

Chapter 4

Livestock Sector Policies

In the United States, livestock and the production of livestock products account for about half of total farm cash receipts and for almost one-fifth of total agricultural exports. This chapter examines livestock sector support policies, focusing on the dairy industry.

4.1. Policy background

Livestock and the production of livestock products account for about half of total farm cash receipts and for almost one-fifth of total agricultural exports (Annex Tables E.1 and E.13). The United States is a world leader in the production, consumption and export of meat and poultry products. Consolidation and vertical integration are the key features that characterise the rapid changes that have taken place in the structure and business organisation of the livestock sector over the last three decades (see Section 1.2).

With the exception of milk, wool, mohair and honey, few federal farm policies grant direct support to livestock producers.¹ For example, livestock producers are not eligible for commodity price and income support programmes (except on products they also may produce – such as milk and wool). Nor, in most cases, do they qualify for federal crop insurance, although there is some limited participation by cattle, dairy and pig producers in livestock revenue insurance programmes. They have benefited from *ad hoc* assistance to recover losses caused by natural disasters such as droughts and hurricanes and, on occasion, from assistance for the destruction of animals for disease control purposes.²

Nonetheless, the indirect impacts of agricultural policies on the livestock sector are substantial. A variety of federal farm programmes, regulations and policies affect livestock production indirectly because of their wide-ranging effects in the areas of feed grain prices, bio-fuel development, land use, environmental concerns, risk management, market structure and international trade.

For example, incentives that divert maize from feed uses into ethanol production can significantly increase feed prices and, consequently, production costs. Likewise, compliance with environmental and food safety regulations has an important bearing on the sector. As livestock farming increasingly concentrates into larger, more production-intensive units, concerns arise about the effects on the environment, including degradation of surface water, groundwater, soil and air. Operations that emit large quantities of air pollutants may be subject to regulation under the Clean Air Act.

The livestock-related provisions of the Farm Acts typically pertained to contracting and other business relationships between producers and meat packers; farm animal health and welfare regulation; and the marketing and safety of meat and poultry (Johnson and Becker, 2009). The 2008 Farm Act also includes provisions that: cover state-inspected meat and poultry; bring catfish under mandatory USDA inspection; modify the mandatory country-of-origin labelling (COOL) law to ease compliance requirements affecting meats and other covered commodities; and it creates a new disaster assistance trust fund for livestock producers affected by weather disasters.

Food safety and marketing issues related to livestock products are discussed in Chapter 10, *Food safety, marketing and other policies*. Disaster assistance programmes for livestock producers are discussed in Chapter 3, in the sub-section on *Insurance and natural disaster payments*. The following section focuses on support policies for the dairy sector.

4.2. Dairy support policies

Policy background

Dairy products account for around 27% of the value of production and 4% of agricultural export earnings. Technological change, economies of scale and increased productivity have led to a large concentration of production: 5% of all dairy farms (those with more than 500 cows) supply 60% of all the milk produced in the United States. Advances in transportation and storage technologies have greatly reduced the marketing problems associated with milk perishability. Moreover, the increased size and concentration of farmers' co-operatives for marketing their milk has lessened the imbalance in market power between farmers and dairy product manufacturers.³

Changes in consumer demand for dairy products have spurred changes in product mix, structure and organisation of the sector. Consumers' purchases of dairy products have changed from primarily local markets for perishable fluid milk toward more storable and easily transported manufactured dairy products which are increasingly traded in global markets. Additionally, consumer demand for dairy products is growing more slowly than milk production capacity, thereby challenging the relevance of one of the original goals of the dairy support programme – to ensure an adequate supply of fluid milk.⁴

As measured by the PSE, the dairy sector currently receives more support in absolute terms, than any other sector in the United States, and receives the second-largest share of gross farm receipts (%SCT for milk) (after sugar). In 2007-09, support specific to dairy producers accounted for 14% of the total PSE. Almost all of the specific support to dairy comes from market price support (market price support to the dairy sector accounts for over 60% of total market price support across all US commodities).

Dairy policies and programmes have been modified over time, but the underlying general objectives remain unchanged: to ensure the orderly marketing of fresh, wholesome milk to meet consumer demand at reasonable prices and to provide adequate returns to milk producers (Manchester and Blayney, 2001). More specifically, dairy policy in the United States has historically been aimed at addressing three main issues: 1) volatile or low producer prices; 2) the perishability of milk resulting in seasonal imbalances of supply and demand; and 3) the perceived weak bargaining power of milk producers *vis-à-vis* the buyers.

This policy response has resulted in the development of a complex array of programmes, both at federal and state level. The main elements of dairy policy comprise a system of geographically-based price discrimination and pooling schemes (federal and state milk marketing orders); a counter-cyclical producer payment programme (the Milk Income Loss Contract Program); a price support programme implemented by government purchase of dairy products (the Dairy Produce Price support Program); a tariff-rate quota for most dairy products to restrict imports (import barriers); and a small export subsidy programme (the Dairy Export Incentive Program) for a few manufactured dairy products in certain years (particularly the mid-1990s).

Federal and state governments also have a tradition of credit, food safety, environmental and land-use zoning regulations or incentives that have a bearing on the dairy industry, and government programmes designed to provide domestic and international food aid have an additional effect.

Federal Milk Marketing Orders

The primary aim of Federal Milk Marketing Orders (FMMOs) is to promote the orderly marketing of raw fluid-grade milk between producer and processor.⁵ FMMOs define the price relationship among of fluid and manufactured dairy products within specific geographic areas of the country. The farm price of approximately two-thirds of farm milk is regulated under federal milk marketing orders. In addition, in lieu of participation in the FMMO system, a few states operate their own independently administered marketing orders (*e.g.* California).

Although the specificities of FMMOs have been modified since their inception in the late 1930s (under the Agricultural Marketing Agreement Act of 1937), their two principal elements – price discrimination and revenue pooling – have remained largely unchanged. Their main roles continue to be to: i) regulate the price of raw fluid-grade (Grade A) milk; ii) establish minimum prices that dairy handlers (processors) must pay to dairy producers for the milk they purchase depending on its end use (*i.e.* the type of product produced); and iii) distribute pool payments back to producers or their representatives (usually co-operatives).

A system of classified prices currently based on four classes of milk establishes minimum prices for the end products. The price of milk used for fluid consumption (Class I) can vary significantly across marketing orders and attracts the highest minimum price.⁶ On the other hand, the minimum prices for milk used in manufactured dairy products (Classes II, III and IV) are the same across marketing orders nationwide and are calculated monthly by the government.⁷ The stated objective of the orders is to ensure that adequate supplies of fresh milk are available in densely populated consumption areas that are also areas of low milk production.

Fluid milk prices (Class I) are determined by adding to a monthly base price a location differential – this varies from region to region according to local supply and demand conditions and is based on price incentives necessary to draw milk from surplus regions to deficit regions.

The payments of regulated handlers in each marketing order area are pooled, and producers delivering milk to the same regional marketing order area are paid a minimum uniform average (or “blended”) price based on the utilisation (shares) of various classes of milk.⁸

Through the practice of revenue pooling and discriminatory pricing, federal milk marketing orders may raise the average product price of milk and induce increased milk production. This is because the demand for fluid milk (Class I) is less elastic – *i.e.* a rise in price would lead to a proportionately smaller decline in consumption than the demand for manufactured dairy products (Classes II, III and IV) – and the established minimum prices are higher for the fluid milk market. Moreover, revenue pooling effectively subsidises the production of milk for manufacturing uses, resulting in a lower price for consumers of cheese, butter and milk powder, and lower prices to producers for Class II, III and IV milk.

Unlike the Dairy Product Price Support and the Milk Income Loss Contract programmes discussed below, FMMOs are permanently authorised (Johnson, 2008; Chite and Shields, 2009). Thus, the elements of the 2008 Farm Act relating to FMMOs focus on processes under the system's regulations – not on major programme changes. The 1996 Farm Act called for several changes in milk marketing orders, including consolidation of the then-existing 31 orders (by 2009, the number had been reduced to ten).

The 2008 Farm Act also authorises a dairy forward pricing programme to be administered in a similar manner to a previous temporary pilot programme. Like the

original pilot programme, the forward pricing programme allows dairy farmers and co-operatives to enter voluntarily into forward contracts with milk processors. The programme applies only to milk purchased for manufactured products (Classes II, III and IV), and therefore does not include milk purchased for fluid consumption (Class I). The provision allows new contracts to be entered into until FY2012. Any payments made by milk processors under the contract are deemed to satisfy the minimum price requirements of federal milk marketing orders.

The Milk Income Loss Contract Program

In contrast to crop farmers, dairy farmers have not traditionally been recipients of direct government payments. However, the dairy sector was one of the main beneficiaries of the *ad hoc* emergency assistance provided over FY1999-2000, receiving a total of USD 1 billion. Under the 2002 Farm Act these *ad hoc* payments were institutionalised with the creation of a new counter-cyclical national dairy market loss payment programme, the Milk Income Loss Contract (MILC).

Like US crop programmes, the MILC provides direct payments to dairy producers when prices decline below a specified level, but – unlike countercyclical programmes for crops which are paid on a percentage of historical production – MILC payments are based on current production up to a specified limit. All dairy producers are eligible. MILC payments are made on quantities up to a given amount of milk marketed per farm, for months when the fluid milk price in the Boston marketing order falls below a benchmark level up to a given annual amount of milk.⁹

Under the 2002 Farm Act, dairy producers were eligible to receive MILC payments on up to 1.1 thousand tonnes of milk per dairy farm per year when the monthly Boston price for Class I milk fell below a benchmark price of USD 373.5 per tonne.¹⁰ The payment rate was set at 34% of the difference between the Class I price in Boston and the established benchmark price.

The 2008 Farm Act extends the MILC programme through to the end of FY2012, but makes significant changes to the MILC payment structure in the following ways. Although the same benchmark price is maintained, both the production payment limit per farm and the rate of payment are increased for the period from 1 October 2008 to 31 August 2012. Over that period, the production limit per farm is set at 1.4 thousand tonnes per year and the payment rate at 45%. After 31 August 2012, the production limit per farm reverts to 1.1 thousand tonnes per year and the payment rate reverts to 34%.

In addition, because of the rapidly rising cost of feed, the 2008 Farm Act included a provision to adjust the benchmark price upwards, should feed prices rise above specified levels (i.e. the USD 373.5 per tonne target price in any month is adjusted upwards when feed prices rise above a certain threshold).¹¹

MILC payment levels have fluctuated over time, reflecting the volumes marketed in months when the reference price (i.e. Class I milk at Boston) has been below the benchmark price and the difference between the benchmark and reference prices. In every year since its inception (with the exception of FY2003), payments made under the scheme have been small, relative to the overall value of milk production. However, when market prices remained below the benchmark level for a significant period in 2003, payments consequently contributed appreciably to producers' returns. Following nearly two years of inactivity from March 2007 through to January 2009, MILC payments were again made in February 2009 and continued through to November 2009.

The Dairy Price Support Program

The Dairy Price Support Program (DPSP) was first established under the Agricultural Act of 1949 with the stated objectives of: ensuring an adequate supply of milk; preserving a level of farm income adequate to maintain productive capacity sufficient to meet future needs; and the fostering of price stability.

Price support for dairy is provided through government offers to purchase butter, non-fat dried milk and Cheddar cheese from dairy processors whenever the prices of these commodities fall below a specified level. The prices offered to processors for government purchase of supported products support the price of milk used in manufacturing and, ultimately, the prices paid to producers for farm milk, although prices offered for supported products are no longer set to maintain farm milk prices at a specific level. The DPSP, which serves as a price floor for processors, also underpins minimum milk prices under the FMMO.¹²

The market price support programme benefits dairy farmers by increasing the demand from processors for milk for use in the manufacture of supported dairy products (*i.e.* butter, non-fat dried milk and Cheddar cheese).¹³ However, market price support not only imposes costs to consumers and taxpayers, but, with its emphasis on certain products, may discourage processors from producing those niche products for which there is growing demand.

Since 1949, the programme has been amended, usually in the context of multi-year, omnibus Farm Acts. Under the 1996 Farm Act, the dairy price support programme was scheduled to end in 1999, but the scope of the programme was extended in subsequent legislation and the programme was renewed under the 2002 Farm Act. Although the 2002 Farm Act removed the permanent authority given by the 1949 Farm Act, it did renew the programme, with a 5½-year extension through to the end of 2007, with the government purchase price for milk set statutorily at USD 218 per tonne of milk. This was the same level as that applied under the terms of 1996 Farm Act.

The 2008 Farm Act extends the Dairy Price Support Program for five years through to 2012, but modifies the programme by directly supporting the prices of manufactured dairy products (*i.e.* butter, Cheddar cheese and non-fat dried milk) at mandated levels, rather than the price of milk. The programme has been renamed the Dairy Product Price Support Program (DPPSP). In the legislation, the minimum purchase prices were set at: block cheese, USD 2 491 per tonne; barrel cheese, USD 2 425 per tonne; butter, USD 2 315 per tonne; and non-fat dried milk, USD 1 764 per tonne, but the Secretary of Agriculture is permitted to adjust those prices to keep government stocks below set levels, as well as increase the purchase prices above the specified minimum levels. Government must purchase all supported products offered to it for sale at announced minimum prices.

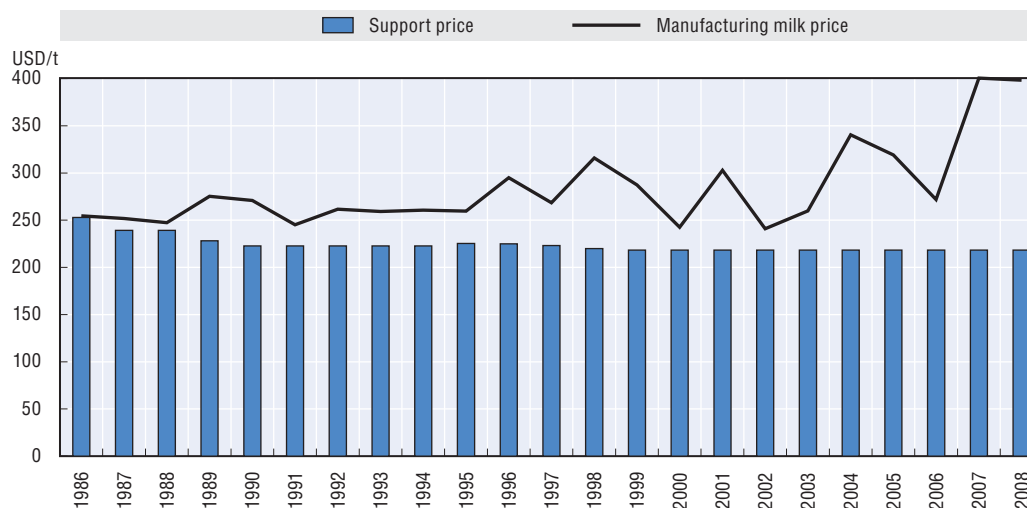
Each of the mandated product prices listed in the 2008 Farm Act are the same as those used under previous legislation by USDA to purchase surplus manufactured dairy products in order to achieve the support price of USD 218 per tonne of milk, as stipulated in the 2002 Farm Act. However, the legislation does not require that this price relationship be maintained. During 2009, for example, purchase prices for two of the supported products (butter and Cheddar cheese) were temporarily increased and not calculated to generate the former all-milk support price, and stock-level triggers could also lead to product purchase prices different from those required to maintain the former milk support price.

Government purchases of surplus dairy products have been relatively small since the mid-1980s, as market prices have remained above the support price. As shown in Figure 4.1, the US domestic price of manufacturing-grade milk (the average price paid for

milk that can be used only in butter, powder and cheese) has been consistently above the support price since 1987.

However, in late 2008 and early 2009, after several years of relative inactivity, the price support programme resumed purchases, following a decline in milk product prices. It is estimated that 50 000 tonnes of non-fat dried milk were removed in 2008, and 75 000 tonnes in 2009, along with small amounts of cheese and butter.

Figure 4.1. **US annual support price and average annual manufacturing grade milk price, 1986-2008**



Source: OECD calculations based on Economic Research Service, USDA.

Import measures

In general, the Dairy Price Support Program has played a relatively minor role in keeping the domestic US price for dairy products above the world price. The most important features of US dairy policy that keep prices artificially high are import measures which, since the implementation of the URAA, are no longer part of farm legislation.

By insulating the domestic dairy sector from import competition, import barriers make possible the key domestic elements of the dairy programme – milk market order pricing rules and the price support programme. Domestic price supports would be impossible if imports were unrestrained, because maintaining the price floor would be made prohibitively expensive by cheaper imports.

US tariffs on dairy products are very high, compared to the average agricultural tariffs in the United States, with an average m.f.n. applied tariff in 2007 of 21.4% (4.8% for total agriculture) (Table 5.1). In addition, out of the twenty-four mega-tariffs (more than 100%), seven are applied to dairy products (Gibson *et al.*, 2001).

Imports of dairy products are generally limited by a series of tariff rate quotas, which establish a two-tier system of tariffs: a certain threshold amount of imports is allowed to enter duty-free or at a reduced tariff rate (called the “in-quota rate”), whereas imports above that quota enter at a higher, often prohibitive, rate (called the “out-of-quota rate”). Most out-of-quota tariffs are specific tariffs (i.e. specified as a certain dollar amount per unit). In addition, some dairy products are subject to “special safeguards,” whereby

temporary additional duties may be applied to the out-of-quota (i.e. higher) tariff rates to prevent low prices or import surges from “injuring” a domestic industry.¹⁴

For those products subject to TRQs, imports accounted for 6% in 2007 or less of domestic consumption, but for other products, including some cheeses, imports were not restricted. Although quantity of access has expanded with the URAA, the second-tier tariffs applied to over-quota imports, particularly for dried cream, butter oil and some high milk-fat cheeses, remain very high (Annex Table E.20).

In addition to producer-paid assessments on domestically-produced milk, the 2008 Farm Act also contains a provision to implement a 2002 Farm Act-mandated assessment on imported dairy products. These assessments support a national programme, first authorised under the 1983 Farm Act – for generic dairy product promotion, research and education on nutrition. The 2008 Farm Act implements the 2002 mandate, but reduces the import assessment for imported dairy products from USD 3.3 per tonne to USD 1.7.

Dairy Export Incentive Program

First authorised under the 1985 Farm Act, the Dairy Export Incentive Program (DEIP) provides cash bonuses that allow exporters of selected dairy products to buy at US prices and sell abroad at prevailing (lower) international prices.

Payments since the programme’s inception have totalled USD 1.1 billion, with the most recent expenditures made in FY2004, until re-activation in 2009. The programme was active throughout the 1990s, peaking in 1993 with USD 162 million in bonuses. In more recent years world dairy prices have increased to such an extent that spending on the DEIP was negligible in 2004, and over the 2005-09 period was zero (Table 4.1). But, because of global market conditions, including declining international dairy prices and the re-institution of dairy export subsidies by the European Union, the DEIP was re-activated again in May 2009 and carried forward to 2010. An amount of USD 19 million of outlays were awarded under the programme during FY2009. In terms of volumes, the amounts by product were as follows: 37 228 metric tonnes of non-fat dry milk; 12 731 metric tonnes of butter/butterfat; and 927 metric tonnes of cheeses.

Table 4.1. Expenditure under the Dairy Export Incentive Program

Fiscal year	USD million	Fiscal year	USD million
1986	0	1997	121
1987	0	1998	110
1988	8	1999	145
1989	0	2000	77
1990	9	2001	8
1991	39	2002	55
1992	76	2003	32
1993	162	2004	3
1994	118	2005-08	0
1995	140	2009	19
1996	20	2010	10

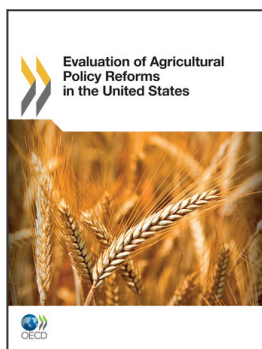
Source: USDA.

Commodities eligible under the DEIP are milk powder, butter fat, Cheddar, Mozzarella, Gouda, cream cheese and processed American cheeses. Subsidised exports are important for non-fat dried milk, but they are relatively small for butter and cheese. DEIP quantities

and expenditures are subject to annual limitations under the URAA. These limits are 68 201 metric tonnes of non-fat dried milk, 21 097 metric tonnes of butterfat, and 3 030 metric tonnes of various cheeses. Total expenditures under WTO commitments are capped at USD 117 million per year. While the volume of subsidised exports was below the URAA limits, they were approaching those limits for butter and cheese. The 2008 Farm Act emphasises use of DEIP to its maximum, subject to US trade obligations.

Notes

1. Wool, mohair and honey are supported through the Marketing Assistance Loan Program.
2. Some cattle, dairy and pig producers in a limited number of states do participate in livestock revenue insurance programmes.
3. In 2002, farmer-owned dairy co-operatives handled 86% of non-fat dried milk, 71% of the butter and 40% of the cheese. Moreover, the dairy marketing co-operatives' share of all milk delivered to plants and dealers increased from 76% in 1987, to 86% in 2002 (USDA/RBS, 2005).
4. Over the 1980-2003 period, for example, consumption of all dairy products increased by 1.4% per year, while milk yields per cow increased by 2.1% per year (Blayney and Normile, 2004).
5. Marketing orders are also used for selected fruits and vegetables, although they are organised and operate differently from the FMMO system.
6. The classes of milk established by federal orders are: Class I: milk used for fluid consumption; Class II: milk used in manufactured dairy products (such as yogurt, ice cream, and sour cream); Class III: milk used to produce cheese; and Class IV: milk used to produce butter and dried milk products.
7. It should be noted that the prices actually received by producers may be higher than the minimum price for milk.
8. Total receipts in each marketing order area are calculated by multiplying the class prices by the amount of milk used in each class. Total receipts are then divided by the amount of milk sold to handlers.
9. The design of MILC is actually modelled on the earlier Northeast Dairy Compact (see Blayney and Normile, 2004).
10. The amount of eligible production is roughly equivalent to the total annual production of an average-sized farm in the eastern United States (160-cow operation).
11. The feed price threshold is calculated as follows. In any month during which the average feed cost exceeds USD 162 per tonne, the target price (USD 373.5 per tonne) will be increased by 45% of the difference between the monthly feed cost and USD 162 per tonne. To reduce budget exposure, the threshold feed cost will rise to USD 209 per tonne after 31 August 2012.
12. For a detailed discussion on how FMMO pricing works and on the linkages with the Milk Price Support Program, see Manchester and Blayney (2001) and Blayney and Normille (2004).
13. Conceptually, the extent to which dairy market price support results in higher prices for dairy farmers depends on the following factors: the extent to which the support prices are binding; the supply of milk; substitution between milk and other manufacturing inputs; and the extent of market power among processors (Balagtas, 2007).
14. The USITC (2007) study estimates that the removal of barriers on imports of dairy products would increase US welfare by USD 573 million, while the associated increase in imports of these products would range between 88% and 380%.



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