NORWAY: ESTIMATES OF SUPPORT TO AGRICULTURE

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DEFINITIONS AND SOURCES

Table 1. Agricultural Support Estimates / Total Transfers contains country Total Support Estimate (TSE) and derived indicators, which 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 Estimate (PSE) and Consumer Support Estimate (CSE), each policy measure is classified according to implementation criteria, which include: the *transfer basis* of support (output, input, area/animal numbers/receipts/income, and non-commodity criteria); whether support is based on *current or non-current basis*; whether *production is required* or *not* to receive payment. Each policy measure is also assigned several "labels" indicating additional implementation criteria. "MPS commodities", which vary across countries, are those for which the market price support is explicitly calculated in Tables 4.1 – 4.11.

Table 2. Breakdown of PSE by Commodity and Other Transfers 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 3.1 - 3.11 where definitions are included.

Tables 3.1 – **3.10 Producer Single Commodity Transfers** contain producer SCT by commodity, which are calculated for Norway for the following commodities: wheat, barley, oats, milk, beef and veal, pig meat, sheep meat, wool, poultry meat, eggs (Tables 3.1-3.10) provided that the value of production of that commodity exceeds 1% of the total value of production. In addition, SCT for "other commodities" is also calculated (Table 3.11), which covers transfers *to single commodities other than MPS commodities*. All data sets in the calculation of producer SCT by commodity come from Tables 1 and 4.1-4.10 where definitions are included.

Tables 4.1 – 4.11 contain Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) by commodity, calculated for the same set of commodities as Tables 3.1 to 3.11. Definitions are provided only for basic data sets from which all the other data sets in this table are derived.

Definitions of the indicators, criteria for classification of policy transfers included in support estimation, and methods of calculation are contained in the PSE Manual (OECD's Producer Support Estimate and Related indicators of Agricultural Support: Concepts, Calculations, Interpretation and Use).

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.1. Of which share of MPS commodities (%): Share of commodities for which MPS is explicitly calculated (in Tables 4.1-4.10) 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 $[(II.1) / (I.1) \times 100]$.
- *II.1. Of which MPS commodities:* Sum of the value of consumption (at farm gate prices) of the MPS commodities as indicated in Tables 4.1-4.10.
- **III.1 Producer Support Estimate (PSE):** Associated with total agricultural production, i.e. for all commodities domestically produced [Sum of A to G; when negative, the amounts represent an implicit or explicit tax on producers].

A. Support based on commodity output

A.1. Market Price Support: 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 [(ΣMPS) for MPS commodities) / (I.1) x 100].

A.2. Payments based on output

Regional deficiency payment for cereals [part of B.1150.73.05]: A regionally differentiated pertonne payment for grains in less-favoured areas provided under the grain and feed-stuff market regulation, until 1991. Allocated to cereals based on the value of production.

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].

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]. Allocated to cereals based on the value of production.

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. Allocated to cereals based on the value of production.

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 sheep meat (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.

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. *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.

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.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Transport payment for meat [B1150.74.18]: Payment to farmers per kg of meat (except poultry) delivered to the slaughterhouse, until 1993.

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 cooperatives) per kg of eggs delivered to the packing plant, until 1993.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Transport payment for meat and eggs [B1150.73.18]: 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]. *Labels*: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Deficiency payment for wool [B.1150.73.11]: Payment per tonne to producers of wool, since 1991.

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.

Radioactivity [B.1150.70.15/74.19]: Payments to counter radioactivity pollution due to Chernobyl disaster in 1986.

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).

Labels: Production limits: NO; 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.

Labels: Production limits: NO; 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.

Labels: Production limits: NO; 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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Regional Deficiency payment for eggs [B.1150.73.16]: Payment per kg of eggs, granted from 1999 to egg producers in the Western and Northern part of Norway.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

B. Payments based on input use

B.1. Payments based on variable input use

Fuel tax concession: value of the fuel tax concession to farmers.

Labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in ACT.

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

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in GC

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC

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.

Labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in GC

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).

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

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].

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

Other Welfare Schemes [B.1150.78.15]: Payments to temporary recruitment in agriculture and for Agricultural Health. Agricultural Health is a foundation which works on HSE, Health, Security and Environment issues.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

B.2. Payments based on fixed capital formation

Interest rate concessions: Farmers could apply for investment loans at zero interest rate up to 2002. The subsidy element in this program is calculated as the difference between the zero interest rate charged to farmers by the State Bank of Agriculture and the market interest rate multiplied by the volume of outstanding loans.

Labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in ACT.

Interest rate concessions: From 2003, farmers can apply for interest rate support within the Agricultural Development Fund. The Budsjettnemnda for jordbruket (Budget Comittee for Agriculture) reports the actual amount that is paid every year in Totalkalkylen (Agricultural Statistics) (Appendix 2.1). [B.1150.50.11].

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

Compensation for losses due to predators [B.1427.73]: Payment administered by the Environment Ministry to compensate for farm animals killed by preserved species of predators. Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

Agricultural Development Fund [B.1150.50.11]: This fund includes different measures some classified under C. Those classified here include: investment in traditional farming, investment in ditching, technical environmental investments, support to energy savings, extraordinary cultural landscape programmes, interest rate support. 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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

B.3. Payments based on 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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

C. Payments based on current area planted/animal numbers/receipts/income - production required

Acreage and cultural landscape scheme – potato: Acreage payment for potato production Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GC.

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].

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GC.

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 (see below):

Acreage and cultural landscape scheme [B.1150.74.17]. 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); (ii) payments for coarse fodder (E); (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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

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.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

Crop insurance compensation [B.1150.50.02, now 1148.71]: 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% of the 5-year average. The payments account for the difference between farm sales and 70% of the revenue that would have been obtained on the planted area with normal yields.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

Support to organic farming [part of B.1150.74.20]: 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. [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: NO. Payments are included in ACT.

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. From 2005 a part of the Regional Environmental Programmes.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

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: NO; Input constraints: NO. Payments are included in ACT.

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. Payments are included in ACT.

Income Tax Deduction: Introduced in 2000, the agricultural tax deduction gives the opportunity to farmers to deduct up to NOK 166 400 from general income before tax. It occurs at an income from agriculture of more than 334 400 NOK and gives a tax reduction of a maximum NOK 36 600 per farmer.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

Support for grazing animals [B.1150.74.16]: From 2007 a new payment was introduced for grazing animals in both home fields and outlying fields. The goal of the scheme is to better maintain the landscape values and the biodiversity that depend on grazing animals and open habitats. To qualify for this payment the animals need to be grazing for 16 weeks (12 weeks in the mountain areas and in Northern Norway) as a total for the two schemes. The requirement to qualify for the extensive grazing scheme is 8 weeks of grazing in outlaying fields. The payments in the new scheme is differentiated by small animals (sheep, goat etc) and larger animals (cows, bulls, deer horses etc), and by regions.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES (animal welfare). Payments are included in GC.

Regional environmental programmes [B.1150.74.19]: From 2005 there was a change in the Norwegian agri-environmental policy towards a more local and regional administration of environmental instruments. The special environmental measures in agriculture and forest measures in relation to the Agricultural Development Fund are delegated down to local authorities. A national environmental program is established. The national environmental program lays out national goals and gives guidance and framework for regional environmental programs. In addition it contains some broad measures, such as the cultural landscape scheme, payments for animals on outlaying fields and payment for organic agriculture. Regional

environmental programs were established for all counties (18) in 2005. The programs are based on regional priorities built on analyses of environmental challenges in the county. Each county has established its own support measures targeted and tailored to meet the specific environmental challenges in the region. The programs will aim at two main objectives; to safeguard the cultural landscape (biodiversity, cultural heritage, public excess etc.), and to reduce pollution. Some of these programs are classified in F2 and F3.

Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

Agricultural Development Fund [B.1150.50.11]: This fund includes different measures, some classified under B2. Those classified here include: planting in older fruit tree fields, technical environmental investments, extraordinary cultural landscape programmes, development programme for goat farming, organised grazing, landing strips for goose, mountain farming, and support to World Heritage Sites. Since 1997, the extended support for landscape maintenance and development (previously B.1150.77.08, see below) is also part of the Fund. Labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GC.

D. Payments based on non-current area planted/animal numbers/receipts/income - 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. Payments are subject to environmental cross compliance.

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.

E. Payments based on non-current area planted/animal numbers/ receipts/income - production not required

F. Payments based on non-commodity criteria

- F.1. Payments based on long-term resource retirement
- F.2. Payments based on specific non-commodity output

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 cannot 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.

Various sub-programs within the umbrella of the Regional Environmental Programmes [B.1150.74.19]: Support for the following: water way in field, buffer strips, water purification, cultural monuments and buildings, stone fences, walking paths

F.3. Payments based on other non-commodity criteria

Various sub-programs within the umbrella of the Regional Environmental Programmes [B.1150.74.19]: Support for the following: waste management, landscape management, cultural monument sites, recreational area

G. Miscellaneous payments

III.2 Percentage PSE $[100 \times (III.1) / ((I) + (Sum of A2 to G))]$

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).

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

H. Agricultural knowledge and innovation system

H.1. Agricultural knowledge generation

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.

Agricultural experimental groups [B.1150.77.13]: Public expenditure for research linked to model farms. [More information is needed on the implementation of this support].

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

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

Services for organic farming [part of B.1150.77.16]: 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).

Veterinary Institute and Bioforsk: [need description of the programme newly included in GSSE]

Research and innovation ((Forskningsaktivitet, basisbevilgning, omstillingsmidler): [need description of the programme newly included in GSSE]

H.2. Agricultural knowledge transfer:

H2.a. education

University of life science [KD 260 (tidl. 278) (74 %)]

Norwegian school of veterinary science [KD 260 (tidl. 279) (65 %)]

H2.b. extension services

Support to extension services and technical planning [1150.77.13 (100 %)]

Knowledge development (NILF and Skog og landskap) [1141 (59 %)]

I. Inspection and control

I.1. Agricultural product safety and inspection

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 - 4115 (67 %)]: 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.

I.2. Pest and disease inspection and control

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

I.3. Input control

J. Development and maintenance of infrastructure

- J.1. Hydrological infrastructure
- J.2. Storage, marketing and other physical infrastructure

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).

J.3. Institutional 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.

Support to organizations (Støtte til organisasjoner) [1138.70 (100 %)] [need description of the programme newly included in GSSE]

Generesources and environment registrations (Genressurser, miljø- og ressursregistreringer) [1139 (44 %)] [need description of the programme newly included in GSSE]

Norwegian institute for land and forestry mapping [1146 (100 %)] [need description of the programme newly included in GSSE]

Land reallocation court [JD 413 - 3413 (40 %)] [need description of the programme newly included in GSSE]

Regional and local measures in agriculture (Regionale og lokale tiltak i landbruket) [1144 (100 %)] [need description of the programme newly included in GSSE]

J.4. Farm restructuring

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.

K. Marketing and promotion

- K.1. Collective schemes for processing and marketing
- K.2. Promotion of agricultural products

Market promotion fund [B.1150.70.11]: 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.

Quality and sales promotion [B.1150.77.15]: [need description of the programme newly included in GSSE]

L. Cost of 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.

M. Miscellaneous

- **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 N to Q; when negative, the amounts represent an implicit tax on consumers].
- *N. 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 $[(N.1)/(I.1) \times 100]$.

- *N.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 Tables 4.1 to 4.10.
- O. 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 $[(O.1)/(I.1) \times 100]$.
- O.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 Tables 4.1 to 4.10.

P. Transfers to consumers from taxpayers

P.1. Commodity specific transfers to consumers: Sum of commodity specific transfers from taxpayers to consumers (farm gate level) from Tables 4.1, 4.3, 4.4, 4.5, and 4.8, including:

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 sheep meat: Payment made to slaughterhouses until 1987 to reduce the consumer price of sheep meat.

Grain price reducing grant [B.1150.73.19]: Payment under the grain and feed-stuff market regulation to reduce the price of grain to feed and food grain.

- *P.2. Non-commodity specific transfers to consumers:* Sum of non-commodity specific transfers from taxpayers to consumers, including:
- **Q. Excess Feed Cost**: Associated with market price support on quantities of domestically produced crops and used on-farm as feed as calculated (Sum of *Excess Feed Cost* in the MPS Tables 4.1, 4.2, and 4.3).

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

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).

VI. Total Support Estimate
$$[(III.1) + (IV) + (P)]$$
 and $[(R) + (S) - (T)]$

- **R.** Transfers from consumers [(N)+(O)]
- S. Transfers from taxpayers [(III.1)-(N)+(IV)+(P)]
- T. Budget revenues [(O)]

TABLE 2. Norway: Breakdown of PSE by commodity specificity and other transfers

All data sets in Table 2 to come from Tables 1 and 3.1 to 3.11 where definitions are included.

Definitions:

I. Producer Single Commodity Transfers (producer SCT): the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm level, arising from policy measures directly 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 policies where payments are specified on a per-commodity basis [Sum of SCTs for individual commodities from Tables 3.1-3.11].

Percentage producer SCT: is the commodity SCT expressed as a share of gross farm receipts for the specific commodities (including support in the denominator). This indicator can be expressed for the total SCT (Table 2), or for a specific commodity (Table 3.1 to 3.11).

```
SCT = 100*SCT / (Value of production_{COM} + A.2_{COM} + B_{COM} + C_{COM} + D_{COM})
```

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

II. Group commodity transfers (GCT): the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures whose payments are made on the basis that one or more of a designated list of commodities is produced. That is, a producer may produce from a set of allowable commodities and receive a transfer that does not vary with respect to this decision [GCT = $B_{GROUP} + C_{GROUP} + D_{GROUP}$].

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

Transfers to specific groups of commodities: the GCT indicator is calculated for Norway for the following groups of commodities:

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 meadow seed storage.

All fruits and vegetables: includes support for energy saving in greenhouses, investment support for greenhouses and storehouses and packaging of horticultural products, and various area payments for potatoes, vegetables, fruits and berries.

Ruminants: includes per head payments for grazing animals.

Tubers: includes various payments to root crops, including under the acreage and cultural landscape scheme.

III. All commodity transfers (ACT): the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice $[ACT = C_{ALL} + B_{ALL} + D_{ALL}]$.

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 / (Total Value of Production at farm gate+A.2.+B+C+D+E+F+G)

TABLE 3. Norway: Producer Single Commodity Transfers (by commodity)

Tables 3.1 to 3.11, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: wheat, maize, barley, oats, sunflower, sugar beet, milk, beef, sheep meat, wool, pigmeat, poultry, eggs and "other commodities". All data sets in the calculation SCT by commodity come from Tables 1 and 4.1 - 4.11 where definitions are included.

Definitions:

- **I. Level of production:** Data from respective commodity Tables 4.1 4.11 (Market Price Support tables)
- II. Value of production (at farm gate): Data for respective commodity Tables 4.1 4.11 (Market Price Support tables)
- **III. Producer Single Commodity Transfers:** Sum of transfers to respective single commodity in categories A, B, C and D.
 - A. Support based on commodity output
 - A1. Market Price Support [Data for respective commodity from Table 4]
 - A2. Payments based on output

Payments based on output (A.2) provided to respective single commodity [Data from Table 1]

- B. Payments based on input use, single commodity [B.1_{COM} + B.2_{COM} +B.3_{COM}]
- B1. Based on variable input use

Payments based on variable input use (B.1_{COM}) provided to respective single commodity [Data from Table 1].

B2. Based on Fixed capital formation

Payments based on fixed capital formation (B.2 $_{\text{COM}}$) provided to respective single commodity [Data from Table 1].

B3. Based on on-farm services

Payments based on on-farm services (B.3 $_{COM}$) provided to respective single commodity [Data from Table 1].

C. Payments based on current A/An/R/I, production required, single commodity

Payments based on current A/An/R/I (C_{COM}) provided to respective single commodity [Data from Table 1].

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

Payments based on non-current A/An/R/I, production required (D_{COM}) provided to respective single commodity [Data from Table 1].

IV. Percentage producer SCT: %SCT = $100*(III) / ((II) + (A.2) + (B_{COM}) + .(C_{COM}) + .(D_{COM}))$

TABLE 4. Norway: Market Price Support and Consumer Single Commodity Transfers

Tables 4.1 to 4.11, contain calculation of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following commodities: wheat, maize, barley, oats, sunflower, sugar beet, milk, beef, pig meat, sheep meat, wool, poultry, eggs and "other commodities". The data sets used in calculation of the MPS and consumer SCT by commodity are described below. Values for "other commodities" are derived using information on total Market Price Support and Value of Production, and individual commodity data.

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, pig meat, poultry meat and sheep meat,

expressed in carcass weight equivalent [1].

Wool: Total domestic production of wool [1].

Eggs: Total domestic production of eggs [1].

II. Producer prices (at farm gate)

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

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

Sheep meat: 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].

III. Value of production (at farm gate) [(I)*(II)]

IV. Trade status

Norway is a net import for all MPS commodities.

Source: FAOSTAT.

V. Market price differential at the farm gate

The price gap method is used in all cases.

VI. 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: EU export price (based on unit value of exports [11].

Pig meat: EU reference price (based on unit value of exports [11].

Poultry meat: 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].

Sheep meat: 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].

VII.Level of consumption (at farm gate)

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, pig meat, poultry meat and sheep meat, 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].

VIII. Consumption prices (at farm gate)

Implicit prices corresponding to reference prices plus the unit value of market transfers.

IX. Value of consumption (at farm gate) [(VII)*(VIII)]

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 Kjött (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.