

## NORWAY: ESTIMATES OF SUPPORT TO AGRICULTURE`

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### DEFINITIONS AND SOURCES

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Country Total Support Estimate (TSE) and derived indicators in **Table 1** cover all agricultural production, i.e. all agricultural commodities produced in the country. Definitions of basic data sets refer to the specific programmes applied in the country. For the Producer Support Estimates (PSE) and Consumer Support Estimates (CSE), where relevant the description of policy measures indicates where the policies are related to specific commodities. "MPS commodities", which vary across countries, are those for which market price support is explicitly calculated in Table 4.

**Table 2** provides a breakdown of the total PSE into four categories reflecting the flexibility given to farmers regarding which commodity to produce within the various policy measures. These categories are: Single Commodity Transfers (SCT); Group Commodity Transfers (GCT); All Commodity Transfers (ACT); and Other Transfers to Producers (OTP). All data sets in Table 2 come from Tables 1 and 3 where definitions are included.

Producer Single Commodity Transfers (PSCT) by commodity in **Table 3** are calculated only for the commodities produced in the country within a common set of commodities (wheat, maize, barley, oats, rice, sorghum, soybeans, sunflower, rapeseed, sugar, milk, beef and veal, pigmeat, poultry meat, sheep meat, wool and eggs), provided that the value of production of that commodity exceeds 1% of the total value of production in the country concerned. All data sets in the calculation of PSCT by commodity come from Tables 1 and 4 where definitions are included.

Market Price Support (MPS) and Consumer Single Commodity Transfer (CSCT) by commodity in **Table 4** are calculated for the following commodities: wheat, barley, oats, milk, beef and veal, pigmeat, poultry meat, sheep meat, wool and eggs. Definitions are provided only for basic data sets from which all the other data sets in this table are derived, following the formula indicated in each commodity table.

Definitions of the indicators, criteria of classification of programmes included, and methods of calculation can be seen in OECD, Methodology for the measurement of support and use in policy evaluation [<http://www.oecd.org/agr/policy>].

#### **Table 1. NORWAY: Total Support Estimate**

##### **Definitions:**

**I. Total value of production (at farm gate):** Total agricultural production valued at farm gate prices, i.e. value (at farm gate) of all agricultural commodities produced in the country [1].

*I. Of which share of MPS commodities (%):* Share of commodities for which MPS is explicitly calculated (in Table 2) in the total value of agricultural production.

**II. Total value of consumption (at farm gate):** Consumption of all commodities domestically produced valued at farm gate prices, and estimated by increasing the value of consumption (at farm gate) of the MPS commodities according to their share in the total value of agricultural production [(II.1) / (I.1) x100].

**1. Of which MPS commodities:** Sum of the value of consumption (at farm gate prices) of the MPS commodities as indicated in Table 4.

**III.1 Producer Support Estimate (PSE):** Associated with total agricultural production, i.e. for all commodities domestically produced [Sum of A to H; when negative, the amounts represent an implicit or explicit tax on producers].

**A. Support based on commodity output:** On quantities domestically produced (excluding for on-farm feed use -- *excess feed cost*) of all agricultural commodities, estimated by increasing the MPS for the MPS commodities according to their share in the total value of agricultural production  $[(A.1) / (I.1) \times 100]$ .

**1. Market Price Support (MPS commodities):** Sum of the MPS (net of *price levies* and *excess feed cost*) for the MPS commodities as calculated in Table 2.

## **2. Payments based on output**

**Regional deficiency payment for cereals [part of B.1150.73.05]:** A regionally differentiated per-tonne payment for grains in less-favoured areas provided under the grain and feed-stuff market regulation, until 1991. These transfers are included in grains GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

**On-farm storage payment for grains [part of B.1150.73.05]:** Payment to producers under the grain and feed-stuff market regulation. In 1995, the regulation was replaced by the grain and feed-stuff market system described below [B.1150.76.01]. These transfers are included in grains GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

**Transport payment for grains [part of B.1150.73.05]:** Payments to producers, under the grain and feed-stuff market regulation, which also includes: a price reducing payment and an on-farm storage payment for grains, a payment to stimulate on-farm consumption of feed grains, a transport subsidy for feed grains, and a regional price support payment. In 1995, the regulation was replaced by the grain and feed-stuff market system described below [B.1150.76.01]. These transfers are included in grains GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

**Payment for cash crops [B.1150.74.22]:** Payment to producers based on the standard labour requirement in crop production and granted from 1982 to 1992. The payment increased up to a labour requirement of one man-year and declined thereafter (e.g. in southern Norway a barley farm with 4 hectares received the same payment as a farm with 67 hectares, while a 35-hectare farm got a larger payment). No payment was made to farms with a standard labour requirement of more than 2 man-years. Payments were higher in the northern part of the country and differed by location. These transfers are included in all arable crops GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Base deficiency payment for meat [B.1150.73.07]:* Payment per tonne to producers of pork (until 1991), beef and sheepmeat (until 1994). Until the early 1990s, part of the payment was used to stimulate on-farm consumption of feed grain, and it was paid per tonne of feed grains milled and used on the farm. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Regional deficiency payment for meat [B.1150.73.06]:* Regionally differentiated payment per tonne to producers of meat, until 1994. Allocated to beef, pork and sheepmeat based on the value of production. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Extra regional payment for meat production in Northern Norway [B.1150.73.09]:* Payment per tonne to producers of meat, until 1987, then folded into the regional deficiency payment for meat. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Deficiency payment for meat [B.1150.73.15]:* Payment to farmers (via the meat industry) per tonne of meat produced, since 1995, including a base deficiency payment, a regional deficiency payment and an extra regional payment for meat in northern Norway. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Payment to high quality eggs [B.1150.73.07]:* Payment to producers per kg of high quality eggs, provided until 1987. These transfers are included in eggs SCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Transport payment for meat [B.1150.74.18]:* Payment to farmers per kg of meat (except poultry) delivered to the slaughterhouse, until 1993. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Transport payment for eggs [B.1150.74.16]:* Payment to farmers (via the marketing co-operatives) per kg of eggs delivered to the packing plant, until 1993. These transfers are included in eggs SCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Transport payment for meat and eggs [B.1150.73.08]:* Payment to producers of meats and eggs delivered to the packing plant or slaughterhouse. Combines, as from 1994, the transport subsidies for eggs [previously 74.16] and for meats [previously 74.18]. Allocated to specific commodities based on actual payments. These transfers are included in meat and eggs GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Deficiency payment for wool [B.1150.73.01]:* Payment per tonne to producers of wool, since 1991. These transfers are included in wool SCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*District and quality subsidy to horticulture products [B.1150.73.17]:* Regional differentiated price subsidy for fruit, berries, vegetables and potatoes of a certain quality. From 1988 onwards. These transfers are included in all fruits and vegetables GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Price support payment for milk and milk products [B.1150.73.13]:* Payment to dairy farmers, including a base payment and a regional payment per litre of milk for a limited output (due to the milk quota system). These transfers are included in milk SCT (Table 3.x).

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

*Structural payment to milk producers [B.1150.74.11]:* Payment based on the volume of milk deliveries and granted up to 30 000 litres per farm (15 000 for goat milk). Prior to 1993 it was included in price support payment for milk and milk products. From 2003 onwards, the basis for payment changed to one determined by animals numbers. These transfers are included in milk SCT (Table 3.x).

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

*Subsidy for regional dairy plants:* Payment per litre of milk (paid via the dairy plants) to farmers who deliver milk to regional district dairies instead of local dairies, to encourage the restructuring of dairy processing. Applied from 1982 to 1991. These transfers are included in milk SCT (Table 3.x).

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

*Contract production scheme for eggs:* Payment per kg of eggs of A-class quality, granted from 1983 to 1996 to egg producers that deliver to an authorised wholesaler under a supply management contract. These transfers are included in eggs SCT (Table 3.x).

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

## ***B. Payments based on input use***

### ***1. Variable input use***

*Fuel tax concession:* value of the fuel tax concession to farmers. These transfers are included in ACT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Support for meadowseed production and storage [B.1150.77.12]:* Payment for the production and storage of meadowseed to reduce the price of seed to farmers. Until 1994, support for meadowseed production is in a separate budget line [B.1150.74.12].

*Labels:* without L; F; without C; SC.

*Feed price reducing grant:* Payment to producers under the grain and feed-stuff market regulation, which was replaced by the grain and feed-stuff market system [B.1150.76.01] in 1995, to reduce the price of feed grain. These transfers are included in feed GCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Transport payment for feed-stuff:* Payment to producers under the grain and feed-stuff market regulation, which was replaced by the grain and feed-stuff market system [B.1150.76.01] in 1995, to reduce the transport cost of feed. These transfers are included in feed GCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Payment for feed grain use on the farm:* Payment to producers under grain and feed-stuff market regulation, which was replaced by the grain and feed-stuff market system [B.1150.76.01] in 1995, to encourage the use of own-grown feed grain on the farm. These transfers are included in feed GCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Transport payment for inputs:* Payment to retailers per tonne of transported fertilisers, lime, silage liquid and carbon dioxide (for greenhouses) to reduce the price paid by farmers. Granted until 1990 (after 1986 only for the transport of lime in Northern Norway). These transfers are included in ACT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Transport payment for feed grain:* Payments for the transport of feed grain from the silos to the processing plants and for the transport of feed compounds from the processors to the farmers. Granted under the grain and feed-stuff market system, which in 1995 replaced the grain and feed-stuff market regulation [B.1150.73.05]. These transfers are included in feed GCT (Table 3.x).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Other Welfare Schemes:* No information on these payments. These transfers are included in ACT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

## **2. Fixed capital formation**

*Interest rate concessions:* Calculated as the difference between the interest rate charged to farmers by the State Bank of Agriculture and the market interest rate multiplied by the volume of outstanding loans, plus the loan subsidies granted by the Agricultural Development Fund [B.1150.50.11]. These transfers are included in ACT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Compensation for animal losses [part of B.1150.50.13]:* Payment under the small animal fund to compensate for losses of animals during the pasturing season in the mountains. These transfers are included in all livestock GCT (Table 2).  
*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Compensation for losses due to predators [B.1150.1427.73]*: Payment administered by the Environment Ministry to compensate for farm animals killed by preserved species of predators. These transfers are included in all livestock GCT (Table 2).

*Labels*: Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Mountain dairy farming [B.1150.74.18]*: The aim of the grant is to encourage mountain dairy farming and thereby ensure the cultural landscape of mountain dairy farming areas. The payment is connected to summer dairy operations and is given as a fixed amount per "mountain farm". Prior to 2002, in budget item 1150.74.17. These transfers are included in Milk SCT (Table 3.x).

*Labels*: Production limits (NO); Variable payment rates (NO); Input constraints (NO)

### **3. On-farm services**

*Insemination and veterinary services [B.1150.77.11]*: Public expenditures on insemination, the travel costs of veterinarians and general administrative support for veterinary services. These transfers are included in all livestock GCT (Table 2).

*Labels*: Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Pest and disease control [B.1132]*: Public expenditures for research, on-farm advice, excursions, lectures and meetings related to pest and disease control. From 1994 pest and disease control expenditures are included in support for research stations, which is classified under IV.I -- Research and development. These transfers are included in ACT (Table 2).

*Labels*: Production limits (NO); Variable payment rates (NO); Input constraints (YES)

### **C. Payments based on current commodity parameters, production required (based on current area (A), animal numbers (An), receipts(R), or income (I))**

#### **1. a single commodity**

*Acreage and cultural landscape scheme – potato*: Acreage payment for potato production. These transfers are included in tubers GCT (Table 2).

*Labels*: Production limits (NO); Variable payment rates (NO); Input constraints (NO)

#### **2. a group of commodities**

*Payment for producing coarse fodder [B.1150.74.21]*: Acreage payment for forage production, the payment rate being based on the ratio of animals to fodder area and reduced if the farm is considered to have too many or too few animals in relation to the fodder area. Granted from 1982 to 1993 and included in the acreage and cultural landscape scheme in 1994. Since 1994 payments have been provided under the *Acreage and cultural landscape scheme [B.1150.74.17]*. These transfers are included in feed GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Acreage support to mountain farmers [B.1150.74.18]:* Acreage payment for grass fodder production in mountain areas, based on the distance between the farmstead and the fields. Intended to compensate for the higher labour and transportation costs in cases where the fields are removed from the permanent farm residence. These transfers are included in feed GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Acreage and cultural landscape scheme for grains:* Payment per hectare to producers granted from 1991 to 1993 to reduce the intensity of production and conserve cultural landscapes. Allocated to cereals based on actual payments.

In 1994 this programme was brought together with several others to form the *Acreage and cultural landscape scheme [B.1150.74.17]*. However, a breakdown of the total expenditure under the Scheme into the various sub-programmes is available and so they continue to be allocated under their historical PSE categories. The total expenditure for this budget item is disaggregated into five sub-groups: (i) payments for cereals, potatoes, vegetables, and fruits and berries (C.1. Payments based on unlimited area); (ii) payments for coarse fodder (E.1. Based on variable input use); (iii) payments for mountain dairy operations and for production in steep areas (E.3. Based on fixed input use); (iv) payments based on changed soil conservation - a per-hectare payment for not cultivating erodible soils in autumn, differentiated by erosion risk and a per-hectare payments for planting cover crops in cereal fields and for seeding grass around water courses - (F.2 Based on constraints on fixed inputs); and (v) payments for young farmers (G.1 Based on farm income level).

In 2003, the Acreage and Cultural landscape was split into two separate programmes. Acreage support programmes continued for cereals, potatoes, vegetables, fruits and berries, and coarse fodder. A new Cultural Landscape payment was introduced, classified under payments based on historical entitlements. These transfers are included in grains GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Production payment for livestock [B.1150.74.14]:* Headage payment granted at specific rates for bovine animals, pigs, goats, hens, horses, rabbits and sheep, degressive with animal numbers and limited to a certain number of animals per farm. Before 1996, the payment rates were based on standard labour requirements (in man-years), which were linked to animal numbers and calculated on the basis of actual hours worked as recorded by a network of sample farms. There was an upper limit per farm of two-man years, and different rates applied in the northern and southern parts of the country. (*Based on limited animal numbers*). These transfers are included in all livestock GCT (Table 2).

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

*Vacation and replacement scheme [B.1150.78.11]:* Payments to farmers to reimburse documented expenses for hiring replacement labour during the vacation of the farm family or periods of illness. In the case of temporary disablement, an extra payment can be provided after the vacation replacement limit has been exhausted. Applies to livestock producers and payment is on a per animal basis, with a cap of 51500 NKr. These transfers are included in all livestock GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Assistance in case of illness [B.1150.78.12]:* Payment based on labour replacement costs in the case of illness of the farmer. Split out of the vacation and replacement scheme (see above) in 1996 and supplements that scheme. All commodities are eligible, payment is on a per hectare basis. These transfers are included in all livestock GCT (Table 2).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

### **3. all commodities**

*Natural disaster payments [B.1150.50.02]:* Payments to compensate for crop losses, the restoration of damaged grassland, and the purchase of feed. Compensation for crop losses, which is usually the largest component, is granted if specific crop yields fall short of 70 per cent of the 5-year average. The payments account for the difference between farm sales and 70 per cent of the revenue that would have been obtained on the planted area with normal yields.

*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Support to organic farming [part of B.1150.77.16]:* Payment per hectare or per animal head to support conversion to organic farming. Granted since 1990, with specific rates for grains, fruits and vegetables and coarse fodder. Allocated to all commodities except pork, poultry and eggs. [Support for inspection, research, advice, market promotion, organisation and information related to organic farming, included in the same budget line, is classified under IV.I -- Research and development.]

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (YES)

*Changed soil conservation [B.1150.74.18]:* The subsidy is given farmers who undertake certain cultivation practices that reduce the risk of soil erosion. The grant is given on a per hectare basis.

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (YES)

*Farming in steep area [B.1150.74.18]:* The subsidy is given to compensate for the disadvantage of farming in steep areas. The grant is paid on a per hectare basis on the land that is greater than 1:5 but at least 50% of the farm must be equal to or steeper than 1:5. Prior to 2002, in budget item 1150.74.17.

*Labels:* Production limits (NO); Variable payment rates (YES); Input constraints (NO)

*Young farmers [B.1150.74.17]:* The subsidy is given to strengthen the income of young farmers, especially women. The grant is given as a fixed amount per farm. Young farmers are defined as those under 35 years of age. It was introduced in 1999 but only lasted for three years (i.e. until 2001).

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Income Tax Deduction:* Tax deduction introduced in 2000 which allows farmers with a positive income to deduct up to NOK 36 000 from their total income, providing a maximum tax saving of NOK 10 000 per farmer.

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (NO)

***D. Payments based on non-current commodity parameters, production required***

*Cultural Landscape Support [B.1150.74.17]:* A standard annual payment of NOK 2 000 per hectare paid on all agricultural land in recognition of the contribution made to the cultural landscape.

*Labels:* Production limits (NO); Variable payment rates (NO); Input constraints (YES)

*Structural payment to milk producers [1150.74.11]:* Payment based on the number of animals, increasing up to 5 dairy cows or 27 milking goats, i.e. the same sum is paid (53,800 Nkr) for all farms with five or more cows. Since 99.85% of farms exceed the cap in terms of animal units, this program is classified as a transfer not dependent on current commodity parameters, but requiring production. From July 2002 the scheme also applied for beef production on suckler cows, and the same rate is applied for all farms with more than 40 suckler cows.

*Labels:* Production limits (YES); Variable payment rates (NO); Input constraints (NO)

***E. Payments based on non-current commodity parameters, production not required***

***F. Payments not based on commodity parameters***

***1. Long-term resource retirement***

***2. A specific non-commodity output***

***3. Other non-commodity criteria***

*Agricultural Development Fund [B.1150.50.11]:* Concessionary loans and grants to farmers for specific investment projects, including the purchase of land and intergenerational farm transfers and, more recently, for structural adjustment and rural development projects. Since 1997, the extended support for landscape maintenance and development (previously B.1150.77.08, see below) is also part of the Fund. The expenditures recorded here are net of interest subsidies and loan concessions (which are classified as payments based on fixed inputs) and of landscape payments (classified below), but include payments to farmers.

*Extended support for landscape maintenance and development:* Payments granted to farmers through management agreements between farmers and the governments to support: the development of access to agricultural fields for recreational purposes (paths and touring roads); the reconstruction and maintenance of cultural assets; the protection of traditional landscapes that can not be provided through ordinary agricultural practices; the protection and development of areas with high biological diversity including wetlands and water courses; and restrictions on the use of pesticides and fertilisers. Can be granted to a group of co-operating

farmers. Introduced in 1991 as an extension of the acreage and cultural landscape scheme and included in the Agricultural Development Fund [B.1150.50.11] since 1997.

### ***G. Miscellaneous payments***

**III.2 Percentage PSE**  $[100 \times (\text{III.1}) / ((\text{I}) + (\text{Sum of A.2 to G}))]$

**III.3 Producer NPC:** For all agricultural commodities the Producer NPC is estimated as a weighted average of the producer NPC calculated for the individual MPS commodities and shown in Table 4. For each commodity Producer NPC = [domestic price received by producers (at the farm gate) + unit payments based on output] / border price (also at the farm gate).

**III.4 Producer NAC**  $[1 / (100 - (\text{III.2})) \times 100]$

**IV. General Services Support Estimate (GSSE):** Total budgetary expenditure to support general services provided to agriculture [Sum of H to N].

### ***H. Research and development***

*Agricultural experimental groups* [B.1150.77.03]: Public expenditure for research linked to model farms. [More information is needed on the implementation of this support].

*Research, advisory and training services* ["Group 1" expenditures]: Public expenditures for research, advisory and training services linked to model farms.

*Services for organic farming* [part of B.1150.77.06]: Public expenditures for inspection, research, advice, market promotion, organisation and information linked to organic farming. (Acreage and headage support for organic farming is classified under III.1.C.1).

*Research for grains* [part of B.1150.76.01]: Public expenditure for research on grain production under the grain and feed-stuff market system.

*Agricultural research stations* [B.1112]: Public expenditure for agricultural research stations. Since 1994 it includes also pest and disease control expenditures for crops, which before were classified under payments based on the use of on-farm services (see above). Most of the pest and disease control expenditures are for a specific weed in oat seed production.

*Small animal fund* [part of B.1150.50.03]: Public expenditure under the small animal fund used to support agricultural research.

### ***I. Agricultural schools***

[No data available. Agricultural subjects are taught as optional subjects in high schools].

### ***J. Inspection services***

*Veterinary services* ["Group 2" expenditures]: Public expenditures for veterinary research and administrative support for institutions monitoring animal health.

*Norwegian Agricultural Inspection Service* [B.1110]: control and inspection of plant and input goods to agriculture. In recent years expenditure has exceeded income.

*Norwegian Food Safety Authority* [B.1115]: Established in January 2004 as the responsible authority for all matters related to health, quality and other consumer interests in feed and food production and marketing, including the functions of the veterinary services and the Norwegian Agricultural Inspection Service.

*Radioactivity* [B.1150.70.15/74.19]: Payments to counter radioactivity pollution due to Chernobyl disaster in 1986. The part used by veterinary and food authorities is allocated to this category from 1998-onwards and to the Marketing and Promotion category for the 1986-1997 period.

### ***K. Infrastructure***

*Land purchases, land registration and land allocation* ["Group 3" expenditures]: Public expenditures to support the classification of soils, the production of soil maps, and land purchases for infrastructure development (e.g. railroads) and the settlement of land use disputes.

*Early Retirement Scheme* [B.1150.78.16]: Programme introduced in 1999 to assist farmers leaving the sector whereby producers older than 62 years and spouses older than 57 years are paid to retire from farming. Producers participating in the scheme are not allowed to continue farming. The producer must have been a farmer for at least 15 years before retirement. The payments are given as an annual lump sum during a 5 year period or less.

*Purchase of milk quotas* [B.1150.77.18]: State purchases of milk quota from producers who are ceasing milk production. Quota holders have to sell their entire quota and are not allowed to restart milk production.

### ***L. Marketing and promotion***

*Market promotion fund* [B.1150.70.01]: Public expenditure under the market promotion fund to support food storage, market promotion and food aid, including the school milk, fruits and vegetables schemes, the promotion of organic produce and the production of potato spirit.

*Market regulation fund* [B.1150.70.02]: Public expenditure for marketing promotion of BF, PK, SH (from 1979 to 1993), PT and EG (from 1980 to 1991).

*Radioactivity* [B.1150.70.15/74.19]: See Inspection category above.

### ***M. Public stockholding***

*Storage for food security* [part of B.1150.76.01]: Public expenditures under the grain and feed-stuff market system to support food storage for food security purposes.

## *N. Miscellaneous*

***Norwegian Agricultural Authority:*** The NAA was established in 2000 under the authority of the Ministry of Agriculture to be the primary organisation responsible for the implementation of Norwegian agricultural policy. The NAA was formed through the merging of several administrative authorities including the Norwegian National Grain Administration, the Agricultural Marketing Board (AMB), the Meat Transport Funding Office, the Agricultural Price Reporting Office and parts of the State Bank of Agriculture. This expenditure represents budgetary transfers associated with the administration costs of the NAA.

**V.1 Consumer Support Estimate (CSE):** Associated with agricultural production, i.e. for the quantities of commodities domestically produced, excluding the quantities used on-farm as feed -- *excess feed cost*. [Sum of P to S; when negative, the amounts represent an implicit tax on consumers].

***O. Transfers to producers from consumers:*** Associated with market price support on all domestically produced commodities, estimated by increasing the transfers calculated for the MPS commodities according to their share in the total value of production  $[(P.1) / (I.1) \times 100]$ .

***O.1. Of which MPS commodities:*** Sum of the values of transfers from consumers to producers associated with market price support for the MPS commodities as calculated in Table 4.

***P. Other transfers from consumers:*** Transfers to the budget associated with market price support on the quantities imported of domestically produced commodities, estimated by increasing the transfers calculated for the MPS commodities according to their share in the total value of production  $[(Q.1) / (I.1) \times 100]$ .

***P.1. Of which MPS commodities:*** Sum of the transfers to the budget associated with market price support on the quantities imported of the MPS commodities as calculated in Table 2.

## ***Q. Transfers to consumers from taxpayers***

***Consumer subsidy for wheat [part of B.1150.76.01]:*** Public expenditure under the grain and feed-stuff market system, which in 1995 replaced the grain and feed-stuff market regulation [B.1150.73.05], to compensate flour mills for the prices paid to wheat producers. Interrupted in 1986 and granted again from 1996.

***Consumer subsidy for milk:*** Payment granted by the Ministry of Consumer Affairs to dairy plants to lower the price of processed milk products. Replaced by a VAT concession in 1994.

***Consumer subsidy for beef and veal:*** Payment made to slaughterhouses until 1987 to reduce the consumer price of beef and veal.

***Consumer subsidy for sheepmeat:*** Payment made to slaughterhouses until 1987 to reduce the consumer price of sheepmeat.

**R. Excess Feed Cost:** Associated with market price support on quantities domestically produced and used on-farm as feed as calculated in Table 2.

**V.2 Percentage CSE**  $[100 \times (V.1) / ((II) + (Q))]$

**V.3 Consumer NPC:** For all agricultural commodities the Consumer NPC is estimated as a weighted average of the consumer NPC calculated for the individual MPS commodities and shown in Table 2. For each commodity Consumer NPC = domestic price paid by consumers (at the farm gate)/ border price (also at the farm gate). ).

**V.4 Consumer NAC**  $[(1 / (100 -(V.2)) \times 100]$

**VI. Total Support Estimate**  $[(III.1) + (IV) + (Q)]$  and  $[(S) + (T) - (U)]$

S. Transfers from consumers  $[(O)+(P)]$

T. Transfers from taxpayers  $[(III.1)-(O)+(IV)+(Q)]$

U. Budget revenues  $[(P)]$

**Sources:**

Landbruksdepartementet (Ministry of Agriculture).

Det Kongelige Arbeids- og Administrasjonsdepartement, *Jordbruksoppgjøret 1998 – endringer i statsbudsjettet for 1998 m.m.*

**Table 2. NORWAY:** Breakdown of PSE by commodity specificity and other transfers

All data sets in Table 2 come from Tables 1 and 3 where definitions are included.

### Definitions:

**I. Single commodity transfers (SCT):** the annual monetary value of gross transfers from policies linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the payment. This includes broader policies where payments are specified on a per-commodity basis. SCT is also available by commodity. [Sum of commodity SCTs from Table 3]

**Percentage SCT:** is the commodity SCT expressed as a share of gross farm receipts for the specific commodities (including support in the denominator).

$$\%SCT = 100 * SCT / (\text{sumi} (PPi * QPi) + A.2. + \text{sumi} (Bi) + C1 + \text{sumi} (Di))$$

$$\text{Share in Total PSE (\%): } SCT_{\text{SHARE}} = 100 * SCT / PSE$$

**II. Group commodity transfers (GCT):** the annual monetary value of gross transfers from policies whose payments are made on the basis that one or more of a designated list of commodities is produced. That is, a producer can choose among a set of allowable commodities to produce and receive a payment that does not vary with respect to this decision. [GCT = B<sub>GROUP</sub> + C2 + D<sub>GROUP</sub>]

$$\text{Share in Total PSE (\%): } GCT_{\text{SHARE}} = 100 * GCT / PSE$$

#### **Transfers to specific groups of commodities:**

Eleven different commodity groups have been defined for Norway based on the policies in place over the period starting in 1986. The main commodity groups are:

- **All arable crops:** This includes any policy that is available to producers of any arable crop, such as measures for irrigation, pest control or environmentally friendly crop farming. This group has been decreasing in importance over the years.
- **Grains:** This group includes payments based on output, payments per hectare of grains, transport subsidies, and regional subsidies.
- **All livestock:** This group includes payments to producers of livestock, including cattle, pigs, dairy, and poultry. Examples are deficiency payments, headage payments, and the vacation and temporary substitute scheme for livestock producers, as well as some regional payments.
- **Feed crops:** Here are included all subsidies to coarse feed, including acreage support to mountain farming, and support to meadowseed storage.
- Several smaller groups of commodities emerged exist, such as **all fruits and vegetables**, **meat and eggs**, and **tubers**, but these play a very minor role in terms of support received.

**III. All commodity transfers (ACT):** the annual monetary value of gross transfers from policies that place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice. [ACT = C3 + B<sub>ALL</sub> + D<sub>ALL</sub>]

**Share in Total PSE (%):**  $ACT_{SHARE} = 100 * ACT / PSE$

**IV. Other Transfers to Producers (OTP):** the annual monetary value of gross transfers made under policies that do not fall in the above three cases (SCT, GCT, ACT). That is, payments that do not require any commodity production at all. [OTP = E + F + G]

**Share in Total PSE (%):**  $OTP_{SHARE} = 100 * OTP / PSE$

**V. Total PSE:**  $PSE = A+B+C+D+E+F+G = SCT + GCT +ACT + OTP$

**Percentage PSE:**  $\%PSE = 100 * PSE / (\text{sumi} (PPI * QPi) + A.2. + B + C + D + E + F + G)$

### **TABLE 3.NORWAY: Commodity Specific Transfers by commodity**

Tables 3.1 to 3.n, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: wheat, maize, barley, oats, rapeseed, sugar, milk, beef and veal, pigmeat, poultrymeat, sheepmeat, wool and eggs. All data sets in the calculation of the PSCT by commodity come from Tables 1 and 4 where definitions are included.

#### **Definitions:**

**I. Level of production:** Data from Table 4 (Market price support table)

**II. Value of production (at farm gate):** Data from Table 4 (Market price support table)

**III. Producer Single commodity transfers:** Sum of transfers to specific commodity in categories A, B, C1 and D.

#### **A. Support based on commodity outputs**

*A1. Market Price Support* [Data from Table 4]

*A2. Payments based on output*

Data from Table 1 – see the policies providing payments based on output (A.2) to the specific PSE commodity, in the definitions in Table 1.

**B. Payments based on input use** [B1+B2+B3]

*B1. Variable input use*

Data from Table 1 – see the policies providing payments based on variable input use (B.1) to the specific PSE commodity, in the definitions in Table 1.

*B2. Fixed capital formation*

Data from Table 1 – see the policies providing payments based on fixed capital formation (B.2) to the specific PSE commodity, in the definitions in Table 1.

*B3. On-farm services*

Data from Table 1 – see the policies providing payments based on on-farm services (B.3) to the specific PSE commodity, in the definitions in Table 1.

**C1. Payments based on current A/An/R/I, production required, single commodity"**

Data from Table 1 – see the policies providing payments based on current A/An/R/I, single commodity (C.1) to the specific PSE commodity, in the definitions in Table 1.

**D. Payments based on non-current A/An/R/I, production required**

Data from Table 1 – see the policies providing payments based on non-current A/An/R/I, production required (D) to the specific PSE commodity, in the definitions in Table 1.

**IV. Percentage SCT :**  $\%SCT = 100 * (III) / ((II) + (A.2) + (B) + (C.1) + (D))$

**TABLE 4. NORWAY: Market Price Support Estimate and SCT to consumers by commodity**

Market Price Support (MPS) and Single Commodity Transfers (SCT) to consumers in Table 4 are calculated for the following commodities: wheat, maize, barley, oats, rapeseed, sugar, milk, beef and veal, pigmeat, poultrymeat, sheepmeat, wool and eggs. Definitions are provided only for basic data sets from which all the other data sets in this table are derived, following the formula indicated in each commodity table.

**Definitions:**

**I. Level of production**

*Cereals:* Total domestic production of wheat, barley, oats [1].

*Milk:* Total domestic production of milk, excluding goat milk [1].

*Meats:* Total domestic production of beef and veal, pigmeat, poultrymeat and sheepmeat, expressed in carcass weight equivalent [1].

*Wool:* Total domestic production of wool [1].

*Eggs:* Total domestic production of eggs [1].

**II. Producer prices**

*Wheat:* Weighted average market price of food and feed wheat at farm gate (excluding storage payment), adjusted for water content and quality [1, 2]. For wheat a *consumption price* (at farm gate) is calculated, which is different from the producer price. Up until and including 1994 this price, which is used in the calculation of the value of consumption, is a weighted average of the domestic market prices of food and feed wheat and the world market price of wheat (reference price). From 1995 on, the consumption price is a weighted average of the domestic market prices of food and feed wheat, with imports valued at an implicit import price (equal to the average market price for wheat less the price reducing transfer).

*Barley, oats:* Average market price at farm gate (excluding storage payment) adjusted for water content and quality [1, 2].

*Milk:* Average price of cow milk received by milk producers. Does not include deficiency payments but includes the marketing fees paid by producers. Since the milk price received by farmers is net of the marketing fee, the unit marketing fee is added in again to obtain the producer price [1, 4, 7].

*Beef and veal, pigmeat:* Average live-weight prices at farm gate, converted to carcass weight, excluding deficiency payments, but including the marketing fees paid by producers [1, 7].

*Poultrymeat:* average farm gate price of poultry carcasses, including the marketing fee paid by producers [1, 7].

*Sheepmeat:* Average price of sheep carcasses, excluding deficiency payments but including the marketing fees paid by producers. Until 1988 lowered by a coefficient of 0.95 to correct for the different processing stage compared to the one implicit in the reference price [1, 7].

**Wool:** Until 1992, average guaranteed price to producers set in the Agricultural Agreement. Since 1993, average market price at farm gate [1, 7].

**Eggs:** Average price of eggs at farm gate including the marketing fees paid by producers [1, 7].

#### **IV. Level of consumption**

**Cereals:** Total domestic consumption of wheat, barley, oats [2, 3].

**Milk:** Consumption of milk from domestic production plus imported dairy products expressed in milk equivalent [4].

**Meats:** Total domestic consumption of beef and veal, pigmeat, poultrymeat and sheepmeat, expressed in carcass weight equivalent [1, 5].

**Wool:** Calculated as the sum of domestic production plus imports, minus exports [1, 6].

**Eggs:** Total domestic consumption of eggs [1].

#### **VII. Reference prices**

**Wheat, barley:** EU export prices of standard common wheat and barley, f.o.b. Rouen, calendar year [8].

**Oats:** EU import price of oats, c.i.f. Rotterdam, calendar year [9].

**Milk:** Border prices of butter and SMP converted into a milk equivalent border price using technical coefficients minus a processing margin, calendar year. The border prices of butter and SMP are the EU reference prices, i.e. “Butter f.o.b. export price, 82% butterfat, N.E.” and “Non fat dry milk f.o.b export price, extra grade, Northern Europe” respectively [10]. The processing margin is calculated as a simple average of the processing margins for the four main exporting countries: Australia, EU, New Zealand and the United States.

**Beef and veal, pigmeat:** EU reference price (based on unit value of exports [11].

**Poultrymeat:** EU unit export value of chicken [12], calendar year. The EU unit export value is multiplied by 1.3 to correct for differences in the processing stage, and (constant) processing costs are subtracted to adjust the reference price to the farm level [13].

**Sheepmeat:** EU import price of New Zealand frozen lamb, c.i.f. United Kingdom [9] calendar year.

**Wool:** New Zealand producer price [14].

**Eggs:** EU unit export value of eggs [12], calendar year. Processing costs are subtracted to make the reference price applicable to the farm level prices [13].

#### **X. Budgetary transfers**

**Price levies:** Levies and fees paid by livestock producers (except wool) to finance market regulation expenditures.

**Sources:**

[1] Budsjettnemnda for jordbruket, *Totalkalkylen for jordbruket* (Budget Committee for Agriculture, *Aggregate Accounts for Agriculture*).

[2] Statens Kornforretning (Norwegian Grain Corporation).

[3] OECD Food Consumption Statistics.

[4] Norske Melkeprodusenters Landsforbund (National Association of Norwegian Milk Producers).

[5] OECD, *Meat Balances in OECD Countries*.

[6] Norsk Kjøtt (Norway Meat) and Statistisk Sentralbyro, *Utenrikshandelsstatistikk* (Statistics Norway, *External Trade Statistics*).

[7] Omsetningsradet (Agricultural Marketing Board).

[8] International Wheat Council.

[9] EC Commission.

[10] EU reference price data.

[11] EU reference price data.

[12] Eurostat, *External Trade -- Exports*.

[13] Ministry of Agriculture, Oslo. Communication to the OECD Secretariat.

[14] New Zealand PSE/CSE database.