	10.5	6.8	4.8
Greece	23.5	16.6	18.1	15.7
Spain	17.8	16.5	12.4	5.7
Portugal	22.8	24.3	25.8	10.0
EC	14.3	10.1	8.1	3.1
UNEMPLOYMENT RATES (percentage of civilian labour force)				
FR Germany	1.6	3.2	8.0	6.2
France	2.8	5.9	8.3	10.5
Italy	5.3	7.6	8.8	10.9
Netherlands	2.7	5.4	12.0	9.6
Belgium	3.0	8.2	12.1	11.0
Luxembourg	0.1	0.7	1.6	1.6
UK	2.9	5.0	12.4	10.3
Ireland	5.3	7.1	14.0	17.5
Denmark	2.3	6.2	10.4	7.8
Greece	2.1	1.9	7.8	7.4
Spain	2.6	8.5	17.2	20.1
Portugal	-	8.2	7.9	7.1
EC	3.0	5.7	10.4	10.5

*) Growth rates refer to GNP. Unemployment rates for Germany, France, Italy, the Netherlands, Belgium, the United Kingdom and Spain are based on ILO/OECD guidelines. Unemployment rates for the EC only refer to these 7 countries. Unemployment rates for Luxembourg, Ireland, Denmark, Greece and Portugal are based on national statistics.

Source: OECD, 1990b.

TABLE 3.2 MAIN ECONOMIC INDICATORS IN THE NON-EC COUNTRIES

	1974	1979	1983	1987
GROWTH OF REAL GDP (percentage change from previous year)				
United States	-0.5	2.5	3.6	3.7
Canada	4.4	3.9	3.2	4.5
Australia	1.9	3.8	0.5	4.0
Japan *)	-1.4	5.3	3.2	4.6
Sweden	3.2	4.0	1.8	2.9
PRIVATE CONSUMPTION DEFLATORS (percentage change from previous year)				
United States	10.5	9.2	4.1	4.7
Canada	10.5	8.5	6.3	4.0
Australia	16.2	9.7	9.3	7.9
Japan	21.2	3.6	1.9	-0.2
Sweden	10.3	8.0	11.2	5.3
UNEMPLOYMENT RATES (percentage of civilian labour force)				
United States	5.5	5.8	9.5	6.1
Canada	5.3	7.4	11.8	8.8
Australia	2.6	6.2	9.9	8.0
Japan	1.4	2.1	2.6	2.8
Sweden	2.0	2.1	3.5	1.9

*) Growth rates refer to GNP. Data on unemployment have been standardized by the OECD.

Source: OECD, 1990b.

4. VOLUME AND COMPOSITION OF FINAL AGRICULTURAL OUTPUT

4.1 Introduction

In chapter 2 some general remarks on final agricultural output in the EC have been made. That brief description will now be extended by a more detailed analysis. Final agricultural output in the non-EC countries is not examined for lack of comparable data. The analysis of final agricultural output in the EC serves to illuminate the CAP targets on stable markets and the assurance of supply. In this chapter a market is stable when supply and demand are balanced in the long run. In addition, market stability can refer to short run price fluctuations. This aspect of market stability will be discussed in chapter 6. Both targets are assessed by using the measure of self-sufficiency rates. Self-sufficiency rates, the ratio of internal production and demand in the Community, indicate to what extent agricultural producers in the Community are able to satisfy internal demand. The level of self-sufficiency rates does not permit conclusions to be made about market equilibrium, since they disregard external trade. Low or high self-sufficiency rates can originate from comparative advantages in the production of certain commodities. On the other hand, increasing self-sufficiency rates, when accompanied by rising public expenditure on agricultural support, indicate market imbalances.

In the next section attention is paid to the development of volumes of agricultural products in the Community and each individual Member State. The third section elaborates on the composition of output from various viewpoints. Successively the share of each product in final output, the share of products with a market organization in final output, the share of each country's output in total EC output, specialization and concentration are analysed. Finally self-sufficiency rates for the EC are discussed.

4.2 Volume of agricultural production

In table 4.1 growth rates of final agricultural output and individual agricultural products are displayed for EUR 11. The increase of final agricultural output between "1974" and "1986" is almost 2% per annum. The volume of crop output increased at a higher rate than the volume of animal output in these years. Growth rates of final agricultural output show a declining tendency over the subperiods. This tendency is reflected in the growth rates of animal output. On the other hand, growth rates of crop output accelerate in the second period and later return to the level of the first period.

Growth rates of the individual animal products tend to decline in the course of the years. They became negative in the period "1983-86" for cattle, milk and eggs. With regard to milk this can be explained by the establishment of milk quotas in 1984. Growth rates of the separate crop products do not show such an uniform declining pattern. Growth rates of cereals and sugar beet tend to decline, whereas growth rates of pulses and industrial crops accelerate substantially over the subperiods. These high

TABLE 4.1 ANNUAL GROWTH RATES (%) OF VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11 (1980 PRICES)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
Total output	1.91	2.24	2.15	1.03
Crop output	2.27	2.07	2.77	1.96
Cereals/rice	3.35	4.09	3.68	1.68
Pulses	6.42	-1.09	4.80	22.73
Potatoes	0.50	0.78	-0.79	1.76
Sugar beet	1.96	3.98	1.14	-0.24
Industrial crops	8.13	3.21	9.37	15.11
Vegetables	1.45	1.36	1.50	1.53
Fruit	0.84	0.34	2.23	-0.17
Wine	0.84	0.29	3.18	-1.29
Olive oil	0.91	-0.17	0.31	3.56
Other crops	2.65	2.75	3.22	1.71
Animal output	1.57	2.34	1.63	0.23
Cattle	0.64	0.97	0.87	-0.22
Pigs	2.58	3.48	1.97	1.93
Sheep/goats	2.06	2.82	2.02	0.88
Poultry	2.76	3.63	2.69	1.41
Milk	1.48	2.65	1.87	-0.93
Eggs	0.43	1.30	0.29	-0.81

Note: Data for potatoes, sugar beet, cattle, pigs, sheep, goats and poultry in 1987 have been extrapolated since data for Spain are not available. It is supposed that the proportion of potatoes and sugar beet in crop output in 1987 in Spain is the same as in 1986, and that the proportion of cattle, pigs, sheep, goats and poultry in animal output in 1987 is the same as in 1986.

growth rates can be explained by the favourable CAP treatment of pulses and industrial crops. The volume of potatoes has the smallest increase between "1974" and "1986".

Volumes and growth rates of final agricultural output and separate agricultural products for the individual Member States are given in tables A4.2 - A4.13. The development of final agricultural output has already been discussed in section 2.2. With regard to the growth rates of the separate products for the subperiods, it should be noted that these are sensitive to casual factors like weather and particular policy measures. The tables discussed here illustrate how growth of output relates to the separate products. They also illustrate differences of growth rates for individual products between countries.

In Italy, Luxembourg, Ireland and Spain animal output increases at a higher rate than crop output between "1974" and "1986", whereas in the other Member States growth rates of crop output exceed those of animal output. As a result of milk quotas, growth rates of milk decelerate in the period "1983-87", Greece being the exception. The growth rates of cattle also decelerate in this period, Belgium, Ireland and Greece being the

TABLE 4.2 SHARE OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11/12 AND EACH MEMBER STATE (PER CENT, 1980 PRICES)

		crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine	olive oil	other crops
EUR 11/12 *)	"1974"	46	11	0	2	3	2	8	7	6	2	5
	"1979"	45	12	0	2	3	2	8	6	5	1	5
	"1983"	46	13	0	2	3	2	8	6	6	1	5
	"1986"	48	13	1	2	3	3	8	6	5	1	5
GERMANY	"1974"	33	8	0	2	4	1	2	4	4	:	7
	"1979"	32	10	0	2	4	1	2	4	3	:	7
	"1983"	34	10	0	2	4	2	2	4	5	:	6
	"1986"	33	10	0	2	4	2	2	3	4	:	5
FRANCE	"1974"	50	17	0	1	3	2	6	4	12	:	4
	"1979"	50	18	0	1	3	2	6	4	11	:	4
	"1983"	52	20	0	1	3	2	6	3	12	:	4
	"1986"	54	20	1	1	3	5	6	4	12	:	4
ITALY	"1974"	62	11	0	2	2	1	15	13	9	5	4
	"1979"	60	11	0	2	3	1	14	12	9	4	4
	"1983"	59	11	0	1	2	1	14	12	8	4	5
	"1986"	61	12	0	1	3	3	13	12	7	3	5
NETHERLANDS	"1974"	35	3	0	4	3	0	11	2	:	:	13
	"1979"	34	2	0	4	3	0	9	2	:	:	14
	"1983"	35	2	0	3	3	0	10	1	:	:	15
	"1986"	37	2	0	3	3	0	10	1	:	:	17
BELGIUM	"1974"	35	5	0	3	4	1	14	3	:	:	5
	"1979"	34	6	0	3	5	0	11	3	:	:	6
	"1983"	35	6	0	3	5	1	11	3	:	:	6
	"1986"	36	6	0	3	4	0	13	3	:	:	6
LUXEMBOURG	"1974"	25	6	0	3	0	0	2	3	12	:	0
	"1979"	16	6	0	2	0	0	1	1	5	:	0
	"1983"	23	5	0	1	0	0	1	1	14	:	0
	"1986"	20	6	0	1	0	0	1	1	10	:	0

*) "1974 and 1979" for EUR 11; "1983" and "1986" for EUR 12.

TABLE 4.2 (continued) SHARE OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11/12 AND EACH MEMBER STATE (PER CENT, 1980 PRICES)

		crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine	olive oil	other crops
UK	"1974"	32	13	0	4	2	0	7	2	:	:	3
	"1979"	33	15	0	4	2	1	6	2	:	:	3
	"1983"	38	20	0	3	2	2	6	2	:	:	3
	"1986"	39	19	1	3	2	3	6	2	:	:	3
IRELAND	"1974"	14	5	0	3	2	0	2	0	:	:	1
	"1979"	15	7	0	2	2	0	2	0	:	:	1
	"1983"	16	8	0	2	2	0	2	0	:	:	1
	"1986"	13	6	0	1	2	0	2	0	:	:	1
DENMARK	"1974"	27	13	0	1	3	1	2	1	:	:	6
	"1979"	28	15	0	1	2	1	2	1	:	:	5
	"1983"	31	16	0	1	2	3	2	1	:	:	6
	"1986"	32	14	2	1	2	4	2	0	:	:	7
GREECE	"1974"	66	9	1	3	1	9	10	18	3	8	3
	"1979"	67	12	1	3	1	10	10	16	3	8	3
	"1983"	69	12	1	3	1	10	10	17	2	8	3
	"1986"	70	12	1	2	1	13	10	16	2	8	3
SPAIN	"1974"	57	9	1	4	2	3	12	14	4	4	3
	"1979"	57	11	1	4	2	3	12	13	4	4	3
	"1983"	55	10	1	3	2	3	12	13	3	3	3
	"1986"	57	12	1			4	12	12	3	4	3
PORTUGAL	"1983"	49	7	2	5	0	1	9	7	14	3	2
	"1986"	46	9	2	5	0	1	9	6	11	2	2

TABLE 4.2 (continued) SHARE OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11/12 AND EACH MEMBER STATE (PER CENT, 1980 PRICES)

		animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
EUR 11/12 *)	"1974"	54	15	10	2	4	18	4
	"1979"	55	14	11	2	4	18	4
	"1983"	53	13	11	2	4	18	3
	"1986"	52	13	11	2	4	17	3
GERMANY	"1974"	67	17	19	0	2	24	5
	"1979"	68	17	19	0	2	24	4
	"1983"	66	17	18	0	2	25	4
	"1986"	67	17	19	0	2	24	4
FRANCE	"1974"	52	18	7	2	4	17	2
	"1979"	51	16	7	2	4	17	2
	"1983"	49	15	6	2	5	17	2
	"1986"	46	14	6	2	5	15	2
ITALY	"1974"	37	10	5	1	5	11	3
	"1979"	40	11	6	1	6	11	3
	"1983"	40	11	7	1	6	11	3
	"1986"	38	10	6	1	6	11	3
NETHERLANDS	"1974"	65	13	15	1	3	29	3
	"1979"	66	12	17	1	4	28	4
	"1983"	65	11	17	0	4	27	5
	"1986"	63	10	19	0	4	24	4
BELGIUM	"1974"	65	19	21	0	3	16	5
	"1979"	66	19	22	0	3	16	4
	"1983"	65	20	20	0	3	16	4
	"1986"	64	20	22	0	3	14	4
LUXEMBOURG	"1974"	75	26	9	0	0	36	4
	"1979"	84	30	10	0	0	41	3
	"1983"	77	25	9	0	0	41	1
	"1986"	80	26	10	0	0	43	1

*) "1974" and "1979" for EUR 11; "1983" and "1986" for EUR 12.

TABLE 4.2 (continued) SHARE OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11/12 AND EACH MEMBER STATE (PER CENT, 1980 PRICES)

		animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
UK	"1974"	67	19	10	4	6	22	6
	"1979"	66	17	9	4	6	23	6
	"1983"	61	15	9	3	6	22	5
	"1986"	60	14	9	4	7	21	5
IRELAND	"1974"	86	42	8	4	3	26	2
	"1979"	85	37	8	3	3	32	1
	"1983"	84	35	7	3	3	33	1
	"1986"	87	38	6	5	4	32	1
DENMARK	"1974"	73	14	26	0	2	27	2
	"1979"	72	13	28	0	2	26	1
	"1983"	69	11	28	0	2	23	1
	"1986"	68	10	29	0	2	21	1
GREECE	"1974"	34	7	4	9	3	9	2
	"1979"	33	5	4	9	3	8	3
	"1983"	31	4	4	9	2	8	2
	"1986"	30	4	4	8	2	8	2
SPAIN	"1974"	41	8	6	5	6	9	4
	"1979"	42	7	8	4	6	9	5
	"1983"	45	7	10	5	5	10	4
	"1986"	43					9	4
PORTUGAL	"1983"	50	12	12	4	7	10	2
	"1986"	52	12	12	4	8	11	3

exception. The decrease in growth rates of milk and cattle output is partly cancelled out by increasing growth rates of pigs, sheep/goats and poultry in a number of countries.

4.3 Composition of final agricultural output

4.3.1 The share of each product in final agricultural output

This subsection describes the volume share of each product in final agricultural output. The first four rows of table 4.2 display the share of each product in final agricultural output for four benchmark years for EUR 11/12. The share of animal output in final agricultural output in the Community is higher than the share of crop output, although the distance between them diminishes due to a decreasing share of animal output and an increasing share of crop output. On the whole shares of separate products in final agricultural output change slightly (one or two percentage points) or remain constant. The share of cereals and rice, pulses, industrial crops and pigs in total Community output increases between "1974" and "1986", whereas the share of fruit, wine, olive oil, cattle, milk and eggs decreases.

The composition of final agricultural output (at 1980 prices) in the individual Member States is also presented in table 4.2. In Germany, the Netherlands, Belgium and the UK the share of animal output is about two thirds of final agricultural output and crop output about one third. In Luxembourg, Ireland and Denmark the share of animal output in final agricultural output is even larger. Final agricultural output in France and Portugal is distributed into two roughly similar parts of crop and animal products. The share of crop output in final agricultural output in Italy, Greece and Spain is clearly above the share of animal output.

4.3.2 Products for which a market organization applies

A large number of agricultural products are subject to a market organization, a set of rules and regulations adopted in the context of the CAP. One of the aims of a market organization is to reach an internal price level in the EC that has been determined in advance. Initially the CAP used two main instruments for the implementation of a market organization. Firstly, non-quantitative border protection, consisting of variable import levies and export subsidies. Secondly, measures for influencing the determination of internal prices in the Community. These measures consist of market intervention (for a limited or unlimited quantity of output) and premiums per unit of product or per hectare (Meester, 1980: 65-67). The extent to which prices of agricultural products are supported by a market organization varies. For some products price support is permanent, while for other products it is limited to certain periods, quotas or to border protection. Moreover market organizations change over the years, due to the pressure of surplus production and the increasing demand on the EAGGF budget.

Almost all agricultural products in the EC are subject to some kind of market organization, potatoes and "other crops" being the exception. Table 4.3 provides information on the volume share of products which are subject to a market organization in final agricultural output (1980

TABLE 4.3 SHARE OF PRODUCTS WITH A MARKET ORGANIZATION IN FINAL AGRICULTURAL OUTPUT IN THE EC (PER CENT, 1980 PRICES)

	"1974"	"1979"	"1983"	"1987"
FR Germany *)	91	92	92	93
France	94	94	95	95
Italy	94	94	94	93
Netherlands *)	83	83	81	79
Belgium	92	91	91	91
Luxembourg *)	97	97	98	98
UK *)	93	94	94	94
Ireland	96	97	97	97
Denmark *)	93	93	92	92
Greece	95	95	94	95
Spain	93	93	94	:
Portugal	:	:	94	94
EUR11 *)	93	93	93	93

*) "1987" refers to "1986".

prices) 1). In the Community as a whole 93% of total output is subject to a market organization. The coverage of products in final agricultural output for which a market organization applies in the individual Member States is roughly similar to that in the whole Community, except for the Netherlands, Luxembourg and Ireland. In the Netherlands only about 80% of final agricultural output is subject to a market organization, whereas in Luxembourg and Ireland it is about 97%. It is remarkable that in most countries the share of products for which a market organization applies remained rather stable between "1974" and "1986/87". This implies that the growth rates of the volumes of market organization products kept more or less pace with the growth rate of final agricultural output. With regard to the two non-market organization product categories it can be said that growth rates of the volume of potatoes in the Community between "1974" and "1986" were below that of final output, whereas those of "other crops" were above the growth rate of final agricultural output in the Community (see table 4.1).

4.3.3 Contribution of each Member State to total EC output

Each country's share in total EC output shows the importance of each country as an agricultural producer in the Community. France, Italy and Germany are the biggest agricultural producers in the EC, as can be seen in table A4.14. The shares of France and Italy in EC output between "1974" and "1986" remain constant, whereas the share of Germany declines. The shares of the rest of the Member States in EC output remain unchanged, except for the Netherlands and Belgium. The share of the Netherlands increases, while that of Belgium decreases. France, Italy and Spain are the major crop producers in the Community. France, Germany and Italy contribute most to animal production in the EC.

1) Since the classification of products for which a strong/light market organization applies is quite arbitrary, this classification has been abandoned.

4.3.4 Specialization and concentration

In table 4.2 it can be seen that the share of some products in a country's output is far above the average share of that product in total EC output. In such cases it can be said that a country is specialized in the production of that output. Specialization arises when a country has a comparative advantage relative to other countries in the production of a certain commodity. Comparative advantage can refer to natural and climatological circumstances and relative costs of production, which favour the production of particular products. Another yardstick for comparative advantage is concentration of production, which relates the average output per HA agricultural area in use in a Member State to the average output per HA agricultural area in use in the Community. Both measures are discussed in turn in this subsection.

In this study the measure for specialization is the ratio of the share of product X in output of Member State Y and the share of product X in total EC output. This is only a rough indicator of specialization, since the production of particular products is often located in a certain region. For example, Dutch horticulture under glass is mainly located in the western part of the Netherlands. This implies that the share of products of horticulture under glass in total output of this region is far above its share in total national output. The indicator of specialization used here does not reflect this regional distribution of products. This shortcoming increases as the size of the country becomes larger relative to the region. A more suitable indicator of specialization should be one which is based on equal-sized regions instead of countries. However, our data are insufficient for constructing such a measure.

Table A4.15 provides information on the specialization of Member States in certain products for four benchmark years. A figure above 100 means that there is some kind of specialization in that product. In proportion to the rise of the figures above 100, specialization in that product increases. In box 4.1 the figures from table A4.15 are rearranged into three groups: commodities for which a country has no specialization (figure less than 100), low specialization (figure between 100 and 200) and high specialization (figure above 200). The degree of specialization of the Member States varies widely, due to the particular circumstances in each Member State. As expected, typical northern products are specializations in the northern Member States, whereas southern Member States are specialized in typical southern products. In Germany there is no commodity with a high degree of specialization. This can be explained by the intermediate position of that country in the production of northern and southern products. Moreover, Germany is not specialized in agricultural production, as the share of GVA in agriculture in GDP is very small (see table A2.6). Some agricultural products are produced in each Member State without being a highly specialized product anywhere. These products are cereals/rice, sugar beet, vegetables, poultry and eggs.

A number of specialization figures show large increases or decreases between "1974" and "1986". This applies mainly for pulses and to a lesser extent for industrial crops. Specialization in pulses rises in Germany, France, the UK and Denmark, and that of industrial crops in France, Italy, the UK and Denmark. We already perceived that growth rates of these products in these Member States were extraordinarily high in the period "1974-1986". A reduction in specialization in pulses and industrial crops occurred in Greece and Spain, whereas specialization in pulses in Italy also lessened.

Box 4.1 Specialization of EC Member States in agricultural products

Country	No specialization < 100	Low specialization 100< spec. >200	High specialization > 200
GERMANY	cereals/rice pulses potatoes industrial crops vegetables fruit wine olive oil sheep/goats poultry	sugar beet "other crops" cattle pigs milk eggs	
FRANCE	pulses potatoes vegetables fruit olive oil "other crops" pigs sheep/goats milk eggs	cereals/rice sugar beet industrial crops cattle poultry	wine
ITALY	cereals/rice pulses potatoes sugar beet industrial crops "other crops" cattle pigs sheep/goats milk eggs	vegetables wine poultry	fruit olive oil
NETHER- LANDS	cereals/rice pulses industrial crops fruit cattle sheep/goats poultry	potatoes sugar beet vegetables pigs milk eggs	"other crops" (mainly flowers and ornamental plants)

Box 4.1 (continued) Specialization of EC Member States in agricultural products

Country	No specialization < 100	Low specialization 100< spec. >200	High specialization > 200
BELGIUM	cereals/rice pulses industrial crops fruit sheep/goats poultry milk	potatoes sugar beet vegetables "other crops" cattle eggs	pigs
LUXEM- BOURG	cereals/rice potatoes industrial crops vegetables fruit "other crops" pigs poultry eggs	wine cattle	milk
UK	sugar beet industrial crops vegetables fruit "other crops" pigs	cereals/rice pulses potatoes cattle poultry milk eggs	sheep/goats
IRELAND	cereals/rice pulses potatoes sugar beet industrial crops vegetables fruit "other crops" pigs poultry eggs	sheep/goats milk	cattle

Box 4.1 (continued) Specialization of EC Member States in agricultural products

Country	No specialization < 100	Low specialization 100< spec. >200	High specialization > 200
DENMARK	potatoes sugar beet industrial crops vegetables fruit cattle sheep/goats poultry eggs	cereals/rice pulses "other crops" milk	pigs
GREECE	cereals/rice sugar beet wine "other crops" cattle pigs poultry milk eggs	potatoes vegetables	pulses industrial crops fruit olive oil sheep/goats
SPAIN	cereals/rice sugar beet wine "other crops" cattle pigs milk	potatoes industrial crops vegetables poultry eggs	pulses fruit olive oil sheep/goats
PORTUGAL	cereals/rice pulses industrial crops "other crops" cattle milk eggs	vegetables fruit olive oil pigs poultry	pulses potatoes wine sheep/goats

Another striking fact in the changes in the specialization figures between "1974" and "1986" is the increasing specialization in animal production and despecialization in crop production in Luxembourg, while for the UK the opposite applies.

Concentration is defined here as the ratio of output of product X per HA of agricultural area in use in Member State Y to the output of product X per HA of agricultural area in use in the EC. As in the case of specialization, this measure of concentration is biased since the weight of each region lessens when the size of the country increases.

Table A4.16 displays concentration figures for products in eight Member States. For lack of reliable data on agricultural area in use it is not possible to give figures for all Member States (see section 5.4). The output of a product is concentrated in a Member State when the figure is above 100. According to the rise of the figure above 100, production is more concentrated. In the table it can be seen that the highest concentration of production occurs in the Netherlands, followed by Belgium. Italy reaches high concentration levels for vegetables, fruit and olive oil. Concentration of pig production is high in Germany and Denmark. Germany also has a high concentration of sugar beet production.

In a comparison of tables A4.15 and A4.16 it can be seen that some Member States have both a high specialization and a high concentration of certain products. For Italy these products are fruit and olive oil; for the Netherlands "other crops" (flowers and ornamental plants) and for Belgium and Denmark pig production.

4.4 Self-sufficiency rates

In this section self-sufficiency rates are defined as the ratio of agricultural production to consumption in the EC. When the self-sufficiency rate equals 100, internal supply of and demand for agricultural products are balanced. When the self-sufficiency rate is below 100, demand for agricultural products exceeds supply in the EC. This gap between demand and supply can be filled by imports from outside the Community. When the self-sufficiency rate exceeds 100, there is a surplus supply of agricultural products. This surplus production can be exported on the world market. Another solution in this surplus situation is to increase internal demand by subsidies on consumption of agricultural products. Both measures were taken in the EC, but with the main emphasis on subsidized exports. From an economic point of view it is not always desirable to strive after a perfect balance of supply and demand, since comparative advantages can justify a self-sufficiency rate below or above 100.

Self-sufficiency rates are derived from Supply Balance Sheets. The products for which self-sufficiency rates are published differ to some extent from the list of products in the rest of this chapter. This is due to the shift from the EAA to Supply Balance Sheets, which use different classifications of products. Next, self-sufficiency rates in the four benchmark years refer to different groups of EC countries, which may

TABLE 4.4 SELF-SUFFICIENCY RATES IN THE EC (ratio of internal supply and internal demand * 100)

	"1974" EUR 9	"1979" EUR 10	"1983" EUR 10	"1986" EUR 12
cereals	76	84 (c)	98 (c)	112
wheat	105	116 (c)	127 (c)	121
barley	105	113 (c)	114 (c)	120
oats	96	100 (c)	100 (c)	96
rye	95	105 (c)	104 (c)	107
maize	30	33 (c)	42 (c)	:
potatoes	100	100	102	101
sugar	91	115 (c)	126 (c)	125
vegetables	92	96	100	106
fruit	80	83	85 (c)	87
citrus fruit	42	45	72 (c)	:
wine	102	104	88	104 (b)
oilseeds	28	:	41	:
meat (total)	96	97	101	102
cattle meat	94	98	104	107
pig meat	101	107	111	102
sheep/goats	63	71	75	81
poultry meat	103	:	:	105
butter	96	117 (a)	135	119 (b)
cheese	105	106	107	106 (b)
eggs	100	101	103	102 (b)

(a) EUR 9; (b) EUR 10; (c) EUR 12.

Sources: Eurostat, Animal production, quarterly statistics, various issues. Eurostat, Crop production, quarterly statistics, various issues. Eurostat, Agriculture. Statistical yearbook, various issues.

disturb the comparison between the benchmark years. For example, when a country with a self-sufficiency rate above 100 is added, this results in a higher self-sufficiency rate, even when nothing has changed in the other countries. The opposite applies when the self-sufficiency rate in that country is less than 100.

Self-sufficiency rates in the EC are displayed in table 4.4. In "1974" the Community is not self-sufficient in more than half of the products considered here. Self-sufficiency rates tend to increase between "1974" and "1986", although the self-sufficiency rates of wheat, pig meat and butter decline somewhat between "1983" and "1986". These rising self-sufficiency rates indicate that the increase in supply of agricultural products was not taken up by a proportional increase in demand. In "1986" the Community was able to satisfy the demand for most agricultural products from internal supply, except for maize, fruit (including citrus fruit), oilseeds and sheep meat. Since a number of self-sufficiency rates are considerably above 100, agricultural exports of the EC on the world market increased rapidly.

TABLE 5.1 ANNUAL GROWTH RATES (%) OF FEEDINGSTUFFS IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	2.36	6.64	-0.80	-0.32
France	2.75	4.27	1.49	2.14
Italy	2.63	5.84	0.84	0.51
Netherlands *)	3.63	5.81	2.15	2.01
Belgium	0.23	0.58	-0.39	0.41
Luxembourg *)	-0.20	-1.90	2.09	-0.38
UK *)	0.66	0.95	1.27	-0.64
Ireland	4.75	7.90	2.40	3.27
Denmark *)	3.47	8.65	-0.39	0.34
Greece	1.82	2.59	4.62	-1.82
Spain	5.73	9.50	6.17	0.79
Portugal	:	:	:	-1.06
EUR 11 *)	2.67	5.03	1.44	0.46
EUR 12 *)	:	:	:	0.42

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE 5.2 ANNUAL GROWTH RATES (%) OF FERTILIZERS IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	0.43	1.90	-0.87	-0.25
France	1.40	3.51	-0.62	0.82
Italy	2.01	4.75	-2.40	3.15
Netherlands *)	0.92	2.10	0.51	-0.48
Belgium	-1.05	-1.42	-1.58	-0.05
Luxembourg *)	2.14	1.85	0.57	4.75
UK *)	2.63	2.27	4.82	0.34
Ireland	3.07	6.07	1.44	1.03
Denmark *)	-0.10	1.20	-0.53	-1.64
Greece	4.14	5.40	3.90	2.82
Spain	8.14	15.72	1.99	5.36
Portugal	:	:	:	:
EUR 11 *)	1.88	3.65	0.31	1.07
EUR 12 *)	:	:	:	1.07

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

5. VOLUME OF INPUTS

5.1 Introduction

In this chapter the focus is on the volume of inputs used in the agricultural production process. These inputs consist of four groups: intermediate consumption, labour, land and capital. Data on intermediate consumption can easily be obtained from the EAA, whereas the collection of time series on factor inputs appears to be rather difficult. The review of these inputs provides information on the use of resources by the agricultural sector. In later chapters of this study these inputs are combined with output and value added for assessing productivity and income in the agricultural sector.

In section 2 changes over time in the volume of intermediate consumption in the EC are examined. No attention is paid to the use of intermediate consumption in the non-EC countries, since the coverage of data on intermediate consumption in these countries differs from the coverage of intermediate consumption in the EAA for the EC countries. Labour input in the EC and non-EC countries in the agricultural sector and the rest of the economy is discussed in section 3. Section 4 is devoted to land input inside and outside the Community, whereas section 5 describes capital input in EC agriculture.

5.2 Intermediate consumption

A brief summary of growth rates of intermediate consumption in the Community has already been presented in table 2.2. Annual growth rates of the volume of intermediate consumption were about 2% between "1974" and "1986". However, the increase was not equally distributed among subperiods, as growth rates in the first subperiod "1974-79" were much higher than afterwards. In this section volumes and growth rates of feedingstuffs, fertilizers and energy/lubricants are analysed. These three intermediate consumption items have been chosen since they cover about two thirds of total intermediate consumption.

Growth rates of feedingstuffs, fertilizers and energy/lubricants in each Member State and the Community are displayed in tables 5.1-5.3. Volumes of feedingstuffs in EUR 11 increase at the highest rate in the period "1974-86", followed by fertilizers and energy/lubricants. This sequence of growth rates in the Community also applies for the subperiods "1974-79" and "1979-83", but it is reversed in the last subperiod. The slow growth of feedingstuffs in the last subperiod can be explained by the decreasing growth rates of cattle and poultry production in the Community (see table 4.1). Annual growth rates of feedingstuffs, fertilizers and energy/lubricants show rather large differences between Member States.

The share of feedingstuffs, fertilizers and energy/lubricants in the volume of intermediate consumption in benchmark years is presented in figures 5.1-5.3. Feedingstuffs are by far the largest non-factor input in the Community. The share of fertilizers remains stable between "1974" and "1986" in the Community. The share of feedingstuffs increases somewhat, whereas that of energy/lubricants declines a little. The share of

TABLE 5.3 ANNUAL GROWTH RATES (%) OF ENERGY AND LUBRICANTS IN THE EC (1980 PRICES)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	0.82	1.91	0.10	0.00
France	0.14	1.10	-1.19	0.30
Italy	3.35	4.04	1.75	4.12
Netherlands *)	1.46	5.60	-3.83	1.96
Belgium	2.41	2.06	-3.73	9.40
Luxembourg *)	1.94	-0.48	5.46	1.42
UK *)	-1.90	-1.52	-3.63	-0.17
Ireland	1.82	5.55	-2.05	1.19
Denmark *)	-0.07	2.62	-5.65	3.22
Greece	5.89	7.37	3.72	6.26
Spain	3.23	4.31	2.54	2.53
Portugal	:	:	:	2.31
EUR 11 *)	1.07	2.18	-0.71	1.61
EUR 12 *)	:	:	:	1.63

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

Figure 5.1 Share of feedingstuffs in intermediate consumption in the EC (1980 prices)

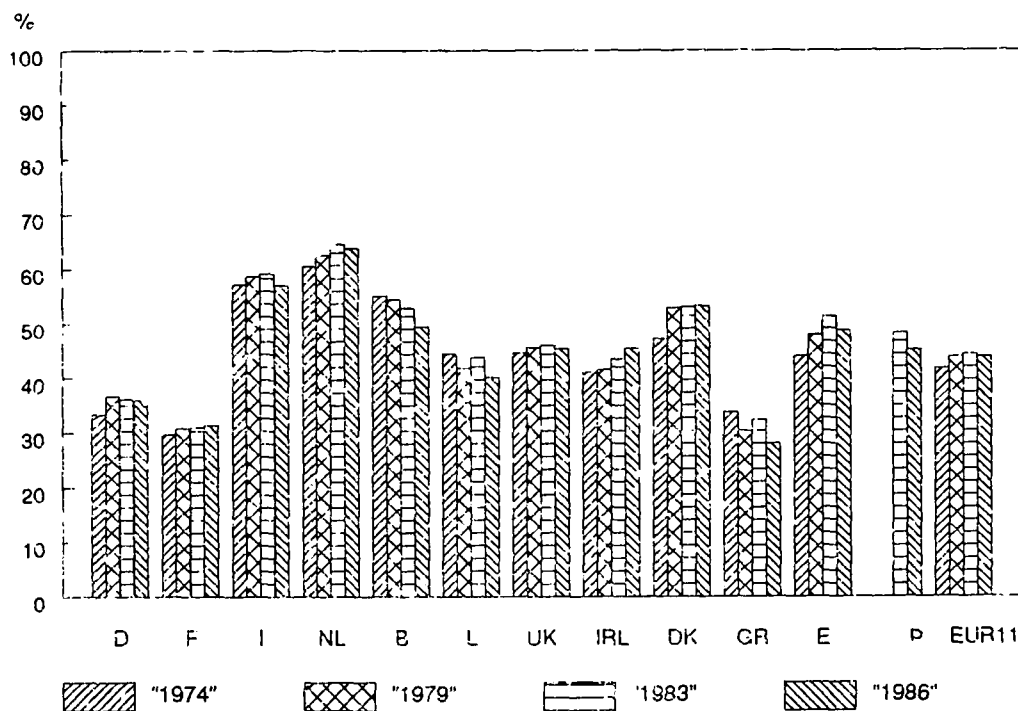


Figure 5.2 Share of fertilizers in intermediate consumption in the EC (1980 prices)

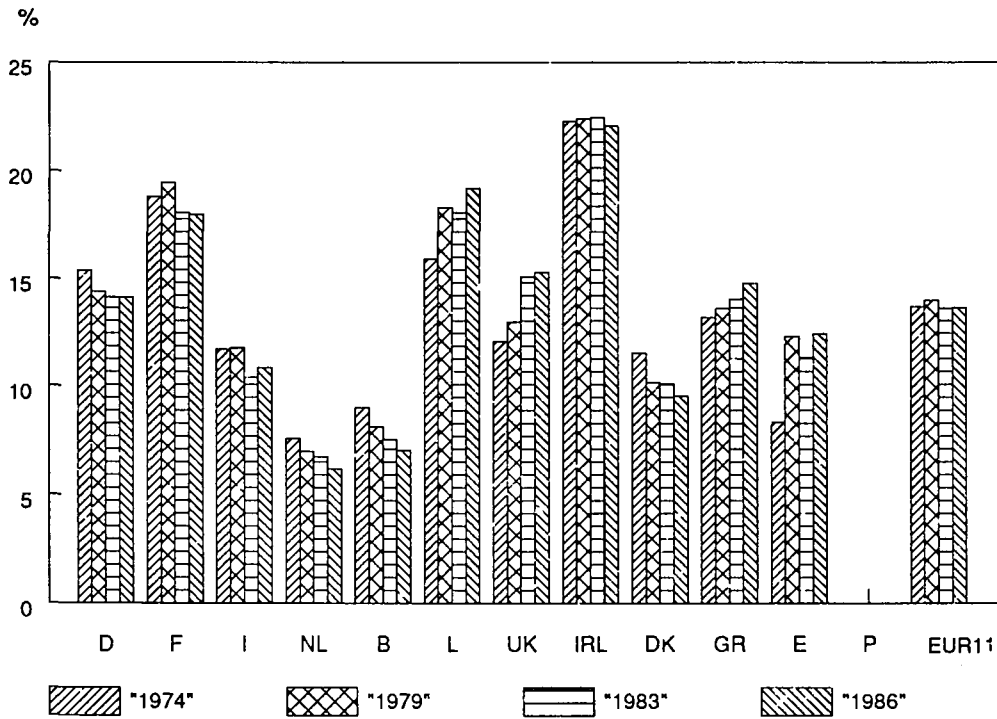


Figure 5.3 Share of energy/lubricants in intermediate consumption in the EC (1980 prices)

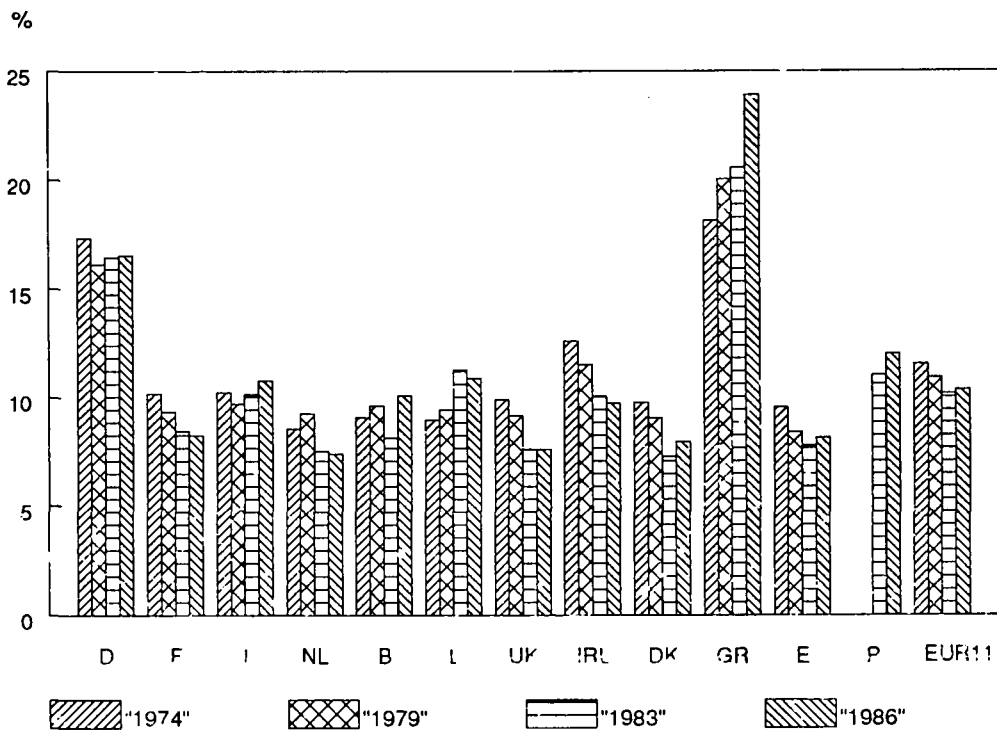


TABLE 5.4 ANNUAL GROWTH RATES (%) OF AGRICULTURAL LABOUR FORCE IN THE EC (IN AWU)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany	-2.66	-3.33	-2.23	-2.25
France	-2.22	-2.14	-1.89	-2.65
Italy	-2.30	-2.87	-3.13	-0.75
Netherlands	-1.21	-1.81	-0.91	-0.76
Belgium	-2.59	-3.65	-2.05	-1.81
Luxembourg	-4.45	-4.52	-4.89	-3.94
UK	-1.46	-1.20	-1.68	-1.58
Ireland	-2.05	-2.38	-1.76	-1.94
Denmark	-3.76	-4.13	-3.77	-3.28
Greece	-1.84	-2.19	-1.52	-1.71
Spain	-5.59	-6.11	-5.94	-4.57
Portugal	:	:	-1.78	-2.08
EUR 11	-3.02	-3.50	-3.14	-2.31
EUR 12	:	:	-3.00	-2.28

Notes: In a number of EC countries differences exist between national time series and the EC Farm Structure Surveys, caused by differences in methodology on recording labour. These differences are partly eliminated by a correction factor. National data for Belgium are corrected with a factor 1.02, for Denmark with 1.075, for Germany with 1.03, for France with 0.96, for the Netherlands with 0.95 and for the United Kingdom with 1.1.
Source: National time series from Eurostat, Agricultural Statistical Yearbook 1989, supplemented by Eurostat, Agricultural Income 1989; FSS data from Eurostat, 1987a.

TABLE 5.5 ANNUAL GROWTH RATES (%) OF LABOUR FORCE IN AGRICULTURE, FORESTRY AND FISHERIES IN THE NON-EC COUNTRIES (IN PERSONS)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	-0.48	-0.20	-0.01	-1.58
Canada	0.23	0.36	-0.23	0.61
Australia	0.03	-0.79	0.86	0.30
Japan	-2.57	-2.23	-3.35	-2.10
Sweden	-2.34	-1.84	-1.65	-4.09
EUR 11	-2.84	-3.48	-2.61	-2.05

Source: OECD, 1990c.

feedingstuffs, fertilizers and energy/lubricants in the volume of intermediate consumption varies among Member States. This can be explained by different types of production, which require variable amounts of non-factor inputs.

5.3 Labour input

5.3.1 Labour input in EC agriculture

The decline of the agricultural labour force in the EC between 1973 and 1988 is displayed in table 5.4. The agricultural labour force is expressed in annual work units (AWU) ¹⁾. In this study time series on the agricultural labour force are based on both annual national time series and Farm Structure Surveys (FSS). For a number of Member States rather large differences exist between the two series. In those cases national time series have been corrected in such a way that the level becomes closer to the FSS data, while the trend in the national series remains unchanged. The correction method is described in the note at the bottom of table 5.4.

The annual decrease of the agricultural labour force in the Community as a whole between 1973 and 1988 is about 3%. However, there are rather large variations in this decline among Member States. The agricultural labour force in Luxembourg and Spain declines at a relatively high rate, whereas the decline in the Netherlands and the UK lags far behind the Community average. On the whole there is a slow down of the rate of decrease of the agricultural labour force over the subperiods, except for France and the UK.

The decline of the agricultural labour force is a rather autonomous process due to the age structure of the agricultural labour force, employment opportunities inside and outside the agricultural sector and differences between rewards in the agricultural sector and the rest of the economy. The over representation of older farmers in the agricultural labour force causes a relative large natural decline by retirement. The relatively higher returns to labour in the rest of the economy act as a threshold for entry into the agricultural sector. The rate at which the decline of the agricultural labour force occurs depends on the share of elderly farmers in the agricultural labour force and on the magnitude of the differences between rewards inside and outside the agricultural sector.

5.3.2 Agricultural labour input in non-EC countries

The measurement of data on the agricultural labour force in the non-EC countries differs from that in the EC countries. Firstly, the agricultural labour force in the EC is expressed in annual work units (AWU), whereas the agricultural labour force in the non-EC countries is given in persons. Secondly, the agricultural labour force in the EC refers only to persons employed in agriculture. In the non-EC countries the agricultural labour force also includes persons who are employed in forestry and fishery.

1) An AWU is defined as being equivalent to the annual labour input (in terms of working hours) of a person employed full time for agricultural work on the holding (Eurostat, Agricultural income 1988: 73).

TABLE 5.6 ANNUAL GROWTH RATES (%) OF LABOUR FORCE IN THE REST OF THE ECONOMY IN THE EC (IN PERSONS)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-0.06	-0.03	-0.49	0.45
France	0.27	0.68	0.01	-0.09
Italy	1.20	1.39	1.07	1.04
Netherlands	0.04	0.45	-1.15	0.96
Belgium	-0.16	0.05	-0.87	0.45
Luxembourg	0.83	0.57	0.51	1.71
UK	-0.13	0.15	-1.40	1.12
Ireland	0.88	2.81	0.22	-1.39
Denmark	1.07	1.00	0.19	2.37
Greece	1.81	2.35	1.97	0.69
Spain	-0.47	-0.58	-1.22	0.74
Portugal	:	:	2.90	1.37
EUR 11	0.23	0.43	-0.35	0.68
EUR 12	:	:	-0.27	0.70

Note: The labour force in the rest of the economy has been calculated by deducting the number of occupied persons in agriculture, forestry and fishery from the total number of occupied persons.

TABLE 5.7 ANNUAL GROWTH RATES (%) OF LABOUR FORCE IN THE REST OF THE ECONOMY IN THE NON-EC COUNTRIES (IN PERSONS)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	2.16	2.80	0.97	2.68
Canada	2.22	2.88	1.09	2.64
Australia	1.48	1.12	0.97	2.75
Japan	1.36	1.31	1.58	1.13
Sweden	0.94	1.22	0.46	1.13
EUR 11	0.23	0.43	-0.35	0.68

Source: OECD, 1990c.

Growth rates of the labour force in agriculture, forestry and fishery expressed in persons in the non-EC countries are given in table 5.5. The column with data on the agricultural labour force in EUR11 in this table differs from that in table 5.4, since it is here defined in the same way as for the non-EC countries. The agricultural labour force declines between "1974" and "1986" in the US, Japan and Sweden. It increases a bit in Canada and Australia. The highest decrease of the agricultural labour force occurs in the second period in Canada and Japan, whereas in the US and Sweden the decline is less in this period. The rate of decline of the agricultural labour force in the non-EC countries between "1974" and "1986" is less than that in the Community.

5.3.3 Labour in the rest of the economy

The labour force in the rest of the economy is calculated by deducting the number of occupied persons in agriculture, forestry and fishery from the number of occupied persons in the whole economy. It should be noted that these series of the labour force in the rest of the economy have to be interpreted carefully, as time series of the total labour force vary between sources and years. Moreover, in some countries it is unclear whether data on the total labour force refer to persons or work units.

Table 5.6 summarizes the changes in of the labour force in the rest of the economy in the Community. In some Member States the labour force declines somewhat, whereas it increases in others. Changes in the labour force in the rest of the economy between "1974" and "1987" are smaller than changes in the agricultural labour force.

Growth rates of the labour force in the rest of the economy in the non-EC countries are given in table 5.7. The increase in the labour force in the rest of the economy in the non-EC countries between "1974" and "1986" is considerably higher than in the Community. In all countries, Japan being the exception, growth rates of the labour force slow down in the second period and recover in the last period. This tendency corresponds to that in the Community.

5.4 Land input

Agricultural area in use includes arable land, permanent pasture, meadows and areas with permanent crops. The agricultural area of holdings with a minimum size of 1 hectare (HA) is included in the time series, except for the Netherlands and the UK. In these two countries the inclusion of holdings in the survey on land depends on a minimum amount of standardized value added per holding, expressed in standard farm units (Eurostat, 1986). This implies that some holdings with an area over 1 HA can be excluded from the national series if their value added is below the minimum size. When the value added of these small holdings rises to a point above the minimum size, agricultural area seems to increase, whereas in fact the used agricultural area remains unchanged. The opposite case of a decline in value added of small holdings in the survey results in a decrease of agricultural area in use.

The rate of change of agricultural area in use in the EC is presented in table 5.8. As in the case of labour, quite large differences exist between national time series of agricultural area in use and the FSS data for

TABLE 5.8 ANNUAL GROWTH RATES (%) OF AGRICULTURAL AREA IN USE IN THE EC

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-0.42	-0.47	-0.48	-0.26
France	-0.17	-0.29	0.03	-0.24
Italy	-0.01	0.35	-0.19	-0.36
Netherlands	-0.30	-0.55	-0.28	0.08
Belgium	-0.59	-0.79	-0.51	-0.37
Luxembourg	-0.27	-0.30	-0.47	0.06
UK	-0.34	-0.41	-0.35	-0.20
Ireland	:	:	-0.08	-0.07
Denmark	-0.39	-0.21	-0.45	-0.62
Greece	:	:	:	:
Spain	:	:	:	:
Portugal	:	:	:	:
EUR 8	-0.14	-0.03	-0.19	-0.25

Notes: EUR 8 refers to Germany, France, Italy, the Netherlands, Belgium, Luxembourg, the UK and Denmark.

Sources: Data for Germany, France, the Netherlands, Belgium, Luxembourg, the UK, and Denmark from Eurostat, Yearbook of Agricultural Statistics, various issues. Data for the other EC countries are derived from CEC, Agricultural situation in the Community, various issues.

TABLE 5.9 ANNUAL GROWTH RATES (%) OF AGRICULTURAL AREA IN USE IN THE NON-EC COUNTRIES

	"1974-85"	"1974-79"	"1979-83"	"1983-86"
United States	-0.26	-0.03	-0.44	-0.51
Canada	0.63	0.39	0.71	:
Australia	1.01	0.98	0.85	:
Japan	-0.38	-0.48	-0.30	:
Sweden	-0.40	-0.13	-0.27	:
EUR 8	-0.13	-0.03	-0.19	-0.25

Source: For Canada, Australia, Japan and Sweden: FAO, Production Yearbook, various issues. For the US: USDA, US Agricultural Statistics, various issues.

some countries. No attempts have been made to correct these series, since agricultural area in use is of minor importance in this analysis. Time series for Ireland and Greece seem inconsistent. In 1975 Ireland introduced a new method of land registration according to EC guidelines. This new method covered a large area of rough grazing land, which was excluded from the agricultural area in use before. Data derived according the new method became available in the course of 1977, resulting in a discontinuity between 1977 and 1978. The discontinuity between 1985 and 1986 in Greece is due to the fact that a large amount of permanent pasture is no longer considered as agricultural area, but as woodland.

The amount of land used in agricultural production diminished between 1973 and 1987. In Germany, the Netherlands, Belgium, Luxembourg and the UK the rate of decline slowed down towards the end of the period or even turns into an increase. Belgium had the largest rate of decrease. It was smallest in France. In general the decline of the agricultural area in use can be attributed to the expansion of infrastructure and industry, since the amount of idle land and area used for forestry hardly increased (CEC, Agricultural situation in the Community report 1986: 21).

Agricultural area in the non-EC countries refers to the same items as in the EC, except for Australia, where permanent pastures and meadows are excluded. The amount of agricultural area in use decreased between "1974" and "1985" in the US, Japan and Sweden, as can be seen in table 5.9. It increased in Canada and Australia.

5.5 Capital input

Information on changes in the capital stock is hard to obtain as no systematic estimates of capital input are available. Data on depreciation and gross fixed capital formation, which are given in the EAA, are not suitable indicators for this purpose, since these disregard vintages of capital already depreciated but still in use. Nevertheless, estimates of the capital stock can be made, for example by applying the perpetual inventory method. This method assumes that the capital stock is composed of different vintages. The rate of replacement of the vintages can be described with a replacement function, after an average lifetime of the capital good has been determined. Hockmann used this method for estimating the capital stock in machines, buildings and dairy and breeding cattle in the EUR 9 countries and the US between 1975 and 1984 (Hockmann, 1988). Hockmann's findings on the development of capital stock, presented in table 5.10, are discussed below. No comparable data on capital input in the other non-EC countries are available.

In EUR 9 increases in the capital stock embodied in buildings and machines are about 1.5% p.a. between 1975 and 1984. The annual rate of change of the capital input in cattle is much slower: 0.06%. The increase in capital input is highest in the Netherlands for all three items. The rate of change of capital input in machines and buildings in Ireland is also at a rather high level. Growth rates of capital input in machines, buildings and cattle largely vary among Member States. These can partly be explained by the main type of production in individual countries. Animal production usually requires relatively more buildings, whereas crop production needs more machines. The main difference in trends in capital input between the Community and the US originates from the input of machines. Its annual increase in the Community is about 1.5%, whereas it declines by more than 1% p.a. in the US.

TABLE 5.10 AVERAGE ANNUAL GROWTH RATES (%) OF CAPITAL INPUT IN AGRICULTURE, 1975-1984

	buildings	machines	cattle
FR Germany	-1.08	1.45	0.89
France	2.4	1.08	-0.43
Italy	0.55	2.3	0.32
Netherlands	3.95	5.56	1.92
Belgium/Luxembourg	1.27	3.9	0.99
UK	2.63	-1.27	-0.51
Ireland	2.44	2.76	0.05
Denmark	1.8	0.68	-1.11
EUR 9	1.54	1.54	0.06
US	1.34	-1.23	0.28

Source: Hockmann, 1988.

6. AGRICULTURAL PRICES

6.1 Introduction

Prices are essential in the economic process as they are the determining factor behind each economic activity. Real prices of agricultural products show a declining tendency in the course of time mainly due to output-increasing technological improvements. The magnitude of this negative price trend depends on trends in demand for and supply of agricultural products and developments in the rest of the economy. Political measures can influence prices in order to guide the economic process in a desired direction. Price policy is a main instrument of the CAP for reaching its targets. This price policy is unable to achieve the CAP targets simultaneously since it can be argued that each political target requires its own optimal price level. For example: the price that results in equilibrium of demand and supply on the market for agricultural products can be too low for achieving a fair standard of living for the agricultural community or for increasing agricultural productivity. Since price policy is such an important instrument for the realization of the CAP targets, the trends in prices for agricultural products in the EC and the non-EC countries is examined in this chapter.

The main emphasis in this analysis of prices of agricultural products is on real prices, i.e. prices which are corrected for the inflation of the domestic currency. The next section starts with a short reflection on differences in changes of real prices, followed by a discussion of the trends in real prices of agricultural products and intermediate consumption in the EC. This section concludes with an elaboration on price fluctuations of agricultural products for examining whether markets are stable from the viewpoint of prices. In the third section the trends in agricultural prices in the non-EC countries are analysed. A description of the level of prices of agricultural products in the Community and the non-EC countries is given in the fourth section. In the last section attention is paid to consumers' prices of food for assessing to what extent consumers' prices reflect the decline in agricultural product prices

6.2 Agricultural prices in the EC

6.2.1 Introductory remarks on the trends in real prices

Differences in the growth rates of real prices of agricultural products can be attributed to differences in rates of change of nominal prices of agricultural products as well as those of the GDP deflator. The level of nominal prices of agricultural products can vary among Member States mainly due to exchange rates, which do not fully reflect the purchasing power of the currency, and transport costs. The nominal price index of GDP reflects the rate of domestic inflation, which may also differ between Member States. Moreover, since the nominal price index of GDP is a weighted average of the nominal prices of all GDP commodities, it is sensitive to price changes of the products it is composed of.

TABLE 6.1 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN EUR 11 (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
Total output	-2.71	-2.55	-2.02	-3.89
Crop output	-2.62	-2.21	-2.25	-3.78
Cereals/rice	-3.44	-2.77	-2.44	-5.87
Pulses	-2.97	-3.70	-0.54	-4.94
Potatoes	-4.71	-5.73	3.97	-13.65
Sugar beet	-2.65	-1.43	-3.55	-3.47
Industrial crops	-2.35	-3.06	0.68	-5.09
Vegetables	-2.21	-2.62	-1.31	-2.72
Fruit	-1.89	-0.80	-3.04	-2.19
Wine	-2.39	-0.14	-6.00	-1.21
Olive oil	-3.26	-4.53	-3.43	-0.86
Other crops	-1.25	-1.25	-1.29	-1.20
Animal output	-2.80	-2.85	-1.81	-4.02
Cattle	-2.73	-2.08	-1.71	-5.13
Pigs	-4.35	-5.23	-1.60	-6.48
Sheep/goats	-1.99	-1.19	-2.50	-2.61
Poultry	-3.78	-4.51	-2.59	-4.15
Milk	-1.47	-1.13	-1.44	-2.06
Eggs	-4.28	-5.63	-3.02	-3.68

TABLE 6.2 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE EC MEMBER STATES (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-2.66	-1.91	-1.64	-5.23
France	-2.77	-2.85	-1.78	-3.95
Italy	-2.83	-1.24	-3.64	-4.35
Netherlands	-2.49	-4.05	-0.40	-2.63
Belgium	-1.91	-2.81	1.43	-4.77
Luxembourg	-0.92	-1.64	-0.09	-0.81
UK	-3.46	-3.44	-3.28	-3.73
Ireland	-2.49	1.16	-5.49	-4.40
Denmark	-2.50	-2.28	-0.33	-5.65
Greece	-0.21	0.03	0.07	-0.97
Spain	-3.15	-4.42	-1.96	-2.59
Portugal	:	:	:	-3.71
EUR 11	-2.71	-2.55	-2.02	-3.89
EUR 12	:	:	:	-3.89

6.2.2 Prices of final agricultural output

Implicit price indices have been calculated for final agricultural output and for the separate (groups of) products. A description of the calculation process of real price indices is given in appendix II 1). Prices of agricultural products refer to producers' prices, before VAT and subsidies received on the product are added, and before taxes linked to production are deducted. Table 6.1 provides information on the changes in real prices of agricultural products in EUR 11. Real prices in EUR 11 of final agricultural output declined by 2.7% per annum between "1974" and "1986". The fall in prices in the period "1983-86" of nearly 4% was well above those in the other subperiods. Real prices of crop products decreased a little less than prices of animal products between "1974" and "1986". Real prices of cereals/rice, potatoes, olive oil, pigs, poultry and eggs declined to a considerable extent in these years. The fall of prices of "other crops" and milk was quite moderate. The changes in real prices of the two non-market organization products potatoes and "other crops" deviates from the pattern of products with a market organization. Real prices of potatoes decline more than prices of any other agricultural commodity in EUR 11 between "1974" and "1986". Moreover, potato prices are characterized by sharp annual fluctuations, largely due to changing weather conditions. On the other hand, real prices of "other crops" decrease by the smallest percentage.

The rates of change of prices for final agricultural output in the individual Member States is displayed in table 6.2. The average rate of decline of agricultural prices in the Member States between "1974" and "1986" is close to the Community average of 2.7%, except for Luxembourg and Greece where real prices fall less, and for the UK, where real prices decrease rapidly. However, the pace of decline of prices over the subperiods varies widely among countries. It should be noted that since the subperiods are short, annual growth rates are sensitive to casual factors. Real prices in the first subperiod in the Netherlands and Spain and in the last subperiod in Germany and Denmark are characterized by a sharp decline. The price indices of the separate agricultural products in the individual Member States are presented in tables A6.2 - A6.13.

-
- 1) Price indices for agricultural products have been implicitly derived from EAA values. These indices differ from price indices in the Eurostat report Agricultural prices, which are directly based on price data. Other differences originate from the use of unit values in the EAA and prices for specific products in the Eurostat index, and from a different treatment of taxes and subsidies linked to production.

TABLE 6.3 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF INTERMEDIATE CONSUMPTION IN THE EC (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-1.42	-1.22	1.03	-4.93
France	-0.84	-0.54	0.57	-3.20
Italy	-2.72	-2.23	-0.95	-5.80
Netherlands	-2.01	-3.04	1.05	-4.27
Belgium	-1.19	-2.40	2.96	-4.52
Luxembourg	-0.69	-0.49	1.13	-3.39
UK	-2.10	-1.71	-1.73	-3.25
Ireland	-1.55	-1.10	-2.78	-4.25
Denmark	-1.83	-2.84	2.61	-5.84
Greece	-0.39	-1.06	1.11	-1.27
Spain	-4.00	-9.05	0.82	-1.60
Portugal	:	:	:	-0.69
EUR 11	-1.80	-2.27	0.37	-3.86
EUR 12	:	:	:	-3.81

TABLE 6.4 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF FEEDINGSTUFFS IN THE EC (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-3.54	-3.52	-0.29	-7.74
France	-2.79	-3.39	-0.32	-5.02
Italy	-3.87	-3.63	-2.29	-6.32
Netherlands	-3.48	-5.09	-0.27	-4.96
Belgium	-2.50	-4.45	2.31	-5.42
Luxembourg	-2.72	-2.93	0.23	-6.15
UK	-3.65	-3.47	-3.08	-4.71
Ireland	-3.59	-0.55	-5.27	-6.29
Denmark	-3.48	-4.94	2.05	-8.07
Greece	-0.47	-1.55	1.96	-1.83
Spain	-3.53	-7.62	0.69	-2.06
Portugal	:	:	:	-0.47
EUR 11	-3.30	-4.12	-0.70	-5.33
EUR 12	:	:	:	-5.24

6.2.3 Prices of intermediate consumption

Prices of intermediate consumption are purchasers' prices which are measured at the last marketing stage when the product arrives at the farm. They are inclusive of taxes linked to production and exclusive of subsidies and VAT. Growth rates of the price indices of intermediate consumption are presented in table 6.3 1). For the Community as a whole real prices of intermediate consumption decline by almost 2% per annum between "1974" and "1986". However, this does not imply that the decline of prices of intermediate consumption is at a steady rate. In the first subperiod "1974-79" prices decline by more than 2%. They rise by about 0.4% in the next subperiod. Between "1983" and "1986" prices decrease sharply: by almost 4%. The decrease of prices of intermediate consumption between "1974" and "1986" is relatively high in Italy and Spain. Prices of intermediate consumption in France, Luxembourg and Greece decrease at a rather low rate.

The real price index of intermediate consumption provides information on the changes in prices of the whole group of non-factor inputs. The trends in real prices of three separate items of intermediate consumption, fertilizers, feedingstuffs and energy/lubricants, is examined below. These items cover about two thirds of the value of intermediate consumption. In tables 6.4-6.6 growth rates of price indices of feedingstuffs, fertilizers and energy/lubricants are displayed. A graph of the path of price indices of intermediate consumption, fertilizers, feedingstuffs and energy for EUR 11 is shown in figure 6.1.

Real prices of energy in EUR 11 rise in two steps to a relatively high level in 1981, then remain more or less stable and fall from 1985. This rise of energy prices in the 1970s and early 1980s is caused by the oilshocks of 1973 and 1979. In the Community as a whole the decline of real prices of fertilizers and feedingstuffs is about the same, although in most Member States real prices of fertilizers decrease less than real prices of feedingstuffs. The rates of change of real prices of fertilizers differ greatly between Member States in the years "1974-1986": the decline in prices in Spain is over 14% p.a., whereas Belgian farmers are faced with an annual real price increase of about 1.4%.

In a comparison of the decline of real prices of agricultural output and intermediate consumption between "1974" and "1986" in the Community (see tables 6.2 and 6.3), it can be seen that real prices of agricultural output declined at a higher rate. The path of both price indices in the Community is illustrated in figure 6.2. Until 1979 real prices of agricultural output and intermediate consumption decline. In the following years the decrease of real prices of agricultural output decelerate and real prices of intermediate consumption even increase, again followed by a decline from 1984. A more detailed view of the relation of real prices of agricultural output and intermediate consumption can be given by the terms of trade. The agricultural terms of trade are defined as the ratio of the price index of final agricultural output and the price index of intermediate consumption. They are presented in table 6.7. When the terms of trade increase with regard to the previous year, prices of final output decrease less or increase more than prices of intermediate consumption.

1) These price indices differ from other Eurostat price indices for intermediate consumption for the same reasons as mentioned in the previous subsection.

TABLE 6.5 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF FERTILIZERS IN THE EC (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-1.67	-0.98	0.32	-5.38
France	-1.37	-1.41	0.40	-3.60
Italy	-0.16	-0.30	3.79	-4.96
Netherlands	-0.84	-0.65	0.69	-3.15
Belgium	1.36	0.63	4.52	-1.51
Luxembourg	-0.20	0.05	1.86	-3.31
UK	-3.92	-2.44	-3.09	-7.40
Ireland	-2.09	0.23	-3.41	-4.13
Denmark	-0.60	-3.54	5.91	-3.97
Greece	-3.82	-3.45	-2.92	-5.63
Spain	-14.62	-26.08	-6.14	-4.32
Portugal	:	:	:	:
EUR 11	-3.20	-4.69	-0.21	-4.63

TABLE 6.6 ANNUAL GROWTH RATES (%) OF REAL PRICE INDEX OF ENERGY AND LUBRICANTS IN THE EC (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	0.00	1.59	3.77	-7.28
France	2.94	5.04	7.15	-5.65
Italy	1.86	4.32	8.04	-9.51
Netherlands	4.80	7.24	12.14	-7.85
Belgium	1.72	3.37	9.55	-10.30
Luxembourg	2.69	3.49	6.81	-3.82
UK	2.24	3.50	5.63	-4.09
Ireland	2.71	4.25	7.85	-6.12
Denmark	1.08	2.97	8.13	-10.41
Greece	2.32	4.53	2.41	-1.37
Spain	3.64	-1.16	13.32	-0.42
Portugal	:	:	:	-1.87
EUR 11	1.85	3.12	6.71	-6.23
EUR 12	:	:	:	-6.16

Figure 6.1 Real price indices of intermediate consumption in EUR 11 (1980=100)

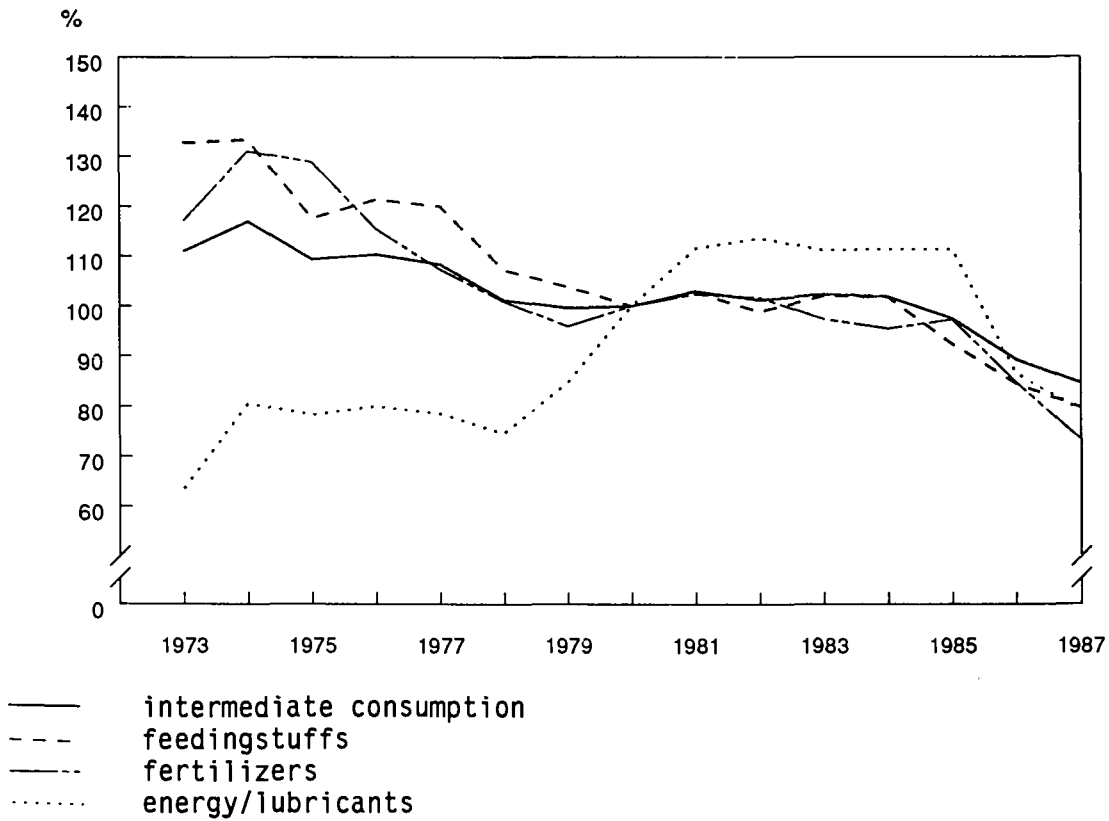


Figure 6.2 Real price indices of final agricultural output and intermediate consumption in EUR 11 (1980=100)

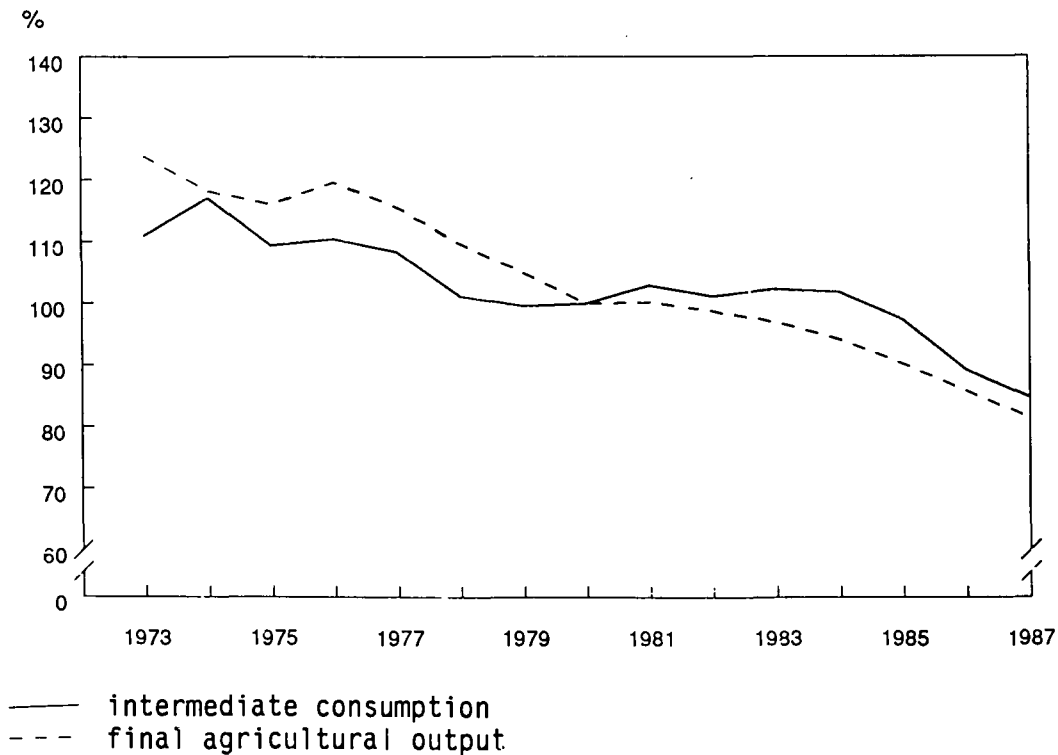


TABLE 6.7 AGRICULTURAL TERMS OF TRADE IN THE EC (1980 = 100) (ratio price index of final agricultural output and price index of intermediate consumption)

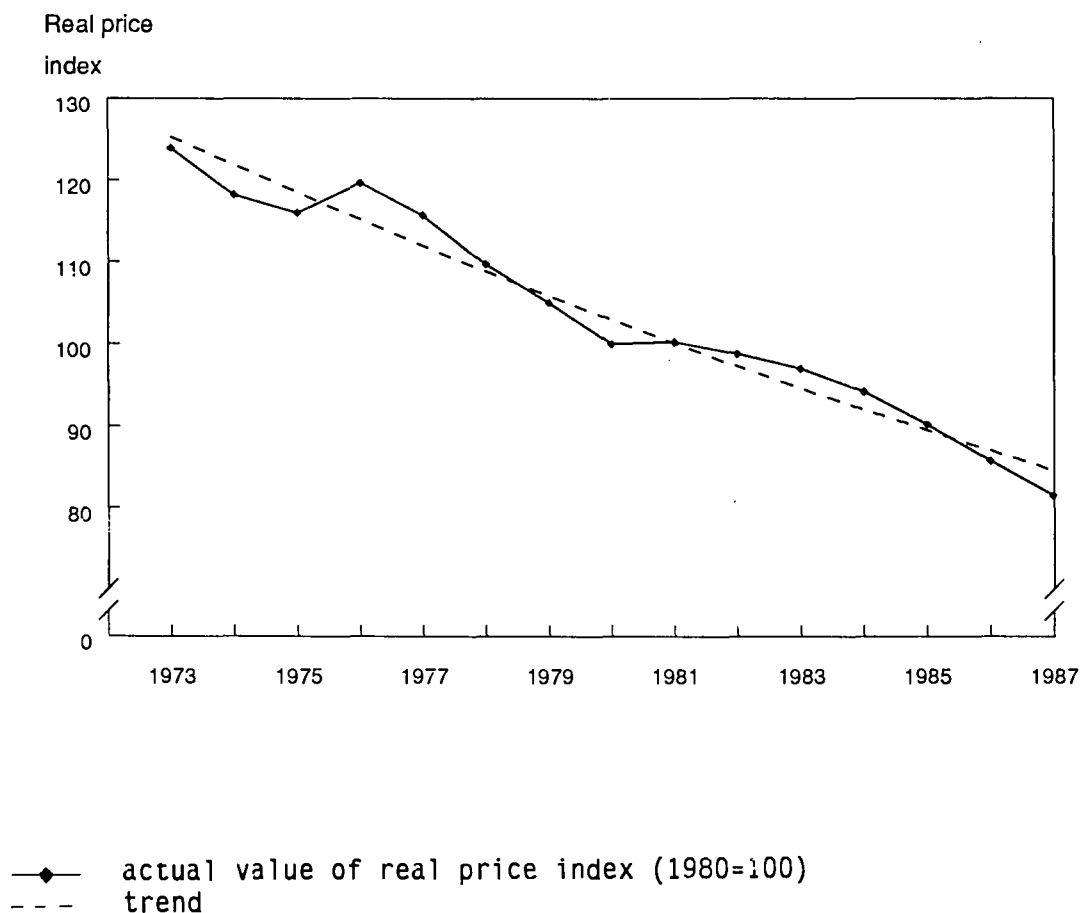
	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	112	129	107	114	109	120	117	131	112	109	79	:	112	:
1974	102	114	95	101	97	105	107	98	94	102	78	:	101	:
1975	110	113	95	111	107	103	117	106	101	96	87	:	106	:
1976	112	116	96	114	110	104	123	108	104	107	90	:	108	:
1977	108	111	101	109	103	102	110	110	101	109	102	:	107	:
1978	108	110	106	108	106	104	107	116	111	116	107	:	108	:
1979	105	106	106	101	102	105	106	115	105	110	105	:	105	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	97	99	93	101	98	97	101	102	96	100	94	96	97	97
1982	97	99	94	99	97	101	100	99	96	106	98	93	98	98
1983	93	97	94	96	99	99	97	101	94	101	92	85	95	95
1984	92	92	92	97	94	95	96	96	91	105	90	79	93	92
1985	91	92	95	100	95	103	93	92	91	106	87	77	93	92
1986	94	95	99	102	95	104	98	98	98	101	93	77	96	96
1987	95	94	100	106	98	113	98	107	94	107	91	79	96	96

The opposite applies when the terms of trade decrease with regard to the previous year. The course of the terms of trade for EUR 11 between 1973 and 1987 shows alternately increases and decreases with regard to the previous year. On the whole decreases dominate, indicating the unfavourable development of prices of agricultural products relative to prices of intermediate consumption.

6.2.4 Fluctuations in final agricultural output prices

In this section price fluctuations of agricultural products are examined from two viewpoints. Firstly, annual deviations from the trend of the real price index between 1973 and 1987 are assessed. This assessment provides information on short term price stabilization. Secondly, the percentage change of real prices with regard to the previous year is discussed. These changes illuminate the rate of real price decline from year to year.

Figure 6.3 Exponential trend in real prices of final agricultural output in EUR 11



$$\ln Y = 60.18 - 0.028 T, T = \text{years (1973 ... 1987)}, t\text{-value} = 18.93$$

TABLE 6.8 DEVIATION OF ACTUAL VALUE FROM THE EXPONENTIAL TREND OF THE REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE EC, 1973-1987 (in per cent)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11
1973	-2.4	-0.3	-6.8	8.4	7.1	9.3	-6.5	-13.3	4.8	:	3.7	:	-1.1
1974	-8.6	0.0	-3.1	-3.3	-5.9	-7.5	-0.7	-13.2	-6.7	:	-0.3	:	-3.0
1975	-2.1	-2.6	-3.4	0.2	-1.0	1.9	-1.3	-1.8	-3.8	:	1.1	:	-2.1
1976	7.0	1.4	1.9	5.2	7.4	0.0	12.0	2.5	2.3	:	0.7	:	3.9
1977	3.6	1.7	4.0	0.2	-2.9	0.9	6.7	14.3	-1.5	:	6.5	:	3.3
1978	-0.9	0.3	6.2	-5.8	-5.6	-1.5	0.4	17.7	-0.7	:	1.4	:	0.8
1979	0.5	-2.1	4.8	-7.4	-7.1	-1.7	1.2	13.5	-4.2	:	-5.5	:	-0.8
1980	-0.7	-2.6	1.7	-5.7	-3.5	-4.1	-6.6	0.7	0.0	:	-10.1	:	-2.9
1981	4.8	0.8	0.6	0.4	0.0	-2.2	-4.8	2.8	4.3	:	-5.3	:	0.1
1982	4.7	2.0	2.6	-0.2	3.4	1.2	-2.3	-0.7	7.1	:	-1.6	:	1.5
1983	3.7	3.9	1.5	1.5	10.9	1.8	1.0	0.1	6.6	:	0.2	:	2.5
1984	3.8	1.6	0.0	4.3	7.4	-0.6	1.9	-1.4	5.9	:	3.1	:	2.4
1985	1.7	0.8	-0.3	4.1	2.7	1.8	-2.1	-5.6	-0.5	:	1.6	:	0.8
1986	-4.9	-1.2	-2.8	-0.6	-3.8	0.0	-0.4	-7.1	-0.8	:	5.5	:	-1.4
1987	-8.5	-3.5	-5.8	0.1	-6.7	1.6	3.0	-3.0	-11.0	:	0.5	:	-3.7
t-value time variable in trend	-9.1	-21.7	-12.7	-9.1	-4.7	-4.1	-12.8	-5.2	-7.2	:	-11.9	:	-18.9

Note: Deviations of Greece are omitted since the real price index of final agricultural output shows a sinusoid pattern.

The trend in the real price index of final agricultural output in EUR 11 between 1973 and 1987 is shown in figure 6.3. Actual values of the real price index of final agricultural output are also indicated in that figure. Actual values oscillate around the trend. Alternately actual values are above the trend for a number of successive years and below the trend for a number of successive years.

Annual deviations of the trend of the real price index of agricultural products, expressed as a percentage of the trend, are presented in table 6.8. The real price index of EUR 11 fluctuates in a narrow range of about 4% around the trend. The small fluctuations for EUR 11 are partly due to an aggregation effect, since fluctuations around the trend in the individual Member States are larger, except for France. Oscillations of actual values around the trend can also be perceived in the Member States. Only in Ireland are fluctuations more than 10% of the trend. However, the price fluctuations in the 1980s in Ireland are considerably smaller than those in the 1970s. This can be attributed to an adjustment process of agricultural prices after Ireland's entrance into the EC.

For EUR 11 growth rates of the real price index of the separate agricultural products have been calculated. The deviations of the actual values from these trends are given in table A6.19. Actual values of the real price index of "other crops" and milk are closest to the trend. Real prices of potatoes and wine are characterized by quite large fluctuations around the trend. Prices of other products are relatively stable. The price instability of potatoes is not surprising: potato prices are very sensitive to seasonal fluctuations and they are not supported by a market organization.

The fluctuations of the real price index around the trend indicate that the decline in real prices is not equally distributed over time. Table 6.9 gives a view of the percentage deviation of the real price index of final agricultural output from the previous year between 1973 and 1987. For the Community as a whole changes in real prices from year to year vary over the period and differ from the average annual growth rate for the whole period. This also applies for the individual Member States, but on average differences between the changes in real prices from year to year and the annual growth rates for the period "1974-86" are larger than for the Community as a whole.

The percentage deviation of the real price index of the separate agricultural products from the previous year in EUR 11 is also examined. In table A6.20 it can be seen that deviations for the separate products tend to be larger than those for final agricultural output, except for "other crops" and milk. Deviations of the real price index from the previous year are considerable for pulses, potatoes, fruit, wine, pigs and eggs. Clearly, the smaller deviations of the real price index of final agricultural output from the previous year in EUR 11 are caused by an aggregation effect, in which fluctuations in individual Member States and separate agricultural products cancel each other out. Further it can be remarked that in spite of the increasing surplus production, deviations in prices from the previous year for final agricultural output and for individual agricultural products do not tend to increase or decrease in the course of time.

TABLE 6.9 PERCENTAGE CHANGE FROM THE PREVIOUS YEAR IN REAL PRICES FOR FINAL AGRICULTURAL OUTPUT IN THE EC, 1973-1987

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1974	-8.9	-2.5	0.8	-13.0	-13.7	-16.1	2.2	-2.9	-13.0	-4.0	-6.9	:	-4.6	:
1975	4.2	-5.3	-3.2	1.2	3.5	9.3	-4.2	10.0	0.7	-5.0	-1.9	:	-1.9	:
1976	6.4	1.2	2.3	2.4	6.6	-2.8	9.3	1.4	3.9	4.7	-3.6	:	3.1	:
1977	-5.8	-2.4	-0.9	-7.2	-11.1	0.0	-8.3	8.3	-5.9	-1.1	2.4	:	-3.3	:
1978	-7.0	-4.2	-0.9	-8.2	-4.5	-3.3	-9.4	0.1	-1.6	-0.5	-7.8	:	-5.1	:
1979	-1.3	-5.0	-4.2	-4.1	-3.3	-1.1	-2.9	-6.3	-5.7	1.5	-9.8	:	-4.3	:
1980	-3.9	-3.3	-5.8	-0.6	2.2	-3.2	-11.2	-13.8	1.9	2.8	-8.0	:	-4.8	:
1981	2.7	0.7	-4.1	3.9	1.8	1.0	-1.9	-0.8	2.0	0.5	1.9	2.0	0.2	0.3
1982	-2.8	-1.6	-1.0	-3.0	1.7	2.5	-1.1	-6.2	0.3	-2.6	0.6	-1.2	-1.4	-1.4
1983	-3.7	-0.9	-4.0	-0.8	5.5	-0.3	-0.5	-2.1	-2.8	-1.2	-1.5	0.6	-1.8	-1.8
1984	-2.6	-4.9	-4.5	0.2	-4.9	-3.3	-2.9	-4.4	-3.0	2.7	-0.4	1.7	-2.9	-2.8
1985	-4.7	-3.5	-3.2	-2.6	-5.9	1.5	-7.5	-7.0	-8.2	1.3	-4.7	-6.9	-4.2	-4.3
1986	-9.0	-4.7	-5.4	-6.9	-7.9	-2.7	-2.0	-4.4	-2.6	-6.5	0.4	-5.3	-5.0	-5.0
1987	-6.4	-4.9	-6.0	-1.8	-4.7	0.7	-0.4	1.4	-12.3	-3.5	-7.8	-5.8	-5.0	-5.0

6.3 Agricultural prices in non-EC countries

6.3.1 Prices of final agricultural output

Indices of real prices of agricultural output and intermediate consumption in the non-EC countries are based on definitions and statistical sources which are different from those of the EC price indices. Tables in this chapter, which provides information on price developments in the non-EC countries, therefore do not include a column with EC data 1). Another consequence of this different base is that comparisons of trends in real prices inside and outside the EC have to be made with care, and are approximate only.

Real price indices of agricultural products in the non-EC countries are presented in table 6.10. Real agricultural prices decline by more than 4% p.a. in the US between "1974" and "1986" and in Canada between "1974" and "1984". In Japan the annual decrease of prices is moderate in these years: about 0.5%. The annual decline of prices tends to increase in the course of the subperiods, Sweden being the exception.

Trends in real prices of crop and animal products are given in tables 6.11 and 6.12. The annual decline of prices of crop products is clearly above that of animal products. This does not apply to Japan, where real prices of crop products decrease less than prices of animal products. With regard to the first subperiod the sharp decline in prices of crop products can be explained by the quite high prices in 1973 and 1974, due to shortages of crop products on the world market.

A comparison of the changes in real prices of agricultural products between the EC and the non-EC countries suggests that the decline in real prices in the EC is less than the decline in the US and Canada between "1974" and "1986", whereas it exceeds the decline in Australia, Japan and Sweden. The tendency in most of the non-EC countries that prices of animal products fall less than prices of crop products, is not present in the EC.

6.3.2 Prices of intermediate consumption

Real prices of intermediate consumption in the US, Canada and Japan decrease by about 1% p.a. between "1974" and "1986", as can be seen in table 6.13. In Australia and Sweden farmers faced an increase in real prices of intermediate consumption. On the whole it can be said that the decline of real prices of intermediate consumption in the EC was above that in the non-EC countries in the period "1974-1986".

Agricultural terms of trade for the non-EC countries are presented in table 6.14. The negative trend of the terms of trade between 1973 and 1987 in the US, Canada, Australia and Sweden reflects the unfavourable trends in real prices of agricultural products relative to real prices of intermediate consumption. However, in a number of years the terms of trade show an increase with regard to the previous year, indicating that the decline of real prices of intermediate consumption exceeds that for agricultural products in that year. The agricultural terms of trade in Japan increase in most years due to the moderate decline of prices of agricultural products relative to prices of intermediate consumption.

1) These sources enable comparisons to be made between individual Member States and non-EC countries. However, since in this study developments in the Community as a whole are compared with those in the non-EC countries, these data on individual Member States are disregarded.

TABLE 6.10 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES OF AGRICULTURAL PRODUCTS IN THE NON-EC COUNTRIES (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	-4.33	-3.04	-4.94	-5.66
Canada *)	-4.37	-4.14	-4.74	:
Australia	-2.09	-1.11	-2.22	-3.55
Japan	-0.55	0.04	-0.23	-1.94
Sweden	-1.23	-1.82	0.10	-1.99

*) Growth rate "1974-1986" for Canada refers to "1974-1984".

Notes: Real price indices have been calculated as the ratio of the index number of prices received by farmers and the price index of GDP at factor costs.

Source: FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE 6.11 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES OF CROP OUTPUT IN THE NON-EC COUNTRIES (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	-5.55	-5.40	-4.07	-7.74
Canada *)	-6.51	-7.55	-5.74	:
Australia	:	:	-2.42	-5.76
Japan	:	:	-0.02	-0.93
Sweden	-1.50	-2.73	1.37	-3.21

*) Growth rate "1974-1986" for Canada refers to "1974-1984".

Notes: Crops in Japan refer only to rice.

Source: FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE 6.12 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES OF ANIMAL OUTPUT IN THE NON-EC COUNTRIES (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	-3.37	-1.00	-5.76	-4.02
Canada *)	-2.55	-1.43	-3.71	:
Australia	:	:	-1.91	-2.13
Japan	:	:	-2.77	-3.44
Sweden	-0.99	-1.53	-0.35	-0.95

*) Growth rate "1974-1986" for Canada refers to "1974-1984".

Source: FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE 6.13 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES OF INTERMEDIATE CONSUMPTION IN THE NON-EC COUNTRIES (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
United States	-1.15	1.10	-1.48	-4.37
Canada *)	-1.18	0.17	-2.50	:
Australia	0.63	0.42	1.28	0.33
Japan	-0.96	-1.49	1.11	-2.80
Sweden	0.53	-1.67	4.84	-1.37

*) Growth rate "1974-1986" for Canada refers to "1974-1984".

Notes: Indices are based on prices paid by farmers of production requisites.

Source: FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE 6.14 AGRICULTURAL TERMS OF TRADE IN THE NON-EC COUNTRIES (1980 = 100) (ratio of price index of final agricultural output to price index of intermediate consumption)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	144	130	132	97	106
1974	132	138	89	95	104
1975	116	122	80	100	112
1976	110	110	80	105	115
1977	103	104	75	102	113
1978	110	107	81	110	112
1979	108	107	95	107	107
1980	100	100	100	100	100
1981	97	100	94	100	98
1982	90	95	83	98	92
1983	91	94	79	101	88
1984	94	96	77	100	85
1985	87	91	75	102	82
1986	88	:	69	102	87
1987	89	:	69	103	92

TABLE 6.15 ANNUAL DEVIATION OF ACTUAL VALUE FROM THE EXPONENTIAL TREND OF THE REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE NON-EC COUNTRIES, 1973-1987 (in per cent)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	1.7	1.5	28.0	-4.7	2.6
1974	4.4	9.7	-2.7	-2.5	-0.1
1975	-4.8	-0.2	-12.8	1.6	-0.9
1976	-6.3	-8.0	-14.4	4.3	0.4
1977	-10.1	-11.7	-18.2	-1.8	1.1
1978	0.4	-1.8	-7.5	-1.6	-1.2
1979	10.2	6.8	8.0	0.8	-3.7
1980	6.8	3.4	18.1	3.1	-3.7
1981	5.2	5.3	16.0	3.7	0.9
1982	-1.1	-1.4	7.3	0.2	2.8
1983	0.2	-2.7	1.2	2.7	1.3
1984	6.1	2.7	-0.4	2.6	2.3
1985	-3.1	-1.6	-0.5	1.5	-0.4
1986	-5.7	:	-5.8	-4.4	-1.2
1987	-1.6	:	-5.0	-4.8	0.2
t-value time variable in trend	-11.7	-8.9	-1.9	-2.5	-9.3

6.3.3 Fluctuations in final agricultural output prices

Annual deviations of the real price index of final agricultural output from the trend in the non-EC countries are given in table 6.15. The real price index in Japan and Sweden fluctuates in a narrow range around the trend, whereas the fluctuations around the trend in Australia are considerable. Fluctuations around the trend in the US, Canada and Australia in the 1980s are smaller than those in the 1970s. The wave pattern of the real price index around the trend can also be perceived in these non-EC countries.

The percentage deviation of the real price index of final agricultural output from the previous year between 1973 and 1987 is given in table 6.16. The deviations in the US, Canada and Australia are larger than those in Japan and Sweden, and also larger than those in the Community. The percentage deviation of the real price indices of crop and animal output from the previous year in the non-EC countries is also given: see tables A6.25 and A6.26. On average, deviations of crop output from one year to another are larger than deviations of animal output, Japan being the exception.

6.4 Price levels for agricultural products

Until now the focus has been on the changes in real prices of agricultural products without considering the level of agricultural prices. In this section the level of prices of agricultural products in the EC and the non-EC countries will be discussed. Comparisons of price levels between countries are made by using purchasing power parities (PPPs), which are based on prices of agricultural products. Price levels can be obtained by dividing these PPPs by the official exchange rate. When these price levels are related to the average of the group (or a base country), a price level index can be constructed, which enables a comparison of price levels between the countries of the group.

Price level indices for final agricultural output in ten EC Member States in 1975, 1980 and 1985 are presented in the first three columns of table 6.17. Price levels of the original founder Members of the EC (Germany, France, Italy, the Netherlands and Belgium) in 1975 are well above those of the countries who joined the EC later (the UK, Ireland, Denmark, Greece and Spain). This means that agricultural producers in the first group of countries received higher prices for their products in 1975. In the course of the years 1975-1985 price levels in the Member States tended to converge, since in 1985 price levels are close to the Community average. The price level in Italy does not fit this convergency pattern.

Price level indices for intermediate consumption in the EC Member States in 1975, 1980 and 1985 are also displayed in table 6.17. In the UK and Ireland price levels of intermediate consumption diverge in an upward direction from the Community average in the course of the years 1975-1985. So intermediate consumption is relatively expensive in these two countries. Price levels in Greece and Spain are persistently lower than the Community average. In the other Member States price levels are close to the Community average.

The last three columns of table 6.17 enable a comparison to be made between the price levels of final agricultural output in the EC and the non-EC countries for the years 1970, 1975 and 1980. In all three years the

TABLE 6.16 PERCENTAGE CHANGE FROM THE PREVIOUS YEAR IN REAL PRICES FOR FINAL AGRICULTURAL OUTPUT IN THE NON-EC COUNTRIES

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1974	-1.5	3.8	-25.1	1.8	-3.7
1975	-12.5	-12.6	-11.7	3.6	-1.9
1976	-5.5	-11.5	-3.2	2.2	0.1
1977	-7.9	-7.8	-5.8	-6.3	-0.4
1978	7.1	6.9	11.5	-0.3	-3.4
1979	5.4	4.5	15.1	2.0	-3.7
1980	-6.9	-7.0	7.8	1.8	-1.1
1981	-5.5	-2.2	-3.1	0.1	3.5
1982	-9.7	-10.1	-8.9	-3.9	0.7
1983	-2.7	-5.2	-7.1	2.0	-2.5
1984	1.6	1.3	-2.9	-0.6	-0.2
1985	-12.3	-8.0	-1.6	-1.5	-3.7
1986	-6.7	:	-6.7	-6.3	-1.9
1987	0.2	:	-0.6	-0.9	0.2

TABLE 6.17 PRICE LEVEL INDICES OF AGRICULTURAL PRODUCTS

	FINAL AGRICULTURAL OUTPUT (EC = 100)			INTERMEDIATE CONSUMPTION (EC = 100)			FINAL AGRICULTURAL OUTPUT (US = 100)		
	1975	1980	1985	1975	1980	1985	1970	1975	1980
Germany	114	112	101	106	103	97	123	147	155
France	105	101	100	101	106	104	115	156	150
Italy	105	106	110	96	98	103	135	136	152
Netherlands	101	97	95	101	102	100	112	134	140
Belgium *)	104	102	96	107	105	100	126	134	143
UK	79	97	96	96	110	115	103	120	140
Ireland	75	103	86	105	114	117	89	109	121
Denmark	92	94	102	93	91	96	97	126	137
Greece	80	90	105	83	80	81	129	122	158
Spain	:	85	93	:	79	84	110	125	130
Portugal	:	:	:	:	:	:	116	143	162
EC **)	100	100	100	100	100	100	:	:	:
US	:	:	:	:	:	:	100	100	100
Canada	:	:	:	:	:	:	81	98	109
Australia	:	:	:	:	:	:	85	80	96
Japan	:	:	:	:	:	:	216	254	296
Sweden	:	:	:	:	:	:	138	146	158

*) Last three columns inclusive of Luxembourg; **) EC refers in 1975 to nine countries and in 1980 and 1985 to ten countries, for which data are given in the table. Due to differences in the composition of the group of countries and different calculation methods, price levels in the FAO and Terluin studies are not comparable.

Sources: First six columns: Terluin, 1990; last three columns: FAO, 1986.

price level in the EC Member States is well above that in the US, Canada and Australia. The gap between the price levels in the EC Member States and these three countries increases between 1970 and 1980. The price level in the EC Member States is comparable to that in Sweden, whereas it is far below that in Japan.

6.5 Food prices

The decline in real prices of agricultural products implies a reduction in the purchasing costs of food for consumers. In general producers' prices of agricultural products differ from consumers' food prices, since agricultural products have to go through several stages before they are suitable for human consumption. The difference between producers' prices and consumers' prices is a remuneration for processing, transporting and commercial activities. The difference can also be brought about by taxes and subsidies on consumption.

Growth rates of real price indices for food (including beverages and tobacco) in the EC are presented in table 6.18. They are based on data on final consumption of food, beverages and tobacco of households on the economic territory. Real prices of food decline by 0.6% p.a. between "1974" and "1985" in the Community. However, the trends for individual Member States deviate considerably from the average rate of decline. Consumers in Luxembourg faced an annual price increase of 0.45% in those years, while real prices of food declined by 1% p.a. in the UK.

In a comparison of the indices of real producer prices and consumer prices (see tables 6.2 and 6.18), it can be seen that there is a tendency towards a positive correlation between the decline in producer and consumer prices: when the decline in producer prices increases, the decline in consumer prices also increases. But in general the decline in real producer prices exceeds the decline in consumer prices. This can be attributed to the fact that the price of food partly reflects the price of agricultural products and partly the remuneration of the intermediate links between producer and consumer. The price index of wages in the intermediate links diverges from the price index of agricultural products. Another reason for the difference between the producers' price index for agricultural products and the consumers' price index for food is that the latter is inclusive of a number of imported products like coffee, tea and pine apples.

Table 6.19 shows that consumers in Canada, Australia, Japan and especially in Sweden faced an increase in real food prices in the period "1976-1986". Real prices of food in the US declined in these years. Since real price indices of food in the non-EC countries are exclusively based on food prices and derived from a different source from those in the EC, comparisons between growth rates of real food prices in the EC and non-EC countries have to be made with care. Such comparisons indicate that consumers in the Community have experienced more favourable trends in food prices than consumers in the non-EC countries. The large divergence between trends in real producer prices of agricultural products and real consumer prices of food in Canada is remarkable.

TABLE 6.18 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES FOR FOOD, BEVERAGES AND TOBACCO IN THE EC (1980 = 100)

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	-0.87	-1.04	-0.06	-1.67
France	-0.31	-0.54	0.41	-0.89
Italy	:	:	:	-1.54
Netherlands	-0.97	-1.81	-0.50	-0.19
Belgium	-0.01	-0.81	1.49	-0.66
Luxembourg *)	0.45	0.65	0.30	0.26
UK	-1.00	-1.08	-1.51	-0.18
Ireland *)	0.36	0.15	0.86	-0.09
Denmark	-0.55	-0.45	-0.86	-0.31
Greece	0.03	0.24	0.13	-0.45
Spain	-0.86	-1.91	-0.39	0.27
Portugal *)	:	:	:	-0.23
EUR 11 *) **)	-0.60	-0.98	-0.22	-0.41
EUR 12 *)	:	:	:	-0.68

*) Growth rates "1974-86" refer to "1974-85"; growth rates "1983-86" to "1983-85". **) EUR 11 refers to the group of 11 Member States without Italy.

Source: Eurostat, National Accounts ESA. Detailed tables by branch, 1988/1989.

TABLE 6.19 ANNUAL GROWTH RATES (%) OF REAL PRICE INDICES FOR FOOD IN THE NON-EC COUNTRIES (1980 = 100)

	"1976-86"	"1976-79"	"1979-83"	"1983-86"
United States	-0.33	1.04	-1.47	-0.18
Canada *)	1.06	2.54	0.18	:
Australia	0.34	1.98	-0.29	-0.43
Japan	0.85	0.51	1.51	0.32
Sweden	1.91	0.14	3.66	1.40

*) Growth rate "1976-1986" for Canada refers to "1976-1984".

Source: OECD, Main Economic Indicators, various issues.

7. AGRICULTURAL PRODUCTIVITY

7.1 Introduction

The first CAP aim mentioned in article 39 of the Treaty of Rome is to increase agricultural productivity. In this chapter measures of productivity are constructed by relating final agricultural output and GVA in agriculture to the inputs used in the agricultural production process. Productivity in EC agriculture is assessed from two view points: trends in agricultural productivity in the non-EC countries and trends in productivity in the rest of the economy.

In this chapter attention is paid first to the methodology for estimating measures of productivity. An important issue in this discussion is the distinction between partial productivity indicators and total productivity indicators. Next labour productivity and productivity of intermediate consumption, which are partial productivity indicators, are discussed. The final section is devoted to total productivity.

7.2 Measurement of productivity

Productivity is measured as the ratio of output and input. Productivity varies due to different amounts of output per unit of input. The rate of output per unit of input depends on three factors (Capalbo and Antle, 1988: 48-49):

- (1) the quantities and types of resources put into the production process;
- (2) the efficiency with which those resources are used;
- (3) the state of technology or kind of production process utilized.

The amount of each type of input used in the agricultural production process varies among countries and is largely determined by resource endowments, the economic, sociological and institutional organization and climatological and natural circumstances. Relative abundant (hence cheap) factors are generally used in larger quantities than relative scarce (hence expensive) factors. Technological developments facilitate the substitution of the relatively abundant factors for the scarce factors. Hayami and Ruttan distinguish two kinds of technology: mechanical or labour-saving technology and biological or land-saving technology (Hayami and Ruttan, 1985: 73-76). Mechanical technology is designed to encourage the substitution of power and machinery for labour. The area of land cultivated per agricultural worker is increased by this technology. Biological technology facilitates the substitution of chemical fertilizers, new seeds, insecticides, new husbandry practices, etc. for land. These biological innovations are land-saving because they increase yield per unit of land. In empirical studies it is very difficult to trace the separate influences of the above three factors on output. Therefore, in this study the focus is on productivity changes without trying to identify the underlying relationship between input and output.

A wide variety of methods exist for measuring productivity. In this study the focus is on the growth accounting approach, in which productivity is measured as the ratio of an index of output and an index of input. The index of input can cover all resources used in the production process, but

can also be restricted to a single type of input. In the first case productivity is referred to as total productivity (TP), in the other case as partial productivity (PP). Depending on whether the index of output covers gross output or value added, productivity is successively referred to as gross productivity and net productivity.

A disadvantage of a PP indicator is that all increases in productivity are attributed to the use of a single type of input. Factor substitution and changes in quality and volumes of other inputs, which can contribute considerably to productivity increases, are not taken into account. On the other hand, a TP indicator takes account of all changes in inputs, and therefore gives a more complete view of productivity. The TP indicator will usually be lower than the PP indicator since the denominator covers all inputs.

In growth accounting approaches, TP is estimated after indices of aggregate output and aggregate input are calculated. TP depends on methods applied for calculating these indices. The construction of an index of total inputs is rather complicated and places strong demands on data availability. Laspeyres quantity indices use base period prices. With regard to the aggregate input index this implies that it is assumed that inputs are either perfect substitutes or are used in fixed proportions in the production process. Technological improvements after the base year, which may influence input prices and qualities, are not reflected in the Laspeyres index. Because of these shortcomings of the Laspeyres index, an index which enables various substitution elasticities between inputs is preferred. The Tornqvist-Theil index is one of the indices which satisfies this demand, since it uses weightings from both the base period and the comparison period. By doing so this index takes quality changes, which are embodied in data on input and output, into account.

In this study TP indicators are not calculated for lack of data on quality changes of labour, capital and land, and volume changes of capital 1). Instead we focus on the PP concept for estimating labour productivity and productivity of intermediate consumption. Land productivity is not examined in this study, since this indicator of productivity can be distorted by two factors. It can have an upward bias because intensive livestock raising uses no land, and a downward bias due to the inclusion of waste land in the amount of agricultural area. Hockmann has estimated a TP indicator for the EUR 9 countries and the US for the period 1975-1984 by using a Tornqvist-Theil index (Hockmann, 1988). His data also enable an estimation to be made of a PP indicator of gross labour productivity. Hockmann's TP and PP indicators are compared to assess the extent of the difference between them.

7.3 Labour productivity

In this section the focus is on changes in net labour productivity. First attention is paid to labour productivity in agriculture in the EC. As a next step, growth rates of labour productivity in agriculture are related to growth rates of labour productivity in the rest of the economy. Finally

1) TP indicators for EC agriculture are presented in the study by Butault, J.P., et al., Formation et répartition des gains de productivité dans les agricultures européennes 1967-87, Eurostat, 1990.

labour productivity in both the agricultural and the other branches in the non-EC countries is discussed and compared with that in the EC.

7.3.1 Labour productivity in agriculture in the EC

Here labour productivity in agriculture is defined as gross value added at factor cost in constant prices (1980 ECUs) per AWU. In fig. 7.1 the level of labour productivity in each Member State is related to the average level in the Community for the benchmark years "1974", "1979", "1983" and "1986". The Community average equals 100 and refers in "1974" and "1979" to EUR 11; in "1983" and "1986" to EUR 12. The EC countries can be divided into three groups. The level of labour productivity in the Netherlands, Belgium and Denmark is relatively high. In the second group of countries, consisting of Germany, France, Italy, Luxembourg and the UK, the level of labour productivity is just above or on the Community average. The level of labour productivity in Ireland, Greece, Spain and Portugal lags behind.

The comparison of levels of labour productivity is complicated by three factors. Firstly, the level of labour productivity cannot be assessed without considering the nature of the production process. Labour productivity in capital-intensive types of production tends to be higher than that in labour-intensive activities. The extent of labour and capital input between countries is usually more comparable for particular types of agricultural production (for instance pig meat production or cereals production) than for the whole agricultural branch. A more suitable comparison of labour productivity is therefore one that is based on labour productivity per type of agricultural production. However, our data are insufficient for imputing inputs to the various types of production. Secondly, GVA depends on the values of output and intermediate consumption. Suppose there are two countries A and B with identical production structures, but with a different price level. Each country produces 100 ton of potatoes. The price of 1 ton of potatoes in country A is 100 ECU; in country B 150 ECU. The costs of intermediate consumption in country A are 40 ECU per ton of potatoes; in country B 70 ECU. Hence GVA in country A is 6000 ECU and in country B 8000 ECU, while in both countries the same amount of potatoes has been produced with the same amount of intermediate consumption. Here, the differences in GVA can only be attributed to differences in price levels. These differences can be caused partly by a surplus or shortage of agricultural products in a country, transportation costs, trade costs, the official exchange rates and monetary compensatory amounts. Table 7.1 provides some information on the differences in price levels of GVA in 10 EC Member States. Since price levels for GVA in Germany and Italy are above the Community average, GVA (and hence productivity) in these countries will have an upward bias relative to the other EC countries. However, the examination of the consequences of these different price levels for the measurement of productivity is beyond the scope of this study. It would be useful to pay attention to this problem in the future. Thirdly hours worked per AWU may vary among Member States. This can overstate or understate labour productivity. The levels of labour productivity of the EC Member States are not elaborated on further for the reasons given above. A comparison of growth rates of labour productivity in individual countries is of more use, since these comparisons are not troubled by inter-country differences.

The average annual growth rate of labour productivity in the Community between 1973 and 1987 is about 5%, as can be seen in table 7.2. The

Figure 7.1 Agricultural labour productivity per AWU in the EC (EUR 11 = 100 in "1974" and "1979"; EUR 12 = 100 in "1983" and "1986")

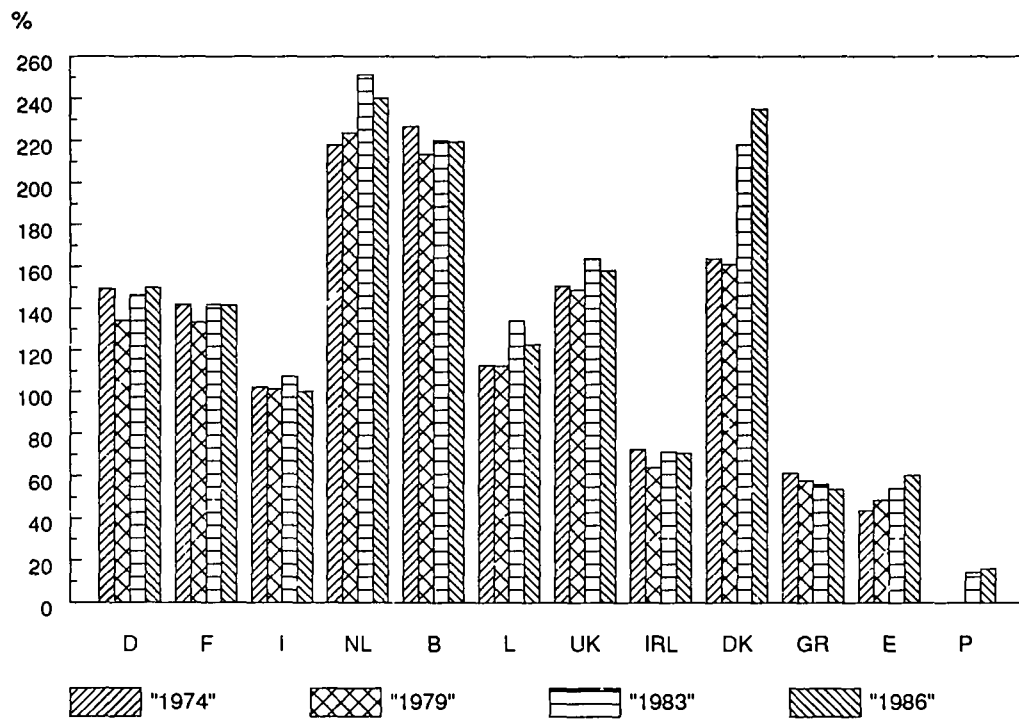


TABLE 7.1 PRICE LEVELS OF GROSS VALUE ADDED IN AGRICULTURE IN 1980 IN THE EC

Country	D	F	I	NL	B	UK	IRL	DK	GR	E	EC
Price level	119	98	112	89	96	84	97	94	97	90	100

Source: Terluin, 1990.

highest increase in labour productivity took place in the second period, due to the relatively large increase in GVA in that period. This increase in GVA can be explained by the relatively small growth rate of the use of intermediate consumption. The slowdown in the rate of increase of labour productivity in the last subperiod can be attributed to a slower rate of increase in GVA and the decline in the agricultural labour force. Labour productivity in Denmark and Spain increased at a remarkably high rate. This can be explained by a rate of exit of labour from the agricultural branch which is above the Community average, and for Denmark also by a relatively large increase in GVA. In all Member States except for Greece, growth rates in the period "1979-83" are higher than those in the other two periods. The relatively bad performance of Greece in this period is due to the relatively small increase in GVA and the small decline in the agricultural labour force. Growth rates in the period "1983-87" in Italy, the Netherlands and Luxembourg are fairly low. In Italy and the Netherlands this seems to be caused by a relatively small decline in the agricultural labour force in that period, and in Luxembourg by the negative growth of GVA.

7.3.2 Comparison of labour productivity in both parts of the economy in the EC

Labour productivity in agriculture cannot be assessed as an independent item. It has to be related to its economic environment. Here we first give an overview of trends in labour productivity in the rest of the economy. Next labour productivity in agriculture and labour productivity in the rest of the economy are compared.

Labour productivity in the rest of the economy is measured as the ratio of GVA at factor cost in industry, market services and non-market services, relative to the number of labourers in these branches. The labour force in the rest of the economy is not expressed in AWU, but in persons (both full-time and part-time employed). Part-time employees will have a downward effect on labour productivity, as the output per part-timer per working day will usually be lower than the output of a full-time worker. Moreover, the proportion of part-time employment in the labour force has risen (OECD, 1988). This strengthens the downward pressure on labour productivity over time

Growth rates of labour productivity in the rest of the economy are displayed in table 7.3. The average annual rate of growth of labour productivity in the rest of the economy in EUR 9 between 1973 and 1987 is 1.7%. The general pattern is that growth rates in the period "1974-79" and "1983-86" are higher than those in the period "1979-83", and that growth rates in the first period are above those in the last period. This trend reflects the relatively high growth rates of GVA in the first and last subperiod. The slowdown of the growth rates in labour productivity in the second period is moderate due to the decline in the labour force. Four countries do not fit into this pattern: the Netherlands and Belgium show a continuous decline in growth rates, whereas growth rates in the UK steadily increase. In Denmark the growth rate is highest in the second period.

In the previous section labour productivity in agriculture was expressed as the ratio of GVA in agriculture and the agricultural labour force in AWU. In the comparison of labour productivity in both parts of the economy another concept of labour productivity in agriculture is used: the ratio of GVA in agriculture, forestry and fishery and the labour force in

TABLE 7.2 ANNUAL GROWTH RATES (%) OF LABOUR PRODUCTIVITY PER AWU IN AGRICULTURE IN THE EC (ratio of GVA in agriculture at factor cost to number of AWU)

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	4.24	2.39	6.32	4.61
France	4.13	3.30	5.65	3.67
Italy	3.93	4.41	5.57	1.74
Netherlands *)	5.05	5.17	7.10	2.17
Belgium	4.04	3.33	4.86	4.12
Luxembourg *)	4.96	4.56	8.74	0.76
UK *)	4.61	4.36	6.57	2.46
Ireland	3.92	2.05	6.92	3.33
Denmark *)	7.37	4.21	12.24	6.37
Greece	3.26	3.45	3.24	3.06
Spain	7.01	6.81	7.10	7.16
Portugal	:	:	:	5.27
EUR 9 *)	4.35	3.72	6.25	2.91
EUR 11 *)	5.03	4.60	6.61	3.68
EUR 12 *)	:	:	:	3.74

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE 7.3 ANNUAL GROWTH RATES (%) OF LABOUR PRODUCTIVITY PER PERSON IN THE REST OF THE ECONOMY IN THE EC

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	2.11	2.76	1.36	2.00
France	1.85	2.19	1.49	1.78
Italy	1.31	1.58	0.78	1.57
Netherlands	1.64	2.04	1.44	1.26
Belgium	1.91	2.71	1.56	1.05
Luxembourg	1.35	1.20	1.16	1.87
UK	1.38	0.99	1.47	1.92
Ireland	2.86	4.02	0.75	3.79
Denmark	0.90	1.00	1.18	0.35
Greece	:	:	2.95	1.03
Spain	:	:	:	1.09
Portugal	:	:	:	-0.39
EUR 9	1.69	1.98	1.32	1.69
EUR 12	:	:	:	1.61

agriculture, forestry and fishery in persons. By this means labour productivity in both parts of the economy is related to persons. Table 7.4 shows the growth rates of this alternative concept of labour productivity in agriculture, forestry and fisheries. When these growth rates are compared with those of labour productivity in agriculture (per AWU) in table 7.2, it can be seen that on average growth rates of labour productivity in agriculture, forestry and fisheries are somewhat below those of labour productivity in agriculture. Quite large differences exist in France and Denmark between growth rates of both types of labour productivity, whereas the negative growth rates of labour productivity in agriculture, forestry and fisheries in Luxembourg seem odd. Some of the differences between both measures of labour productivity can be explained by inconsistencies in data on GVA and the labour force in agriculture, forestry and fisheries.

There are two striking features of the comparison of growth rates of labour productivity in agriculture and those in the rest of the economy (see table 7.3 and 7.4). The first is that growth rates of labour productivity in agriculture between 1973 and 1987 are considerably above those in the rest of the economy (except for Ireland and Luxembourg). The second is the opposite movement of growth rates in the period "1979-83": they accelerate for agriculture and decelerate for the rest of the economy relative to the other periods.

For a number of EC countries comparisons of growth rates of labour productivity in agriculture and labour productivity in industry have been made, due to the somewhat obscure measurement of GVA in services, especially for the non-profit and government branches. Growth rates of labour productivity in industry in Germany, France, Italy, the Netherlands, the UK and Denmark are given in table 7.5. They are higher for the years "1974-1986" than growth rates of labour productivity in the rest of the economy. This implies that labour productivity in the industrial branch increases at a higher rate than labour productivity in services in this period. Despite the larger increase in labour productivity in the industrial branch with regard to the rest of the economy, growth rates of labour productivity in this branch cannot match growth rates of labour productivity in the agricultural branch between "1974" and "1987". Differences between growth rates of labour productivity in these two branches are relatively small in Italy and relatively large in the Netherlands and Denmark.

7.3.3 Labour productivity in the non-EC countries

In this subsection trends in labour productivity in the EC are reconsidered in a comparison of labour productivity in the EC and some non-EC countries. Differences in price levels may distort the comparison, as already remarked in section 7.3.1. The comparison of price levels of final agricultural output in the EC and the non-EC countries in section 6.4 indicated that prices in the US, Canada and Australia are lower than prices in the Community. The level of prices of agricultural output in Sweden is comparable to that in the EC, whereas that in Japan is higher. Besides, the price level of inputs can also differ. Some multilateral comparisons of real value added in EC countries and non-EC countries, which eliminate these differences in price levels of both input and output, have been carried out by Ooststroom and Maddison (1985) and by the FAO (1986). Since objections can be made to the coverage of agricultural output and input (Van der Meer and Yamada, 1988: 7-9) and to the calculation methods

TABLE 7.4 ANNUAL GROWTH RATES (%) OF LABOUR PRODUCTIVITY IN AGRICULTURE, FORESTRY AND FISHERIES PER PERSON IN THE EC

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany	4.04	4.22	5.62	1.68
France	5.60	5.20	6.89	4.56
Italy	4.12	3.70	5.36	3.20
Netherlands	4.88	4.64	6.84	2.72
Belgium	4.53	3.85	6.05	3.67
Luxembourg	-0.53	-2.11	1.62	-0.02
UK	4.42	5.87	6.05	1.83
Ireland	3.45	2.00	5.79	2.81
Denmark	3.51	-1.95	10.11	4.32
Greece	:	:	2.29	1.54
Spain	:	:	:	5.83
Portugal	:	:	:	8.47
EUR 9	4.63	4.29	6.31	3.01
EUR 12	:	:	:	3.34

TABLE 7.5 ANNUAL GROWTH RATES (%) OF LABOUR PRODUCTIVITY PER PERSON IN INDUSTRY IN THE EC

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
FR Germany *)	2.49	3.33	1.46	2.47
France	2.96	3.59	2.40	2.68
Italy	3.08	3.13	1.97	4.51
Netherlands	1.92	2.02	1.50	2.34
UK *)	2.98	1.32	4.31	4.54
Denmark	2.59	1.73	4.13	1.99

*) Growth rates "1974-86" refer to "1974-85"; growth rates "1983-86" to "1983-85".

used in these studies, their estimates of real value added will not be used for the calculation of labour productivity in this analysis. The differences in price levels imply that the results of the comparison of labour productivity in the EC and non-EC countries must be interpreted carefully.

In figure 7.2 the levels of labour productivity in agriculture in the non-EC countries are related to the average level of labour productivity in EUR 9 for four benchmark years. The Community level equals 100, and refers to GVA per worker in agriculture, forestry and fisheries. The levels of agricultural labour productivity in these non-EC countries are far above those in the EC, except for Japan. The gap between the level of labour productivity in the Community and the US, Canada, Australia and Sweden diminishes between "1974" and "1986", whereas the gap between Japan and the Community increases. This is due to the fact that the growth rate of agricultural labour productivity in the Community exceeds those in the non-EC countries, as can be seen in table 7.6. In Australia, Canada and the US the relatively low increase in labour productivity seems to be caused by a slow decline in the agricultural labour force. The slow growth of agricultural labour productivity in Sweden and Japan can be explained by the relatively bad performance of GVA in agriculture. Growth rates of labour productivity in agriculture in Canada, Japan and Sweden broadly follow the EC trend of growth rates in the subperiods.

The comparison of growth rates of real prices of agricultural products (see table 6.2 and 6.10) and growth rates of labour productivity in the EC and non-EC countries results in the tentative observation of a hill-shaped relationship between both growth rates. Growth rates of labour productivity increase when the decline in real prices increases, but beyond a certain level of real price decline, growth rates of labour productivity decrease again. The rate of price decline associated with the maximum

Figure 7.2 Agricultural labour productivity per worker in the non-EC countries (EUR 9 = 100)

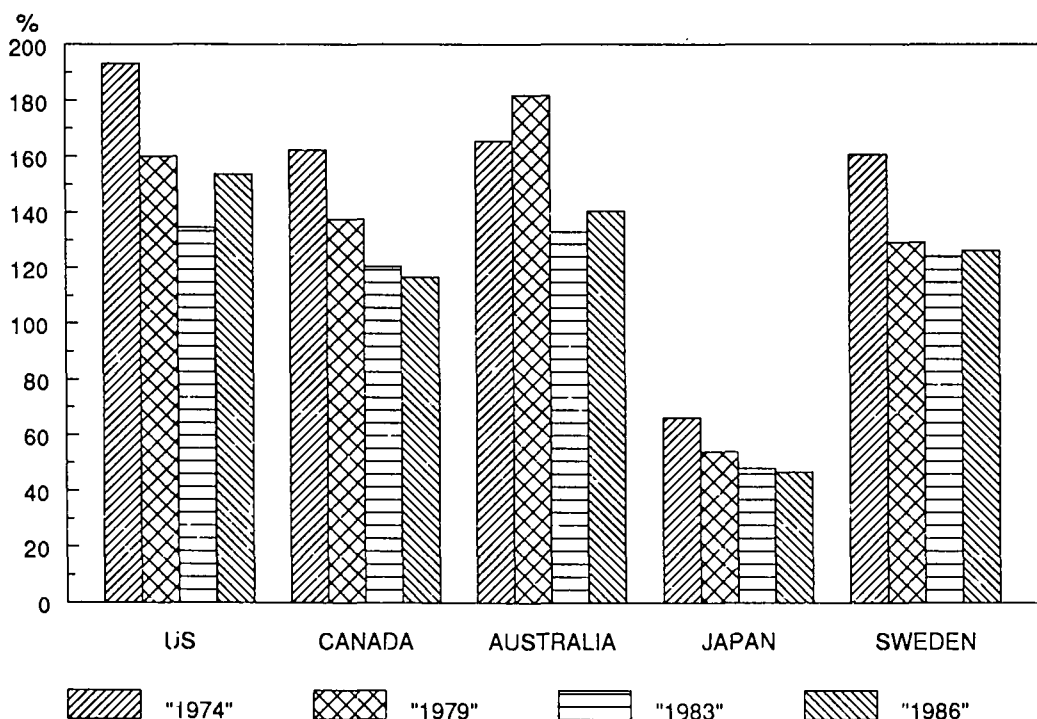


TABLE 7.6 ANNUAL GROWTH RATES (%) OF LABOUR PRODUCTIVITY PER PERSON IN THE NON-EC COUNTRIES

	"1974-86"	"1974-79"	"1979-83"	"1983-86"
AGRICULTURE, FORESTRY AND FISHERIES				
United States	2.80	0.59	1.89	7.87
Canada	1.94	1.05	2.95	2.07
Australia	3.37	6.44	-1.59	5.12
Japan	1.76	0.32	3.25	2.20
Sweden	2.71	0.02	5.35	3.77
EUR 9	4.63	4.29	6.31	3.01
REST OF THE ECONOMY				
United States	0.48	0.13	0.15	1.52
Canada	0.91	0.65	0.55	1.85
Australia	1.14	1.08	1.52	0.76
Japan	3.14	3.32	2.81	3.28
Sweden	0.83	0.38	0.95	1.43
INDUSTRY				
United States	1.25	0.35	1.29	2.72
Canada	1.38	0.09	1.62	3.21
Australia	2.76	2.74	2.58	3.06
Japan	4.21	4.26	3.76	4.72
Sweden	2.31	1.63	2.79	2.79

Note: Labour productivity in agriculture for EUR 9 refers to GVA in agriculture, forestry and fisheries per employed person.

increase in labour productivity can be referred to as the "optimal" decline of real prices of agricultural products. This approach to the relationship between growth rates of real prices and labour productivity differs somewhat from Van der Meer's approach, who relates the growth rate of labour productivity to the real price level (Van der Meer, 1989:141). The effect of prices on labour productivity is twofold. On the one hand, the decline in real prices determines the rate of reallocation of abundant inputs with low marginal productivity. On the other hand, real prices affect the pace of technological change. It can be said that the moderate decline of real prices in Japan, Sweden and Australia hampers the increase in labour productivity. The rate of decline of real prices in the US and Canada is too high to encourage labour productivity. The decline of real prices by 2.7% in the Community, higher than that in Japan, Sweden and Australia, but lower than that in the US and Canada, is optimal since it results in the largest increase in labour productivity.

Growth rates of labour productivity in the rest of the economy in the non-EC countries are also given in table 7.6. They are lower than those in agriculture, and also remain below the Community average. This does not apply to Japan, where growth rates are almost twice as high as in the Community. Finally, growth rates of labour productivity in industry are presented in table 7.6. Between "1974" and "1986" labour productivity in industry increases at a higher rate than labour productivity in services. Growth rates of labour productivity in industry remain below those of agriculture, Japan being the exception.

7.3.4 Productivity of intermediate consumption

Productivity of intermediate consumption is calculated as the ratio of final agricultural output and intermediate consumption, both expressed in 1980 prices. For lack of data on intermediate consumption, productivity of intermediate consumption in the non-EC countries has not been estimated. A negative growth rate implies an increase in intermediate consumption per unit of output, whereas a positive growth rate means a decrease of intermediate consumption per unit of output. The use of intermediate consumption largely depends on the relative prices of intermediate consumption. The trends in the agricultural terms of trade (the ratio of the real price index of final agricultural output and that of intermediate consumption; see also section 6.2.3) and the productivity of intermediate consumption in EUR 11 between "1974" and "1986" are shown in figure 7.3. The inverse movement of the terms of trade and the productivity of intermediate consumption reflects a negative relation between both items. This corresponds with the assumption of rational economic behaviour. When prices of intermediate consumption are decreasing relative to prices of output, the input of intermediate consumption per unit of output increases and the productivity of intermediate consumption decreases. The opposite applies when prices of intermediate consumption goods are increasing relative to prices of output. Negative growth rates also arise, when the production process shifts towards a more intensive way of production, which requires a greater use of intermediate consumption per unit of output.

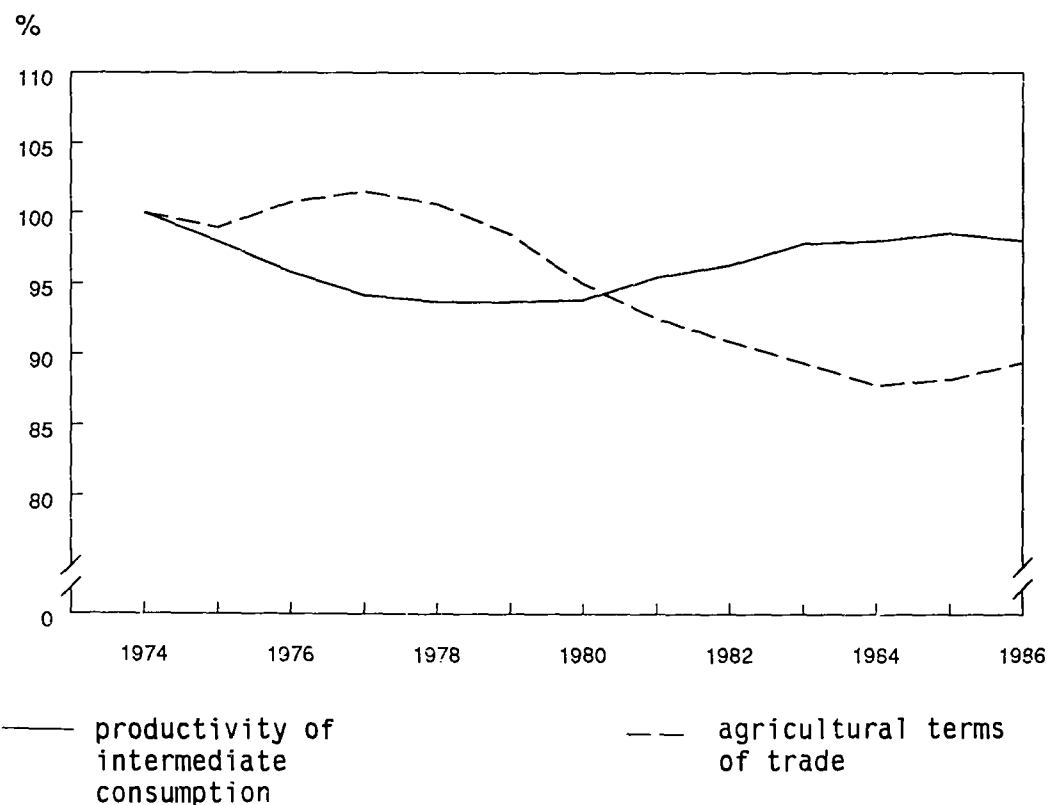
Growth rates of the productivity of intermediate consumption are presented in table 7.7. In the Community as a whole the productivity of intermediate consumption decreases somewhat between "1974" and "1987", although the picture varies among individual countries. The productivity of intermediate consumption increases in France, the Netherlands, Belgium, the UK and

TABLE 7.7 ANNUAL GROWTH RATES (%) OF THE PRODUCTIVITY OF INTERMEDIATE CONSUMPTION IN THE EC

	"1974-87"	"1974-79"	"1979-83"	"1983-87"
FR Germany *)	-0.07	-1.85	2.25	-0.14
France	0.05	-0.73	1.33	-0.25
Italy	-1.03	-2.74	0.62	-0.51
Netherlands *)	0.44	-0.59	2.22	-0.18
Belgium	0.12	-0.57	1.21	-0.10
Luxembourg *)	-0.12	0.27	1.78	-3.22
UK *)	1.24	1.61	1.36	0.46
Ireland	-1.35	-3.85	1.14	-0.65
Denmark *)	0.46	-2.40	3.32	1.54
Greece	-1.77	-2.81	-1.44	-0.80
Spain	-2.41	-4.33	-2.36	-0.02
Portugal	:	:	:	0.74
EUR 11 *)	-0.17	-1.28	1.08	0.06
EUR 12 *)	:	:	:	0.10

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

Figure 7.3 Productivity of intermediate consumption and terms of trade in EUR 11, "1974" = 100



Denmark in this period. In most countries growth rates of intermediate consumption productivity are negative in the period "1973-79", positive between "1979-83" and again negative in the period "1983-87".

7.4 Total productivity in the EC and the US

Hockmann has calculated a Tornqvist-Theil index for the EUR 9 countries and the US for the period 1975-1984 (Hockmann, 1988). Calculations for the EC are based on Eurostat data; those for the US on USDA data. Inputs are divided into labour, land, intermediate consumption, buildings, machines, dairy and breeding cattle. The perpetual inventory method has been used for estimating the size of the capital stock. This method assumes that the capital stock is composed of different vintages. The rate of replacement of the vintages can be described by an expulsion function, after the average lifetime of the capital good has been determined. For the EC countries the input of land is valued at rental prices. The input of labour is valued at the residual income, which remains after the compensation of the other inputs has been deducted from the value of output. For the US, labour is valued at the level of the compensation of farm employees. Here the input of land is valued as residual income.

Changes in the volumes of output, input and total productivity (TP) are given in table 7.8. Changes in the volumes of the separate items of input are also specified. The changes in the use of total inputs, which are weighted for quality changes, vary widely among Member States. There is an annual decrease of about 1% in Italy, whereas the use of inputs in the Netherlands shows an annual increase of almost 2%. With a few exceptions it can be stated that the input of labour and land in the production process declined between 1975 and 1984 in the nine EC countries, whereas the input of buildings, machines and intermediate consumption increased. TP in Denmark increased at the highest rate, followed by the UK, Italy and France. The annual growth rate of TP in Belgium/Luxembourg is smallest in this group of EC countries.

Annual growth rates of TP between 1975 and 1984 in EUR 9 are just above those in the US. In EUR 9 growth of TP is brought about by an increase in total input, while in the US total input is decreasing. The rate of outflow of labour from the agricultural branch is about the same in EUR 9 and the US, but the annual increase in machines and intermediate consumption in EUR 9 is far above that in the US.

Hockmann's data in table 7.8 enable an estimation of gross labour productivity to be made by deducting the growth rate of labour input from the growth rate of total output. Hockmann's labour productivity is given in the last column of table 7.8. The growth rate of Hockmann's TP indicator in the EC countries is less than half the growth rate of the indicator of labour productivity ¹⁾. The lower growth rate of TP is due to the fact that all inputs which contribute to productivity growth are included in the index of input, while the index of input of labour productivity disregards all inputs other than labour.

1) Henrichsmeyer and Ostermeyer give about the same ratio of TP and labour productivity in their analysis of productivity in the EC in the period 1965-85 (Henrichsmeyer and Ostermeyer, 1987: 28).

TABLE 7.8 AVERAGE ANNUAL GROWTH RATES OF TOTAL OUTPUT, INPUT AND PRODUCTIVITY IN AGRICULTURE IN THE EC AND THE US, 1975-1984 (in per cent)

	TOTAL OUTPUT	TOTAL INPUT	labour	land	buildings	machines	cattle	interm. cons.	total prod.	gross labour prod.
Germany	2.04	0.16	-2.96	-1.10	-1.08	1.45	0.89	1.57	1.88	5.00
France	2.85	0.53	-2.09	-0.30	2.40	1.08	-0.43	2.93	2.31	4.94
Italy	1.49	-0.89	-4.01	-0.12	0.55	2.30	0.32	2.89	2.40	5.50
Netherlands	4.05	1.95	-0.54	-0.37	3.95	5.56	1.92	3.22	2.07	4.59
Belgium/Luxembourg	1.50	-0.23	-2.59	-0.83	1.27	3.90	0.99	0.33	1.73	4.09
United Kingdom	2.90	0.18	-1.27	0.20	2.63	-1.27	-0.51	0.72	2.72	4.17
Ireland	3.21	1.28	-2.20	-0.01	8.44	2.76	0.05	4.93	1.90	5.41
Denmark	3.76	0.43	-2.39	-0.24	1.80	0.68	-1.11	2.34	3.32	6.15
EUR 9	2.35	0.18	-2.80	-0.31	1.54	1.54	0.06	2.19	2.16	5.15
United States	1.53	-0.47	-3.11	0.04	1.34	-1.23	0.28	1.16	2.01	4.64

Notes: The last column has been constructed by deducting the growth rate of labour from that of total output. Hockmann's labour productivity differs from our estimates of labour productivity in three respects: 1) Hockmann's labour productivity is based on gross output; ours on GVA. 2) Hockmann corrected for quality differences in labour; we did not. 3) Use of different statistical sources.
Source: Hockmann, 1988.

8. AGRICULTURAL INCOME

8.1 Introduction

In the previous chapter it has been shown that labour productivity in agriculture increased at a higher rate than in the rest of the economy. In the formulation of the Treaty of Rome the maintenance of a fair standard of living for the agricultural community depends on the development of agricultural productivity. In this study a fair standard of living is interpreted as a situation in which income per worker in the agricultural branch rises at least at the same rate as income per worker in the rest of the economy. This chapter explores whether the higher growth rates of labour productivity in agriculture were sufficient to maintain or to improve agricultural income relative to income in the rest of the economy. This depends on the trends in relative prices of agricultural output and input. Since the real prices of agricultural products declined (see chapter 6), growth rates of productivity in agriculture have to be higher than those in the rest of the economy in order to maintain the purchasing power of agricultural income.

In the next section attention is paid to the changes in real agricultural income in the Community. Relative agricultural income in the EC and non-EC countries is examined in the third and fourth section. In the last section an analysis of the share of net income in final agricultural output is given.

8.2 Real agricultural income in the EC

This section examines whether income from agricultural activity between 1973 and 1988 was sufficient to maintain the purchasing power of the agricultural community. In the series Agricultural income; sectoral income index analysis Eurostat publishes three income indicators, of which the first is based on net value added (NVA) at factor cost, the second on net income from agricultural activity of total labour input, and the last on net income from agricultural activity of the family labour input. Agricultural income in this section is based on the net income from agricultural activity of the total labour input. NVA as a base for agricultural income is rejected since it includes rents and interest payments, which cannot be considered as income from agricultural activity. Net income of family labour input is not used because the CAP target aims at the income of the total agricultural community, which is considered here inclusive of agricultural employees.

To assess the purchasing power of agricultural income 1), values of net income from agricultural activity in current prices in national currency are divided by the price index of GDP at market prices (1980 = 100). This price index reflects the average inflation of prices of all goods produced and all services rendered in an economy. The resulting real values of net income in national currency are not converted into 1980 ECU but into 1980

1) In this study "agricultural income" refers to income from agricultural activity; "total income" covers income from agricultural and non-agricultural activities.

Figure 8.1 Real net income per AWU in PPS in the EC Member States (EUR 11 = 100 in "1974" and "1979", EUR 12 = 100 in "1983" and "1986")

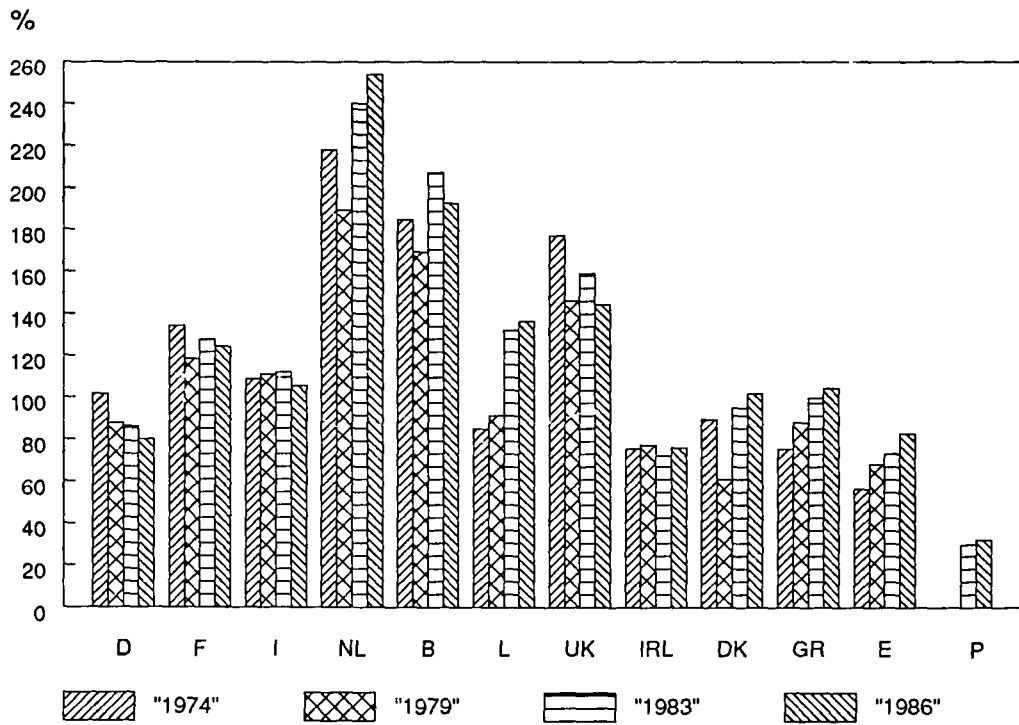
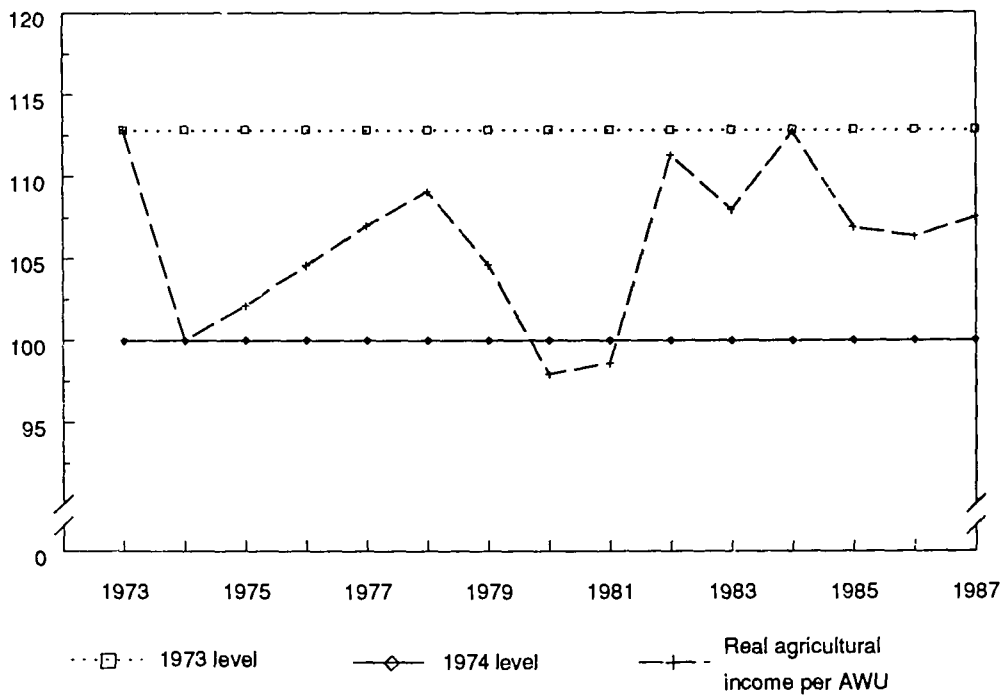


Figure 8.2 Real agricultural income per AWU in PPS in EUR 11, 1974 = 100



Purchasing Power Standards (PPS). The use of the official exchange rate for conversion is rejected here, since it does not necessarily reflect the real purchasing power of a national currency. When the focus is on the purchasing power of incomes, purchasing power parities are more suitable for converting incomes expressed in national currency, as these take account of differences in real prices. Finally, real net income in PPS is divided by the number of AWU to obtain real agricultural income per AWU. When real income per AWU does not decline over time, the purchasing power of agricultural income is maintained. This is not the case when real income per AWU decreases.

The levels of real net agricultural income in PPS per AWU in the Member States are compared in figure 8.1 for four benchmark years. The average Community level equals 100, and refers in "1974" and "1979" to EUR 11 and in "1983" and "1986" to EUR 12. The comparison of real net income per AWU is somewhat distorted by imperfections in the data on labour input. Real net income is highest in the Netherlands, Belgium and the UK. The purchasing power of agricultural income per worker in Ireland, Spain and Portugal lags behind the Community average, although the purchasing power of agricultural income in Spain improves over the years.

Figure 8.2 gives a view on the annual changes in real agricultural income per AWU in EUR 11. The large gap between real income in 1973 and that in 1974 is due to the favourable income situation in 1973. Real incomes improved between 1974 and 1978, but remained below the 1973 level. In the years 1979-1981 income deteriorated. Thereafter income fluctuated in a narrow range below the 1973 level. This level was only reached in 1984. With regard to this figure two remarks can be made. Firstly, real income in 1973 was extremely favourable. Secondly, the trend in income alters when 1974 is considered as being the starting point. All incomes in the years after 1974 are above the 1974 level, except for 1980 and 1981.

In table 8.1 growth rates of real agricultural income per AWU are given. Part of the growth can be attributed to the withdrawal of low income farmers. Since real income in 1973 is disproportionately high relative to the following years, growth rates for the whole period and the first period refer to the years "1975-86" and "1975-79". When this is done the impression that incomes decline after 1973 is eliminated. For the Community as a whole real agricultural income slightly improves between "1975" and "1986", although this picture varies among Member States. Real incomes improved in the Netherlands, Luxembourg, Denmark, Greece and Spain. In the other Member States real incomes deteriorated, of which those in Germany and the UK to a considerable extent. The trend in real net income per AWU differs per subperiod. In most Member States growth rates in the second subperiod were more favourable than those in the first and last subperiod.

The concept of agricultural income per AWU used in this section has a number of shortcomings. It refers to the average income per AWU in the agricultural community, while no attention is paid to the distribution of income. Individual incomes may differ to a large extent from the average income. These differences can be caused by the status of the agricultural worker: self-employed or hired employee. Differences also depend on the farm type, size and region. Next, income from agricultural activity is only a part of total income of the agricultural community, since many agricultural households obtain income from sources outside agriculture, such as wages, salaries, property income and social benefits.

TABLE 8.1 ANNUAL GROWTH RATES (%) OF REAL NET AGRICULTURAL INCOME IN PPS PER AWU IN THE EC

	"1975-86"	"1975-79"	"1979-83"	"1983-86"
FR Germany	-2.71	-4.01	-0.83	-3.44
France	-0.64	-1.71	1.43	-1.93
Italy	-0.28	1.78	-0.25	-3.01
Netherlands	0.93	-3.46	5.65	0.76
Belgium	-0.16	-2.42	4.76	-3.46
Luxembourg	4.83	4.31	9.18	-0.04
UK	-2.21	-4.49	1.71	-4.22
Ireland	-0.59	-0.03	-2.11	0.70
Denmark	1.88	-6.36	11.32	1.31
Greece	2.26	3.14	2.74	0.47
Spain	2.98	4.58	1.45	2.91
Portugal	:	:	:	1.16
EUR 11	0.41	0.40	1.59	-1.15
EUR 12	:	:	:	-1.08

8.3 Relative income of the agricultural community in the EC

8.3.1 Introductory remarks

In this section the trend in agricultural income is assessed by relating it to income trends in the rest of the economy. The ratio of income from agricultural activity per AWU to income in the rest of the economy per worker is referred to as "relative agricultural income". Estimates of relative agricultural income defined in this sense are too low, since income of agricultural workers from non-agricultural activities is excluded. In section 8.3.3 some remarks on relative agricultural income, which takes account of income from non-agricultural activities, are made.

It appears rather difficult to find similar income concepts in agriculture and the rest of the economy, due to the different nature of activities in agriculture and the other economic sectors. Net income from agricultural activity has no equivalent in the rest of the economy, so agricultural income has to be compared with another concept of income in the rest of the economy for assessing relative income in agriculture. At first sight, a comparison of NVA at factor costs in both parts of the economy, which reflects the reward to labour after remuneration for the consumption of capital (depreciation) has been made, seems a plausible solution. However, NVA at factor cost in the rest of the economy cannot be constructed for lack of data on depreciation in the rest of the economy. Therefore second best solutions must be used. Alternative types of relative income might be the ratio of GVA in both parts of the economy or the ratio of NVA in agriculture to NVA in the whole economy. The ratio of GVA in both parts of the economy gives distorted results because of the inclusion of depreciation. The second alternative is not distorted by remunerations to capital input. The whole economy includes both agriculture and the rest of the economy. Relative agricultural income calculated in this way may have an upward bias when NVA per agricultural worker is below NVA per worker in the rest of the economy.

Another problem in constructing relative agricultural income is the measurement of the labour force. The agricultural labour force is expressed in AWU, whereas the labour force in the whole economy is given in persons. We met this problem already in the discussion of labour productivity (see section 7.3.2). The inclusion of part-time workers will have a downward effect on NVA per worker. As NVA per worker appears in the denominator of the ratio, this gives a more favourable impression of relative agricultural income per AWU, than when the labour force in the whole economy was expressed in AWU.

8.3.2 Two alternative approaches to relative agricultural income

For the Netherlands we calculated relative agricultural income as the ratio of NVA in agriculture and NVA in the rest of the economy 1). The ratio of GVA in both parts of the economy and the ratio of NVA in agriculture and NVA in the whole economy were also estimated in order to assess whether these alternatives are good proxies for relative agricultural income. The results of this exercise are presented in the first three columns of table 8.2. When relative agricultural income is expressed as the ratio of GVA or NVA in both parts of the economy, agricultural income is slightly below income in the rest of the economy. The ratio of NVA in agriculture and NVA in the whole economy is higher than the ratio of NVA in agriculture and NVA in the rest of the economy, due to the inclusion of the lower NVA in agriculture in NVA in the whole economy. However, the close relationship between the two ratios justifies the use of the ratio of NVA in agriculture and NVA in the whole economy for determining relative agricultural income. This will also apply for other Member States in which the agricultural branch is relatively small.

Relative agricultural income in the EC, based on the ratio of NVA in agriculture and NVA in the whole economy is presented in table 8.3. In EUR 11 it declined from 0.54 in 1973 to 0.43 in 1987. So the rise of nominal incomes in the whole economy exceeded that in agriculture. Even when the favourable agricultural income position in 1973 is omitted, the annual decline of relative agricultural income between "1975" and "1986" is almost 1%. The rate of decline of relative agricultural income is not proportionally distributed over the subperiods. Relative agricultural income decreased by 1.5% per annum in the period "1975-79", whereas it improved by 0.8% per year between "1979" and "1983". In the last subperiod there was a sharp annual decline of 2.6%. Relative agricultural income between "1975" and "1986" did not fall in all Member States. It improved in the Netherlands, Luxembourg, Denmark, Greece and Spain.

The above indicator of relative agricultural income based on NVA can give a distorted picture, since part of NVA has to be spent on rents and interest payments. Rents and interest payments paid by an individual in the rest of the economy tend to remain in that part of the economy, since they are usually paid to another individual in the rest of the economy. On the contrary, rents and interest payments paid by the agricultural branch generally flow into the rest of the economy 2). Since rents and interest

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- 1) Data on NVA at factor cost in the rest of the economy are derived from Netherlands Central Bureau of Statistics, National Accounts, various issues.
 - 2) In accordance with EAA methodology, leasing of land is not considered as an agricultural activity.

TABLE 8.2 ALTERNATIVE TYPES OF RELATIVE AGRICULTURAL INCOME IN THE NETHERLANDS

	GVA agr/ GVA rest	NVA agr/ NVA rest	NVA agr/ NVA total	NI agr/ NVA rest	NI agr/ NVA total
1973	0.92	0.90	0.94	0.82	0.85
1974	0.75	0.73	0.76	0.64	0.67
1975	0.81	0.80	0.82	0.71	0.73
1976	0.84	0.82	0.85	0.73	0.76
1977	0.80	0.77	0.80	0.67	0.70
1978	0.78	0.75	0.77	0.64	0.66
1979	0.72	0.69	0.70	0.55	0.57
1980	0.71	0.66	0.68	0.51	0.52
1981	0.84	0.82	0.83	0.65	0.66
1982	0.87	0.85	0.86	0.68	0.70
1983	0.81	0.78	0.80	0.64	0.66
1984	0.85	0.83	0.84	0.69	0.70
1985	0.81	0.77	0.79	0.64	0.65
1986	0.87	0.84	0.85	0.70	0.71
1987	0.84	0.80	0.81	0.66	0.66
annual growth rates in %					
"1975-86"	0.44	0.28	0.09	-0.35	-0.54
"1975-79"	-2.09	-2.68	-2.91	-4.84	-5.07
"1979-83"	3.44	3.93	3.75	4.39	4.21
"1983-86"	-0.09	-0.50	-0.65	-0.41	-0.56

Notes: GVA agr = GVA in agriculture at factor cost per AWU; GVA rest = GVA in industry, market and non-market services at factor cost per worker; NVA agr = NVA in agriculture at factor cost per AWU; NVA rest = NVA in industry, market and non-market services at factor cost per worker; NVA total = NVA in agriculture, industry, market and non-market services at factor cost per worker; NI agr = net income from agricultural activity of total labour input per AWU.

Source: CBS, National Accounts, various issues.

payments are more than a tenth of NVA in agriculture in the EC, these payments cannot be neglected. So on a macro economic level NVA at factor cost in the rest of the economy and net income from agricultural activity seem more comparable income concepts than NVA at factor cost in both parts of the economy. This second approach to the measurement of relative agricultural income is discussed below.

The last two columns in table 8.2 show the ratio of net income from agricultural activity and NVA in the rest of the economy and the ratio of net income from agricultural activity and NVA in the whole economy in the Netherlands. In the table it can be seen that the ratio of net income from agricultural activity and NVA in the rest of the economy is considerably below the ratio of NVA in both parts of the economy. The ratio of net income from agricultural activity and NVA in the whole economy is somewhat above the ratio of net income from total agricultural activity and NVA in the rest of the economy, but close enough to act as a good proxy for relative agricultural income.

Estimates of the second version of relative agricultural income, based on net income from agricultural activity to NVA in the whole economy, are given in table 8.4. For the Community as a whole, relative agricultural income tends to fall from a level of about half the income in the whole economy in 1973 to one third in 1987. Here again, the decline is somewhat overestimated by the exceptionally high agricultural returns in 1973. Relative agricultural income in Luxembourg, Denmark, Greece and Spain deviates from this pattern of deteriorating relative incomes. In these countries the rise of agricultural incomes is greater than the rise of incomes in the whole economy, resulting in an improvement of relative agricultural income. The rate of decline of agricultural income was lowest in the period "1979-83". The level of relative agricultural income is well above the Community average in the Netherlands, Belgium, the UK and Greece, while the level in Spain and Portugal lags behind. The low level of relative agricultural income in these two countries can be explained by their late entry into the EC. Relative agricultural income in Denmark is characterized by quite large fluctuations, due to the relatively small share of agricultural income in final agricultural output.

In a comparison of both types of relative agricultural income, it can be seen that relative agricultural income based on net income from agricultural activity decreases at a faster rate or increases at a slower rate between '1975' and '1986' than relative agricultural income based on NVA in agriculture. However, no matter which base is used, income from agricultural activity is below income in the rest of the economy.

8.3.3 Relative agricultural income reconsidered

The exclusion of income from non-agricultural activities implies that relative agricultural income as estimated in the previous subsection would have been higher when this additional income was taken into account. So relative agricultural income is a biased indicator of the relative standard of living of the agricultural community. Before turning to the impact of this additional income on relative agricultural income, another distortion in the measurement of relative agricultural income should be mentioned. Individuals usually consider comparisons of incomes of reference groups in the region of more importance than national income comparisons. However, our data do not enable such regional relative income to be estimated.

TABLE 8.3 RELATIVE AGRICULTURAL INCOME IN THE EC, BASED ON NET VALUE ADDED IN AGRICULTURE (ratio of NVA in agriculture per AWU to NVA in the whole economy per worker, current prices)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 9	EUR 11	EUR 12
1973	0.59	0.73	0.60	0.94	1.04	0.45	1.02	0.56	0.66	0.61	0.37	:	0.67	0.54	:
1974	0.50	0.67	0.55	0.76	0.82	0.36	0.93	0.50	0.64	0.61	0.30	:	0.59	0.48	:
1975	0.56	0.62	0.55	0.82	0.85	0.44	0.90	0.56	0.54	0.60	0.32	:	0.60	0.49	:
1976	0.55	0.60	0.51	0.85	0.94	0.36	0.94	0.54	0.53	0.62	0.33	:	0.57	0.48	:
1977	0.51	0.56	0.55	0.80	0.78	0.44	0.88	0.60	0.63	0.59	0.36	:	0.56	0.48	:
1978	0.48	0.57	0.56	0.77	0.79	0.43	0.82	0.58	0.69	0.63	0.35	:	0.56	0.48	:
1979	0.43	0.57	0.57	0.70	0.73	0.43	0.80	0.48	0.59	0.58	0.31	:	0.54	0.46	:
1980	0.38	0.51	0.43	0.68	0.74	0.41	0.77	0.40	0.64	0.65	0.33	0.27	0.48	0.43	0.40
1981	0.40	0.52	0.41	0.83	0.81	0.45	0.81	0.39	0.73	0.71	0.29	0.24	0.50	0.44	0.41
1982	0.47	0.59	0.43	0.86	0.83	0.62	0.86	0.43	0.85	0.73	0.33	0.27	0.55	0.48	0.45
1983	0.37	0.54	0.50	0.80	0.89	0.54	0.73	0.44	0.72	0.68	0.33	0.25	0.53	0.46	0.42
1984	0.43	0.52	0.43	0.84	0.83	0.53	0.88	0.45	0.93	0.72	0.35	0.27	0.53	0.47	0.44
1985	0.36	0.51	0.42	0.79	0.79	0.53	0.69	0.37	0.84	0.71	0.35	0.27	0.49	0.44	0.41
1986	0.40	0.50	0.38	0.85	0.76	0.54	0.74	0.35	0.89	0.69	0.34	0.26	0.49	0.43	0.40
1987	0.34	0.49	0.39	0.81	0.72	0.56	0.72	0.41	0.71	0.72	0.36	0.26	0.47	0.43	0.40
annual growth rates in %															
"1975-86"	-3.34	-2.11	-2.67	0.09	-1.21	3.16	-2.25	-3.07	3.29	1.40	0.86	:	-1.74	-0.97	:
"1975-79"	-5.32	-3.26	-0.67	-2.91	-3.43	2.25	-3.66	-1.89	2.87	0.50	0.97	:	-2.61	-1.49	:
"1979-83"	-0.48	0.04	-3.36	3.75	3.05	7.55	0.88	-2.78	6.81	3.35	0.48	:	0.37	0.83	:
"1983-86"	-4.43	-3.40	-4.37	-0.65	-3.74	-1.25	-4.42	-5.01	-0.70	0.03	1.21	-0.21	-3.35	-2.62	-2.58

TABLE 8.4 RELATIVE AGRICULTURAL INCOME IN THE EC, BASED ON NET INCOME FROM AGRICULTURAL ACTIVITY (ratio of net income from agricultural activity of total labour input per AWU to NVA in the whole economy per worker, current prices)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 9	EUR 11	EUR 12
1973	0.51	0.66	0.57	0.85	0.92	0.41	0.95	0.53	0.50	0.58	0.33	:	0.61	0.49	:
1974	0.41	0.59	0.52	0.67	0.71	0.31	0.84	0.45	0.47	0.57	0.26	:	0.53	0.42	:
1975	0.48	0.54	0.52	0.73	0.75	0.38	0.83	0.51	0.34	0.56	0.28	:	0.53	0.43	:
1976	0.47	0.52	0.47	0.76	0.84	0.30	0.87	0.49	0.33	0.59	0.29	:	0.51	0.43	:
1977	0.44	0.48	0.51	0.70	0.67	0.37	0.82	0.55	0.38	0.55	0.32	:	0.49	0.42	:
1978	0.41	0.49	0.51	0.66	0.67	0.37	0.74	0.53	0.40	0.59	0.30	:	0.48	0.41	:
1979	0.35	0.49	0.52	0.57	0.61	0.37	0.69	0.39	0.24	0.53	0.27	:	0.46	0.39	:
1980	0.29	0.43	0.39	0.52	0.60	0.34	0.63	0.30	0.21	0.59	0.28	0.25	0.40	0.35	0.33
1981	0.30	0.43	0.36	0.66	0.67	0.38	0.68	0.29	0.26	0.65	0.23	0.21	0.41	0.36	0.33
1982	0.37	0.51	0.37	0.70	0.69	0.55	0.73	0.32	0.41	0.67	0.27	0.23	0.46	0.40	0.38
1983	0.27	0.46	0.44	0.66	0.75	0.47	0.61	0.35	0.29	0.61	0.27	0.20	0.43	0.38	0.35
1984	0.33	0.43	0.38	0.70	0.69	0.45	0.75	0.38	0.53	0.65	0.30	0.22	0.44	0.39	0.36
1985	0.26	0.42	0.36	0.65	0.64	0.45	0.55	0.31	0.46	0.64	0.29	0.22	0.40	0.36	0.34
1986	0.31	0.41	0.32	0.71	0.62	0.46	0.60	0.29	0.51	0.62	0.28	0.22	0.40	0.36	0.33
1987	0.25	0.41	0.34	0.66	0.59	0.47	0.59	0.36	0.29	0.65	0.30	0.21	0.39	0.35	0.33
annual growth rates in %															
"1975-86"	-4.60	-2.57	-3.45	-0.54	-1.97	3.00	-3.40	-3.69	0.90	0.90	0.48	:	-2.51	-1.67	:
"1975-79"	-6.57	-3.91	-1.55	-5.07	-4.95	2.08	-5.09	-4.24	-6.80	-0.18	0.83	:	-3.81	-2.52	:
"1979-83"	-1.90	-0.17	-4.31	4.21	3.18	7.98	0.37	-3.59	9.43	3.10	-0.33	:	-0.16	0.29	:
"1983-86"	-5.48	-3.93	-4.78	-0.56	-4.59	-2.11	-6.03	-3.08	0.66	-0.52	1.09	0.45	-3.87	-3.11	-3.05

TABLE 8.5 DISPOSABLE INCOME BY SOCIO-PROFESSIONAL GROUP IN FR GERMANY, FRANCE AND THE NETHERLANDS

	HOUSEHOLDS			PERSONS		
	AGRI- CULTURE	ALL HOUSEHOLDS	ratio AGR/ALL	AGRI- CULTURE self- employed	WAGED employed	ratio AGR/WAGED
FR GERMANY (in DM)						
1973	32609	23822	1.37	7118	6705	1.06
1974	30431	25557	1.19	6655	7264	0.92
1975	36595	27983	1.31	8081	8014	1.01
1976	41088	29594	1.39	9161	8397	1.09
1977	41295	31272	1.32	9332	8943	1.04
1978	42187	33387	1.26	9516	9636	0.99
1979	39690	35409	1.12	9822	10260	0.96
1980	37972	37028	1.03	8572	10998	0.78
1981	40731	38031	1.07	9349	11582	0.81
1982	49615	39252	1.26	11384	11843	0.96
1983	39499	40579	0.97	9102	12161	0.75
1984	44318	41983	1.06	10264	12472	0.82
FRANCE (in 1970 FF)						
1970	43231	34500	1.25			
1979	51209	43169	1.19			
1983	49070	43300	1.13			
THE NETHERLANDS (in FL)						
1981	48400	35100	1.38			

Source: Hill, 1988, 92-98. The third and sixth column have been calculated as the ratio of the two preceding columns.

Until recently no regular data collection of income from non-agricultural activity took place. In 1986 Eurostat launched the "Total disposable income of agricultural households" project to fill this gap. In the context of this project a report Total income of agricultural households was prepared by Hill (1988). This report discusses some comparisons of total income per household by socio-professional groups in Germany from 1973 till 1984, in France for the years 1970, 1979 and 1983 and in the Netherlands for 1981. These comparisons provide information on relative agricultural income when income from non-agricultural activity is taken into account. They are summarized below.

The three national comparisons are based on macroeconomic data on income of all socio-professional households, supplemented by microeconomic surveys. The comparisons have been carried out by national statistical offices and are not mutually comparable, since both the definition of socio-professional groups and the years covered vary. Agricultural households refer to households of self-employed persons in agriculture. They are exclusive of hired employees. Relative agricultural income based on the ratio of total income of agricultural households and total income of households in the rest of the economy cannot be estimated for lack of data. Therefore, data on total income of agricultural households and income of all households 1) are compared in table 8.5. The table also provides information on total income per agricultural household member and total income per household member of waged employees in Germany. The findings in this table suggest that agricultural households tend to have average incomes which are above the all-household average. However, the picture changes when the number of household members is taken into account. Average disposable income per person in agricultural households tends to be lower than the average disposable income per person of households of waged employees, due to the larger number of members per agricultural household.

The findings on the level of relative agricultural income based on total income per household differ from the estimates of relative agricultural income in the previous subsection, which show that agricultural income lags behind income in the whole economy. These conflicting results are partly due to the fact that relative agricultural income in section 8.3.2 refers to the total agricultural community, whereas relative agricultural income in this subsection is based on the earnings per household of a self-employed farmer. Nevertheless, the above findings for Germany and France confirm the declining trend in relative agricultural income. The comparison of relative agricultural income based on agricultural activity and that based on total income gives rise to several remarks. Firstly, income per agricultural household is earned by more members than income in all households. This can be seen in the drop in relative agricultural income when it is related to persons. Secondly, income in the whole

1) All households in Germany include households of self-employed (agriculture, forestry and fisheries), employed (state employed, salaried and waged) and not employed (unemployment benefit, pension and other); all households in France include households of farmers, self-employed (non-agricultural), higher management, middle management, salaried, wage earners and retired; all households in the Netherlands include households of entrepreneurs (agriculture, trade, property and other) and households whose main source of income was from wages, salaries and transfers.

TABLE 8.6 RELATIVE AGRICULTURAL INCOME IN THE NON-EC COUNTRIES AND EUR 9/12 (ratio of GVA in agriculture per worker to GVA in the rest of the economy per worker, current prices)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR 9	EUR 12
1973	0.93	0.78	0.97	0.39	0.56	0.58	:
1974	0.84	0.81	1.18	0.38	0.73	0.53	:
1975	0.80	0.80	0.86	0.38	0.73	0.55	:
1976	0.73	0.72	0.78	0.39	0.76	0.55	:
1977	0.72	0.67	0.75	0.38	0.71	0.53	:
1978	0.77	0.73	0.70	0.35	0.64	0.53	:
1979	0.86	0.76	0.95	0.35	0.60	0.53	:
1980	0.71	0.75	0.98	0.32	0.63	0.53	:
1981	0.77	0.75	0.83	0.32	0.65	0.52	0.40
1982	0.70	0.71	0.77	0.31	0.66	0.57	0.44
1983	0.54	0.59	0.53	0.32	0.66	0.54	0.41
1984	0.67	0.62	0.79	0.33	0.72	0.54	0.42
1985	0.67	0.62	0.71	0.32	0.70	0.52	0.40
1986	0.65	:	0.66	0.31	0.73	0.52	0.40
1987	0.64	:	0.69	0.30	0.75	0.50	0.39
annual growth rates in %							
"1975-86"	-1.75	:	-2.84	-1.92	-0.17	-0.51	:
"1975-79"	-0.23	-1.09	-1.78	-3.18	-4.18	-0.58	:
"1979-83"	-4.87	-3.69	-5.60	-1.30	2.14	0.93	:
"1983-86"	0.56	:	-0.47	-1.05	2.28	-2.31	-2.14

economy is exclusive of income transfers. These transfers tend to be lower than salaries, wages and self-employed income. Since income transfers are included in the income of the "all households" category, this will have a downward bias relative to income in the whole economy. Thirdly, farmers have to spend part of their income on investment to keep themselves employed. When this item is deducted, relative agricultural income deteriorates. Lastly, income from non-agricultural activity is considerable and cannot be neglected in comparisons of relative agricultural income.

8.4 Relative income of the agricultural community in non-EC countries

The above approaches for estimating relative agricultural income cannot be applied to the non-EC countries for lack of data on net value added. Therefore the ratio of GVA in agriculture, forestry and fisheries per worker and GVA in the rest of the economy per worker is used as a proxy for relative agricultural income in these countries. This ratio is also estimated for EUR 9 (1973-1987) and EUR 12 (1981-1987). Here GVA in agriculture per worker for EUR 9 and EUR 12 includes forestry and fisheries and is not related to AWU but to persons. Relative agricultural income in the non-EC countries and EUR 9/12 is displayed in table 8.6.

The difference between GVA per worker in agriculture and GVA per worker in the rest of the economy in the non-EC countries is less than that in the Community. This does not apply to Japan, where GVA per worker in agriculture is only about one third of GVA in the rest of the economy. The fact that the agricultural labour force in the Community and Japan declines at a relatively high rate (see table 5.5) can be explained by the pressure of the large difference of incomes inside and outside the agricultural branch. The large difference between relative agricultural income in 1973 and 1974 can also be perceived in the US, Australia and Sweden. However, in the Community and the US relative agricultural income in 1974 declines relatively to the 1973 income, whereas in Australia and Sweden it rises considerably above the 1973 level.

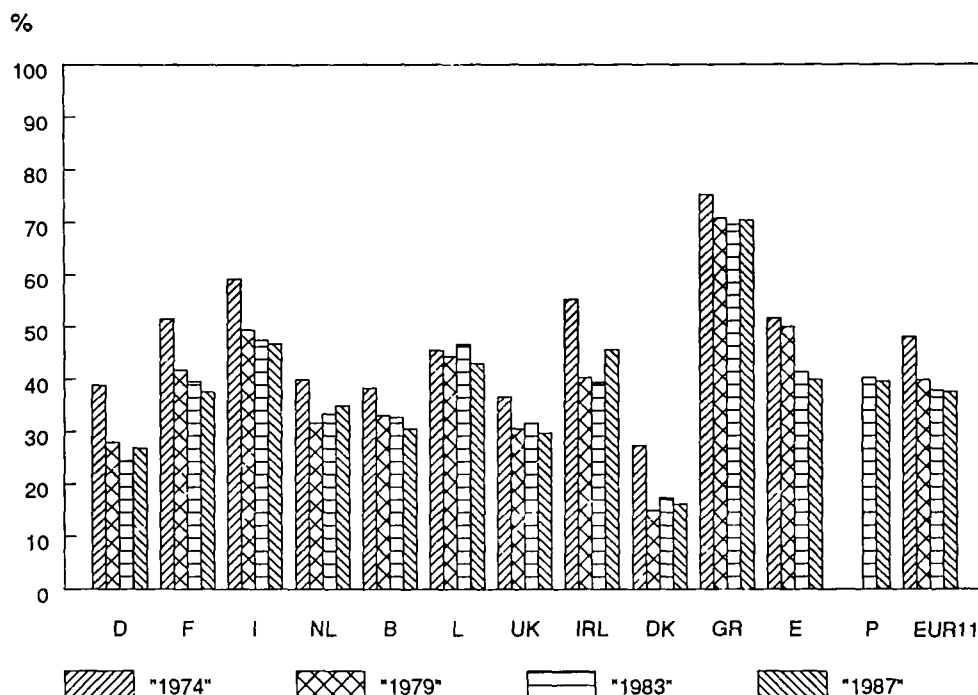
In a comparison of the alternative measures of relative agricultural income in EUR 9/12 (table 8.3, 8.4 and 8.6) it can be seen that the decline in relative agricultural income is more pronounced when relative agricultural income is expressed in terms of NVA or net income than in GVA (1). So the decline in relative agricultural income in the non-EC countries may be understated in table 8.6. Relative agricultural income in the non-EC countries declined at a higher rate than in the EC between "1975" and "1986", Sweden being the exception. Relative agricultural income in Australia decreased at the highest rate. The opposite sign of the growth rates in the US, Canada, Australia and Japan in the subperiod "1979-1983" to those in the Community is worth noting.

8.5 Share of net income in final agricultural output

Despite the relatively large increase in labour productivity in agriculture, real agricultural income hardly improved and relative agricultural income declined between 1973 and 1988 in the Community. The maintenance of the purchasing power of agricultural income indicates that the more rapid

1) This also applies to the Netherlands: see table 8.2.

Figure 8.3 Share of net income from agricultural activity of total labour input in current value of final agricultural output in the EC



productivity growth in agriculture relative to the rest of the economy was sufficient for compensating the decline in real prices for agricultural products. However, the balance of extra growth in productivity and decline in real prices was not able to prevent a decrease in relative agricultural income. In this section attention is paid to the influence of price changes on the share of net income in final agricultural output.

In figure 8.3 net income from agricultural activity is expressed as a percentage of nominal final agricultural output for four benchmark years. For the Community as a whole the share of net income in final output declined from 48% in "1974" to 38% in "1987". The share of net income in final agricultural output in Italy and Greece is quite high, whereas that in Denmark is low. The lower the share of net income in final agricultural output, the more vulnerable net income is to falls in the prices of agricultural products. In all countries, except for Luxembourg and Spain, the share of net income in final output decreased most sharply between "1974" and "1979" and afterwards remained more or less constant. This implies that the costs of agricultural production (expenditure on intermediate consumption, depreciation, the balance of taxes and subsidies, rent and interest payments) increased rapidly in the period "1974-79" and that this higher level of costs was maintained throughout the years 1979-1987. The trends in the separate cost items are discussed in detail below.

In figures 8.4-8.7 the shares of intermediate consumption, depreciation, rent and interest payments and the balance of taxes and subsidies in the nominal value of final agricultural output are shown for four benchmark years to indicate to which item the rise in the costs of agricultural production can be attributed. For the Community as a whole the annual

increase in the share of rent and interest payments was nearly 3% between "1974" and "1987". The annual growth rate of the share of depreciation was slightly lower in these years: about 2.5%. The balance of taxes (including co-responsibility levies) and subsidies linked to production was negative. This implies that subsidies received exceeded taxes paid and that this item diminished the costs of agricultural production. The deficit on the balance of taxes and subsidies increased by 1.4% per annum. The growth rate of the share of intermediate consumption was the lowest of the cost items: 0.9% between "1974" and "1987".

When the changes in the nominal share of intermediate consumption in final output is compared with that of the volume share of intermediate consumption in figure 2.1, it can be seen that for the Community as a whole nominal shares rise at a greater rate than volume shares between "1974" and "1987". So, besides a volume effect, there is a price effect at work. The price effect originates in a different pattern of price changes for intermediate consumption and final agricultural output. The terms of trade, already discussed in section 6.2.3, indicate that till 1984 prices of agricultural output declined at a greater rate than prices of intermediate consumption, while subsequently the opposite applies. So the increase in the nominal share of intermediate consumption in final output in the period "1974-83" is due to a volume increase and a relatively moderate price decrease in intermediate consumption, whereas the decline of the nominal share of intermediate consumption in the period "1983-87" is caused by relatively favourable price movements for intermediate consumption.

The individual countries broadly follow the pattern of a large increase in the share of rent and interest payments and depreciation in final output relative to the increase in the share of intermediate consumption between "1974" and "1987". The increase in the share of rent and interest payments in France and Spain and the increase in depreciation in Luxembourg and the UK are relatively low, while the increase in the share of intermediate consumption in France and Ireland is relatively high. The balance of taxes and subsidies is positive in the Netherlands and Denmark for the whole period and in France between "1979" and "1987". So in these countries the balance of taxes and subsidies has to be considered as a cost.

Expenditure on intermediate consumption, depreciation and rent and interest payments, expressed as percentage of the current value of final agricultural output, increased between 1973 and 1988. This was caused by the decline in real prices of agricultural products. The increase in the costs of agricultural production largely cancelled out the effects of the relatively high rise of labour productivity on agricultural income in the Community. However, the decline in the share of net income in final output is not fully reflected in net income per AWU, since net income was earned by a decreasing number of agricultural workers (see table 5.4). The outflow of labour from the agricultural branch appeared to be sufficient to maintain the purchasing power of net agricultural income per AWU in the Community, but could not prevent the decline in relative agricultural income.

Figure 8.4 Share of intermediate consumption in current value of final agricultural output in the EC

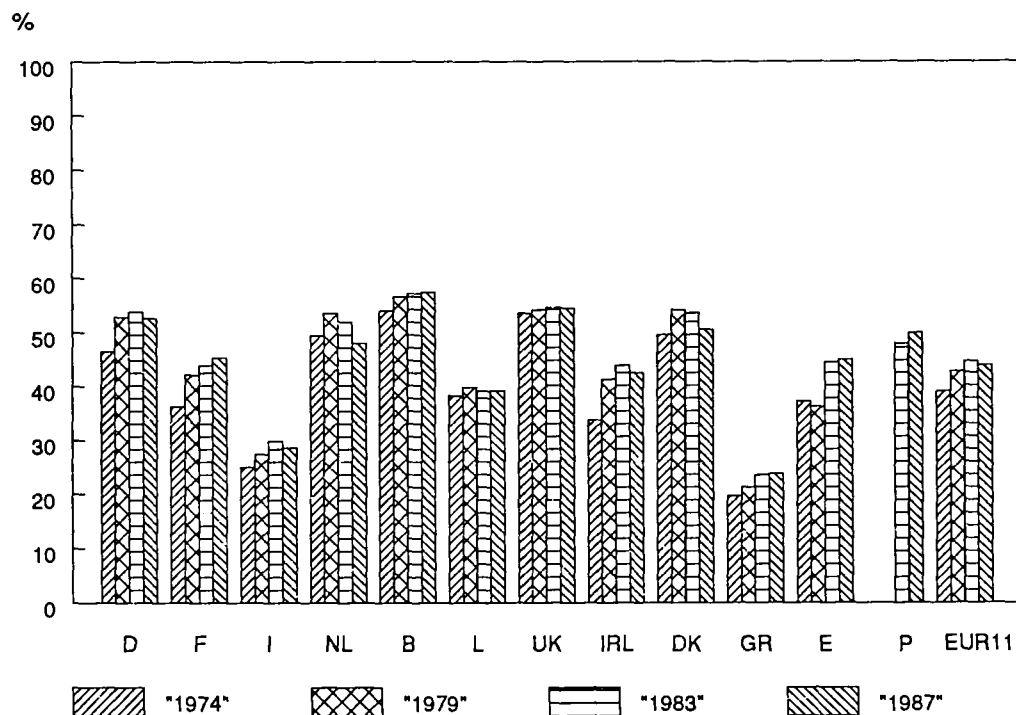


Figure 8.5 Share of depreciation in current value of final agricultural output in the EC

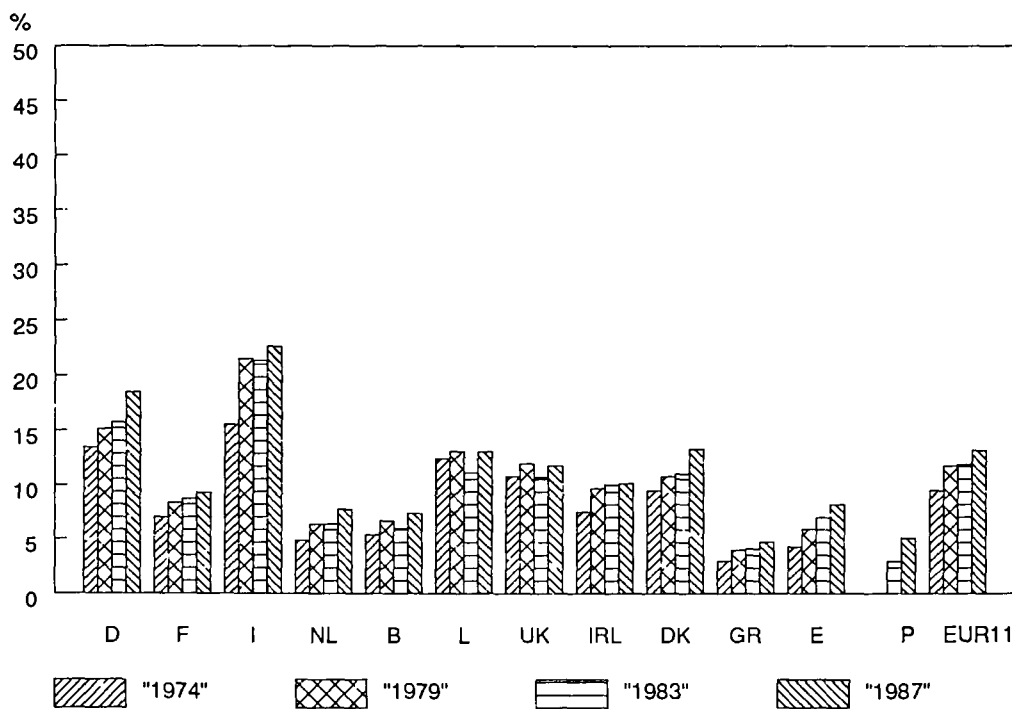


Figure 8.6 Share of rent and interest payments in current value of final output agricultural in the EC

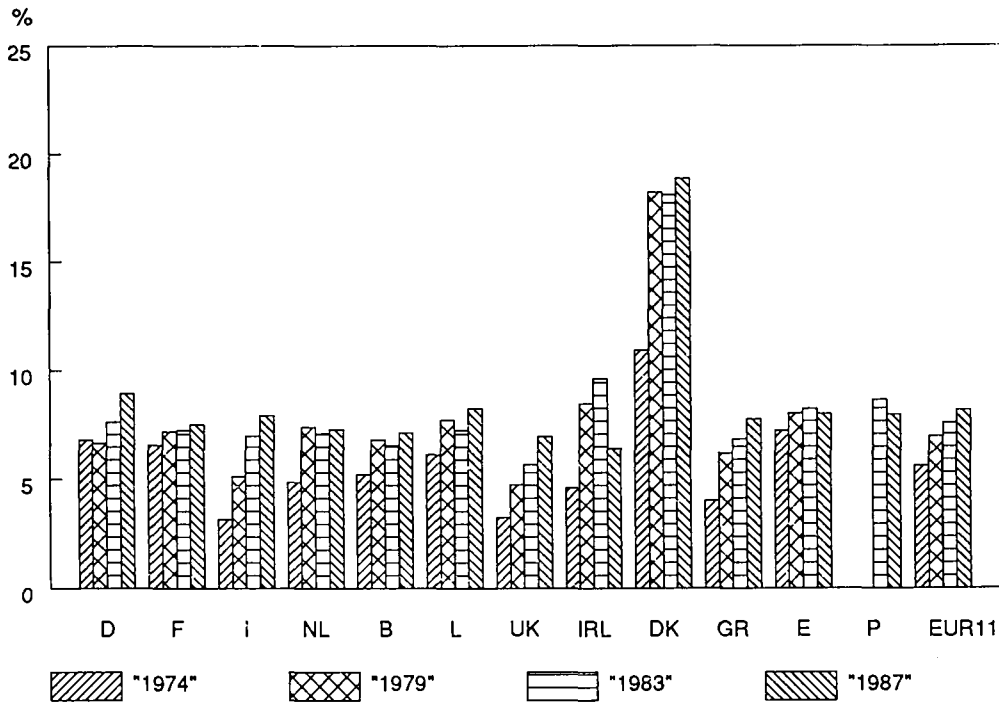
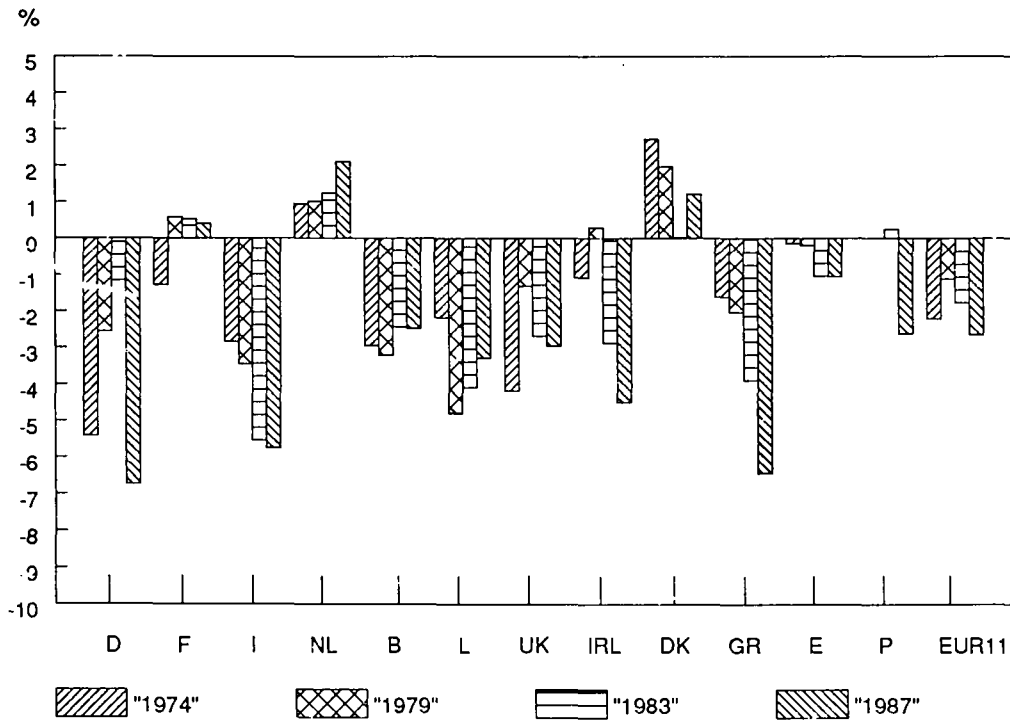


Figure 8.7 Share of taxes net of subsidies in current value of final agricultural output in the EC



Note:
A bar below zero indicates that received subsidies exceed taxes.

9. CONCLUDING REMARKS

9.1 Introduction

In this study the performance of agriculture in the EC in the years 1973-1988 has been assessed using two measures. Firstly, agricultural trends have been compared with those in the rest of the economy. Secondly, trends in EC agriculture have been related to developments in a number of non-EC countries (US, Australia, Canada, Japan and Sweden). The EAA of the twelve EC Member States served as the main data source for agricultural developments in the EC.

As agricultural performance can be considered from a large number of viewpoints, we decided to limit the analysis to the issues mentioned in the five CAP targets in art. 39 of the Treaty of Rome. This approach has been chosen since EC agriculture and the CAP are indissolubly linked together. In doing so, an impression can be given of the extent to which CAP targets have been achieved. However, it should be explicitly stated that this study does not intend to make any comments on the instruments or effectiveness of the CAP.

The main findings of the analysis of production, productivity, prices and income in agriculture in the EC are summarized in the next section. In that section the attainment of the CAP targets is also examined. The chapter concludes with some remarks on data availability.

9.2 Agricultural performance in the EC

The volume of final agricultural output in the Community increased by more than 2% p.a. between "1974" and "1983". Annual growth rates slowed down to about 1% in the years "1983-86", mainly due to the small volume increase in the animal sector. On the whole the annual increase in crop output exceeded that of animal output. The growth of final agricultural output resulted in a rising self-sufficiency rate for the Community, since agricultural producers in the EC were able to meet internal demand for an increasing number of products. In "1986" the Community was self-sufficient in nearly all non-tropical agricultural products, except for maize, fruit, oil seeds and sheep meat. So the attainment of the CAP target on the assurance of the availability of supply (art. 39d of the Treaty of Rome) was more than successful. On the other hand, the increasing self-sufficiency of EC agriculture resulted in supply surpluses on the market for agricultural products. The use of intermediate consumption in the Community increased rapidly by about 3.5% p.a. in the period "1974-79". Annual growth rates then slowed down to about 1%.

The increase in labour productivity in EC agriculture of 5% p.a. between "1974" and "1987" was above that in the non-EC countries. Growth rates of labour productivity in EC agriculture were also higher than those in the rest of the economy, but this also applied for the non-EC countries, Japan being the exception. These high growth rates of agricultural labour productivity in the Community result in a favourable assessment of the CAP aim of increasing agricultural productivity (art. 39a). However, considering the surplus production in the EC, it may be wondered whether

factors of production were optimally utilized from a macroeconomic point of view. Productivity of intermediate consumption decreased between "1974" and "1979" in the Community, indicating that the use of intermediate consumption per unit of output has been risen. Thereafter the productivity of intermediate consumption increased somewhat.

Real prices of agricultural products in the Community fell by 2.7% p.a. between 1973 and 1987. There was a sharp decline in real prices of potatoes, pigs and eggs, whereas the decrease in real prices of milk and "other crops" was moderate. The annual decline in real prices of intermediate consumption by 1.8% in these years was less than the decline in real prices of agricultural products. This means that agricultural producers in the EC faced relatively unfavourable trends in prices for agricultural output. However, the increasing self-sufficiency rates in the Community indicate that the real price decline for agricultural products was insufficient to balance the internal demand for and internal supply of agricultural products.

Considering the relatively small annual deviations from trend of the real price index of final agricultural output in the Community, prices were stable in the short run (art. 39c). This also applied for the separate agricultural products, potatoes and wine being the exceptions. If the level of producers' prices is used as an indicator of the level of consumer prices, consumers in the EC had to pay higher prices for their food than consumers in the US, Canada and Australia in the 1970s, but lower prices than Japanese consumers. On the other hand, the decreasing trend in real food prices implied that food became relatively cheaper. So consumers benefitted to some extent from the increased agricultural productivity, although the fall in the real price of food was far less than the reduction in producer prices. Real food prices for EC consumers declined at a greater rate between 1973 and 1988 than those for consumers in the non-EC countries. The combination of a relatively high level of consumer prices and a high rate of decline of real food prices in the EC makes the achievement of the ensurance of supply at reasonable prices (art. 39e) ambiguous.

After a sharp fall in 1974, real agricultural income per AWU in the Community improved, but remained below the 1973 level. When 1973 is not taken into account, it can be said that the purchasing power of net income from agricultural activities per AWU in the EC was maintained over the period. A number of Member States deviated from this pattern. Real agricultural income per AWU in Germany, France, Italy, Belgium, the UK and Ireland declined from 1974, indicating that the purchasing power of agricultural income per AWU deteriorated in these countries.

In spite of the relatively large increase in agricultural labour productivity, relative agricultural income in the Community did not improve between 1973 and 1988. This implied that the level of agricultural income per worker remained below that of workers in the rest of the economy. Thus the goal of a fair standard of living for the agricultural community by increasing productivity (art. 39b) was not reached. Clearly the positive effect of the increase in agricultural labour productivity on agricultural income was cancelled out by the decrease of real prices for agricultural products, notwithstanding that this decrease was modified by declining prices for intermediate consumption. Due to the greater increase in agricultural labour productivity in the Community, the deterioration of rela-

tive agricultural income in the EC was less than that in the non-EC countries, except for Sweden. The gap between agricultural income and income in the rest of the economy in the EC seemed to be larger than that in the non-EC countries, Japan being the exception. It has to be noted that in this study average agricultural income per AWU is considered. Individual incomes may differ considerably from this average, depending on the type and size of the agricultural holding, region, etc. Moreover, income per agricultural worker is higher when income from non-agricultural activities is taken into account.

9.3 Assessment of data availability

The EAA are a useful data base for the assessment of the changes in volumes, composition and prices of output and intermediate consumption in EC agriculture. The assessment of productivity and income in the agricultural branch is hampered by lack of (reliable) data on factor inputs. Data on labour input in AWU are insufficiently harmonized among Member States, data on land input show inconsistencies, while no systematic and comparable time series exist on capital input. The EAA data can be more fully exploited when consistent data on factor inputs in EC agriculture is available.

Two difficulties have been experienced in comparing the performance of the agricultural branch between the EC and non-EC countries. Firstly, different statistical sources have been used. The coverage of statistical definitions in these sources often differs. Secondly, international comparisons of output, input and productivity in agriculture are hampered by insufficient information on differences in price levels. The use of agricultural purchasing power parities eliminates differences in price levels in such comparisons. International comparisons of agricultural performance should be facilitated when the tuning of definitions in different sources increases and when differences in price levels can be ascertained.

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APPENDIX I COVERED PRODUCTS IN THE ECONOMIC ACCOUNTS FOR AGRICULTURE

- 01 Cereals excluding rice
 - 01.1 Wheat and spelt
 - 01.2 Rye and maslin
 - 01.3 Barley
 - 01.4 Oats and summer cereal mixtures
 - 01.5 Maize (grain)
 - 01.6 Other
- 02 Rice
- 03 Pulses
- 04 Root crops
 - 04.1 Potatoes
 - 04.2 Sugarbeet
 - 04.3 Other
- 05 Industrial crops
 - 05.1 Oil seeds and oleaginous fruit (except olives)
 - 05.2 Fibre plants
 - 05.3 Tobacco
 - 05.4 Hops
 - 05.5 Other
- 06 Fresh vegetables
- 07 Fresh fruit
- 08 Citrus fruit
- 09 Grapes
- 10 Grape must and wine
- 11 Table olives
- 12 Olive oil
- 13 Other crops and crop products
 - 13.1 Fodder plants
 - 13.2 Nursery plants
 - 13.3 Vegetable materials used primarily for plaiting
 - 13.4 Flowers and ornamental plants
 - 13.5 Seeds
 - 13.6 Other
- 14 Final crop output (1 to 13)
- 15 Animals
 - 15.1 Cattle (including calves)
 - 15.2 Pigs
 - 15.3 Equines
 - 15.4 Sheep and goats

APPENDIX I (continued) COVERED PRODUCTS IN THE ECONOMIC ACCOUNTS FOR AGRICULTURE

15.5	Poultry
15.6	Other
16	Animal products
16.1	Milk
16.2	Eggs
16.3	Wool
16.4	Other
17	Final animal output (15+16)
18	Contract work
19	Adjustment
20	Final agricultural output (14+17+18+19)

APPENDIX II CALCULATION OF REAL PRICE INDICES

1. Price indices for Member States

Real price indices for the individual Member States are constructed in two steps. First nominal Paasche price indices for agricultural products (PPIA) are obtained as the ratio of the value in current prices in national currency and the value in constant prices in national currency, as follows 1):

$$PPIA_{it} = \left(\sum_{j=1}^m P(nc)_{it}^j Q_{it}^j / \sum_{j=1}^m P(nc)_{i0}^j Q_{it}^j \right) * 100$$

in which:

$\sum_{j=1}^m P(nc)_{it}^j Q_{it}^j$ = value of agricultural products in Member State i in current prices of year t expressed in national currency in year t

$\sum_{j=1}^m P(nc)_{i0}^j Q_{it}^j$ = value of agricultural products in Member State i in constant prices of year 0 expressed in national currency in year t

j = agricultural product, j = 1...m
0, t = time, 0 = 1980; t = 1973...1988

These nominal price indices reflect both real price changes and the inflation rate of the national currency. The inflation can be eliminated by deflating the nominal price index with the price index of GDP at market prices in national currency (PPIG):

$$RPIA_{it} = (PPIA_{it} / PPIG_{it}) * 100$$

in which:

RPIA_{it} = real price index for agricultural products in Member State i in year t

2. Price indices for the Community

The calculation of real price indices for the Community as a whole is more complicated than for the individual Member States. Real price indices for the Member States are based on values in national currency. A plausible estimate of real price indices for the Community seems one that is based on values expressed in ECU. However, the composition of the currencies in the basket of the ECU and the exchange rate of the ECU against the separate national currencies vary over time. This implies that a price index based on ECU can be biased by these changes. Therefore, real price indices for the Community are based on values that are expressed in 1980 ECUs to eliminate this bias. The calculation is described below.

1) These indices can be both calculated for the total of agricultural products and for separate agricultural products. The calculation of the real price index of total agricultural output is described here.

Firstly, values of agricultural output in current prices in national currency in each Member State are deflated by the GDP price index:

$$\sum_{j=1}^m P(nc)_{it}^{j*} Q_{it}^j = \left(\sum_{j=1}^m P(nc)_{it}^j Q_{it}^j \right) / PPIG_{it}$$

in which:

$$\sum_{j=1}^m P(nc)_{it}^{j*} Q_{it}^j = \text{value of agricultural output in current prices in national currency deflated by the GDP price index in national currency in Member State } i \text{ in year } t$$

As a next step, these deflated values in national currency are converted into ECU by using the exchange rate of 1980 for each year t:

$$Y_{it}^{A*} = \sum_{j=1}^m ER_{ECU/nc,i}^{1980} P(nc)_{it}^{j*} Q_{it}^j$$

in which:

$$Y_{it}^{A*} = \text{deflated value of agricultural output in Member State } i \text{ in year } t, \text{ converted into ECU by using the 1980 exchange rate}$$

$$ER_{ECU/nc,i}^{1980} = \text{exchange rate of ECU against national currency in Member State } i \text{ in 1980}$$

Since Y_{it}^{A*} for all Member States are expressed in ECU, they can be added together to form a Community total. Real price indices for the Community are now derived as the ratio of the sum of all Y_{it}^{A*} and the sum of the values of agricultural output in constant prices of 1980 in ECU in the Member States:

$$RPIA_{EUR,t} = \sum_{i=1}^n Y_{it}^{A*} / \sum_{i=1}^n \left(\sum_{j=1}^m P(ECU)_{i0}^j Q_{it}^j \right) * 100$$

in which:

$$RPIA_{EUR,t} = \text{real price index of agricultural products in the Community in year } t$$

$$\sum_{j=1}^m P(ECU)_{i0}^j Q_{it}^j = \text{value of agricultural output in constant prices of 1980 in ECU in Member State } i \text{ in year } t$$

$$i = \text{Member State, } i = 1 \dots n \text{ (} n = 12 \text{)}$$

APPENDIX III DETAILED TABLES

[The content of this page is extremely faint and illegible. It appears to contain a large table with multiple columns and rows, but the text is too light to transcribe accurately. The table structure is not discernible.]

TABLE A2.1 FINAL AGRICULTURAL OUTPUT IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR 11*	EUR 12*
1973	19565	28871	21133	7170	4189	128	13370	2194	3762	4584	12689	:	117654	:
1974	19707	28337	21476	7572	4281	131	13180	2202	4132	4645	12325	:	117988	:
1975	19548	27211	22278	7518	3960	128	12626	2243	3769	4983	12375	:	116639	:
1976	19697	27210	21881	7801	3906	121	12462	2226	3811	4967	12863	:	116948	:
1977	20845	27913	22149	8172	3995	125	13438	2446	4185	4743	12830	:	120842	:
1978	21552	29939	22925	8725	4135	125	14166	2566	4298	5170	13556	:	127158	:
1979	21548	32378	24327	9116	4172	122	14313	2562	4439	4959	13721	:	131656	:
1980	21775	32161	25147	9356	4188	118	14603	2531	4458	5455	14941	2225	134734	136959
1981	21707	31956	25073	9836	4266	124	14658	2525	4585	5519	13847	2137	134097	136235
1982	23496	35017	24585	10198	4391	139	15617	2688	4848	5616	14610	2239	141206	143445
1983	22822	34106	26202	10405	4324	132	15267	2776	4703	5391	15089	2161	141215	143376
1984	23535	35544	25417	10785	4557	134	16423	3012	5243	5551	15945	2218	146144	148363
1985	22689	35599	25521	10862	4604	131	15880	2966	5261	5734	16455	2305	145701	148006
1986	23798	35754	26097	11429	4857	135	16104	2916	5161	5798	15514	2318	147564	149882
1987	22637	36561	27109	11242	4756	131	15772	2965	5166	5483	16805	2479	148627	151106
1988	:	36800	26479	:	4930	:	:	3009	:	5786	17561	2140	:	:
annual growth rates in %														
"1974-87"	1.35	1.99	1.59	3.47	1.22	0.23	1.66	2.27	2.45	1.42	2.24	:	1.91	:
"1974-79"	1.98	2.28	2.22	4.09	0.11	-1.13	1.92	2.90	2.50	1.86	2.46	:	2.24	:
"1979-83"	1.87	2.59	1.29	3.65	1.52	2.62	2.37	2.57	2.90	1.53	1.97	:	2.15	:
"1983-87"	-0.35	1.05	1.12	2.23	2.31	-0.62	0.32	1.20	1.76	0.76	2.24	1.18	1.03	1.05
"1984-87"	0.06	1.21	1.09	2.28	2.55	0.05	0.20	0.52	1.24	0.77	1.65	1.25	1.01	1.05

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86"; growth rates "1984-87" to "1984-86".

TABLE A2.2 INTERMEDIATE CONSUMPTION IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR 11*	EUR 12*
1973	9975	11928	5264	3875	2327	51	8239	908	2030	892	3545	:	49036	:
1974	9685	12360	5384	4003	2333	53	7822	807	1888	923	3824	:	49083	:
1975	9854	11822	5407	4050	2344	53	7829	771	1982	1016	3936	:	49065	:
1976	10599	12462	5717	4310	2335	58	7992	866	2181	1058	4276	:	51852	:
1977	11114	12742	6085	4467	2368	54	8079	954	2235	1119	4537	:	53755	:
1978	11470	13447	6525	4755	2395	49	8058	1097	2433	1158	4887	:	56276	:
1979	12115	14108	6935	5006	2436	48	8197	1264	2608	1181	5331	:	59230	:
1980	12169	14359	7129	5257	2413	49	8003	1124	2485	1236	5697	914	59920	60835
1981	11468	14374	6953	5184	2381	49	7801	1188	2428	1287	6016	947	59129	60076
1982	11791	14492	6964	5181	2434	48	8317	1182	2455	1314	6227	937	60405	61342
1983	11765	14647	7080	5286	2422	53	8523	1248	2509	1356	6241	899	61130	62029
1984	11636	14910	7095	5402	2478	52	8402	1242	2440	1357	6432	866	61444	62310
1985	11735	14959	7131	5652	2542	53	8341	1258	2476	1406	6437	874	61991	62865
1986	11725	15128	7309	5612	2671	54	8481	1353	2446	1379	6666	882	62825	63707
1987	11511	15433	7613	5785	2698	57	8305	1297	2526	1421	6860	940	63505	64446
1988	:	15830	7648	:	2700	:	:	1307	:	1488	7134	927	:	:
annual growth rates in %														
"1974-87"	1.42	1.95	2.65	3.02	1.10	0.36	0.42	3.64	1.96	3.25	4.75	:	2.08	:
"1974-79"	3.91	3.03	5.10	4.71	0.68	-1.40	0.31	6.99	4.99	4.78	7.08	:	3.57	:
"1979-83"	-0.40	1.25	0.66	1.39	0.31	0.90	1.00	1.31	-0.41	3.02	4.39	:	1.06	:
"1983-87"	-0.21	1.30	1.65	2.42	2.42	2.61	-0.15	1.88	0.20	1.58	2.25	0.43	0.96	0.95

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE A2.3 SHARE OF INTERMEDIATE CONSUMPTION IN FINAL AGRICULTURAL OUTPUT IN THE EC (1980 PRICES)

	"1974"	"1979"	"1983"	"1987"
FR Germany *)	0.50	0.55	0.50	0.51
France	0.43	0.44	0.42	0.43
Italy	0.25	0.28	0.28	0.28
Netherlands *)	0.54	0.55	0.51	0.51
Belgium	0.56	0.58	0.55	0.55
Luxembourg *)	0.41	0.40	0.38	0.41
UK *)	0.61	0.56	0.53	0.53
Ireland	0.37	0.46	0.43	0.45
Denmark *)	0.51	0.57	0.50	0.48
Greece	0.20	0.23	0.24	0.25
Spain	0.30	0.38	0.41	0.41
Portugal	:	:	0.41	0.40
EUR 11 *)	0.42	0.45	0.43	0.43
EUR 12 *)	:	:	0.43	0.43

*) "1987" refers to "1986".

TABLE A2.4 GVA IN AGRICULTURE AT FACTOR COST IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR 11*	EUR 12*
1973	10606	16642	16547	3216	1959	77	5749	1301	1657	3756	9165	:	70674	:
1974	10961	16626	16531	3537	2056	81	5743	1437	2115	3798	8512	:	71397	:
1975	10694	16020	17601	3388	1753	80	5163	1484	1674	4054	8461	:	70372	:
1976	9936	15116	16791	3441	1756	68	4665	1362	1539	4015	8597	:	67286	:
1977	10379	15399	16748	3632	1771	82	5495	1499	1864	3804	8308	:	68981	:
1978	10691	16468	16976	3872	1870	80	6220	1468	1778	4162	8678	:	72263	:
1979	9961	17979	18244	4039	1873	80	6217	1289	1745	3865	8399	:	73692	:
1980	10034	17564	19081	4001	1895	76	6936	1395	1902	4289	9310	1302	76484	77786
1981	10450	17720	19311	4507	2004	80	7109	1361	2101	4424	8013	1184	77079	78262
1982	11901	20483	18752	4882	2062	96	7596	1557	2378	4530	8539	1299	82777	84076
1983	11168	19193	20680	5002	2019	85	7254	1608	2210	4228	9048	1258	82495	83753
1984	12742	20366	19991	5229	2195	89	8520	1887	2796	4410	9645	1339	87868	89207
1985	12313	20367	19906	4998	2182	82	8103	1871	2772	4520	10149	1486	87264	88750
1986	13666	20455	19963	5567	2291	85	8099	1695	2680	4583	8933	1504	88018	89522
1987	12656	21008	21175	5237	2179	78	7904	1784	2592	4500	10139	1606	89253	90859
1988	:	20789	20579	:	2381	:	:	1839	:	4760	10709	1294	:	:
annual growth rates in %														
"1974-86"	1.51	1.91	1.56	3.77	1.20	0.27	3.13	1.99	3.30	1.33	0.93	:	1.84	:
"1974-79"	-1.00	1.08	1.39	3.27	-0.46	-0.14	3.07	-0.33	-0.08	1.19	0.19	:	0.92	:
"1979-83"	3.94	3.65	2.28	6.13	2.72	3.43	4.80	5.03	8.01	1.69	0.79	:	3.29	:
"1983-86"	2.56	0.98	0.90	1.50	1.96	-3.13	1.04	1.92	2.89	1.09	2.38	5.66	1.48	1.54

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE A2.5 GVA IN AGRICULTURE, FORESTRY AND FISHERIES IN THE NON-EC COUNTRIES IN MIO ECU (1980 PRICES)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR9
1973	49203	6935	4158	32740	3072	60813
1974	48363	6267	4916	32028	3212	62581
1975	50245	6721	5429	31901	2917	61471
1976	48412	7319	5865	30412	2919	57790
1977	48067	7401	6028	29782	2725	59771
1978	48644	7339	5817	29642	2772	61411
1979	51599	6850	7075	30070	2760	65422
1980	50505	7181	6233	28024	2857	69683
1981	58412	7664	5579	27172	2898	68609
1982	59281	7881	6406	28556	3084	74279
1983	48167	7990	4999	28898	3225	73984
1984	54941	7917	7115	29503	3346	78630
1985	63101	8175	7164	29329	3211	78309
1986	65800	8915	7047	28296	3215	78225
1987	65446	8683	7526	29570	3102	78495
1988	:	:	7424	:	:	:
annual growth rates in %						
"1974-86"	2.31	2.17	3.43	-0.86	0.29	2.02
"1974-79"	0.39	1.41	5.69	-1.92	-1.83	1.23
"1979-83"	1.88	2.72	-0.80	-0.22	3.57	3.66
"1983-86"	6.17	2.71	5.48	0.09	-0.44	1.18

Source:
OECD, National Accounts, various issues.

TABLE A2.6 SHARE OF GVA IN AGRICULTURE IN GDP IN THE EC (in %, 1980 prices)

	"1974"	"1979"	"1983"	"1986"
FR Germany	2.4	2.0	2.3	2.3
France	4.6	4.2	4.6	4.5
Italy	6.6	6.1	6.2	5.9
Netherlands	3.5	3.6	4.5	4.4
Belgium	2.9	2.5	2.7	2.7
Luxembourg	2.9	2.7	2.9	2.4
UK	1.7	1.9	2.3	2.1
Ireland	15.1	11.2	12.9	12.8
Denmark	4.9	4.5	5.7	5.8
Greece	19.2	16.6	16.8	16.6
Spain	6.8	6.1	6.1	6.2
Portugal	:	:	7.9	8.9
EUR 11	4.1	3.8	4.1	4.0
EUR 12	:	:	4.1	4.1

TABLE A2.7 SHARE OF GVA IN AGRICULTURE, FORESTRY AND FISHERIES IN GDP IN THE NON-EC COUNTRIES (in %, 1980 prices)

	"1974"	"1979"	"1983"	"1986"
United States	2.9	2.6	2.6	2.8
Canada	4.7	4.2	4.4	4.2
Australia	5.7	6.7	5.9	6.3
Japan	5.3	3.9	3.3	2.9
Sweden	4.3	3.6	3.9	3.6
EUR 9	3.9	3.6	4.0	3.9

Source:
 OECD, National Accounts, various issues.

TABLE A2.8 GVA IN THE REST OF THE ECONOMY IN THE EC IN MRD ECU (1980 PRICES)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	437.2	329.7	234.5	89.8	63.3	2.5	314.7	7.3	34.7	:	:	:	:	:
1974	439.2	342.2	245.1	94.2	65.8	2.7	317.2	7.7	34.1	:	:	:	:	:
1975	432.8	342.7	238.6	94.1	65.4	2.5	316.2	8.5	34.3	:	:	:	:	:
1976	457.4	357.1	252.4	99.3	69.1	2.6	327.0	8.3	36.8	:	:	:	:	:
1977	470.8	372.8	256.1	100.6	69.5	2.6	323.9	9.4	36.7	18.6	:	:	:	:
1978	484.5	383.9	264.0	102.6	74.0	2.7	336.4	10.6	37.5	19.8	:	:	:	:
1979	504.4	390.9	278.2	105.6	72.9	2.8	338.4	11.2	38.3	20.8	:	:	:	:
1980	510.2	394.9	290.2	106.4	76.1	2.9	328.4	11.1	38.2	21.2	:	:	:	:
1981	511.2	403.5	294.6	105.4	74.7	2.8	321.6	11.3	37.7	21.8	134.6	15.4	1919.3	1934.7
1982	507.0	409.9	295.5	104.1	75.5	2.9	323.0	11.3	39.0	21.4	136.5	15.2	1926.1	1941.4
1983	515.3	413.8	294.8	105.3	75.8	2.9	337.7	11.2	40.1	21.3	137.4	15.0	1955.7	1970.6
1984	529.1	418.2	305.6	108.7	77.7	3.1	344.3	11.6	41.3	21.8	138.8	14.6	2000.1	2014.8
1985	541.2	425.4	315.0	111.9	78.5	3.2	357.1	12.0	42.9	23.0	140.6	14.9	2050.7	2065.6
1986	557.6	436.2	323.9	113.1	80.1	3.3	364.3	12.1	43.9	22.6	143.9	15.2	2101.2	2116.4
1987	570.6	444.0	329.6	114.9	81.0	3.4	378.9	12.5	43.7	22.0	151.4	16.0	2151.9	2167.9
annual growth rates in %														
"1974-86"	2.05	2.12	2.52	1.68	1.75	2.20	1.25	3.77	1.98	:	:	:	:	:
"1974-79"	2.74	2.89	2.99	2.50	2.76	1.79	1.14	6.92	2.01	:	:	:	:	:
"1979-83"	0.86	1.51	1.86	0.27	0.67	1.68	0.05	0.97	1.38	1.08	:	:	:	:
"1983-86"	2.47	1.68	2.63	2.24	1.50	3.61	3.06	2.37	2.72	1.58	1.83	1.00	2.34	2.33

TABLE A2.9 GVA IN THE REST OF THE ECONOMY IN THE NON-EC COUNTRIES IN MIO ECU (1980 PRICES)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR9
1973	1669790	132859	78585	570535	66799	1513873
1974	1660866	137088	79535	565669	69350	1548155
1975	1632436	138650	80428	574972	70874	1535022
1976	1711976	146786	81725	604026	72397	1610084
1977	1792561	151649	84716	634488	71859	1642409
1978	1884843	156669	85985	673627	72234	1696138
1979	1931445	163511	88642	716770	75328	1742620
1980	1918860	166310	91546	760780	76628	1758292
1981	1947303	172689	95352	787021	76264	1762933
1982	1909413	165897	98430	813378	76691	1768263
1983	1977528	171425	96243	848257	78750	1796894
1984	2113167	182255	99072	897053	81750	1839495
1985	2193947	191200	104661	939531	83786	1887104
1986	2257904	196844	110131	965594	84798	1934618
1987	2341800	205358	111129	1009722	87412	1978510
1988	:	:	115489	:	:	:
annual growth rates in %						
"1974-86"	2.65	3.16	2.63	4.54	1.79	1.96
"1974-79"	2.93	3.55	2.22	4.68	1.61	2.48
"1979-83"	1.14	1.66	2.49	4.43	1.42	0.98
"1983-86"	4.23	4.53	3.53	4.44	2.58	2.38

Source:
OECD, National Accounts, various issues.

TABLE A4.1 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR 11 IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	117654	54018	13350	399	2849	3061	1771	9408	8043	7575
1974	117988	54215	14156	392	3054	2803	1865	9830	7879	6664
1975	116639	52729	12496	383	2515	3348	1911	9771	7582	6423
1976	116948	51355	11788	292	2528	3555	1877	9148	8069	6604
1977	120842	53706	13559	312	2997	3800	1911	10001	6778	6021
1978	127158	57565	16063	357	2909	3719	2033	10326	7862	6188
1979	131656	59769	15484	392	2950	3715	2112	10383	8004	8159
1980	134734	60974	17329	362	2892	3762	2351	10322	8046	6616
1981	134097	59885	15817	347	2949	4675	2418	10459	8021	5945
1982	141206	65613	17739	371	2849	4352	2889	10866	8669	8757
1983	141215	64048	16545	413	2588	3472	2848	10818	8823	8186
1984	146144	69240	22196	556	3041	3890	3557	11257	8630	6819
1985	145701	69027	20454	688	3080	3762	4003	11374	8652	6669
1986	147564	69841	19392	810	2894	3992	4454	11656	8890	8241
1987	148627	71956	19530	981	2959	3875	5719	11450	8443	7946
annual growth rates in %										
"1974-86"	1.91	2.27	3.35	6.42	0.50	1.96	8.13	1.45	0.84	0.84
"1974-79"	2.24	2.07	4.09	-1.09	0.78	3.98	3.21	1.36	0.34	0.29
"1979-83"	2.15	2.77	3.68	4.80	-0.79	1.14	9.37	1.50	2.23	3.18
"1983-86"	1.03	1.96	1.68	22.73	1.76	-0.24	15.11	1.53	-0.17	-1.29

TABLE A4.1 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN EUR11 IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	1935	5446	63357	17172	12302	2603	4607	20493	4247
1974	1737	5659	63958	18018	12201	2274	4556	20609	4297
1975	2150	5909	63937	17585	11983	2234	4863	20867	4444
1976	1531	5754	65666	17715	12548	2226	5180	21395	4481
1977	2172	5935	66977	17743	13065	2392	5166	22039	4516
1978	1582	6275	69506	18030	13909	2575	5319	22954	4598
1979	1876	6508	71673	18737	14363	2593	5542	23531	4678
1980	2317	6704	73501	18628	15009	3004	5899	24128	4580
1981	2120	6890	74037	18825	15067	2873	6117	24194	4629
1982	1697	7106	75445	18753	15290	2977	6324	24951	4760
1983	2796	7340	76859	19200	15681	2884	6177	25803	4673
1984	1353	7677	76735	19394	15818	2990	6138	25290	4584
1985	2618	7455	76483	19145	16098	2997	6238	24893	4582
1986	1589	7654	77588	19235	16669	2985	6417	25143	4563
1987	2286	8166	76521	18582	16786	3103	6783	23911	4536
annual growth rates in %									
"1974-86"	0.91	2.65	1.57	0.64	2.58	2.06	2.76	1.48	0.43
"1974-79"	0.17	2.75	2.34	0.97	3.48	2.82	3.63	2.65	1.30
"1979-83"	0.31	3.22	1.63	0.87	1.97	2.02	2.69	1.87	0.29
"1983-86"	3.56	1.71	0.23	-0.22	1.93	0.88	1.41	-0.93	-0.81

Notes:

Data for potatoes, sugar beet, cattle, pigs, sheep, goats and poultry in 1987 have been estimated since data for Spain are not available. It is supposed that the proportion of potatoes and sugar beet in crop output in 1987 in Spain is the same as in 1986, and that the proportion of cattle, pigs, sheep, goats and poultry in animal output in 1987 is the same as in 1986.

TABLE A4.2 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN GERMANY IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	19565	6564	1618	1	410	728	237	504	793	1007
1974	19707	6513	1786	1	553	748	248	467	645	713
1975	19543	6290	1456	1	285	839	205	450	731	888
1976	19697	6072	1260	1	396	833	198	420	679	876
1977	20845	6975	1830	1	478	908	248	476	585	1051
1978	21552	7204	2233	3	396	834	240	477	807	785
1979	21548	6962	1990	3	387	815	239	454	785	855
1980	21775	6724	2187	2	278	849	244	431	778	524
1981	21707	6845	2013	2	420	1083	259	478	456	735
1982	23496	8439	2341	3	355	1010	350	491	985	1486
1983	22822	7140	1893	3	282	724	353	451	754	1253
1984	23535	8022	2688	4	443	891	369	488	859	927
1985	22689	7456	2428	27	481	925	422	529	759	631
1986	23798	8043	2427	54	432	900	475	526	878	1101
1987	22637	7584	2253	75	386	846	566	485	694	1021
1988	:	:	:	:	:	:	:	:	:	:
annual growth rates in %										
"1974-86"	1.35	1.47	3.22	38.41	0.33	1.20	6.46	0.67	0.60	0.45
"1974-79"	1.98	1.53	5.70	21.38	-3.21	1.53	0.92	-0.85	1.80	-3.67
"1979-83"	1.87	3.10	1.94	3.41	0.45	1.25	10.36	1.24	2.32	14.09
"1983-86"	-0.35	-0.74	0.89	154.09	6.36	0.58	10.90	2.49	-3.57	-9.11

TABLE A4.2 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN GERMANY IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	1263	12955	3276	3621	39	309	4591	1013
1974	:	1349	13174	3397	3717	36	280	4645	975
1975	:	1436	13240	3384	3741	48	305	4682	979
1976	:	1408	13606	3467	3871	40	317	4819	936
1977	:	1397	13849	3518	3913	47	359	4910	964
1978	:	1428	14341	3629	4158	50	375	5076	934
1979	:	1435	14582	3745	4193	53	395	5210	880
1980	:	1430	15032	3867	4284	67	410	5408	887
1981	:	1398	14834	3800	4173	54	405	5431	852
1982	:	1417	15030	3787	4176	66	423	5571	857
1983	:	1427	15662	3989	4342	72	377	5899	842
1984	:	1350	15497	4021	4309	74	400	5699	846
1985	:	1254	15229	3922	4324	68	397	5551	850
1986	:	1251	15753	4104	4498	72	437	5680	826
1987	:	1256	15052	3946	4418	79	461	5222	796
1988	:	:	:	:	:	:	:	:	:
annual growth rates in %									
"1974-86"		-0.61	1.31	1.46	1.50	4.84	3.14	1.40	-1.51
"1974-79"		1.18	2.23	2.25	2.66	6.36	5.71	2.43	-1.86
"1979-83"		-0.58	1.25	1.21	0.38	5.96	0.43	2.27	-1.48
"1983-86"		-3.58	-0.11	0.49	1.06	0.92	2.57	-1.41	-0.96

TABLE A4.3 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN FRANCE IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	28871	14864	5289	36	419	762	473	1569	1360	3797
1974	28337	14051	5098	38	437	782	486	1623	1154	3215
1975	27211	12936	4315	53	386	797	450	1612	954	3081
1976	27210	12674	3926	30	277	724	444	1398	1217	3509
1977	27913	13400	4776	59	467	1046	386	1788	839	2804
1978	29939	14888	5589	63	451	981	466	1932	1146	2936
1979	32378	16307	5573	81	430	1019	474	1978	1173	4173
1980	32161	15794	6104	82	425	1002	671	1857	1165	3081
1981	31956	15299	5706	95	384	1295	671	1914	1098	2733
1982	35017	18234	6362	128	403	1126	834	2039	1225	4656
1983	34106	17123	6192	150	333	918	794	1994	1153	4132
1984	35544	18615	7886	209	379	1001	984	2054	1244	3390
1985	35599	18773	7481	257	416	1048	1211	2005	1236	3751
1986	35754	18892	6823	304	379	914	1270	2044	1260	4442
1987	36561	19880	7055	437	404	911	2024	2039	1322	4234
1988	36800	20392	7753	588	395	1040	1934	2133	1241	3905
annual growth rates in %										
"1974-87"	1.99	2.70	3.01	19.80	-0.41	1.56	10.61	2.00	0.75	1.71
"1974-79"	2.28	2.34	3.27	12.26	1.00	5.10	2.72	3.72	0.09	0.20
"1979-83"	2.59	3.52	4.31	21.12	-3.87	0.35	12.85	1.36	0.98	4.55
"1983-87"	1.05	2.32	1.43	28.54	1.37	-1.52	18.94	0.53	1.35	0.82

TABLE A4.3 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN FRANCE IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	1153	14380	4640	1993	530	1072	4800	648
1974	:	1213	14969	5171	2000	551	1081	4810	661
1975	:	1279	14810	5039	1955	546	1089	4814	693
1976	:	1141	14954	4983	2010	609	1146	4843	674
1977	:	1227	14772	4610	2024	615	1193	5018	657
1978	:	1311	15323	4874	2061	605	1269	5153	701
1979	:	1398	16240	5288	2163	659	1372	5373	715
1980	:	1395	16470	5029	2150	793	1489	5634	744
1981	:	1396	16874	5298	2190	703	1630	5637	777
1982	:	1447	17029	5237	2125	730	1735	5754	815
1983	:	1451	17050	5276	2146	673	1690	5853	771
1984	:	1457	17046	5322	2148	654	1670	5818	765
1985	:	1362	16936	5353	2165	651	1683	5677	763
1986	:	1451	17038	5251	2225	609	1776	5785	763
1987	:	1443	16736	4969	2270	608	1900	5572	746
1988	:	1391	16556	4818	2429	581	1938	5372	792
annual growth rates in %									
"1974-87"	:	1.25	1.01	0.10	1.17	0.77	4.31	1.15	1.08
"1974-79"	:	2.40	1.70	0.45	1.39	4.80	4.96	2.30	1.55
"1979-83"	:	1.50	1.57	1.04	0.18	0.00	5.39	1.90	2.13
"1983-87"	:	-0.40	-0.39	-1.28	1.91	-3.30	2.45	-1.01	-0.53

TABLE A4.4 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN ITALY IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	21133	13190	2379	91	354	454	211	3026	2781	2014
1974	21476	13295	2513	87	363	375	205	3225	2832	2022
1975	22278	13884	2557	83	371	612	244	3249	2830	1819
1976	21881	13203	2435	82	382	751	237	3150	2962	1715
1977	22149	13101	1962	73	394	556	239	3200	2734	1694
1978	22925	13548	2653	69	380	560	235	3321	2708	1872
1979	24327	14564	2701	82	419	654	295	3394	2871	2243
1980	25147	15126	2741	61	413	669	267	3446	2885	2249
1981	25073	14955	2733	64	411	870	288	3377	3127	1828
1982	24585	14390	2694	59	360	558	318	3385	3097	1904
1983	26202	15856	2690	59	353	495	357	3544	3396	2175
1984	25417	15057	3243	70	364	561	374	3543	2982	1835
1985	25521	15194	3052	73	352	467	491	3458	3108	1659
1986	26097	15918	3295	68	381	738	663	3520	3262	2008
1987	27109	16790	3267	68	366	759	960	3469	3117	1972
1988	26479	16056	3111	65	349	664	896	3406	3498	1665
annual growth rates in %										
"1974-87"	1.59	1.46	2.03	-1.97	0.05	3.17	10.85	0.70	1.21	-0.28
"1974-79"	2.22	1.38	1.68	-4.00	2.19	5.49	3.83	1.35	0.05	1.68
"1979-83"	1.29	1.17	1.61	-2.99	-2.91	-3.79	7.11	0.76	2.86	-1.82
"1983-87"	1.12	1.86	2.90	1.69	0.42	7.59	24.48	-0.18	1.05	-1.15

TABLE A4.4 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN ITALY IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	1022	821	7856	2068	1039	112	1127	2417	678
1974	812	814	8092	2173	1097	120	1179	2370	702
1975	1192	871	8301	2306	1133	125	1201	2380	703
1976	566	878	8588	2423	1165	138	1266	2432	706
1977	1296	901	8956	2512	1315	147	1293	2501	704
1978	781	921	9282	2575	1393	159	1350	2572	714
1979	895	971	9662	2671	1448	211	1384	2675	705
1980	1298	1049	9917	2744	1524	214	1430	2725	674
1981	1142	1078	10014	2726	1618	212	1422	2709	701
1982	809	1169	10093	2712	1642	207	1467	2747	693
1983	1550	1190	10238	2786	1671	199	1471	2786	689
1984	646	1408	10255	2766	1728	203	1437	2800	673
1985	1206	1275	10222	2743	1715	193	1404	2826	684
1986	666	1278	10072	2670	1655	192	1422	2808	653
1987	1241	1510	10210	2665	1695	185	1484	2817	681
1988	808	1552	10314	2592	1758	182	1517	2832	738
annual growth rates in %									
"1974-87"	-0.83	4.32	1.80	1.48	3.49	3.53	1.80	1.28	-0.04
"1974-79"	-0.35	3.25	3.54	4.06	5.95	10.41	3.49	2.15	0.08
"1979-83"	0.26	6.39	1.46	0.85	3.67	1.03	1.25	1.12	-0.46
"1983-87"	-2.51	3.61	0.01	-1.03	0.33	-2.10	0.28	0.37	0.22

TABLE A4.5 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN THE NETHERLANDS IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	7170	2559	206	10	295	235	18	772	141	:
1974	7572	2663	204	13	305	216	24	784	162	:
1975	7518	2589	162	13	254	252	17	782	125	:
1976	7801	2654	176	7	257	264	16	772	135	:
1977	8172	2756	172	9	282	263	16	807	116	:
1978	8725	2960	211	11	309	281	15	817	136	:
1979	9116	3048	200	11	319	249	11	845	153	:
1980	9356	3169	201	8	331	258	14	884	140	:
1981	9836	3382	202	11	354	304	16	938	115	:
1982	10198	3547	218	17	343	343	16	1030	124	:
1983	10405	3528	209	18	295	227	17	1019	130	:
1984	10785	3823	227	26	365	276	16	1054	120	:
1985	10862	3868	179	25	359	268	15	1098	113	:
1986	11429	4227	202	45	374	354	12	1190	120	:
1987	11242	4300	174	42	408	283	13	1165	127	:
1988	:	:	:	:	:	:	:	:	:	:
annual growth rates in %										
"1974-86"	3.47	3.92	-0.26	9.95	2.45	2.12	-3.37	3.30	-1.43	:
"1974-79"	4.09	3.27	1.36	-4.38	2.37	2.32	-8.07	1.72	0.05	:
"1979-83"	3.65	4.39	1.65	20.40	1.12	1.77	5.50	5.06	-3.33	:
"1983-86"	2.23	4.38	-5.32	22.92	4.38	2.26	-6.60	3.63	-1.31	:

TABLE A4.5 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN THE NETHERLANDS IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	883	4611	969	1088	36	266	2007	203
1974	:	955	4909	1064	1173	41	245	2125	211
1975	:	984	4929	935	1180	54	246	2227	233
1976	:	1026	5148	929	1231	52	345	2288	246
1977	:	1090	5417	1064	1339	51	345	2298	264
1978	:	1179	5765	1020	1500	52	352	2457	314
1979	:	1261	6068	1117	1572	57	377	2511	368
1980	:	1333	6186	1039	1637	65	388	2574	406
1981	:	1443	6453	1132	1659	57	438	2648	441
1982	:	1457	6651	1097	1741	45	416	2788	485
1983	:	1615	6878	1167	1792	58	419	2875	487
1984	:	1738	6962	1232	1900	43	424	2770	505
1985	:	1811	6994	1120	2069	48	445	2721	505
1986	:	1931	7201	1188	2165	46	460	2745	501
1987	:	2087	6942	1054	2206	69	502	2523	495
1988	:	:	:	:	:	:	:	:	:
annual growth rates in %									
"1974-86"	:	6.24	3.22	1.05	5.36	1.86	5.31	1.92	7.27
"1974-79"	:	5.99	4.52	1.37	6.47	6.01	8.11	3.47	10.97
"1979-83"	:	6.26	3.27	2.43	3.64	-4.44	3.02	2.83	7.91
"1983-86"	:	6.61	1.04	-1.29	5.84	3.75	3.80	-1.78	0.58

TABLE A4.6 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN BELGIUM IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	4189	1507	245	2	104	188	25	598	118	:
1974	4281	1519	240	2	118	158	27	600	132	:
1975	3960	1366	156	3	93	179	24	584	112	:
1976	3906	1267	204	1	63	169	22	473	116	:
1977	3995	1361	194	1	100	162	26	562	88	:
1978	4135	1431	245	1	103	193	22	510	118	:
1979	4172	1436	244	1	109	200	22	467	131	:
1980	4188	1394	237	1	108	200	16	441	129	:
1981	4266	1461	232	1	108	260	19	476	82	:
1982	4391	1608	262	1	122	285	23	506	132	:
1983	4324	1446	247	1	91	195	24	489	121	:
1984	4557	1603	320	1	122	214	25	519	119	:
1985	4604	1654	279	1	137	217	23	594	112	:
1986	4857	1748	312	2	128	212	22	652	124	:
1987	4756	1673	262	3	151	201	21	596	129	:
1988	4930	1779	303	3	148	217	21	631	139	:
annual growth rates in %										
"1974-87"	1.22	1.31	2.44	1.63	2.35	1.41	-1.33	0.41	0.62	:
"1974-79"	0.11	-0.60	2.54	-14.83	0.29	2.45	-4.41	-4.47	0.88	:
"1979-83"	1.52	2.25	3.38	-2.21	1.11	4.00	4.89	1.65	-0.43	:
"1983-87"	2.31	2.80	1.39	31.72	6.27	-2.36	-3.43	5.55	1.36	:

TABLE A4.6 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN BELGIUM IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	222	2682	797	902	6	112	634	205
1974	:	236	2762	852	900	7	116	654	208
1975	:	213	2595	768	839	2	107	646	207
1976	:	218	2639	781	854	3	121	649	205
1977	:	226	2634	761	876	4	116	652	202
1978	:	235	2705	768	918	6	107	681	200
1979	:	260	2736	800	914	6	118	687	184
1980	:	261	2794	840	925	7	126	686	178
1981	:	282	2805	847	897	9	136	692	177
1982	:	274	2783	798	890	8	152	700	183
1983	:	277	2878	875	902	8	141	716	182
1984	:	282	2954	960	921	10	141	688	175
1985	:	290	2950	963	913	10	146	693	163
1986	:	295	3110	1013	989	10	150	717	172
1987	:	308	3084	949	1046	10	161	686	171
1988	:	316	3151	958	1114	10	170	668	166
annual growth rates in %									
"1974-87"	:	2.45	1.16	1.47	1.36	5.11	2.81	0.52	-1.50
"1974-79"	:	2.43	0.48	-0.07	0.86	4.17	0.93	1.20	-1.98
"1979-83"	:	2.45	1.13	2.26	-0.41	7.85	5.45	0.60	-0.96
"1983-87"	:	2.48	2.05	2.63	3.80	3.59	2.57	-0.40	-1.43

TABLE A4.7 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN LUXEMBOURG IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	128	37	8	:	5	:	:	2	4	18
1974	131	32	8	:	4	:	:	2	4	13
1975	128	27	5	:	2	:	:	2	2	15
1976	121	20	2	:	2	:	:	2	2	12
1977	125	27	5	:	3	:	:	2	2	15
1978	125	22	8	:	3	:	:	2	2	7
1979	122	21	8	:	3	:	:	2	2	6
1980	118	18	6	:	2	:	:	2	2	5
1981	124	23	7	:	2	:	:	2	2	9
1982	139	39	8	:	2	:	0	2	2	25
1983	132	26	3	:	1	:	0	1	1	18
1984	134	29	9	:	2	:	1	1	1	15
1985	131	24	9	:	2	:	0	1	1	10
1986	135	29	7	:	2	:	0	1	2	16
1987	131	28	9	:	2	:	1	1	1	14
1988	:	:	:	:	:	:	:	:	:	:
annual growth rates in %										
"1974-86"	0.23	-1.48	1.24	:	-6.22	:	:	-5.21	-7.16	-1.33
"1974-79"	-1.13	-9.02	0.43	:	-6.87	:	:	-4.77	-11.80	-17.43
"1979-83"	2.62	11.99	-1.83	:	-9.60	:	:	-3.16	-9.88	33.87
"1983-86"	-0.62	-5.17	6.92	:	-0.38	:	6.31	-8.58	5.23	-11.61

TABLE A4.7 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN LUXEMBOURG IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	0	91	30	11	:	0	45	5
1974	:	0	98	34	11	:	0	47	5
1975	:	0	101	36	13	:	0	47	5
1976	:	0	101	37	12	:	0	47	4
1977	:	0	98	34	13	:	0	47	4
1978	:	0	103	38	13	:	0	49	4
1979	:	0	102	36	13	:	0	50	3
1980	:	0	101	35	12	:	0	51	3
1981	:	0	101	36	12	:	0	51	2
1982	:	0	100	33	11	:	0	53	2
1983	:	0	106	36	13	:	0	55	2
1984	:	1	105	34	13	:	0	57	2
1985	:	0	107	36	12	:	0	57	2
1986	:	0	106	35	13	:	0	57	2
1987	:	1	104	35	13	:	0	55	2
1988	:	:	:	:	:	:	:	:	:
annual growth rates in %									
"1974-86"	:	14.75	0.73	0.38	0.42	:	-10.39	1.62	-8.31
"1974-79"	:	37.58	0.99	1.53	0.49	:	-5.53	1.47	-7.35
"1979-83"	:	4.25	0.45	-1.33	-0.28	:	-11.39	2.49	-11.53
"1983-86"	:	-3.60	0.68	0.78	1.24	:	-16.71	0.73	-5.50

TABLE A4.8 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN THE UK IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	13370	4258	1695	36	530	298	54	923	338	:
1974	13180	4260	1816	44	533	178	62	927	314	:
1975	12626	3882	1630	45	407	199	60	893	276	:
1976	12462	3616	1513	22	386	206	75	788	270	:
1977	13438	4303	1896	26	490	284	85	932	233	:
1978	14166	4584	2000	31	530	307	98	963	291	:
1979	14313	4676	2073	42	517	338	118	907	304	:
1980	14603	5090	2438	38	552	325	155	916	281	:
1981	14658	5152	2555	59	509	313	169	915	239	:
1982	15617	5822	2937	48	526	416	265	953	282	:
1983	15267	5458	2757	56	487	330	251	900	282	:
1984	16423	6671	3571	79	562	375	388	991	302	:
1985	15880	6157	3156	92	564	321	370	975	266	:
1986	16104	6390	3256	129	545	358	387	1030	262	:
1987	15772	6151	2888	142	545	353	528	1009	249	:
1988	:	:	:	:	:	:	:	:	:	:
annual growth rates in %										
"1974-86"	1.66	3.48	5.07	9.27	0.98	3.61	17.97	0.79	-1.47	:
"1974-79"	1.92	2.96	4.84	-2.35	1.70	7.53	16.02	0.31	-1.12	:
"1979-83"	2.37	5.76	9.22	13.34	-0.39	3.69	24.85	0.52	-0.29	:
"1983-86"	0.32	1.37	0.13	25.54	1.63	-2.73	12.45	1.96	-3.57	:

TABLE A4.8 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN THE UK IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	376	8976	2368	1415	479	750	2924	863
1974	:	387	8793	2448	1279	494	705	2848	842
1975	:	372	8639	2438	1148	487	722	2849	813
1976	:	355	8746	2273	1217	490	787	2949	848
1977	:	358	9026	2315	1244	464	811	3158	856
1978	:	364	9466	2439	1257	589	820	3305	881
1979	:	377	9524	2430	1307	572	843	3309	882
1980	:	384	9376	2312	1317	560	857	3323	827
1981	:	393	9370	2325	1345	542	865	3302	806
1982	:	394	9644	2305	1391	523	938	3488	815
1983	:	394	9667	2250	1399	503	927	3595	799
1984	:	405	9607	2367	1350	577	968	3381	778
1985	:	413	9596	2307	1388	596	1007	3343	769
1986	:	422	9605	2159	1409	622	1077	3392	761
1987	:	439	9515	2125	1418	665	1138	3200	779
1988	:	:	:	:	:	:	:	:	:
annual growth rates in %									
"1974-86"	:	0.96	0.70	-0.80	0.77	2.14	3.32	1.19	-0.72
"1974-79"	:	-0.18	1.44	-0.20	0.20	3.34	2.97	2.88	0.56
"1979-83"	:	1.47	0.48	-0.92	1.63	-1.77	2.97	1.30	-1.97
"1983-86"	:	2.20	-0.23	-1.63	0.59	5.52	4.38	-1.71	-1.16

TABLE A4.9 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN IRELAND IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	2194	308	114	0	57	50	0	53	8	:
1974	2202	305	118	0	57	37	0	55	7	:
1975	2243	326	122	0	55	53	0	56	8	:
1976	2226	323	116	0	54	51	0	61	7	:
1977	2446	404	189	0	58	50	0	67	7	:
1978	2566	397	187	0	56	54	0	62	8	:
1979	2562	386	180	0	53	49	0	65	7	:
1980	2531	392	197	0	50	45	0	58	8	:
1981	2525	397	200	0	46	52	1	59	7	:
1982	2688	436	215	0	46	66	2	64	7	:
1983	2776	405	186	0	49	59	3	64	6	:
1984	3012	484	249	0	48	67	5	68	9	:
1985	2966	386	175	0	49	51	5	69	7	:
1986	2916	353	153	0	37	52	2	69	6	:
1987	2965	405	171	0	46	63	5	75	9	:
1988	3009	410	186	1	45	55	4	77	9	:
annual growth rates in %										
"1974-87"	2.27	1.69	2.84	3.35	-2.10	1.51	33.23	2.34	0.19	:
"1974-79"	2.90	4.58	9.79	-6.25	-1.11	1.28	25.45	2.56	-0.12	:
"1979-83"	2.57	3.04	3.57	15.21	-2.80	6.73	84.36	1.37	-0.65	:
"1983-87"	1.20	-3.09	-5.90	4.72	-2.64	-3.18	3.81	3.05	1.45	:

TABLE A4.9 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN IRELAND IN M10 ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	26	1886	885	195	89	65	580	41
1974	:	31	1897	957	159	88	53	564	39
1975	:	33	1917	952	145	90	51	605	39
1976	:	34	1904	865	172	78	63	654	39
1977	:	33	2042	954	180	70	62	706	37
1978	:	29	2169	961	195	79	66	800	37
1979	:	31	2176	939	206	73	73	816	34
1980	:	32	2139	926	192	79	73	800	31
1981	:	34	2128	896	188	92	72	798	36
1982	:	36	2253	926	195	95	84	871	34
1983	:	37	2371	965	198	96	86	940	36
1984	:	36	2528	1076	188	101	84	986	37
1985	:	31	2580	1102	177	121	90	999	37
1986	:	33	2563	1107	185	119	100	959	37
1987	:	35	2560	1089	185	138	109	942	38
1988	:	34	2598	1148	185	143	116	908	37
annual growth rates in %									
"1974-87"	:	1.03	2.36	1.39	0.83	3.15	5.16	3.71	-0.40
	:								
"1974-79"	:	0.49	2.61	0.22	3.52	-2.89	4.73	6.66	-2.96
"1979-83"	:	4.52	2.48	1.23	-0.45	6.08	4.66	3.73	1.14
"1983-87"	:	-1.70	1.94	3.04	-1.16	8.16	6.21	0.11	1.32

TABLE A4.10 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN DENMARK IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	3762	953	446	1	50	91	35	70	28	:
1974	4132	1217	682	2	56	98	45	69	28	:
1975	3769	968	455	2	45	105	46	67	28	:
1976	3811	941	478	1	39	99	29	69	28	:
1977	4185	1221	697	1	55	126	29	79	31	:
1978	4298	1190	675	1	57	102	32	73	29	:
1979	4439	1266	724	2	56	108	52	71	30	:
1980	4458	1208	632	2	54	107	67	67	26	:
1981	4585	1295	632	2	68	117	91	74	25	:
1982	4848	1536	820	4	63	128	115	78	28	:
1983	4703	1212	545	8	53	82	107	72	28	:
1984	5243	1833	980	43	65	129	163	97	33	:
1985	5261	1747	851	94	60	122	186	84	28	:
1986	5161	1563	636	90	64	108	211	91	24	:
1987	5166	1673	773	98	58	89	193	77	21	:
1988	:	:	:	:	:	:	:	:	:	:
annual growth rates in %										
"1974-86"	2.45	3.93	3.01	42.34	1.51	0.70	13.80	1.69	-1.25	:
"1974-79"	2.50	3.15	5.11	3.53	1.95	1.56	3.82	0.47	0.09	:
"1979-83"	2.90	5.74	3.66	84.18	2.06	1.68	26.34	4.05	1.14	:
"1983-86"	1.76	2.84	-1.24	71.61	0.07	-1.98	15.36	0.65	-6.46	:

TABLE A4.10 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN DENMARK IN MID ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	232	2809	511	1032	1	77	1029	58
1974	:	237	2915	648	983	1	80	1049	58
1975	:	221	2801	528	968	2	76	1071	60
1976	:	197	2870	560	974	1	82	1099	56
1977	:	204	2963	584	1014	1	87	1120	54
1978	:	221	3108	559	1134	1	84	1162	56
1979	:	223	3173	543	1219	1	88	1140	61
1980	:	254	3250	549	1308	1	84	1115	61
1981	:	285	3291	541	1349	1	89	1098	63
1982	:	300	3312	528	1314	1	94	1138	66
1983	:	317	3491	561	1391	1	96	1185	65
1984	:	323	3410	500	1400	1	95	1142	64
1985	:	323	3514	528	1467	2	99	1111	63
1986	:	340	3598	497	1548	2	98	1114	65
1987	:	365	3493	473	1528	2	98	1044	60
1988	:	:	:	:	:	:	:	:	:
annual growth rates in %									
"1974-86"	:	3.37	1.84	-0.99	3.57	4.65	1.98	0.32	0.57
"1974-79"	:	0.21	2.26	-0.43	4.18	-5.44	1.85	1.65	0.22
"1979-83"	:	7.74	1.74	-0.95	2.90	5.30	2.68	0.34	2.32
"1983-86"	:	3.00	1.26	-1.95	3.44	22.92	1.26	-1.91	-1.15

TABLE A4.11 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN GREECE IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	4584	2940	368	60	116	46	386	457	810	127
1974	4645	3051	445	50	118	49	394	480	818	144
1975	4983	3344	434	53	133	86	488	479	910	122
1976	4967	3289	487	46	153	93	509	439	854	135
1977	4743	3113	385	41	152	76	524	433	818	128
1978	5170	3488	578	44	136	88	546	495	823	137
1979	4959	3225	525	50	147	89	478	502	794	130
1980	5455	3704	699	48	165	54	472	511	863	142
1981	5519	3823	715	45	161	84	501	534	994	145
1982	5616	3899	747	38	156	79	483	545	918	126
1983	5391	3700	603	39	173	78	492	511	992	147
1984	5551	3845	708	34	158	57	605	549	977	138
1985	5734	4073	581	31	165	81	675	609	986	117
1986	5798	4120	700	32	147	72	798	580	984	129
1987	5483	3801	696	25	134	46	755	603	735	117
1988	5786	4095	657	32	146	60	747	606	968	110
annual growth rates in %										
"1974-87"	1.42	1.96	3.91	-4.53	1.16	-0.06	4.69	1.82	0.44	-0.76
"1974-79"	1.86	2.22	7.63	-2.59	4.07	4.96	3.37	1.28	-0.47	0.81
"1979-83"	1.53	2.38	3.38	-6.30	2.13	-1.77	1.38	1.59	3.89	0.09
"1983-87"	0.76	1.23	-0.06	-5.14	-3.28	-4.36	9.85	2.74	-1.79	-3.51

TABLE A4.11 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN GREECE IN M10 ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	356	155	1645	346	171	441	117	406	115
1974	380	103	1594	305	166	416	120	419	116
1975	427	115	1638	291	165	445	130	435	117
1976	397	101	1678	275	194	441	141	438	129
1977	389	92	1630	263	203	431	130	432	130
1978	365	175	1682	265	217	453	140	434	130
1979	357	101	1734	263	238	461	136	445	141
1980	480	132	1751	260	240	475	144	442	131
1981	419	119	1696	249	222	450	146	443	134
1982	516	143	1717	235	242	471	143	432	141
1983	413	151	1691	219	233	473	131	445	138
1984	375	143	1706	222	241	483	130	443	133
1985	530	159	1661	217	206	487	117	444	137
1986	427	138	1678	199	268	454	112	449	136
1987	432	168	1681	225	223	454	112	452	142
1988	474	169	1691	217	217	460	113	470	145
annual growth rates in %									
"1974-87"	1.06	1.87	0.27	-2.92	2.68	0.38	-0.67	0.66	1.53
"1974-79"	0.68	1.77	1.16	-3.50	6.74	1.30	2.71	0.97	2.99
"1979-83"	2.05	1.73	-0.26	-3.81	0.74	0.68	-0.98	-0.03	0.54
"1983-87"	0.55	2.16	-0.32	-1.27	-0.29	-1.04	-4.43	0.96	0.71

TABLE A4.12 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN SPAIN IN MIO ECU (1980 PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	12689	6838	984	163	509	209	331	1433	1662	611
1974	12325	7307	1244	154	508	163	374	1597	1783	557
1975	12375	7117	1203	130	484	227	377	1599	1607	498
1976	12863	7296	1191	101	518	365	346	1576	1798	357
1977	12830	7046	1451	101	518	330	358	1655	1326	329
1978	13556	7854	1684	133	487	318	378	1675	1795	451
1979	13721	7878	1266	120	510	196	424	1699	1754	751
1980	14941	8355	1885	119	513	253	445	1709	1770	615
1981	13847	7252	821	70	486	298	404	1693	1877	496
1982	14610	7662	1135	73	472	341	482	1773	1868	561
1983	15089	8154	1219	79	472	365	451	1773	1959	461
1984	15945	9259	2313	90	534	320	626	1892	1985	514
1985	16455	9696	2264	88	497	263	605	1951	2036	500
1986	15514	8559	1582	86	408	286	613	1953	1967	545
1987	16805	9671	1981	90	:	:	653	1931	2041	588
1988	17561	10048	2371	79	:	:	761	1941	1857	320
annual growth rates in %										
"1974-87"	2.24	2.22	4.30	-4.27	-9.54	-5.54	4.94	1.78	1.16	-1.05
"1974-79"	2.46	2.53	7.10	-3.58	0.13	5.07	2.86	1.88	1.04	1.74
"1979-83"	1.97	1.01	-0.88	-10.23	-0.56	7.53	5.77	1.71	2.24	-4.12
"1983-87"	2.24	3.05	6.19	1.19	:	:	6.76	1.73	0.23	-1.36

TABLE A4.12 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN SPAIN IN MIO ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	558	315	5468	1284	835	869	712	1060	418
1974	545	335	4754	968	716	520	698	1078	481
1975	532	386	4965	907	696	435	936	1109	597
1976	567	395	5432	1122	850	374	911	1176	638
1977	487	406	5588	1126	944	562	770	1198	643
1978	436	411	5563	902	1064	581	756	1265	627
1979	624	451	5676	904	1090	501	756	1315	706
1980	539	435	6485	1027	1420	742	898	1368	638
1981	559	462	6472	976	1414	754	913	1384	640
1982	373	467	6832	1095	1563	832	872	1409	671
1983	833	481	6826	1077	1593	800	839	1454	666
1984	332	534	6665	895	1620	843	790	1507	605
1985	882	537	6693	855	1661	821	852	1471	609
1986	497	514	6864	1011	1715	858	785	1437	648
1987	613	553	7145	:	:	:	:	1396	626
1988	917	580	7538	:	:	:	:	1410	633
annual growth rates in %									
"1974-87"	1.67	3.64	2.73	-8.39	-2.05	-5.64	-8.08	2.08	1.88
"1974-79"	-0.45	4.61	3.14	-2.15	9.74	0.00	0.55	3.99	5.67
"1979-83"	-0.97	3.39	3.48	1.99	7.51	7.92	0.94	2.57	-0.38
"1983-87"	7.15	2.68	1.47	:	:	:	:	-0.73	-0.46

TABLE A4.13 VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN PORTUGAL IN MIO ECU (1980 1PRICES)

	output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	:	:	:	:	:	:	:	:	:	:
1974	:	:	:	:	:	:	:	:	:	:
1975	:	:	:	:	:	:	:	:	:	:
1976	:	:	:	:	:	:	:	:	:	:
1977	:	:	:	:	:	:	:	:	:	:
1978	:	:	:	:	:	:	:	:	:	:
1979	:	:	:	:	:	:	:	:	:	:
1980	2225	1146	179	37	122	:	11	185	164	335
1981	2137	954	136	25	94	:	7	175	140	295
1982	2239	1103	167	31	107	:	12	192	166	336
1983	2161	1048	138	31	100	:	9	198	166	278
1984	2218	1089	187	38	114	:	18	221	151	292
1985	2305	1173	176	41	121	:	18	223	150	330
1986	2318	1118	208	40	119	:	19	214	137	280
1987	2479	1224	215	41	122	:	16	192	151	373
1988	2140	871	179	41	96	:	22	195	125	124
annual growth rates in %										
"1974-87"	:	:	:	:	:	:	:	:	:	:
"1974-79"	:	:	:	:	:	:	:	:	:	:
"1979-83"	:	:	:	:	:	:	:	:	:	:
"1983-87"	1.18	-0.21	5.22	5.27	1.24	:	10.35	-0.37	-3.87	-3.78

TABLE A4.13 (continued) VOLUME OF EACH ITEM IN FINAL AGRICULTURAL OUTPUT IN PORTUGAL IN MID ECU (1980 PRICES)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	:	:	:	:	:	:	:	:
1974	:	:	:	:	:	:	:	:	:
1975	:	:	:	:	:	:	:	:	:
1976	:	:	:	:	:	:	:	:	:
1977	:	:	:	:	:	:	:	:	:
1978	:	:	:	:	:	:	:	:	:
1979	:	:	:	:	:	:	:	:	:
1980	72	33	1053	258	240	88	170	198	50
1981	47	28	1166	290	321	86	160	208	52
1982	55	30	1113	289	271	85	153	210	54
1983	87	36	1078	253	259	83	169	212	50
1984	26	35	1095	260	295	86	145	209	45
1985	64	43	1094	286	247	90	141	217	58
1986	53	40	1149	288	258	92	162	235	58
1987	70	36	1213	280	296	91	178	253	59
1988	51	29	1234	289	271	109	184	266	61
annual growth rates in %									
"1974-87"	:	:	:	:	:	:	:	:	:
"1974-79"	:	:	:	:	:	:	:	:	:
"1979-83"	:	:	:	:	:	:	:	:	:
"1983-87"	1.03	1.18	2.28	1.64	0.02	3.62	2.88	4.56	4.38

TABLE A4.14 SHARE OF EACH COUNTRY IN FINAL AGRICULTURAL OUTPUT OF EUR 11/12 (PER CENT, 1980 PRICES)

		final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
GERMANY	"1974"	17	12	12	0	15	25	12	5	9	13
	"1979"	16	12	13	1	12	22	11	4	10	10
	"1983"	16	12	12	1	12	22	12	4	10	15
	"1986"	15	11	12	6	15	24	10	4	9	11
FRANCE	"1974"	24	26	37	11	15	26	25	17	15	49
	"1979"	24	26	35	20	15	27	25	19	15	48
	"1983"	24	27	36	34	13	26	28	18	14	49
	"1986"	24	27	36	38	14	25	31	17	14	52
ITALY	"1974"	18	25	19	22	13	15	12	33	36	28
	"1979"	18	24	17	19	14	17	12	33	35	31
	"1983"	18	22	15	13	12	14	11	31	36	24
	"1986"	18	22	16	8	13	17	15	30	36	24
NETHERLANDS	"1974"	6	5	1	3	10	8	1	8	2	:
	"1979"	7	5	1	3	11	7	1	8	2	:
	"1983"	7	5	1	4	11	7	1	9	1	:
	"1986"	7	6	1	4	13	8	0	10	1	:
BELGIUM	"1974"	4	3	2	1	4	6	1	6	2	:
	"1979"	3	2	1	0	4	5	1	5	2	:
	"1983"	3	2	1	0	4	6	1	5	1	:
	"1986"	3	2	1	0	5	6	0	5	1	:
LUXEMBOURG	"1974"	0	0	0	:	0	:	0	0	0	0
	"1979"	0	0	0	:	0	:	0	0	0	0
	"1983"	0	0	0	:	0	:	0	0	0	0
	"1986"	0	0	0	:	0	:	0	0	0	0

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.14 (continued) SHARE OF EACH COUNTRY IN FINAL AGRICULTURAL OUTPUT OF EUR 11/12 (PER CENT, 1980 PRICES)

		final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
UK	"1974"	11	8	13	11	17	7	3	9	4	:
	"1979"	11	8	13	10	18	9	6	9	4	:
	"1983"	11	9	16	13	18	10	10	8	3	:
	"1986"	11	9	16	14	19	9	9	9	3	:
IRELAND	"1974"	2	1	1	0	2	2	0	1	0	:
	"1979"	2	1	1	0	2	1	0	1	0	:
	"1983"	2	1	1	0	2	2	0	1	0	:
	"1986"	2	1	1	0	1	1	0	1	0	:
DENMARK	"1974"	3	2	4	0	2	3	2	1	0	:
	"1979"	3	2	4	0	2	3	2	1	0	:
	"1983"	3	2	4	3	2	3	4	1	0	:
	"1986"	3	2	4	11	2	3	4	1	0	:
GREECE	"1974"	4	6	3	14	4	2	23	5	11	2
	"1979"	4	6	4	13	5	2	23	5	10	2
	"1983"	4	6	4	8	6	2	17	5	11	2
	"1986"	4	6	3	3	5	2	16	5	10	2
SPAIN	"1974"	11	13	9	38	18	6	20	16	21	8
	"1979"	11	14	10	34	17	7	19	16	22	9
	"1983"	10	12	8	17	17	9	17	16	22	6
	"1986"	11	13	10			5	13	17	23	7
PORTUGAL	"1983"	:	2	1	7	4	:	0	2	2	4
	"1986"	2	2	1	5	4	:	0	2	2	4

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.14 (continued) SHARE OF EACH COUNTRY IN FINAL AGRICULTURAL OUTPUT OF EUR 11/12 (PER CENT, 1980 PRICES)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
GERMANY	"1974"	:	24	21	19	30	2	6	22	23
	"1979"	:	22	20	20	29	2	7	22	19
	"1983"	:	19	20	20	27	2	6	22	18
	"1986"	:	16	20	21	27	3	7	22	18
FRANCE	"1974"	:	21	23	28	16	23	23	23	15
	"1979"	:	21	22	27	15	25	25	23	16
	"1983"	:	20	22	27	13	23	27	23	17
	"1986"	:	18	22	27	14	22	28	23	16
ITALY	"1974"	52	15	13	12	9	5	25	12	16
	"1979"	51	15	13	14	10	7	25	11	15
	"1983"	49	17	13	14	11	7	23	11	15
	"1986"	46	17	13	14	10	7	23	11	15
NETHERLANDS	"1974"	:	17	8	6	9	2	5	10	5
	"1979"	:	19	8	6	11	2	7	11	8
	"1983"	:	22	9	6	11	2	7	11	10
	"1986"	:	25	9	6	13	2	7	11	11
BELGIUM	"1974"	:	4	4	5	7	0	2	3	5
	"1979"	:	4	4	4	6	0	2	3	4
	"1983"	:	4	4	5	6	0	2	3	4
	"1986"	:	4	4	5	6	0	2	3	4
LUXEMBOURG	"1974"	:	0	0	0	0	:	0	0	0
	"1979"	:	0	0	0	0	:	0	0	0
	"1983"	:	0	0	0	0	:	0	0	0
	"1986"	:	0	0	0	0	:	0	0	0

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.14 (continued) SHARE OF EACH COUNTRY IN FINAL AGRICULTURAL OUTPUT OF EUR 11/12 (PER CENT, 1980 PRICES)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
UK	"1974"	:	7	14	14	11	21	16	14	19
	"1979"	:	6	13	13	9	21	15	14	19
	"1983"	:	5	12	12	9	18	15	14	17
	"1986"	:	5	12	12	9	23	17	13	17
IRELAND	"1974"	:	1	3	5	1	4	1	3	1
	"1979"	:	0	3	5	1	3	1	3	1
	"1983"	:	0	3	5	1	3	1	4	1
	"1986"	:	0	3	6	1	5	2	4	1
DENMARK	"1974"	:	4	4	3	8	0	2	5	1
	"1979"	:	4	4	3	8	0	2	5	1
	"1983"	:	4	4	3	9	0	1	5	1
	"1986"	:	4	5	3	9	0	2	4	1
GREECE	"1974"	20	2	3	2	1	18	3	2	3
	"1979"	21	2	2	1	2	17	3	2	3
	"1983"	24	2	2	1	2	16	2	2	3
	"1986"	21	2	2	1	1	17	2	2	3
SPAIN	"1974"	28	6	8	6	6	25	17	5	11
	"1979"	28	7	8	5	8	22	14	6	14
	"1983"	25	7	9	5	10	27	13	6	14
	"1986"	30	7	9	:	:	:	:	6	14
PORTUGAL	"1983"	3	0	:	:	:	:	:	:	:
	"1986"	3	1	1	2	2	3	3	1	1

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.15 SPEZIALIZATION OF EC MEMBER STATES IN AGRICULTURAL PRODUCTS (ratio of share of each product in country's own output to the share of each product in EC output * 100)

		crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
GERMANY	"1974"	72	73	2	89	151	74	29	55	76
	"1979"	71	80	5	74	135	68	27	60	63
	"1983"	73	76	4	76	139	72	27	61	92
	"1986"	70	77	39	96	153	67	28	57	75
FRANCE	"1974"	108	153	45	62	106	106	69	61	204
	"1979"	110	147	85	62	112	103	77	61	202
	"1983"	111	149	141	53	108	116	75	57	205
	"1986"	114	148	210	55	104	151	73	60	217
ITALY	"1974"	136	101	121	70	85	65	178	195	154
	"1979"	132	90	104	75	91	67	178	192	165
	"1983"	128	87	75	70	79	64	178	203	137
	"1986"	128	91	44	70	108	100	167	211	134
NETHERLANDS	"1974"	77	23	49	161	121	17	128	29	:
	"1979"	74	18	38	159	102	9	119	26	:
	"1983"	75	16	58	158	100	7	128	20	:
	"1986"	77	12	58	173	107	4	132	18	:
BELGIUM	"1974"	77	45	17	106	162	38	174	44	:
	"1979"	75	47	9	115	167	29	144	50	:
	"1983"	76	48	7	124	194	26	148	46	:
	"1986"	75	45	10	149	172	14	165	46	:
LUXEMBOURG	"1974"	54	49	:	121	:	0	20	38	207
	"1979"	36	48	:	97	:	7	18	24	92
	"1983"	50	38	:	64	:	14	14	14	250
	"1986"	42	47	:	66	:	12	11	17	189

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.15 (continued) SPECIALIZATION OF EC MEMBER STATES IN AGRICULTURAL PRODUCTS (ratio of share of each product in country's own output to the share of each product in EC output * 100)

		crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
UK	"1974"	69	116	96	157	66	29	85	35	:
	"1979"	73	122	91	167	79	52	82	33	:
	"1983"	82	149	117	165	88	89	78	30	:
	"1986"	82	146	132	176	86	85	81	28	:
IRELAND	"1974"	31	47	3	107	80	0	30	5	:
	"1979"	34	59	2	94	68	1	31	5	:
	"1983"	34	59	3	83	85	5	30	4	:
	"1986"	28	43	2	73	76	4	32	5	:
DENMARK	"1974"	59	119	10	54	96	68	22	11	:
	"1979"	61	124	13	57	84	69	20	11	:
	"1983"	66	120	110	60	85	121	22	10	:
	"1986"	67	108	312	59	81	120	21	8	:
GREECE	"1974"	144	77	344	108	48	565	121	268	47
	"1979"	147	93	325	129	52	583	123	262	49
	"1983"	149	95	201	146	48	446	126	285	44
	"1986"	147	90	90	127	41	426	134	267	39
SPAIN	"1974"	125	81	359	168	61	184	150	203	76
	"1979"	126	92	314	161	64	179	153	208	81
	"1983"	118	77	160	160	84	159	155	208	59
	"1986"	119	89	88	:	:	128	150	200	56
PORTUGAL	"1983"	105	57	456	240	:	27	120	119	241
	"1986"	97	65	306	246	:	27	111	101	207

Notes: "1974" and "1979" refers to EUR 11; "1983" and "1986" to EUR 12.

TABLE A4.15 (continued) SPEZIALIZATION OF EC MEMBER STATES IN AGRICULTURAL PRODUCTS (ratio of share of each product in country's own output to the share of each product in EC output * 100)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
GERMANY	"1974"	:	142	123	114	182	10	38	135	137
	"1979"	:	134	124	123	177	13	43	135	118
	"1983"	:	118	124	126	168	15	39	140	112
	"1986"	:	105	128	137	177	17	44	143	116
FRANCE	"1974"	:	90	96	118	68	96	97	97	64
	"1979"	:	88	93	114	61	105	103	95	65
	"1983"	:	82	92	113	56	94	111	94	69
	"1986"	:	75	89	109	59	87	121	92	68
ITALY	"1974"	282	80	69	67	49	27	136	63	87
	"1979"	279	82	73	78	55	39	135	61	82
	"1983"	282	97	75	81	60	38	131	62	83
	"1986"	228	105	74	79	59	37	130	64	84
NETHERLANDS	"1974"	:	262	120	89	149	29	85	162	79
	"1979"	:	280	121	83	157	31	96	155	113
	"1983"	:	300	122	83	158	22	91	153	144
	"1986"	:	334	121	79	178	26	99	143	145
BELGIUM	"1974"	:	112	119	130	205	6	68	89	135
	"1979"	:	122	121	137	201	7	66	92	127
	"1983"	:	123	122	148	187	9	74	90	125
	"1986"	:	121	123	159	200	11	78	86	114
LUXEMBOURG	"1974"	:	1	138	173	90	:	6	205	97
	"1979"	:	8	153	211	92	:	5	229	73
	"1983"	:	8	144	190	83	:	3	232	44
	"1986"	:	7	153	209	88	:	2	256	40

Notes: "1974" and "1979" for EUR 11; "1983" and "1986" for EUR 12.

TABLE A4.15 (continued) SPECIALIZATION OF EC MEMBER STATES IN AGRICULTURAL PRODUCTS (ratio of share of each product in country's own output to the share of each product in EC output * 100)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
UK	"1974"	:	60	124	124	95	185	140	125	174
	"1979"	:	53	121	118	82	193	137	129	171
	"1983"	:	49	115	110	80	162	136	126	155
	"1986"	:	51	115	109	82	209	159	125	157
IRELAND	"1974"	:	28	158	281	73	200	64	150	49
	"1979"	:	24	155	262	70	145	65	176	38
	"1983"	:	25	158	262	63	165	69	187	39
	"1986"	:	22	167	297	58	238	86	190	41
DENMARK	"1974"	:	123	135	96	248	2	50	154	41
	"1979"	:	107	132	89	252	1	46	144	38
	"1983"	:	125	130	81	254	1	44	133	41
	"1986"	:	127	131	76	269	2	44	126	39
GREECE	"1974"	494	55	63	44	34	454	65	50	66
	"1979"	526	53	61	36	41	430	63	47	73
	"1983"	567	52	58	31	40	412	55	45	76
	"1986"	525	54	57	30	38	425	46	48	80
SPAIN	"1974"	264	57	75	56	58	241	158	49	109
	"1979"	259	62	77	48	77	207	134	52	133
	"1983"	244	64	84	50	96	259	125	54	131
	"1986"	270	63	83					51	124
PORTUGAL	"1983"	183	30	93	91	114	183	161	54	69
	"1986"	168	29	100	98	110	225	178	66	83

Notes: "1974" and "1979" for EUR 11; "1983" and "1986" for EUR 12.

TABLE A4.16 CONCENTRATION OF PRODUCTION IN THE EC (ratio of output per HA in each country to output per HA in EUR 8 * 100)

		output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
GERMANY	"1974"	148	110	102	4	142	206	159	46	101	103
	"1979"	149	111	116	11	120	188	147	42	111	87
	"1983"	149	112	107	8	128	194	134	42	114	127
	"1986"	144	104	106	54	142	196	113	44	103	99
FRANCE	"1974"	83	94	122	65	57	82	128	61	63	157
	"1979"	85	97	122	112	58	88	126	70	64	159
	"1983"	85	98	121	144	51	87	124	69	61	163
	"1986"	86	99	122	136	50	81	130	67	65	174
ITALY	"1974"	118	166	114	247	92	92	110	222	283	168
	"1979"	115	158	102	187	96	98	112	219	275	179
	"1983"	111	147	92	102	89	82	90	213	284	143
	"1986"	112	148	99	53	82	99	109	206	289	142
NETHERLANDS	"1974"	336	268	72	284	594	376	83	455	119	:
	"1979"	377	293	67	223	659	357	48	478	121	:
	"1983"	400	309	61	282	719	373	37	551	98	:
	"1986"	413	330	49	240	738	392	19	586	95	:
BELGIUM	"1974"	259	208	112	76	304	389	144	480	140	:
	"1979"	243	190	111	34	308	376	104	373	150	:
	"1983"	239	187	109	21	338	433	77	380	138	:
	"1986"	251	194	108	17	385	393	44	448	138	:
LUXEMBOURG	"1974"	93	52	43	0	122	:	0	20	43	177
	"1979"	80	30	38	0	85	:	8	15	23	70
	"1983"	82	42	29	0	59	:	14	13	14	190
	"1986"	78	34	35	0	53	:	10	9	17	136

TABLE A4.16 (continued) CONCENTRATION OF PRODUCTION IN THE EC (ratio of output per HA in each country to output per HA in EUR 8 * 100)

		output total	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit
UK	"1974"	64	46	71	107	111	39	27	58	28
	"1979"	64	49	76	91	118	47	48	56	27
	"1983"	65	55	93	92	122	54	72	55	25
	"1986"	64	54	90	84	116	49	63	56	22
DENMARK	"1974"	125	76	142	22	75	111	123	28	17
	"1979"	128	82	155	26	80	100	125	28	17
	"1983"	132	91	151	154	91	105	199	31	17
	"1986"	138	95	143	440	84	100	198	31	14

TABLE A4.16 (continued) CONCENTRATION OF PRODUCTION IN THE EC (ratio of output per HA in each country to output per HA in EUR 8 * 100)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
GERMANY	"1974"	:	192	175	162	246	25	59	184	198
	"1979"	:	183	179	173	248	27	65	188	179
	"1983"	:	160	179	178	240	35	59	194	168
	"1986"	:	136	178	182	234	35	60	192	167
FRANCE	"1974"	:	68	77	94	52	127	84	75	53
	"1979"	:	68	76	91	49	128	89	76	56
	"1983"	:	63	76	91	46	129	96	75	59
	"1986"	:	59	75	91	45	115	96	76	59
ITALY	"1974"	532	86	78	76	52	51	168	69	101
	"1979"	523	87	81	85	59	64	159	66	96
	"1983"	522	98	81	85	65	68	148	64	93
	"1986"	524	101	81	85	62	63	138	68	94
NETHERLANDS	"1974"	:	806	387	287	459	155	301	506	260
	"1979"	:	970	443	295	558	168	371	546	436
	"1983"	:	1092	476	315	609	143	371	570	583
	"1986"	:	1248	485	303	675	155	389	552	602
BELGIUM	"1974"	:	266	298	323	487	26	184	213	345
	"1979"	:	272	283	314	458	26	163	208	314
	"1983"	:	268	283	335	430	36	181	201	302
	"1986"	:	274	300	378	442	41	181	208	291
LUXEMBOURG	"1974"	:	1	124	154	77	:	6	176	88
	"1979"	:	6	118	159	69	:	4	170	59
	"1983"	:	6	114	147	65	:	2	177	36
	"1986"	:	5	115	150	63	:	1	185	31

TABLE A4.16 (continued) CONCENTRATION OF PRODUCTION IN THE EC (ratio of output per HA in each country to output per HA in EUR 8 * 100)

		olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
UK	"1974"	:	35	77	76	56	189	94	74	110
	"1979"	:	31	75	72	49	179	90	77	111
	"1983"	:	29	73	67	50	170	90	76	102
	"1986"	:	30	72	72	65	48	196	97	101
DENMARK	"1974"	:	140	162	115	282	3	66	178	50
	"1979"	:	125	163	107	302	2	59	172	50
	"1983"	:	150	167	101	323	2	59	164	54
	"1986"	:	158	174	97	341	4	59	162	54

TABLE A5.1 FEEDINGSTUFFS IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR 11*	EUR 12*
1973	3279	3486	3003	2310	1264	21	3680	364	890	308	1534	:	20138	:
1974	3053	3512	3066	2349	1288	23	3452	309	808	301	1631	:	19791	:
1975	3202	3476	3041	2432	1278	24	3396	319	935	347	1677	:	20127	:
1976	3707	3834	3328	2670	1323	28	3663	361	1100	344	1970	:	22328	:
1977	3804	3844	3592	2721	1321	24	3679	387	1134	352	2089	:	22946	:
1978	4109	4097	3845	2983	1308	20	3588	441	1240	344	2370	:	24344	:
1979	4489	4320	4029	3172	1322	20	3741	543	1384	351	2579	:	25950	:
1980	4552	4494	4228	3250	1313	21	3708	467	1363	391	2675	457	26460	26917
1981	4096	4531	4119	3221	1264	22	3510	511	1360	437	3103	500	26172	26672
1982	4354	4584	4155	3282	1290	21	3865	510	1341	441	3246	474	27089	27563
1983	4208	4567	4224	3460	1308	24	3935	559	1346	438	3229	443	27299	27742
1984	4174	4548	4133	3500	1284	22	3810	526	1239	422	3212	388	26870	27258
1985	4253	4568	4108	3654	1282	22	3741	547	1305	394	3175	389	27049	27438
1986	4309	4822	4200	3562	1311	21	3886	658	1298	373	3221	404	27663	28067
1987	4050	4921	4279	3656	1313	22	3763	573	1364	413	3320	423	27674	28098
1988	:	5168	4288	:	1322	:	:	583	:	423	3457	423	:	:
annual growth rates in %														
"1974-87"	2.36	2.75	2.63	3.63	0.23	-0.20	0.66	4.75	3.47	1.82	5.73	:	2.67	:
"1974-79"	6.64	4.27	5.84	5.81	0.58	-1.90	0.95	7.90	8.65	2.59	9.50	:	5.03	:
"1979-83"	-0.80	1.49	0.84	2.15	-0.39	2.09	1.27	2.40	-0.39	4.62	6.17	:	1.44	:
"1983-87"	-0.32	2.14	0.51	2.01	0.41	-0.38	-0.64	3.27	0.34	-1.82	0.79	-1.06	0.46	0.42

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE A5.2 FERTILIZERS IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR11*	EUR12*
1973	1504	2324	683	321	234	9	969	220	251	118	223		6857	:
1974	1622	2439	623	318	204	8	904	202	245	125	348		7038	:
1975	1563	2099	616	308	197	8	941	158	223	130	381		6624	:
1976	1608	2389	613	297	199	9	987	191	238	142	389		7063	:
1977	1704	2427	644	342	193	9	1020	207	248	147	445		7385	:
1978	1627	2590	747	348	195	9	1038	256	257	167	482		7717	:
1979	1755	2819	891	326	198	9	1042	279	255	164	654		8392	:
1980	1770	2745	785	377	198	9	1069	244	252	154	841		8444	8444
1981	1613	2661	752	388	189	9	1171	255	232	159	733		8163	8163
1982	1592	2537	744	384	183	9	1188	256	237	177	715		8022	8022
1983	1703	2660	696	344	182	9	1287	276	252	196	660		8263	8263
1984	1681	2758	758	344	189	10	1327	293	259	193	765		8578	8578
1985	1656	2763	772	367	188	10	1254	285	246	215	788		8545	8545
1986	1593	2654	767	342	187	11	1287	269	236	205	833		8384	8384
1987	1690	2762	851	349	183	11	1300	306	229	202	860		8742	8742
1988	:	2804	870	:	183	:	:	284	:	226	942		:	:
annual growth rates in %														
"1974-87"	0.43	1.40	2.01	0.92	-1.05	2.14	2.63	3.07	-0.10	4.14	8.14		1.88	:
"1974-79"	1.90	3.51	4.75	2.10	-1.42	1.85	2.27	6.07	1.20	5.40	15.72		3.65	:
"1979-83"	-0.87	-0.62	-2.40	0.51	-1.58	0.57	4.82	1.44	-0.53	3.90	1.99		0.31	:
"1983-87"	-0.25	0.82	3.15	-0.48	-0.05	4.75	0.34	1.03	-1.64	2.82	5.36		1.07	1.07

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE A5.3 ENERGY AND LUBRICANTS IN THE EC IN MIO ECU (1980 PRICES)

	D*	F	I	NL*	B	L*	UK*	IRL	DK*	GR	E	P	EUR 11*	EUR 12*
1973	1735	1265	494	331	177	5	877	108	227	153	327	:	5699	:
1974	1751	1266	552	381	220	4	758	95	182	162	363	:	5736	:
1975	1757	1176	593	349	231	5	765	103	189	187	387	:	5741	:
1976	1784	1237	590	366	228	5	743	109	188	200	411	:	5860	:
1977	1890	1278	625	395	223	5	770	114	190	216	435	:	6141	:
1978	1917	1312	641	416	253	5	778	129	238	230	444	:	6363	:
1979	1928	1307	653	452	235	5	764	140	238	237	439	:	6398	:
1980	1920	1295	705	525	207	4	680	131	204	250	448	99	6370	6469
1981	1927	1255	686	482	209	5	646	127	178	262	465	95	6240	6335
1982	1925	1254	690	420	186	5	645	124	176	264	474	100	6163	6263
1983	1933	1234	716	388	201	6	639	124	181	274	481	97	6177	6274
1984	1930	1243	736	384	211	6	633	120	181	290	515	101	6251	6352
1985	1939	1238	745	395	231	6	645	122	182	319	532	106	6352	6458
1986	1931	1228	785	425	275	6	637	132	196	337	546	105	6496	6601
1987	1917	1287	845	443	294	6	625	127	215	349	548	113	6657	6770
1988	:	1262	887	:	288	:	:	128	:	370	535	109	:	:
annual growth rates in %														
"1974-87"	0.82	0.14	3.35	1.46	2.41	1.94	-1.90	1.82	-0.07	5.89	3.23	:	1.07	:
"1974-79"	1.91	1.10	4.04	5.60	2.06	-0.48	-1.52	5.55	2.62	7.37	4.31	:	2.18	:
"1979-83"	0.10	-1.19	1.75	-3.83	-3.73	5.46	-3.63	-2.05	-5.65	3.72	2.54	:	-0.71	:
"1983-87"	0.00	0.30	4.12	1.96	9.40	1.42	-0.17	1.19	3.22	6.26	2.58	2.31	1.61	1.63

*) Growth rates "1974-87" refer to "1974-86"; growth rates "1983-87" to "1983-86".

TABLE A5.4 SHARE OF FEEDINGSTUFFS IN VOLUME OF INTERMEDIATE CONSUMPTION IN THE EC (per cent; 1980 prices)

	"1974"	"1979"	"1983"	"1986"
FR Germany	33.4	36.8	36.2	36.1
France	29.8	30.8	31.1	31.4
Italy	57.2	58.8	59.2	57.1
Netherlands	60.5	62.6	64.5	63.8
Belgium	55.2	54.4	52.9	49.4
Luxembourg	44.5	41.9	43.8	40.2
UK	44.6	45.5	46.0	45.3
Ireland	41.1	41.6	43.4	45.4
Denmark	47.2	53.0	53.0	53.3
Greece	33.7	30.4	32.3	28.0
Spain	44.0	47.9	51.3	48.7
Portugal	:	:	48.2	45.1
EUR 11	41.7	43.7	44.4	43.7
EUR 12	:	:	44.5	43.8

TABLE A5.5 SHARE OF FERTILIZERS IN VOLUME OF INTERMEDIATE CONSUMPTION IN THE EC (per cent; 1980 prices)

	"1974"	"1979"	"1983"	"1986"
FR Germany	15.4	14.4	14.1	14.1
France	18.8	19.5	18.1	18.0
Italy	11.7	11.8	10.4	10.8
Netherlands	7.6	7.0	6.8	6.2
Belgium	9.0	8.2	7.6	7.1
Luxembourg	15.9	18.3	18.1	19.2
UK	12.0	13.0	15.1	15.3
Ireland	22.3	22.4	22.4	22.1
Denmark	11.5	10.2	10.1	9.6
Greece	13.2	13.6	14.0	14.8
Spain	8.4	12.3	11.3	12.4
Portugal	:	:	:	:
EUR 11	13.7	14.0	13.6	13.6

TABLE A5.6 SHARE OF ENERGY/LUBRICANTS IN VOLUME OF INTERMEDIATE CONSUMPTION IN THE EC (per cent; 1980 prices)

	"1974"	"1979"	"1983"	"1986"
FR Germany	17.4	16.1	16.4	16.5
France	10.2	9.3	8.5	8.2
Italy	10.2	9.7	10.1	10.8
Netherlands	8.5	9.3	7.5	7.4
Belgium	9.1	9.6	8.1	10.1
Luxembourg	9.0	9.4	11.3	10.9
UK	9.9	9.2	7.6	7.6
Ireland	12.6	11.5	10.0	9.7
Denmark	9.8	9.0	7.3	8.0
Greece	18.2	20.0	20.6	23.9
Spain	9.6	8.4	7.8	8.1
Portugal	:	:	11.0	12.0
EUR 11	11.5	10.9	10.2	10.4
EUR 12	:	:	10.2	10.4

TABLE A5.7 AGRICULTURAL LABOUR FORCE IN THE EC IN AWU (*1000)

	D	F	I	NL	B	L	UK	IRL	DK	GR	SP	P	EUR 11	EUR 12
1973	1288	2061	2859	272	152	13	657	348	204	1116	3607	:	12576	:
1974	1234	1995	2846	267	146	12	631	333	190	1092	3488	:	12234	:
1975	1203	1928	2827	264	140	12	615	325	181	1068	3239	1240	11799	13039
1976	1173	1886	2787	260	133	11	619	318	175	1045	2985	1261	11393	12654
1977	1114	1849	2591	253	127	11	612	312	168	1022	2785	1223	10845	12068
1978	1091	1819	2507	247	123	10	611	305	162	999	2696	1158	10570	11728
1979	1037	1789	2454	244	123	10	598	297	155	978	2522	1156	10207	11363
1980	1017	1761	2414	242	118	9	582	290	148	956	2323	1134	9859	10993
1981	1003	1724	2318	237	115	9	569	284	141	935	2114	1113	9448	10561
1982	980	1692	2198	236	112	8	564	279	136	924	2036	1091	9164	10255
1983	955	1658	2158	236	112	8	559	276	133	917	2003	1070	9014	10084
1984	939	1624	2139	234	111	7	551	276	129	918	1863	1048	8792	9840
1985	931	1577	2126	233	108	7	546	276	123	931	1784	1027	8643	9670
1986	917	1531	2199	231	107	7	535	266	120	898	1692	1005	8503	9508
1987	861	1489	2089	228	104	7	523	255	117	849	1627	983	8147	9130
1988	846	1447	2015	226	101	6	513	248	112	828	1575	962	7916	8878
annual growth rates in %														
"1974-87"	-2.66	-2.22	-2.30	-1.21	-2.59	-4.45	-1.46	-2.05	-3.76	-1.84	-5.59	:	-3.02	:
"1974-79"	-3.33	-2.14	-2.87	-1.81	-3.65	-4.52	-1.20	-2.38	-4.13	-2.19	-6.11	:	-3.50	:
"1979-83"	-2.23	-1.89	-3.13	-0.91	-2.05	-4.89	-1.68	-1.76	-3.77	-1.52	-5.94	-1.78	-3.14	-3.00
"1983-87"	-2.25	-2.65	-0.75	-0.76	-1.81	-3.94	-1.58	-1.94	-3.28	-1.71	-4.57	-2.08	-2.31	-2.28

Notes:

In a number of EC countries differences exist between national time series and the EC Farm Structure Surveys, caused by differences in methodology on labour registration. These differences are partly eliminated by a correction factor. National data for Belgium are corrected with a factor 1.02, for Denmark with 1.075, for Germany with 1.03, for France with 0.96, for the Netherlands with 0.95 and for the United Kingdom with 1.1.

Source:

National time series from Eurostat, Agricultural Statistical Yearbook 1989, supplemented by Eurostat, Agricultural Income 1989; FSS data from Eurostat, 1987a.

TABLE A5.8 LABOUR FORCE IN AGRICULTURE, FORESTRY AND FISHERIES IN THE NON-EC COUNTRIES (*1000 PERSONS)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR 11
1973	3572	573	426	7050	276	13181
1974	3613	579	405	6750	264	12656
1975	3507	564	398	6610	261	12209
1976	3453	562	385	6430	254	11775
1977	3425	553	400	6340	248	11355
1978	3549	574	375	6330	251	10975
1979	3509	590	399	6130	242	10622
1980	3529	583	407	5770	237	10280
1981	3519	597	416	5570	237	9965
1982	3571	558	410	5480	236	9608
1983	3541	587	412	5310	229	9641
1984	3469	586	400	5120	218	9424
1985	3338	590	414	5090	211	9182
1986	3350	590	415	4950	200	8943
1987	3400	583	404	4890	191	8817
annual growth rates in %						
"1974-86"	-0.48	0.23	0.03	-2.57	-2.34	-2.84
"1974-79"	-0.20	0.36	-0.79	-2.23	-1.84	-3.48
"1979-83"	-0.01	-0.23	0.86	-3.35	-1.65	-2.61
"1983-86"	-1.58	0.61	0.30	-2.10	-4.09	-2.05

Source:
OECD, 1990c.

TABLE A5.9 LABOUR FORCE IN THE REST OF THE ECONOMY IN THE EC (*1000 PERSONS)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	24941	19089	17215	4384	3633	139	24429	709	2142	2177	9874	:	108731	:
1974	24671	19382	17625	4397	3692	145	24536	736	2138	2206	10122	:	109650	:
1975	23987	19276	17757	4371	3645	147	24455	748	2114	2232	10035	:	108768	:
1976	23859	19505	18022	4374	3629	147	24243	746	2161	2330	10037	:	109052	:
1977	23911	19729	18254	4391	3628	147	24262	771	2185	2378	10067	2628	109723	112351
1978	24122	19864	18483	4428	3634	146	24414	805	2218	2427	9858	2650	110399	113049
1979	24529	19919	18795	4493	3680	148	24800	848	2252	2476	9720	2739	111659	114398
1980	24855	19969	19068	4529	3684	150	24742	866	2250	2525	9595	2884	112233	115117
1981	24697	19901	19215	4463	3612	151	23760	862	2224	2631	9412	2892	110928	113820
1982	24266	19994	19499	4348	3564	150	23341	867	2236	2675	9352	3015	110292	113307
1983	23891	19971	19579	4240	3527	151	23050	846	2245	2664	9309	3110	109473	112583
1984	23917	19822	19726	4256	3528	152	23507	828	2291	2693	9110	3149	109830	112979
1985	24102	19797	20032	4327	3556	154	23872	798	2367	2737	9026	3129	110768	113897
1986	24368	19882	20259	4417	3594	159	23972	814	2431	2750	9389	3209	112035	115244
1987	24589	19940	20371	4474	3612	164	24428	825	2466	2713	9979	3324	113561	116884
annual growth rates in %														
"1974-86"	-0.06	0.27	1.20	0.04	-0.16	0.83	-0.13	0.88	1.07	1.81	-0.47	:	0.23	:
"1974-79"	-0.03	0.68	1.39	0.45	0.05	0.57	0.15	2.81	1.00	2.35	-0.58	:	0.43	:
"1979-83"	-0.49	0.01	1.07	-1.15	-0.87	0.51	-1.40	0.22	0.19	1.97	-1.22	2.90	-0.35	-0.27
"1983-86"	0.45	-0.09	1.04	0.96	0.45	1.71	1.12	-1.39	2.37	0.69	0.74	1.37	0.68	0.70

Notes:

The labour force in the rest of the economy has been calculated by deducting the number of employed persons in agriculture, forestry and fisheries from the total number of employed persons.

TABLE A5.10 LABOUR FORCE IN THE REST OF THE ECONOMY IN THE NON-EC COUNTRIES (*1000 PERSONS)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR 11
1973	81492	8188	5357	45540	3603	108731
1974	83181	8546	5450	45620	3698	109650
1975	82339	8720	5443	45620	3801	108768
1976	85299	8915	5513	46280	3834	109052
1977	88592	9098	5595	47080	3851	109723
1978	92499	9413	5630	47750	3864	110399
1979	95315	9805	5680	48660	3938	111659
1980	95774	10125	5874	49590	3995	112233
1981	96878	10409	5978	50240	3988	110928
1982	95955	10086	5969	50900	3984	110292
1983	97293	10147	5829	52020	3995	109473
1984	101536	10414	6062	52540	4037	109830
1985	103812	10721	6232	52980	4091	110768
1986	106247	11044	6471	53580	4129	112035
1987	109040	11372	6669	54220	4207	113561
annual growth rates in %						
"1974-86"	2.16	2.22	1.48	1.36	0.94	0.23
"1974-79"	2.80	2.88	1.12	1.31	1.22	0.43
"1979-83"	0.97	1.09	0.97	1.58	0.46	-0.35
"1983-86"	2.68	2.64	2.75	1.13	1.13	0.68

Source:
OECD, 1990c.

TABLE A5.11 AGRICULTURAL AREA IN USE IN THE EC (*1000 HA)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 8
1973	12688	32167	17482	2108	1531	132	19421	4841	2989	:	:	:	93358
1974	12604	32050	17431	2100	1518	132	19353	4846	2940	:	:	:	92974
1975	12558	31925	17517	2091	1501	132	19311	4848	2949	:	:	:	92832
1976	12521	31799	17527	2081	1492	131	19296	4833	2945	:	:	:	92625
1977	12439	31745	17481	2069	1483	132	19001	4833	2939	:	:	:	92123
1978	12400	31637	17546	2054	1471	130	18992	5719	2936	:	:	:	92885
1979	12298	31306	17909	2042	1458	130	18956	5719	2932	:	:	:	92750
1980	12266	31794	17888	2029	1445	130	18948	5719	2917	9234	:	:	93135
1981	12205	31753	17837	2020	1436	128	18784	5711	2909	9251	:	:	92784
1982	12139	31724	17836	2014	1432	127	18739	5711	2900	9234	:	:	92623
1983	12076	31630	17560	2018	1428	127	18686	5678	2859	9234	:	:	92063
1984	12044	31502	17552	2025	1424	128	18676	5710	2868	9234	27307	4379	91929
1985	12019	31438	17522	2028	1419	128	18644	5713	2834	9234	27213	4532	91745
1986	12000	31394	17445	2021	1412	128	18612	5676	2818	5741	27121	4532	91506
1987	11956	31354	17404	2023	1406	127	18505	5676	2815	5741	27110	4532	91266
annual growth rates in %													
"1974-86"	-0.42	-0.17	-0.01	-0.30	-0.59	-0.27	-0.34	:	-0.39	:	:	:	-0.14
"1974-79"	-0.47	-0.29	0.35	-0.55	-0.79	-0.30	-0.41	:	-0.21	:	:	:	-0.03
"1979-83"	-0.48	0.03	-0.19	-0.28	-0.51	-0.47	-0.35	-0.08	-0.45	:	:	:	-0.19
"1983-86"	-0.26	-0.24	-0.36	0.08	-0.37	0.06	-0.20	-0.07	-0.62	:	:	:	-0.25

Notes:

EUR 8 refers to Germany, France, Italy, the Netherlands, Belgium, Luxembourg, the UK and Denmark.

Sources:

Data for Germany, France, the Netherlands, Belgium, Luxembourg, the UK, and Denmark from Eurostat, Yearbook of Agricultural Statistics, various issues. Data for the other EC countries are derived from CEC, Agricultural situation in the Community, various issues.

TABLE A5.12 AGRICULTURAL AREA IN USE IN THE NON-EC COUNTRIES (*1000 HA)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN	EUR 8
1973	414686	65820	42375	5647	2873	93358
1974	411592	66270	42430	5615	2896	92974
1975	422553	68867	42239	5564	2867	92832
1976	420421	67170	42210	5546	2886	92625
1977	417912	67550	43400	5515	2870	92123
1978	416717	67950	45138	5494	2877	92885
1979	415610	67897	45054	5474	2845	92750
1980	414362	69020	43173	5461	2857	93135
1981	412490	70072	42182	5442	2835	92784
1982	409939	70180	45464	5426	2841	92623
1983	408503	70180	45491	5411	2856	92063
1984	406581	70380	46991	5396	2788	91929
1985	404590	72616	47472	5379	2743	91745
1986	401901	72364	47409	5358	2729	91506
1987	399835	:	:	:	:	91266
annual growth rates in %						
"1974-85"	-0.26	0.63	1.01	-0.38	-0.40	-0.13
"1974-79"	-0.03	0.39	0.98	-0.48	-0.13	-0.03
"1979-83"	-0.44	0.71	0.85	-0.30	-0.27	-0.19
"1983-86"	-0.51	:	:	:	:	-0.25

Source:

For Canada, Australia, Japan and Sweden: FAO, Production Yearbook, various issues. For the US: USDA, US Agricultural Statistics, various issues.

TABLE A6.1 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN EUR 11 (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	124	119	118	134	144	102	123	116	115	128
1974	118	118	128	146	122	111	124	120	107	106
1975	116	113	115	130	172	115	112	114	106	94
1976	120	121	120	126	304	113	112	120	96	102
1977	116	115	115	136	140	103	106	116	124	113
1978	110	108	109	131	101	102	103	105	114	119
1979	105	104	105	109	125	103	104	101	101	107
1980	100	100	100	100	100	100	100	100	100	100
1981	100	99	99	108	107	88	103	102	99	98
1982	99	96	98	119	119	86	103	95	93	91
1983	97	97	97	111	136	94	108	99	96	79
1984	94	93	90	102	125	84	103	98	89	83
1985	90	88	82	100	72	85	96	92	92	90
1986	86	85	80	99	92	79	94	85	89	79
1987	81	81	75	86	81	74	79	91	80	76
annual growth rates in %										
"1974-86"	-2.71	-2.62	-3.44	-2.97	-4.71	-2.65	-2.35	-2.21	-1.89	-2.39
"1974-79"	-2.55	-2.21	-2.77	-3.70	-5.73	-1.43	-3.06	-2.62	-0.80	-0.14
"1979-83"	-2.02	-2.25	-2.44	-0.54	3.97	-3.55	0.68	-1.31	-3.04	-6.00
"1983-86"	-3.89	-3.78	-5.87	-4.94	-13.65	-3.47	-5.09	-2.72	-2.19	-1.21

TABLE A6.1 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN EUR 11 (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	120	109	129	128	155	112	141	110	149
1974	150	108	118	112	128	115	135	110	141
1975	131	105	118	116	132	108	128	111	116
1976	118	108	119	116	134	114	120	112	118
1977	115	106	116	114	123	115	120	112	117
1978	111	102	111	113	112	110	113	108	106
1979	106	100	106	107	106	107	108	105	98
1980	100	100	100	100	100	100	100	100	100
1981	95	99	101	102	103	102	100	99	102
1982	92	96	101	105	107	98	97	100	88
1983	93	96	97	100	96	95	95	99	86
1984	91	95	95	94	95	93	97	96	95
1985	93	95	92	91	92	93	92	94	86
1986	90	92	86	84	82	88	85	93	75
1987	86	90	81	80	69	83	78	90	79
annual growth rates in %									
"1974-86"	-3.26	-1.25	-2.80	-2.73	-4.35	-1.99	-3.78	-1.47	-4.28
"1974-79"	-4.53	-1.25	-2.85	-2.08	-5.23	-1.19	-4.51	-1.13	-5.63
"1979-83"	-3.43	-1.29	-1.81	-1.71	-1.60	-2.50	-2.59	-1.44	-3.02
"1983-86"	-0.86	-1.20	-4.02	-5.13	-6.48	-2.61	-4.15	-2.06	-3.68

TABLE A6.2 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN GERMANY (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	119	107	113	93	128	100	105	95	133	83
1974	109	101	111	86	100	100	104	94	131	56
1975	113	104	117	122	129	98	101	102	120	80
1976	120	123	123	118	281	104	100	116	141	101
1977	113	108	114	114	101	101	87	103	160	96
1978	105	102	108	156	85	104	96	89	128	80
1979	104	104	104	131	100	117	99	108	108	95
1980	100	100	100	100	100	100	100	100	100	100
1981	103	103	99	96	111	92	100	96	147	114
1982	100	93	99	105	99	94	90	83	93	83
1983	96	92	97	112	135	100	96	99	112	52
1984	94	92	90	97	95	87	90	91	104	84
1985	89	88	78	84	65	85	84	84	111	111
1986	81	80	77	84	80	82	80	71	97	61
1987	76	76	72	73	70	77	71	86	99	54
annual growth rates in %										
"1974-86"	-2.66	-2.04	-3.35	-1.79	-4.17	-1.63	-2.28	-1.56	-1.84	0.26
"1974-79"	-1.91	-0.49	-1.82	5.21	-4.48	1.46	-1.04	0.36	-2.68	4.74
"1979-83"	-1.64	-2.35	-2.08	-5.10	3.71	-3.27	-1.56	-1.95	-2.07	-5.61
"1983-86"	-5.23	-4.16	-7.47	-8.35	-13.27	-4.46	-5.25	-4.16	-0.14	1.01

TABLE A6.2 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN GERMANY (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	105	125	123	150	101	135	103	142
1974	:	101	112	111	121	89	119	101	134
1975	:	98	117	118	130	87	108	108	117
1976	:	100	119	116	133	83	116	111	122
1977	:	100	116	115	126	96	112	109	115
1978	:	97	107	109	107	87	105	107	101
1979	:	99	104	106	105	96	104	104	95
1980	:	100	100	100	100	101	100	100	100
1981	:	100	102	101	107	119	101	99	103
1982	:	97	103	105	110	110	97	101	87
1983	:	95	98	101	94	102	93	101	82
1984	:	96	94	92	93	97	97	97	88
1985	:	97	90	87	89	92	93	94	78
1986	:	90	82	78	75	85	83	92	73
1987	:	91	76	73	64	75	76	89	73
annual growth rates in %									
"1974-86"	:	-0.75	-2.94	-3.20	-4.64	-0.77	-2.96	-1.05	-4.60
"1974-79"	:	-0.55	-2.55	-2.16	-4.89	0.52	-3.11	-0.03	-5.48
"1979-83"	:	-0.62	-1.27	-1.34	-1.21	2.18	-1.83	-0.99	-3.50
"1983-86"	:	-1.25	-5.77	-7.30	-8.62	-6.60	-4.19	-2.80	-4.60

TABLE A6.3 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN FRANCE (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	124	118	112	152	192	108	116	129	119	118
1974	121	124	129	216	176	108	144	143	129	99
1975	115	113	112	152	234	110	113	133	124	83
1976	116	119	116	153	530	107	110	139	101	92
1977	114	114	110	130	119	95	109	128	177	100
1978	109	108	106	118	119	92	106	110	118	108
1979	103	102	103	110	145	96	106	109	98	96
1980	100	100	100	100	100	100	100	100	100	100
1981	101	101	101	106	135	84	105	104	112	97
1982	99	97	100	127	131	85	109	96	92	91
1983	98	98	99	119	200	94	117	103	108	78
1984	93	91	88	105	139	85	108	100	87	82
1985	90	87	81	98	62	80	99	102	94	87
1986	86	85	80	95	112	85	94	88	90	79
1987	82	79	75	86	77	85	79	94	74	75
annual growth rates in %										
"1974-86"	-2.77	-2.83	-3.33	-5.08	-7.02	-2.21	-2.61	-2.91	-3.03	-1.80
"1974-79"	-2.85	-2.65	-2.64	-8.80	-9.58	-2.45	-3.57	-4.63	-3.19	0.29
"1979-83"	-1.78	-2.05	-1.87	1.75	6.65	-2.18	1.78	-1.66	-2.38	-4.76
"1983-86"	-3.95	-4.17	-6.36	-7.50	-18.87	-1.87	-6.63	-1.65	-3.61	-1.24

TABLE A6.3 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN FRANCE (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	110	132	136	162	131	140	115	135
1974	:	117	118	115	131	131	126	111	127
1975	:	113	116	116	129	129	120	110	108
1976	:	118	113	111	129	117	113	107	119
1977	:	111	113	113	122	122	115	105	125
1978	:	107	110	111	110	118	111	105	115
1979	:	100	104	105	107	111	105	103	102
1980	:	100	100	100	100	100	100	100	100
1981	:	100	101	103	102	96	100	99	101
1982	:	96	102	107	108	92	98	100	81
1983	:	98	99	102	98	97	95	99	91
1984	:	99	96	95	96	92	99	96	98
1985	:	98	93	93	94	85	92	95	86
1986	:	95	88	86	83	78	87	93	74
1987	:	93	85	85	73	73	82	92	82
annual growth rates in %									
"1974-86"	:	-1.43	-2.64	-2.73	-4.25	-4.13	-3.19	-1.50	-3.46
"1974-79"	:	-1.96	-3.00	-3.00	-5.52	-3.34	-3.93	-1.71	-3.01
"1979-83"	:	-1.25	-1.44	-0.97	-1.22	-3.93	-1.87	-1.12	-3.98
"1983-86"	:	-0.80	-3.64	-4.59	-6.09	-5.68	-3.68	-1.64	-3.50

TABLE A6.4 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN ITALY (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	113	112	115	119	131	77	145	103	104	140
1974	114	116	125	166	118	108	135	110	95	126
1975	110	108	113	152	117	118	129	101	95	106
1976	113	109	120	123	265	107	120	105	86	103
1977	112	110	120	130	153	99	111	106	100	107
1978	111	110	115	124	89	109	118	98	115	123
1979	106	106	106	109	111	99	122	97	103	122
1980	100	100	100	100	100	100	100	100	100	100
1981	96	95	97	103	87	75	89	103	95	84
1982	95	94	94	110	112	61	99	97	93	93
1983	91	90	89	101	96	69	94	95	87	90
1984	87	87	85	93	129	59	95	93	84	79
1985	84	84	77	93	92	72	82	87	84	84
1986	80	79	74	91	71	60	87	82	79	85
1987	75	75	68	81	76	57	74	82	75	82
annual growth rates in %										
"1974-86"	-2.83	-2.81	-3.91	-4.10	-3.49	-3.89	-4.26	-1.82	-1.76	-3.21
"1974-79"	-1.24	-1.14	-1.88	-5.28	-3.86	0.30	-3.65	-1.21	1.57	-1.47
"1979-83"	-3.64	-3.88	-4.35	-2.23	2.88	-11.40	-4.01	-0.79	-4.54	-6.72
"1983-86"	-4.35	-4.15	-6.62	-4.59	-10.80	-0.23	-5.61	-4.18	-3.44	-1.30

TABLE A6.4 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN ITALY (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	112	98	115	114	133	97	131	95	134
1974	165	96	112	106	125	104	127	100	121
1975	138	99	115	121	123	102	128	102	114
1976	125	103	119	120	138	106	122	110	117
1977	121	107	115	110	117	104	118	120	107
1978	113	110	110	112	106	109	115	111	106
1979	112	104	106	104	106	107	107	108	95
1980	100	100	100	100	100	100	100	100	100
1981	93	101	98	100	97	96	106	93	90
1982	88	94	97	99	100	100	97	96	83
1983	92	91	92	91	87	99	98	97	81
1984	83	88	88	86	82	95	94	90	86
1985	90	87	85	82	82	86	94	87	77
1986	84	78	81	78	79	83	82	86	72
1987	80	73	74	73	63	79	70	82	75
annual growth rates in %									
"1974-86"	-4.02	-1.71	-2.94	-3.13	-4.33	-1.63	-3.70	-1.27	-4.06
"1974-79"	-4.82	1.37	-1.55	-1.50	-3.85	0.83	-3.56	1.38	-4.01
"1979-83"	-5.17	-3.48	-3.24	-3.23	-3.72	-1.75	-2.64	-2.81	-4.53
"1983-86"	-1.09	-4.36	-4.85	-5.65	-5.92	-5.46	-5.33	-3.51	-3.53

TABLE A6.5 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE NETHERLANDS (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	137	120	124	144	164	109	197	112	151	:
1974	119	112	123	176	120	129	170	103	118	:
1975	120	115	116	120	153	122	149	102	147	:
1976	123	130	113	123	297	105	167	114	118	:
1977	114	112	112	125	162	99	157	102	165	:
1978	105	99	102	80	107	89	120	93	116	:
1979	101	95	99	77	106	91	106	92	77	:
1980	100	100	100	101	100	100	103	101	100	:
1981	104	101	97	111	111	88	110	100	146	:
1982	101	93	94	101	118	76	120	81	132	:
1983	100	98	84	96	144	97	130	89	121	:
1984	100	101	87	91	145	86	127	98	134	:
1985	98	94	80	110	83	90	114	91	125	:
1986	91	88	79	90	88	73	100	79	116	:
1987	89	91	70	87	77	77	79	94	112	:
annual growth rates in %										
"1974-86"	-2.49	-1.97	-3.75	-3.49	-4.59	-3.33	-4.60	-1.50	-1.37	:
"1974-79"	-4.05	-3.25	-3.65	-10.09	-6.41	-4.90	-8.57	-2.05	-6.76	:
"1979-83"	-0.40	-0.13	-3.12	2.75	6.74	-1.96	3.39	-1.54	7.19	:
"1983-86"	-2.63	-2.26	-4.76	-0.12	-15.16	-2.49	-8.02	-0.52	-3.04	:

TABLE A6.5 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE NETHERLANDS (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	108	146	148	182	150	190	118	166
1974	:	107	123	117	135	121	170	112	143
1975	:	108	123	126	139	134	149	111	115
1976	:	110	120	120	140	121	119	109	124
1977	:	105	115	117	125	114	115	109	119
1978	:	100	108	117	110	109	103	106	94
1979	:	97	103	108	106	105	100	103	88
1980	:	99	100	100	100	101	100	100	100
1981	:	98	105	107	108	110	97	104	107
1982	:	96	105	108	111	111	92	104	87
1983	:	95	101	103	99	104	87	105	89
1984	:	96	100	94	100	101	96	103	93
1985	:	97	100	99	100	99	94	103	86
1986	:	96	92	90	86	96	86	102	74
1987	:	94	88	91	73	84	79	104	79
annual growth rates in %									
"1974-86"	:	-0.97	-2.76	-2.76	-4.60	-3.07	-5.48	-0.82	-4.64
"1974-79"	:	-1.69	-4.50	-3.72	-7.05	-4.90	-9.86	-1.98	-7.84
"1979-83"	:	-0.84	-0.51	-1.44	-0.51	0.08	-2.42	0.30	-1.13
"1983-86"	:	0.07	-2.80	-2.90	-5.80	-4.11	-1.95	-0.34	-3.82

TABLE A6.6 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN BELGIUM (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	125	103	121	172	113	108	88	86	132	:
1974	108	100	117	170	77	114	80	89	135	:
1975	112	109	115	105	199	106	67	92	135	:
1976	119	128	119	122	385	103	77	116	131	:
1977	106	95	109	102	64	106	65	83	158	:
1978	101	94	104	106	75	105	72	87	107	:
1979	98	90	100	101	99	97	75	73	107	:
1980	100	100	100	100	100	100	100	100	100	:
1981	102	98	104	106	114	89	94	86	162	:
1982	104	92	109	173	94	84	73	80	119	:
1983	109	113	111	188	222	107	87	98	142	:
1984	104	100	98	158	98	95	91	99	123	:
1985	98	92	90	164	65	94	86	84	137	:
1986	90	86	87	116	87	92	78	74	109	:
1987	86	87	80	103	45	83	80	91	116	:
annual growth rates in %										
"1974-86"	-1.91	-1.36	-2.62	-1.28	-5.47	-1.61	0.29	-0.57	-0.89	:
"1974-79"	-2.81	-1.82	-2.94	-7.20	-6.77	-1.54	0.96	-0.54	-4.87	:
"1979-83"	1.43	1.79	1.09	13.99	10.87	-1.38	0.36	1.67	5.17	:
"1983-86"	-4.77	-4.70	-6.84	-9.65	-21.79	-2.03	-0.90	-3.54	-1.94	:

TABLE A6.6 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN BELGIUM (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	103	138	121	165	149	144	114	151
1974	:	98	112	102	119	151	123	108	132
1975	:	105	113	105	126	146	114	108	109
1976	:	112	115	105	127	131	114	108	123
1977	:	99	111	107	118	114	108	106	116
1978	:	95	105	108	106	111	97	104	94
1979	:	97	102	105	102	113	100	101	91
1980	:	100	100	100	100	100	100	100	100
1981	:	97	104	103	106	124	97	103	104
1982	:	96	110	110	119	134	94	109	84
1983	:	100	107	108	106	123	99	112	98
1984	:	99	106	100	108	105	109	110	112
1985	:	101	101	97	104	96	99	105	94
1986	:	98	92	88	90	108	91	104	84
1987	:	97	85	83	77	86	84	103	81
annual growth rates in %									
"1974-86"	:	-0.29	-2.19	-1.67	-3.41	-3.51	-2.74	-0.42	-3.40
"1974-79"	:	-0.90	-3.32	-0.90	-5.59	-6.20	-4.90	-1.49	-6.14
"1979-83"	:	0.29	1.31	0.43	2.00	2.88	0.45	2.00	0.80
"1983-86"	:	-0.03	-4.83	-5.63	-6.71	-7.12	-3.30	-1.81	-4.26

TABLE A6.7 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN LUXEMBOURG (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	122	97	123	:	97	:	:	113	113	82
1974	102	84	111	:	66	:	:	97	97	68
1975	112	93	124	:	161	:	:	108	107	68
1976	109	101	134	:	283	:	:	96	96	66
1977	109	90	119	:	64	:	:	100	102	80
1978	105	94	110	:	71	:	:	102	100	80
1979	104	102	105	:	102	:	106	101	101	99
1980	100	100	100	:	100	:	100	100	100	100
1981	101	104	104	:	107	:	129	106	102	103
1982	104	98	110	:	120	:	111	99	92	93
1983	104	91	114	:	192	:	123	106	144	76
1984	100	85	100	:	113	:	120	128	168	62
1985	102	91	93	:	91	:	112	124	163	78
1986	99	87	93	:	89	:	113	142	133	73
1987	100	87	90	:	87	:	94	162	151	75
annual growth rates in %										
"1974-86"	-0.92	-0.29	-2.14	:	-1.58	:	:	2.48	2.89	0.34
"1974-79"	-1.64	1.50	-2.50	:	-3.43	:	:	-1.06	-1.01	5.10
"1979-83"	-0.09	-1.92	0.69	:	11.73	:	:	2.45	7.61	-4.67
"1983-86"	-0.81	-1.08	-5.20	:	-14.22	:	-3.45	8.72	3.36	-0.55

TABLE A6.7 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN LUXEMBOURG (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	:	132	141	173	:	128	117	111
1974	:	:	108	107	128	:	122	106	94
1975	:	:	116	117	126	:	137	115	94
1976	:	:	110	110	123	:	122	109	84
1977	:	:	113	121	117	:	121	110	83
1978	:	115	107	114	108	:	100	104	80
1979	:	109	104	106	98	:	95	104	108
1980	:	100	100	100	100	:	100	100	100
1981	:	95	101	104	103	:	106	98	96
1982	:	85	106	114	110	:	82	101	87
1983	:	79	107	111	97	:	95	106	88
1984	:	92	104	105	96	:	79	106	82
1985	:	81	104	102	96	:	72	107	79
1986	:	78	102	96	87	:	69	110	75
1987	:	90	103	91	80	:	78	116	76
annual growth rates in %									
"1974-86"	:	:	-1.17	-1.94	-3.96	:	-4.62	-0.11	-2.16
"1974-79"	:	:	-2.63	-2.62	-6.41	:	-5.32	-1.83	-0.82
"1979-83"	:	-5.63	0.46	0.87	-0.36	:	-3.39	0.38	-2.82
"1983-86"	:	-0.97	-0.86	-4.46	-4.54	:	-5.09	2.15	-3.48

TABLE A6.8 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE UK (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	130	133	132	171	119	114	102	142	150	:
1974	133	145	154	147	118	140	125	155	129	:
1975	128	139	115	115	242	143	99	154	118	:
1976	140	170	131	146	450	137	102	164	124	:
1977	128	137	125	138	216	119	102	135	152	:
1978	116	115	116	112	116	119	99	112	127	:
1979	113	118	115	114	143	122	102	121	103	:
1980	100	101	100	100	100	100	100	103	100	:
1981	98	98	98	98	106	92	100	98	110	:
1982	97	97	96	99	120	85	98	88	108	:
1983	97	103	100	103	126	87	107	106	110	:
1984	94	96	89	99	140	85	92	103	103	:
1985	87	85	81	89	64	86	85	98	104	:
1986	85	85	80	108	93	73	85	89	113	:
1987	85	87	79	93	110	69	65	101	106	:
annual growth rates in %										
"1974-86"	-3.46	-3.94	-4.17	-3.29	-4.76	-4.50	-2.72	-3.67	-1.72	:
"1974-79"	-3.44	-4.30	-3.70	-5.48	-5.63	-3.03	-1.59	-5.73	-3.66	:
"1979-83"	-3.28	-3.02	-3.69	-2.05	1.82	-6.80	-0.39	-3.07	-0.66	:
"1983-86"	-3.73	-4.57	-5.57	-1.22	-11.52	-3.79	-7.54	-0.97	0.17	:

TABLE A6.8 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE UK (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	135	130	120	151	110	139	116	173
1974	:	133	128	108	139	132	148	124	165
1975	:	115	123	112	141	114	137	125	122
1976	:	117	127	119	135	143	136	127	125
1977	:	116	124	117	125	149	142	120	124
1978	:	110	117	118	125	120	126	113	101
1979	:	110	110	114	110	107	116	107	106
1980	:	100	100	100	98	99	100	100	100
1981	:	90	98	101	95	108	92	98	96
1982	:	89	97	104	92	109	91	98	88
1983	:	92	93	101	82	107	90	94	79
1984	:	94	92	96	92	100	89	90	88
1985	:	93	88	91	83	99	85	88	78
1986	:	97	85	88	76	96	83	88	68
1987	:	102	83	88	72	96	79	86	74
annual growth rates in %									
"1974-86"	:	-2.24	-3.28	-2.01	-5.06	-1.65	-4.39	-2.71	-5.97
"1974-79"	:	-3.54	-3.08	-0.54	-5.01	-1.68	-4.24	-2.58	-7.78
"1979-83"	:	-3.66	-3.53	-2.44	-5.46	-0.79	-5.69	-3.11	-4.48
"1983-86"	:	1.92	-3.27	-3.83	-4.59	-2.74	-2.90	-2.38	-4.89

TABLE A6.9 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN IRELAND (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	106	103	129	123	95	74	:	91	87	:
1974	103	115	137	117	75	96	243	125	121	:
1975	113	127	128	:	137	125	199	123	114	:
1976	114	132	127	:	206	110	171	117	97	:
1977	124	127	141	:	118	117	144	109	159	:
1978	124	112	128	137	64	117	66	103	140	:
1979	116	117	117	114	161	110	114	97	115	:
1980	100	100	100	100	100	100	100	100	100	:
1981	99	97	92	87	127	93	127	101	110	:
1982	93	92	85	:	126	88	105	83	113	:
1983	91	93	91	66	105	85	98	84	113	:
1984	87	85	77	84	134	76	79	77	86	:
1985	81	73	67	63	65	75	75	75	86	:
1986	77	77	68	61	99	74	73	70	80	:
1987	79	75	67	82	87	76	64	68	68	:
annual growth rates in %										
"1974-86"	-2.49	-3.52	-5.40	-1.27	-1.63	-2.24	:	-3.81	-2.64	:
"1974-79"	1.16	-0.97	-2.64	:	1.17	2.04	:	-2.39	1.96	:
"1979-83"	-5.49	-4.84	-7.46	:	2.89	-6.59	0.22	-5.10	-3.13	:
"1983-86"	-4.40	-5.91	-7.12	:	-11.58	-3.31	-9.17	-4.40	-9.26	:

Note:

The real price index for pulses cannot be calculated for a number of years for lack of data on constant values for pulses.

TABLE A6.9 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN IRELAND (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	89	106	111	118	96	102	95	118
1974	:	114	100	92	129	87	118	107	142
1975	:	115	110	107	136	82	106	116	112
1976	:	103	111	113	125	102	99	108	111
1977	:	103	123	122	129	94	105	127	113
1978	:	100	126	129	126	121	100	126	94
1979	:	99	116	119	110	128	98	114	102
1980	:	100	100	100	100	100	100	100	100
1981	:	90	99	101	100	106	95	97	101
1982	:	112	93	95	94	98	87	92	79
1983	:	110	91	93	86	91	76	90	71
1984	:	107	88	89	80	85	77	86	79
1985	:	110	82	82	75	75	70	85	68
1986	:	113	78	78	65	74	65	83	53
1987	:	110	79	79	62	75	64	84	57
annual growth rates in %									
"1974-86"	:	0.38	-2.33	-2.15	-5.21	-1.38	-4.05	-1.92	-6.00
"1974-79"	:	-1.25	1.54	2.38	-2.60	5.67	-1.78	1.33	-4.45
"1979-83"	:	2.42	-5.60	-5.56	-6.22	-5.91	-5.29	-5.79	-6.15
"1983-86"	:	0.44	-4.18	-4.88	-8.13	-6.42	-6.10	-1.98	-8.33

TABLE A6.10 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN DENMARK (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	123	107	107	234	122	98	120	118	148	:
1974	107	102	107	145	72	100	126	119	131	:
1975	108	108	113	120	158	99	100	120	118	:
1976	112	114	114	140	179	102	102	119	135	:
1977	106	100	101	142	78	96	108	91	143	:
1978	104	99	99	106	82	96	106	110	121	:
1979	98	99	99	83	89	104	101	103	95	:
1980	100	100	100	100	100	100	100	100	100	:
1981	102	98	101	103	81	94	103	89	118	:
1982	102	98	101	100	75	91	112	86	95	:
1983	99	102	102	102	141	100	110	95	104	:
1984	96	90	89	107	71	79	107	82	80	:
1985	89	83	76	102	70	80	93	84	76	:
1986	86	90	95	101	73	79	91	83	79	:
1987	76	75	70	83	76	82	72	92	78	:
annual growth rates in %										
"1974-86"	-2.50	-2.04	-2.52	-4.53	-3.87	-1.77	-2.43	-2.64	-4.39	:
"1974-79"	-2.28	-1.28	-1.81	-10.36	-5.11	0.14	-2.30	-2.55	-4.51	:
"1979-83"	-0.33	-0.69	-0.54	1.67	1.50	-2.52	1.73	-4.24	-3.12	:
"1983-86"	-5.65	-5.03	-6.24	-2.49	-8.64	-3.90	-7.93	-0.60	-5.89	:

TABLE A6.10 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN DENMARK (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	99	129	130	155	70	143	103	133
1974	:	83	110	101	125	115	129	101	119
1975	:	89	108	110	122	114	112	96	94
1976	:	103	112	108	130	109	119	98	109
1977	:	102	108	106	117	112	117	101	118
1978	:	96	106	104	112	103	108	101	112
1979	:	97	98	98	99	109	98	96	95
1980	:	100	100	100	100	100	100	100	100
1981	:	97	103	104	106	91	103	101	103
1982	:	95	104	108	106	102	95	105	97
1983	:	94	99	103	95	102	92	103	88
1984	:	93	100	98	103	109	96	98	91
1985	:	92	92	93	92	101	88	96	78
1986	:	87	85	81	79	103	77	94	70
1987	:	82	76	74	70	103	67	91	75
annual growth rates in %									
"1974-86"	:	-0.29	-2.63	-2.65	-4.20	0.21	-4.11	-0.55	-3.60
"1974-79"	:	1.65	-2.62	-2.43	-5.05	0.85	-4.45	-0.27	-2.34
"1979-83"	:	-0.94	-0.08	0.57	-0.61	0.11	-1.90	0.78	-2.61
"1983-86"	:	-2.61	-5.96	-7.13	-7.41	-0.70	-6.43	-2.75	-6.94

TABLE A6.11 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN GREECE (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	102	101	124	107	100	105	128	82	85	100
1974	98	97	102	93	89	141	107	98	73	135
1975	93	91	102	91	96	110	108	81	67	102
1976	97	97	101	96	116	101	112	94	78	103
1977	96	96	102	106	92	94	96	110	80	93
1978	96	95	101	112	95	95	93	98	87	100
1979	97	97	95	110	101	81	93	96	96	109
1980	100	100	100	100	100	100	100	100	100	100
1981	100	97	93	96	100	109	112	107	82	95
1982	98	95	90	102	103	94	117	100	83	86
1983	97	95	91	95	80	90	122	114	79	79
1984	99	100	95	91	97	95	126	116	85	71
1985	101	99	91	102	87	96	119	115	85	91
1986	94	92	82	102	76	67	104	100	83	86
1987	91	89	75	97	80	81	101	96	80	85
annual growth rates in %										
"1974-86"	-0.21	-0.27	-2.28	0.28	-1.32	-3.11	-0.47	1.50	0.80	-2.09
"1974-79"	0.03	0.20	-2.03	2.08	0.74	-4.94	-3.60	2.43	4.73	-1.70
"1979-83"	0.07	-0.26	-1.70	-2.71	-1.33	0.19	6.33	2.95	-3.47	-6.51
"1983-86"	-0.97	-1.05	-3.46	1.35	-4.64	-4.34	-3.89	-1.92	0.22	3.45

TABLE A6.11 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN GREECE (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	109	106	103	108	112	82	133	100	123
1974	115	97	100	105	97	81	126	102	115
1975	116	100	97	97	108	76	121	100	118
1976	102	96	99	96	109	85	111	103	110
1977	100	110	98	97	103	86	109	100	106
1978	105	86	97	94	98	86	101	102	108
1979	99	99	99	100	98	95	98	100	97
1980	100	100	100	100	100	100	100	100	100
1981	95	121	109	117	102	107	111	109	119
1982	89	122	105	113	93	100	101	115	113
1983	94	102	101	105	97	96	94	110	96
1984	96	103	99	102	91	91	100	103	125
1985	105	85	104	108	91	98	98	115	112
1986	101	102	100	94	96	88	102	118	94
1987	100	88	94	88	84	84	105	107	102
annual growth rates in %									
"1974-86"	-0.87	-0.83	-0.04	-0.53	-1.31	0.98	-1.82	0.98	-1.21
"1974-79"	-2.17	-1.25	-0.31	-1.05	-1.38	3.21	-4.73	-0.01	-3.08
"1979-83"	-2.16	3.47	0.81	2.07	-1.32	0.53	-0.22	2.05	2.38
"1983-86"	3.10	-5.62	-0.71	-3.04	-1.17	-2.05	1.05	1.23	-2.77

TABLE A6.12 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN SPAIN (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	145	146	139	139	164	124	125	150	124	231
1974	135	129	142	133	134	127	121	132	110	133
1975	133	130	136	130	164	163	113	125	123	136
1976	128	126	129	130	189	159	117	124	93	195
1977	131	139	117	159	141	134	129	137	137	328
1978	120	122	110	155	103	110	110	128	114	239
1979	109	107	104	110	143	100	106	103	100	132
1980	100	100	100	100	100	100	100	100	100	100
1981	102	102	102	131	100	115	105	107	88	132
1982	103	104	99	139	148	115	93	106	92	113
1983	101	104	101	121	134	115	99	98	101	118
1984	101	100	102	112	131	111	92	100	88	113
1985	96	93	98	125	71	109	91	86	93	97
1986	96	98	97	120	117	105	103	93	100	92
1987	89	89	87	94	0	0	87	97	76	104
annual growth rates in %										
"1974-86"	-3.15	-3.07	-3.19	-1.43	-3.33	-2.19	-2.04	-3.20	-2.34	-4.35
"1974-79"	-4.42	-4.07	-5.47	-1.98	-5.67	-5.63	-2.60	-4.04	-2.56	-1.19
"1979-83"	-1.96	-1.69	-1.08	0.50	4.53	2.42	-2.56	-2.11	-2.75	-7.57
"1983-86"	-2.59	-3.21	-2.13	-3.04	-12.10	-2.47	-0.38	-3.22	-1.42	-5.17

TABLE A6.12 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN SPAIN (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	141	133	146	152	169	119	150	134	164
1974	150	129	145	148	152	119	150	135	171
1975	127	110	137	131	168	116	137	139	124
1976	123	111	130	141	158	112	117	134	102
1977	113	109	121	121	134	106	121	122	116
1978	113	102	118	122	128	109	116	114	119
1979	102	92	111	118	118	110	117	109	96
1980	100	100	100	100	100	100	100	100	100
1981	101	96	102	105	100	99	99	99	114
1982	104	100	101	107	110	91	102	95	95
1983	97	99	98	102	110	84	100	92	93
1984	100	94	101	111	101	89	111	97	110
1985	89	95	101	112	104	97	96	96	108
1986	88	100	95	101	104	91	88	92	86
1987	89	96	87	0	0	0	0	82	93
annual growth rates in %									
"1974-86"	-3.66	-2.01	-3.39	-2.55	-4.11	-2.25	-3.53	-3.37	-3.85
"1974-79"	-5.46	-4.58	-5.09	-4.57	-6.65	-2.12	-5.30	-4.63	-7.30
"1979-83"	-1.16	-0.20	-2.29	-1.55	-1.95	-4.51	-1.51	-3.03	-1.32
"1983-86"	-3.92	-0.06	-1.99	0.61	-1.93	2.11	-3.05	-1.70	-1.29

TABLE A6.13 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN PORTUGAL (1980 = 100)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	:	:	:	:	:	:	:	:	:	:
1974	:	:	:	:	:	:	:	:	:	:
1975	:	:	:	:	:	:	:	:	:	:
1976	:	:	:	:	:	:	:	:	:	:
1977	:	:	:	:	:	:	:	:	:	:
1978	:	:	:	:	:	:	:	:	:	:
1979	:	:	:	:	:	:	:	:	:	:
1980	100	100	100	100	100	:	100	100	100	100
1981	102	114	108	129	113	:	83	127	123	108
1982	101	105	103	139	118	:	93	95	130	91
1983	101	98	115	136	111	:	96	100	106	76
1984	103	102	132	113	141	:	109	86	115	71
1985	96	87	129	99	47	:	106	89	97	67
1986	91	88	119	95	97	:	104	74	104	63
1987	86	83	110	91	89	:	96	82	95	60
annual growth rates in %										
"1974-86"	:	:	:	:	:	:	:	:	:	:
"1974-79"	:	:	:	:	:	:	:	:	:	:
"1979-83"	:	:	:	:	:	:	:	:	:	:
"1983-86"	-3.71	-5.32	0.77	-9.87	-14.38	:	0.74	-4.56	-5.43	-7.17

TABLE A6.13 (continued) REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN PORTUGAL (1980 = 100)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	:	:	:	:	:	:	:	:	:
1974	:	:	:	:	:	:	:	:	:
1975	:	:	:	:	:	:	:	:	:
1976	:	:	:	:	:	:	:	:	:
1977	:	:	:	:	:	:	:	:	:
1978	:	:	:	:	:	:	:	:	:
1979	:	:	:	:	:	:	:	:	:
1980	100	100	100	100	100	100	100	100	100
1981	104	103	92	94	78	94	105	91	110
1982	118	91	96	89	89	96	112	98	119
1983	100	79	105	105	102	101	112	100	124
1984	113	103	104	108	91	99	118	108	118
1985	100	90	106	106	105	92	107	110	125
1986	94	82	94	97	87	86	94	98	124
1987	91	84	87	94	78	78	86	91	110
annual growth rates in %									
"1974-86"	:	:	:	:	:	:	:	:	:
"1974-79"	:	:	:	:	:	:	:	:	:
"1979-83"	:	:	:	:	:	:	:	:	:
"1983-86"	-4.85	-1.98	-1.94	-0.49	-1.44	-4.91	-5.64	-0.86	-0.19

TABLE A6.14 REAL PRICE INDEX OF FINAL AGRICULTURAL OUTPUT IN THE EC MEMBER STATES (1980 = 100)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	119	124	113	137	125	122	130	106	123	102	145	:	124	:
1974	109	121	114	119	108	102	133	103	107	98	135	:	118	:
1975	113	115	110	120	112	112	128	113	108	93	133	:	116	:
1976	120	116	113	123	119	109	140	114	112	97	128	:	120	:
1977	113	114	112	114	106	109	128	124	106	96	131	:	116	:
1978	105	109	111	105	101	105	116	124	104	96	120	:	110	:
1979	104	103	106	101	98	104	113	116	98	97	109	:	105	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	103	101	96	104	102	101	98	99	102	100	102	102	100	100
1982	100	99	95	101	104	104	97	93	102	98	103	101	99	99
1983	96	98	91	100	109	104	97	91	99	97	101	101	97	97
1984	94	93	87	100	104	100	94	87	96	99	101	103	94	94
1985	89	90	84	98	98	102	87	81	89	101	96	96	90	90
1986	81	86	80	91	90	99	85	77	86	94	96	91	86	86
1987	76	82	75	89	86	100	85	79	76	91	89	86	81	82
annual growth rates in %														
"1974-86"	-2.66	-2.77	-2.83	-2.49	-1.91	-0.92	-3.46	-2.49	-2.50	-0.21	-3.15	:	-2.71	:
"1974-79"	-1.91	-2.85	-1.24	-4.05	-2.81	-1.64	-3.44	1.16	-2.28	0.03	-4.42	:	-2.55	:
"1979-83"	-1.64	-1.78	-3.64	-0.40	1.43	-0.09	-3.28	-5.49	-0.33	0.07	-1.96	:	-2.02	:
"1983-86"	-5.23	-3.95	-4.35	-2.63	-4.77	-0.81	-3.73	-4.40	-5.65	-0.97	-2.59	-3.71	-3.89	-3.89

TABLE A6.15 REAL PRICE INDEX OF INTERMEDIATE CONSUMPTION IN THE EC (1980 = 100)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	106	96	105	120	114	102	111	80	110	93	183	:	111	:
1974	106	107	120	117	111	97	124	104	114	96	173	:	117	:
1975	103	101	116	108	104	108	109	106	108	97	152	:	109	:
1976	107	101	117	108	108	104	114	106	108	91	142	:	110	:
1977	105	102	111	105	103	106	116	113	104	88	128	:	108	:
1978	98	99	105	97	95	101	109	106	94	83	112	:	101	:
1979	99	97	100	99	96	98	107	101	93	88	103	:	100	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	106	101	103	103	104	104	98	98	106	101	108	107	103	103
1982	103	100	101	101	107	103	97	94	107	93	105	109	101	101
1983	104	101	97	105	110	105	99	90	106	96	110	120	102	103
1984	102	102	95	103	111	106	98	91	106	95	112	131	102	102
1985	98	97	89	98	103	99	93	88	98	95	110	125	97	98
1986	86	91	81	89	95	95	87	79	88	93	103	118	89	90
1987	80	87	75	84	87	88	87	74	80	85	98	108	85	85
annual growth rates in %														
"1974-86"	-1.42	-0.84	-2.72	-2.01	-1.19	-0.69	-2.10	-1.55	-1.83	-0.39	-4.00	:	-1.80	:
"1974-79"	-1.22	-0.54	-2.23	-3.04	-2.40	-0.49	-1.71	1.10	-2.84	-1.06	-9.05	:	-2.27	:
"1979-83"	1.03	0.57	-0.95	1.05	2.96	1.13	-1.73	-2.78	2.61	1.11	0.82	:	0.37	:
"1983-86"	-4.93	-3.20	-5.80	-4.27	-4.52	-3.39	-3.25	-4.25	-5.84	-1.27	-1.60	-0.69	-3.86	-3.81

TABLE A6.16 REAL PRICE INDEX OF FEEDINGSTUFFS IN THE EC (1980 = 100)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	137	129	121	140	133	124	130	99	139	102	162	:	133	:
1974	123	126	133	133	126	114	143	125	130	104	166	:	133	:
1975	111	114	129	116	113	119	115	108	108	99	142	:	118	:
1976	123	113	130	115	118	114	123	110	114	96	137	:	121	:
1977	125	116	123	112	110	117	127	124	113	96	126	:	120	:
1978	106	107	113	98	98	106	114	115	97	87	112	:	107	:
1979	103	103	106	101	98	102	111	109	95	95	104	:	104	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	106	102	105	102	103	103	96	94	106	104	105	107	103	103
1982	98	101	99	97	106	99	94	87	105	100	100	109	99	99
1983	107	102	97	99	110	103	97	86	106	102	110	126	102	102
1984	101	104	95	99	110	109	96	86	106	103	114	146	102	102
1985	91	94	86	91	99	92	86	77	91	105	109	135	92	93
1986	78	86	79	84	92	85	81	70	82	97	101	125	84	85
1987	71	82	74	79	84	79	82	67	74	87	95	116	80	80
annual growth rates in %														
"1974-86"	-3.54	-2.79	-3.87	-3.48	-2.50	-2.72	-3.65	-3.59	-3.48	-0.47	-3.53	:	-3.30	:
"1974-79"	-3.52	-3.39	-3.63	-5.09	-4.45	-2.93	-3.47	-0.55	-4.94	-1.55	-7.62	:	-4.12	:
"1979-83"	-0.29	-0.32	-2.29	-0.27	2.31	0.23	-3.08	-5.27	2.05	1.96	0.69	:	-0.70	:
"1983-86"	-7.74	-5.02	-6.32	-4.96	-5.42	-6.15	-4.71	-6.29	-8.07	-1.83	-2.06	-0.47	-5.33	-5.24

TABLE A6.17 REAL PRICE INDEX OF FERTILIZERS IN THE EC (1980 = 100)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11
1973	94	83	74	95	85	96	103	71	86	100	987	:	117
1974	104	109	103	101	94	92	129	96	109	98	568	:	131
1975	106	108	102	105	102	109	121	127	139	105	439	:	129
1976	103	94	100	99	106	103	109	112	113	96	367	:	116
1977	99	92	88	101	99	106	105	103	97	85	284	:	107
1978	94	90	89	96	97	103	111	102	91	75	201	:	101
1979	95	90	86	95	93	95	101	95	88	79	139	:	96
1980	100	100	100	100	100	100	100	100	100	100	100	:	100
1981	107	99	100	106	106	107	95	96	112	90	116	:	102
1982	106	97	110	110	114	109	92	92	120	72	116	:	102
1983	95	93	108	95	115	111	95	84	110	83	113	:	97
1984	92	93	100	95	117	100	89	83	122	71	113	:	95
1985	94	97	102	99	119	102	89	89	122	66	111	:	97
1986	83	84	90	92	116	101	68	80	105	66	100	:	85
1987	71	73	81	80	96	87	62	59	84	58	89	:	73
annual growth rates in %													
"1974-86"	-1.67	-1.37	-0.16	-0.84	1.36	-0.20	-3.92	-2.09	-0.60	-3.82	-14.62	:	-3.20
"1974-79"	-0.98	-1.41	-0.30	-0.65	0.63	0.05	-2.44	0.23	-3.54	-3.45	-26.08	:	-4.69
"1979-83"	0.32	0.40	3.79	0.69	4.52	1.86	-3.09	-3.41	5.91	-2.92	-6.14	:	-0.21
"1983-86"	-5.38	-3.60	-4.96	-3.15	-1.51	-3.31	-7.40	-4.13	-3.97	-5.63	-4.32	:	-4.63

TABLE A6.18 REAL PRICE INDEX OF ENERGY AND LUBRICANTS IN THE EC (1980 = 100)

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
1973	78	56	49	51	69	63	64	48	53	47	67	:	64	:
1974	88	74	78	68	69	73	86	77	81	67	88	:	81	:
1975	86	71	71	71	70	83	82	80	75	72	84	:	78	:
1976	87	73	75	77	70	79	86	81	75	67	82	:	80	:
1977	83	77	74	78	70	79	89	84	70	65	67	:	79	:
1978	80	75	68	82	66	75	83	74	65	60	57	:	75	:
1979	93	82	77	88	79	84	93	80	78	72	68	:	85	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	110	110	111	119	111	116	106	115	115	99	127	101	112	111
1982	109	115	116	133	121	111	113	115	119	83	121	98	114	113
1983	103	113	110	141	115	114	117	115	109	86	124	105	111	111
1984	104	112	107	153	118	113	114	113	104	86	126	110	111	111
1985	104	114	100	152	117	110	116	112	102	88	127	111	111	111
1986	77	88	79	94	74	99	95	87	73	84	123	97	87	87
1987	71	82	67	88	64	91	92	85	64	72	116	89	79	79
annual growth rates in %														
"1974-86"	0.00	2.94	1.86	4.80	1.72	2.69	2.24	2.71	1.08	2.32	3.64	:	1.85	:
"1974-79"	1.59	5.04	4.32	7.24	3.37	3.49	3.50	4.25	2.97	4.53	-1.16	:	3.12	:
"1979-83"	3.77	7.15	8.04	12.14	9.55	6.81	5.63	7.85	8.13	2.41	13.32	:	6.71	:
"1983-86"	-7.28	-5.65	-9.51	-7.85	-10.30	-3.82	-4.09	-6.12	-10.41	-1.37	-0.42	-1.87	-6.23	-6.16

TABLE A6.19 DEVIATION OF ACTUAL VALUE FROM THE EXPONENTIAL TREND OF THE REAL PRICE INDEX OF AGRICULTURAL PRODUCTS IN EUR11, 1973-1987 (per cent)

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1973	-1.1	-4.0	-8.0	-5.3	-15.6	-11.4	2.1	-3.7	-0.1	8.1
1974	-3.0	-1.7	3.3	6.6	-25.2	-1.2	5.2	1.5	-5.2	-7.5
1975	-2.1	-3.2	-3.7	-2.3	11.3	4.9	-3.2	-1.3	-4.1	-16.2
1976	3.9	6.3	3.7	-2.5	106.0	6.1	-1.0	6.2	-11.0	-6.1
1977	3.3	4.4	2.4	8.7	-0.3	-0.2	-4.1	5.3	16.8	7.6
1978	0.8	0.8	1.1	7.4	-24.4	1.3	-5.3	-2.5	9.9	15.9
1979	-0.8	-0.3	0.5	-7.7	-2.4	5.8	-2.4	-4.0	-0.5	7.4
1980	-2.9	-1.7	-1.0	-12.9	-17.8	5.1	-3.9	-2.7	0.6	3.5
1981	0.1	0.1	1.4	-3.1	-7.6	-5.0	1.3	1.3	1.6	4.5
1982	1.5	-0.3	3.9	10.2	8.0	-4.5	3.5	-3.9	-2.4	0.2
1983	2.5	3.2	6.7	6.1	29.2	7.4	10.4	2.4	2.9	-10.6
1984	2.4	2.0	1.8	0.4	25.0	-1.0	7.7	4.1	-2.4	-3.0
1985	0.8	-0.6	-3.6	1.5	-24.8	2.1	2.1	0.0	2.3	7.1
1986	-1.4	-1.3	-2.0	3.3	0.8	-2.1	1.7	-5.1	1.7	-2.4
1987	-3.7	-3.2	-5.4	-7.2	-6.2	-5.2	-11.9	3.2	-7.2	-3.5
t-value time variable in trend	-18.9	-15.4	-13.8	-7.0	-2.9	-8.3	-5.8	-10.0	-5.2	-5.4

TABLE A6.19 (continued) DEVIATION OF ACTUAL VALUE FROM THE EXPONENTIAL TREND OF THE REAL PRICE INDEX OF AGRICULTURAL PRODUCTS IN EUR11, 1973-1987 (per cent)

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1973	-9.4	-0.8	1.7	2.3	6.6	-5.5	2.4	-3.8	8.8
1974	17.0	-0.4	-4.2	-8.3	-8.2	-0.4	2.0	-2.4	7.4
1975	6.0	-1.8	-1.3	-1.9	-0.7	-4.3	0.3	0.6	-7.6
1976	-1.1	2.7	1.9	0.8	5.2	2.4	-2.6	2.9	-2.1
1977	-0.3	2.0	2.3	1.6	1.2	5.6	1.4	4.0	1.6
1978	-0.6	-0.2	0.6	3.5	-4.5	3.2	-0.8	2.5	-4.4
1979	-2.0	-1.4	-1.2	1.0	-4.9	2.8	-1.8	0.6	-7.9
1980	-4.6	0.1	-3.8	-3.3	-6.6	-1.7	-5.5	-2.3	-1.7
1981	-5.8	0.5	0.2	1.7	1.1	2.5	-1.8	-1.7	4.3
1982	-6.4	-1.0	3.2	7.0	9.1	0.3	-1.3	0.8	-6.3
1983	-1.6	-0.3	2.0	5.0	2.2	0.2	0.4	1.6	-3.9
1984	-1.1	0.4	2.8	1.5	6.5	-0.3	7.0	0.0	10.5
1985	4.5	1.8	2.1	0.7	7.7	2.2	5.0	-0.4	3.9
1986	4.4	-0.1	-1.6	-4.3	0.3	-1.5	0.5	-0.4	-5.0
1987	3.8	-1.3	-4.3	-6.0	-12.0	-4.6	-4.4	-1.5	5.0
t-value time variable in trend	-8.6	-16.7	-17.6	-10.5	-11.1	-11.0	-18.5	-11.7	-11.1

TABLE A6.20 PERCENTAGE DEVIATION FROM REAL PRICE OF THE PREVIOUS YEAR OF AGRICULTURAL PRODUCTS IN EUR 11

	final output	crop total	cereals/ rice	pulses	potatoes	sugar beet	industr. crops	vege- tables	fruit	wine
1974	-4.6	-0.4	8.5	9.3	-15.6	8.5	0.9	3.1	-7.0	-16.9
1975	-1.9	-4.2	-9.9	-11.1	41.8	3.3	-9.8	-5.0	-0.9	-12.0
1976	3.1	6.8	4.1	-3.1	76.4	-1.6	0.2	5.2	-9.1	8.8
1977	-3.3	-4.5	-4.6	8.2	-53.9	-8.6	-5.1	-3.1	28.4	11.3
1978	-5.1	-6.1	-4.6	-4.1	-27.7	-1.2	-3.3	-9.5	-7.8	4.7
1979	-4.3	-3.8	-4.0	-16.6	23.0	1.5	1.0	-3.8	-11.3	-10.0
1980	-4.8	-4.1	-4.8	-8.4	-19.7	-3.3	-3.5	-0.9	-1.0	-6.4
1981	0.2	-0.9	-1.1	7.9	7.2	-12.2	3.2	1.8	-1.1	-1.9
1982	-1.4	-3.1	-1.0	10.4	11.3	-2.2	0.1	-7.3	-6.0	-6.9
1983	-1.8	0.7	-0.8	-6.6	14.0	9.5	4.6	4.2	3.3	-13.3
1984	-2.9	-3.8	-7.8	-8.1	-7.8	-10.4	-4.5	-0.7	-7.2	5.4
1985	-4.2	-5.2	-8.5	-1.9	-42.7	0.4	-7.1	-6.0	2.7	7.2
1986	-5.0	-3.4	-1.8	-1.2	27.7	-6.8	-2.4	-7.3	-2.7	-11.5
1987	-5.0	-4.7	-6.7	-12.8	-11.3	-5.8	-15.1	6.3	-10.6	-3.9

TABLE A6.20 (continued) PERCENTAGE DEVIATION FROM REAL PRICE OF THE PREVIOUS YEAR OF AGRICULTURAL PRODUCTS IN EUR 11

	olive oil	other crops	animal total	cattle	pigs	sheep/ goats	poultry	milk	eggs
1974	24.9	-1.0	-8.4	-12.8	-17.6	3.1	-4.1	-0.1	-5.4
1975	-12.4	-2.7	0.1	4.2	3.5	-6.0	-5.3	1.4	-17.6
1976	-9.7	3.2	0.3	0.0	1.4	4.8	-6.5	0.7	1.6
1977	-2.4	-2.1	-2.4	-1.9	-8.0	0.8	0.3	-0.5	-0.6
1978	-3.6	-3.4	-4.5	-0.9	-9.7	-4.4	-5.8	-3.0	-9.8
1979	-4.6	-2.6	-4.6	-5.1	-4.7	-2.5	-4.6	-3.4	-7.6
1980	-5.8	0.2	-5.3	-6.8	-6.0	-6.5	-7.3	-4.4	2.3
1981	-4.5	-0.9	1.2	2.4	3.6	2.0	0.1	-1.0	1.6
1982	-3.8	-2.9	0.1	2.3	3.2	-4.2	-3.3	1.0	-13.9
1983	1.7	-0.6	-4.0	-4.4	-10.4	-2.3	-2.0	-0.8	-1.7
1984	-2.7	-0.7	-2.0	-6.0	-0.3	-2.6	2.7	-3.1	10.3
1985	2.2	0.1	-3.4	-3.4	-3.2	0.2	-5.5	-1.9	-9.9
1986	-3.3	-3.2	-6.3	-7.5	-10.9	-5.7	-7.8	-1.6	-12.3
1987	-3.8	-2.5	-5.5	-4.5	-16.1	-5.2	-8.5	-2.6	5.9

TABLE A6.21 REAL PRICE INDEX OF AGRICULTURAL PRODUCTS IN THE NON-EC COUNTRIES (1980 = 100)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	127	130	120	96	115
1974	125	135	90	97	111
1975	109	118	79	101	109
1976	103	105	77	103	109
1977	95	96	72	97	109
1978	102	103	81	96	105
1979	107	108	93	98	101
1980	100	100	100	100	100
1981	94	98	97	100	104
1982	85	88	88	96	104
1983	83	83	82	98	102
1984	84	84	80	98	101
1985	74	78	78	96	98
1986	69	:	73	90	96
1987	69	:	73	89	96
annual growth rates in %					
"1974-86"	-4.33	-4.37	-2.09	-0.55	-1.23
"1974-79"	-3.04	-4.14	-1.11	0.04	-1.82
"1979-83"	-4.94	-4.74	-2.22	-0.23	0.10
"1983-86"	-5.66	:	-3.55	-1.94	-1.99

Notes:

Real price indices have been calculated as the ratio of the index number of prices received by farmers to the price index of GDP at factor cost.

Growth rate "1974-1986" for Canada refers to "1974-1984".

Source:

FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE A6.22 REAL PRICE INDEX OF CROP OUTPUT IN THE NON-EC COUNTRIES (1980 = 100)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	127	147	:	:	121
1974	149	170	:	:	113
1975	122	135	:	:	114
1976	112	115	:	:	111
1977	102	102	:	:	106
1978	100	99	86	:	102
1979	102	106	94	100	101
1980	100	100	100	100	100
1981	98	98	101	100	104
1982	83	82	90	98	106
1983	84	78	85	100	106
1984	88	81	79	102	107
1985	74	71	77	100	102
1986	64	:	70	98	95
1987	62	:	65	94	93
annual growth rates in %					
"1974-86"	-5.55	-6.51	:	:	-1.50
"1974-79"	-5.40	-7.55	:	:	-2.73
"1979-83"	-4.07	-5.74	-2.42	-0.02	1.37
"1983-86"	-7.74	:	-5.76	-0.93	-3.21

Notes:

Crops in Japan refer only to rice.

Growth rate "1974-1986" for Canada refers to "1974-1984".

Source:

FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE A6.23 REAL PRICE INDEX OF ANIMAL OUTPUT IN THE NON-EC COUNTRIES (1980 = 100)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	127	120	:	:	115
1974	105	111	:	:	111
1975	99	106	:	:	108
1976	96	98	:	:	109
1977	89	92	:	:	109
1978	102	105	79	:	107
1979	112	109	92	96	102
1980	100	100	100	100	100
1981	90	99	95	95	103
1982	87	94	88	91	104
1983	81	88	81	89	100
1984	81	88	82	88	100
1985	73	85	81	85	97
1986	72	:	76	81	102
1987	74	:	78	75	97
annual growth rates in %					
"1974-86"	-3.37	-2.55	:	:	-0.99
"1974-79"	-1.00	-1.43	:	:	-1.53
"1979-83"	-5.76	-3.71	-1.91	-2.77	-0.35
"1983-86"	-4.02	:	-2.13	-3.44	-0.95

Notes:

Growth rate "1974-1986" for Canada refers to "1974-1984".

Source:

FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE A6.24 REAL PRICE INDEX OF INTERMEDIATE CONSUMPTION IN THE NON-EC COUNTRIES (1980 = 100)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	88	100	91	98	109
1974	94	98	101	103	107
1975	94	97	100	101	97
1976	94	95	96	98	95
1977	93	93	97	95	96
1978	93	96	100	88	93
1979	99	101	98	92	94
1980	100	100	100	100	100
1981	98	98	103	100	105
1982	95	92	106	98	113
1983	91	88	104	97	116
1984	89	88	104	97	119
1985	85	86	104	94	119
1986	78	:	107	88	110
1987	78	:	105	86	105
annual growth rates in %					
"1974-86"	-1.15	-1.18	0.68	-0.96	0.53
"1974-79"	1.10	0.17	0.42	-1.49	-1.67
"1979-83"	-1.48	-2.50	1.28	1.11	4.84
"1983-86"	-4.37	:	0.33	-2.80	-1.37

Notes:

Indices are based on prices paid by farmers of production requisites. Growth rate "1974-1986" for Canada refers to "1974-1984".

Source:

FAO, Production yearbook 1980, 1988; OECD, National Accounts, various issues.

TABLE A6.25 PERCENTAGE DEVIATION FROM REAL PRICE OF THE PREVIOUS YEAR OF CROP OUTPUT IN THE NON-EC COUNTRIES

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1974	17.6	15.6	:	:	-7.1
1975	-18.5	-20.8	:	:	0.7
1976	-7.9	-15.0	:	:	-2.0
1977	-8.7	-11.4	:	:	-4.4
1978	-2.4	-2.4	:	:	-4.2
1979	1.9	7.0	10.4	:	-0.9
1980	-1.7	-5.8	5.9	-0.3	-0.9
1981	-2.4	-2.2	1.2	0.2	3.5
1982	-14.8	-16.5	-10.7	-1.9	2.4
1983	1.4	-4.2	-6.1	2.0	0.3
1984	4.2	3.7	-7.4	1.5	0.9
1985	-15.4	-12.2	-2.3	-1.5	-5.1
1986	-13.4	:	-8.5	-2.3	-6.5
1987	-3.8	:	-7.0	-3.9	-2.3

TABLE A6.26 PERCENTAGE DEVIATION FROM REAL PRICE OF THE PREVIOUS YEAR OF ANIMAL OUTPUT IN THE NON-EC COUNTRIES

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1974	-17.2	-7.0	:	:	-3.5
1975	-5.3	-4.8	:	:	-2.5
1976	-3.3	-8.0	:	:	0.7
1977	-7.4	-5.3	:	:	0.1
1978	15.2	13.7	:	:	-2.1
1979	9.4	3.4	16.5	:	-4.3
1980	-10.7	-8.1	8.7	4.2	-2.0
1981	-9.6	-1.1	-5.1	-4.7	2.6
1982	-4.3	-4.6	-7.0	-4.6	1.6
1983	-6.8	-7.1	-8.0	-2.0	-4.0
1984	0.0	0.2	0.5	-1.5	-0.1
1985	-9.4	-3.3	-0.9	-3.5	-3.0
1986	-1.4	:	-5.8	-4.3	4.8
1987	2.7	:	2.7	-7.1	-4.3

TABLE A6.27 REAL PRICE INDEX OF FOOD, BEVERAGES AND TOBACCO IN THE EC (1980 = 100)

	D	F	I	NL	B	L*	UK	IRL*	DK	GR	E	P*	EUR 11 ^{*)} a)	EUR 12*
1973	109	105	:	113	107	102	111	93	108	94	117	:	108	:
1974	106	105	:	110	104	95	112	98	105	96	114	:	107	:
1975	105	103	:	107	103	105	109	102	102	97	114	:	106	:
1976	106	103	:	108	108	105	110	105	103	96	112	:	106	:
1977	107	105	:	106	106	111	113	101	107	95	110	:	107	:
1978	104	103	:	102	103	108	109	96	105	96	109	:	104	:
1979	100	102	:	100	100	104	106	99	102	95	104	:	102	:
1980	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1981	100	103	99	99	101	102	98	102	100	105	101	102	100	100
1982	101	104	99	99	104	103	98	102	99	100	103	103	101	101
1983	101	103	96	97	108	105	98	101	98	97	102	105	101	100
1984	100	104	94	100	109	107	99	103	101	96	103	110	101	100
1985	99	102	93	99	107	104	98	101	100	96	104	107	100	99
1986	96	101	92	98	105	106	99	102	99	97	104	99	99	98
1987	93	100	90	97	103	:	97	:	96	95	103	:	:	:
annual growth rates in %														
"1974-86"	-0.87	-0.31	:	-0.97	-0.01	0.45	-1.00	0.36	-0.55	0.03	-0.86	:	-0.60	:
"1974-79"	-1.04	-0.54	:	-1.81	-0.81	0.65	-1.08	0.15	-0.45	0.24	-1.91	:	-0.98	:
"1979-83"	-0.06	0.41	:	-0.50	1.49	0.30	-1.51	0.86	-0.86	0.13	-0.39	:	-0.22	:
"1983-86"	-1.67	-0.89	-1.54	-0.19	-0.66	0.26	-0.18	-0.09	-0.31	-0.45	0.27	-0.23	-0.41	-0.68

*) Growth rates "1974-86" refer to "1974-85"; growth rates "1983-86" to "1983-85".

a) EUR 11 refers to the group of 11 Member States without Italy.

Source:

Eurostat, National Accounts ESA. Detailed tables by branch, 1988/1989.

TABLE A6.28 REAL PRICE INDEX OF FOOD IN THE NON-EC COUNTRIES (1980 = 100)

	US	CANADA	AUSTRALIA	JAPAN	SWEDEN
1973	:	:	:	:	:
1974	:	:	:	:	:
1975	100	95	93	95	102
1976	97	90	91	96	103
1977	97	92	92	97	109
1978	102	98	94	97	109
1979	101	100	98	97	106
1980	100	100	100	100	100
1981	98	103	100	102	113
1982	96	101	99	102	118
1983	94	99	96	104	120
1984	95	101	94	106	126
1985	94	101	95	106	127
1986	94	:	97	105	127
1987	95	:	93	104	125
annual growth rates in %					
"1976-86"	-0.33	1.06	0.34	0.85	1.91
"1976-79"	1.04	2.54	1.98	0.51	0.14
"1979-83"	-1.47	0.18	-0.29	1.51	3.66
"1983-86"	-0.18	:	-0.43	0.32	1.40

Source:
 OECD, Main Economic Indicators, various issues.

TABLE A8.1 SHARE OF NET INCOME FROM AGRICULTURAL ACTIVITY OF TOTAL LABOUR INPUT IN CURRENT VALUE OF FINAL AGRICULTURAL OUTPUT IN THE EC

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
"1974"	0.39	0.51	0.59	0.40	0.38	0.45	0.37	0.55	0.27	0.75	0.52	:	0.48	:
"1979"	0.28	0.42	0.49	0.32	0.33	0.44	0.30	0.40	0.15	0.71	0.50	:	0.40	:
"1983"	0.24	0.40	0.47	0.33	0.33	0.47	0.32	0.39	0.17	0.69	0.41	0.40	0.38	0.38
"1987"	0.27	0.38	0.47	0.35	0.31	0.43	0.30	0.46	0.16	0.70	0.40	0.40	0.38	0.38
annual growth rates in %														
"1974-87"	-2.80	-2.39	-1.79	-1.03	-1.74	-0.45	-1.60	-1.47	-3.94	-0.51	-1.95	:	-1.89	:
"1974-79"	-6.34	-4.13	-3.51	-4.56	-2.88	-0.54	-3.63	-6.14	-11.43	-1.22	-0.59	:	-3.74	:
"1979-83"	-3.30	-1.28	-1.04	1.33	-0.35	1.29	0.98	-0.56	4.00	-0.42	-4.64	:	-1.25	:
"1983-87"	2.33	-1.31	-0.36	1.14	-1.69	-2.04	-1.59	3.73	-1.80	0.29	-0.89	-0.42	-0.17	-0.18

TABLE A8.2 SHARE OF INTERMEDIATE CONSUMPTION IN CURRENT VALUE OF FINAL AGRICULTURAL OUTPUT IN THE EC

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
"1974"	0.46	0.36	0.25	0.49	0.54	0.38	0.54	0.34	0.50	0.19	0.37	:	0.39	:
"1979"	0.53	0.42	0.27	0.54	0.57	0.40	0.54	0.41	0.54	0.21	0.36	:	0.43	:
"1983"	0.54	0.44	0.30	0.52	0.57	0.39	0.55	0.44	0.54	0.23	0.44	0.48	0.45	0.45
"1987"	0.53	0.45	0.29	0.48	0.57	0.39	0.55	0.42	0.51	0.24	0.45	0.50	0.44	0.44
annual growth rates in %														
"1974-87"	0.96	1.73	1.00	-0.21	0.48	0.18	0.14	1.78	0.14	1.51	1.49	:	0.89	:
"1974-79"	2.61	3.09	1.81	1.64	0.95	0.82	0.24	4.16	1.79	1.70	-0.47	:	1.80	:
"1979-83"	0.42	1.04	2.15	-0.77	0.30	-0.43	0.23	1.52	-0.31	2.57	5.23	:	1.08	:
"1983-87"	-0.55	0.74	-1.11	-1.93	0.09	0.01	-0.06	-0.85	-1.43	0.22	0.28	1.04	-0.42	-0.39

TABLE A8.3 SHARE OF DEPRECIATION IN CURRENT VALUE OF FINAL AGRICULTURAL OUTPUT IN THE EC

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
"1974"	0.13	0.07	0.16	0.05	0.05	0.12	0.11	0.07	0.09	0.03	0.04	:	0.09	:
"1979"	0.15	0.08	0.22	0.06	0.07	0.13	0.12	0.10	0.11	0.04	0.06	:	0.12	:
"1983"	0.16	0.09	0.21	0.06	0.06	0.11	0.11	0.10	0.11	0.04	0.07	0.03	0.12	0.12
"1987"	0.18	0.09	0.23	0.08	0.07	0.13	0.12	0.10	0.13	0.05	0.08	0.05	0.13	0.13
annual growth rates in %														
"1974-87"	2.50	2.16	2.93	3.57	2.43	0.39	0.69	2.32	2.59	3.59	5.14	:	2.55	:
"1974-79"	2.44	3.58	6.74	5.59	4.36	1.02	2.10	5.20	2.58	5.95	6.68	:	4.40	:
"1979-83"	0.95	0.97	-0.20	-0.11	-2.75	-3.85	-2.75	0.90	0.45	0.67	4.32	:	0.25	:
"1983-87"	4.15	1.60	1.43	4.84	5.37	4.01	2.45	0.22	4.80	3.64	4.07	15.01	2.59	2.64

TABLE A8.4 SHARE OF RENTS AND INTEREST PAYMENTS IN CURRENT VALUE OF FINAL AGRICULTURAL OUTPUT IN THE EC

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
"1974"	0.07	0.07	0.03	0.05	0.05	0.06	0.03	0.05	0.11	0.04	0.07	:	0.06	:
"1979"	0.07	0.07	0.05	0.07	0.07	0.08	0.05	0.08	0.18	0.06	0.08	:	0.07	:
"1983"	0.08	0.07	0.07	0.07	0.07	0.07	0.06	0.10	0.18	0.07	0.08	0.09	0.08	0.08
"1987"	0.09	0.08	0.08	0.07	0.07	0.08	0.07	0.06	0.19	0.08	0.08	0.08	0.08	0.08
annual growth rates in %														
"1974-87"	2.12	1.03	7.35	3.15	2.42	2.32	6.10	2.59	4.31	5.22	0.78	:	2.94	:
"1974-79"	-0.41	1.81	10.20	8.76	5.45	4.77	7.97	13.02	10.77	9.11	2.13	:	4.42	:
"1979-83"	3.52	0.14	8.00	-1.02	-1.04	-1.54	4.55	3.23	-0.13	2.59	0.64	:	2.13	:
"1983-87"	3.93	0.94	3.26	0.62	2.20	3.23	5.35	-9.67	1.05	3.14	-0.73	-2.05	1.93	1.86

TABLE A8.5 SHARE OF TAXES NET OF SUBSIDIES IN CURRENT VALUE OF FINAL AGRICULTURAL OUTPUT IN THE EC

	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 11	EUR 12
"1974"	-0.05	-0.01	-0.03	0.01	-0.03	-0.02	-0.04	-0.01	0.03	-0.02	0.00	:	-0.02	:
"1979"	-0.03	0.01	-0.03	0.01	-0.03	-0.05	-0.01	0.00	0.02	-0.02	0.00	:	-0.01	:
"1983"	-0.02	0.01	-0.06	0.01	-0.02	-0.04	-0.03	-0.03	0.00	-0.04	-0.01	0.00	-0.02	-0.02
"1987"	-0.07	0.00	-0.06	0.02	-0.02	-0.03	-0.03	-0.04	0.01	-0.06	-0.01	-0.03	-0.03	-0.03
annual growth rates in %														
"1974-87"	1.69	:	5.59	6.29	-1.31	3.23	-2.61	:	-6.08	11.28	17.22	:	1.42	:
"1974-79"	-13.99	:	4.04	1.32	1.73	17.25	-20.76	:	-6.24	4.85	7.98	:	-12.63	:
"1979-83"	-12.33	-2.62	12.50	5.47	-6.62	-3.99	19.67	:	-63.92	17.67	51.50	:	12.00	:
"1983-87"	45.43	-5.93	0.96	13.72	0.41	-5.35	2.55	11.83	145.01	13.38	0.50	:	10.65	11.16

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