INDONESIA: 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 4.1-4.16.

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 3.1-3.16 where definitions are included.

Tables 3.1-3.16 Producer Single Commodity Transfers contains producer SCT by commodity, which are calculated for Indonesia for the following fifteen commodities: rice, maize, soybeans, palm oil fruit, cocoa beans, cassava, bananas, sugar, natural rubber, coffee, milk, beef and veal, pigmeat, poultry and eggs (Tables 3.1-3.15) provided that the value of production of that commodity exceeds 1% of the total value of agricultural production. In addition, SCT for "other commodities" is also calculated (Table 3.16), 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 4.1-4.16 where definitions are included.

Tables 4.1-4.16 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 3.16.** 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. INDONESIA: 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. Calculated by summing together the farm gate value of production for the 15 MPS commodities and a value of production for the remaining commodities (derived by subtracting the gross production value of the 15 MPS commodities from the total gross production value of crops and livestock published by the FAO). [1]

I.1. Of which share of MPS commodities (%): Share of commodities for which MPS is explicitly calculated (in Tables 4.1-4.16) in the total value of agricultural production.

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

II.1. Of which MPS commodities: Sum of the value of consumption (at farm gate prices) of the MPS commodities as indicated in Tables 4.1-4.16.

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 listed in the rows below) / (I.1) x 100].

A.2. Payments based on output

B. Payments based on input use

B.1. Based on variable input use

Fertiliser subsidies (since 1990): subsidy paid to state-owned fertiliser manufacturers' to compensate them for selling certain fertiliser products to farmers at government determined Highest Retail Price (*Harga Eceran Tertinggi*, HET). Since 2008 it also includes budgetary expenditure on the Direct Fertiliser Aid (*Bantuan Langsung Pupuk*, BLP) programme, which distributes organic and NPK fertilisers at no cost to farmers who participate in field schools. [2]

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

Seed subsidies (since 1990): subsidy paid to state-owned seed manufacturers' to enable them to distribute seeds to farmers at subsidised prices. Since 2007 it also includes budgetary expenditure on the Direct Superior Seed Aid (*Bantuan Langsung Benih Unggul*, BLBU) programme, which distributes free certified seeds of non-hybrid paddy, hybrid paddy, hybrid maize, composite maize and soybeans to farmers who participate in field schools. [2]

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.
Payments are included in SCT for relevant crop products (commodity breakdown provided by Ministry of Agriculture [MoA]).

Support to livestock (since 1990): budgetary expenditure associated with the provision of livestock and artificial insemination (AI) services to farmers. [2]

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.
Payments are included in SCT for relevant livestock products (commodity breakdown provided by MoA).

Interest rate concession (since 1990): subsidy paid to ordinary commercial banks via the Bank of Indonesia to allow farmers to borrow from them at below market interest rates. There are currently three such credit subsidy programmes: Food Security and Energy Credit (*Kredit Ketahanan Pangan dan Energi*, KKP-E), Bio Energy Development and Plantation Revitalisation Credit (*Kredit Pengembangan Energi Nabati and Revitalisasi Perkebunan*, KPEN-RP) and Cattle Breeding Credit (*Kredit Usaha Pembibitan* Sapi, KUPS). 50% of amount spent on these programme has been allocated to category B1 (based on variable input use) and 50% to category B2 (based on fixed capital formation; see below). [2]

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

Agribusiness Development in Rural Areas (since 2008): PUAP (*Pengembangan Usaha Agribisnis Perdesaan*) provides a grant of IDR 100 million to the federated farmers' group in each village which uses this as seed money to establish a revolving credit facility among the member farmers. 50% of amount spent on this programme has been allocated to category B1 (based on variable input use) and 50% to category B2 (based on fixed capital formation; see below). [2]

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

Post harvest and processing facilities (since 1990): payment paid to farmers' groups so they can purchase equipment such as tarpaulins, threshers, dryers and mini rice milling units to reduce post-harvest losses/increase yields. [2]

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.
Payments are included in SCT for relevant crop products (commodity breakdown provided by MoA).

Interest rate concession (since 1990): subsidy paid to ordinary commercial banks via the Bank of Indonesia to allow farmers to borrow at below market interest rates. There are currently three such credit subsidy programmes: Food Security and Energy Credit (*Kredit Ketahanan Pangan dan Energi*, KKP-E), Bio Energy Development and Plantation Revitalisation Credit (*Kredit Pengembangan Energi Nabati and Revitalisasi Perkebunan*, KPEN-RP) and Cattle Breeding Credit (*Kredit Usaha Pembibitan* Sapi, KUPS). 50% of amount spent on these programme has been allocated to category B2 (based on fixed capital formation) and 50% to category B1 (based on variable input use; see above). [2]

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

Land conservation (since 1990): payments to farmers for labour undertaken by them to prevent landslides (paid at a rate of IDR 20 000 per day) and the provision of trees. [2]

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

Terrace farming (since 1995): payments to farmers for work undertaken by them to maintain terraces thereby protecting agricultural production resources. [2]

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

Farm irrigation, farm roads, etc. (since 1990): includes payments to Water User Associations to rehabilitate on-farm irrigation systems through the Farm Level Irrigation Network (*Jaringan Irigasi Tingkat Usahatani*, JITUT) and the Village Irrigation Network (*Jaringan Irigasi Desa*, JIDES) programmes, and payments to farmers' groups to build roads. [2]

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

Agribusiness Development in Rural Areas (since 2008): PUAP (*Pengembangan Usaha Agribisnis Perdesaan*) provides a grant of IDR 100 million to a federated farmers' group in each village which uses this as seed money to establish a revolving credit facility among the member farmers. 50% of amount spent on this programme has been allocated to category B2 (based on fixed capital formation; see below) and 50% to category B1 (based on variable input use; see above). [2]

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

Agricultural extension and advisory services (since 1990): budgetary expenditure to provide on-farm extension services. [2]

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

Pest and disease control (since 1990): budgetary expenditure on on-farm pest and disease control programmes for livestock, horticulture and crops. [2]

Use of 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

Direct payments for agriculture (since 1990): Provision of money, seeds, buildings and machinery to farmers/farmers' groups depending on the causes. [2]

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

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 N].

H Agricultural knowledge and innovation system

H.1. Agricultural knowledge generation

Agriculture research (since 1990): public financing of agriculture-related research institutions. [2]

H.2. Agricultural knowledge transfer

H2.a. education

H2.b. extension services

Training for farmers and extension workers (since 1990): public financing of agricultural schools.

Extension and advisory (since 1990): public finance allocations to local governments to assist them provide extension services. [2]

I. Inspection and control

I.2. Pest and disease inspection and control

Quarantine system (since 1990): public finance allocations for health, safety, grading and standardisation services relating to agricultural products. [2]

J. Development and maintenance of infrastructure

J.1. Hydrological infrastructure Irrigation central and sub-national (since 1990): public finance allocations made to the Ministry of Public Works for the operation and maintenance, rehabilitation and

expansion of irrigation networks under the responsibility of central government, and for distribution to local governments to assist with the rehabilitation of irrigation networks under their responsibility. [2]

J.2. Storage, marketing and other physical infrastructure

Special Allocation Funds (since 2005): public finance allocation made by the Ministry of Finance through the DAK (*Dana Alokasi Khusus*) mechanism to agricultural infrastructure projects undertaken by local governments. [2]

K. Marketing and promotion

K.2. Promotion of agricultural products

Market information system and international promotion (since 1990): public finance allocations to link producers with markets and to develop new markets. [2]

L. Public stockholding

Public stockholding for food security purposes (since 2004): public finance allocations to BULOG to manage stocks for emergency and price stabilisation purposes. [3]

M. Miscellaneous

Support to farmer groups and religious institutions (since 1990): public finance allocations for human empowerment, including the Community Base of Self-reliant Institutions (LM3). [2]

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].

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

O.1. Of which MPS commodities: Sum of the values of transfers from consumers to producers associated with market price support for the MPS commodities as calculated in Tables 4.1 to 4.16.

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

P.1. Of which MPS commodities: Sum of the transfers to the budget associated with market price support on the quantities imported of the MPS commodities as calculated in Tables 4.1 to 4.16.

Q. Transfers to consumers from taxpayers

Q.1. Commodity specific transfers to consumers: Sum of commodity specific transfers from taxpayers to consumers (farm gate level) from commodity MPS tables.

Rice for the poor (RASKIN) (since 1995): public finance allocations to BULOG to purchase and distribute subsidised rice to poor households. [2]

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

Fiscal stimulus (since 2008): public finance allocations to pay the 10% value-added tax that should be paid by consumers (*Pajak Pertambahan Nilai Ditanggung Pemerintah*, PPN-DTP). [2]

R. 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, 4.3, 4.5]

V.2 Percentage CSE [100 x (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)) x 100]

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

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

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

U. Budget revenues [(P)]

Sources:

[1]. FAO (Food and Agriculture Organisation of the United Nations), FAOSTAT website.

[2]. MoA (Ministry of Agriculture, Indonesia), submission to OECD.

[3]. WTO (World Trade Organization), Committee on Agriculture, Indonesian domestic support notification G/AG/N/IDN/30 of 6 March 2012.

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

All data sets in Table 2 come from Tables 1 and 3.1-3.16 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 3.1-3.16].

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 3.16).

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

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; wheat, maize and soybean; wheat, maize, rice, soybean, cotton and rapeseed; all livestock.

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. INDONESIA: Producer Single Commodity Transfers (by commodity)

Tables 3.1 to 3.16, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: rice, maize, soybeans, palm oil fruit, cocoa beans, cassava, bananas, sugar, natural rubber, coffee, milk, beef and veal, pig meat, poultry, eggs and "other commodities". All data sets in the calculation SCT by commodity come from Tables 1 and 4.1-4.16 where definitions are included.

Definitions:

I. Level of production: Data from respective commodity Tables 4.1-4.16 (Market Price Support tables)

II. Value of production (at farm gate): Data from respective commodity Tables 4.1-4.16 (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 4.1-4.16]

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 [$B1_{COM}$+$B2_{COM}$+$B3_{COM}$]

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 (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. INDONESIA: Market Price Support and Consumer Support Estimate

Tables 4.1 to 4.16, contain calculations of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following 15 commodities: rice, maize, soybeans, palm oil fruit, cocoa beans, cassava, bananas, sugar, rubber, coffee, milk, beef and veal, pigmeat, poultry, eggs and "other commodities". The data sets used in calculations of the MPS and consumer SCT by commodity are described below.

Note: For five exportable products (natural rubber, cocoa beans, coffee, cassava and bananas), no export subsidies nor other market price policies either supporting or taxing producers have been identified. Consequently, in line with OECD methodology, and as applied for other countries, the price gaps for these products have been set to zero. For the other exportable product, palm oil fruit, export taxes applying to CPO were used to estimate a price gap. For soybeans, the annual average tariff rate was used to estimate the price gap because of the difference between the domestic product, which is used for human consumption, and imported product, which is used for animal feed. External reference prices were used for the remaining eight: rice, maize, sugar, beef, milk, poultry, pigmeat and eggs**.**

Definitions:

I. Level of production (tonnes) [1]

Rice: Total production of rice, measured in dried, unhusked paddy terms (*Gabah Kering Giling*, GKG).

Maize: Total production of maize, measured in dried, loose (without cob) terms (*Jagung Pipilan Kering)*.

Soybeans: Total production of soybeans, measured in dried bean terms (*Biji Kering*).

Palm oil fruit: Total production of crude palm oil (CPO).

Cocoa beans: Total production of cocoa beans, measured in dried bean terms (*Biji Kering*).

Cassava: Total production of cassava, measured in fresh tuber, unskinned and wet terms (*Umbi Basah*).

Bananas: Total production of bananas (*Pisang Dengan Tandan*).

Sugar cane: Total production of sugar cane, measured in refined sugar terms (*Gula Hablur*).

Rubber: Total production of natural rubber, measured in dried sheet terms (*Karet Kering*).

Coffee: Total production of coffee beans, measured in dried bean terms (*Kopi Berasan*).

Milk: Total production of raw milk.

Beef and veal: Total production of beef and veal, not including buffalo, in carcass weight equivalent.

Pig meat: Total production of pig meat, in carcass weight equivalent.

Poultry: Total production of poultry, including broiler, layer and native chickens, in carcass weight equivalent.

Eggs: Total production of eggs in the shell, both layer and native chickens.

II. Producer prices (at farm gate) [2]

Rice: Average farm gate prices of dried, unhusked paddy rice (GKG).

Maize: Average farm gate price of dried, loose maize.

Soybean: Average farm gate price of dried beans.

Palm oil fruit: Average farm gate price of crude palm oil, obtained by dividing the average sale price of palm oil fruit by 0.2.

Cocoa beans: Average farm gate price of dried cocoa beans.

Cassava: Average farm gate price of fresh cassava.

Bananas: Average farm gate price of fresh bananas, calculated on a tonnage basis by multiplying the average price paid per bunch by 400 (i.e. assumes the average bunch weighs 2.5kg).

Sugar: Government determined minimum price (*Provenue*) paid by millers to farmers on a refined volume equivalent terms.

Rubber: Average farm gate price of dried sheet rubber, obtained by dividing the average sale price of natural slab rubber (*Karet Getah Tebal*) by 0.5.

Coffee beans: Average farm gate price of dried coffee beans.

Milk: Average farm gate price of raw milk.

Beef and Veal: Average farm gate price of all categories of bovine animals, not including buffalo, on a carcass weight equivalent terms, obtained by dividing the average sale price of live weight by 0.5.

Pig meat: Average farm gate price of pigs for slaughter on a carcass weight equivalent terms, obtained by dividing the average sale price of live weight by 0.8.

Poultry: Average farm gate price of poultry for slaughter on a carcass weight equivalent terms, obtained by dividing the average sale price of live weight by 0.72.

Eggs: Average farm gate price of hen eggs.

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

IV. Level of consumption (at farm gate) [3]

Rice, maize, soybeans, palm oil fruit, cocoa beans, cassava, bananas, sugar cane, coffee beans, milk, beef and veal, pig meat, sheep meat, poultry and eggs: total domestic use during the calendar year (total production, plus net trade, plus change in stocks), measured on the same type of product basis as production, e.g. carcass weight in the case of meat, crude palm oil (CPO) for palm oil fruit, etc.

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

Rice: F.o.b. export unit value of Thai 15% broken from Bangkok plus transport cost from Thailand to Singapore (calculated by subtracting the unit F.o.b. price of rice exports from Thailand to Singapore from the unit C.i.f. price of rice imports by Singapore from Thailand). **[4, 5]**

Maize: C.i.f. import unit values of maize (HS 1005). **[5]**

Soybeans: Not applicable as the average Indonesian MFN tariff applicable to soybeans (HS 1201) is used to derive the Market Price Differential.

Palm oil fruit: Not applicable as the average Indonesian export taxes on crude palm oil (CPO) is used to derive the Market Price Differential.

Cocoa beans: F.o.b. export unit values, cocoa beans, fresh (HS 1801 00). **[5]**

Cassava: F.o.b. export unit values, manioc (cassava) (HS 0714 10). **[5]**

Banana: C.i.f. import unit values, bananas, fresh (HS 0803 00) imported into Singapore. **[5]**

Natural rubber: F.o.b. export unit values, natural rubber (HS 4001). **[5]**

Coffee beans: F.o.b. export unit values, coffee beans, not roasted, not decaffeinated (HS 0901 11). **[5]**

Sugar: C.i.f. import unit values of raw sugar, cane (HS 1701 11). **[5]**

Milk: border price of milk is a calculated implicit value. **[5, 6]** 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 (Pb) is calculated from the prices of those components:

$$P_b = \left(\frac{a}{b}\right)P_{wb} + \left(\frac{c}{d}\right)P_{ws}$$ 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 Chinese unit import values of butter and skimmed milk powder respectively. The reference price of milk at farm gate (P_r) is the implicit milk border price net of processing costs (*C)*:

$$P_r = P_b - C$$

Beef and Veal: C.i.f. import unit values of bovine meat, fresh or chilled (HS 0201) from Australia. **[5]**

Pig meat: C.i.f. import unit values of meat of swine, fresh, chilled or frozen (HS 0203) imported into Singapore. **[5]**

Poultry: C.i.f. import unit values of meat and edible offal of poultry, fresh, chilled or frozen (HS 0207) imported into Japan. **[5]**

Eggs: C.i.f. import unit values of hen eggs in shell imported into Singapore. **[7]**

VIII. Margins

Marketing margins: for rice, cocoa beans, cassava, sugar cane, natural rubber, coffee beans, beef and veal and eggs this is estimated on the basis of price gaps between domestic wholesale and farm gate prices for a given commodity. Available technical coefficients were used when needed. For all these products except rice, the wholesale price is the average wholesale price for Indonesia recorded by BPS. **[8]**

For rice, the margin is calculated as the gap between the average wholesale price for medium quality rice (IR III) recorded at the Jakarta wholesale market (Pasar Induk Cipnang) converted into dried paddy rice (using a technical coefficient of 0.62) and the farmgate price for dried paddy rice. The gap has been expressed in percentage terms and is equal to 8.5% of the farmgate price**.** While it was 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.**[9]**.

For maize, bananas and poultry, it was assumed that the percentage margin remained at the same level over the whole period. Consequently, its equivalent in absolute terms varied depending on the level of farm gate price in a given year. For maize, bananas and poultry the marketing margin is assumed to be 15%, 64% and 20% of the farm gate price respectively.

For all products, the absolute value of the margin in a given year was subtracted from the border reference price. Not applicable for the calculation of Market Price Differential for soybeans and palm fruit oil.

Port charges and transportation costs (between Indonesia's border and domestic wholesale markets): were developed in consultation with Indonesian officials and expressed as a percentage of the border reference price: 2% for rice; 3% for cassava, bananas and sugar cane; 5% for maize, cocoa beans, rubber, coffee beans, all meats and eggs. These percentages have been converted into absolute values and added to the CIF price for importables and subtracted from the FOB price for exportables. Not applicable for the calculation of Market Price Differential for soybeans and palm fruit oil.

Sources:

[1] Statistics Indonesia (*Badan Pusat Statistik*, BPS), Statistical Yearbook, various editions.
[2] Provided by BPS.
[3] Calculated by the Ministry of Agriculture, Indonesia.
[4] USDA, Rice Yearbook dataset
[5**]** Comtrade database.
[6] OECD PSE/CSE database.
[7] FAOSTAT database.
[8] Provided by BPS.
[9] Provided by BULOG.