

GENERAL AGREEMENT ON

RESTRICTED

TARIFFS AND TRADE

DPC/W/91

1 September 1989

Special Distribution

International Dairy Arrangement

INTERNATIONAL DAIRY PRODUCTS COUNCIL

Status Report on the World Market for Dairy Products

Note by the Secretariat

Explanatory note

The present note has been prepared by the secretariat in accordance with Article IV:1 of the Arrangement and Rule 29 of the Rules of Procedure, and with the aim of facilitating the work of the Council and the Committees at their meetings in September 1989.

In preparing the note, the secretariat based itself mainly on replies to questionnaires, other information submitted by participants and observers as well as various information arising from the operation of the Protocol Regarding Certain Milk Powders, the Protocol Regarding Milk Fat and the Protocol Regarding Certain Cheeses. Furthermore, the secretariat used supplementary information available to it from various national and international sources, notably documentation from the FAO, the IDF, the UN/Economic Commission for Europe, the OECD, the Commonwealth Secretariat, the Commission of the European Communities, Agriculture Canada and the United States Department of Agriculture.

The note provides information on production, consumption, trade, stocks, and prices for milk and principal dairy products and covers developments up to and including the first half of 1989, and the outlook for 1989/90. The note should be read in conjunction with the statistical information circulated in the following documents:

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|--------------|---|---|
| DPC/W/92 | - | Milk Deliveries and Production - Statistical Note by the Secretariat |
| DPC/PTL/W/8 | - | Committee of the Protocol Regarding Milk Fat - Summary Tables |
| DPC/PTL/W/9 | - | Committee of the Protocol Regarding Certain Cheeses - Summary Tables |
| DPC/PTL/W/10 | - | Committee of the Protocol Regarding Certain Milk Powders - Summary Tables |

Delegations wishing to suggest modifications, corrections, or to provide additional information are invited to make relevant submissions to the secretariat, preferably in writing as soon as possible. Such submissions might cover both the present note, and the statistical information mentioned above. It should be noted that the drafting of the present note was completed on 11 August 1989.

TABLE 1
Minimum Export Prices

(US\$/metric ton f.o.b.)

Pilot products	Effective since								
	1 Jan. 1980	1 Oct. 1980	1 Oct. 1981	5 June 1985	2 Oct. 1986	25 June 1987	23 Sept. 1987	23 March 1988	21 Sept. 1988
Skimmed milk powder	425	500	600	600	680	765	825	900	1,050
Whole milk powder	725	800	950	830	880	900	950	1,000	1,150
Buttermilk powder	425	500	600	600	680	765	825	900	1,050
Anhydrous milk fat	1,100	1,200	1,440	1,200	1,200	1,200	1,200	1,325	1,500
Butter	925	1,000	1,200	1,000	1,000	1,000	1,000	1,100	1,250
Certain cheeses	800	900	1,000	1,000	1,030	1,030	1,120	1,200	1,350

The minimum export prices are fixed for pilot products defined in the Arrangement taking account, in particular, of the current market situation, dairy prices in producing participants, the need to ensure equitable prices to consumers, and the desirability of maintaining a minimum return to the most efficient producers in order to ensure stability of supply over the longer term. New minimum prices for all pilot products became effective on 21 September 1988. Minimum export prices must not be considered as market prices, but merely the floor price levels which the participants have agreed to observe.

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Overview of the Situation

Some points regarding the economic situation in general

1. The volume of world merchandise trade continued to grow in 1988 at an annual rate of 8 1/2 per cent, marking the fourth consecutive year of accelerating trade growth. A 14 per cent increase over the preceding year brought the value of world merchandise exports to a new record high of US\$2,860 billion in 1988. The most important factor behind the increase was the 8 1/2 per cent growth in world merchandise trade noted above. Inflation throughout the world economy, though moderate on average for many areas in 1988, also contributed to the value increase, as did the automatic increase in trade value due to the valuation effects of a further modest depreciation of the dollar. Two outstanding features characterized world merchandise trade in 1988. One was its dynamism, which exceeded even the most optimistic forecasts. The other was the broadly based nature of the trade expansion. Strong business investment, particularly in the industrial countries, was a driving force behind the acceleration of output and trade growth in 1988.

2. While the developed countries as well as the developing economies and the Eastern trading area participated in the expansion of the dollar value of world merchandise imports and exports in 1988, imports into developing economies showed the fastest growth. With regard to the growth in the volume, a strong element in the expansion was the balanced pattern of world trade growth among countries, the 1988 expansion being boosted by accelerated import demand in a broad cross section of countries, including both developed and developing economies.

3. In 1988, the 8 1/2 per cent increase in the volume of world trade was led by rapidly growing exports of manufactures (+ 10 per cent). Export volumes of agricultural and mining products expanded more slowly than total trade, i.e. by 5 per cent and 6 per cent respectively. The 5 per cent increase in world trade volume of agricultural products in 1988 coincided with an estimated increase of only 1/2 per cent of world output in agricultural products. This low increase in output was due to a variety of factors, including the drought in the United States, floods in Southeast Asia, and low harvests in the USSR, outweighing large increases in agricultural output in other countries such as India. World market dollar prices for food increased 20 per cent, with the drought in the United States having been a major factor, particularly for grains. Prices of dairy products also strengthened throughout the year. However, not all food items participated in the price increase. For example, a large increase in output resulted in a sharp drop in the dollar price of cocoa, and the dollar prices for robusta coffee and pepper also declined.

4. There was only a little change in the employment situation in 1988 and 1989. At present, inflation is a serious problem for a number of developing economies, including some of the most heavily indebted countries thus tending to aggravate further their external debt problems. For the OECD area as a whole, the 1988 rate of inflation was 3.6 per cent, up from the 3.2 per cent increase recorded in 1987. In recent months, inflation has continued to pick up in a number of developed countries, and for 1989, the expectations were that it would be about 4 1/2 per cent for the OECD area as a whole.

World dairy situation

Highlights

5. - World milk production increased by 1 per cent from 1987 to 1988 and continued to grow at a similar rate in 1989. A continuous increase in production in North America, the USSR and India more than outweighed a further decline in milk deliveries in the European Communities and in other countries in Europe. There was an appreciable recovery in New Zealand milk production in 1988, but in 1989, unfavourable weather conditions once more adversely affected milk output.
- The market for milk and dairy products remained a balanced one in 1988 and throughout 1989 the increased supplies of milk were well absorbed. Intervention stocks of butter and skimmed milk powder were almost non-existent, and were not expected to start to grow significantly in 1989/90 either.
- World production of butter in 1988 was stabilized at a level of 7.5 million tons and seemed to remain at that level in 1989. Production of skimmed milk powder in 1988 declined to 3.8 million tons and remained roughly at that level in 1989.
- Cheese and whole milk powder production expanded further in 1988, by 2 and 4 per cent respectively, and the trend continued in 1989.
- World trade in butter and skimmed milk powder started to decline in 1988, and fell considerably in 1989, as surplus stocks had been entirely disposed of. Total exports of these products might in the near future remain at or slightly below their average for 1981-83.
- International trade in cheese and whole milk powder continued its upward trend in 1988 and 1989. The position of whole milk powder as the leading dairy product in international trade was further confirmed in volume terms, exceeding the 1 million tons mark in 1989.
- Food aid in terms of dairy products was adversely affected by the reduction in available supplies and continued to decline in 1988 and 1989. Some importing developing countries continued to face difficulties in obtaining adequate supplies of skimmed milk powder and also had problems of financing their imports at the higher price level.
- Prices in international markets rose strongly throughout 1988, but stabilized early in 1989 following an increase in the exchange rate for the US dollar. At mid-1989, most dairy products were traded at prices around US\$2,000 per ton or above, roughly double their levels of two years earlier. For cheese and powders, prices had reached historical records, while those for butter and anhydrous milk fat were still inferior to their levels in the early 1980's.

Dairy policies

6. Although a substantially improved market situation might have led political authorities to consider some relaxation of policies aiming at containing milk production, they have to a large extent resisted temptation to do so. Obviously, the costs and difficulties entailed by the accumulation of surpluses early in the eighties have been a lesson. However, the regulations in force to contain milk deliveries have caused problems to the dairy industry and some adjustments in the policies concerning supply management for dairy products are under consideration. There did not seem to be any further tightening of measures, but the wide range of measures applied in several countries to control milk production was in most cases maintained in 1988 and 1989. Various measures applied in order to encourage improvements in product quality and to adapt the product range to prevalent trends in demand and consumption, were continued. Concerns related to the quality, notably that dairy products must be safe, have developed rapidly and efforts to prevent contamination accidents, both nuclear and bacterial, have been increasingly stepped up.

7. Various measures related to milk prices remained important elements in dairy policies in 1988 and 1989. Further efforts were made to contain public expenditure on dairy price support. Support prices, target prices and advance payments were maintained at the previous level or increased moderately, not always even compensating for increased costs. Quota systems were made effective through the application of two-price systems, penalty payments on production in excess of quotas and levies on production collected to provide funds for market intervention and to cover losses on exports of surpluses.

8. Efforts were also continued in many countries to encourage or facilitate structural changes in the dairy industry. The policy objectives concerning the size and structure of the industry might differ from one country to another. While in some countries the aim was to raise productivity and efficiency in the industry, in others it could be to preserve the current structure, for instance by restricting herd size and thereby facilitating a limitation of total milk deliveries or otherwise adapt the capacity to the market.

9. In line with the general aim of improving nutritional standards and diversifying agriculture in developing countries, high priority continued to be given to production, marketing and consumption of milk and dairy products in agricultural and development plans. Imports of high yielding breeding stock during recent years and the introduction of better feeding practices have resulted in increasing milk production in many developing countries.

10. Some concerns have been expressed that the current situation in the world market for dairy products with comparatively high prices might entail an expansion of production. Views have been advanced that the milk production potential in the medium term could be much greater than what projections and forecasts might indicate. Production could start to rise strongly due to genetic improvements, ample feed supplies and technological

progress, not least due to extended application of growth hormones. The danger was obviously persisting that supplies may again increase faster than a relatively steady but nevertheless limited growth existing for import demand and consumption, and it would remain imperative that production should not be unnecessarily stimulated through support and protection. Agreements arrived at lately that agricultural policies should be more responsive to international market signals in order to meet the objective of liberalization of trade and that support and protection should be progressively reduced and provided in a less trade-distorting manner, should be rapidly implemented with respect to milk and dairy products.

11. The steadily growing demand for certain dairy products, notably dairy proteins, and the increase in their prices have also entailed an upsurge in a wide variety of dairy imitations and substitutes being produced and offered for sale. Developments have caused, or threatened to cause, certain problems to fair marketing of traditional dairy products and to the protection of consumers' interests. The handling of the matter has differed from one country to another thus also causing problems to trade. In an attempt to remedy the situation, the International Dairy Federation in September 1988, adopted "guidelines for the designation and presentation of substitute products". The purpose of these guidelines was to identify in a consistent manner dairy substitutes and imitation products, to prevent misuse of designations reserved for milk and milk products and to achieve a proper labelling of substitute products, not only in relation to the designation of substitute products, but also with regard to: the list of ingredients; the description of the functionality of the product; the general presentation; and, advertisement and promotion. As far as the designation of substitute products was concerned, the guidelines did not add new rules to those already existing under the Codex Alimentarius Code of Principles Concerning Milk and Milk Products. The significance of the guidelines was that they summarized the existing rules and indicated in clear terms how substitute products should be labelled. The guidelines merely being of an advisory character did not impose any agreed rules on individual countries, and in fact some countries have reserved the right to apply stricter regulations than those suggested in the guidelines. Imitations are often to a variable degree containing milk components such as casein, whey and skimmed milk powder which are extensively used as ingredients in a variety of food products. Furthermore, the modern dairy tree has a number of branches and new products. In a number of milk products such as the range of light products, milk components, mostly fat, may frequently have been replaced by something else, notably ingredients of vegetable origin. Consequently it has frequently been difficult to draw a borderline between what should be designated as a milk product and what should be designated as something else.

Milk and dairy production

12. In 1988 world milk production amounted to 524 million tons (including sheep, goat and buffalo milk), 1 per cent up on 1987. Following continued efforts to contain milk production in the European Communities and other countries in Europe, a further decline was observed for that area. There were only minor changes in milk production in other countries in Europe,

and in Oceania, Africa and Latin America. The decline in Community production was however outweighed by a continued increase in milk production in North America, the USSR and India.

13. In 1989, there was a further increase in world milk production at a rate comparable to that of 1988 due to improved dairy practices, genetic developments and improved prices. There was a further, but only a slight decrease in Community production in 1989. Milk production was expected to show only marginal changes for other European countries and for countries in Africa and Latin-America. Efforts were being made in many countries to increase milk production, but gains were partly offset by adverse effects of tight feed supplies and high feed costs. For Oceania, milk supplies showed only little change from 1988 to 1989, as a recovery in Australia was outweighed by a bad 1988/89 season in New Zealand.

14. In North America, milk production increased further in 1989, probably by 1.5 per cent, mainly due to a further increase in productivity. Considerable uncertainty was attached to projections beyond 1989, notably for the United States, where the use of bovine somatotropin had been approved by the United States Food and Drugs Administration and would be commercially available during 1989. This could together with scientific progress and improved breeding and production management, boost productivity in milk production over the next five-year period.

15. In the USSR, there was a further increase but of less than 1 per cent in milk production in 1989. In India, milk production was expected to have increased by as much as 7 per cent in 1989, and there were substantial increases in some other Asian developing countries.

16. World butter and butter oil production stabilized in 1988, roughly at the average level for 1981-83. Butter production expanded significantly in North America, the USSR and India. This was, however, outweighed by a further decline in butter production of participants in the Arrangement, notably by a strong decrease in Community butter production. A further decline in Community butter production was expected in 1989, and only minor changes for other participants. Production continued to grow in North America, the USSR and India and this could result in a slight increase in world butter production in 1989 of around 0.5 per cent. Some uncertainty was linked to further developments in production and sales of light products, as this tended to result in increased supplies of butter becoming available for export.

17. World cheese production continued its upward trend in 1988, totalling 14 million tons (all kinds of cheese). The trend was very similar in all regions, but with variations from one country to another. In most countries cheese production was encouraged by a generally favourable market outlook for cheese, and the expansion continued in 1989.

18. World skimmed milk powder production fell by 8 per cent in 1988, mainly as a result of reduced butter production and consequently less skimmed milk becoming available for drying. At 3.8 million tons, it was in 1988, 18 per cent below the average for 1981-83. It remained at that level

in 1989. Tighter supplies of skimmed milk powder in 1988 and 1989, stimulated production of whey powder notably in the European Communities, Canada and the United States.

19. World production of whole milk powder continued to expand in 1988, reaching 2.2 million tons, about 4 per cent more than in 1987. Production increased strongly in the European Communities, Japan and the United States. There was a further expansion in 1989, not least because import demand for milk powder tended to remain strong, giving a significant incentive to expand production.

20. World production of condensed and evaporated milk declined in recent years as these have been increasingly replaced by whole milk powder in the market. For 1988, a recovery was reported for the European Communities, Australia, the United States and the USSR. A good demand in international markets persisted 1989, but less milk being available for processing of milk into condensed milk, production declined.

21. World casein production reached a level of 240 thousand tons in 1988, 3 per cent up on 1987. A strong decline of 8 to 10 per cent was expected for 1989, mainly due to strong reductions in Community and New Zealand output.

Consumption

22. World consumption of milk and fresh milk products, which had increased at an annual rate of about 1 per cent over recent years, in 1988 and 1989 showed a stronger increase of 1.5 to 2 per cent, and there was a lively demand for low-fat milk products in most regions of the world. For a number of countries, consumption of fresh milk followed variations in supplies of milk. In per capita terms it had remained stable at about 46 kgs. with a wide difference between developed and developing countries. While milk consumption in North America, Oceania, Europe and the USSR was 2 to 3 times the average, it was only a fraction of the average in Africa, Asia and South America.

23. Throughout the 1980's, butter consumption showed very little change on average, and world per capita consumption of butter remained at a level of 2.8 kgs. The trend remained unaffected by an increasing substitution of blended spreads of butter and vegetable oil. However, in 1989, world consumption declined by 1 per cent.

24. The upward trend in cheese consumption continued in 1988, with further advances in most countries. However, in general, the increases in speciality cheeses were significantly above the rate of growth for traditional cheeses. World per capita cheese consumption has been increasing at an average annual rate of 2 per cent since the early eighties, and may continue to increase at that rate in the near future. Per capita cheese consumption showed great variation from one country to another, it being particularly high in some countries of Western Europe and in North America, which also showed the strongest annual increase in consumption. The general upward trend was maintained in 1989.

25. In 1988, world consumption of skimmed milk powder fell, reflecting lower supplies and rising prices to which feed compounders reacted in particular. Reduced supplies of skimmed milk powder were progressively replaced by whole milk powder notably for food. Consumption of whole milk powder increased strongly in 1988 and was developing further in 1989.

Trade

26. World exports of butter totalled 1 million tons in 1988, an all time record level. A large part of this consisted, however, of special transactions at very low prices while the world market for normal commercial transactions would most likely be at a level of 650 thousand tons in 1989.

27. World exports of cheese expanded further in 1988, reaching 850 thousand tons. This was due to higher imports into the United States and Japan and stronger import demand by OPEC countries and other developing countries such as Brazil. The general expansionary tendencies observed in the market for 1988 continued during 1989.

28. World exports of skimmed milk powder fell sharply in 1988 and were almost down to 1 million tons, slightly above their average level in 1981-83. Exports might be further reduced to around 800 thousand tons in 1989, and some developing importing countries would continue to face problems in covering their import requirements and in financing their imports at the higher price level.

29. The upward trend in whole milk powder exports was confirmed in 1988, when world exports totalled 975 thousand tons. A further expansion was expected in 1989, with exports forecast to exceed 1 million tons, and in terms of volume whole milk powder would be the most important dairy product in international trade. The European Communities covered more than 60 per cent of the world market and New Zealand some 17 per cent. Other major suppliers to the world market were Australia, Finland and Austria.

30. Reduced skimmed milk powder supplies resulted in a stronger demand for whey in 1988 and trade in whey products expanded. A stronger demand for concentrated milk provided an incentive to increase production for export in 1988, and exports recovered, however, without attaining their level of 1986. Casein trade continued to decrease in 1988 and was down to nearly 140 thousand tons, its level five years earlier. World exports of casein were again declining in 1989, notably as imports into the United States were further reduced.

Food aid

31. Reduced supplies and declining surplus stocks adversely affected the amount of dairy products available for donations under food-aid programmes. The volume of dairy products provided as food aid, notably by the European Communities and the United States (the major donators) was further reduced in 1988, and was expected to be low also in 1989. The increase in prices would at the same time aggravate expenses and make the financing of food aid in dairy products more difficult.

Stocks

32. Reduced milk supplies and larger exports of dairy products had a considerable impact on stocks notably of butter and skimmed milk powder in 1988. Butter stocks in the European Communities, North America and Oceania, were at the end of 1988, around one third their level one year earlier, and skimmed milk powder stocks, were at the same time, down to one fourth of their level at the end of 1987. While there could be some rebuilding of butter stocks in 1989, stocks of skimmed milk powder would most likely remain low. In any case, public intervention stocks would remain low.

International prices

33. The market for butter and anhydrous milk fat improved in 1988, at the end of the year prices for fresh butter were between US\$1,600 and US\$1,880 per ton f.o.b. and those of anhydrous milk fat ranged between US\$1,900 and US\$2,100 per ton f.o.b. The Committee of the Protocol Regarding Milk Fat raised the minimum export price for butter from US\$1,000 to US\$1,100 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,250 per ton f.o.b. with effect from 21 September 1988. Simultaneously, minimum export prices for anhydrous milk fat were increased first from US\$1,200 to US\$1,350 and later to US\$1,500 per ton f.o.b. Reduced supplies and lower carry-over stocks resulted in a further improvement in prices for milk fats in 1989. Prices for fresh butter in the first half of 1989 were between US\$1,750 and US\$2,000 per ton f.o.b. and those of anhydrous milk fat ranged between US\$1,900 and US\$2,200 per ton f.o.b.

34. Cheese prices increased throughout 1988. In October-December 1988, quotations for Cheddar were in the range of US\$2,000 to US\$2,400 per ton f.o.b., thus remaining well above the agreed minimum export prices. The Committee of the Protocol Regarding Certain Cheeses raised the minimum export price for certain cheeses from US\$1,120 to US\$1,200 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,350 per ton f.o.b. with effect from 21 September 1988. Quotations for most types of cheese remained firm in 1988, reflecting a persisting strong import demand. However, prices levelled off early in 1989 and quotations for Cheddar were in the range of US\$1,900 to US\$2,400 per ton f.o.b. in the first half of the year, slightly down from the peak reached towards the end of 1988.

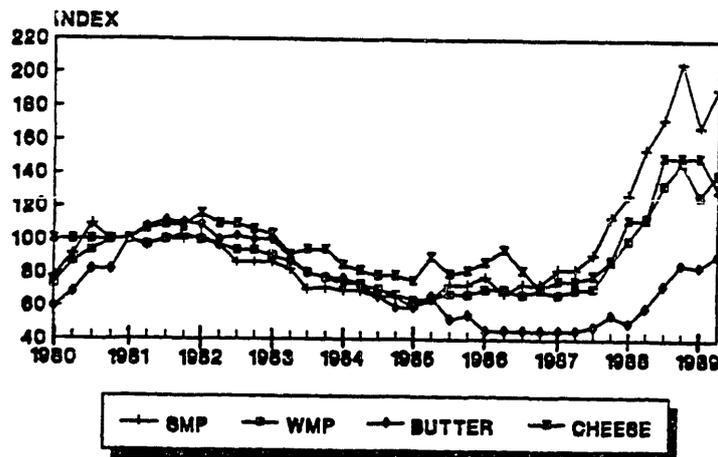
35. International prices for milk powders showed steady improvement throughout 1988. Quotations remained well above the agreed minima and no sales, even of powder for feed purposes, were reported to have been made at prices below the agreed minima. The Committee of the Protocol Regarding Certain Milk Powders raised the minimum export prices for skimmed milk powder and buttermilk powder from US\$825 to US\$900 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,050 per ton f.o.b. with effect from 21 September 1988. Simultaneously, minimum export prices for whole milk powder were increased first from US\$950 to US\$1,000 and later to US\$1,150 per ton f.o.b. During the fourth quarter of 1988, prices of

skimmed milk powder and buttermilk powder, ranged between US\$1,900 and US\$2,270 per ton f.o.b. and those of whole milk powder fluctuated between US\$1,900 and US\$2,200 per ton f.o.b. During the first half of 1989, prices of skimmed milk powder and whole milk powder levelled off both ranging between US\$1,800 and US\$2,100 per ton f.o.b. The market reflected the combined effects of a tightening supply situation and a stronger US dollar and was expected to remain firm throughout 1989.

36. The prices for other dairy products were also in general increasing. Prices for condensed milk were raised in 1988. Whey powder prices firmed early in the year, notably in Europe, but fell during the latter half of the year. A persisting tight supply situation for casein entailed a continuous price hike throughout 1988, with prices around US\$5,600 per ton in December 1988, almost the double of the price recorded one year earlier. Quotations remained at that level in the first half of 1989.

37. The major factors leading to the improvements in the dairy market were reduced supply pressures, the general rise in commodity prices and increased demand mainly by the improved economic and trading prospects of many of the developing countries who account for most of the dairy imports. The improved market situation entailed some reduction in export subsidies. There was little or no evidence of consumers' reaction to the higher prices and the market outlook indicated that dairy prices in the world market would remain high and might increase further in the remainder of 1989.

DAIRY PRICE INDICES * (Basis: 1st quarter 1981=100)



* Upper level of price range.

38. The Arrangement has now been in operation for ten years and market prices have gone through various phases. In the early 1980's the dairy market was fairly strong or in a reasonable balance. From 1983 followed a period with increased milk production and the accumulation of surplus stocks notably of butter and skimmed milk powder, which remained high and continued to have a depressive impact on the prices of all dairy products more or less until 1986-87. Thereafter a general recovery came about, first for powders and cheese and later for butter and anhydrous milk fat. The prices for powder and cheese reached new record levels in 1988, while those for butter and anhydrous milk fat did not reach their levels of the early 1980's. In 1989, world market prices seemed to have settled at a level of around US\$2,000 per ton for all pilot products covered by the Protocols. Milk proteins have few substitutes and are still, even at the higher price level, in a strong competitive position price-wise, compared to, for instance, vegetable proteins. That is not the situation for milk fat, which is facing a stiff competition from vegetable fat. Furthermore, demand for fats in general is being contained through modern dietary philosophy and advice. The differentials according to fat content as initially defined in 1979 notably for powder were no longer holding. This changed situation would have to be kept in mind, as would the complexity of the market for each dairy product when reviewing minimum export prices.

TABLE 2

International Prices (1987-1988-1989)

(US\$ per metric tons f.o.b.)

Product	1987	1988		1989	
	January-December	January-June	July-December	January-March	April-June
Skimmed milk powder	750-1,250	1,300-1,700	1,650-2,270	1,700-1,850	1,800-2,100
Whole milk powder	900-1,300	1,400-1,700	1,700-2,200	1,800-1,900	1,800-2,100
Anhydrous milk fat ^a	1,200-1,250	1,325-1,500	1,350-2,100	1,900-2,200	2,000-2,300
Butter ^a	1,000-1,200	1,100-1,300	1,200-1,880	1,750-1,850	1,800-2,000
Cheddar cheese ^b	1,050-1,400	1,400-1,800	1,800-2,400	1,900-2,400	1,900-2,100

^a In 1987 and 1988, a substantial quantity of old butter and anhydrous milk fat was sold at prices lower than the ranges indicated, by derogation under Article 7:1 of the Protocol Regarding Milk Fat.

^b Up to the end of 1988 some sales of cheese below normal export quality were made at lower prices than the ranges indicated according to Article 7:2 of the Protocol Regarding Certain Cheeses.

Developments in World Milk Production and
National Dairy Policies

39. World milk production (including buffalo, sheep and goat milk) rose by about 1 per cent to 524 million tons in 1988. A major policy-induced decline in the European Communities and further decreases in most of the remaining countries of Western Europe only partly offset a recovery in Oceania and higher production in the United States and the USSR. Favourable weather led to a recovery in milk production in India and other countries in Southern Asia. Rapid expansion continued in China but growth slowed in the Near East. Some rise also occurred in Africa and in Latin America. Milk production stagnated in Eastern Europe, largely due to tight feed supplies.

40. Preliminary figures for 1989 suggested an increase by a further 1 per cent in world production of milk. Milk deliveries were expected to be reduced again in the European Communities and to remain more or less unchanged in other countries of Western Europe. Milk production was expected to expand in Japan and also be up slightly for Oceania, although it was down in New Zealand for the 1988/89 season. The USSR and a number of developing countries, notably India, might increase their production and thus offset the decline in the Community's milk deliveries. Despite sharply higher feed costs, milk production for the United States could increase again due to sustained growth in yields and only a slight decline in cow numbers.

41. Milk deliveries in the European Communities, totalled 99 million tons in 1988, some 2.6 per cent below the level of last year, partly a result of a fall of 4.5 per cent in the overall dairy cow numbers. A further reduction of 1 per cent in the overall milk deliveries was expected for 1989 due to the implementation of policy measures aimed at reducing milk quotas and to an expected further fall of 1.5 per cent in the overall dairy cow numbers. For 1990, a further slight decline in milk deliveries was projected.

42. The EC Agriculture Council, in February 1988, took the following decisions as regards the milk sector. The quota system was prolonged for another three years until March 1992. The limitations to the intervention system for butter and skimmed milk powder were also extended for the same period. The suspension of 5.5 per cent of reference quantities shall remain in place, with the following payments made to producers: ECU 10 per 100 kgs. for 1988/89, ECU 8 for 1989/90, ECU 7 for 1990/91 and ECU 6 for 1991/92. In January 1989 - following an European Court of Justice judgement - the Council decided to add 600,000 tons of milk to the Community reserve foreseen by the quota system in order to accommodate the needs of the so-called "SLOM" producers. It was furthermore decided that the SLOM producers would receive 60 per cent of the quantities which they were producing before joining the five-year non-marketing option. The Council also reduced the intervention price for butter by 2 per cent to ECU 306.94/100 kgs. with effect from 1 April 1989.

43. The 1989/90 farm price package, adopted in April 1989, left the target price for milk unchanged at ECU 27.84/100 kgs. No change was made in the intervention prices applicable to skimmed milk powder and cheese. The intervention price for butter was cut by a further 2 per cent to ECU 300.80/100 kgs. As from 1 April 1989 and for the 1989/90 milk year, the co-responsibility levy was reduced from 2 per cent to 1.5 per cent of the target price for producers with a quota of 60,000 kgs. or more; in addition, the levy shall not be imposed on producers in less-favoured areas and it was reduced from 1.5 per cent to 1 per cent of the target price for producers with below a 60,000 kg. quota. With regard to the future of the co-responsibility levy, the Commission undertook to make initial proposals for a subsequent step in the framework of the 1990/91 price proposals. Moreover, the Commission intended to formulate an internal report on the functioning of the quota system by the end of July 1989, and subsequently to publish a general report by the end of 1990.

44. Following the Council decision to retain the milk quota system until 1992, milk deliveries were expected to stabilize at about 98 million tons from 1989 onwards, i.e. a volume to about 13 million tons below the notional level for 1992 derived from the extrapolation of the trends before the introduction of the quotas in 1984. Yields were expected to increase by 1.8 per cent a year and by 1995 reach some 5.100 kgs. per cow and year. Cow numbers would continue to fall, in 1995 amounting to 21 million, 7 million cows less than in 1983. This reduction could be accentuated by further measures to encourage some farmers to give up milk production. Further improvement in yields and feeding techniques might however tend to increase production.

45. In Finland, milk deliveries in 1988 were 6 per cent lower at 2.61 million tons due to a drop in milk yields and to a decrease in the number of dairy farms following the dairy cessation scheme implemented in the spring of 1988. A slight decrease was expected in milk deliveries in 1989. The basic quota system introduced in 1985 did not permit transfers between farmers. However, the system was revised in 1989 to allow some flexibility. Thus, the quotas of the farms that had stopped producing under the dairy cessation scheme, could be distributed to farms that needed additional quotas. This revision did not change the declining trend in milk production.

46. Norwegian deliveries (including goat milk) decreased by 3.1 per cent in 1988 to 1.88 million tons, mainly as a result of the tightening of the quota system. Milk deliveries were expected to remain unchanged in 1989. In the medium term, yields were expected to increase further while dairy cow numbers would decline.

47. Milk deliveries in Sweden were 0.4 per cent lower to 3.35 million tons in 1988 compared to 1987, mainly as a result of the two-price system introduced on a three-year trial basis for the period July 1985 to June 1988. While productivity increased, the number of cows declined by 2.8 per cent from June 1987 to June 1988, but increased slightly between June 1988 and June 1989. The two-price system was intended to discourage surplus production and its effects in practice had been stronger than was

initially expected. Thus, milk production had decreased, reducing costs for surplus disposal and producers were paid a higher price for their milk. The two-price system ceased to be in force on 1 July 1989. For 1989, an increase by about 2 per cent was forecast in milk deliveries.

48. In Switzerland, deliveries of milk recovered slightly for 1988, reaching 3.02 million tons, up 1.3 per cent on 1987 when they had fallen by 3.3 per cent due to the strict quota system. For 1989, little or no change was expected in milk deliveries. Dairy cow numbers were expected to decline in the coming years while yields would increase further. Premiums were paid for non-marketing of milk and for processing of milk into cheese which had a relatively high price in domestic and international markets. The basic price for milk was increased as from 1 February 1988 by 5 centimes to SwF 1.02/kg. Cheese and butter prices were consequently raised and import charges for cheese were raised by 50 to 60 centimes/kg. The basic 1977 law fixing the framework of Swiss dairy policy would expire in 1989 and proposals for a new law were being discussed.

49. In New Zealand, climatic variations had continued to have a major impact on milk production. Dry conditions throughout the summer of 1986/87 entailed a reduction of 14 per cent with a production of only 301 million kgs. of milk fat. Milk production in 1987/88 at 332.5 million kgs. milk fat, was 10.5 per cent higher than in the previous season but 4.8 per cent lower than the production level achieved in 1985/86. In the 1988/89 season, production amounted to 313 million kgs. of milk fat, down by 5.8 per cent on 1987/88. This reflected adverse weather conditions, with only little change in cow numbers from the 1987/88 season. Given a return to more normal weather conditions in 1989/90, production should recover back towards, and possibly above, 1987/88 levels. For calendar year 1989, production might show a slight increase or remain unchanged as compared to 1988. For the medium term, it was forecast that cow numbers would remain steady, yields per cow would stabilize at 3,400 kgs. per year and milk production would remain stable averaging 7.5 million tons a year. The advance basic value for manufacturing milk for the 1988/89 season was set at NZ\$3.40 per kg. milk fat in May 1988. This compared with a final value of NZ\$3.60 per kg. in 1987/88. The 1988/89 value was increased in October 1988 and in February 1989 and fixed finally for the season on 1 June at NZ\$5.30 per kg. milk fat. The advance value for the 1989/90 season was set at NZ\$4.80 per kg. milk fat. Producer prices for milk were determined directly by export market realizations. Fundamentally, therefore the level of milk production in New Zealand was determined by the export performance of the dairy industry relative to other alternative uses of the land, with short-term sharp variations because of the climatic conditions. Although there were no subsidies or other regulations which could be manipulated to control production, a number of steps had been taken in recent seasons to influence it by special measures including: a supply moratorium and a milk limitation scheme, applied in the 1986/87 season. In 1987/88, a "butter realization differential" scheme was introduced which was later provided for on a continuing basis. Under this scheme, payments to dairy companies by the New Zealand Dairy Board for export butter and butter oil beyond a base production level would be made on the basis of marginal rather than average market realizations.

50. In Australia, milk production in 1987/88 at 6.30 million tons was 1 per cent down on the 1986/87 level, largely due to dry autumn conditions in the major producing States of Victoria and Tasmania. Dairy cow numbers were expected to continue to decline, but production per cow was projected to increase through genetic and management improvements. Milk production in 1988 was slightly higher and reached the level of 6.47 million tons, an increase by 1.6 per cent on 1987. For the 1988/89 season, milk production reached 6.39 million tons, slightly above the 1987/88 level with an increase of 3 per cent in yield per cow expected to offset any fall in cow or farm numbers. The resumption of the increase, after stable production levels in 1984/85 and 1985/86, reflected improved seasonal conditions as well as increasing world market prices for dairy products and higher farmgate prices for milk. The dairy policy introduced for 1986/87 aimed at the development of a more efficient market-oriented dairy industry responsive to market conditions. The main provisions of the marketing arrangements introduced from 1 July 1986 were a Market Support Fund financed by a levy on all milk produced and a Supplementary Market Support Fund aimed at smoothing the transition from the previous arrangements to the new one. It was financed by levies on domestic sales of butter/butter oil and Cheddar-type cheeses. In May 1988, the accelerated phasing out of the levy on butter/butter oil was announced. The levy on cheese was phased out before July 1989. The supplementary market support was consequently reduced in 1988/89 and completely phased out by 1 July 1989.

51. Japanese milk production in 1988 at 7.61 million tons was 3.7 per cent higher than in 1987. The increase was mainly due to a further improvement in yields, while dairy cow numbers continued to fall. For 1989, the rising trend was expected to accelerate and output was forecast to be 6 per cent higher than in 1988. However, the demand for drinking milk was also increasing at almost the same rate. The guaranteed price for milk for manufacturing had been reduced from 79.83 to 77.87 yen per kg. for the 1988/89 fiscal year, because of lower feed prices and better calf prices. The quantity of raw milk to which the guaranteed price was applied had been increased by 150 thousand tons to 2.25 million tons for fiscal year 1988. In South Africa, improved climatic conditions led to a recovery in milk output which increased by 3.5 per cent in 1988 to 1.8 million tons. Production for 1989 was expected to increase further by 4.5 per cent to 1.89 million tons due to improved yields.

52. In Argentina, milk deliveries in 1988 at 5.83 million tons were 5 per cent lower than the 1987 level of 6.13 million tons. This drop was attributable to the intense drought conditions experienced between April 1988 and February 1989. The lack of rain in 1988 and the dry conditions lasting into 1989, had the consequence of reducing feed reserves, adversely affecting milk production in 1989. This was a result of a combination of factors such as high dairy stocks at the beginning of 1988, a decreasing internal consumption due to falling purchasing power and increasing international prices. Despite the decline in production, exports increased in 1988. The main export items were cheeses, milk powders and casein. In

TABLE 3

Some Data Related to (a) Cows' Milk Production or
(b) Deliveries for Selected Countries or Regions

		Milk Production/ Deliveries (million tons)	Percentage change from previous year		
			Production/ Deliveries	Milk yield	Dairy cow numbers
EC-12	1987	(b) 101.66	- 5.1	- 1.1	- 6.0
	1988	(b) 99.00	- 2.6	+ 2.3	- 4.5
	Forecast 1989	(b) 98.00	- 1.0	+ 2.3	- 1.5
USSR	1987	(a) 103.40	+ 1.2	+ 3.0	- 1.2
	1988	(a) 106.40	+ 3.0	+ 4.3	- 0.7
	Forecast 1989	(a) 108.53	+ 2.0		
United States	1987	(a) 64.66	- 0.6	+ 4.0	- 4.5
	1988	(a) 66.00	+ 2.0	+ 3.0	- 0.9
	Forecast 1989	(a) 67.30	+ 2.0	+ 3.4	- 0.1
Poland	1987	(a) 15.42	- 1.8	+ 3.4	- 5.2
	1988	(a) 15.42	0.0	+ 3.0	- 3.0
	Forecast 1989	(a) 15.22	- 1.3		
New Zealand	1987	(b) 6.80	- 6.3	- 12.8	- 0.9
	1988	(b) 7.43	+ 9.3	+ 18.8	0.0
	Forecast 1989	(b) 7.50	+ 0.9	+ 1.0	0.0
Canada	1987	(a) 8.15	+ 0.7	+ 2.5	- 4.3
	1988	(a) 8.33	+ 2.2	+ 3.3	- 1.6
	Forecast 1989	(a) 8.42	+ 1.1	+ 3.1	- 1.2
Japan	1987	(b) 7.33	- 1.7	+ 1.2	- 2.1
	1988	(b) 7.61	+ 3.7	+ 1.6	- 1.4
	Forecast 1989	(b) 8.06	+ 6.0		
Australia	1987	(b) 6.37	+ 1.2	0.0	- 2.3
	1988	(b) 6.47	+ 1.6	+ 2.3	- 1.2
	Forecast 1989	(b) 6.58	+ 1.6	+ 2.4	- 0.6

Uruguay milk deliveries increased by 5.8 per cent in 1988, to 610 thousand tons, entailing a significant increase in the output of dairy products. Uruguay had in recent years been the largest net exporter of dairy products among the developing countries. It sold mainly milk powders to other Latin American countries where improved prices and market conditions provided a boost to exports. Production costs and prices paid to producers in these two participating countries were among the lowest in the world.

53. In Bulgaria, total production of milk in 1988 at 2.52 million tons was marginally lower (0.2 per cent) than the 1987 level. The number of cows remained almost the same as in 1987. Hungarian production of milk increased in 1988 by 3 per cent to reach a level of 2.90 million tons due to growing yields having more than offset a drop in cow numbers. The bulk of dairy production covered the growing home demand, except for some special kinds of cheeses which were exported. Polish milk production remained relatively stable at 15.42 million tons in 1988. A lack of profitability in dairying had led many private farmers to reduce their herds. Milk deliveries had been insufficient to meet domestic demand for dairy products in 1987 and 1988, substantial quantities of dairy products had had to be imported and further imports were necessary in 1989. The milk producer price was increased by 30 per cent in November 1988 to be applied retroactively from 1 July 1988. The new price should stimulate production of milk. However, milk production was forecast to decline slightly in 1989 due to the continued decline in dairy cow numbers. By 1990, milk production was expected to reach 15.96 million tons, some 2.57 million tons below the official target.

54. In Romania, the unitary system of contracting for the purchase of agricultural products from agricultural production co-operatives, their members and private producers was continued. The system defined the tasks and liabilities of the socialist production units concerning delivery of agricultural products from co-operative farmers and private producers, assuring reasonable and stable prices for the products delivered. Production of milk in 1988 remained relatively stable at 4.30 million tons and for 1989, little or no change was expected. In Egypt, certain changes had been made to the import regime of certain dairy products. Total production of milk in 1988 at 2.40 million tons was 1.3 per cent higher than the 1986 level of 2.37 million tons. Efforts were being made to develop and increase dairy production. Thus, production in 1989 reportedly continued to expand and a further increase was forecast for 1990.

55. In Yugoslavia, milk production increased by 2 per cent to 4.75 million tons in 1987, due principally to growing yields. Production was estimated to have decreased by about 1 per cent in 1988 to 4.7 million tons. Milk deliveries were reported to be lower in 1987 in the Democratic Republic of Germany, due to a decrease in milk yields. At around 9.4 million tons, production in 1988 recovered close to that of 1986 due to an improvement in yields. For 1989, little or no change was forecast. In Czechoslovakia, production of milk declined by 1 per cent in 1988 to 6.84 million tons and remained relatively stable in 1989.

56. In the USSR, milk production reached 107.5 million tons in 1988, 3 per cent higher than in 1987. Cow numbers continued to decline but milk yields increased by 4.3 per cent in 1988. According to the Twelfth Five Year Plan, milk deliveries to the State by collective and State farms should be increased to 106-110 million tons by 1990, which meant annual rates of increase between 1.5 and 2.5 per cent. Production in excess of delivery plans might be sold freely and at higher prices. In 1989, production was expected to increase by another 2 per cent. Milk yield per cow was expected to increase in 1989/90 as a result of better breeding and growth of feed production. However, dairy products continued to be rationed, as domestic supplies were insufficient to meet demand. Considerable imports of dairy products were to be made also in 1989.

57. The application of the Dairy Termination Programme (DTP) from April 1986 to October 1987 by the United States, and a reduction of the milk support price by 2.3 per cent (from US\$11.35/cwt. to US\$11.10/cwt.) in October 1987 had some impact on the milk output. A further cut in the national support price was made effective 1 January 1988, resulting in a price of US\$10.60 per cwt., and CCC purchase prices for butter and non-fat dry milk were also reduced. The summer drought in 1988 resulted in significantly higher feed prices, raising production costs and putting additional financial pressure on producers. Milk production nevertheless showed an increase of almost 2 per cent in 1988. The Disaster Assistance Act of 1988 was expected to provide additional incomes to dairy farmers totalling US\$800 million and US\$700 million in 1989 and 1990 respectively. This Act provided for a freeze on the proposed 50 cent per cwt. reduction in the support price due on 1 January 1989, and for a 50 cent per cwt. price increase from April through June 1989. The willingness of dairy farmers to produce more milk at lower real prices has dominated the eighties. If the trends of the early eighties continued, increases in milk production would probably be larger than rises in commercial use. However, in 1989, milk production and commercial use were apparently increasing at the same rate, i.e. 2 per cent. Despite sharply higher feed costs, milk production would increase due to sustained growth in yields helped by high quality of forage while cow numbers might decline only slowly. The increase expected in commercial use was partially due to continued economic growth. The US Farm Bill 1985 would expire in 1990 and discussions were under way on proposals for a successive US Farm Bill.

58. Canadian milk production in 1988 at 8.33 million tons was 2.2 per cent up on the level of the previous year, despite a reduction in the number of milk producers and cow numbers. Yields improved and milk sales off farms increased. In response to a 2.8 per cent increase in domestic consumption of industrial dairy products for the August-December 1987 period, the Market Sharing Quota was increased by 1.5 per cent for 1987/88 to a level of 47.3 million hls. A new methodology for setting target returns for industrial milk and support prices for butter and skimmed milk powder was being implemented which would allow changes in costs to milk producers to be more accurately reflected. Effective 1 February 1988, the target return for industrial milk was fixed at Can\$47.06/hl. The increase of 1 per cent, was the first since August 1986. Effective 1 August 1989, the target return for industrial milk was raised to Can\$47.45 per hectolitre, an

increase of 0.8 per cent. In raising the target return, the Government considered that it had made a balanced decision, reaffirming its commitment to supply management in the dairy sector, recognizing increases in production costs and observing Canada's international undertaking. It stressed that the adjusted target price maintained, but did not increase the aggregate level of government support to dairy producers. The support price for butter was at the same time raised by 1.3 per cent to Can\$5.167 per kg. and that of skimmed milk powder by 1.1 per cent to Can\$3.046 per kg. A task force with representatives from the Federal Government, farmers, the dairy industry and consumers will identify options for the next long-term dairy policy commencing in 1991, and otherwise provide guidance and advice to the Government. Milk production was expected to increase by 1 to 2 per cent in calendar year 1989 and increases of the same order were projected for the medium term.

59. In Israel, milk production had increased continuously over a number of years and showed an increase of 16 per cent from 1987 to 1988, then totalling 913 thousand tons. Faced with a sharp decline in domestic demand, the Milk Marketing Board took steps to cut milk production quotas and to limit imports of milk powder, and attempts were made to make imports of cheese, butter and other dairy products more difficult. Furthermore, the Milk Marketing Board encouraged the exports of dairy cows, aiming at a reduction of the dairy herd by 5 to 7 per cent. Israel was in 1988 having an average yield of 8,400 kgs. per cow, the highest in the world.

60. Milk production in the developing countries generally remained at low levels due to technical and economic factors. However, the overall output of developing countries increased by 3.3 per cent to 140 million tons in 1988 and the degree of self-sufficiency would probably increase in the next few years. A number of importing developing countries such as India and China have embarked on very ambitious development programmes. Production in India, which accounted for nearly one half of the total Asian milk production and one third of the aggregate for all developing countries, expanded under the "Operation Flood" project sponsored by the European Communities. During the 1980-86 period, the average annual growth rate was 6.4 per cent. In the 1987/88 dairy year, however, due to a severe drought and a shortage of feedgrains in most areas milk production was reduced by 3.8 per cent. Favourable weather conditions, after three consecutive droughts, led to a recovery in milk production in the 1988/89 dairy year to some 44 million tons. Milk output was projected to rise by about 40 per cent to 61 million tons by 1995 with per caput consumption increasing from its present level of 58 kgs. per year to about 68 kgs. China's production of milk increased throughout the 1980's, as a result of increased cow numbers and more emphasis in national plans on the nutritional value of milk consumption. There was again a sharp increase in 1988 by 10 per cent to 6.6 million tons and further rapid growth was anticipated in 1989 as the industry responded to rising demand. Original plans which indicated a target of 30 million tons by the year 2000 were revised downwards as feed supply was lagging behind the requirements of the livestock sector. Even so, by the beginning of the next century, China might establish itself as the second largest milk producer in the developing regions.

61. Milk production continued to expand rapidly in the Republic of Korea in 1988, amounting to 1.5 million tons. Nearly three quarters of the supply was consumed as fresh liquid milk or products. Dairy imports were growing in 1988, amounting to US\$1.5 million and were expected to increase in the near future. All dairy imports were subject to quota and importers had to obtain permits from the Korean Dairy Association. Quotas for some products such as yoghurt would be lifted in 1990.

62. Strong efforts to step up milk production were also being made in several countries of South-East Asia, with a view to substituting imports and stimulating rural development. Thailand, one of the biggest importers of dairy products in Asia, had in recent years expanded milk production significantly. In Indonesia also, milk production showed a rapid increase, but from a very low base. On the other hand, in Africa, Kenya, Zimbabwe and Madagascar obtained significant increases in 1988. Some rise also occurred in Latin America, where improved returns from exports stimulated dairying in countries having surpluses available for export. Mexico's milk production continued to rise sharply, up an estimated 4 per cent for 1988 to 9.3 million tons. The sharp increases in milk output since 1985 were partially in response to imports of high yielding breeding stock during the past few years. Production growth during 1988 was moderated by an extended summer dry period which limited forage supplies and caused relatively more milk to be used for feed. Another 4 per cent gain in milk production was being projected for 1989. Mexico was in the process of adjusting its programme designed to increase domestic milk production with the objective of establishing self-sufficiency and to ultimately reduce or eliminate the imports of milk powder. Milk production in Brazil declined slightly in 1988 to 13.2 million tons as higher feed costs and unfavourable prices caused by weak demand for dairy products further tightened profit margins. Favourable milk prices in Chile stimulated further production in 1988.

Consumption

63. World consumption of liquid milk over the last ten years increased at an average annual rate of 1 per cent, however in 1988 and 1989 the increase amounted to between 1.5 and 2 per cent. In per capita terms, however, it remained rather stable at nearly 46 kgs. throughout this period. In 1989, worldwide fluid per capita milk consumption was projected to reach the 1984 record level of 47.2 kgs. For obvious reasons, glaring variations existed between countries and regions in the per capita intake of milk. On the one end of the spectrum were developed countries, with 160 kgs. of liquid milk consumption; but the intake was as low as 2.5 kgs. in certain developing countries. However, while consumption levels were gradually increasing in developing countries with growing urbanization and population/income increase, milk intake was getting saturated in some developed countries either on health grounds or due to the availability of a wide variety of substitute drinks and milk imitations. Consumers were showing preference for semi-skimmed types of milk, so-called "light" products. The switch from whole milk to partially skimmed milk continued in 1988 and 1989, with sharp increases in consumption of the latter registered in many countries in Europe and in North America.

64. The principal area of growth in consumption was Asia, both developed and developing countries. In Asia, many countries were subsidizing campaigns to promote milk consumption and had introduced a school milk subsidy. As a result, per capita milk consumption had steadily increased, principally in Japan, the Republic of Korea, Thailand, Indonesia, China and India. China's total milk consumption more than doubled and India's usage of cow's milk increased by 13 per cent from 1984 to 1989. In Latin America also, social consumption increased to some extent as a consequence of milk distribution programmes.

65. The consumption of other fresh milk products such as yoghurt and other fermented or flavoured milks was steadily increasing in a number of countries and was expected to continue its upward trend. In 1988, the consumption of yoghurt and other fermented milks had reached levels of 15 to 35 kgs. per capita in the Nordic countries, the Netherlands and Switzerland, and was rapidly approaching 10 kgs. in other European countries. Also the consumption of flavoured milks was developing rapidly. There was a potential demand for yoghurt and flavoured milks in many developing countries, but the consumption continued to be hampered by relatively high prices. Yoghurt consumption in India in 1987 amounted to more than 3 million tons or an estimated 4.2 kgs. per capita, a rather impressive figure.

66. The strong demand for milk products has encouraged the development and production of dairy substitutes and imitations, which to a variable degree contain milk components. Statistics for such products have been difficult to obtain, but it was generally believed that their role in the market was still small in quantitative terms, although in Sweden, Switzerland and the United Kingdom non-dairy ice-cream consumption in 1987 amounted to 11, 9 and 7 kgs. per capita, respectively. However the appearance of dairy substitutes and imitations has given rise to some concern as to the effect this will have on the dairy market in the future and which might necessitate measures to be implemented to protect the marketing of traditional milk products. In September 1988, the International Dairy Federation adopted some guidelines for the designation and presentation of substitute products. These guidelines were intended to identify and prevent misuse of designations reserved for milk and milk products and achieve a proper labelling of substitutes so that consumers could be warned and not misled.

The Situation for Individual Dairy Products

Butter and Anhydrous Milk Fat

Butter

Production

67. World production of butter and butter oil in 1988 remained relatively stable and amounted to 7.50 million tons. Production in 1989 was forecast to remain near the 1988 level. Reduced milk supplies, particularly

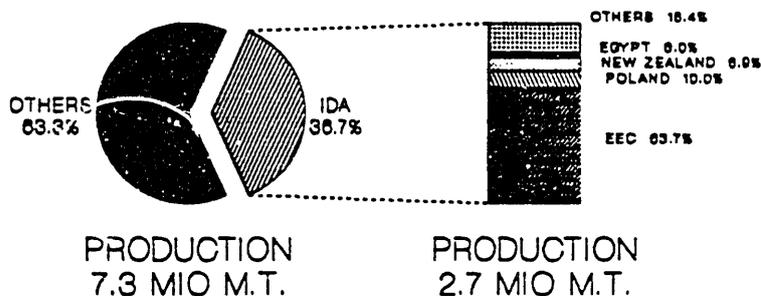
supplies for manufacturing butter, caused another sharp reduction in the Community output of butter as consumption of liquid milk and fresh milk products rose and manufacture of cheese and whole milk powder continued to expand. Community manufacture of butter declined by 12 per cent to 1.66 million tons following a decline by 18 per cent in 1987. In 1989, production was expected to remain at the 1988 level.

68. In New Zealand, butter/butter oil manufacture increased in 1987/88 by 13 per cent to 280 thousand tons, but was subsequently reduced by 10 per cent to 252 thousand tons in 1988/89. Australian butter/butter oil production was down by 9.3 per cent in 1987/88, then amounting to 94 thousand tons, and remained at that level in 1988/89. In 1988 and 1989 butter output was lower in Finland and Norway but increased in Sweden. In Poland, production increased by less than 1 per cent in 1988 to 266 thousand tons and a similar increase was expected for 1989.

69. In the United States, butter production at 543 thousand tons in 1988 was up by 7.6 per cent due mostly to the declining sales of other cream based products. In early 1989, higher skimmed milk powder prices pulled most of the additional supply of milk into butter/skimmed milk powder production. Consequently, output of butter in 1989 was expected to reach 550 thousand tons. Canadian butter production rose by 8.6 per cent to 194 thousand tons in 1988, with a further increase expected in 1989.

70. Output of butter in the German Democratic Republic in 1988 reached 322 thousand tons, up by 4 per cent on 1987. USSR production rose by 3 per cent, reaching a level of 1.8 million tons in 1988 and continued to increase in 1989. In developing countries, butter/butter oil production increased by 4.5 per cent in 1988. However, the rate of increase in Asia and specially in certain countries such as India (+ 7 per cent) and Pakistan (+ 6 per cent), was higher than the average for all developing countries.

1988 BUTTER PRODUCTION



Consumption

71. World butter consumption for 1988 declined slightly, i.e. by approximately 1.5 per cent, from 1987 levels. A further reduction by 2 per cent was foreseen for 1989. World per capita consumption which averaged 2.7-2.8 kgs. over the past ten years stagnated or declined slightly through 1989.

72. Community, butter from intervention storage had been available since 1972 at around 50 per cent of the intervention price for non-profit making organizations and for the armed forces. Member States also subsidized butter for social purposes and the Community contributed financially to national schemes for school milk. Measures under the milk co-responsibility regime continued in 1987 and 1988, providing funds for subsidized butter to be used in pastry products, ice-cream and sugar confectionery. A scheme for butter sold for cooking, introduced in 1985, was continued in 1988. However, in the autumn of 1988, certain limitations had been introduced in the granting of the aids, taking into account the evolution of prices and the decline in public stocks. Further reductions were announced in May 1989, i.e. a cut in the aid for sales to non-profit making organizations and the suspension of the regulation for butter sales to the armed forces. Total Community consumption of butter in 1988 was 4 per cent less than in 1987, and a further reduction by about 1 per cent was anticipated for 1989.

73. In Switzerland, a number of measures were taken to promote butter consumption and the product was being sold at prices considerably below cost, mainly with the help of subsidies. However, domestic consumption of butter continued to decline in 1988 and 1989. In the Nordic countries also, butter consumption continued to decline in 1988 and 1989. In Poland, butter consumption remained relatively stable in 1988 while in Hungary, it declined.

74. In New Zealand, domestic consumption of butter remained stable at around 38-39 thousand tons a year; it was expected that it would remain stable. In Australia, domestic sales of butter/butter oil were expected to increase by 7 per cent to 55.5 thousand tons in 1988/89.

75. In North America, butter consumption decreased slightly in 1988, and this trend continued in 1989. In the USSR, consumption increased in 1988 due to low-priced imports. The trend might be reversed in 1989 as a result of a changed situation in the world market.

Trade

76. The domestic disposal and the sales under derogation of significant quantities of butter coupled with substantially reduced production in 1987 resulted in an appreciable reduction of stocks providing an improvement in the butter market in 1988 and the market strengthened further in 1989. However, a large part of world exports in 1988 (estimated at 1 million tons) consisted of transactions at specially reduced prices. As regards the future outlook, positive developments in the demand for imports might

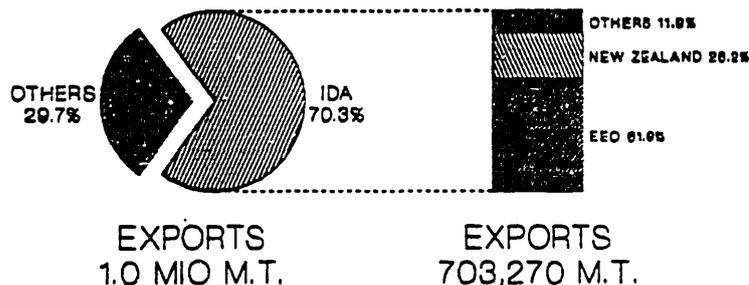
occur at least in the short term in the major market - the USSR. Other key markets, mainly Iran, Iraq and North Africa, might have substantial import requirements for fresh butter entailing a further improvement in the market in 1989/90.

77. Community exports of butter to third countries which had decreased in 1985 and 1986, showed substantial increases in 1987 and 1988, the main destination being the USSR. The European Communities sold 500 thousand tons of butter (18 months' old) to the USSR with deliveries completed in early 1988. A further amount of 110 thousand tons of old butter was sold to the USSR in 1988 and deliveries had been completed by the end of that year.

78. Exports by New Zealand increased in 1987 and 1988. The European Communities remained the main outlet. Under the preferential regime for butter imports, the European Communities had imported from New Zealand 76 thousand tons in 1987 and 74 thousand tons in 1988. The Community Council not having been able to agree in good time on new import arrangements for a longer term, decided in December 1988, to grant a further temporary authorization for the period 1 January to 31 March 1989, allowing New Zealand deliveries to reach 18,625 tons for that period, i.e. one fourth of the quantity fixed for the year 1988. Subsequently, further temporary authorizations were given for the period January to September 1989, on the same basis, i.e. nearly 56 thousand tons. The Community Council intended to take a decision on the maintenance of the exceptional arrangements at some later stage. Other important outlets for New Zealand butter were Iran and the USSR. Australian exports of butter/butter oil decreased to 46 thousand tons in 1988/89 as against exports of 52.3 thousand tons in 1987/88.

79. Romanian exports of butter and butter oil were around 19 thousand tons in 1987 and in 1988, the main destinations being the USSR and Egypt. Little change was expected for 1989. Exports of butter by the German Democratic Republic decreased from 60 thousand tons in 1987 to 55 thousand tons in 1988 and might further decrease to 50 thousand tons in 1989.

1988 BUTTER EXPORTS



80. United States exports of butter and milk fat in 1988 declined for the third consecutive year to the level of some 9 thousand tons, i.e. a drop of some 36 per cent on 1987, the main destinations being Iraq and Jamaica. However, for 1989, butter exports would substantially increase from 1988 levels. In early 1989, larger milk production resulted in an increase of output of butter and skimmed milk powder, the demand for the latter product being strong. However, commercial use of butter fell and public stocks increased. In April, 3,000 tons of butter and 2,000 tons of butter oil were sold to Brazil at prices of US\$1,850 and US\$2,150 per ton f.a.s. respectively. In July, sales of 75 thousand tons of butter to the USSR had reportedly been concluded at a price of US\$1,700 per ton f.a.s. The 1985 Farm Bill mandated the sale of 150,000 tons of dairy products (of which 100,000 tons of butter) annually through fiscal year 1990. The target for butter exports had not been attained in previous years but in fiscal year 1989 some 91 thousand tons of butterfat were reportedly sold.

81. Community imports of butter, which in 1987 aggregated 79 thousand tons, increased to 81 thousand tons in 1988. New Zealand remained the main source of the Community imports. Imports into Switzerland decreased in 1988. In Poland, butter production was not in line with domestic requirements. Large quantities had been imported since 1986, and in 1988 amounted to 34 thousand tons, while imports in 1985 had been nil. The main source of these imports was the European Communities. Polish imports were, in 1989, at their level of 1988. Japan, whose imports of butter averaged only 2 thousand tons a year between 1981 and 1987 experienced in 1988 a temporary shortfall in its domestic production and decided consequently to offset it by supplementary purchases amounting to as much as 21 thousand tons. Total imports reached 23.3 thousand tons in 1988, the main supplier being New Zealand with 19 thousand tons sold at US\$1,600 per ton in the summer of 1988. For the same reasons, Japan would import additional quantities of butter in 1989.

82. The USSR, where consumption of milk and dairy products rose faster than production, remained by far the largest net importer of butter in 1987 and 1988. At approximately 3 million tons of milk equivalent, its imports accounted for over a tenth of world imports in both years. However, most of the USSR's purchases were old butter supplied at prices which were nearly equivalent to those of the cheapest vegetable oils available in international markets. In 1988, 110 thousand tons of old Community butter was bought at low prices. Since international prices of butter were low, the USSR found it advantageous to buy from outside despite increased production. Nevertheless, although supplies to the market increased in 1987 and 1988, demand was not fully covered and shortages were noted in many areas. It was considered that Community sales of butter at low prices to the USSR helped develop demand for fresh butter in that market. In 1988, the USSR turned to other suppliers for fresh butter at prevailing market prices in addition to the sizable quantities of old butter imported from the European Communities. Total USSR imports in 1988 at about 450 thousand tons reached a new record level (Table 4). The USSR, which in recent years had dominated the market, seemed likely to continue to have a substantial import requirement for fresh butter for the years 1989 and 1990

TABLE 4
Imports of Butter into USSR by Origin
('000 metric tons)

	1981-83 average	1985	1986	1987	1988
<u>Total</u>	<u>189.46</u>	<u>276.04</u>	<u>194.34</u>	<u>403.11</u>	<u>450.-</u>
of which from:					
Belgium	16.67	16.72	-	9.99	
Denmark	-	-	-	5.00	
Ireland	15.75	19.79	-	-	
Netherlands	14.71	34.80	-	113.14	
France	25.08	94.14	15.20	49.97	
Germany, F.R.	-	-	90.00	133.00	
<u>Total EC countries mentioned</u>	<u>72.22</u>	<u>165.45</u>	<u>105.20</u>	<u>311.10</u>	
Hungary	3.48	1.76	0.72	1.06	
Norway	1.67	-	-	-	
Finland	9.34	7.07	8.00	6.10	
Sweden	5.46	2.31	-	-	
Canada	0.67	-	-	-	
Uruguay	3.37	-	..	-	
New Zealand	48.71	35.98	25.11	11.38	
Others (unspecified origins)	44.38	63.47	55.31	73.47	

Source: Foreign Trade Yearbooks of the USSR 1981 to 1988.

at least. However, the quantities imported might diminish as compared to the record levels of 1987 and 1988 and reach some 200 thousand tons in 1989 taking into account current world market prices.

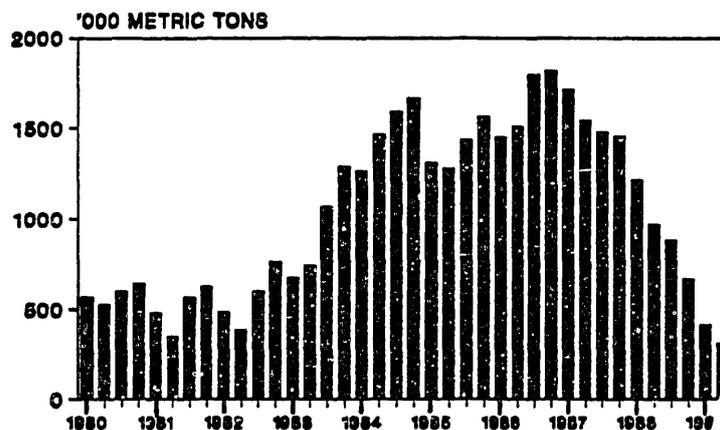
Stocks

83. Total stocks of butter in the European Communities, North America and Oceania on 1 January 1989, at 353 thousand tons, were about 70 per cent lower than a year earlier. World stocks at the end of 1988 were down nearly 900 thousand tons with a further drop expected for 1989.

84. The decrease was mainly due to the fall in Community stocks which totalled 202 thousand tons (public and private) at the end of 1988 as compared to 958 thousand tons one year earlier. A special two-year stock disposal programme designed to dispose of 1 million tons of butter had been introduced in 1987. In addition, the Commission exercised its authority to suspend intervention buying of butter on certain conditions. Thereafter a tender system for buying butter into intervention was operated. The objectives of the disposal programme had been attained, and the results of the new tender system had been very positive. Community stocks declined further in 1989 and stood at 180 thousand tons (public and private) on 15 June 1989.

85. New Zealand stocks decreased to 9 thousand tons on 1 January 1989 compared to 80 thousand tons on 1 January 1988 and remained at very low levels throughout 1989. Australian butter stocks had on 1 January 1989 decreased to 28 thousand tons as compared to 39 thousand tons on 1 January 1988. In Poland, stocks of butter at 14 thousand tons on 1 January 1989 were very low. In Finland, butter stocks at 11 thousand tons on 1 January 1989 were unchanged compared to their level a year earlier.

IDA BUTTER STOCKS 1980-1989 *



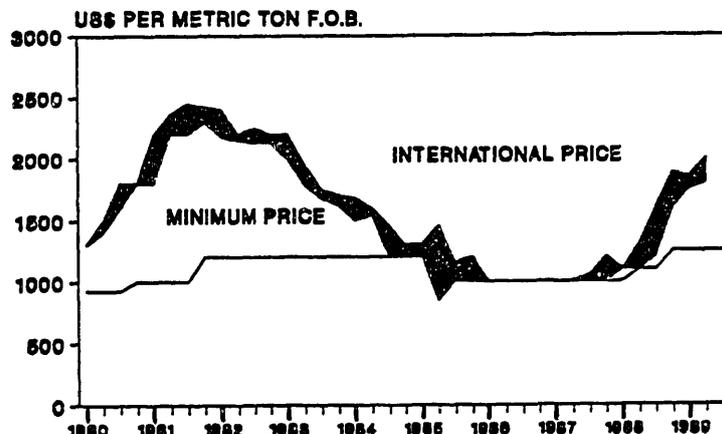
* Includes Austria, Canada and the US

86. In the United States, uncommitted public stocks of butter had been reduced to an historically low level, reaching 36 thousand tons on 31 December 1987 against 99 thousand tons on 31 December 1986. However, production having increased in 1988, government purchases of butter rose substantially, reflecting a jump in the surplus of high-fat products. Consequently, public stocks increased to 65 thousand tons on 31 December 1988. With production increasing and domestic use falling, public stocks continued to swell in 1989 and were projected to be approximately 135 to 140 thousand tons on 30 September 1989, i.e. 84 per cent greater than their level on 30 September 1988. The decision to authorize sales of 75 thousand tons to the USSR was taken in this context. Canadian stocks were expected to reach 16.5 thousand tons at the end of the dairy year 1988/89, down 8 per cent on 1 August 1988.

International prices

87. Late in 1987 and early 1988, various efforts made to restore the equilibrium in the butter market started to yield results, and the market situation, notably for fresh butter improved appreciably, and prices started to improve. International prices for fresh butter which had remained at or slightly above the minimum export price in 1986 and early 1987, during the last quarter of 1987 ranged between US\$1,000 and US\$1,200 per metric ton f.o.b. During the first half of 1988 quotations were in the range of US\$1,100 to US\$1,300 per metric ton f.o.b., and continued to firm up in the second half of 1988, fluctuating between US\$1,600 and US\$1,880 per metric ton f.o.b. in the fourth quarter. Reduced supplies and lower carry-over stocks resulted in a further improvement of prices in early 1989 with prices for fresh butter fluctuating between US\$1,750 and US\$2,000 per ton f.o.b. in the first half of the year. Prices of milk fats might increase further in the remainder of 1989.

BUTTER PRICES 1980-1989



88. The Committee of the Protocol Regarding Milk Fat raised the minimum export price for butter from US\$1,000 to US\$1,100 per metric ton f.o.b. with effect from 23 March 1988 and again to US\$1,250 per metric ton f.o.b. with effect from 21 September 1988.

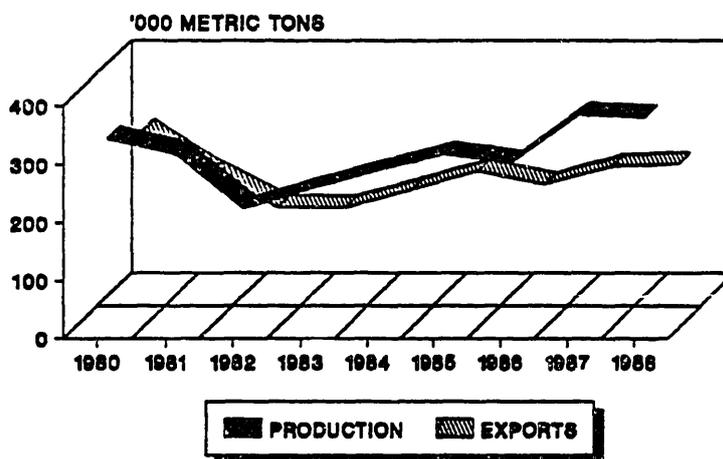
89. Further derogations for sale of old butter at prices below the minimum export prices were granted in 1988, notably for the sale of 110 thousand tons of old Community butter to the USSR. Deliveries according to this sale had been completed at the end of 1988. The supply situation in early 1989 indicated that no further derogations would be required in 1989/90.

Anhydrous Milk Fat

Production and trade

90. Output and exports of anhydrous milk fat of the European Communities and Australia were higher in 1988 than in the previous year. However, New Zealand's production and exports of anhydrous milk fat decreased in 1988. Production and trade of other participants were negligible.

IDA MEMBERS: ANHYDROUS MILK FAT PRODUCTION AND EXPORTS 1980-1988



Food aid

91. In 1988, Community food-aid programme provided for a maximum of 25 thousand tons of butter oil as compared to a maximum of 27.3 thousand tons in 1987. Actual food-aid deliveries in 1988, amounted to 39 thousand tons in relation to 19 thousand tons delivered in 1987. The 1989 Community food-aid programme provided for a maximum of 25 thousand tons of butter oil, the same as in 1988. In 1987/88 the Community effected certain sales

of aged butter for welfare purposes to Algeria, Egypt and Tunisia. During 1987, transactions notified by the United States to the FAO Consultative Sub-Committee on Surplus Disposal amounted to some 13 thousand tons of butter and butter oil. In early 1989, the United States entered into discussions with Poland concerning donations of certain quantities of butter.

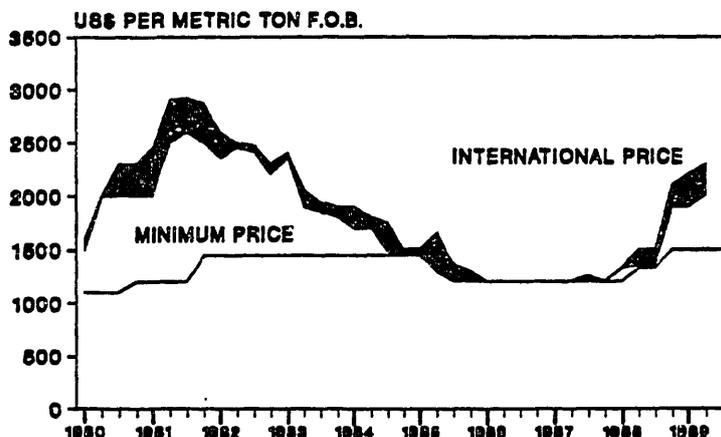
International prices

92. International prices of anhydrous milk fat remained close to the agreed minimum export price of US\$1,200 per ton f.o.b. throughout 1987. In the first quarter of 1988, prices were around US\$1,325 per ton f.o.b. They continued to improve throughout 1988 thus ranging between US\$1,900 and US\$2,100 per ton f.o.b. in the fourth quarter. This strengthening continued in early 1989 and prices fluctuated between US\$1,900 and US\$2,300 per ton f.o.b. in the first half of the year. As regards the future outlook, while prices and sales of anhydrous milk fat remained sensitive to competition from vegetable oils, prices were nevertheless expected to increase further in the remainder of 1989.

93. The Committee of the Protocol Regarding Milk Fat raised the minimum export price for anhydrous milk fat from US\$1,200 to US\$1,325 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,500 per ton f.o.b. with effect from 21 September 1988.

94. In accordance with the Decision of 22 March 1988, the Committee authorized the European Communities under Article 7:1 of the Protocol, to export around 50 thousand tons of butter oil/ghee, manufactured from butter aged at least 18 months out of public intervention stocks to Bangladesh, at a price inferior to the minimum export price. Exports were to be completed by 31 December 1988. However, no sales were reported to have been effected under this derogation.

ANHYDROUS MILK FAT PRICES 1980-1989



Cheese

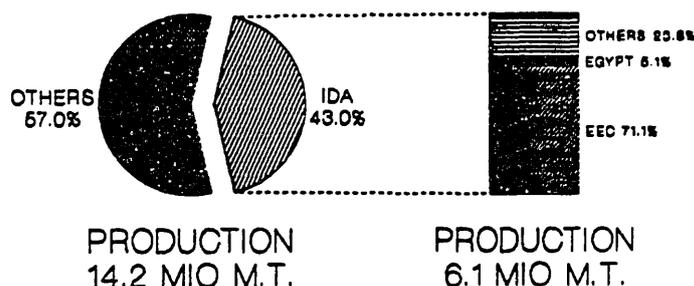
Production

95. World output of cheese (all kinds including curd) at 14 million tons in 1988 was 2 per cent more than in 1987 and another 1 per cent gain was forecast for 1989. The trend was very similar in all regions, but with somewhat greater variations from one country to another. In the European Communities, cheese production in 1988 reached 4.68 million tons, an increase by 2 per cent over 1987. This partially reflected the increase in domestic consumption and also the application of a modified intervention system for skimmed milk powder and butter. Larger quantities of milk had been diverted into the production of cheeses. For 1989, the growth rate would be somewhat slower as milk production continued to decline.

96. In Australia, production of cheese was expected to total 182.5 thousand tons in 1988/89, i.e. 3.5 per cent more than the level of the previous season. In New Zealand, production in the 1987/88 season increased by 14 per cent to 129 thousand tons and continued to grow slightly in the 1988/89 season. Relative gains were recorded in 1988 in most other participating countries.

97. In 1988, United States cheese production was increased by 4 per cent to about 2.5 million tons due to growth in commercial use. With domestic demand continuing to increase a similar or even larger growth was forecast for 1989. Thus, much of the increase in the milk supply would be absorbed by cheese manufacture. Production in Canada was up by 4 per cent in 1988 in response to rising domestic demand. A further expansion was projected for 1989. In the USSR, production of cheese (excluding curd and fresh cheese) in 1988 at 887 thousand tons, was 3 per cent higher than in 1987. A further increase was projected for 1989. USSR production of curd and fresh cheese was estimated to have exceeded 1 million tons in 1988. In the German Democratic Republic, production remained at 267 thousand tons in 1988 and little change was expected for 1989. Production of cheese in developing countries which was a little over 10 per cent of total world output hardly changed in 1988.

1988 CHEESE PRODUCTION



Consumption

98. Cheese consumption for the major producing countries continued to expand, up 1 per cent in 1988, as United States consumption was about even with 1987 because of smaller government donations to the needy and as growth in European countries was limited. The European Communities expected a gain of 1 to 2 per cent over 1987. The outlook for 1989 was for continued growth in total cheese consumption of about 1.5 per cent over 1988.

99. World per capita cheese consumption was moving up steadily, showing an average annual increase of over 2 per cent since the early eighties. However, the outlook for 1989 was for little change in per capita use. Per capita consumption was particularly high in Western Europe (around 12 kgs.) and in North America (around 11 kgs.); the increase in consumption seemed to be the strongest in these high level consumption countries. The increasing trend in Western Europe and North America was likely to continue at the average annual rate of 2 to 3 per cent until 1992. In 1989, there were signs that cheese consumption was starting to develop in North Africa and the Middle East.

100. The expansion in demand and consumption of cheese has entailed the development and production of imitation cheese, but such products still had obtained only a marginal market share in 1989. A Cheddar-type imitation cheese was introduced in the United Kingdom market in 1989 in two forms: as hard cheese and as spread. It was produced from skimmed milk powder and whole milk powder and 75 per cent of the fat was of vegetable origin, mainly sunflowerseed oil. Considerable amounts in the order of 3 to 4 million pounds sterling were being spent on brand advertising of the product.

Trade

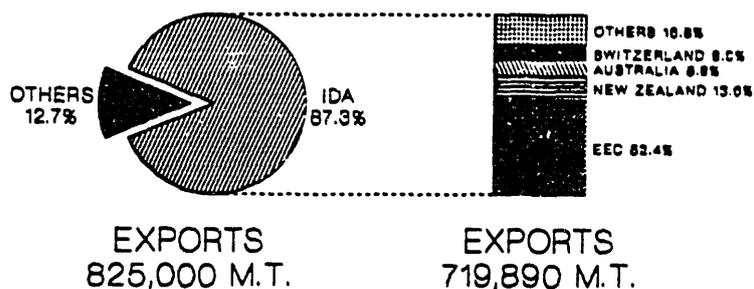
101. World exports of cheese were up 4 per cent for 1988 and reached some 850 thousand tons. The generally expansionary tendencies observed in the market for 1988 continued in 1989. During the first half of 1988, signs of saturation were observed in certain markets and for specific qualities. The difficulties were considered to be of a temporary character, and the problems were overcome. The international cheese market was dominated by Western Europe and New Zealand, which together accounted for over 75 per cent of exports.

102. Community cheese exports expanded by 4 per cent in 1988 to 422 thousand tons. However, little change was expected for exports in 1989. New Zealand exports reached 98 thousand tons in 1988, being one fourth above their average level of 1981-83, the main outlet remaining Japan. Little change was expected for 1989. New Zealand continued to invoke Article 7:2 for exports of cheese below normal export quality. For 1983-1988, New Zealand notified sales of almost 11 thousand tons under this provision to a range of countries. However, sales under derogation dropped sharply in 1988 and stopped completely in early 1989 reflecting improved

market conditions. Australian exports of cheese in 1988/89 reached 65 thousand tons, increasing by 3.7 per cent on 1987/88. In the fourth quarter of 1987, Australia notified its intention to conclude export sales under derogation of certain quantities of aged cheese in accordance with Article 7:2 of the Protocol. Such sales amounted to 5.5 thousand tons in 1987/88. The principal destinations were Eastern European countries.

103. Exports by Switzerland increased by 2 per cent in 1988 and amounted to some 60 thousand tons. Exports of Finland dropped from 39 thousand tons in 1987 to 31 thousand tons in 1988 and a further decrease was expected for 1989.

1988 CHEESE EXPORTS



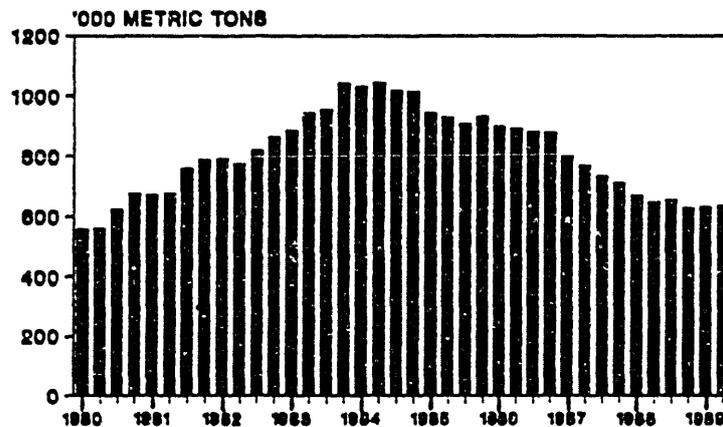
104. Cheese exports from the United States continued to remain at a low level in 1988, i.e. about 24 thousand tons. A further drop to 15 thousand tons was forecast for 1989. Austrian exports of cheese dropped in 1988 while exports from Canada and from the German Democratic Republic remained relatively stable.

105. On the import side, Community imports at around 113 thousand tons in 1988, mostly from Switzerland, were higher than in the previous year. Japanese imports of cheese in 1988 at 114 thousand tons were 21.5 per cent higher than in 1987, the main suppliers being the European Communities, New Zealand and Australia. Demand for cheese was constantly increasing and had in the past ten years almost doubled. This trend was likely to continue. In Switzerland, imports of cheese remained relatively stable in 1988 at around 24 thousand tons. United States purchases totalled 115 thousand tons in 1988, down by 4.6 per cent on 1987. The bulk of the imports was from the European Communities, New Zealand and Finland. However, certain exporters to the United States market experienced some difficulties in filling their quotas during the second half of the year. The outlook for 1989 was for a substantial increase in imports by some 18 per cent to 135 thousand tons.

Stocks

106. Cheese stocks, on 1 January 1989, were lower than one year earlier and were expected to decline further throughout 1989. The decrease was mainly due to the decline in United States stocks which on 1 January 1989, were at 180 thousand tons as compared to 205 thousand tons one year earlier.

IDA CHEESE STOCKS 1980-1989 *



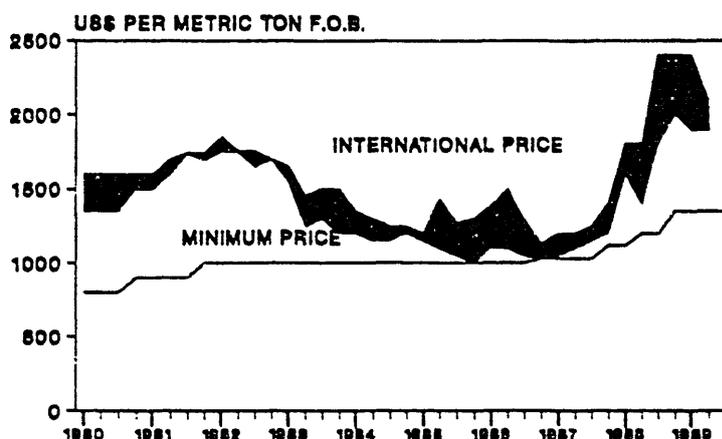
* Includes Austria, Canada and the US

International prices

107. Market prices for cheese continued to vary according to types of cheeses and markets throughout 1988. Cheddar cheese prices strengthened and fluctuated between US\$1,400 and US\$1,800 per ton f.o.b. during the first half of 1988 and between US\$2,000 and US\$2,400 per ton f.o.b. during the fourth quarter. However, prices levelled off early in 1989 and quotations for Cheddar were in the range of US\$1,900 to US\$2,400 per ton f.o.b. in the first half of the year, slightly down from the peak reached towards the end of 1988. They remained nevertheless well above the agreed minimum export price. Prices were expected to firm in the coming months, as import demand was sufficient to absorb the increase in supplies. However, developments might differ for different qualities.

108. The Committee of the Protocol Regarding Certain Cheeses raised the minimum export price for certain cheeses from US\$1,120 to US\$1,200 per ton f.o.b. effective from 23 March 1988 and again to US\$1,350 per ton f.o.b. effective from 21 September 1988.

CHEESE PRICES 1980-1989



Milk Powders

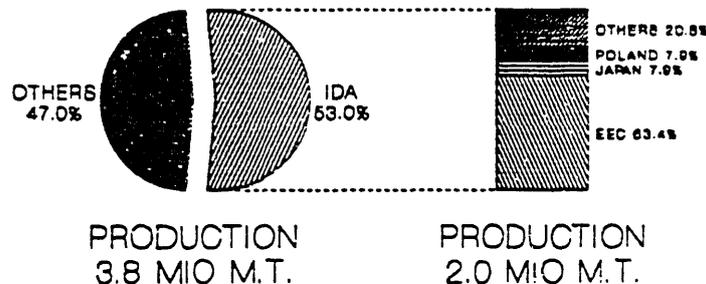
Skimmed Milk Powder and Buttermilk Powder

Production

109. World production of skimmed milk powder in 1988 at 3.8 million tons was 8 per cent lower than in 1987 when it had decreased by 14 per cent. Thus, the upward trend of recent years for skimmed milk powder production was halted in 1987 and the decline continued in 1988. These decreases for two consecutive years were mainly due to reduced butter production and consequently less skimmed milk becoming available for drying. Much of the decline can be attributed to Community efforts to reduce milk output and surplus stocks. The reduction in Community production was particularly important as it had accounted for nearly half the world production since the 1960's but in 1988 was only one third of world production. The United States also curtailed skimmed milk powder output. For 1989, world output of skimmed milk powder was projected to be unchanged from 1988, declines for Western Europe and New Zealand being offset by gains in output in North America, the USSR, Brazil and India.

110. In 1988, production of skimmed milk powder in the European Communities decreased sharply for the second consecutive year (by 21 per cent) to 1.28 million tons as a result of measures taken to reduce milk production. Buttermilk powder production declined also and a further drop was expected for 1989. Output of skimmed milk powder recovered in the first quarter of 1989 but was nevertheless expected to decline slightly for the year as a whole. In New Zealand, where production of skimmed milk powder during 1986/87 had been reduced by nearly 20 per cent, output recovered in 1987/88 and increased by 15 per cent to 171 thousand tons. However, production declined by 7 per cent to 159 thousand tons in the season 1988/89 in line with the reduction in butter output and was expected to decline in calendar year 1989. Buttermilk powder production decreased also in 1988/89. In Australia, production of skimmed milk powder/buttermilk powder in 1988/89 was estimated at 127.8 thousand tons, a decline by 5.6 per cent over 1987/88. In Japan, production increased by 5.3 per cent in 1988 to 160 thousand tons and a similar increase was expected for 1989. In Poland, output recovered in 1988 and amounted to approximately 160 thousand tons compared to 148 thousand tons in 1987. However, little change was expected for 1989. Production of skimmed milk powder by other participants followed varying trends in 1988.

1988 SKIMMED MILK POWDER PRODUCTION



111. In the United States, output decreased by 7 per cent in 1988, reaching 439 thousand tons. However, a slight increase was forecast for 1989 in line with the rise of butter output. Canadian production increased by 3.6 per cent in 1988 to 197 thousand tons. A further increase was forecast for 1989. Production in the USSR continued to increase in 1988, reaching 518 thousand tons and might register a sizable gain in 1989. In the German Democratic Republic, output continued to increase in 1988, amounting to 55 thousand tons but a slight drop was forecast for 1989. Output in India was projected to increase by as much as 20 per cent in 1989 to 85 thousand tons while Brazilian production might develop at a very rapid pace and reach 35 thousand tons in 1989 compared to 20 thousand tons in 1988.

Consumption

112. World consumption of skimmed milk powder fell in 1988, reflecting the tighter supply situation for milk powders. A further reduction was anticipated for 1989 as world supplies continued to tighten. In the European Communities, total domestic consumption declined in 1988. In Japan and in the United States consumption expanded in 1988. In Japan, about one fourth of the consumption was used for animal feed purposes. United States use in animal feed dropped to negligible levels in 1988 and 1989.

113. In Western Europe, where skimmed milk powder was used mainly for animal feed, measures were applied throughout the 1980's to promote its consumption. In the European Communities, the use of liquid skimmed milk and skimmed milk powder for animal feed purposes, subsidized at an average rate of nearly 37 per cent, was still of the order of 1.3 million tons of skimmed milk powder equivalent in 1987, more than average annual world exports of this commodity. As milk supplies were reduced, export prices were rising and stocks were declining, domestic subsidization schemes in Western Europe were curtailed from late 1987 on. In June and September 1988, the European Communities took decisions for a cut in the aid on skimmed milk powder used in animal feed, from ECU 80 to ECU 70 and again to ECU 65 per 100 kgs. as from 1 October 1988; a cut from ECU 6.5 to ECU 5.69 and again to ECU 5.28 per 100 kgs. in the aid on liquid skimmed milk used by the same industry. In June 1988, the minimum amount of skimmed milk powder to be incorporated in animal feed qualifying for aid was cut from 60 per cent to 45 per cent of the feed, and from 1 October 1988, this aid would be granted whatever the amount of skimmed milk powder incorporated in the compound feed. In May 1989, Community aid was again reduced on skimmed milk powder used in animal feed from ECU 65 to ECU 60 per 100 kgs. and on liquid skimmed milk used by the same industry from ECU 5.28 to ECU 4.87 per 100 kgs. Domestic consumption of skimmed milk powder for calf feed consequently declined from 1.11 million tons in 1987 to 980 thousand tons in 1988 and was forecast to decrease further to 750 thousand tons in 1989.

Trade

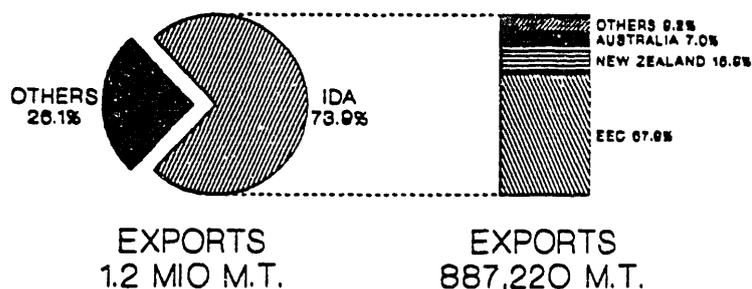
114. World exports of skimmed milk powder were down sharply in 1988, a 12 per cent decline from the 1.2 million tons exported in 1987. A reduced butter production entailed a reduction in production and stocks of skimmed milk powder. Consequently, international trade in skimmed milk powder in 1988 was affected although some exporters made efforts to maintain their sales by drawing down on stocks and reducing the use for feed. The outlook for 1989 was for continued tightness in world supplies of skimmed milk powder, and world exports might show a further substantial decline.

115. A considerable increase took place in the exports of skimmed milk powder by the European Communities (including food aid) when they totalled 600 thousand tons in 1988 from 388 thousand tons in 1987, i.e., a rise of 55 per cent. The market share of the European Communities subsequently

increased to 33 per cent in 1987 and to 63 per cent in 1988 which corresponded to its share in 1980. However, as production continued to decline slightly and as intervention stocks were negligible, exports in 1989 were forecast at only 350 thousand tons, i.e. a decline by more than 40 per cent compared to 1988.

116. Skimmed milk powder exports by New Zealand decreased by 2 per cent in 1988 and reached 141 thousand tons. The main destinations were countries in South East and Eastern Asia and Brazil. Buttermilk powder exports continued to decline in 1988. Australian exports of skimmed milk powder/buttermilk powder in 1988/89 were estimated to have decreased by 7 per cent to 75 thousand tons. Both New Zealand and Australia had committed their entire export availability for 1989 early in the year.

1988 SKIMMED MILK POWDER EXPORTS



117. Exports by the United States registered a sharp decline in 1988 for the second consecutive year and amounted to 219 thousand tons, down by 27 per cent on 1988. The principal destinations were Mexico, the Philippines and Iraq. The share of food aid was also strongly reduced. As world stocks had dramatically dropped and output was down in many major countries, the United States skimmed milk powder market had had to cope in the spring of 1988 with a force rarely felt - strong export demand. International prices were now well above domestic support purchase prices, and in June 1988, agreements reportedly had been reached for domestic producers to commercially export around 45 thousand tons by February 1989 to Australia, France, Ireland, Mexico and Japan. Further commercial

exports were expected in 1989. In Canada, exports of skimmed milk powder fell slightly in 1987/88, as Canadian marketing programs had succeeded in creating new domestic outlets which were absorbing a growing volume of skimmed milk powder. However, taking into account the situation in the international market, domestic usage might decrease resulting in more exports in 1988/89.

118. On the import side, purchases by Japan increased substantially (by 41 per cent) to 130 thousand tons in 1988 as domestic demand was brisk. Much of the powder imported was for use as animal feed. The principal sources of supplies were New Zealand, Australia and the European Communities. Imports were expected to remain at a high level in 1989.

119. Import demand in some developing countries remained strong. Mexico had maintained imports of dairy products at a high level, in spite of a sharp fall in foreign exchange earnings and larger domestic output. Imports of skimmed milk powder into Mexico reached some 200 thousand tons in 1988 as against 136 thousand tons in 1987: the principal supplier was the United States with a share of 83 thousand tons, an increasing proportion of which being sold by the US private sector. Mexico might import as much as 240 thousand tons in 1989 thus becoming the world's largest importer of skimmed milk powder. However, in the long run, if the targets for a higher milk production were attained, imports of skimmed milk powder might decline. Brazil, faced with a decline in domestic output and rapidly rising demand, became one of the world's largest buyers of milk powders and butter oil. Imports of skimmed milk powder into Brazil showed a very substantial increase in 1986, reaching some 156 thousand tons, the principal suppliers being the United States, the European Communities and New Zealand. However, total imports declined to about 98 thousand tons in 1987 and to only 30 thousand tons in 1988 as higher retail milk prices limited consumption. However, imports were expected to recover in 1989.

120. The reduction in supplies of skimmed milk powder available for export in 1988 together with a strong increase in prices, caused serious concern to a number of importing developing countries. It seemed unlikely that imports could be maintained at the level of recent years in 1989/90. Although reduced supplies of skimmed milk powder could to some extent be replaced by whole milk powder, this required technological changes in the recombining industry, entailing increased retail prices and possible reaction by consumers.

Food aid

121. Food-aid deliveries of dairy products consisted mainly of skimmed milk powder and anhydrous milk fat (Table 5). The decline in surpluses was affecting the availability of milk products that could be provided under food-aid programmes. In recent years, food aid had accounted for about 20 per cent of total exports of dairy products, most of it coming from the United States and the European Communities. However, for 1989, shipments under food-aid programmes were forecast to contract even more than total exports. Two aspects were contributing to this situation; shorter

TABLE 5
Share of Food Aid in Total Exports for Selected Countries

	Total exports			Food aid			Food aid/ Total exports		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
	Metric tons						Per cent		
	<u>Skimmed Milk Powder</u>								
Australia	74,400	67,600	62,100	400	300	-	0.5	0.4	-
EC	268,000	390,000	600,000	98,000	110,000	113,000	36.6	28.2	18.8
Switzerland	8,400	10,300	2,100	700	800	1,300	8.3	7.8	61.9
United States	366,000	298,800	218,600	148,600	126,800	74,100	40.6	42.4	33.9
TOTAL	716,800	766,700	882,800	247,700	237,900	188,400	34.6	31.0	21.3
	<u>Whole Milk Powder</u>								
Australia	38,000	43,100	47,000	70	20	66	0.2	0.1	0.1
Switzerland	3,000	2,400	1,900	2,600	2,000	1,500	86.7	83.3	78.9
TOTAL	41,000	45,500	48,900	2,670	2,020	1,566	6.5	4.4	3.2
	<u>Anhydrous Milk Fat</u>								
Australia	23,800	13,100	20,000	100	-	-	0.4	-	-
EC	119,500	148,000	170,000	29,000	19,000	39,000	24.3	12.8	22.9
TOTAL	143,300	161,100	190,000	29,100	19,000	39,000	20.3	11.8	20.5

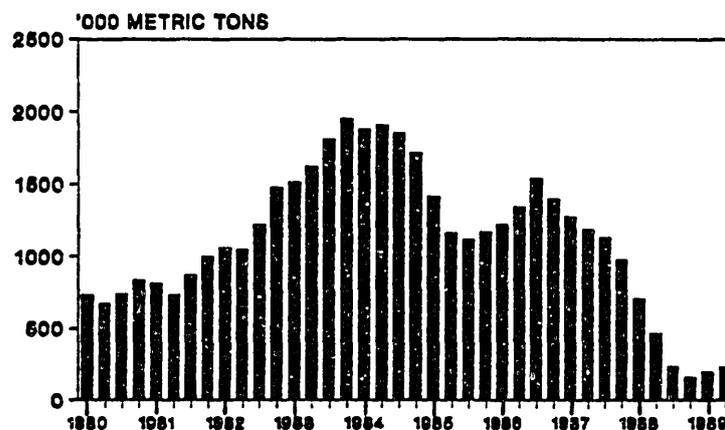
supplies and increased market prices; so, it was difficult to find the powder needed and if it was found, there were budgetary problems occurring when the supplies should be paid for. The reduction in food-aid shipments by the United States had been the result of lower supply. As regards skimmed milk powder, foreign donations by the United States decreased to 127 thousand tons in 1987 but still remained at high levels. A further substantial decrease was registered in 1988 when donations amounted to only 74 thousand tons. Sharply reduced uncommitted stocks currently on hand were likely to curtail foreign donations in 1989 and 1990.

122. Since the early 1980's, the European Communities has cut the share of milk products in favour of larger supplies of vegetable foods, notably cereals. Annual allocations of skimmed milk powder were reduced from 150 thousand tons at the beginning of the decade to 94 thousand tons in 1989, and those of butter oil from 45 thousand tons to 25 thousand tons. In 1988, actual Community food-aid deliveries amounted to 113 thousand tons of skimmed milk powder in relation to 110 thousand tons delivered in 1987.

Stocks

123. Total stocks of skimmed milk powder in the European Communities, North America and Oceania of approximately 127 thousand tons at 1 January 1989 were down by as much as 80 per cent from one year earlier, primarily due to sharp decreases in stocks in the European Communities and in the United States. Thus, surplus stocks had been eliminated in 1988. In mid-1989 there were no surplus stocks and this situation was likely to continue for the remainder of 1989.

IDA SKIMMED MILK POWDER * STOCKS 1980-1989



* Includes Austria, Canada and the US

124. Following limitations introduced by the European Communities in 1987 on intervention purchases of butter and of skimmed milk powder, offers of skimmed milk powder to public intervention decreased very sharply. Community public stocks decreased by 39 per cent in 1987 and continued to decrease rapidly and totalled only 7 thousand tons on 31 December 1988. Thus, at the end of 1988, there were hardly any uncommitted public stocks of skimmed milk powder, although private stocks appeared to have increased. At the end of June 1989, public stocks were nil while private stocks stood at 120 thousand tons.

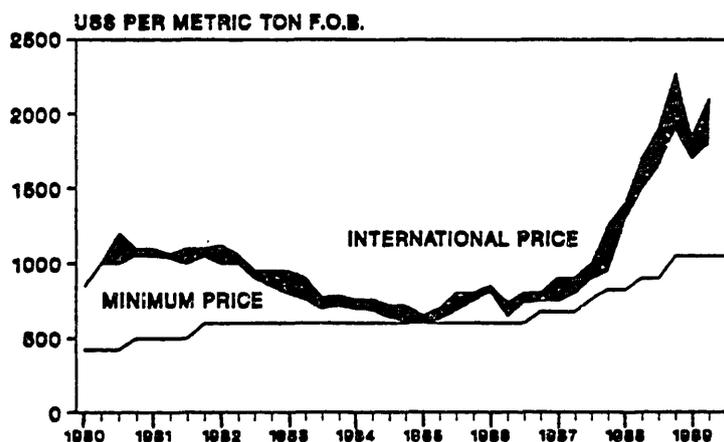
125. In Oceania, stocks did not register substantial changes in 1988 and were expected to remain low throughout 1989. Surplus skimmed milk powder stocks in the United States had been totally eliminated.

International prices

126. The Committee of the Protocol Regarding Certain Milk Powders raised the minimum export price for skimmed milk powder and buttermilk powder from US\$825 to US\$900 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,050 per ton f.o.b. with effect from 21 September 1988.

127. International prices of skimmed milk powder showed a steady improvement throughout 1987 and 1988 and import demand remained strong. As supplies available for export became more restricted in the European Communities, New Zealand and the United States, prices rose rapidly. In early 1988, edible qualities of skimmed milk powder were traded at prices between US\$1,300 and US\$1,400 per ton f.o.b. During the second half of 1988, prices continued to strengthen in the fourth quarter fluctuating between US\$1,900 and US\$2,270 per ton f.o.b. Thus, international prices of skimmed milk powder more than doubled in 1988 and were, at the end of the year, substantially higher than those of butter and butter oil. During the first half of 1989, prices of skimmed milk powder levelled off ranging between US\$1,700 and US\$2,100 per ton f.o.b. In spite of a levelling off in prices, the market reflected the effects of the tightening supply situation and was expected to remain firm in the remainder of 1989.

SKIMMED MILK POWDER PRICES 1980-1989



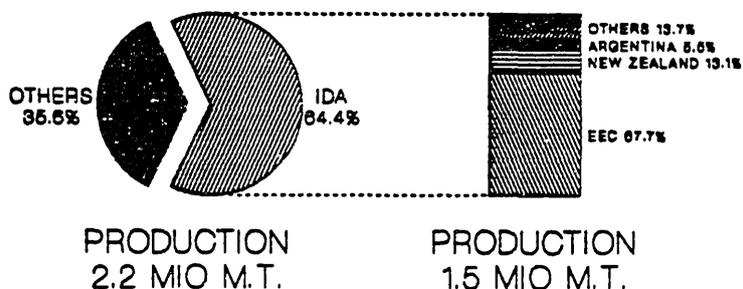
Whole Milk Powder

Production

128. Aggregate output of whole milk powder, closely related to specific demand, continued to expand in 1988, reaching 2.18 million tons, 4.4 per cent more than in 1987. Production increased in all regions, but most strongly in Oceania and the European Communities. However, there was smaller production in some European countries outside the Community due to reduced supplies of milk for processing. World production of whole milk powder was expected to expand further in 1989 as demand remained strong, giving a significant incentive to expand production.

129. Community output showed an increase in the order of 6 per cent in 1988 and amounted to about 984 thousand tons. An increase in production by only 1 per cent was forecast for 1989. In New Zealand, despite the lower level of milk production, output of whole milk powder was increased in the 1988/89 season. Manufacture of whole milk powder rose by almost 10 per cent to 202 thousand tons. This reflected the industry's policy of reducing the proportion of milk used in butter manufacture in the face of reduced access to traditional markets and the lack of available secure alternative markets for butter. In Australia, output in 1988/89 was estimated to have increased by around 10 per cent to 70 thousand tons in response to the continuing trend in international market demand. Production in Finland registered a very substantial decline and amounted to only 14 thousand tons in 1988 as compared to 25 thousand tons in 1987 and was forecast to decline further in 1989.

1988 WHOLE MILK POWDER PRODUCTION



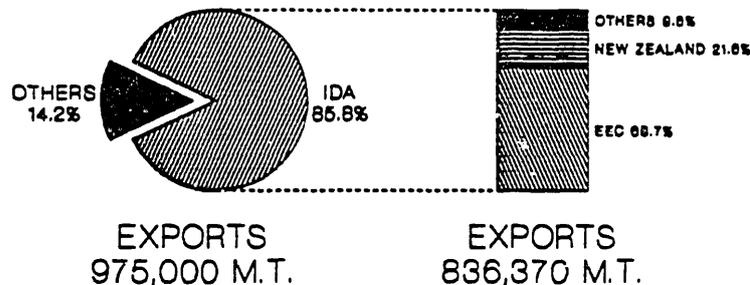
Trade

130. Whole milk powder exports continued their upward trend in 1988 and were around 975 thousand tons reflecting a strong import demand. They were expected to grow further in 1989, however most likely at a more modest rate than in 1988. Community exports showed an appreciable increase amounting to 575 thousand tons, around 60 per cent of the world exports, with the Community share of world exports remaining unchanged compared to 1987.

131. Exports from New Zealand, the world's second largest exporter, recovered in 1988 and were close to 180 thousand tons. The main outlets were in South and East Asia and in South America. Australian exports in 1988/89 increased by around 6 per cent to 52.5 thousand tons reflecting increased production levels. Due to continued strong demand, both New Zealand and Australia had early in the year committed their entire export availability for the remainder of 1989. Exports from Finland, which went exclusively to the USSR, amounted to some 16 thousand tons in 1988, a decrease by 38 per cent and decreased further in 1989.

132. On the import side, whole milk powder purchases by developing countries reached the record level of 650 thousand tons in 1988, an increase by 11 per cent over 1987. Owing to the rising demand of the developing countries, whole milk powder had become the most important item in terms of volume in international dairy products trade in recent years. This increase in whole milk powder purchases at a time of rising prices and growing foreign exchange difficulties of many importing countries appeared to reflect a certain amount of precautionary buying in anticipation of further rises in prices. Moreover, when international prices of skimmed milk powder temporarily exceeded those of whole milk powder, certain users switched to the latter.

1988 WHOLE MILK POWDER EXPORTS

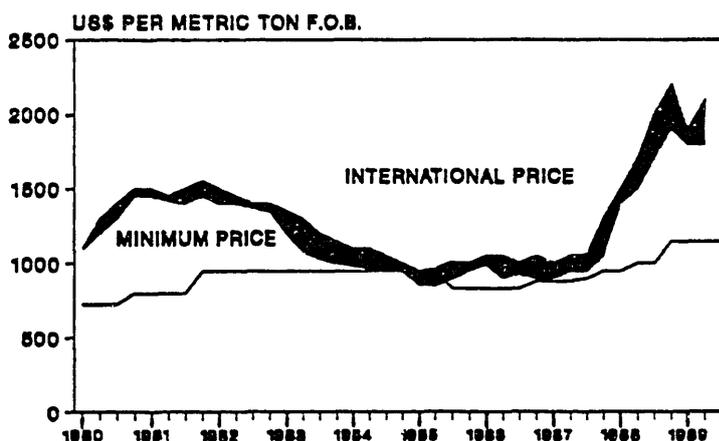


International prices

133. The Committee of the Protocol Regarding Certain Milk Powders raised the minimum export price for whole milk powder from US\$950 to US\$1,000 per ton f.o.b. with effect from 23 March 1988 and again to US\$1,150 per ton f.o.b. with effect from 21 September 1988.

134. International prices of whole milk powder showed a steady improvement throughout 1987 and 1988. Early in 1988, whole milk powder was traded at prices around US\$1,400-US\$1,500 per ton f.o.b. and strengthened further throughout the year. In the fourth quarter prices fluctuated between US\$1,900 and US\$2,000 per ton f.o.b. In early 1989, the rise in world prices levelled off and settled at around the same level as for skimmed milk powder of about US\$1,800 to US\$2,100 per ton f.o.b. for the period January-June. However, the market remained firm, the supply situation was tight and prices were likely to remain high in the remainder of 1989.

WHOLE MILK POWDER PRICES 1980-1989



Other Dairy Products

Whey in powder or block or concentrate

135. A rational utilization of whey has become a great challenge to the dairy industry, and the commercial importance of whey would most likely increase. At the end of the eighties, roughly one quarter of the world milk production was devoted to cheese manufacture. Only about one half of the solids in the milk being retained in the cheese, the other half would finish up on whey. Most of this whey was still disposed of as feed or as waste. To dispose whey as waste has met with environmental problems and the industry has been looking for commercial uses of whey. It should therefore be expected that supplies of whey products will increase rapidly over coming years.

136. The demand for whey and whey products for use as food and feed ingredients and in pharmaceutical applications remained strong in 1988, providing incentives to expand production in several countries. World production of whey powder reached 1.5 million tons in 1988, 4.5 per cent up on 1987. Furthermore, the production of other related milk concentrates, including lactose, continued to expand, but statistics remained insufficient to evaluate the magnitude of such productions.

137. Community production of whey powder increased by about 6 per cent in 1988 compared to 1987, and reached 827 thousand tons accounting for 60 per cent of world production. United States production increased by 2 per cent in 1988 to 485 thousand tons, and there was a similar increase in Canadian production. World production of whey powder was again increasing in 1989, following developments in production of cheese.

138. In mid-May 1989, the European Communities reduced levies for skimmed milk powder and for whey powder, and this could mean imports from third countries. In 1988, the EC imported 44,000 tons and exported 36,000 tons of whey, mainly in connection with forward processing.

139. The market for whey powder remained firm in 1988, mainly due to the significantly reduced supply of skimmed milk powder and a consequent increased demand of whey powder in milk replacers. Whey powder prices have traditionally been subject to seasonal variation, with a peak in the autumn. In 1988, the peak occurred already in July, with prices both in Europe and the United States culminating just above US\$600 per ton. Prices fell later in the year. In May 1989, prices in Europe were around US\$450 per ton while in the United States they were close to US\$400 per ton. In light of expectations of continuing reduced supplies of skimmed milk powder coming on to the market and further expansion in demand for whey as a food and feed ingredient, the world market for whey powder was expected to remain firm in the remainder of 1989 with significantly higher prices than in previous years, but traditional seasonal variation in prices would most likely persist.

Concentrated milk

140. World production of condensed milk recovered slightly in 1988, increasing by almost 1 per cent thus amounting to 4.5 million tons. There was a strong increase in Australian production of 24 per cent, bringing total production up to 70 thousand tons. Community production reached 1.22 million tons, 4 per cent up on 1987. Also USSR production continued to expand, reaching 625 thousand tons in 1988, 5 per cent up on the previous year. There was a further decline in North America, with United States production falling to 253 thousand tons and that of Canada to 81 thousand tons. The upward trend in condensed milk production in the Far East and in Latin America levelled out in 1988, and production for these major areas remained at its level of the previous year. During the first part of 1989, condensed milk production in the European Communities was down by 10 per cent and continued to fall in the United States and Canada.

141. After having reached a peak of nearly 1 million tons in 1985, world trade in condensed milk declined rapidly reaching only a bit more than half of that level in 1988, or some 560 thousand tons. Community exports again declined by 3 per cent to 375 thousand tons in 1988. Canadian exports registered a dramatic fall from 138 thousand tons in 1985/86 to 20 thousand tons in 1988/89 and a further decrease in exports was expected for 1989/90. Imports into developing countries which had been declining between 1985 and 1987 recovered in 1988 and totalled 540 thousand tons compared to 517 thousand tons in 1987, thus representing the bulk (about 88 per cent) of world trade in this product.

142. In 1988, condensed milk prices were raised first by 5 per cent in May and by another 4 per cent in October. Prices were again raised in February 1989 by some 2 per cent. In May 1989, wholesale prices in Europe and North America ranged from US\$1,200 to US\$1,500 per ton thus returning to their 1987 level in dollar terms.

Casein

143. Casein production increased in 1988, when total production amounted to 240 thousand tons, 3 per cent more than in the previous year. A 10 per cent decline was forecast for 1989.

144. Community production of casein increased from 168 thousand tons in 1987 to 174 thousand tons in 1988, but was expected to decline in 1989 and 1990 as producers reacted to decreased export prospects and tighter milk supplies. Higher skimmed milk powder prices resulted in stronger competition for supplies of raw material for processing into casein. Furthermore, the Community production subsidy on casein was reduced in October 1987, in June 1988 and in January 1989; under a new regime on granting aid for skimmed milk processed into casein, the aid was restricted to casein for specific uses as from 1 March 1989. Community casein producers were consequently facing substantially increased production costs. New Zealand production of casein, which in 1986/87 was severely influenced by reduced milk supplies, recovered appreciably in 1987/88, when it reached the average level of recent years, namely 65 thousand tons. However, with skimmed milk powder production down by 7 per cent in line with the reduction in butter output, casein production registered a more significant reduction in 1988/89 and decreased by 17 per cent to 54.5 thousand tons. Polish production of casein, at 20 thousand tons in 1988, was sharply down (by 20 per cent) on 1987. Little change was forecast for 1989.

145. Stocks of casein were very low at the end of 1988 and supplies depended almost entirely on current production early in 1989. World exports declined sharply in 1988, with reduced supplies both to the United States and the Community markets. As international market prices increased, United States interest in foreign manufactured dairy products declined. This was particularly the case with casein, as prices were boosted by increasing skimmed milk powder prices. Domestic substitutes for casein became much more attractive. In 1988, United States casein imports declined substantially (by 32 per cent) to 73.7 thousand tons and continued to decline in 1989.

146. The market situation which throughout 1987 and 1988 was characterized by tight supplies and firming prices, continued in early 1989. The reductions on several occasions of Community producer subsidies for casein, the high skimmed milk costs and the depreciation of the United States dollar also contributed to higher prices in international markets. At the beginning of 1988 casein quotations had reached a level of almost US\$150 per 100 lb. or US\$3,230 per ton, which was 50 per cent higher than a year earlier. In December 1988, prices were reported to have sharply increased to about US\$5,600 per ton, almost double the price recorded one year earlier. Prices remained at that level throughout the first half of 1989, in spite of a higher value of the United States dollar. A continued tight supply situation might entail further rises in casein prices in the remainder of 1989.