

UKRAINE: 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 – 4.13.

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 Table 1 and tables 3.1 – 3.14 where definitions are included.

Tables 3.1 – 3.14 Producer Single Commodity Transfers contain producer SCT by commodity, which are calculated for Ukraine for the following commodities: wheat, maize, other grains (barley, rye and oats), sugar, oilseeds (sunflower), milk, beef and veal, pig meat, poultry meat, eggs, and potatoes, (Tables 3.1-3.13) provided that the value of production of that commodity exceeds 1% of the total value of production. In addition, SCT for “non-MPS commodities” is also calculated (Table 3.14), which covers transfers to *single commodities other than MPS commodities*. All data sets in the calculation of producer SCT by commodity come from Table 1 and Tables 4.1 – 4.13 where definitions are included.

Tables 4.1 – 4.14 contain **Market Price Support (MPS)** and **Consumer Single Commodity Transfers** (consumer SCT) by commodity, calculated for the same set of commodities as in Tables 3.1 to 3.12: Definitions are provided only for basic data sets from which all the other data sets in this table are derived.

All values for 1986-91 are expressed in USSR roubles, and from 1992 on, in Ukrainian *hryvnias*.

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. UKRAINE: Agricultural Support Estimates / Total Transfers

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 4.1-4.13) 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) x 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 4.1-4.13.

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 [(Σ MPS for MPS commodities listed in the rows below) / (I.1) x 100].

A.2. Payments based on output

Per tonne payments for crops (up to 1992): provided for grains (wheat, maize, rye, barley, oats, buckwheat millet, rice and other cereals), sunflower, sugar beet, potatoes and other crops.

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

Payments are included in the commodity SCTs for wheat, maize, rye, barley, oats, sunflower, sugar beet, potatoes, and “non-MPS commodities” (this group including buckwheat, millet, rice, other cereals, and other non-specified commodities).

Per tonne payments for hops (from 2002).

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

Payments are included in the commodity SCT for “non-MPS commodities”.

Per tonne payments for crown flax (from 2002).

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

Payments are included in the commodity SCT for and “non-MPS commodities”.

Per tonne payments for sugar beet (from 2002).

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

Payments are included in the commodity SCT for sugar beet.

Per tonne payments for livestock (from 1986): provided for beef and veal, pig meat, poultry, milk, eggs and sheep meat; between 1998 and 2002, payments for beef and veal, pig meat, poultry and milk were provided through processors, whereby the latter directed their VAT due on processed milk and meat products to supplying producers as purchase price top-ups (the so-called “redirection of processors’ VAT”). As of 2003 (as of 2002 for beef and veal), these payments have been financed both through the “redirected” processor VAT, and through budgetary disbursements within the *Programme for Financial Support of Animal Husbandry*.

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

Payments are included in the commodity SCTs for beef and veal, milk, pig meat, poultry, eggs and “non-MPS commodities” (payments for sheep meat).

Per tonne payments to silkworm breeders: payments per one kilogram of silkworm cocoons and per one kilogram of silkworm eggs produced.

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

Payments are included in the commodity SCT for “non-MPS commodities”.

Non-specified per tonne payments for crop and animal production: ad hoc price top-ups, allocated to all commodities in proportion of their shares in the total value of agricultural output.

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

Payments for the MPS commodities are included in the commodity SCTs for wheat, maize, rye, barley, oats, sunflower, sugar beet, milk, beef and veal, pig meat, poultry, eggs, with the rest allocated to SCT for “non-MPS commodities”.

Pledge loan benefit (reduced interest on pledge loans) – implicit transfer to grain producers who receive reduced-interest loans against the pledged grain (wheat, barley, rye, maize, and oats); for 2004-06, the transfer is calculated as follows: Amount of Pledged Loan x (Annual Commercial Interest Rate – Annual Pledged Loan Interest Rate) / 12) x Number of Months of Loan]; no transfers were provided in 2007; for 2008-12 no estimates of the transfers are included due to a lack of information.

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

Payments are included in the commodity SCTs for wheat, maize, rye, barley and oats.

Estimated implicit transfer.

B. Payments based on input use

B.1. Based on variable input use

General electricity subsidy (1986-2001): implicit subsidy arising from reduced administered price of electricity for agricultural producers. The subsidy is estimated by multiplying the differential between the electricity price charged per kilowatt/hour to industrial users and the price charged to agricultural users, multiplied by the amount of kilowatt/hours of electricity consumed by agricultural producers in a given year.

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

Payments are included in the ACT.

Estimated implicit transfer.

Electricity for irrigation subsidy (2003-05): partial budgetary reimbursement of cost of electric power for irrigation of agricultural crops and for the flooding of rice fields.

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

Payments are included in the ACT.

Estimated implicit transfer.

Insurance subsidy (from 2005): budgetary compensation of 50% of insurance premiums paid by agricultural enterprises under the insurance contracts related to full or partial crop loss.

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

Payments are included in the ACT.

Fertiliser subsidy (up to 1991): budgetary transfers to fertiliser plants to compensate the difference between fertiliser prices charged to agricultural producers and “normative” manufacturer prices, the former being set below the manufacturer prices.

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

Payments are included in the GCT for all crops.

Fertiliser subsidy (from 2004): partial reimbursement to agricultural producers of the cost of purchased fertilisers produced domestically.

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

Payments are included in the GCT for all crops.

Mixed feed subsidy (1986-1991): partial compensation of the cost of feeds purchased by large feedlots.

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

Payments are included in the GCT for all livestock.

Fish meal subsidy (in 1996-88): *ad hoc* partial compensation of the cost of fish meal purchased by large feedlots.

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

Payments are included in the GCT for all livestock

Ad hoc fuel subsidy (in 1990): partial compensation of the cost of fuel (gasoline and diesel fuel) and motor lubricants.

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

Payments are included in the ACT.

Disaster relief payments (in 2003-04): budgetary subsidy for purchase of fuel and lubricants, spare parts, seeds, fertilizers and plant protection chemicals; extraordinary disaster assistance provided in 2003 and 2004 due to an exceptional grain harvest loss in 2003.

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

Payments are included in the GCT for grains.

Input subsidy based on "VAT accumulation" (from 1999): input subsidy to agricultural producers, whereby producers are enabled to retain their VAT payments due on agricultural goods and services. The VAT payments are accumulated on special bank accounts of agricultural producers and up until 2008, they could only be used for purchases of agricultural inputs, such as fuel, seeds, fertilisers, pesticides, and agricultural machinery and equipment; milk and meat producers were not eligible for this regime as they were eligible to support based on “redirection of processors’ VAT” (see above, support classified to category A.2. *Payments based on output*). Starting from 2009, the accumulated producer VAT can be used to cover only the VAT on purchased items, while the residual sum can be used for other production purposes.

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

Payments are included in the GCT for “all commodities excluding meat and milk”.

Seed subsidy (from 1993): partial reimbursement to agricultural producers of the cost of purchased fuel and lubricants, spare parts, seeds, fertilisers and plant protection chemicals.

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

Payments are included in the GCT for crops.

Interest-free cash advances for purchase of inputs (in 1994-97): implicit transfers from interest-free 6-month loans provided to producers who delivered their products to state procurement system; products covered include wheat, maize, rye, barley, oats, and sunflower seeds; calculated as follows: Amount of Interest-Free Cash Advances x (Annual Market Interest Rate / 12) x 6 (months).

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

Payments are included in the GCT for “grains and oilseeds”.

Estimated implicit transfer.

Debt write off on state commodity credit (in 1994-99; in 2002 and 2004): implicit transfer arising from the write-off of the overdue debt on state commodity credit.

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

Payments are included in the GCT for “grains and oilseeds”.

Estimated implicit transfer.

Restructuring of debt on state commodity credit (1994-99): estimated implicit transfer arising from the restructuring of overdue debt on state commodity credit; this transfer is calculated as the difference between the average market interest rate for short-term credit and preferential interest rate set for repayment of the restructured debt, multiplied by the estimated outstanding credit in a given year.

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

Payments are included in the GCT for “grains and oilseeds”.

Estimated implicit transfer.

Interest subsidy on short-term loans (from 1994): partial budgetary compensation of interest on short-term agricultural loans provided by commercial banks to agricultural producers; the borrower is to cover the difference between the bank lending rate and the government-subsidised part of the interest. The amount of transfer is assumed to comprise two thirds of total budgetary allocations for compensation of interest rates to agricultural producers in a given year; the remaining one third is classified to B.2 *Payments based on fixed capital formation* as interest subsidy on long-term loans (see below).

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

Payments are included in the ACT.

Support for family farms (from 1992): financial support to family (individual) farms, with the majority of funds provided for interest subsidies on commercial bank loans.

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

Payments are included in the ACT.

Agricultural chemicals subsidy (in 2003): partial compensation of the cost of chemicals for plant growth control and chemicals for protection from low temperatures.

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

Payments are included in the GCT for grains.

B.2 Based on fixed capital formation

Subsidy for agricultural machinery and equipment (from 2002): 30% reimbursement of the cost of purchased domestically produced agricultural machinery and equipment.

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

Payments are included in the ACT.

Public capital grants for construction and re-construction of production structures on farms (agricultural organisations) (from 1986).

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

Payments are included in the ACT.

State Programme for Livestock Breeding (from 1994): partial reimbursement of expenses involved in the improvement of livestock genetic potential, acquisition and keeping of own pedigree livestock on farms, introduction of biotechnology methods and purchase of sperm. Of total budgetary expenditures for this programme, 75% are allocated to category B.2 *Payments based on fixed capital formation*, while the remaining 25% are allocated to GSSE category H.1 Agricultural knowledge generation (see below). Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Payments are included in the GCT for all livestock.

Support for orchards, vineyards and berry fields (from 1995): subsidies for layout planning, preparation of ground, planting and maintenance of perennial plantations, and trickle irrigation; payment rates are established on the basis of normative regional costs per hectare. Seventy per cent of allocations are directed for development of viticulture and 30% for horticulture.

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

Payments are included in the GCT for “other crops”.

Interest subsidy on long-term loans (from 1994): partial budgetary compensation of interest on long-term loans provided by commercial banks to agricultural producers; the borrower is to cover the difference between the bank lending rate and the subsidised part of the interest. It is assumed that the amount of the transfer is equal to one third of total budgetary allocations for compensation of interest rates to agricultural producers in a given year, the remaining two thirds allocated to category B.1. *Payments based on variable input use* as interest subsidy on short-term loans (see above).

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

Payments are included in the ACT.

Partial reimbursement of the cost of construction of livestock farms and complexes (from 2010): reimbursement of up to 50% of the costs of construction and rehabilitation of animal farms and complexes; this assistance is provided for the operating facilities where construction and reconstruction works have been completed and with the size of no less than 500 cows, or 1 200 sows, or 1 million heads of poultry.

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

Payments are included in the GCT for all livestock.

Partial reimbursement of the cost of milking equipment for individual farmers (from 2012): partial (up to UAH 5 000 per unit) reimbursement of the cost of acquisition of milking equipment for individual farmers. Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Payments are included in the commodity SCT for milk.

Partial reimbursement of the cost of greenhouse construction (from 2011): reimbursement of up to 50% of the construction cost of greenhouse complexes for vegetables and mushrooms using modern energy-saving technologies.

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

Payments are included in the commodity SCT for milk.

Machinery leasing subsidy (from 2005): transfers arising from reduced leasing fee rate for machinery leased from UkrAgroLeasing company. For 2005, the amount of subsidy is the estimate of the Ukrainian Ministry of Agrarian Policy; for 2006-10 the subsidy is estimated based on the total amount of the financing for machinery leasing in each year, multiplied by the ratio of subsidy to the total amount of the financing for machinery leasing in 2005; for 2011-12 budget allocations for purchase of domestic machinery, equipment and cows destined for leasing to agricultural producers within capital lease arrangements.

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

Payments are included in the ACT.

B.3. Based on use of on-farm services

Improvement of irrigated land (1993 and 1999-2001): partial compensation of costs incurred in various works on land reclamation and improvement of irrigated lands.

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

Payments are included in the ACT.

Payments for fundamental soil improvement (up to 1991): partial compensation of costs incurred in various works on fundamental improvement of soils, such as adding lime and gypsum to soils.

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

Payments are included in the ACT.

Payments for fundamental soil improvement (from 1992 on): partial compensation of costs incurred in various works on fundamental improvement of soils, such as adding lime and gypsum to soils; financed within the *Programme for Fundamental Soil Improvement*; of the total amount of expenditures reported, only the part of payments made to agricultural producers is included, the remaining part is allocated to GSSE category N. *Miscellaneous* (see below).

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

Payments are included in the ACT.

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

Per hectare payments for crops (from 2006 on): fixed payment per hectare of area sown to winter and spring crops; only areas with sprouts are eligible; crops covered are: wheat, maize, rye, barley, oats, buckwheat, millet, rice, other grains and rapeseeds; subsidy is provided with the objective of preventing reduction in areas sown to cereals and rapeseeds.

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

Payment eligibility: Area

Payments are included in SCTs for wheat, maize, rye, barley, oats, and “non-MPS commodities” (payments for buckwheat, millet, rice, other grains and rapeseeds)

Per animal payments (from 2003): payments provided for beef and veal, milk, pig meat, and sheep within the *Programme for Financial Support of Animal Husbandry*.

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

Payment eligibility: Animal head

Payments are included in SCTs for beef and veal, milk and “non-MPS commodities” (for sheep).

Per animal payments for bees (from 2003): fixed payment per bee family if no less than 10 bee families are kept between January 1 and May 1 (before 2006, no less than 20 bee families); provided within the *Programme for Financial Support to Animal Husbandry*.

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

Payment eligibility: Animal head

Payments are included in SCT for “non-MPS commodities”.

Payments to producers in regions with difficult climatic conditions (from 2000 on): payments provided to producers in regions suffering recurrent adverse climatic events, such as early frosts, droughts, and ice crusts.

Production limits: NO; Variable payment rates: YES; Input constraints: NO

Payment eligibility: Receipts

Payments are included in the ACT.

Implicit benefit from the Fixed Agricultural Tax (from 1999 to 2014): according to the Ukrainian legislation, any enterprise receiving over 75% of its gross receipts from sales of agricultural commodities is eligible for the Fixed Agricultural Tax (FAT), which is based on land value (Law of Ukraine On Fixed Agricultural Tax, No. 320 of 17 December 1998); agricultural enterprises who are eligible for FAT are exempt from payment of a number of taxes, fees and contributions; the benefit from the fixed agricultural tax is the value calculated by the Ukrainian Ministry of Agrarian Policy and Food representing the difference between the total amount of the fixed agricultural tax collected in a given year and the amount of taxes, fees and contributions which were replaced by the fixed agricultural tax. In 2015 FAT was transformed into a Single Tax which replaced in total three taxes— profit tax, land tax, and special water use fee.

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

Payment eligibility: Receipts

Payments are included in the ACT

Estimated implicit transfer.

Exemption from 30-percent profit tax (in 1992-97): between 1992 and 1997, agricultural enterprises were exempted from profit tax (equalling to 30%); the related implicit transfer corresponds to 30% of the total amount of profits reported by agricultural enterprises in a given year.

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

Payment eligibility: Income

Payments are included in the ACT

Estimated implicit transfer.

Debt write-off (1991-2002): transfer arising from debt write-off other than debt write-off on state commodity credit, which is allocated to category *B.1. Payments based on variable input use*.

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

Payment eligibility: Income

Payments are included in the ACT

Estimated implicit transfer.

Debt restructuring (in 1992-98): transfer arising from debt restructuring other than restructuring of debt on state commodity credit, which is allocated to category *B.1. Payments based on variable input use*.

Payment eligibility: Income

Payments are included in the ACT

Estimated implicit transfer.

Ad hoc financing of unprofitable farms (in 1991): subsidies to unprofitable farms to compensate for general increase in administered prices in 1991.

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

Payment eligibility: Income

Payments are included in the ACT.

D. Payments based on non-current area planted/animal numbers/receipts/income – production required

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

F. Payments based on non-commodity criteria

F.1. Long-term resource retirement

F.2. Specific non-commodity output

F.3. Other non-commodity criteria

G. Miscellaneous payments

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

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 Tables 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. Agricultural knowledge and innovation system

H.1 Agricultural knowledge generation

Research and development (up to 1991): public financing of agricultural research institutions.

Research and development (from 1992 on): public financing of agricultural research institutions carrying out of fundamental research, general and product-specific research programmes.

State program for livestock breeding: 25% of the actual budgetary expenditures for this programme are allocated to H.1 Agricultural knowledge generation; the remaining 75% are allocated to category B.2. *Payments based on fixed capital formation* (see above).

State programme for crop selection and variety testing (from 2003): public financing for formation of stocks and provision of high quality and hybrid seeds.

H.2. Agricultural knowledge transfer

H.2.a. Education

Agricultural schools (up to 1992): public financing of agricultural education and training institutions.

Agricultural schools (from 1992 on): public financing of agricultural education and training institutions.

H.2.b. Extension services

Extension services

I. Inspection and control

I.1. Agricultural product safety and inspection

Inspection services (up to 1991).

Inspection services (from 1992): public financing of general inspection and specific product inspection services for health care purposes, safety, grading or standardization; financing of state veterinary institutions, the State Seed Inspection, state variety-testing stations and the State Bread Inspection.

I.2. Pest and disease inspection and control

Inspection services (up to 1991).

Inspection services (from 1992): public financing of general inspection and specific product inspection services for health care purposes, safety, grading or standardization; financing of state veterinary institutions, the State Seed Inspection, state variety-testing stations and the State Bread Inspection.

Pest and disease control of agricultural plants and animals (from 1992): public financing of anti-epizootic measures, pest and disease control.

I.3. Input control

Chemical certification of land (from 1999): public financing of field and analytical works on testing soils for content of heavy metals, pesticide and radionuclide residues; radioactive decontamination of agricultural lands and household plots.

J. Development and maintenance of infrastructure

J.1. Hydrological infrastructure

Irrigation and drainage systems (1992-2007): budgetary expenditures for maintenance and construction of irrigation and drainage structures from central budgets.

Irrigation and drainage systems (1992-2007): budgetary expenditures for maintenance and construction of irrigation and drainage structures from local budgets.

J.2. Storage, marketing and other physical infrastructure

Financial support for construction of wholesale markets (in 2011 and 2012): budgetary allocations covering the following items: (i) producing of construction design of wholesale markets; construction of connecting roads, water and electricity networks, and other general purpose services; creation of information systems; (ii) 50% compensation of the cost of equipment and machinery purchased to equip wholesale markets.

J.3. Institutional infrastructure

Foundation of the State Land Bank (in 2012): budgetary allocations for the formation of charter of the State Land Bank.

J.4. Farm restructuring

Land reform (from 1993): public financing of services related to implementation of the land reform: development of new land legislation, land registry, cadastral survey and land quality mapping.

Rural infrastructure (1992; 1994-1999; 2002-05): budgetary expenditures for delivery of gas, water and electric power to rural areas.

K. Marketing and promotion

K.1. Collective schemes for processing and marketing

Support to collective processing and promotion

K.2. Promotion of agricultural products

Promotion of agricultural products

Marketing and promotion (from 1994): budgetary expenditures for organisation of agricultural state exhibitions, fairs and promotion events.

L. Cost of public stockholding

State purchases for food security purposes (from 2003): budgetary expenditures for purchases of foodstuffs for Derzchrezerv (State Reserve Fund).

Storage and transportation costs of the Agrarian Fund.

Formation and keeping of state stock of high quality seed (from 2002).

M. Miscellaneous

Non-specified expenditures (up to 1991).

Environmental programmes (from 1993-2007): budgetary expenditures by the Ministry of Water Management and by the Ministry of Forestry reduced by one third to exclude non-agricultural payments; include partial compensation of costs incurred in various works on soil improvement, such as adding lime and gypsum to soils, maintenance of field-protective forest belts, soil protection from harmful water action; financed within the programme of *Fundamental Soil Improvement* and includes part of payments under this programme not allocated to category B.3. *Payments based on use of on-farm services* (see above).

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 O to R; 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 4.13.

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 4.13.

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 commodity MPS Tables 4.1-4.14.

P.2. Non-commodity specific transfers to consumers: Sum of non-commodity specific transfers from taxpayers to consumers (farm gate level). The descriptions of policies inducing non-commodity specific transfers are provided below:

Price difference compensation to processors (up to 1991): direct budgetary transfers to processors to compensate for the difference between administered prices paid by processors to agricultural producers and lower administered prices received by processors; the compensation was provided for livestock commodities, grains, sugar beet, oilseeds and potatoes.

Price difference compensation to retailers (up to 1991): direct budgetary transfers to retailers to compensate for the difference between administered prices paid to food processors and lower administered prices set for retail consumers; the compensation was applied to principal foodstuffs.

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, 4.4, 4.13).

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 $[(III.1) + (IV) + (P)]$ 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. UKRAINE: Breakdown of PSE by commodity specificity and other transfers

All data sets in Table 2 come from Tables 1 and 4.1 – 4.14.

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 to 3.14].

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 (Tables 3.1 to 3.14).

$$\% \text{SCT} = 100 * \text{SCT} / (\text{Value of production}_{\text{COM}} + \text{A.2}_{\text{COM}} + \text{B}_{\text{COM}} + \text{C}_{\text{COM}} + \text{D}_{\text{COM}})$$

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

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 [$\text{GCT} = \text{B}_{\text{GROUP}} + \text{C}_{\text{GROUP}} + \text{D}_{\text{GROUP}}$].

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

Transfers to specific groups of commodities: The GCT involve gross transfers to the following groups of commodities: all crops, grains, other crops, all livestock, all except milk and meat.

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 [$\text{ACT} = \text{C}_{\text{ALL}} + \text{B}_{\text{ALL}} + \text{D}_{\text{ALL}}$].

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

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. [$\text{OTP} = \text{E} + \text{F} + \text{G}$]

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

V. Total PSE: $\text{PSE} = \text{A} + \text{B} + \text{C} + \text{D} + \text{E} + \text{F} + \text{G} = \text{SCT} + \text{GCT} + \text{ACT} + \text{OTP}$

Percentage PSE: $\% \text{PSE} = 100 * \text{PSE} / (\text{Total Value of Production at farm gate} + \text{A.2.} + \text{B} + \text{C} + \text{D} + \text{E} + \text{F} + \text{G})$

TABLE 3. UKRAINE: Producer Commodity Specific Transfers by commodity

Tables 3.1 to 3.14 provide information on producer Single Commodity Transfers (producer SCT) for the following commodities: wheat, maize, other grains, sunflower, sugar, milk, beef, pig meat, poultry, eggs, potatoes, and “non-MPS commodities”. All data sets in the calculation of the SCTs by commodity come from Table 1 and Tables 4.1 – 4.12 where definitions are included.

Definitions:

I. Level of production: Data from respective commodity Tables 4.1 – 4.14 (Market Price Support tables)

II. Value of production (at farm gate): Data for respective commodity Tables 4.1 – 4.14 (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 Tables 4.1 – 4.14]

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_{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. UKRAINE: Market Price Support and Consumer Single Commodity Transfers

Tables 4.1 to 4.14, contain calculation of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following commodities: wheat, maize, barley, oats, rye, sunflower, sugar, milk, beef, pig meat, poultry, eggs, potatoes, and “non-MPS commodities”. The data sets used in calculation of the MPS and consumer SCT by commodity are described below:

Definitions:**I. Level of production**

Wheat, maize, rye, barley, oats, sunflower and potatoes: Total domestic production. [1]

Sugar: Total usable production of white sugar obtained from domestically produced sugar beet. [1]

Milk: Total production of milk from dairy cows. [1]

Meats: Gross indigenous production, carcass weight. [1]

Eggs: Total usable production of eggs in shell. [1]

II. Producer prices

Wheat, maize, barley, oats, rye, sunflower seeds, and potatoes: Annual average of farm gate prices (all qualities) [1].

Sugar: Annual average of sugar beet prices at farm gate converted to white sugar equivalent by dividing sugar beet price by the sugar extraction ratio from sugar beet [1].

Milk: Annual average farm gate prices of cow milk.

Beef and Veal: Annual average farm gate prices for all categories of adult bovine animals for slaughter, live weight, converted to carcass equivalent [1].

Pig meat: Annual average farm gate prices for all pigs for slaughter, live weight, converted into carcass equivalent [1].

Poultry: Annual average farm gate prices of live chickens, converted into carcass equivalent [1].

Eggs: Annual average of farm gate prices of fresh eggs for consumption converted into a per tonne basis by dividing by average egg weight (60 g) [1].

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

Wheat, maize, barley, oats, rye and sunflower: Total domestic use (total production, plus net trade, plus change in stocks) [1, 2, 3].

White sugar: Total domestic use in white sugar equivalent (total production, plus net trade, plus change in stocks), [1, 2, 3].

Milk: Total domestic use (total production, plus net trade, plus change in stocks) of cow milk, milk equivalent excluding milk used on farm feed [1, 2, 3].

Beef and veal, pig meat and poultry meat: Total domestic use (total production, plus net trade, plus change in stocks), carcass weight [1, 2, 3].

Eggs: Total domestic use (total production, plus net trade, plus change in stocks) [1, 2, 3].

V. Consumption prices (at farm gate)

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

VI. Value of consumption (at farm gate) [(IV)*(V)]

VII. Border prices

Wheat (exportable for the whole period): for 1986-1993: EU export price of standard quality common wheat to specified zones, f.o.b. Rouen, calendar year [4]; for 1994-2004 Ukrainian unit values of wheat exports (NCM 100190) to all destinations [6], multiplied by the quality adjustment co-efficient (see section 4.5.5 of the *PSE Manual* www.oecd.org/agriculture/PSE for explanation of the quality adjustment procedure); from 2005 on: weighted average of IGC quotations for feed wheat and food wheat (f.o.b. Black sea) [9], weighted by the shares of feed and food wheat in total Ukrainian wheat production respectively [8].

Maize (exportable for the whole period): for 1986-1993: USA Yellow Corn No.3, c.i.f. Rotterdam, calendar year [4]; from 2004 on: Ukrainian unit values of maize exports (NCM 100590) to all destinations [6].

Barley (exportable for the whole period): for 1986-1993: EU export price for feed barley, minimum prices fob Rouen of price ranges at weekly free market tenders, net of export restitutions or taxes, calendar year (4); for 1994-2006: Ukrainian unit values of barley exports (NCM 100300) to all destinations [6]; from 2007 on: weighted average of IGC quotations for feed barley and food barley (f.o.b. Black sea) [9], weighted by the shares of feed and food barley in total domestic production respectively [8].

Oats (exportable for the whole period): for 1986-1993: EU import price, c.i.f. Rotterdam and f.o.b. Sweden price, calendar year [4]; from 1994 on: Ukrainian unit values of oat exports (NCM 100400) to all destinations [6].

Rye (exportable for the whole period): for the whole period: German unit export values of rye exports outside the European Union [5].

Sunflower (exportable for the whole period): for 1986-1993: EU export price, c.i.f. Rotterdam, calendar year [4]; for 1994-2010: Ukrainian unit values of sunflower seed exports (NCM 120600) to all destinations [6]; from 2011 on: IGC quotations for sunflower seed exports (f.o.b. Black sea) [9].

White sugar (importable for the whole period): for the whole period: EU export price of white sugar, Bourse de Paris (daily prices), f.o.b Europe, calendar year [4].

Potatoes (importable for the whole period): for 1986-1994: German export unit values of fresh potato exports outside the European Union [5]; for 1995-2012: f.o.b. export unit values of German fresh potatoes to Russia; for 2013 on: f.o.b. export unit values of German fresh potatoes to all extra-EU markets [5].

Milk (reference price) (*exportable for the whole period*): for 1986-1995: New Zealand farm gate price of milk (NZP) for a calendar year, actual fat content (a%) and protein content (c%), $(0.5 \cdot (\text{NZP}) \cdot ((b\% / a\%) + (d\% / c\%)))$. The reference price is New Zealand farm gate price adjusted for Ukrainian fat (b%) and protein content (d%), plus transport cost for butter and skimmed-milk powder in milk equivalent (56 kg and 82 kg per tonne of milk, respectively) from New Zealand to Europe [4]; as of 1996: Ukrainian border prices of butter and SMP converted into a *milk equivalent border price*, using technical coefficients, calendar year milk. The border price of butter and SMP are the Ukrainian unit export values of butter (HS-040210) and skimmed milk powder (HS-040500) respectively [6, 7]. For detailed explanation of the procedure to calculate milk equivalent border price see Annex 4.1 of the *PSE Manual* www.oecd.org/agriculture/PSE

Beef and Veal (*exportable for the whole period*): for 1986-1993: EU unit export values in extra-EU trade of meat of frozen bovine animals, calendar year [5]; from 1994 on: Ukrainian unit values of exports of frozen beef carcasses to all destinations (HS-Code 020210) [6].

Pig meat (*importable for the whole period*): for the whole period: EU average unit export values of fresh, chilled, and frozen pig meat in extra-EU trade, calendar year [5].

Poultry meat (*importable from 1986 to 2012; exportable as 2013*): for 1986-1993: EU export unit values in extra-EU trade of frozen chickens (weighted average of NC 02071015 and NC 02072110 of external trade statistics), calendar year [5]; from 1994 to 2012: Ukrainian unit values of imports of frozen whole poultry from all destinations (HS-Code 020712) [6]; from 2013 on: Ukrainian average unit export values of poultry Gallus domesticus, whole and cut and frozen, fresh and chilled (covering HS-Codes 020712; 020713; and 020714) from all destinations [6].

Eggs (*exportable for the whole period*): for 1986-2005: EU unit export value in extra-EU trade in poultry eggs in shell, fresh or preserved, other than eggs for hatching (NC 04070030 of external trade statistics), calendar year [4]; from 2006 on: Ukrainian average unit export values of poultry eggs in shell, fresh or preserved, other than eggs for hatching, from all destinations (HS Code 04070030) [6].

VIII. Marketing and transportation margins

Border prices listed in **Section VII** are adjusted for marketing and transportation margins to obtain reference prices, i.e. border price equivalents at the farm gate level. This is necessary in order to make border prices comparable with domestic producer prices, which are measured at the farm gate. Marketing margins represent the estimates for transportation, processing, and handling costs that are added to the price of a product between the farm gate and the border. For further details on the procedures for adjustment of border price to farm gate, see section 4.5.3 of the *PSE Manual* www.oecd.org/agriculture/PSE.

For *all products except milk and potatoes*, marketing (including processing) margins are estimated on the basis of the information reported by the *Khlib Ukrayny SJSC (Bread of Ukraine Corporation)*, other agro-food marketing associations and by the Ministry of Economy of Ukraine [8]. Transportation costs are calculated on the basis of tariff instructions and orders by the Ministry of Transport of Ukraine, as well as the tariff directory for works and services by sea-ports of Ukraine [8].

For *milk*, the processing margin is estimated based on the Ukrainian dairy industry data on butter and SMP processing margins and expressed in raw milk equivalent according to the same method that is used for milk border price.

For *potatoes*, no margin adjustments to the border price are made.

Sources:

- [1] State Statistics Committee of Ukraine (Derzkomstat) <http://www.ukrstat.gov.ua/>
- [2] FAO database: FAOSTAT <http://faostat.fao.org/>
- [3] USDA Economics and Statistics System: *The Foreign Agricultural Service's Production, Supply and Distribution (PS&D) database* www.fas.usda.gov/psdonline
- [4] OECD PSE/CSE database for the European Union, 2015 www.oecd.org/agriculture/pse
- [5] EUROSTAT, COMEXT <http://epp.eurostat.ec.europa.eu/newxtweb/>
- [6] Ministry of Revenues and Tax Collection of Ukraine <http://minrd.gov.ua/>
- [7] UN Comtrade database www.comtrade.un.org
- [8] Kobouta, Irina (2016), *Agricultural Policy Developments in Ukraine in 2015 – early 2016*, report submitted to OECD.
- [9] International Grains Council (IGC) <http://www.igc.int/>