BRAZIL: ESTIMATES OF SUPPORT TO AGRICULTURE

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DEFINITIONS AND SOURCES

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

Table 2. Breakdown of PSE by Commodity and Other Transfers provides a breakdown of the total PSE into four categories reflecting the flexibility given to farmers regarding which commodity to produce within the various policy measures. These categories are: Single Commodity Transfers (SCT); Group Commodity Transfers (GCT); All Commodity Transfers (ACT); and Other Transfers to Producers (OTP). All data sets in Table 2 come from Tables 1 and 3.1 – 3.12 where definitions are included.

Tables 3.1 – **3.12 Producer Single Commodity Transfers** contain producer SCT by commodity, which are calculated for Brazil for the following commodities: wheat, maize, rice, soybeans, sugar cane, cotton, coffee, milk, beef and veal, pig meat, and poultry. (Tables 3.1 – 3.11). In addition, SCT for "other commodities" is also calculated (Table 3.12), 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 4.1-4.11 where definitions are included.

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

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

TABLE 1: BRAZIL: 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 4.1-4-11) 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 4.1-4.11.

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 (MPS): 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 production (VP) by commodity group [for each commodity group: (ΣMPS for MPS commodities) / (ΣVP for MPS commodities) x VP for total group; the total MPS is then calculated as the sum of MPS by commodity group]. For Brazil, the commodity groups considered are: group 1 (crops), group 2 (livestock).

A.2. Payments based on output

Preferential interest subsidy on marketing loans:

Period of implementation: 1995 – ongoing

Transfer arising from reduced interest rate on marketing loans for primary agricultural commodities as part of the National Rural Credit System (SNCR)[1]; 1995-2013: calculated as the difference between the SELIC rate[2] and the preferential loan rate in a given year and multiplied by the outstanding credit amounts. In recent years, supported by a stable macroeconomic context and lower inflation, the SELIC rate has been significantly reduced reaching at time levels below the preferential interest rates. Therefore, from 2014

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[1]   The National System of Rural Credit (SNCR – *Sistema Nacional de Crédito Rural*) incorporates 298 federal, state and co-operative banks providing government-supported credit to agriculture. The system is controlled, co-ordinated and supervised by the Central Bank of Brazil.

[2]   SELIC rate is the reference rate for short-term government securities, and is commonly accepted as an average rate on loans between commercial banks (SELIC - Special System for Settlement and Custody (*Sistema Especial de Liquidação e de Custódia*).

onwards budgetary expenditures on interest equalization subsidies to banks have been used to estimates marketing loans transfers for primary agricultural commodities [1, 2, 3] Subject to agricultural zoning programme since 2008, imposing practices adapted to the environmental sustainability of each geographical zone. Source: [1] Statistical yearbook of rural credit, various editions, Central Bank of Brazil, (BACEN) [2] Brazilian Ministry of Agriculture, Livestock and Food Supply. [3] National Treasury of Brazil.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO, but YES since 2008.
Payments included in SCTs for wheat, maize, rice, soybeans, sugar cane, cotton, coffee, milk, beef and veal, pig meat, poultry and "other commodities".

Deficiency payments within the PEPRO programme (Prêmio Equalizador Pago ao Produtor) (since 2006).

Period of implementation: 2006 - ongoing

Payments to producers equal to the difference between market price and the minimum price defined by the government. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO.
Payments included in SCTs for maize, soybeans, coffee, cotton, and "other commodities".

Compensation of coffee storage costs.

Period of implementation: 2004 - 07

Payments per tonne of coffee to compensate producers for the costs of storing. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO.
Payment included in SCT for coffee.

Ethanol stocking programme - interest rate subsidy.

Period of implementation: 2005 – 12

Interest rate subsidies for the storage of ethanol.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO.
Payment included in SCT for sugar cane.

B. Payments based on input use

B.1. Payments based on variable input use

Preferential interest subsidy on working capital loans

Period of implementation: 1995-ongoing.

Implicit transfer from reduced interest rate on working capital loans (credito de custeio) provided through the National System of Rural Credit (SNCR)[1] including under the Programme for Strengthening of Family Agriculture (PRONAF)[3]; 1995-2013: calculated as the difference between the SELIC rate[2] and the working capital loan rate (corresponding to various credit lines for working capital), and multiplied by the outstanding credit amounts in a given year. In recent years, supported by a stable macroeconomic context and lower inflation, the SELIC rate has been significantly reduced reaching at time levels below the preferential interest rates. Therefore, from 2014 onwards budgetary expenditures on interest equalization subsidies to banks have been used to estimates working capital loans transfers for primary agricultural commodities to PRONAF eligible agricultural producers (small scale farmers), PRONAMP[4] eligible agricultural producers (medium size farmers) and other agricultural producers (all credit provided outside the previous categories) [1, 2, 3] Subject to the agricultural zoning programme since 2008, imposing practices adapted to the environmental sustainability of each geographical zone. Source: [1] Statistical yearbook of rural credit, various editions, Central Bank of Brazil, (BACEN) [2] Brazilian Ministry of Agriculture, Livestock and Food Supply. [3] National Treasury of Brazil.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008.
Payments included in SCTs for wheat, maize, rice, soybeans, sugar cane, cotton, coffee, milk, beef and veal, pig meat, poultry and "other commodities".

Insurance subsidy under the government insurance programme PROAGRO (Seguro da Agricultural Familiar)

Period of implementation: 1995-ongoing

Guarantee for the rural credit financial obligations of small and medium producers after the occurrence of a natural disaster or a pest. Subject to zooning programme since 2006. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2006.
Payment included in ACT.

Insurance subsidy under the Rural Insurance Premium programme (Subvenção ao Prêmio do Seguro Rural)

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[3] PRONAF - *Programa Nacional de Fortalecimento da Agricultura Familiar*.

[4] PRONAMP- *Programa Nacional de Apoioao Medio Produtor Rural*.

Period of implementation: 2005-ongoing

Subsidies to insurance premiums of commercial commodities. Subject to zooning programme since 2006. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES because it is an insurance subsidy; Input constraints: NO but YES since 2006;

Payments included in SCTs for wheat, maize, rice, soybeans, sugar cane, cotton, coffee, milk, beef and veal, pig meat, poultry and "other commodities".

Sugar cane subsidy

Period of implementation: 1998-2013

Compensation of variable input costs to sugar cane growers in the North East region. Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO;
Payment included in SCT for sugar cane.

Budgetary allocations for in-kind input grants to family agriculture.

Period of implementation: 2005-11

In kind variable inputs support to small producers. Source: Integrated System of Financial Administration of the Federal Government (SIAFI).

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

B.2. Payments based on fixed capital formation

Preferential interest subsidy on investment credit (credito de investimento): General programme

Period of implementation: 1998-ongoing

1995-2013: Interest rate subsidies provided through the National System of Rural Credit (SNCR)[1] under the general investment credit lines; this is an implicit transfer, calculated as the difference between the SELIC rate[2] and the weighted average annual interest rate on various investment credit lines, and multiplied by the outstanding credit amounts in a given year. In recent years, supported by a stable macroeconomic context and lower inflation, the SELIC rate has been significantly reduced reaching at times levels below preferential interest rates. Therefore, as from 2014 budgetary expenditures on interest equalization subsidies to banks have been used to estimates investment transfers to agricultural producers (other than those eligible to PRONAF or PRONAMP programs). [1, 2, 3] Subject to the agricultural zoning programme since 2008, imposing practices adapted to the environmental sustainability of each geographical zone.

Source: [1] Statistical yearbook of rural credit, various editions, Central Bank of Brazil, (BACEN) [2] Integrated System of Financial Administration of the Federal Government (SIAFI). [3] Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: No but YES since 2008.

Payment included in ACT.

Preferential interest subsidy on investment credit (crédito de investimento): PRONAF

Period of implementation: 1995-ongoing

1995-2013 Interest rate subsidies provided through the National System of Rural Credit (SNCR)[1] under PRONAF programme; this is an implicit transfer, calculated as the difference between the SELIC rate[2] and the weighted average annual interest rate on various PRONAF investment credit lines in a given year. Subject to zooning programme since 2008. In recent years, due to a stable macroeconomic context and lower inflation, the SELIC rate has been significantly reduced reaching at times levels below preferential rates. Therefore, from 2014 onwards budgetary expenditures on interest equalization subsidies to banks has been used to estimates investment transfers to agricultural producers eligible to PRONAF programs. Subject to the agricultural zoning programme since 2008, imposing practices adapted to the environmental sustainability of each geographical zone. [1, 2, 3] Source: [1] Statistical yearbook of rural credit, various editions, Central Bank of Brazil, (BACEN) [2] Integrated System of Financial Administration of the Federal Government (SIAFI). [3] Brazilian Ministry of Agriculture, Livestock and Food Supply.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008.

Payment included in ACT.

Preferential interest subsidy on investment credit (crédito de investimento): PRONAMP

Period of implementation: 2014-ongoing

Budgetary expenditures on interest equalization subsidies for loans provided by banks to agricultural producers eligible to PRONAMP programs to support on farm investment Source: Brazilian National Treasury.

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

Preferential interest subsidy on investment credit: Land Bank programmes:

Period of implementation: 2000-17

Subsidies to interest rates for credit, subject to zooning programme since 2008, imposing practices adapted to the environmental sustainability of each geographical zone.

They include:

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a) implicit transfers from reduced interest rate on loans provided for land acquisition under the National Land Credit Programme (*Programa Nacional de Crédito Fundiário*) (since 2000); calculated as the difference between the annual SELIC rate and the annual interest rate set under the National Land Credit Programme, and multiplied by the estimated outstanding credit in a given year. [1]

b) implicit transfers from reduced interest rate on loans provided to Land Reform settlers for construction of basic infrastructure on settled lands (*Concessão de Crédito-Instalação aos Assentados*) from the Land Fund (*Fundo da Terra*) (since 2000): these loans are provided for both production (electricity networks, irrigation, cleaning, crop drying and storage, roads for transporting harvested crop, etc.) and community needs (construction of rural schools, health care points, local community centres, public telephone lines, etc); it is assumed that only 50% of total loan allocations under this facility are production-related and only this part is considered in the calculation of implicit transfer, which is calculated as the difference between the annual SELIC rate and the annual preferential interest rate on such credit, and multiplied by the estimated outstanding credit in a given year. [1]

c) implicit transfers from reduced interest rate on investment loans (*crédito de investimento*) provided through the National System of Rural Credit (SNCR) under PROCERA programme; calculated as the difference between the annual SELIC rate and annual preferential interest rate on PROCERA investment credit, and multiplied by estimated outstanding PROCERA investment credit in a given year. **[1]**

d) implicit transfer from reduced interest rate on loans provided to family agriculture for production and community infrastructure and services (*Apoio a Projetos Municipais de Infra-Estrutura e Serviços em Agricultura Familiar*); these loans are provided for both agricultural production and community development (e.g. housing construction); it is assumed that only 50% of total loan allocations under this facility are production-related and only this part is considered in the calculation of interest gain; the implicit transfer is calculated as the difference between the annual SELIC rate and the annual preferential interest rate on such credit, multiplied by the estimated outstanding credit in a given year. **[1]**

Since 2006: Only Banco de Terra and PROCERA: implicit transfers from reduced interest rate on loans provided for land acquisition calculated as the difference between the annual SELIC rate and the annual interest rate set under the Banco de Terra and PROCERA in a given year. [1,2].

Source: [1] Source: Integrated System of Financial Administration of the Federal Government (SIAFI). [2] Statistical yearbook of rural credit, various editions, Central Bank of Brazil, (BACEN).

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008.
Payment included in ACT.

Preferential interest subsidy on industrialization loans for PRONAF farms eligible

Period of implementation: 2014-ongoing

Interest rate subsidies for loans provided to agricultural producers eligible to the PRONAF program through the National System of Rural Credit (SNCR)[1] under the industrialisation credit lines : implicit transfer, calculated as the difference between the SELIC rate and the weighted average annual interest rate on various industrialisation credit lines, multiplied by the outstanding credit amounts in a given year. Source: Brazilian Central Bank, BACEN.

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

Preferential interest subsidy on industrialization loans for other farms (not eligible to PRONAF program)

Period of implementation: 2014-ongoing

Interest rate subsidies for loans provided to agricultural producers not eligible to the PRONAF or the PRONAMP programs through the National System of Rural Credit (SNCR)[1] under the industrialisation credit lines : implicit transfer, calculated as the difference between the SELIC rate and the weighted average annual interest rate on various industrialisation credit lines, multiplied by the outstanding credit amounts in a given year. Source: Brazilian Central Bank, BACEN.

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

Payment included in ACT.

Debt rescheduling: Rural Debt Securitisation and PESA schemes

Period of implementation: 1995-ongoing

Support through debt rescheduling programmes, subject to zooning programme since 2008. They include:

a) implicit transfer from reduced interest and "good payer" rebates on loans restructured under the *Rural Debt Securitisation* scheme; calculated as the difference between the monthly SELIC rate and the monthly preferential rate (3% p.a.) for repayment of the restructured loan, multiplied by estimated outstanding monthly debt; the annual value is then aggregated for the period between January and December; and the value of "good payer" rebate, which is equal to 25% of the annual repayment of the principal debt covered by the Rural Debt Securitisation scheme.

b) implicit transfer from the interest rate discount on loans restructured under the *Financial Assets Rehabilitation Programme* (*PESA*); calculated by multiplying the interest rate discount by the estimated outstanding annual PESA debt; the discount was set at 2% p.a. between 1999 and 2001, and 5% p.a. from 2002 onwards. Source: Brazilian National Treasury.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008;
Payment included in ACT.

Debt rescheduling: PROCERA and PRONAF loans

Period of implementation: 2002 -ongoing

Implicit transfer from interest rate discount and "good payer" rebates on restructured loans provided under the PRONAF, PROCERA[5], and PROGER[6] programmes. Subject to zooning programme since 2008. Source: Brazilian National Treasury.

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008.
Payment included in ACT.

B.3. Payments based on on-farm services

Budgetary allocations for rural extension services.

Period of implementation: 1995 -ongoing

Expenditure on rural extension services estimated as 50% of expenditures notified in the Green Box under (iv) extension and advisory services. In recent years, expenditures for the acquisition of equipments by municipalities for services in rural areas were excluded. The other 50% is included in GSSE H2b Source: Integrated System of Financial Administration of the Federal Government (SIAFI).

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

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

Insurance subsidy under the Crop Guarantee programme (Garantia-Safra)

Period of implementation: 2003 -ongoing

Indemnities provide to farmers in the north-east region when they suffer losses due to drought or excess rain. Subject to zooning programme since 2006.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI).

Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: NO but YES since 2008.
Payment included in GCT for arable 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

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[5] PROCERA - Special Credit Programme for Agrarian Reform (*Programa Especial de Crédito para a Reforma Agrária).*

[6] PROGER Rural – Programme of Rural Employment and Income Generation *(Programa de Geração de Emprego e Renda Rural).*

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F. Payments based on non-commodity criteria

F.1. Payments based on long-term resource retirement

F.2. Payments based on specific non-commodity output

F.3. Payments based on 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

Research and technological innovation:

Period of implementation: 1995-ongoing

1995-2013: Budgetary allocations for agricultural research including general research, environmental projects and commodity-specific research (ASTI source) [1]. Since 2014 budgetary allocations for agricultural research is based on 1/ budgetary expenditure provided by Embrapa and 2/an estimation of research and development expenditures provided by other Brasilian agencies based on the 2011-13 ratio between ASTI budgetary allocations for agricultural research and Embrapa research spending expenditures [2].

Source: [1] ASTI database www.asti.cgiar.org [2] Embrapa**,** Brazil.

H.2. Agricultural Knowledge Transfer

H2.a. education

Agricultural education:

Period of implementation: 1995-ongoing

Budgetary allocations for agricultural education and extension services. Expenditures notified to WTO in the Green Box under (iii) training services. Budgetary allocation to agricultural schools is estimated from 2010, using inflation rate, as the expenditure is no longer available from the national budget.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

H2.b. extension services

Budgetary allocations for rural extension services:

Period of implementation: 1995-ongoing.

General extension services estimated as 50% of expenditures notified to WTO in the Green Box under (iv) extension and advisory services. In recent years, expenditures for the acquisition of equipments by municipalities for services in rural areas were excluded. The other 50% is included in PSE B3. Source: Integrated System of Financial Administration of the Federal Government (SIAFI).

I. Inspection and Control

I.1. Agricultural product safety and inspection

Inspection, grading, and standardisation:

Period of implementation: 1995-ongoing.

Budgetary allocations for related services. Expenditures notified to WTO in the Green Box under (v) inspection services.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

I.2. Pest and disease inspection and control

Pest and disease control:

Period of implementation: 1995-ongoing.

Budgetary allocations for control and prevention of crop and animal diseases, animal product safety, sanitary control and education, and related miscellaneous activities. Expenditures notified to WTO in the Green Box under (ii) pest and disease control.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

I.3. Input control

J. Development and maintenance of Infrastructure

J.1. Hydrological Infrastructure

Irrigation, electrification, rural housing:

Period of implementation: 1995-ongoing.

Budgetary allocations for construction and maintenance of rural electricity networks, water supply and road networks, irrigation, dams and drainage systems, development of port facilities and storage systems, and miscellaneous infrastructure works. Expenditures notified to WTO in the Green Box under (vii) infrastructural services - Support for irrigation programs.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

J.2. Storage, marketing and other physical infrastructure

Market supply, storage and silage systems for agricultural products

Period of implementation: 2008-ongoing. Before 2008 this line was aggregated under J1).

Budgetary allocations for infrastructural projects in rural areas. Expenditures notified to WTO in the Green Box under (vii) infrastructural services - Support for infrastructure projects in rural areas.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

J.3. Institutional infrastructure

J.4. Farm restructuring

Land reform and settlement:

Period of implementation: 1995-ongoing.

Implementation of the agrarian reform – public funds allocated to the National Institute of Colonisation and Agrarian Reform (INCRA)[7] for acquisition of lands for agrarian reform; development of basic infrastructure on lands involved in agrarian reform; maintenance of rural cadastre; land demarcation and titling; information system for the agrarian reform; juridical support; and related miscellaneous activities. Expenditures notified to WTO in the Green Box under (viii) Agrarian organization.

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[7]   INCRA - *Instituto Nacional de Colonização e Reforma Agrária*.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

K. Marketing and promotion

K.1. Collective schemes for processing and marketing

K.2. Promotion of agricultural products

Marketing and Promotion:

Period of implementation: 1997-ongoing.

Budgetary allocations for promotion of Brazilian agro-food products, organisation of fairs and exhibitions, information campaigns, and related miscellaneous activities. Expenditures notified to WTO in the Green Box under (vi) marketing and promotion services.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

L. Cost of Public stockholding

Public stockholding:

Period of implementation: 1995-ongoing.

Budgetary allocations to the National Food Supply Company (CONAB) to cover the cost of depreciation and disposal of public stock of agricultural products purchased under the Federal Government Purchase Programme (Aquisição do Governo Federal). Expenditures notified to WTO in the Green Box under 2) Public stockholding.

Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

M. Miscellaneous

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

N. Transfers to producers from consumers (TPC): 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 (VP) by commodity group [for each commodity group: (ΣTPC for MPS commodities) / (ΣVP for MPS commodities) x VP for total group; the total TPC is then calculated as the sum of TPC by commodity group. For the list of commodity groups, see Section A.1. Market Price Support (MPS) within this Table 1].

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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 4.11.

O. Other transfers from consumers (OTC): 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 (VP) by commodity group [for each commodity group: (ΣOTC for MPS commodities) / (ΣVP for MPS commodities) x VP for total group; the total OTC is then calculated as the sum of OTC by commodity group. For the list of commodity groups, see Section A.1. Market Price Support (MPS) within this Table 1].

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 4.11.

P. Transfers to consumers from taxpayers

P.1. Commodity specific transfers to consumers: Sum of commodity specific transfers from taxpayers to consumers (farm gate level) from Tables 4.1-4.11, including:

Premium to commercial buyers (PEP) (*Prêmio para Escoamento do Produto*)

Period of implementation: 1996-ongoing.

Payment to commercial buyers of agricultural commodities, covering the difference between the minimum guaranteed price and the price the buyer is willing to pay; participants in the programme are those buyers who bid for the lowest premium at regional auctions organised by the National Food Supply Company (CONAB); receipt of the premium is contingent on a buyer paying the minimum guaranteed price to supplying producer. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

Risk premium (PROP)

Period of implementation: 2005-ongoing.

A producer or an agricultural cooperative can conclude a Private Sell Option Contract (*PROP – Contrato Privado de Opção de Venda)*, which guarantees a future sale of an agricultural commodity at a predefined "execution price"; the risk premium is the government payment to those acting as "buyers" under this contract if the market price for an agricultural commodity falls below the option execution price. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

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

Meals for children in public schools

Period of implementation: 2005-ongoing.

Expenditures notified in the Green Box under 3) food aid. Source: Integrated System of Financial Administration of the Federal Government (SIAFI). Brazilian Ministry of Agriculture, Livestock and Food Supply.

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 and 4.2).

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)]

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

All data sets in Table 2 to come from Tables 1 and 3.1 to 3.12 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 3.1-3.12].

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 3.12).

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

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 indicator is calculated for Australia for the following groups of commodities: All crops, fruits and vegetables, all livestock, and ruminants.

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. BRAZIL: PRODUCER SINGLE COMMODITY TRANSFERS (BY COMMODITY)

Tables 3.1 to 3.12, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: wheat, maize, rice, soybeans, sugar cane, cotton, coffee, milk, beef and veal, pig meat, poultry and "other commodities". All data sets in the calculation SCT by commodity come from Tables 1 and 4.1 – 4.11 where definitions are included.

Definitions:

I. Level of production: Data from respective commodity Tables 4.1 – 4.11 (Market Price Support tables)

II. Value of production (at farm gate): Data for respective commodity Tables 4.1 – 4.11 (Market Price Support tables)

III. Producer Single Commodity Transfers: Sum of transfers to respective single commodity in categories A, B, C and D.

A. Support based on commodity output

A1. Market Price Support [Data for respective commodity from Table 4]

A2. Payments based on output

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

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

B1. Based on variable input use

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

B2. Based on Fixed capital formation

Payments based on fixed capital formation ($B.2_{COM}$) 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].

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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. BRAZIL: MARKET PRICE SUPPORT AND CONSUMER SINGLE COMMODITY TRANSFERS

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

Definitions:

1. WHEAT

I.   Level of production

Total domestic production.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II.   Producer prices (at farm gate)

1995-2013: Annual average of monthly prices received by producers (36040) - states selected according to data availablility [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Paraná and Rio Grande do Sul), which together represent 86 % of total wheat production in 2018-20, weighted by the individual share of production across the selected states. [2]

Source: [1] Information provided by the Brazilian Ministry of Agriculture, Livestock and Food Supply based on Getulio Vargas Foundation (FGV) database and on the Centre for Advances Studies on Applied Economics Centro de estudos avancados em economia aplicada (CEPEA). [2] Companhia Nacional de Abastecimento (CONAB).

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

IV.   Trade status

For the period 1995-2021: net imported (NI).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply. UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Wheat is an imported commodity to which minimum guaranteed prices and MFN tariffs apply over the period; producer prices were nevertheless below reference prices as from 2014-15 when using price gap

methodology (calculated as producer price minus reference price, at farm gate). Thus, as the resulting negative market price differentials didn't correctly reflect policies in place, the MPD is estimated using Brazil's simple average import MFN tariff on wheat (HS 1001) for the period 1995-2021.

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply. WITS TRAINS tariffs database.

VI.   *Reference prices at the farm gate (including the definition of the margin)*

1995-2021: The reference price is implicit and calculated by subtracting the market price differential (derived from the tariff) from the producer price.

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply. WITS TRAINS tariffs database.

VII.   *Level of consumption (at farm gate)*

Total domestic consumption (total production, plus import, minus export, plus change in stocks).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII.   *Consumption prices (at farm gate)*

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

Source: See Reference prices (VI) and Market Price Differential (V).

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply; Companhia Nacional de Abastecimento (CONAB).

2. MAIZE

I.   *Level of production*

Total domestic production.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II.   *Producer prices (at farm gate)*

1995-2013: Annual average of monthly prices of maize received by producers, all qualities (35273). States selected according to data availablility [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Goiás / Mato Grosso / Mato Grosso do Sul/ Minas Gerais/ Paraná) which together represent 76 % of total maize production in 2018-20, weighted by the individual share of production across the selected states. [2].

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Source: [1] Information provided by the Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. *Trade status*

For the period 1995-2000: net imported (NI). 2001-21 net exported.

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply. UN Comtrade database, United Nations.

V. *Market price differential at the farm gate*

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing producers.

VI. *Reference prices at the farm gate (including the definition of the margin)*

1995-2000: F.o.b. export unit values of Argentinean Rosario maize [1]. Since 2001, F.o.b. export unit values of maize, excluding seeds (HS 1005 90) [2].

Margin: 1995-2000 since maize was an imported commodity, no domestic transport costs and handling adjustment are used as we are assuming that internal domestic transport cost and handling offset each other. As from 2001, wheat marketing margins (Farm gate - Wholesale) are based on the average marketing margins calculated for other crops (wheat, rice and soybean) ie representing around 15 % of producer prices [3].

Sources: [1] International Grains Council (IGC). [2] Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply. [3]. Companhia Nacional de Abastecimento (CONAB).

VII. *Level of consumption (at farm gate)*

Total domestic consumption (total production, plus import, minus export, plus change in stocks).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII. *Consumption prices (at farm gate)*

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

Source: See Reference prices (VI) and Market Price Differential (V).

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply. Companhia Nacional de Abastecimento (CONAB).

3. RICE

I. *Level of production*

Total domestic production in paddy rice equivalent.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II. *Producer prices (at farm gate)*

1995-2013: Annual average of monthly prices of paddy rice received by producers, all qualities (33211), states selected according to data availablility) [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Rio Grande do Sul/ Santa Catarina), which together represent 81 % of total rice production in 2018-20, weighted by the individual share of production across the selected states. [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. *Trade status*

For the period 1995-2010: net imported (NI); as from 2011: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V. *Market price differential at the farm gate*

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing producers.

VI. *Reference prices at the farm gate (including the definition of the margin)*

1995-2010: C.i.f. import unit values of rice: 1995-96 : average brazilian import unit values of rice in husk, paddy or rough (NCM 1006.10.92) [1], 1996-2010 brazilian import unit values of rice in husk, paddy or rough (HS 1006.10) [2]. 2005-10 C.i.f. import unit values of rice semi milled or wholly milled rice (HS 1006.30) [2] converted into paddy equivalent using a conversion coefficient of 0.68. Since 2011, F.o.b. export unit values of rice, semi milled or wholly milled rice (HS 1006.30) [2] converted into paddy equivalent using a conversion coefficient of 0.68.

Margin: Marketing margin (Farm gate - Wholesale) as % of farm gate price : 23 % [3]

Sources: [1] MDIC-ALICE data base, Ministry of Industrial Development and Trade. [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supp [3] Interviews with commodity experts from Companhia Nacional de Abastecimento (CONAB).

VII.   *Level of consumption (at farm gate)*

Total domestic use during the calendar year (total production plus imports minus exports minus change in stocks).

Source: OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

VIII.   *Consumption prices (at farm gate)*

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

Source: See Reference prices (VI) and Market Price Differential (V).

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply, Companhia Nacional de Abastecimento (CONAB), OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

4. SOYBEANS

I.   *Level of production*

Total domestic production.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II.   *Producer prices (at farm gate)*

1995-2013: annual average of monthly prices received by producers (all qualities) (35699), states selected according to data availablility) [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Mato Grosso/Parana/ Rio Grande do Sul/ Goiás), which together represent 67 % of total soybeans production in 2018-20, weighted by the individual share of production across the selected states. [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. Trade status

For the period 1995-2021: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V. Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing producers.

VI. Reference prices at the farm gate (including the definition of the margin)

Average unit values of Brazilian exports of soybeans, whether or not broken (1201.00.90 or 1210.99.00) [1, 2] net of handling and marketing margins.

1995-2013: the margin is calculated as the difference between the wholesale price (annual average of soybeans daily wholesale prices in Parana [3] minus the producer price used during the same period. As from 2014, margin is calculated as the difference between the annual average of monthly wholesale prices at the national level minus the annual average of monthly prices received by producers (all qualities) in the main producer states [4].

Sources: [1]. MDIC-ALICE data base, Ministry of Industrial Development and Trade, [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply,. [3] Centre for Advances Studies on Applied Economics Centro de estudos avancados em economia aplicada (CEPEA) [4]. Companhia Nacional de Abastecimento (CONAB).

VII. Level of consumption (at farm gate)

Total domestic consumption (total production, plus import, minus export, plus change in stocks).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII. Consumption prices (at farm gate)

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

 Source: See Reference prices (VI) and Market Price Differential (V).

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. Companhia Nacional de Abastecimento (CONAB).

5. SUGAR CANE

I. *Level of production*

Total domestic production in sugar cane equivalent.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II. *Producer prices (at farm gate)*

1995-2016: Annual average of monthly prices of sugar cane received by producers (all qualities) (33548), in São Paulo state, [1, 2]. Since 2017: annual average of monthly prices received by producers (all qualities) in the main producer states (São Paulo state / Minas Gerais), which together represent 64 % of total sugar cane production in 2018-20, weighted by the individual share of production across the selected states. [2].

Source: [1] 1995-2013: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. *Trade status*

For the period 1995-2021: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V. Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Since 2000, negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing producers.

VI. *Reference prices at the farm gate (including the definition of the margin)*

Average unit values of Brazilian exports of cane sugar, refined, not containing added flavouring or coloured (1701.99.00) net of processing, handling and transportation costs, converted into sugar cane equivalent. [1, 2].

The margin is calculated as the difference between the wholesale price (Annual average of monthly wholesale prices of cristal sugar in Sao Paolo, converted in sugar cane equivalent using a coefficient of 0.0941) minus the producer price [3].

Sources: [1]. MDIC-ALICE data base, Ministry of Industrial Development and Trade, [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food

Supply, [3] Centre for Advances Studies on Applied Economics Centro de estudos avancados em economia aplicada (CEPEA).

VII. *Level of consumption (at farm gate)*

Total domestic consumption (total production, plus import, minus export, plus change in stocks), of white sugar and ethanol converted into sugar cane equivalent

Source: OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

VIII. *Consumption prices (at farm gate)*

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. Companhia Nacional de Abastecimento (CONAB). OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

6. COTTON

I. *Level of production*

Total domestic production in lint equivalent.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II. *Producer prices (at farm gate)*

Annual average of monthly prices received by producers (all qualities) for cotton in bolls, converted into lint equivalent price using the ratio of bolls-lint production, states selected according to data availablility) [1]. Since 2014: annual average of monthly prices received by producers (all qualities) for cotton in bolls, divided by annual conversion factor (ie ratio of bolls-lint production) into lint equivalent price in the main producer states (Bahia/ Mato Grosso), which together represent 89 % of total cotton production in 2018-20, weighted by the individual share of production across the selected states. [2].

Source: [1] 1995-2013: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. *Trade status*

For the period 1995-2000: net imported (NE). 2001-21: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V. *Market price differential at the farm gate*

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing producers.

VI. *Reference prices at the farm gate (including the definition of the margin)*

1995-2000: Average unit values of Brazilian imports of cotton, not carded nor combed (NCM 5201.00.10, 5201.00.20, and 5201.00.90) [1], net of ginning, handling and transportation costs. 2001-21: Average unit values of Brazilian export of cotton, not carded nor combed (5201.00.10) [2], net of ginning, handling and transportation costs.

The margin is calculated as the difference between the wholesale price (Annual average of monthly wholesale prices of cotton in lint type 41.1 in Sao Paolo) [3], minus the producer price.

Sources: [1]. MDIC-ALICE data base, Ministry of Industrial Development and Trade. [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture. [3] Centre for Advances Studies on Applied Economics Centro de estudos avancados em economia aplicada (CEPEA).

VII. *Level of consumption (at farm gate)*

Total domestic consumption in lint equivalent (total production, plus import, minus export, plus change in stocks).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII. *Consumption prices (at farm gate)*

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank and Getulio Vargas Foundation (FGV) database. Companhia Nacional de Abastecimento (CONAB).

7. COFFEE

I.   Level of production

Total domestic production in green bean equivalent.

Source: USDA – Economics and Statistics System: The Foreign Agricultural Service's Production, Supply and Distribution - PS&D.

II.   Producer prices (at farm gate)

1995-2013: annual average of monthly prices received by producers (all qualities) for dry coffee cherries, divided by 0.5 for conversion into green bean equivalent price (33361), states selected according to data availablility) [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Minas Gerais / Espírito Santo), which together represent 77 % of total coffee production in 2018-20, weighted by the individual share of production across the selected states. [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV.   Trade status

For the period 1995-2021: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing or supporting producers.

VI.   Reference prices at the farm gate (including the definition of the margin)

Weighted average of ICO indicator prices for Brazilian Natural Arabica and Robusta coffee [1], with weights representing the shares of Arabica and Robusta coffee in total Brazilian coffee production [2]. This weighted average price is net of cleaning, handling and transportation costs.

The margin is calculated as the difference between the wholesale price (Annual average of monthly wholesale prices of Arabica and Robusta coffee in Sao Paolo, published by CEPEA, converted in green equivalent using the coefficient 0.5) minus the producer price.

Sources: [1] International Coffee Organisation (ICO). [2] USDA – Economics and Statistics System: The Foreign Agricultural Service's Production, Supply and Distribution - PS&D.

VII. Level of consumption (at farm gate)

Total domestic consumption in green bean equivalent (total production, plus import, minus export, plus change in stocks)

Source: USDA – Economics and Statistics System: The Foreign Agricultural Service's Production, Supply and Distribution - PS&D.

VIII. Consumption prices (at farm gate)

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. Companhia Nacional de Abastecimento (CONAB). USDA – Economics and Statistics System: The Foreign Agricultural Service's Production, Supply and Distribution - PS&D.

8. MILK

I. Level of production

Total production of milk from dairy cows.

Source: OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

II. Producer prices (at farm gate)

1995-2013: annual average of monthly prices received by producers for cow milk (40269), states selected according to data availablility) [1]. Since 2014: annual average of monthly prices received by producers (all qualities) in the main producer states (Goiás/ Minas Gerais/ Paraná/ Rio Grande do Sul/ Santa Catarina), which together represent 71 % of total milk production in 2017, weighted by the individual share of production across the selected states [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV. Trade status

For the period 1995-2021: net imported (NI).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing or supporting producers.

VI.   Reference prices at the farm gate (including the definition of the margin)

The border price of milk is a calculated implicit value. 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 Brazilian unit import values of butter (HS 040500)and skimmed milk powder respectively (HS040210). The reference price of milk at farm gate (P_r) is the implicit milk border price net of processing costs (C):

$$P_r = P_b - C$$

Margins: Average dairy processing margin (processing margin of butter & SMP from one tonne of raw milk) in major dairy exporters: Australia, European Union, United States and New Zealand.

Sources: MDIC-ALICE data base, Ministry of Industrial Development and Trade. AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply.

VII.   Level of consumption (at farm gate)

Total domestic use of cow milk in milk equivalent (total production, plus import, minus export, plus change in stocks).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. Companhia Nacional de Abastecimento (CONAB). OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

VIII.   Consumption prices (at farm gate)

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

9. BEEF

I.   Level of production

Gross indigenous production in carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II.   Producer prices (at farm gate)

1995-2010: Annual average of monthly prices received by producers for all categories of adult bovine animals for slaughter, carcass weight [1]. 2011-13, annual average of monthly prices of live beef (boi gordo) at producer level, averaged over several markets (ES, GO, MG, MS, MT, SP, TO) from CONAB, in carcass equivalent. Since 2014: annual average of monthly prices received by producers of live beef (boi gordo) converted in carcass equivalent in the main producer states (Goiás / Mato Grosso /Mato Grosso do Sul / Minas Gerais / Pará / São Paulo), which together represent 65 % of total beef production in 2018, weighted by the individual share of production across the selected states. [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV.   Trade status

For the period 1995-2021: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing or supporting producers.

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VI. *Reference prices at the farm gate (including the definition of the margin)*

Average unit values of Brazilian exports of meat of bovine animals, boneless, fresh and chilled (HS 0201.30) and frozen (HS 0202.30) [1,2]., converted into carcass equivalent price and net of processing, handling and transportation costs.

The margin is calculated as the difference between the wholesale price (annual average of monthly prices of 3 types of refrigerated beef meat cuts: front with bones (38%), middle (14%), back with bones (48%), in carcass weight equivalent, published by IEA [3] minus the producer price above.

Source: [1] MDIC-ALICE data base, Ministry of Industrial Development and Trade. [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply [3] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank.

VII. *Level of consumption (at farm gate)*

Total domestic use (total production, plus import, minus export, plus change in stocks), carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII. *Consumption prices (at farm gate)*

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. Companhia Nacional de Abastecimento (CONAB). OECD/FAO, "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

10. PIGMEAT

I. *Level of production*

Gross indigenous production in carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II. *Producer prices (at farm gate)*

1995-2010: annual average of monthly prices received by producers for all pigs for slaughter, divided by 0.7 for conversion into carcass equivalent price [1]. 2011-13: producer price for live pigs in Sao Paolo converted into carcass equivalent price. Since 2014: annual average of monthly prices received by producers

of live pig converted in carcass equivalent in the main producer states (Minas Gerais /Paraná / Santa Catarina), which together represent 60 % of total pigmeat production in 2018, weighted by the individual share of production across the selected states. [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV.   Trade status

For the period 1995-2021: net exported (NE).

Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing or supporting producers.

VI.   Reference prices at the farm gate (including the definition of the margin)

Average unit values of Brazilian exports of meat of swine, frozen (HS 0203.29) [1, 2], converted into carcass equivalent price and net of processing, handling and transportation costs.

The margin is calculated as the difference between the wholesale price (annual average of monthly prices of pig meat (half carcasses) in carcass weight, published by IEA [3] minus the producer price above.

Source: [1] MDIC-ALICE data base, Ministry of Industrial Development and Trade [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply [3] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank.

VII.   Level of consumption (at farm gate)

Total domestic use (total production, plus import, minus export, plus change in stocks), carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII.   Consumption prices (at farm gate)

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

11. POULTRY

I.   Level of production

Gross indigenous production in carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

II.   Producer prices (at farm gate)

1995-2013 annual average of monthly prices received by producers for chicken carcass equivalent. [1] Since 2014: annual average of monthly prices received by producers of live pig chicken converted in carcass equivalent, using conversion coefficient of 0.88, in the main producer states (Parana / Sao Paulo), which together represent 44 % of total poultry production in 2018, weighted by the individual share of production across the selected states. States selected according to data availablility [2].

Source: [1] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).

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

IV.   Trade status

For the period 1995-2021: net exported (NE).

 Source: AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply, UN Comtrade database, United Nations.

V.   Market price differential at the farm gate

Due to domestic and border price-related policies in place, MPD is calculated based on the price gap for the period 1995-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate). Negative MPD set to 0 as there were no export barriers (export bans, export tariffs) and no other market price policy taxing or supporting producers.

VI.   Reference prices at the farm gate (including the definition of the margin)

Average unit values of Brazilian exports of meat of chickens and roosters, not cut in pieces, frozen (HS 0207.21) [1,2], net of processing, handling and transportation costs.

The margin is calculated as the difference between the wholesale price (annual average of monthly prices of refrigerated chicken published by IEA [2]) minus the producer price above.

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Source: [1] UN Comtrade database, United Nations. [2] AgroStat Brasil, Agribusiness Foreign Trade Statistics System, Brazilian Ministry of Agriculture, Livestock and Food Supply [3] Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank.

VII. Level of consumption (at farm gate)

Total domestic use (total production, plus import, minus export, plus change in stocks), carcass weight.

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply.

VIII. Consumption prices (at farm gate)

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

Source: not applicable.

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

Level of consumption (VII) multiplied by consumption prices (VIII).

Source: Brazilian Ministry of Agriculture, Livestock and Food Supply based on Institute of Agricultural Economics Research (IEA), agricultural wholesale prices data bank. [2] Companhia Nacional de Abastecimento (CONAB).