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TARIFFS AND TRADE

Special Distribution

International Dairy Arrangement

INTERNATIONAL DAIRY PRODUCTS COUNCIL

Status Report on the World Market for Dairy Products

Note by the Secretariat

Explanatory note

1. 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 1988.

2. 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.

3. 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 1988, and the outlook for 1988/89. The note should be read in conjunction with the statistical information circulated in the following documents:

- DPC/W/75/Rev.2 - Milk Deliveries and Production - Statistical Note by the Secretariat
- DPC/F/W/36/Rev.2 - Committee of the Protocol Regarding Milk Fat - Summary Tables
- DPC/C/W/35/Rev.2 - Committee of the Protocol Regarding Certain Cheeses - Summary Tables
- DPC/P/W/34/Rev.2 - Committee of the Protocol Regarding Certain Milk Powders - Summary Tables

4. The present note, as subsequently completed or amended, will be issued as the ninth annual report under the International Dairy Arrangement. 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 in paragraph 3 above. It should be noted that the drafting of the present note was completed on 12 August 1988.

TABLE 1

Levels of 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
Skimmed milk powder	425	500	600	600	660	765	825	900
Whole milk powder	725	800	950	830	880	900	950	1,000
Buttermilk powder	425	500	600	600	680	765	825	900
Anhydrous milk fat	1,100	1,200	1,440	1,200	1,200	1,200	1,200	1,325
Butter	925	1,000	1,200	1,000	1,000	1,000	1,000	1,100
Certain cheeses	800	900	1,000	1,000	1,030	1,030	1,120	1,200

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. Note should be taken of the fact that new minimum prices for all pilot products became effective on 23 March 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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Note: A statistical annex will be issued in an addendum to this note.

Overview of the Situation

Some highlights of the economic situation in general

1. World merchandise trade continued to grow in 1987 accelerating to an annual rate of 5 per cent in terms of volume, a rate of growth even higher than that of the previous two years. The value of merchandise exports reached a new record level of US\$2,475 billion in 1987. Import demand of developed countries remained the strongest force in world trade expansion, even though its growth slowed down. World production continued to grow at the rate of recent years. Since the early 1970's, the world has witnessed an economic environment characterized by a mixture of positive developments and unresolved problems. Despite some worrisome features in the current situation, positive developments in the world economy have outweighed the negative elements. The most important was the relative strength of economic growth. Most current projections anticipated that output growth in 1988 will be very close to the 3 per cent recorded in 1987. Statistics available for the first half of 1988 suggest that for the year as a whole world merchandise trade will increase at about the same rate as in 1987.

2. The trade performance of developing areas which had been disappointing during recent years, improved in 1987. There was a sharp turnaround in the import demand of the developing areas in 1987, from a substantial decline in 1986 to an increase in import volume last year of 3 per cent. The post-1979 price decline was bottoming out for a number of primary products. Major price increases were recorded throughout 1987, notably when expressed in US dollars as the latter currency continued to depreciate. As a group, the heavily indebted developing countries shared in the improved trade performance. Although the 10 per cent increase in the value of their merchandise exports, and the 7 per cent increase in imports, were well short of the 16.5 per cent increase in total world trade, they compare favourably with the 1986 performance, when merchandise imports and exports declined by 1 and 15 per cent, respectively.

3. There was a notable resumption of world trade in agricultural products in 1987 when agricultural exports (including intra-Community trade) rose by 4.5 per cent compared with 1986. This was the strongest gain on a volume basis since 1981. However, over the past two decades the rise in the share of agricultural production, which was traded internationally, had been much less pronounced than that for manufactures. Export expansion in agriculture was driven by a number of positive factors - such as reduced transport costs, improved techniques of processing and storage, productivity increases in developed and developing countries and some limited dismantling of trade barriers in the framework of GATT. However, increased exports have also been achieved through the use, by some countries, of subsidized export credits. This often has been the second stage of a process that began either with trade-restricting increases in barriers to imports, or the granting of production subsidies. World agricultural production fell by 3 per cent from 1986 to 1987, partly as a result of deliberate efforts to contain production of grains and milk and partly because of unfavourable climatic conditions adversely affecting production, both quantitatively and qualitatively in some areas. In

addition, the depressed level of world market prices for several agricultural products prior to 1987 discouraged production in a number of exporting countries.

4. There was only little change in the employment situation in 1987. The rate of unemployment remained high in Western Europe. Unemployment in developing countries was difficult to determine because of data limitations, but it would appear that in many countries the labour force grew faster than employment. Inflation rates remained moderate throughout the early part of 1987 and many developing countries had been successful in curbing inflation in 1986 and early 1987. However, in 1988, there were signs indicating that the situation might change and that inflation might cause problems to some industrial countries. Large current account imbalances persisted for some main countries, despite a significant depreciation of the United States dollar against other major currencies.

World dairy situation

Highlights

5. - World milk production declined by almost 1 per cent from 1986 to 1987, and the upward trend which had lasted for twenty years was temporarily halted. Efforts made in many countries to contain milk production were yielding results as hoped for and in addition unfavourable climatic conditions had adverse effects on milk production in several regions.
- The decline in world milk supplies was mainly due to a 5 per cent decline in Community milk deliveries in 1987, but there were also significant reductions in milk deliveries in New Zealand, India and the United States. Further expansion in deliveries in the USSR only partly outweighed declines elsewhere.
 - The immediate result of reduced milk deliveries was a spectacular reduction in intervention stocks of butter and skimmed milk powder, notably in the European Communities and the United States. In autumn 1988, there were hardly any surplus stocks of butter.
 - Food aid in terms of dairy products was adversely affected by the decline in available supplies, and continued to be low in 1988.
 - In 1988, world milk production returned to its level of 1986. A further decline in milk deliveries in the Community and other European countries was more than outweighed by a recovery in New Zealand milk production and that of the United States and Canada and of a further substantial increase in the USSR.
 - There was an appreciable recovery in international trade in cheese and milk powders in 1987, and prices firmed up throughout the year. Whole milk powder was to an increasing extent replacing condensed milk, and international trade in the latter fell again in 1987. International trade in cheese and whole milk powder grew further in 1988, with prices continuing to firm up.

- There was also some recovery in butter trade, but this was largely due to special sales of old butter or butter oil made from old butter at extremely low prices and by derogation from the price provisions of the Arrangement. Prices for fresh butter were firming and were expected to continue to do so in expectation of an improved balance between supply and demand in 1988/89.
- Reduced butter production in several areas entailed a significant reduction in supplies of skimmed milk powder. Some developing importing countries experienced difficulties in covering their import requirements of skimmed milk powder in 1988. The world market price for skimmed milk powder doubled from June 1987 to June 1988, when it reached the level of that of whole milk powder.
- In late summer 1988, the market outlook indicated that dairy prices in the world market would remain high or even increase further in 1988/89.

Dairy policies

6. Efforts to contain milk production and deliveries were pursued in 1987 and 1988 by most participants in the Arrangement. Also other countries, notably Austria and Canada, continued to take measures to control milk supplies. A wide range of measures have been applied for some years now, often in rather complex combinations. In some countries, measures aiming at controlling directly the quantity of milk brought to the market were tightened in 1987; in others, milk delivery quotas were only moderately increased. In general, various measures applied in order to encourage improvements in product quality and to adapt the product range to prevalent trends were continued.

7. Various measures related to milk prices remained important elements in dairy policies in 1987 and 1988. Further efforts were made to contain public expenditure on dairy price support. In some countries, support prices, target prices and advance payments were significantly reduced in order to discourage a further increase in milk production, or as a necessary adaptation to depressed export returns. In other countries, increases in price support were moderate, merely 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, although in the United States the dairy termination scheme was discontinued in October 1987. 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. It remained, however, the stated aim of dairy policies in some countries to increase the degree of self-sufficiency of milk and dairy products. This was for instance the case of the USSR. In line with general aims of improving nutritional standards and diversifying agriculture in developing countries, high priorities 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 developing countries such as for instance Colombia, Mexico and Venezuela.

Milk and dairy production

10. World milk production which had been expanding more or less continuously over a couple of decades, declined by 0.8 per cent from 1986 to 1987, amounting to some 517 million tons (including sheep, goat and buffalo milk). It was notably cow's milk production that was reduced in 1987, but this type of milk nevertheless accounted for nearly 90 per cent of the total, amounting to 464 million tons.

11. The decline in milk production in 1987 was mainly a result of reduced production in the European Communities, where milk deliveries fell by 5.1 per cent. Milk deliveries also declined in other Western European countries, in Japan and in the United States. Major reasons for the production decline in Western Europe and North America and Japan were various production and price policy measures taken to contain milk production and deliveries and to reduce burdensome surpluses.

12. New Zealand milk deliveries were strongly reduced because of drought, and low export returns on dairy products might also have discouraged milk production. An increase in Australian milk production in 1987, due to exceptionally favourable climatic conditions in the major producing area did not outweigh the strong decline in New Zealand and consequently there was a decline in the milk production of Oceania as a whole of around 7 per cent.

13. There were appreciable recoveries in State procurements of milk in Poland and Hungary in 1987 compared to 1986, resulting in a slight increase for Eastern Europe as a whole.

14. Milk deliveries in South America increased moderately, following greater priority given by governments to stimulate dairy developments and measures applied to improve the profitability of dairy farming.

15. Milk production was adversely affected by unfavourable climatic conditions in certain regions in Africa and Asia. The expansion of recent years in India was halted and milk production for Asia as a whole fell by 1.5 million tons or almost 2 per cent from 1986 to 1987.

16. In the USSR, milk production continued to expand, but at a much slower rate than in recent years.

17. World milk production however recovered in 1988 to its level of 1986. Milk deliveries were further reduced in the European Communities, remaining more or less unchanged in other European countries and Japan. In Canada and in the United States milk production increased and might, together with expected recoveries in New Zealand and India, more than outweigh a decline in Community milk deliveries. Furthermore, milk production increased further in USSR and in a number of developing countries. In the medium term, world milk production could continue to rise due to genetic improvements, low feed prices and the considerable technical potential which existed to raise milk yields. Thus, the danger persisted that the dairy sector could again be disturbed in coming years, caught between rapid technological progress, highly flexible production and the slow growth of consumption.

18. World butter production fell by 400 thousand tons from 1986 to 1987, then reaching a total of 7.4 million tons, almost down to its average level in 1981-83. Although the decline of 16 per cent in Community production was responsible for most of the reduction in world production, the butter production was significantly lower in all regions, except in the USSR. These developments reflected a reduced availability of milk for processing and a low profitability of butter production. Butter production continued to decline in 1988 as the use of milk for other purposes was more profitable and markets for other dairy products could absorb greater quantities.

19. World cheese production continued its upward trend in 1987, totalling 13.7 million tons, an increase of 1.5 per cent compared to 1986. The trend was very similar in all regions, but with somewhat greater variations from one country to another. A reduced cheese production in New Zealand was attributed to the strong reduction in supplies of milk. In most countries cheese production seemed to have been encouraged by a generally favourable market outlook for cheese. World cheese production expanded further in 1988, although in some markets signs of temporary saturation were observed for speciality cheeses early in the year.

20. The upward trend of recent years for skimmed milk powder production was halted in 1987, mainly as a result of reduced butter production and consequently less skimmed milk becoming available for drying. World production fell by more than 10 per cent from 1986 to 1987. Major producers like the European Communities, New Zealand and the United States experienced declines of 20 to 25 per cent. World production of skimmed milk powder declined further, but less steeply in 1988, following a continued decline in butter production. Tighter supplies of skimmed milk powder stimulated production of whey powder notably in the European Communities and the United States, in 1987 and 1988.

21. World production of whole milk powder continued to expand in 1987, reaching 2.2 million tons, about 9 per cent more than in 1986. Production increased in all regions, but most strongly in the European Communities, where the increase was of the order of 15 per cent. Reduced supplies of milk for processing resulted in a reduced production in New Zealand, and there was also smaller production in some European countries outside the

Community. World production of whole milk powder expanded further in 1988, not least because import demand for milk powder tended to remain strong, giving a significant incentive to expand production.

22. Condensed and evaporated milk appeared to be increasingly replaced by whole milk powder in the market, and world production has declined over recent years, amounting to 4.5 million tons in 1987. A recovery was reported for Australian production and a further growth in USSR production. However, Community production fell by 9 per cent and declines were also reported for Canada and the United States. In 1988, condensed milk production showed some recovery, reflecting an improved demand in international markets.

23. World casein production continued to decline in 1987, as a decline in New Zealand production was only partly outweighed by increased Community casein production. World supplies of casein again declined in 1988.

Consumption

24. World consumption of milk and fresh milk products increased at an annual rate of about 1 per cent over recent years. For a number of countries, consumption of fresh milk followed variations in supplies of milk. In per capita terms it 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. Consumption data for dairy products showed similar differences.

25. Butter consumption showed very little change on average. World per capita consumption of butter has been steady at 2.7-2.8 kgs. over the past ten years. The trend remained unaffected by an increasing substitution of blended spreads of butter and vegetable oil.

26. The upward trend in cheese consumption continued in 1987, with further advances in nearly all countries for which information was available. 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. 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, and the increase in consumption seemed to be strongest in these high level consumption countries. The general upward trend was maintained in 1988.

27. In 1987, world consumption of skimmed milk powder was maintained at its level of the previous year. It fell in 1988 reflecting lower supplies and rising prices. Reduced supplies of skimmed milk powder were only, to a limited extent, replaced by whole milk powder. Consumption of whole milk powder increased strongly in 1987 and developed further in 1988.

Trade

28. The world market for butter and anhydrous milk fat remained fragile throughout 1987. World butter exports (including ghee) which in 1986 had fallen to 700 thousand tons increased strongly to around 950 thousand tons in 1987. This was mainly due to huge Community exports to the USSR at very low prices and under derogation from the price provisions of the Arrangement. There was at the same time an appreciable recovery in world exports of anhydrous milk fat partly as a result of great exports by New Zealand to Brazil at a price below the agreed minimum export price and under derogation from the price provisions of the Arrangement. Butter exports by other participants in the Arrangement recovered appreciably, such as those of Finland, Norway and Romania, while exports of Australia and Sweden were low. United States butter exports remained low in 1987, while those of the German Democratic Republic expanded further, reaching some 60 thousand tons. For 1988, export figures remained above the low figures of 1986, as a result of further sales and deliveries taking place of butter and anhydrous milk fat sold at discount prices under derogation from the price provisions of the Arrangement. Normal commercial sales however, hardly exceeded 600 thousand tons.

29. World exports of cheese recovered appreciably in 1987, following stronger import demand by OPEC countries and other developing countries such as Brazil. Community cheese exports which had been very low in 1986 regained their level of 1985, and New Zealand exports again exceeded 100 thousand tons in 1987, being one third above their average level of 1981-83. Canadian exports and those of the German Democratic Republic continued to expand, with cheese exports of the latter having reached almost 50 thousand tons in 1987. United States exports increased somewhat in 1987 but remained at a low level of around 20 thousand tons. The expansionary tendencies observed for 1987 continued into 1988.

30. There was a recovery in skimmed milk powder exports in 1987 when they exceeded 1.2 million tons, a level comparable to exports in 1985, and 3 per cent up on 1986. Import demand in some developing countries remained strong, as was the case for Mexico, Brazil, Peru and India. This particular demand was to a large extent met by continued heavy shipments from the United States, in the form of food aid or sales by the Commodity Credit Corporation. The market situation also permitted Community exports to recover and stocks were reduced. A reduced butter production entailed a reduction in production and stocks and skimmed milk powder exports were substantially reduced in 1988.

31. Whole milk powder trade continued its upwards trend in 1987, exceeding some 900 thousand tons, with the European Communities accounting for the bulk of increased exports, holding two thirds of the world market. Whole milk powder exports grew further in 1988, but apparently at a more modest rate than in 1987.

Food aid

32. 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 1987, and was lowered once more in 1988. The increase in prices would at the same time aggravate expenses and make the financing of food aid in dairy products more difficult.

Stocks

33. Reduced milk supplies and larger exports of dairy products had rather drastic impact on stocks notably of butter and skimmed milk powder in 1987. Community intervention stocks both of butter and skimmed milk powder fell by one third during 1987. Also New Zealand stocks of butter and skimmed milk powder fell in 1987, and 1988 started with much lower dairy stocks than previous years. Some other countries had experienced difficulties in reducing their stocks notably of butter in 1987, and total butter stocks held by some participants in the Arrangement were still in need of further reduction at the outset of 1988. United States dairy stocks were very low at the beginning of 1988, amounting to around 60 thousand tons each of butter and skimmed milk powder. Continued efforts made notably by the European Communities reduced butter stocks further in 1988, and the market situation entailed a further reduction in stocks of skimmed milk powder. In early autumn of 1988, there were hardly any surplus stocks of dairy products.

International prices

34. The market for butter and anhydrous milk fat remained fragile throughout 1987, with market prices remaining at or closely above the minimum export price of US\$1,000 and US\$1,200 per ton f.o.b. respectively, and certain offers for the sale of butter had reportedly been made at prices lower than that. Furthermore, substantial quantities of old butter and butter oil made from old butter were sold at prices below the agreed minimum by derogation according to Article 7:1 of the Protocol Regarding Milk Fat. Towards the end of 1987 and in early 1988, the situation improved and prices for fresh butter in the second quarter of 1988 were between US\$1,100 and US\$1,300 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. Reduced supplies and lower carry-over stocks resulted in a further improvement in prices, notably for fresh butter in 1988/89, while some old butter still had to be disposed of at low prices.

35. Cheese prices increased throughout 1987 with quotations for Cheddar cheese 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\$1,030 to US\$1,120 per ton f.o.b. with effect from 23 September 1987 and again to US\$1,200 per ton f.o.b.

with effect from 23 March 1988. Quotations for most types of cheese remained firm in the first half of 1988 reflecting a persisting strong import demand for cheese.

36. International prices for milk powders showed steady improvement throughout 1987. Prices at which sales were concluded showed increases of US\$200 to US\$350 per ton for skimmed milk powder and of US\$150 to US\$300 per ton for whole milk powder. 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 Powders raised the minimum export prices for skimmed milk powder and buttermilk powder from US\$680 to US\$765 per ton f.o.b. with effect from 25 June 1987 and again to US\$825 per ton f.o.b. with effect from 23 September 1987 and further to US\$900 per ton f.o.b. with effect from 23 March 1988. Simultaneously, minimum export prices for whole milk powder were increased first from US\$880 to US\$900 and later to US\$950 and to US\$1,000 per ton f.o.b. During the second quarter of 1988, both in the case of skimmed milk powder and of whole milk powder, prices ranged between US\$1,500 and US\$1,700 per ton f.o.b. The market reflected the effects of the tightening supply situation and was expected to remain firm in the coming months.

37. The prices for other dairy products presented a varied picture. Prices for condensed milk hardly changed in 1987. Whey powder prices firmed throughout the early part of the year, but fell slightly towards the end of 1987, notably in the United States, which constituted the major outlet. A persisting tight supply situation for casein entailed a continuous price hike throughout 1987 and into 1988, approaching a level of US\$4,300 per ton in the middle of 1988, the double of the price recorded one year earlier.

Developments in World Milk Production and National Dairy Policies

38. World milk production (including buffalo, sheep and goat milk) at 517 million tons in 1987 was 0.8 per cent lower than in 1986, showing for the first time an interruption of a long-term rising trend. Cow's milk production, which accounted for 90 per cent of the total, amounted to 464 million tons, representing a slight decline in 1987. Buffalo milk output, on the other hand, increased perceptibly due mainly to some increases in certain Asian countries, and particularly in India. However, buffalo milk accounted for only 7 per cent of the world milk production with sheep and goats' milk making up the balance of 3 per cent. It was worth noting that the reduction in the overall production was mainly a result of reduced production in the European Communities, the United States, New Zealand and Japan where milk deliveries were low because of a number of production and price policy measures taken to contain milk production and to reduce the existing burdensome dairy surpluses. New Zealand's milk deliveries were also sharply reduced due to drought and low

TABLE 2

International Prices (1986-1987-1988)

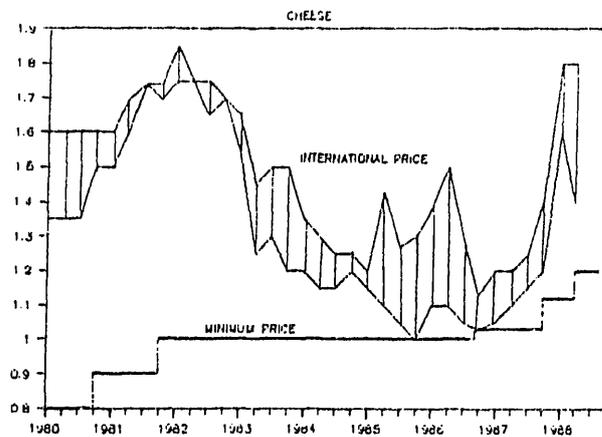
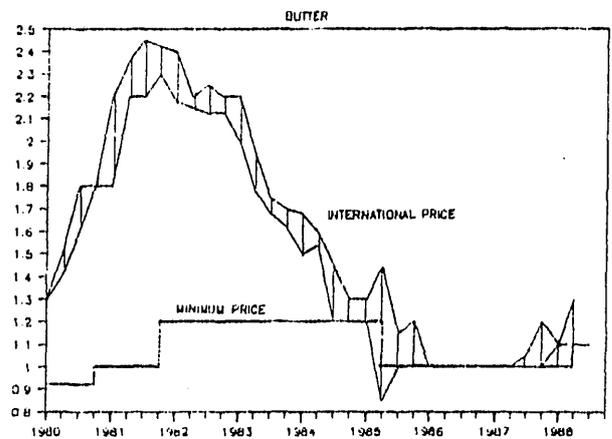
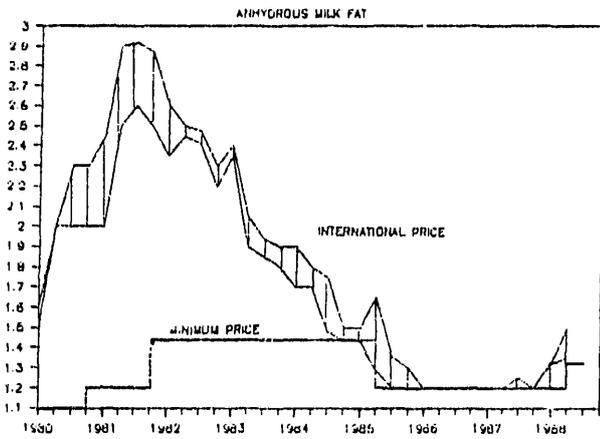
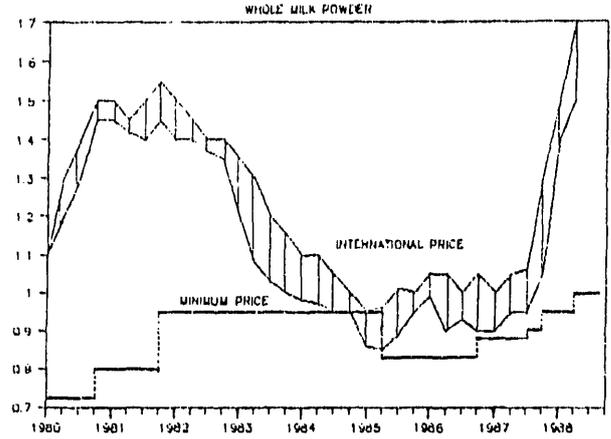
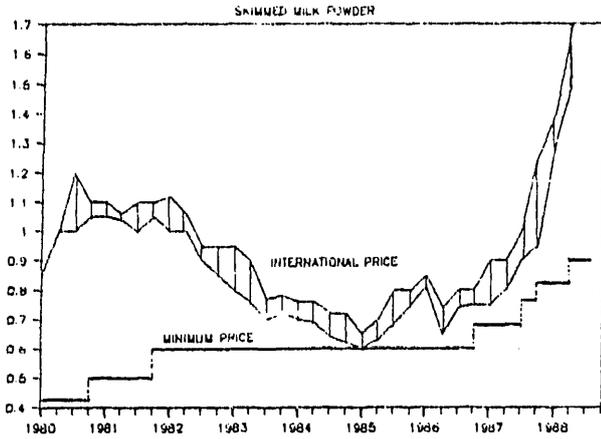
(US\$ per metric ton f.o.b.)

Product	1986				1987				1988		
	January-March	April-June	July-September	October-December	January-March	April-June	July-September	October-December	January-March	April-June	July-September
Skimmed milk powder	812-850	650-740	740-800	750-800	750-900	800-900	900-1,000	950-1,250	1,300-1,400	1,500-1,700	
Whole milk powder	990-1,050	900-1,050	930-1,000	900-1,050	900-1,000	950-1,050	950-1,060	1,050-1,300	1,400-1,500	1,500-1,700	
Anhydrous milk fat	1,200	1,200	1,200	1,200	1,200	1,200	1,200-1,250	1,200	1,325	1,350-1,500	
Butter ^a	1,000	1,000	1,000	1,000	1,000	1,000	1,000-1,050	1,000-1,200	1,100	1,100-1,300	
Cheddar cheese ^b	1,100-1,380	1,100-1,500	1,050-1,300	1,030-1,130	1,050-1,200	1,100-1,200	1,150-1,250	1,200-1,400	1,600-1,800	1,400-1,800	

^a In 1986, 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 Some sales of cheese below normal export quality made according to Article 7:2 of the Protocol Regarding Certain Cheeses were made at lower prices than the ranges indicated.

GRAPH 1
INTERNATIONAL PRICES OF DAIRY PRODUCTS 1980-1988^{1/}
('000 US\$ per metric ton f.o.b.)



^{1/} See notes to Table 2.

export returns on dairy products. Australian milk production, however, increased in 1987 due to exceptionally favourable weather conditions. Production was generally higher in the USSR and other East European countries. Milk deliveries in South America were moderately higher, following greater priority given by governments to stimulate dairy development and measures applied to improve the profitability of dairy farming. On the other hand, milk production was adversely affected in certain regions of Asia and Africa by unfavourable climatic conditions.

39. Estimates for 1988 suggested an increase from 0.5 to 1 per cent in world production of milk which meant that it regained its level of 1986. Milk deliveries were further reduced in the European Communities and remained more or less unchanged in other European countries and Japan. Milk production in the United States and in Canada increased somewhat which, together with some recovery in New Zealand and India, offset the decline in Community milk deliveries. Furthermore, milk production increased in the USSR and in a number of developing countries.

40. Milk deliveries in the EC (including Spain and Portugal), totalled 101.4 million tons in 1987, some 5.1 per cent below the level of last year, partly a result of a fall of 6 per cent in the overall dairy cow numbers and unfavourable weather conditions in certain EC member countries. A further reduction of 2.6 per cent in the overall milk deliveries was forecast for 1988 due to the implementation of policy measures aimed at reducing milk quotas, an increase in penalties with a super-levy of 100 per cent on deliveries in excess of quotas and the projected further fall of 4.4 per cent in the overall dairy cow numbers.

41. The European Council of February 1988, took the following decisions as regards the milk sector:

- (i) The quota system was prolonged for another three years until March 1992.
- (ii) The limitations to the intervention system for butter and skimmed milk powder were also extended for the same period.
- (iii) 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.

42. The 1988/89 farm price package, adopted in July 1988, left the target price for milk unchanged at ECU 27.84/100 kgs. No change was made in the intervention prices applicable to butter, skimmed milk powder and cheese. The price ratio between fats and solids non-fat thus remained at 48.2/51.8. The co-responsibility levy was maintained at 2 per cent of the target price. The additional levy payable by producers on purchases of cows' milk on quantities exceeding quotas was set at 100 per cent of the target price for milk.

43. Following the Council decision to retain the milk quota system until 1992, milk deliveries were expected to stabilize at about 97 million tons from 1989 onwards, i.e. a volume to about 14 million tons below the

notional level for 1992 derived from the extrapolation of the trends before the introduction of the quotas in 1984.

44. In Finland, milk deliveries in 1987 were 4 per cent lower at 2.78 million tons due to a bad harvest of feed, low quality of feed grains and reduced support prices in real terms. Deliveries were expected to fall further by 2.5 to 3 per cent in 1988. Average milk yield dropped by 0.6 per cent in 1987, but was expected to increase in 1988 with improved weather conditions. The number of cows dropped by 5 per cent on 1 December 1987. The two-tier pricing system adopted in 1985 continued to operate successfully. Penalties for farmers exceeding production quotas were increased from FIM 1.60/litre to FIM 2.00/litre in 1986. A new dairy programme was being implemented in 1988. Under that programme producers giving up production for five years would receive a payment of FIM 0.90 per litre per year and producers abandoning milk production definitely would receive a payment of FIM 1.20 per litre per year. The response from producers was much larger than expected and the amount of FIM 120 million granted to cover costs was insufficient to cover the demand. Consequently, payments per farm per year were limited to FIM 80 thousand and priority was given to farmers giving up their quotas, having serious disability or being of an age between 55 and 64.

45. Norwegian deliveries (including goat milk) increased by 1.8 per cent in 1987 to 1.88 million tons, mainly as a result of some relaxation in the application of the quota system. Production quotas for 1988 had been tightened by 1 per cent, about 1 per cent of milk producers were expected to give up production, and milk deliveries in 1988 were expected to decline.

46. Milk deliveries in Sweden were 0.5 per cent lower to 3.37 million tons in 1987 compared to their level in 1986, 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 showed some increase, the number of cows declined in 1987 by 4 per cent. A reduction in milk deliveries was expected further for 1988, as both the number of cows and yields per cow were forecast to decline. Farmers participating in the voluntary two-price system were given a full home market price for a quota equal to 92 per cent of the highest annual delivery from the farm in the base period 1981-83. For deliveries in excess of the quota the price paid was related to the export price obtained on the market. Farmers not taking part in the system received the home market price reduced by an export financing fee. The two-price system was intended to discourage surplus production and its effects in practice had been stronger than was initially expected. The two-price system would cease to be in force on 1 July 1989.

TABLE 3

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

		Milk Production/ Deliveries (million tons)	Percentage change from previous year		
			Production/ Deliveries	Milk yield	Dairy cow numbers
EC-12	1986	(b) 106.9	+ 1.0	+ 2.0	- 2.0
	1987	(b) 101.4	- 5.1		- 6.0
	Forecast 1988	(b) 98.8	- 2.6		- 4.4
USSR	1986	(a) 102.17	+ 2.3	+ 2.0	- 2.0
	1987	(a) 103.40	+ 1.2	+ 2.2	- 1.2
	Forecast 1988	(a) 105.50	+ 2.0		
United States	1986	(a) 65.35	+ 0.7	+ 2.3	- 1.5
	1987	(a) 64.64	- 1.0	+ 4.0	- 3.0
	Forecast 1988	(a) 65.93	+ 2.0		
Poland	1986	(a) 15.70	- 4.5	+ 2.0	- 3.0
	1987	(a) 15.40	- 2.0		
	Forecast 1988	(a) 15.00	- 2.6		
New Zealand	1986	(b) 7.54	- 1.2	+ 0.6	+ 1.5
	1987	(b) 6.63	- 12.1		- 0.4
	Forecast 1988	(b) 7.11	+ 7.2		
Canada	1986	(a) 7.52	+ 3.6	+ 2.1	- 1.9
	1987	(a) 7.59	+ 0.9	+ 1.7	- 2.6
	Forecast 1988	(a) 7.74	+ 2.0		
Japan	1986	(b) 7.45	+ 1.0	- 0.1	+ 1.0
	1987	(b) 7.33	- 1.7		
	Forecast 1988	(b) 7.40	+ 1.0		
Australia	1986	(b) 6.21	- 0.5	+ 2.4	- 2.5
	1987	(b) 6.34	+ 2.2		- 1.7
	Forecast 1988	(b) 6.37	+ 0.5		

47. In Switzerland, the strict quota system reduced the deliveries of milk to about 2.98 million tons in 1987, showing a drop of 3.3 per cent over the previous year. Deliveries were expected to decline again in 1988. In June 1986, the overall milk quota was decided to be reduced in two stages by 75 thousand tons or by 2.5 per cent. The first stage involving a reduction of 43 thousand tons was implemented in 1986/87, but the second reduction was left to the milk producers to implement by their own devices. Premiums were paid for non-marketing of milk and for processing of milk into cheese which had a relatively high price in the domestic and international markets. The basic price for milk, which was raised by 5 centimes to 97 centimes/kg. in July 1986, was again 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 reduction in milk deliveries appeared to be more than the drop in actual production due to greater retention of milk on the farm used for feeding purposes in response to a strict quota system.

48. In New Zealand, climatic variations had continued to have a major impact on milk production. Extremely favourable weather conditions in 1985/86 resulted in a record high production level of 349.4 million kgs. of milk fat, while dry conditions throughout the summer of 1986/87 entailed a reduction of 14 per cent and a production of only 301 million kgs. of milk fat. Assuming average conditions, milk production was in 1987/88 expected to be around 335 million kgs. milk fat, or 11.4 per cent higher than in the previous season but 4.1 per cent lower than the peak production level achieved in 1985/86. The farm gate price for milk (basic milk fat and solids non-fat price) which in the middle of 1986 had been lowered to 2.25 dollars per kg. was later raised to 3.20 dollars per kg. For 1987/88 the farm gate price has been fixed at 3.10 dollars per kg. but was raised to 3.35 dollars per kg. in October 1987. 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 resulting in contracts to reduce production by 5,300 tonnes of milk fat or 1.5 per cent of 1985/86 output. The payment for this "non-production" was \$1.2/kg. milk fat. For the 1987/88 season, a "butter realization differential" scheme had been introduced. 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.

49. In Australia, milk deliveries in 1987 totalled 6.34 million tons as compared to 6.20 million tons in 1986, largely due to exceptionally favourable weather conditions in Victoria, the major dairy State during March-June. 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 expected to be slightly higher

to reach a level of 6.37 million tons, provided the weather conditions remained as favourable as anticipated. The dairy policy introduced for 1986/87 aimed at the development of a more efficient market-oriented dairy industry. It was accompanied by some increase in milk prices to producers, which were partly benefiting from higher levies on milk and milk products sold on the home market and from more favourable export returns following the depreciation of the Australian dollar. 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. The levy on cheese was being phased out in five equal six-monthly steps terminating on 1 July 1989. In May 1988, the accelerated phasing out of the levy on butter/butter oil was announced. The supplementary market support would consequently be reduced in 1988/89 and completely phased out from 1 July 1989.

50. Japanese milk production in 1987 at 7.33 million tons was 1.7 per cent less than in 1986 due mainly to the producers response to a cut in delivery quotas initiated by the producers association, to the governments programme to subsidize accelerated cow cullings and to a cut in the support prices. It was forecast to recover somewhat in 1988, but still to a lower level of 7.40 million tons. Lack of rainfall had adversely affected milk deliveries in South Africa in 1987, but the climatic conditions had improved and production was at a more normal level in 1988.

51. In Argentina, the price per kg. of fat was increased by 25 per cent in the beginning of 1986 and this increase was confirmed for another year when the price convention between producers and the industry was extended in June 1986. Milk producers were thus encouraged to raise their productivity, carry out further investments and to increase deliveries of milk. Together with good feed supplies, this resulted in a further increase in milk production. At 5.8 million tons in 1986, milk deliveries were 7.5 per cent higher than in 1985. In 1987, deliveries were 6 per cent higher than in 1986 despite a smaller milking herd and unfavourable weather conditions in the major dairy region. The increase was mainly due to a further improvement in milk yields. In Argentina, milk production costs were among the lowest in the world. As of April 1988, the official milk producer price has been Australes 14 per kg. of butterfat equivalent to about US\$10 per 100 kgs. of milk. In Uruguay the price paid for manufacturing milk was even lower. Milk deliveries had increased in 1987, entailing a significant increase in the output of dairy products.

52. In Bulgaria, total production of milk in 1987 at 2,450 million litres was about 3 per cent lower than the 1986 level of 2,527 million litres, mainly due to unfavourable weather conditions. Hungarian production of milk increased in 1987 by 2.2 per cent reaching 2.73 million tons due to increased yield per cow. The bulk of dairy production covered the growing home demand, except for some special kinds of cheeses which were exported. In 1988, production of milk was likely to drop due to a drop in the cow numbers. The Polish milk production declined by 5 per cent in 1986

following a hard winter, reduced cow numbers and a lack of profitability in dairying, which had led many private farmers to reduce their herds. Some recovery was registered in 1987, in spite of a continued decline in the cow numbers, mainly due to the Government's raising of milk support prices. However, milk deliveries had been insufficient to meet domestic demand for dairy products in 1987, substantial quantities of dairy products had had to be imported and further imports were necessary in 1988. Milk production was not expected to exceed its level of 1987 due to unfavourable weather conditions.

53. 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 1986 at 4.66 million tons was 3 per cent higher than in 1985. There was further increase in 1987 due to increasing cow numbers and growing productivity. In Egypt, certain changes had been made to the import regime of certain dairy products. Total production of milk in 1987 at 970 thousand tons was 0.5 per cent higher than the 1986 level of 965 thousand tons. Efforts were being made to develop and increase dairy production.

54. In Yugoslavia, where small farmers were reported to be giving up milk production, milk deliveries fell by 3 per cent in 1986 compared to their level in 1985. In 1987, however, deliveries were reckoned to be slightly lower to a level of 4.62 million tons. Milk deliveries were reported to be higher in 1987 in both the Democratic Republic of Germany and Czechoslovakia, due to an improvement in milk yields.

55. In the USSR, milk production reached 103.4 million tons in 1987, 1.2 per cent higher than in 1986. Cow numbers continued to decline as more emphasis was being placed on increased milk yields. 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 1988, production was expected to increase by another 2 per cent.

56. 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 adversely affected 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. In 1987, milk production was 1 per cent below the level of a year earlier at 64.64 million tons. Milk cow numbers fell almost 3 per cent in 1987 because of the DTP. Record milk-feed price ratios triggered a 4 per cent increase in milk per cow, the largest since 1976. Production rose by 2.5 per cent in the first quarter of 1988 and by 2 per cent in the second quarter. In spite of the problems caused by the drought

in the summer of 1988, production was projected to rise by as much as 2 per cent in 1988 as a whole (to 65.93 million tons), reflecting stable cow numbers and increasing output per cow. 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.

57. Canadian milk deliveries in 1987 at 7.59 million tons were marginally 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. Target returns were raised by 1 per cent, the first increase since August 1986. Effective 1 February 1988, target returns for industrial milk were fixed at Can\$47.06/hl. Milk deliveries in the 1987/88 dairy year increased by about 2.6 per cent over 1986/87.

58. Milk production in the developing countries generally remained at low levels due to technical and economic factors. However, 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 Community. At around 44 million tons in 1986, it showed an increase of nearly 5 per cent over the output of the preceding year. In 1987, however, due to a severe drought and a shortage of feedgrains in most areas milk production was drastically reduced. China's production of milk rose by 11 per cent in 1986 to a level of 5.5 million tons, 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 1987 and further rapid growth was anticipated in 1988 as the industry responded to rising demand. Strong efforts to step up milk production were also being made in several countries of West and 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, demand and production of milk more or less remained unchanged in Africa. In Latin America, though the overall production was a shade higher, demand for milk products outpaced the supplies and made larger imports necessary. Favourable pasture conditions and abundant feed supplies resulted in a further growth of 10 per cent in Mexican milk production in 1987 reaching 8.8 million tons. Likewise, in Chile, milk deliveries increased by 14 per cent in 1986, with the consequence that dairy imports were almost eliminated and small exports were made to Bolivia, Brazil and Peru. In Brazil production fell by 6 per cent to 9.8 million tons in 1986 due to a drought and a price freeze

imposed by the Government as part of its economic package. In 1987, however, production recovered to 10.8 million tons when weather conditions became more favourable.

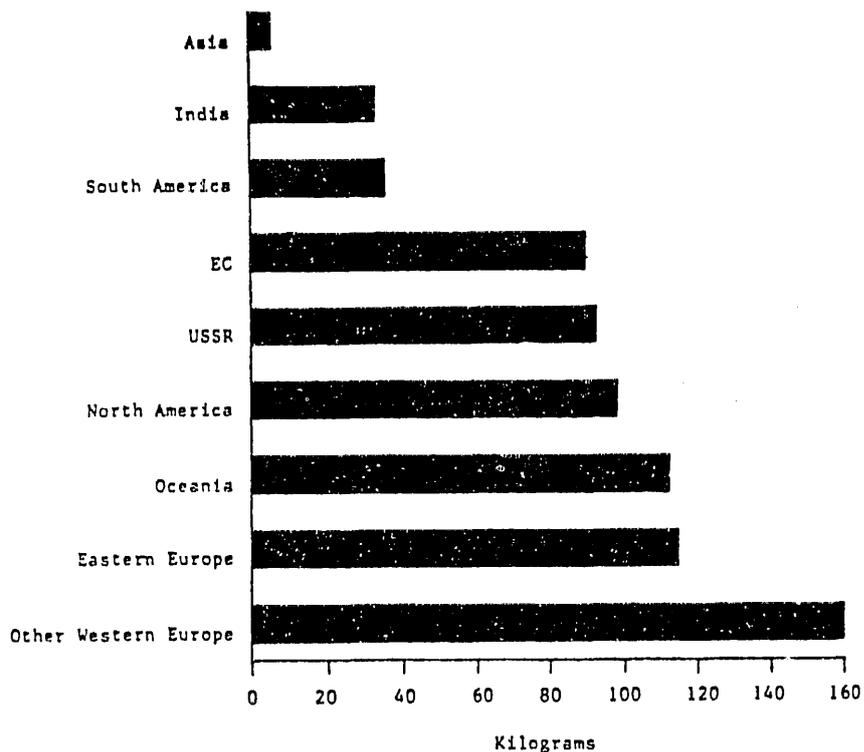
Consumption

59. World consumption of liquid milk over the last ten years increased at an average annual rate of 1 per cent. In per capita terms, however, it remained rather stable at nearly 46 kgs. throughout this period. 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 as much as 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 developed countries either on health grounds or due to the availability of a wide variety of substitute drinks.

60. In developed countries, consumers were turning away from whole milk to semi-skimmed types of milk. A 1 to 2 per cent rise in consumption of partially skimmed milk was reported by the following countries: Austria, Finland, Switzerland and certain EC member States. In countries like Norway, Sweden and certain EC member States, a sharp increase was registered for partly skimmed milk. Per capita consumption of milk increased in East European countries, particularly in Czechoslovakia, the German Democratic Republic (+2 per cent) and in Hungary (+1 per cent). This increase had been enhanced by the introduction of various types of semi-skimmed milk. The confidence in fresh milk as a safe and healthy element of nutrition was again restored from 1987 on.

61. The generally favourable developments in the consumption of dairy products in the United States also benefited whole milk sales. As a result of intense promotion campaigns, declining retail prices and an economic recovery, the demand for low fat milk had generally increased. It was estimated that the overall gain for 1988 would be around 1 per cent. Commercial sales of liquid milk continued to increase in Canada, with partly skimmed milk accounting for more than 60 per cent of the market in 1986. Consumption of low fat milk increased in 1987 but only slightly. A growth of 6 per cent was anticipated for 1988.

62. The principal area of growth in consumption was Asia, both developed and developing countries. Japan expected the trend of slowly increasing consumption to continue. The Government was subsidizing a campaign to promote milk consumption and had introduced a school milk subsidy. In 1987, consumption increased by 3 per cent, and it was expected to increase by another 2.5 per cent in 1988. Thailand maintained a Government-sponsored promotion campaign specifically aimed at adolescents. Consumption had increased steadily in recent years in Indonesia and China, although the absolute levels were still very low. Of the 7.9 million litres of milk produced daily in India, 45 per cent was consumed in the form of liquid milk, the rest was used for ghee, butter, yoghurt, sweet meats and soft cheeses. Per capita milk consumption had steadily increased.

GRAPH II1987 Per Capita Fluid Milk Consumption
in Selected Countries or Regions

Source: USDA

63. In the USSR, the consumer milk prices were kept stable with the help of subsidies. In 1986 the retail price of liquid milk was only a little more than half of the total cost of production and marketing. Prices of milk and other dairy products had remained virtually unchanged for twenty-five years. As a result, demand had remained strong, sometimes exceeding available supplies.

The Situation for Individual Dairy Products

Butter and Anhydrous Milk Fat

Butter

Production

64. World production of butter and butter oil in 1987 fell to 7.4 million tons, which was 5 per cent down on the level of 1986. The outlook for 1988 was for an additional 1 per cent decline. Butter output dropped sharply in the EC in 1987 to 1.75 million tons (by about 16 per cent), as milk supplies declined and the opportunity to sell butter into intervention was restricted. In the first half of 1988, EC butter production decreased by some 13 per cent and for 1988 as a whole, output was expected to drop further but at a slower rate.

65. In New Zealand, butter manufacture increased in 1987/88 to approximately 265 thousand tons. Australian butter/butter oil production in 1987/88 at 100 thousand tons, was down by 3.7 per cent on the 1986/87 season. In the Nordic countries, butter output in 1987 was lower in Finland and Sweden and decreased further in 1988; however, production increased in Norway in 1987 and 1988. In Eastern Europe, production increased in 1987, mainly because of the recovery in Polish output.

66. In the United States, butter production at 505 thousand tons in 1987 was down by 7 per cent due mostly to the drop in milk output. In the first half of 1988, however, production increased by some 7 per cent and for the year 1988 as a whole, output was expected to increase. Canadian butter production rose by 5 per cent in 1987/88.

67. USSR production rose by 2.4 per cent, reaching a level of 1.72 million tons in 1987 and continued to increase in 1988.

Consumption

68. World butter consumption was stagnant in 1987 and 1988. World per capita consumption of butter has been steady at 2.7-2.8 kgs. over the past ten years. Developments were probably due to substitution by blended spreads of butter and vegetable oil.

69. In the EC, butter from intervention storage has 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 may also subsidize butter for social purposes. Added to this was the scheme for school milk where the Community contributed financially to national schemes. Measures under the milk co-responsibility regime continued in 1987, providing funds for subsidized butter to be used in pastry products, ice-cream and sugar confectionery. A scheme for butter sold for cooking was introduced in 1985 and continued into 1986 and 1987. The EC sold under special programmes 278 thousand tons in 1985 and 343 thousand tons in 1986. Total Community consumption of butter in 1987 was 1.1 per cent less than in 1986, and a further reduction was anticipated for 1988.

70. In Switzerland, where a number of measures fairly similar to those of the EC had been taken to promote butter consumption in the domestic market, 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 1987. In the Nordic countries, butter consumption declined in 1987 but showed little change in 1988. In Poland and in Hungary, butter consumption recovered appreciably in 1987 and 1988 following better supplies.

71. In New Zealand, domestic consumption of butter remained stable at around 39-40 thousand tons a year; it was expected that it would remain stable. In Australia, domestic sales of butter/butter oil were expected to decrease marginally in 1987/88.

72. In North America, butter consumption increased slightly in 1987 and remained unchanged in 1988. In the USSR, consumption rose in 1987 and the trend continued in 1988.

Trade

73. The international market for butter and anhydrous milk fat remained fragile in 1987, and significant quantities were disposed of domestically and through sales under derogation from the price provisions of the Arrangement. However, such sales together with substantially reduced production resulted in an appreciable reduction of stocks providing an improvement in the butter market in 1988.

74. EC exports of butter to third countries which had decreased in 1985 and 1986, showed a substantial increase in 1987, the main destination being the USSR. The EC sold 500 thousand tons of butter (18 months' old) to the USSR. Deliveries had been completed in early 1988.

75. Exports by New Zealand increased in 1987. The EC remained the main outlet. Under the preferential regime for butter imports, the EC had imported from New Zealand 76 thousand tons in 1987 and 74 thousand tons in 1988. Negotiations were in progress on the future of New Zealand butter access quota to the EC after the end of 1988. Other important outlets for New Zealand butter were Iran and the USSR. Australian exports of butter/butter oil were expected to reach 55 thousand tons in 1987/88 as against exports of 35 thousand tons in 1986/87, with improved prospects for sales during 1988.

76. United States exports of butter in 1986 and 1987 were lower than in past years by some 50 per cent. Forecast of exports for 1988 was a decline of another 40 per cent to a level of 15 thousand tons of butter and butter oil. Under the Dairy Export Incentive Program, adopted in February 1987, the United States offered some 140 thousand tons of fresh butter to a large number of countries. However, no significant sales were made under this programme. Due to the reduction in stocks, the United States was not expected to play an important role in the export markets in 1988/89.

77. Imports of butter by the EC, which in 1986 aggregated 85 thousand tons, declined to 79 thousand tons in 1987. New Zealand remained the main source of the Community imports. Imports into Switzerland increased in 1987. In Poland, butter production had not corresponded with the overall domestic requirements; thus huge quantities had to be imported in 1986 (39 thousand tons) and in 1987 (33 thousand tons) while imports in 1985 had been nil. The main source of these imports was the EC. Imports were expected to remain stable in 1988 in relation to 1987.

78. The USSR, where consumption of milk and dairy products rose faster than production, remained by far the largest net importer. At approximately 3 million tons of milk equivalent, its imports accounted for over a tenth of world imports in 1987. However, most of the USSR's purchases were old butter disposed by the EC at low prices which were nearly equivalent to those of the cheapest vegetable oils available in international markets. In 1987, 500 thousand tons of old butter (over 18 months) was bought from the EC as compared to a total of 125 thousand tons in 1986 (Table 4). Since international prices of butter were low, the USSR found it advantageous to buy from outside. In 1988, some 100 thousand tons of old butter (over 18 months) was bought from the EC at low prices under derogation. There was however, an uncertainty regarding future imports of butter by the USSR.

Stocks

79. Total stocks of butter in the EC, North America and Oceania on 1 January 1988, at 1.15 million tons, were about 30 per cent lower than a year earlier and stocks continued to decline in the first half of 1988. World stocks at the end of 1987 were down nearly half a million tons with a further drop in 1988.

80. The decrease was mainly due to the fall in stocks held by the EC which decreased to 958 thousand tons (public and private) at the end of 1987 as compared to 1.37 million tons at the beginning of the year. In 1988, the decline continued and on 26 May 1988, public stocks held by the EC were at 512 thousand tons and private stocks at 72 thousand tons. It was estimated that some 250 thousand tons, or nearly half of the public stocks consisted of old butter (over 18 months old). It was expected that at the end of 1988 public stocks would be reduced to some 300 thousand tons. A special two-year stocks disposal programme designed to dispose of 1 million tons of butter was introduced in 1987. In addition, the Commission exercised its authority to suspend intervention buying of butter once quantities offered exceeded 180 thousand tons as from 1 March 1987. This quantity was reached and permanent intervention was therefore suspended as from 29 June 1987. 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. Consequently, stocks continued to decline throughout 1988.

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

	1981-83 average	1984	1985	1986	1987
<u>Total</u>	<u>189.46</u>	<u>198.02</u>	<u>276.04</u>	<u>194.34</u>	
of which from					
Belgium	16.67	0.49	16.72	-	
Ireland	15.75	25.70	19.79	-	
Netherlands	14.71	29.14	34.80	-	
France	25.08	48.77	94.14	15.20	
<u>Total EC countries mentioned</u>	<u>72.22</u>	<u>104.10</u>	<u>165.45</u>	<u>..</u>	
Hungary	3.48	5.16	1.76	0.72	
Norway	1.67	0.30	-	-	
Finland	9.34	9.87	7.07	8.00	
Sweden	5.46	5.04	2.31	-	
Canada	0.67	-	-	-	
Uruguay	3.37	1.00	-	..	
New Zealand	48.71	-	35.98	25.11	
Others (unspecified origins)	44.38	72.55	63.47	145.31	

Source: Foreign Trade Yearbooks of the USSR 1981 to 1986.

81. New Zealand stocks decreased to 80 thousand tons on 1 January 1988 as compared to 104 thousand tons on 1 January 1987. The sale of 50 thousand tons of butter oil to Brazil under derogation had largely removed excess inventories of old stocks. It was expected that stocks would continue to decline. Australian butter stocks had on 1 January 1988 increased to 39 thousand tons as compared to 30 thousand tons on 1 January 1987. However, due to improved prospects for sales during 1988 coupled with a reduction in production, stocks of butter/butter oil declined to 25 thousand tons at the end of the 1987/88 season. In Poland, stocks of butter at 13 thousand tons on 1 January 1988 were very low. In Finland, butter stocks at 11 thousand tons on 1 January 1988 were 8 per cent lower than a year earlier.

82. In the United States, support purchases of butter had been reduced to a negligible level with the much improved balance restored to the domestic market. 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 the first half of 1988, government purchases of butter rose substantially, reflecting a jump in the surplus of high-fat products. Consequently, public stocks increased and were estimated at 90 thousand tons on 30 June 1988. Canadian stocks decreased sharply to 9.5 thousand tons at the end of 1987 as compared to 17.5 thousand tons at the beginning of the year. They were expected to reach 20 thousand tons at the end of the dairy year 1987/88, down 11 per cent on 1 August 1987.

International prices

83. During 1981-85, international prices for butter declined sharply and continuously as supplies were in excess of demand with little or nothing being done to restore market equilibrium. After having been partially suspended since November 1984, the agreed minimum export price for butter was lowered in June 1985 to US\$1,000 per metric ton f.o.b. Over subsequent years participants were authorized to export substantial quantities of butter, notably old butter and butter oil, at prices below the minimum prices and by derogation from the price provisions of the Arrangement. Such sales were largely dominated by Community sales to the USSR, but other participants as well, made similar sales of additional quantities of butter and butter oil to various markets, including non-traditional outlets. Simultaneous with such special sales, steps were also being taken to dispose of surplus stocks on internal markets and to contain milk deliveries. Late in 1987 and early 1988, these efforts started to yield results, and the market situation, notably for fresh butter improved appreciably, and prices started to move up from the level of the minimum export price of US\$1,000 per metric ton f.o.b. Prices were expected to continue to strengthen in 1988/89.

84. 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 throughout the year. The minimum export price was raised from US\$1,000 to US\$1,100 per metric ton f.o.b. with effect from 23 March 1988.

85. Further derogations for sale of old butter at prices below the minimum export prices were granted late in 1987 and in 1988, notably for the sale of around 100 thousand tons of old Community butter to the USSR. Deliveries according to this sale should be completed before the end of 1988. Under some other derogations granted, no sales were concluded. The supply situation in late 1988 indicated that no further derogations would be necessary in 1988/89.

Anhydrous Milk Fat

Production and trade

86. Output and exports of anhydrous milk fat of the EC and New Zealand were higher in 1987 than in the previous year, these two participants being the major exporters of this product. However, Australian production and exports of anhydrous milk fat decreased in 1987. Production and trade of other participants were negligible.

Food aid

87. 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 1987, amounted to 19 thousand tons in relation to 29 thousand tons delivered in 1986. 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 14 thousand tons of butter and butter oil.

International prices

88. 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 in the second quarter of 1988 thus ranging between US\$1,350 and US\$1,500 per ton f.o.b. In October 1986, New Zealand sold 50 thousand tons of butter oil to Brazil at US\$550 per ton c.a.f. under derogation from the price provisions of the Protocol. Deliveries had been completed at the end of 1987.

89. 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.

90. In accordance with the Decision of 22 March 1988, the Committee authorized the EC 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 should be completed by 31 December 1988.

Cheese

Production

91. World output of cheese at 13.7 million tons in 1987 was 1.5 per cent more than in 1986 and another 1.5 per cent gain was forecast for 1988. The trend was very similar in all regions, but with somewhat greater variations from one country to another. In the EC, cheese production in 1987 reached 4.60 million tons, an increase by 1.6 per cent over 1986. 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. A further 1.7 per cent increase was expected in 1988.

92. In Australia, production of cheese was expected to total 182 thousand tons in 1987/88, i.e. 2.6 per cent more than the level of the previous season. In New Zealand, production in the 1986/87 season fell by 11 per cent to 113 thousand tons, reflecting reduced milk supplies. A recovery to the previous season's level of around 128 thousand tons was, however, expected in the 1987/88 season. Relative gains were recorded in 1987 in most other participating countries.

93. In 1987, the United States increased cheese production by only 1 per cent to about 2.41 million tons, as milk supplies declined. A larger growth was forecast for 1988. Production in Canada was up 4 per cent in 1987 in response to rising domestic and export demand. A further expansion was projected for 1988. In the USSR, production of cheese at 835 thousand tons in 1986 was 3 per cent higher than in 1985; estimated output in 1987 showed an increase of the same order. A further increase was projected for 1988. Production of cheese in developing countries hardly changed in 1987.

Consumption

94. Cheese consumption for the major producing countries continued to expand, up nearly 5 per cent in 1986 and another 3 per cent in 1987. Only a 1 per cent increase was expected in 1988, as United States consumption might not change very much and growth in European countries was expected to be limited.

95. World per capita cheese consumption was moving up strongly, showing an average annual increase of over 2 per cent since the early eighties, and might continue to increase at that rate. The overall average of 6.5 kgs. for 1987 concealed, however, a wide range of consumption levels. Per capita consumption was particularly high in the EC and in other countries of Western Europe (around 12 kgs.) and in North America (around 9 kgs.); the increase in consumption seemed to be the strongest in these high level consumption countries.

Trade

96. World exports of cheese declined somewhat in 1986 but recovered appreciably in 1987, following stronger import demand by OPEC countries and other developing countries such as Brazil. The outlook for 1988 was for exports to continue to expand. 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 likely to be overcome. The international cheese market was dominated by Western Europe and New Zealand, which together accounted for over 75 per cent of exports.

97. Community cheese exports which had decreased by 8 per cent in 1986 recovered in 1987 and increased to 406 thousand tons, thus regaining their level of 1985. New Zealand exports reached 105 thousand tons in 1987, being one third above their average level of 1981-83, the main outlet remaining Japan. New Zealand continued to invoke Article 7:2 for exports of cheese below normal export quality. For 1983-1987, New Zealand notified sales of almost 11 thousand tons under this provision to a range of countries. Australian exports of cheese were forecast to increase by 19 per cent in 1987/88 to some 68 thousand tons. 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 4.9 thousand tons in 1987/88. The principal destinations were Eastern European countries.

98. Exports by Switzerland showed a marked decline of 9.6 per cent in 1987 and amounted to 58.7 thousand tons. Exports of Finland, which had decreased by 11 per cent in 1986 to 33 thousand tons, recovered in 1987 and reached 39 thousand tons.

99. Cheese exports from the United States increased somewhat in 1987 but remained at a low level of around 20 thousand tons of which one fourth was exported as food aid. Under the Dairy Export Incentive Program adopted in February 1987, 73 thousand tons of cheese was offered to a number of countries but no sales were concluded. Austrian exports of cheese recovered in 1987 while exports from Canada remained relatively stable. Exports from the German Democratic Republic continued to expand and reached almost 50 thousand tons in 1987.

100. On the import side, the United States purchases totalled 120 thousand tons in 1987, down by 9 per cent on 1986. The bulk of the imports was from the EC, New Zealand and Finland. The EC imports at 109 thousand tons in 1987, mostly from Switzerland, were slightly higher than in the previous year. Japanese imports of cheese in 1987 at 94 thousand tons were substantially higher than in 1986, the main suppliers being the EC, 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 increased substantially in 1987, in spite of some problems relating to bacterial contamination towards the end of the year.

Stocks

101. Cheese stocks, on 1 January 1988, were lower than one year earlier and were expected to decline further throughout 1988. The decrease was mainly due to the fall in stocks held by the United States which decreased to 205 thousand tons on 1 January 1988 as compared to 358 thousand tons one year earlier; on 1 July 1988, stocks were at 232 thousand tons as compared to 316 thousand tons on 1 July 1987.

International prices

102. Market prices for cheese continued to vary according to types of cheeses and markets throughout 1987 and 1988. Cheddar cheese prices strengthened and fluctuated between US\$1,400 and US\$1,800 during the first half of 1988, thus remaining well above the agreed minimum export price. Prices were expected to continue to firm in the coming months, as import demand was sufficient to absorb the increase in supplies. However, developments might differ for different qualities.

103. 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.

Milk Powders

Skimmed Milk Powder and Buttermilk Powder

Production

104. World production of skimmed milk powder in 1987 at 4.2 million tons was 11.5 per cent lower than in 1986 when it had increased by 4.6 per cent. Thus, the upward trend of recent years for skimmed milk powder production was halted in 1987, mainly as a result of reduced butter production and consequently less skimmed milk becoming available for drying. Much of the decline can be attributed to the EC efforts to reduce milk output and surplus stocks. Changes in the EC production level were very important because it accounted for nearly half the world production. The United States and New Zealand also sharply curtailed skimmed milk powder output as milk supplies declined. For 1988, skimmed milk powder production by major producers might decrease sharply as the EC continued to limit production.

105. In the EC, production of skimmed milk powder decreased sharply in 1987 (by 26 per cent) to 1.65 million tons as a result of measures taken to reduce milk production. For 1988, output of skimmed milk powder was expected to decline by 12 per cent to 1.45 million tons. 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 was estimated at around 165 thousand tons. Buttermilk powder production declined in 1987. In Australia, estimated production of skimmed milk powder/buttermilk powder in 1987/88 was 134 thousand tons as against 137 thousand tons in 1986/87. In

Japan, production decreased substantially (by 13 per cent) in 1987, reaching 152 thousand tons. In Poland, output remained relatively stable at around 148 thousand tons. Production of skimmed milk powder by other participants followed varying trends in 1987.

106. In the United States, output decreased substantially (by 20 per cent) in 1987, reaching 471 thousand tons. Canadian production experienced a slight decline in 1987. Production in the USSR continued to increase in 1987, reaching 500 thousand tons.

Consumption

107. World consumption of skimmed milk powder remained relatively stable in 1987 after having decreased in 1986. It was expected to fall again in 1988, reflecting the tighter supply situation for milk powders. In the EC, total domestic consumption declined in 1987. In Japan and in the United States consumption remained relatively stable in 1987.

108. In Western Europe, where skimmed milk powder was used mainly for animal feed, measures were applied to promote its consumption. In the EC, the use of liquid skimmed milk and skimmed milk powder for animal feed purposes, subsidized at an average rate of nearly 50 per cent, was still of the order of 1.5 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 late in 1987 and in early 1988. In June 1988, the EC took decisions for a cut in the aid on skimmed milk powder used in animal feed, from ECU 80 to ECU 70 per 100 kgs.; a cut from ECU 6.5 to ECU 5.69 per 100 kgs. in the aid on liquid skimmed milk used by the same industry; a cut from ECU 8.45 to ECU 7.39 per 100 kgs. in the subsidy on liquid skimmed milk transformed into casein. The EC also decided that the minimum amount of skimmed milk powder to be incorporated in animal feed qualifying for aid should be cut from 60 per cent to 45 per cent of the feed.

Trade

109. World exports of skimmed milk powder (including food aid) recovered appreciably in 1987 and at around 1.2 million tons were 3 per cent up on 1986. Import demand in some developing countries remained strong, as was the case for Mexico, Brazil, Peru and India. The United States continued to be a major exporter of this commodity. Although a sizable proportion of United States shipments continued to be food aid, direct export sales have also been made by the Commodity Credit Corporation. The EC which had problems in exporting skimmed milk powder in 1986 following the Chernobyl accident, rebounded to more normal levels in 1987 and stocks were reduced. The outlook for skimmed milk powder world trade in 1988 was for a sizable drop as production and stocks were reduced.

110. A considerable increase took place in the exports of skimmed milk powder by the EC (including food aid) when they totalled 390 thousand tons in 1987 from 267 thousand tons in 1986, i.e., a rise of 46 per cent. Exports in the first quarter of 1988 continued to increase. This marked a positive improvement in the situation of the EC which had previously experienced a considerable drop in its share of the world market from 60 per cent in 1980 to 26 per cent in 1986.

111. Skimmed milk powder exports by New Zealand which had decreased by 7.5 per cent in 1986 continued to drop in 1987 and reached 138 thousand tons, a decrease by 14 per cent on 1986. The main destinations were countries in South East and Eastern Asia and Brazil. Buttermilk powder exports continued to increase in 1987. Australian exports of skimmed milk powder/buttermilk powder were forecast at about 108 thousand tons in 1987/88, an increase by 20 per cent on 1986/87. Both New Zealand and Australia had committed their entire export availability for the remainder of 1988.

112. Exports by the United States totalled 299 thousand tons in 1987, a decrease by 14 per cent on 1986, approximately 40 per cent of the shipments were made as food aid. The Commodity Credit Corporation continued to sell substantial quantities of skimmed milk powder to Mexico and Brazil. Under the Dairy Export Incentive Program adopted in February 1987, the United States offered some 370 thousand tons of non-fat dry milk and whole milk powder to certain developing countries. However, no significant sales had been made by the middle of 1988. The outlook for 1988 was for a decline in total exports to some 200 thousand tons as stocks were reduced to negligible levels. 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.

113. On the import side, purchases by Japan increased slightly in 1987. Much of the powder imported was for use as animal feed. The principal sources of supplies were New Zealand, Australia and the EC.

114. 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 150 thousand tons in 1987 as against 161 thousand tons in 1986, the principal supplier being the United States. 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 EC and New Zealand. However, total imports in 1987 declined to about 85 thousand tons as milk production recovered and higher retail milk prices limited consumption.

115. 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 1988/89. 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

116. 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 EC. 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 amounted to 148 thousand tons in 1986, a decrease of 33 per cent over 1985. Foreign donations continued to decrease in 1987 but at 127 thousand tons still remained at high levels. However, sharply reduced uncommitted stocks currently on hand were likely to curtail foreign donations in 1988 and 1989.

117. The EC has since the early 1980's 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 1988, and those of butter oil from 45 thousand tons to 25 thousand tons. In 1987, actual food-aid deliveries by the EC amounted to 110 thousand tons of skimmed milk powder in relation to 98 thousand tons delivered in 1986.

Stocks

118. Total stocks of skimmed milk powder in the EC, North America and Oceania of approximately 607 thousand tons at 1 January 1988 were down by 47 per cent from one year earlier. The decrease in stocks recorded at the end of 1987 was primarily accounted for by the sharp decrease in stocks in the United States and an appreciable drop in EC stocks. The tight market situation entailed a further reduction in world stocks of skimmed milk powder in 1988. Surplus stocks had been eliminated in 1988.

119. In March 1987, the EC introduced limitations on intervention purchases of butter and of skimmed milk powder. Offers of skimmed milk powder to public intervention decreased very sharply in 1987. Consequently, the threshold of 100 thousand tons set by the Council to temporarily suspend such purchases was not reached during the summer of 1987. Intervention being automatically suspended from 1 September to 1 March, the result was that skimmed milk powder intervention in 1987 was limited, at most to 55 thousand tons, a quantity that was less than one tenth of the amount purchased in 1986. Community public stocks at the end of December 1987 totalled 473 thousand tons, a decrease of 39 per cent as compared to their level at the end of 1986. They continued to decrease rapidly and totalled only 186 thousand tons at the end of May 1988, of which 146 thousand tons were already committed and 40 thousand tons available. With further declines in production in 1988, EC stocks were reduced to a minimum level.

TABLE 3
Share of Food Aid in Total Exports for Selected Countries

Participating countries	Total exports			Food aid			Food aid/ Total exports		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
	Metric tons						Per cent		
	<u>Skimmed Milk Powder</u>								
Australia	90,200	74,400	67,600	800	400	300	0.9	0.5	0.4
Canada	60,580	66,100	46,100	...	...	...	...	...	...
EC	306,300	268,000	390,000	124,000	98,000	110,000	40.5	36.6	28.2
Switzerland	8,800	8,400	10,300	1,200	700	800	13.6	8.3	7.8
United States	304,883	347,100	298,800	221,928	148,000	126,800	72.8	42.6	42.4
TOTAL	770,763	764,000	812,800	...	...	...	...	...	...
	<u>Whole Milk Powder</u>								
Australia	31,700	38,000	43,100	40	70	20	0.1	0.2	0.1
Switzerland	3,000	3,000	2,400	2,600	2,600	2,000	86.7	86.7	83.3
TOTAL	34,700	41,000	45,500	2,640	2,670	2,020	7.6	6.5	4.4
	<u>Anhydrous Milk Fat</u>								
Australia	24,000	23,800	13,100	600	100	-	2.5	0.4	-
EC	153,000	120,000	148,000	28,000	29,000	19,000	18.3	24.1	12.8
TOTAL	177,000	143,800	161,100	28,600	29,100	19,000	16.1	19.5	11.8

120. In Oceania, stocks did not register substantial changes in 1987 and were expected to decline throughout 1988. Surplus skimmed milk powder stocks in the United States had been all but eliminated and the outlook for 1988 was for a sharp reduction in exports.

International prices

121. 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.

122. International prices of skimmed milk powder showed a steady improvement throughout 1987 and world demand remained strong. As available supplies for export became more restricted in the EC, New Zealand and the United States in the spring, prices rose rapidly. In the fall of 1987, prices took another upsurge and fluctuated between US\$950 and US\$1,250 per ton f.o.b. in the fourth quarter as compared to the range of US\$750-US\$900 per ton f.o.b. in the first quarter of the year. The international skimmed milk powder market was feeling the effects of the tightening supply situation. In early 1988, good qualities for human consumption of skimmed milk powder were traded at prices between US\$1,300 and US\$1,400 per ton f.o.b. During the second quarter of 1988, prices continued to strengthen and fluctuated between US\$1,500 and US\$1,700 per ton f.o.b. International prices of skimmed milk powder doubled within one year and in the spring of 1988, prices of skimmed milk powder were equal to those of whole milk powder and substantially higher than those of butter and butter oil. The market for skimmed milk powder was expected to remain firm in 1988/89.

Whole Milk Powder

Production

123. Aggregate output of whole milk powder, closely related to specific demand, continued to expand in 1987, reaching 2.2 million tons, about 9 per cent more than in 1986. Production increased in all regions, but most strongly in the EC. Reduced supplies of milk for processing resulted in a reduced production in New Zealand, and there was also smaller production in some European countries outside the Community. World production of whole milk powder was expected to expand further in 1988 as demand remained strong, giving a significant incentive to expand production.

124. Output in the EC showed an increase of the order of 15 per cent in 1987 and amounted to 884 thousand tons. This increase in the production of whole milk powder was, however, nearly offset by an equal decline in the production of condensed milk due to the growing tendency on the part of its traditional importers to manufacture their own condensed milk. In New Zealand, production of whole milk powder decreased in calendar year 1987 but was expected to remain steady at 174 thousand tons in the 1987/88 season. In Australia, production was forecast to remain about the same at 65 thousand tons in 1987/88, as against 65.3 thousand tons in 1986/87.

Production in Finland amounted to 25 thousand tons in 1987 in relation to 31 thousand tons in 1986. Production was forecast to decline to 21 thousand tons in 1988.

Trade

125. Whole milk powder exports continued their upward trend in 1987 and exceeded some 900 thousand tons reflecting a strong import demand. They were expected to grow further in 1988, however most likely at a more modest rate than in 1987. Exports by the EC showed an appreciable increase (of 21 per cent) to reach some 580 thousand tons, around two thirds of the world exports. This, however, should be seen against the background of a drop in exports of condensed milk.

126. Exports from New Zealand, the world's second largest exporter, increased by 23.4 per cent in 1986 to 166 thousand tons but decreased to 160 thousand tons in 1987 due to limited supplies of milk for processing. The main outlets were South and East Asia, Central America, Brazil and the USSR. Australian exports of whole milk powder in 1987/88 were forecast at 52 thousand tons as against 51.5 thousand tons in 1986/87. Due to continued strong demand, both New Zealand and Australia had committed their entire export availability for the remainder of 1988. Exports from Finland, which went exclusively to the USSR, amounted to some 27 thousand tons in 1987, a decrease by 15 per cent due to the decline in production. Exports were forecast to decrease further to 20 thousand tons in 1988.

International prices

127. 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 with effect from 23 March 1988.

128. International prices of whole milk powder showed a steady improvement throughout 1987. In the first quarter of 1987, export prices ranged between US\$900 and US\$1,000 per ton f.o.b. but started to improve from April on, and in the fourth quarter of 1987 ranging between US\$1,050 and US\$1,300 per ton f.o.b. Early in 1988, whole milk powder was traded at prices around US\$1,400-US\$1,500 per ton f.o.b. During the second quarter of 1988, prices ranged between US\$1,500 and US\$1,700 per ton f.o.b. Thus, the market remained firm, the supply situation was tight and prices were likely to increase further.

Other Dairy Products

Whey in powder or block or concentrate

129. The demand for whey and whey products for use as food and feed ingredients and in pharmaceutical applications remained strong in 1987, providing incentives to expand production in several countries. World production of whey powder and products increased by 4 per cent from 1986 to

1987, exceeding 2 million tons. This figure should be considered to be merely a rough estimate as statistics were incomplete, and might include a variety of milk concentrates, including lactose.

130. Community production increased by 1.7 per cent in 1987 compared to 1986, and reached 854 thousand tons, thus accounting for about 43 per cent of world production. There was also a further increase in United States production of 4 per cent, amounting to 465 thousand tons in 1987. Swiss whey powder production rose by one fifth from 1986 to 1987, but domestic consumption increased even more and carry-over stocks were reduced. There was a further decline in production of whey concentrates in Canada, and only minor changes for other countries. World production of whey powder was expected to increase at a moderate rate in 1988, depending on developments in production of cheese and casein.

131. Whey powder prices increased strongly in 1987, first in the United States and later in European markets. In the United States prices reached a peak of US\$660 per ton in October 1987 but fell to around US\$550 per ton towards the end of the year compared to US\$220 at the end of 1986. In Europe, whey powder prices continued to increase also in early 1988. In light of expectations of significantly reduced supplies of skimmed milk powder coming on to the market and further expansion in demand for whey as a food ingredient, the world market for whey powder was expected to remain firm in 1988/89 with significantly higher prices than in previous years.

Concentrated milk

132. World production of condensed milk declined further in 1987, amounting to less than 4.5 million tons. A persisting downward trend in the production of condensed milk in Western Europe and North America was only to a limited extent outweighed by further increases in the USSR, India and some other developing countries. Condensed milk was to an increasing extent being replaced by instant milk powder, import demand for condensed milk was declining and the processing industry was adjusting to changes in the market. The production of condensed milk was consequently expected to be reduced further in 1988, although Community production showed an increase of 7 per cent for the first five months of the year.

133. 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 1987, or some 525 thousand tons. Canadian exports registered a dramatic fall (by 58 per cent) from 55 thousand tons in 1986 to 23 thousand tons in 1987. EC exports declined also (by 11 per cent) from 432 thousand tons in 1986 to 387 thousand tons in 1987. Imports into developing countries had been declining since 1985 and those into OPEC countries for a longer period. Imports into OPEC countries amounted to 180 thousand tons in 1987, less than half their average level in 1982-84. A further decline was expected to come about in 1988.

134. Condensed milk prices remained unchanged throughout 1987, with wholesale prices in Europe and North America ranging from US\$1,200 to US\$1,500 per ton canned product.

Casein

135. The downward trend in world casein production persisted in 1987, and total production fell to 233 thousand tons, 1 per cent less than in the previous year. A decline in New Zealand production was only partly outweighed by increased Community production and there were only minor changes in production in other countries. The quantity of skimmed milk used for casein production in the Community in 1987, corresponded to 600 thousand tons of skimmed milk powder.

136. Community production of casein was not expected to increase further in 1988 and might even decline slightly. Reduced milk production and a lower butter production resulted in less skimmed milk being available for processing. This, together with higher skimmed milk powder prices, resulted in stronger competition about supplies of raw material. Furthermore, the Community production subsidy on casein was reduced in October 1987 and in June 1988; thus, Community casein producers were facing substantially increased production costs. New Zealand production of casein, which in 1986/87 was severely influenced by reduced milk supplies, was recovering appreciably in 1987/88, when it was expected to reach the average level of recent years, namely 65 thousand tons. World production in 1988 was however expected to reach only 230 thousand tons, that is to say there would be a further decline of the same size as last year.

137. Stocks of casein were very low at the end of 1987 and supplies depended almost entirely on current production early in 1988. World exports which in 1987 were maintained at the level of the previous year of around 160 thousand tons were expected to decline in 1988, with reduced supplies both to the United States and the Community markets.

138. The market situation which throughout 1987 was characterized by tight supplies and firming prices, was continued in 1988. The reduction in October 1987 and in June 1988 of Community producer subsidies for casein 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 the middle of the year, prices were reported to have sharply increased to US\$4,300 per ton. A further reduction in June 1988 of Community producer subsidies for casein and a continued tight supply situation might entail further sharp rises in casein prices in the remainder of 1988.