ISRAEL: 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 market price support is explicitly calculated in Tables 4.1-4.18. In addition, Table 4.19 provides MPS estimates for the group called "other commodities", it means those for which individual MPS estimates were not made due to their very small share in total value of production (below 1%) or lack of data.

Table 2. Breakdown of PSE by Commodity and Other Transfers provides a breakdown of the total PSE into four categories reflecting the flexibility in production choices given to producer receiving support. 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 3.1-3.19 where definitions are included.

Tables 3.1-3.19 Producer Single Commodity Transfers contain producer SCT by commodity, which are calculated for Israel for the following commodities wheat, cotton, peanuts, tomatoes, pepper, potatoes, oranges, grapefruit, apple, grapes, bananas, avocados, milk, beef and veal, sheepmeat, poultry meat and eggs (Tables 3.1-3.19). SCT for "fruit and vegetables" (Table 3.11) covers transfers to fruit and vegetables other than those for which MPS is explicitly calculated. In addition, SCT for "other commodities" is also calculated (Table 3.19), 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 4.1-4.19 where definitions are included.

Tables 4.1-4.19 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 3.19.** 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 estimates, 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. ISRAEL: 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 4.1-4.18) 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 4.1-4.18.

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

A.2. Payments based on output

Galilee Law support programmes (since 1988, data available since 1995): a special subsidy is paid to poultry producers (table eggs and poultry meat) in the Merom Hagalil area. The subsidy is paid to support agricultural settlements in the periphery. The subsidy for table eggs is 17% of the production cost, up to a maximum amount of 500 000 eggs per grower. Support for poultry meat amounts to 13% of production costs, up to a maximum amount of 50 tonnes per grower on a family farm (moshav) and 500 tonnes per grower on a co-operative farm (kibbutz). No support is provided for the production exceeding the upper limit.

Use of labels: Production limits: YES; Variable payment rates: NO; Input constraints: NO. Payments are included in SCT for poultry and SCT for eggs.

B. Payments based on input use

B.1. Based on variable input use

Water price support (since 1995): budgetary expenditure provided to National Water Company (Mekorot) and other water suppliers for supplying freshwater to farms with rates lower than the full cost of water. The support includes mainly the operation and maintenance costs and fixed capital costs of National Water Company (Mekorot) and other water suppliers, including the costs arising from the supply of water from the recently opened and planned seawater desalinisation plants.

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

Compensation of water quota cut (1999-2006): budgetary expenditure provided as compensation for the reduction in the freshwater quota allocated to farmers.

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

Farmers agreement (since 2006): support to farmers to invest in irrigation technology as agreed between the farmers and the government during the period of 2006-2015 over which the charge to farmers for freshwater will be gradually increased to cover average supply costs (*i.e.* operation, maintenance and capital costs). This payment was continued in 2016.

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

Water extraction levy concession (since 2000): implicit subsidy from lower extraction levy for farmers compared to industry and household water consumers. Extraction levy reflects the scarcity value of surface water and groundwater.

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

B.2. Based on fixed capital formation

Investment grants for various commodities such as flowers, vegetables, citrus, other fruit, field crops and livestock (since 1980, data available since 1995): budgetary expenditure for investment grants to develop agricultural exports; develop agricultural activities in preferred regions; introduce advanced technologies for improving agricultural production while saving water and labour; and introduce technologies that minimise harm to the environment. Investments are supported with an investment grant accompanied by tax concessions for the approved project. Rates of support are differentiated across regions. The fields of assistance may vary every year according to the priorities set by MARD. On the basis of the government decisions additional rates of co-financing for investment grants may be occasionally added beyond the permanent rate of grant set by the Law for Encouragement of Investment in Agriculture. All farmers are eligible for the grants provided that they meet the legal requirements and the priorities of MARD for a given year.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for vegetables, GCT for oranges and grapefruit, GCT for fruit excluding citrus, GCT for all livestock, and GCT for grains.

Reforming the dairy sector (since 1999): investment support for the dairy sector to increase the efficiency of milk production and create incentives for farmers to bring their facilities into compliance with environmental requirements

Use of labels: Production limits: No; Variable payment rates: No; Input constraints: No. Payments are included in SCT for milk.

Investment in water facilities (since 1995): support for on-farm irrigation facilities.

Use of labels: Production limits: No; Variable payment rates: No; Input constraints: No. Payments are included in ACT.

Investment support to replace foreign workers (since 1995): allocations for on-farm investment, including grants up to 40% of investment cost for partial replacement of foreign workers with machinery.

Use of labels: Production limits: No; Variable payment rates: No; Input constraints: No. Payments are included in ACT.

Debt arrangement law for family farms (since 1995): budgetary expenditures to the Arrangements Administration in the Agricultural Sector to cover the debt arrangement costs in the family farm sector.

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

Debt arrangement for Kibbutzim (1995-2010): Implicit subsidy from lower interest rate for farmers compared to market interest rate according to debt arrangement for Kibbutzim.

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

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

Extension services (since 1995): budgetary expenditures to Agricultural Extension Service (AES) to cover the costs of providing advice to farmers and for developing field research activities. The latter is intended to assist the transfer of know-how from science to farmers and to the agricultural input industry.

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

Flock culling (preventive measures) and Brucellosis eradication (since 1995): budgetary expenditures to culling of flocks of poultry and other birds infected with certain infectious diseases.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in SCT for poultry.

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

Support for rain-fed grain growers (since 1989, data available since 1995): budgetary expenditures to support the cultivation of rain-fed (*i.e.* un-irrigated) crops to encourage the preservation and proper maintenance of open landscape. The support is designed to ensure income stability for the farmers corresponding to the amount of land they cultivate. The support serves as a safety net for field crops, and covers the gap between the sale price of local wheat (announced for purchases to the emergency stocks in May based on Kansas market price adjusted to quality and transportation costs) and 82% of the production cost determined for that specific cultivation region. This difference is then multiplied with the production volume of the region to derive the amount of support determined for the specific region. This fixed sum of support allocated to the area annually is divided by the number of *dunams* (1 dunam = 0.1 hectare) cultivated in the region every year.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for grains.

Maintaining cattle, sheep and goats on pasture (since 1997): support is provided to encourage the keeping of sheep, goats and cattle for meat production on pasture in order to maintain an open landscape. The support is provided mostly in peripheral regions and in areas for which there is no alternative agricultural use. Until 2003, support was provided as a fixed rate per animal. In 2004, a new system was introduced that provides a payment per land area grazed by the herd, taking into account the number of animals relative to vegetation on the land (the regions of Israel are divided into four different categories of pasture richness). Herd owners have to follow appropriate production practices and environmental criteria.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for beef and sheep.

Support for "Moshav Shahar" growers (2010-11): payments for producers in a selected moshav in the northern part of the Negev desert.

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

Support to herders by the Grazing Authority (since 1995): budgetary expenditures to support maintenance of grazing areas, preserve open landscape and Israel's land reserves. Support is provided for establishing infrastructure in grazing areas (e.g. fences, pipes, folds) and for improving the pasture vegetation by stripping, perfusion and fertilisation.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for beef and sheep.

Insurance against natural damages (since 1995): budgetary expenditures to cover part of the premiums (35%) and part of compensations. The insurance programme covers mostly seasonal damage to yields.

Use of labels for premium subsidies: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

Use of labels for compensation subsidies: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in ACT.

Insurance against natural disasters (since 1995): budgetary expenditures to cover part of the premiums (80%) and, occasionally, part of compensations. This multi-risk insurance programme covers all kinds of fruit crops against unusual natural damages that cause not only seasonal damage, mostly to the yields, but also multi-annual damage to the trees that affect future yields. This programme is available only to farmers who are insured under the insurance against natural damages.

Use of labels for premium subsidies: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in ACT.

Use of labels for compensation subsidies: Production limits: NO; Variable payment rates: YES; Input constraints: NO. Payments are included in ACT.

Support in case of Sabbatical year (Shmita) (since 1995): budgetary expenditures for supporting farmers during the Sabbatical year to preserve cultivated agricultural lands and to give farmers who stop working on their land an option to make living during the Sabbatical year. Support is given to the following farmers and bodies all across Israel: farmers who shut down their farms during a Sabbatical year; fruit tree nurseries that suffered losses; bodies who store agricultural produce from a sixth year; wheat growers in Israel as well as farmers from the non-Jewish sector who constructed greenhouses for vegetable cultivation and farmers in the Jewish sector who invested in hydroponic cultivation. The Chief Rabbinate is responsible for handling the sale permits and the Treasure of the Rabbinical Court (Otzar Beit Din) provides the safety net and marketing of produce under Jewish law.

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

Soil Conservation and Drainage Department (since 1995): budgetary expenditures to encourage the implementation of soil conservation actions in cultivated agricultural lands.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for crops.

Passover agreement (2016): one-time budgetary expenditure to compensate farmers for opening seasonal duty free import quotas for selected commodities, including olive oil and frozen vegetables.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in GCT for crops.

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

Galilee law support programme (since 1999): a special subsidy is paid to poultry producers in the Merom Hagalil area. Since 1999 broiler producers entitled to support under the Galilee Law can choose whether to continue production or not. Producers who opted for leaving the broiler sector are entitled to the subsidy based on their historical production level; however they should remain residents of the area.

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

Support for reforming the broiler industry (1995-2005): support involved two aspects: providing safety-nets to producers who choose to continue production and enlarge the farm; and retirement compensation for those who choose to leave the industry. The safety-net system operated for the three years 1994-96, during which the government paid producers the difference between the average market price and 90% of the costs of production every month. Farmers who choose to leave the sector were entitled to retirement compensation. The highest retirement compensation (ILS 1.8 per kg, USD 0.6 per kg) was paid to small farms. The rest of the growers who decided to quit received reduced retirement compensation (ILS 0.45 per kg, USD 0.15 per kg). Most of the producers who retired during the first three years fell under the high compensation category (about 10% of total broiler production).

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

Support for egg producers (1995-2002): budgetary expenditures for the retirement compensation for those who choose to leave the industry and budgetary expenditures to compensate temporary stop in production. The programme was part of the egg sector reform initiated in 1994.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.

F. Payments based on non-commodity criteria

F.1. Long term resource retirement

F.2. A specific non-commodity output

F.3. Other non-commodity criteria

G. Miscellaneous payments

III.2 Percentage PSE [100 x (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).

III.4 Producer NAC [1 / (100 – (III.2)) x 100]

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

Competitive fund (since 1995): public financing of research carried out through the Chief Scientist Office in MARD.

Research Institute (since 1995): public finance allocations to Agricultural Research Organisation (ARO).

Regional R&D centres (since 2005): public financing of applied research carried out at the Regional Research and Development Centres.

H.2. Agricultural knowledge transfer

Agricultural schools (since 1995): public financing of agricultural schools.

I. Inspection and control

I.1. Agricultural product safety and inspection

Supervision and control of cross-border movement of plant and animal products (since 1995): public finance allocations to the Control of Plants and Animals Unit ("Pitzuach"), that is responsible for implementing the agricultural agreements between Israel and the Palestinian Authority.

I.2. Pest and disease inspection and control

Plant protection (since 1995): public finance allocations to Plant Protection and Inspection Service (PPIS) to provide the phytosanitary protection to Israeli agriculture.

Veterinary services (since 1995): public finance allocations to Veterinary Service to prevent, control and eradicate animal diseases and zoonoses.

Mediterranean fly and other pest eradication measures for fruit and vegetable growers (since 1995): public finance allocations.

I.3. Input control

J. Development and maintenance of infrastructure

J.1. Hydrological infrastructure

Regional drainage and conservation (until 1999): public finance allocations.

Investment in Water Projects (since 1995): public finance allocations to waste water treatment projects.

J.2. Storage, marketing and other physical infrastructure

Minorities (since 1995): public finance allocations.

Infrastructure rehabilitation (since 2011): public finance allocations for infrastructure rehabilitation in eligible farming communities.

Settlement Department budget (2002-10): public finance allocations for Settlement Department.

J.3. Institutional infrastructure

J.4. Farm restructuring

Dairy producers' retirement scheme (since 2013): public finance allocations to ease the retirement of small and medium size dairy farmers from the market. As a result, with the consent of the growers, about 100 small and medium dairy farmers retired, about 10% of the total number. Their milk quotas were returned to the state and then reallocated to other small dairy farms to improve their efficiency.

K. Marketing and promotion

K.1. Collective schemes for processing and marketing

K.2. Promotion of agricultural products

Olive production (since 1995): public finance allocations to Olive Oil Board.

Export incentive fund (until 1999): public finance allocations on export promotion.

Export sales promotion fund (since 1995): public finance allocations on export promotion.

Various branch supports (since 1995): public finance allocations to Production and Marketing Boards.

L. Cost of public stockholding

Compensation and surplus removal for vegetables (until 2005): public finance allocations.

Safety net payments for surplus removal (until 2000): public finance allocations.

Compensation and surplus removal for various fruit (until 2004): public finance allocations.

Compensation and surplus removal for turkeys (until 1998): public finance allocations.

Support for sheep and goat growers (1999-2000): public finance allocations.

Wheat (since 1995): budgetary expenditures for maintaining emergency reserve for wheat for human consumption.

Feed for livestock (since 1995): budgetary expenditures for maintaining emergency reserve of fodder grains.

M. Miscellaneous

Miscellaneous: various small payments not classified 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 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) x 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 4.18.

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) x 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 4.18.

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.

P.2. Non-commodity specific transfers to consumers: Sum of non-commodity specific transfers from taxpayers to consumers.

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 Table 4.1].

V.2 Percentage CSE [100 x (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).

V.4 Consumer NAC [(1 / (100 – (V.2)) x 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)]

Sources:

[1] MARD (Ministry of Agriculture and Rural Development)

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

All data sets in Table 2 come from Tables 1 and 3.1-3.19 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 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 3.19].

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 3.19).

$\%\,SCT = 100*\,SCT\,/\,(\text{value of production}_{COM} + A.2_{COM} + B_{COM} + C_{COM} + D_{COM})$

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 [$GCT = B_{GROUP} + C_{GROUP} + D_{GROUP}$).

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

Transfers to specific groups of commodities: The GCT involves the following groups of commodities: all crops; all grains; all livestock; fruit excluding citrus; oranges and grapefruit; vegetables; beef and sheep.

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

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

Tables 3.1 to 3.19 provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: wheat, cotton, peanuts, tomatoes, pepper, potatoes, oranges, grapefruit, apple, grapes, bananas, avocados, milk, beef and veal, sheep meat, poultry meat and eggs, "other fruit and vegetables" and "other commodities". All data sets in the calculation SCT by commodity come from Tables 1 and 4.1-4.19 where definitions are included.

Definitions:

I. Level of production: Data from respective commodity Tables 4.1-4.19 (Market Price Support tables)

II. Value of production (at farm gate): Data from respective commodity Tables 4.1-4.19 (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

A.1. Market Price Support [Data for respective commodity from Table 4]

A.2. 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 [$B.1_{COM} + B.2_{COM} + B.3_{COM}$]

B.1. Based on variable input use

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

B.2. Based on fixed capital formation

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

B.3. 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 (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. ISRAEL: Market Price Support and Consumer Support Estimate

Tables 4.1 to 4.19 contain calculations of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following commodities: wheat, cotton, peanuts, tomatoes, pepper, potatoes, oranges, grapefruit, apple, grapes, bananas, avocados, milk, beef and veal, sheep meat, poultry meat, eggs, "fruit and vegetables" as well as for "other commodities". The data sets used in calculations of the MPS and consumer SCT by commodity are described below.

The above list includes 9 fruit and vegetable commodities. Individual shares of remaining fruit and vegetables in the total value of GAO are small, but the sum of these shares is quite important at around 20%. As agricultural and trade policies for fruit and vegetables are very similar across various commodities, it was assumed that the ratio of MPS to the value of production for these remaining fruit and vegetables is the same as the average for the 9 fruit and vegetable commodities for which MPS is calculated explicitly.

Note: for all the above mentioned products relevant data have been collected and price gaps calculated. For eight exported products (peanuts, tomatoes, pepper, oranges, grapefruits, grapes, avocados and potatoes), no export subsidies nor other market price policies either supporting or taxing producers have been identified. Consequently, in line with the OECD methodology, and as applied for other countries, the price gaps for these products have been set to zero. Until 2007, price gap was assumed to be zero also for imported apples, as the price difference between farm gate price and reference price was negative, but no policies taxing producers were identified. Since 2008, the actual price gap has been applied.

Definitions:

I.   Level of production [1]

Wheat, tomatoes, pepper, potatoes, oranges, grapefruit, apples, grapes, bananas, avocados: Total domestic production.

Cotton: Total domestic production in lint equivalent.

Peanuts: Total domestic production, in the shell.

Milk: Total domestic production of milk from dairy cows

Beef and veal: Total production of beef and veal, in carcass weight equivalent, derived by multiplying production in live weight by 0.54.

Sheep meat: Total production of sheep meat, in carcass weight equivalent, derived by multiplying production in live weight by 0.5.

Poultry meat: Total production of poultry meat, in carcass weight equivalent, derived by multiplying production in live weight by 0.77.

Eggs: Total production of eggs in the shell, converted into tonnes using the coefficient 1 kg = 15.62 eggs.

II.   Producer prices (at farm gate) [1]

Wheat, cotton, peanuts: average farm gate prices.

Tomatoes, pepper, potatoes, oranges, grapefruit, apples, grapes, bananas, avocados: weighted average prices at the entrance to the wholesale market.

Milk: weighted average prices at the entrance to the dairy plant.

Beef and veal, sheep meat, poultry meat: weighted average prices of live weight at the entrance to the slaughterhouse, converted into carcass equivalent.

Eggs: weighted average prices at the entrance to the industrial plant.

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

IV.   Level of consumption (at farm gate) [1]

Wheat, tomatoes, pepper, potatoes, oranges, grapefruit, apples, grapes, bananas, avocados, milk: Total domestic use during the calendar year (total production, plus net trade).

Cotton: Total domestic use during the calendar year (total production, plus net trade, plus change in stocks) in lint equivalent.

Peanuts: Total domestic use during the calendar year (total production, plus net trade, plus change in stocks) of shelled peanuts.

Beef and veal, sheep meat, poultry meat: Total domestic use during the calendar year (total production, plus net trade, plus change in stocks), carcass weight.

Eggs: Total domestic use during the calendar year (total production, plus net trade, plus change in stocks), converted into tonnes using the coefficient 1 kg = 15.62 eggs.

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.   Reference prices

Wheat: C.i.f. import unit values (HS 1001) **[1].**

Cotton: F.o.b. export unit values **[1].**

Peanuts: F.o.b. export unit values (HS 1202) **[1].**

Tomatoes, pepper, potatoes, oranges, grapefruit, grapes, avocados: F.o.b. export unit values **[1].**

Apples: C.i.f. import unit values **[1].**

Bananas: the unit value of France imports (HS 080300) from all sources **[2].**

Milk: border price of milk is calculated implicit value **[2, 3]**. The calculation method is based on two assumptions. First, world markets for tradable dairy commodities are competitive, which allows the formation of a single price for each of the solid components of raw milk, milk fat and protein, used to make dairy products. Secondly, each type of dairy product contains a unique and fixed amount of each of those solid components of milk. Under this method, the implicit price of milk at the border (P_b) is calculated from the prices of those components:

$$P_b = \left(\frac{a}{b}\right) P_{wb} + \left(\frac{c}{d}\right) P_{ws} \text{ where:}$$

a and *b* are milk fat contained in one ton of raw milk and butter respectively, *c* and *d* are non-fat-solids contained in one ton of milk and skimmed milk powder respectively, P_{wb} and P_{ws} are EU f.o.b. export price of butter, 82% butterfat, Northern Europe and EU f.o.b. export price of skimmed milk powder, non-fat dry milk, extra grade, Northern Europe adjusted for the transportation costs respectively. Transportation costs for butter and SMP are not available from EU to Israel but only from the EU to Saudi Arabia, the closest country in geographic terms. The reference price of milk at farm gate (P_r) is the implicit milk border price net of processing costs (*C*):

$$P_r = P_b - C \text{ [3, 7]}$$

Beef and veal: C.I.F import unit values (HS 020230)-Frozen boneless bovine meat adjusted for a carcass conversion coefficient provided by the FAO and a "quality" conversion coefficient from frozen to fresh, minus processing and marketing margins. The coefficient from frozen to fresh is an average of the coefficients of 8 countries importing large quantities of both frozen and fresh meat: USA, Japan, GBR, ITA, France, Canada, NL, DEU. This coefficient is calculated for each year separately. **[2, 6]**.

Sheep meat: Import tariff for sheep meat is a mixed tariff, expressed as either a specific or an ad valorem rate (7ILS/kg but not more than 30% of the CIF price). For the period up to 2013, average MFN import tariff was applied and since 2014 a specific tariff (ILS 7/kg) has been used **[4 and 5]**.

Poultry meat: a weighted average EU export price for fresh meat (80%) and for frozen meat (20%). For fresh meat two categories of chicken (02071110 known as "83% chickens" and 02071130 known as "70% chickens") and for frozen one category (02071210, "70% chickens") are taken into account, which are the closest to the Israeli carcass conversion coefficient at 77%. The price has been further adjusted for the transportation costs from the EU to Israel **[3]**.

Eggs: extra EU export unit value adjusted for the transportation costs from the EU to Israel **[3]**.

VIII.   Margins

Marketing margins: A marketing margin indicating processing, handling and transportation costs for a given commodity was expressed as a percentage of a farm gate price. The data was provided by MARD. While it is assumed that the percentage margin remained at the same level over the whole period, its equivalent in absolute terms varied depending on the level of farm gate price in a given year. The absolute value of the margin in a given year was subtracted from the border reference price for crop products. As in Israel wholesale markets are in the big cities located on the coast, transportation costs between wholesale markets and the border are assumed to be zero.

Wheat: margin reflects the spread between the farm value of a product and the border, expressed as % of the farm gate price = 1.9% **[5]**.

Cotton: margin reflects the spread between the farm value of a product and the border, expressed as % of the farm gate price = 1.62% until 1999 and 1.5% since 2000 **[5].**

Peanuts: margin reflects the spread between the farm gate value of a product and the border, expressed as % of the farm gate price = 15% **[5].**

Tomatoes, pepper, potatoes, oranges, grapefruit, apples, grapes, bananas, avocados: margin reflects the spread between the value of a product at the entrance to the wholesale market and the border, expressed as % of the farm gate price = 12% **[5].**

Milk: average dairy processing margin (processing margin of butter & SMP from one ton of raw milk) in four major dairy exporters: Australia, New Zealand, European Union and United States **[3].**

Beef and veal: As marketing and processing margins from Israel are not available, EU margins are used to estimate this margin for Israel **[3]**.

Poultry meat: the margin to adjust farm gate price includes transportation from farm gate to slaughterhouse and slaughtering costs. Marketing margin is expressed in value terms (equivalent of 25% of the farm gate price expressed in terms of carcass weight)**[5].**

Sheep meat: no adjustment was made as average applied MFN import tariffs were used to calculate the price gap.

Eggs: no margin is applied, as imported eggs are at the similar processing level as locally produced eggs **[5].**

Sources:

[1] CBS (Central Bureau of Statistics), 2017.

[2] UN, UN Comtrade database, 2017.

[3] OECD PSE/CSE database, 2017.

 [4] WTO Integrated Data Base (IDB), 2017.

[5] MARD (Ministry of Agriculture and Rural Development), 2017.

[6] FAO, Technical Conversion Factors for Agricultural Commodities.

[7] The OECD Maritime Transport Costs database.