

# CHINA: 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 – 4.17.

**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 – 3.18 where definitions are included.

**Tables 3.1 – 3.17 Producer Single Commodity Transfers** contain producer SCT by commodity, which are calculated for China for the following commodities: wheat, maize, rice, soybeans, rapeseed, groundnuts, sugar, milk, beef and veal, pig meat, poultry meat, sheep meat, eggs, apples, fruit and vegetables imported, fruit and vegetables exported, cotton. In addition, SCT for “other commodities” is also calculated (Table 3.18), 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 4.1-4.18 where definitions are included.

**Tables 4.1 – 4.18** 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 3.18**. 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: CHINA: 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.

*I.1. Of which share of MPS commodities (%):* Share of commodities for which MPS is explicitly calculated (in Tables 4.1-4.17) in the total value of agricultural production.

**II. Total value of consumption (at farm gate):** Consumption of all commodities domestically produced valued at farm gate prices, and estimated by increasing the value of consumption (at farm gate) of the MPS commodities according to their share in the total value of agricultural production  $[(II.1) / (I.1) \times 100]$ .

*II.1. Of which MPS commodities:* Sum of the value of consumption (at farm gate prices) of the MPS commodities as indicated in Tables 4.1-4.17.

**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:  $(\Sigma \text{MPS for MPS commodities}) / (\Sigma \text{VP for MPS commodities}) \times \text{VP for total group}$ ; the total MPS is then calculated as the sum of MPS by commodity group]. For China, the commodity groups considered are: group 1 (crops), group 2 (livestock).

*A.2. Payments based on output*

**Target price payments for cotton**

Period of implementation: 2014 ongoing

Payments consist of two components: (i) in Xinjiang province, compensatory payments for cotton producers based on the difference between the government target and market prices for cotton multiplied by the amount of certified production sold; (ii) in nine cotton-producing province outside of Xinjiang, direct subsidies per tonne sold to cotton grinders. Based on interviews with Chinese experts, in 2014, 60% of funds were paid per unit of land (category C) and 40% per unit of cotton sold (category A2). Since 2015, payments are allocated as follows: 10% of the total paid per unit of land (in southern Xinjiang; category C) and 90% per unit of cotton sold (in the rest of Xinjiang; category A2). The programme sets an upper annual limit on the amount of cotton entitled to the subsidy in Xinjiang at 85% of the averaged certified national cotton production from 2012-14 – this remained theoretical until 2019 (with Xinjiang accounting for approximately 79% of production in 2017-19), but Xinjiang surpassed this limit in 2020. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance; interviews with Chinese experts.

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

Payments are included in SCT for cotton.

## ***B. Payments based on input use***

### ***B.1. Payments based on variable input use***

#### ***Input subsidy programme (price subsidies to fertilizers, chemical and other input)***

Period of implementation: 1993-2007

Payments compensated state-owned agricultural input manufacturers' losses resulting from selling their products to farmers at the state administered price for the purpose of reducing farmers' production cost. Fertiliser, pesticide and mulching film costs were covered. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

#### ***New variety extension payment***

Period of implementation: 2002-05

Payments supported the sowing of improved quality seeds. The programme was launched in 2002 to promote the fine variety of soybean seeds and covered 10 million mu (1 mu=1/15 of hectare) of demonstration fields testing the results of the fine seeds. Afterwards, the programme was enlarged each year to cover new commodities on an extended area. In 2003, the coverage was extended to cover soybeans, wheat and maize; in 2004 and 2005, the scheme covered improved seeds of wheat, maize, rice and soybeans. The implementation of this subsidy could vary depending on commodity and province, but up to 2005 in principle it took the form of reduced seed prices, either as a payment to the seed company to provide specific type of seed at reduced price or as a reimbursement to the farmer for seeds purchased. As of 2006, this subsidy was dominantly paid as a direct payment per unit of land and it has been reclassified as such to category C below. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in: 2002 – SCT for soybeans; 2003 – GCT for soybeans, wheat, and maize; 2004-05 – GCT for grains.

#### ***Advanced hog breed nurturing programme***

Period of implementation: 2007-09

Payments supported the partial compensation of costs of the extension of new varieties of hogs. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for pig meat.

### ***Insurance fees subsidy for livestock commodities***

Period of implementation: 2007-09

Fee subsidies focused on pig meat producers with costs of insurance fees shared between the central government, local governments and farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for pig meat.

### ***Insurance fees subsidy for crops***

Period of implementation: 2007-09

Pilot programme focused on grains with the cost of insurance fees shared by the central government, local governments and farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

### ***Insurance fees subsidy for crops and livestock commodities***

Period of implementation: 2010 ongoing

Cost of insurance fees shared by the central government, local governments and farmers. The coverage was extended to include rice, wheat, maize, oilseeds (rapeseed, groundnuts), cotton, potato, highland barley, sugar, hogs, cows, Yak and Tibetan sheep (natural rubber and forestry also covered). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Comprehensive reform subsidy to reduce the fee burden on agricultural irrigation water***

Period of implementation: 2010-13

Pilot project for areas implementing comprehensive reform to reduce the price paid by farmers on irrigation water used for agricultural production. No budgetary allocations have been identified since 2014. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

## *B.2. Payments based on fixed capital formation*

### ***Mechanisation of farming***

Period of implementation: 2004 ongoing

Payments support the purchase of agricultural machinery available to farmers through agricultural machine service delivery organisations. The programme compensates the cost of purchases by reimbursing the purchaser or compensating the seller for 30% of the purchase price. In principle, a subsidy ceiling for each type of machine is applied. The programme is implemented at the provincial level, and it is up to local governments to decide on the machinery and models eligible for the subsidy. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***National Agricultural Comprehensive Development Funds and Projects***

Period of implementation: 1993-2009

Payments supported main agricultural areas and main grain production areas determined on the basis of output of key agricultural commodities at the province level. Provinces that were not eligible for such support were able to designate counties within their jurisdiction which could benefit from these funds. This programme was focused on improving land productivity through support for a wide range of local projects, but preference was given to the construction and up-grading of small-scale water supply systems for agricultural production. Support could also be provided, for example, for adjusting waste-land for agricultural production, construction and up-grading of local roads important for the transportation of agricultural commodities, local afforestation initiatives, improvement of storage capacities for agricultural commodities, dissemination of new technologies for agricultural production, etc. All projects were co-financed by central government, provincial governments, county and township level authorities (those designated for the poverty relief funding were not requested to provide any funding), rural collectives and farmers. Projects supported within this programme had components which could be classified as on-farm amelioration and other which were focused on infrastructure. Following interviews with Chinese experts, 50% of amounts budgeted for this programme were allocated to category B2 (Based on fixed capital formation) and 50% to category J2 (Storage, marketing and other physical infrastructure). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Land consolidation***

Period of implementation: 2010 ongoing

Payments support land consolidation projects undertaken by the central and local governments under Agricultural Comprehensive Development Funds and Projects. Following consultations with the Chinese experts, 50% of amounts budgeted for this programme have been allocated to category B2 (Based on fixed capital formation) and 50% to category J4 (Farm restructuring). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Farmland irrigation construction***

Period of implementation: 2010 ongoing

Payments support the construction of small irrigation facilities, small-scale rainwater collecting facilities, sprinkler irrigation, drip irrigation facilities, irrigation and drainage pumping stations, and small hydropower stations. Following consultations with Chinese experts, 50% of amounts budgeted for this programme have been allocated to category B2 (Based on fixed capital formation) and 50% to category J1 (Hydrological infrastructure). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

### ***Agricultural environment, water and soil reservation***

Period of implementation: 1996-2009

Payments to farms for the protection of agricultural production resources. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Water and soil conservation***

Period of implementation: 2010 ongoing

Payments to farmers for the protection of water and soil used in agricultural production. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

### ***Soil conservation***

Period of implementation: 2010 ongoing

Payments to soil conservation, including expenditure for surveying soil fertility, controlling pollution, soil improvement, conservation planting, improving soil organic content, formulating fertilisation based on soil testing pilot programme, etc. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

### ***Water-saving techniques expansion in arid area***

Period of implementation: 2004-09

Payments to farmers for applying water-saving techniques. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Small-sized agricultural land water resource infrastructure support programme***

Period of implementation: 2005-09

Central and local government support for private small-sized water resource facilities construction: pilot programmes in 644 counties. The small-sized water resource infrastructure constructions supported within this programme included those operated by households, Professional Farmers Cooperative Associations, and village teams. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

### ***Grassland and pasture protection***

Period of implementation: 2010

Payments to protect grassland and pasture, including expenditure for grassland and pasture improvement, grassland vegetation recovery, aerial pasture seeding, and grazing control. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for livestock.

### ***Subsidy for agricultural industrialisation - production base construction***

Period of implementation: 2010 ongoing

Payments to agribusinesses (namely those specifically identified as agricultural industrialisation leading enterprises) to cover a part of costs linked with the construction of agricultural production base. Following consultations with Chinese experts, 50% of budgetary expenditures on subsidy for agricultural industrialisation have been allocated to category B2 and the remaining 50% to category H2.b (Extension

services; see below). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Agricultural infrastructure***

Period of implementation: 1993-2009

Payments supported on-farm investments (1/3 of the total allocated to category B2) as well as storage, marketing and other physical infrastructure (2/3 of the total allocated to category J2 below). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Agricultural technology extension payment***

Period of implementation: 2004-05 and 2008-09

Payments targeted large farms of sufficient scale that warranted mechanisation. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Large-scale commodity grain base construction programme***

Period of implementation: 2004-09

Payments targeted districts with potential growth in grain productivity. The funds were mainly invested in grain production infrastructure, in particular in water management systems, land amelioration, and extension of advanced crop varieties. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

### ***High quality grain production project***

Period of implementation: 2004-09

The programme operated in 13 main grain production provinces and provided support for land amelioration projects, creation of specialised large-scale grain production units, promotion of modern



technologies and machinery, and dissemination of high quality grain varieties. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

### ***Double-low rapeseed (canola) base construction in the Yangtze river region***

Period of implementation: 2004-09

Payments supported the increase in rapeseed (canola) production through investments mainly in advanced seed nurturing and unified seed supplying system, small-sized agricultural land water resource projects, disease and pest prevention, and land fertility supervision and examination. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for rapeseed.

### ***Sugar crop base construction***

Period of implementation: 2004-09

The programme focused on selected provinces including Guangxi, Yunnan, Guangdong, and Xinjiang. Payments were provided for supporting projects such as land consolidation, advanced varieties' nurturing, small-sized water resource infrastructure construction, and pest and disease prevention. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for sugarcane.

### ***Cotton crop base construction***

Period of implementation: 2008-09

The programme focused on selected provinces to stimulate cotton production. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for cotton.

### ***Standardized hogs feeding pilot programme***

Period of implementation: 2007-09

Payments supported the standardisation of hog production, water supplies, and vaccination. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for pig meat.

***Calculating and reducing the reimbursable capital owed due to comprehensive agricultural development***

Period of implementation: 2006-09

Payments for reducing the reimbursable capital owed under the comprehensive agricultural development pilot programmes. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

***International advanced agricultural science and technology introduction programme ("948" Scheme)***

Period of implementation: 2004-09

Payments on fixed capital formation for agricultural science and technology. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

***Agricultural science and technology advancement programme***

Period of implementation: 2004-09

Payments on fixed capital formation agricultural science and technology advancement. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

***Improving soil organic matter levels pilot subsidy***

Period of implementation: 2006-09

Payments for improving organic matter levels in soil used for agricultural production. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

### ***Preferential interest rates on loans for agricultural comprehensive development programme***

Period of implementation: 2010

Budgetary expenditure covering the preferential interest rates on loans for agricultural comprehensive development programme. The Ministry of Finance has not published data on preferential interest rates on loans for agricultural comprehensive development programme independently since 2011, and this type of support has been incorporated into other agricultural development funds. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Agricultural production development***

Period of implementation: 2015 ongoing

Between 2015 and 2017 the programme was entitled "Agricultural support payments". The programme is a combination of three previous individual programmes (direct payments for grain producers; agricultural input comprehensive subsidies, new variety extension payments); four-fifths of allocations are paid per unit of land and one-fifth is set aside for "new-style" farms. Based on discussions with Chinese experts, since its implementation in 2015, 80% of this payment is paid per unit of land owned and 20% for "moderately scaled producers", in fact input subsidies. Based on this information, the payment was divided as such: 80% in category C and 20% in category B2 (Based on fixed capital formation). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

### ***B.3. Payments based on on-farm services***

#### ***Agricultural extension and advisory services***

Period of implementation: 1993 ongoing

Payments for the introduction, testing, demonstration, promotion of new varieties, new machines and new technology. Following consultations with Chinese experts, 50% of budgetary expenditures on advisory services have been allocated to category B3 and the remaining 50% to category H2.b (Extension services). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Pest and disease control, including subsidies for compulsory culling of pigs due to the African swine fever outbreak***

Period of implementation: 1993 ongoing

Budgetary expenditures for facilities, medicines and vaccines for the epidemic monitoring, prediction, prevention and control. Following consultations with Chinese experts, 50% of budgetary expenditures on this programme have been allocated to category B3 and the remaining 50% to category I2 (Pest and disease inspection and control). In 2018-19, this programme includes subsidies for the compulsory culling of pigs – as part of the policy responses to the African swine fever outbreak – aimed at containing the spread of the virus. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

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 to grain farmers***

Period of implementation: 2004-14

Payments based on current area sown of rice, wheat or maize and were financed from the National Grain Risk Fund. Initially, payments were targeting 13 major grain producing provinces, but later were extended to almost all provinces. Not all sown areas were covered by the subsidy scheme; it was up to the local government to determine the “major producing area” which could obtain the subsidy. In some regions, payments were provided for farmers whether they plant crops or not. In general, the payment rate was CNY 10-15 per mu (1 mu=1/15 ha) (USD 22-33 per ha), but this could vary between localities as central government funding could be supplemented from local sources. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

#### ***Agricultural input comprehensive subsidies***

Period of implementation: 2006-14

Payments to compensate farmers for an increase in prices of agricultural inputs such as fertilisers, pesticides, plastic films and diesel. The targeted key beneficiaries of this subsidy were grain producers, as the amounts transferred to provinces depend on grain planting areas. In fact, as these payments were made per unit of land, their implementation was similar to direct payments discussed above. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for all crops.

#### ***New variety extension payment – crops***

Period of implementation: 2006-14

Apart from wheat, rice, maize and soybean covered by the original scheme, rapeseed and cotton were added in 2007, potatoes in 2009, highland barley in 2010 and, on a pilot basis, groundnuts in 2010. Compared to the original scheme based on lowering seed prices for farmers, as from 2006 the scheme has increasingly been implemented as a direct payment per unit of land. The rates depended on a crop and varied between CNY 10-15 per mu (1 mu=1/15 ha) (USD 22-33 per ha). There was no monitoring to determine if the payment was used for seed purchases or for other expenses. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for the group of following commodities: wheat, maize, rice, soybean, cotton and rapeseed.

#### ***New variety extension payment for livestock***

Period of implementation: 2010 ongoing

Apart from cow covered by the original scheme, hog breed were added in 2007, cattle and sheep in 2009, yak in 2011. The rates vary from CNY 20-30/ head/year for reproduction cow, CNY 40/head/year for reproduction hog, CNY 10/head/year for reproduction cattle, and one-time payments at CNY 800/head for sheep and goat breeding and CNY 2000/head for yak breeding. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included for GCT for livestock.

#### ***Payments to grassland ecological protection***

Period of implementation: 2011 ongoing

Payments to protect grassland in Inner Mongolia, Xinjiang, Tibet, Qinghai, Sichuan, Gansu, Ningxia, and Yunnan. The programme includes: (i) payments for the suspension of grazing at CNY 6 per mu (USD 6 per ha) per year over the period of 5 years; (ii) rewards for not exceeding stock-carrying capacity of grassland at CNY 1.5 per mu (USD 3 per ha) per year; (iii) subsidies for improved breeds of animals and improved varieties of pasture grass at CNY 10 per mu (USD 33 per ha) per year and general input subsidy at CNY 500 (USD 1 650) per household; and (iv) financial rewards for county governments based on successful implementation of the programme. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for livestock.

#### ***Payments for relief from natural disasters***

Period of implementation: 1993 ongoing

Payments provide compensations for losses in agricultural production due to natural disasters. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

***Advanced reserve cows subsidy***

Period of implementation: 2007-09

Payments of CNY 500 (USD 72.5) for each high quality dairy cow heifer produced from pure-bred breeding stocks with registered bloodlines. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for milk.

***Reproductive sow subsidy***

Period of implementation: 2007-09

Payment of CNY 50 (USD 6.6) per reproductive sow in 2007. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for pig meat.

***Advanced hog breed subsidy***

Period of implementation: 2007-09

Payments supported the extension of advanced breeds of hogs through partial compensation of costs of artificial insemination in selected counties. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for pig meat.

***Advanced cow breed subsidy***

Period of implementation: 2005-09

Payments supported the adoption of advanced cow breeds and increase the cow reproduction capacity. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for milk.

### ***Stabilize farmers' income payments***

Period of implementation: 2010 ongoing

Payments to stabilise farmers' income by local governments. The payments are made per unit of land. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Payments for agricultural structural adjustment***

Period of implementation: 2010 ongoing

Payments to promote agricultural structural adjustment and to develop modern agriculture by local governments. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in ACT.

### ***Target price payments for cotton***

Period of implementation: 2014 ongoing

Payments consist of two components: (i) in Xinjiang province, compensatory payments for cotton producers based on the difference between the government target and market prices for cotton multiplied by the amount of certified production sold; (ii) in nine cotton-producing province outside of Xinjiang, direct subsidies per tonne sold to cotton grinders. Based on interviews with Chinese experts, in 2014, 60% of funds were paid per unit of land (category C) and 40% per unit of cotton sold (category A2). Since 2015, payments are allocated as follows: 10% of the total paid per unit of land (in southern Xinjiang; category C) and 90% per unit of cotton sold (in the rest of Xinjiang; category A2). The programme sets an upper annual limit on the amount of cotton entitled to the subsidy in Xinjiang at 85% of the averaged certified national cotton production from 2012-14 – this remained theoretical until 2019 (with Xinjiang accounting for approximately 79% of production in 2017-19), but Xinjiang surpassed this limit in 2020. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for cotton.

### ***Target price payments for soybeans***

Period of implementation: 2015-16

Estimated value of transfers for soybean producers in four provinces (Heilongjiang, Jilin, Liaoning and Inner Mongolia) to compensate a difference between the government target price and the market price

registered for the marketing season during the autumn of 2014. Payments were made per unit of land. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for soybeans.

#### ***Producer payment for soybeans***

Period of implementation: 2017 ongoing

In 2017, the target price system for soybeans was discontinued after the three-year trial and these budgetary expenditures represent direct payments to soybeans producers. Payments are made per unit of land. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for soybeans.

#### ***Producer payment for maize***

Period of implementation: 2016 ongoing

Payments to maize producers following the discontinuation of the market support price system for maize in 2016. Payments are made per unit of land. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in SCT for maize.

#### ***Agricultural Production Development***

Period of implementation: 2015 ongoing

The programme is a combination of previous three programmes (direct payments for grain producers; agricultural input comprehensive subsidies, new variety extension payments); four-fifths of allocations are paid per unit of land and one-fifth is set aside for "new-style" farms. Based on discussions with Chinese experts, since its implementation in 2015, 80% of this payment is paid per unit of land owned and 20% for "moderately scaled producers", in fact input subsidies. Based on this information, the payment was divided as such: 80% in category C and 20% in category B2 (Based on fixed capital formation). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in GCT for grains.

#### ***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***

***Special funds for agricultural production development in poverty region***

Period of implementation: 1993 ongoing

Budgetary expenditures for the development of projects of planting, breeding, animal husbandry, agricultural products processing, related technology promotion, and agricultural labour re-training in regions identified as poor and covered by the poverty alleviation programme. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in Other Transfers to Producers.

***Special allowance for agricultural construction in “Three western provinces”***

Period of implementation: 2010 ongoing

Budgetary expenditures targeting the improvement of agricultural production conditions in selected counties, in particular in Gansu and Ningxia provinces, covered by the poverty alleviation programme. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

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

Payments are included in Other Transfers to Producers.

***F. Payments based on non-commodity criteria***

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

***Returning grazing land to grassland project***

Period of implementation: 2004-13

Payments to encourage farmers to turn grazing land to grassland in 8 west provinces. No payments under this programme have been identified since 2013. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

Use of labels: Production limits: NO. Input constraints: MANDATORY.

Payments are included in Other Transfers to Producers.

***“Grain for Green Programme” - Return Farmland to Forest Programme***

Period of implementation: 2000 ongoing

Payments to encourage farmers to turn fragile agricultural land to forest or pasture. Up to 2003, participating farmers were provided with grains and cash subsidies according to the area of damage-susceptible land they “retire”. In 2004, the grain allocation was converted to a cash equivalent. The period for which “retired” land was subsidised was set at two years for land returned to pasture, five years for land converted to “economic” forests and eight years for land converted to “ecological” forests. In addition, farmers are provided with a one-time cash subsidy to purchase seeds or tree seedlings for planting, and a yearly subsidy for tending and miscellaneous expenses on the newly converted land. Funds are also provided to the forestry agencies to cover technical support and programme design. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

Use of labels: Production limits: NO. Input constraints: MANDATORY.

Payments are included Other Transfers to Producers.

### ***Return farmland to grassland project***

Period of implementation: 2011 ongoing

Payments to encourage farmers to turn farmland to grassland. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

Use of labels: Production limits: NO. Input constraints: MANDATORY.

Payments are included in Other Transfers to Producers.

### ***Payments for grassland vegetation recovery***

Period of implementation: 2010-15

Payments to recover grassland vegetation, protect and manage the grassland vegetation. Source: Ministry of Finance (MOF), People’s Republic of China, Outlay Documents of the Ministry of Finance.

Use of labels: Production limits: NO. Input constraints: MANDATORY.

Payments are included in Other Transfers to Producers.

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

**III.3 Producer NPC:** For all agricultural commodities the producer NPC is estimated as a weighted average of the producer NPC calculated for the individual MPS commodities and shown in 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 development – agriculture-related research institutions***

Period of implementation: 1993 ongoing

Expenditure supports agriculture-related research institutions. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Animal genetic variety conservation***

Period of implementation: 2004-09

Expenditure supported strengthening animal germ plasm resources management. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Super rice research and development programme***

Period of implementation: 2004-09

Expenditure supported the research and development of rice varieties. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Science and technology for grain high yield project***

Period of implementation: 2004-09

Expenditure supported the research and development of high-yield grains. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

##### ***H.2. Agricultural Knowledge Transfer***

###### ***H2.a. education***

#### ***Agricultural schools***

Period of implementation: 1993-2009

Expenditure supported agricultural schools. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

###### ***H2.b. extension services***

### ***Technical and skill training programme***

Period of implementation: 2004 ongoing

Expenditure supports the training of managers of agricultural systems, professional technical experts and farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural extension and advisory services***

Period of implementation: 1993 ongoing

Expenditure supports the introduction, testing, demonstration and promotion of new varieties, new machines and new technology. Based on consultations with Chinese experts, 50% of budgetary expenditures on advisory services have been allocated to category B3 (payments based on use of on-farm services; see above) and the remaining 50% to category H2.b. (extension services). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Seed project***

Period of implementation: 1996-2009

Expenditure supported extension and advisory in seed use by farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***New advanced varieties extension and demonstration programme***

Period of implementation: 2004-09

Expenditure supported extension and advisory in use of new advanced varieties, including through demonstrations for farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural organisation and cooperation***

Period of implementation: 2005 ongoing

Expenditure supports Professional Farmers Cooperative Associations. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Scientific demonstration farm programme***

Period of implementation: 2005-09

Expenditure supported planning, arranging and building of production facilities, introduction, trial and demonstration of new technologies and varieties, training of farmers and local officials, purchase of basic production materials and small-sized equipment. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Conservation planting***

Period of implementation: 2005-09

Expenditure supported conservation planting in drought-stricken areas. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Establishment and modification of agricultural standards***

Period of implementation: 2005-09

Expenditure supported the establishment and adjustment of agricultural standards. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Standardised farming demonstration programme***

Period of implementation: 2006-09

Expenditure supported the promotion and adoption of agricultural standards. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural technology entering household demonstration project***

Period of implementation: 2005-09

Expenditure supported pilot farms implementing new technologies. These farms were expected to provide demonstration effects and to attract other participants. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Apple bagging technique demonstration subsidy programme***

Period of implementation: 2005-09

Expenditure encouraged and supported farmers using advanced bags, promoted the adoption of apple bagging technique, and targeted the improvement in the quality of apples produced. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Rice raising and transplanting mechanisation demonstration and extension***

Period of implementation: 2007-09

Expenditure supported demonstrating and promoting rice production, particularly with respect to the mechanisation of rice production. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Formula fertilisation based on soil testing pilot programme***

Period of implementation: 2005-09

Expenditure supported soil testing for improving soil fertility. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Agricultural extension system reform and construction demonstration counties programme***

Period of implementation: 2009

Expenditure supported the reform of the agricultural extension system to better target farmers' needs. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Payments for agricultural industrialisation - technical service***

Period of implementation: 2010 ongoing

Expenditure assists agribusiness (namely those specifically identified as agricultural industrialisation leading enterprises) in technical training and quality certification authentication. Following consultations with Chinese experts, 50% of budgetary expenditures on subsidy for agricultural industrialisation have been allocated to category B2 (see above) and the remaining 50% to category H2.b (Extension services). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Agricultural science and technology demonstration***

Period of implementation: 2010 ongoing

Expenditure supports agricultural science and technology demonstration programmes by the central and local governments agricultural comprehensive development department. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Modern agricultural demonstration project***

Period of implementation: 2004-09

Expenditure supported the set up of demonstration farms employing modern agricultural production techniques. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***I. Inspection and Control***

#### ***I.1. Agricultural product safety and inspection***

##### ***Agricultural product quality security programme***

Period of implementation: 2010 ongoing

Expenditure supports agricultural products' quality standard formulation, implementation and supervision; agricultural inputs' quality supervision and monitoring; agricultural products' quality certification and recognition; and the demonstration of standardized products. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Subsidy for food circulation security***

Period of implementation: 2010 ongoing

Expenditure supporting the guarantee of food safety during processing and marketing. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***I.2. Pest and disease inspection and control***

#### ***Inspection services***

Period of implementation: 1993-2009

Expenditure supported inspection services. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Pest and disease control***

Period of implementation: 1993 ongoing

Expenditures for facilities, medicines and vaccines for the epidemic monitoring, prediction, prevention and control. Following consultations with Chinese experts, 50% of budgetary expenditures on this programme have been allocated to this category and the remaining 50% to category B3 (payments based on use of on-farm services; see above). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Plant protection programme***

Period of implementation: 2006-09

Expenditure for plant protection programmes. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***I.3. Input control***

#### ***Agricultural resources protection***

Period of implementation: 2010 ongoing

Expenditure supports monitoring water nonpoint pollution of agricultural origin; preventing and controlling soil heavy metals pollution of agricultural origin; demonstrating technologies that allow for cleaner agricultural production. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

## ***J. Development and maintenance of Infrastructure***

### ***J.1. Hydrological Infrastructure***

### ***Farmland irrigation construction***

Period of implementation: 2010 ongoing

Expenditures support the construction of small irrigation facilities, small-scale rainwater collecting facilities, sprinkler irrigation, drip irrigation facilities, irrigation and drainage pumping stations, and small hydropower stations. Based on consultations with Chinese experts, 50% of amounts budgeted for this programme have been allocated to the category B2 (based on fixed capital formation, see above) and 50% to the category J1 (Hydrological infrastructure). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Continuous matching construction and water-saving modification in large-scale irrigation district***

Period of implementation: 2004 ongoing

Expenditure supports large-scale irrigation projects. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***J.2. Storage, marketing and other physical infrastructure***

#### ***National Agricultural Comprehensive Development Funds and Projects***

Period of implementation: 1993-2009

Payments supported main agricultural areas and main grain production areas determined on the basis of output of key agricultural commodities at the province level. Provinces that were not eligible for such support were able to designate counties within their jurisdiction which could benefit from these funds. This programme was focused on improving land productivity through support for a wide range of local projects, but preference was given to the construction and up-grading of small-scale water supply systems for agricultural production. Support could also be provided, for example, for adjusting waste-land for agricultural production, construction and up-grading of local roads important for the transportation of agricultural commodities, local afforestation initiatives, improvement of storage capacities for agricultural commodities, dissemination of new technologies for agricultural production, etc. All projects were co-financed by central government, provincial governments, county and township level authorities (those designated for the poverty relief funding were not requested to provide any funding), rural collectives and farmers. Projects supported within this programme had components which could be classified as on-farm amelioration and other which were focused on infrastructure. Following interviews with Chinese experts, 50% of amounts budgeted for this programme were allocated to category B2 (Based on fixed capital formation) and 50% to category J2 (Storage, marketing and other physical infrastructure). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Other National Agricultural Comprehensive Development Funds and Projects***

Period of implementation: 2010 ongoing

This category covers budgetary allocations for a number of National Agricultural Comprehensive Development projects targeting agricultural infrastructure, excluding: land consolidation (category B2. Based on fixed capital formation and category J2. Storage, marketing and other physical infrastructure), agricultural industrialisation infrastructure constructions under agriculture comprehensive development programme (J2. Storage, marketing and other physical infrastructure), preferential loans for agricultural comprehensive development programme (J2. Storage, marketing and other physical infrastructure), and



agricultural science and technology demonstration (H2.b. Extension services). All projects are co-financed by central government, provincial governments, county and township level authorities, rural collectives and farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural infrastructure***

Period of implementation: 1993-2009

Expenditures supported a number of projects targeting agricultural infrastructure, excluding those for which specific budgetary allocations have been identified such as National Agricultural Comprehensive Development Funds and Projects (see above) and those listed below within category J2 (Storage, marketing and other physical infrastructure). The remaining amount was divided between two components: 50% to category B2 (Based on fixed capital formation, see above) and 50% to category J2 (Storage, marketing and other physical infrastructure). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural wholesale market project***

Period of implementation: 2005-09

Expenditure supported wholesale markets development and wholesale market information system. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural industrialisation***

Period of implementation: 2005-09

Expenditure supported enterprises in creating marketing linkages with farmers. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agricultural industrialisation infrastructure construction under agricultural comprehensive development programme***

Period of implementation: 2010 ongoing

Public finance allocations provided by the central and local governments to propel agriculture industrialised operation projects under agricultural comprehensive development funds and projects, i.e. standardised livestock feeding pilot programme. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***J.3. Institutional infrastructure***

#### ***Agricultural information service delivery in TV, telephone and computer pilot programme***

Period of implementation: 2005-09

Expenditure supported agricultural information service delivery. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Statistical monitoring and information service***

Period of implementation: 2010 ongoing

Expenditure supports the collection, analysis and dissemination of agriculture information. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agriculture resources investigation and regional planning***

Period of implementation: 2010

Expenditure supported the investigation of agriculture natural resources and agricultural regional planning. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Agriculture law enforcement and supervision***

Period of implementation: 2010 ongoing

Budgetary expenditures for agricultural legal system construction, law enforcement supervision, and dispute resolution; supervision of the quality of agricultural products and of agricultural inputs; testing and evaluation of agricultural machinery; administration of veterinary services; animal drug administration management; animal epidemics prevention; quarantine supervision and management; supervision of agricultural construction projects; and training of personnel responsible for supervision and law enforcement. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***J.4. Farm restructuring***

#### ***Land consolidation***

Period of implementation: 2010 ongoing

Expenditures support land consolidation projects undertaken by the central and local governments under Agricultural Comprehensive Development Funds and Projects. Based on consultations with Chinese experts, 50% of amounts budgeted for this programme have been allocated to category B2 (Based on fixed capital formation, see above) and 50% to category J4 (Farm restructuring). Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Advanced livestock and fisheries breed project***

Period of implementation: 2006-09

Expenditure supported the development of livestock and fisheries breeds. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***Farmland Construction***

Period of implementation: 2020 ongoing

The Farmland Construction Subsidy Fund supports high-standard farmland construction, which includes: farmland consolidation, soil improvement, irrigation, drainage and water-saving facilities, field roads, farmland protection and ecological environment maintenance, farmland transmission and distribution, natural damage restoration and other projects related to farmland construction. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***K. Marketing and promotion***

#### ***K.1. Collective schemes for processing and marketing***

##### ***Industrialisation of high-tech biological breed nurturing***

Period of implementation: 2007-09

Expenditure supported the promotion of high-tech biological breeds. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***K.2. Promotion of agricultural products***

##### ***Promoting agricultural marketing programme***

Period of implementation: 2006 ongoing

Expenditure support producers with the processing, storage, and transportation of agricultural products; also support producers in linking with markets and in targeting new domestic and foreign markets. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***L. Cost of Public stockholding***

#### ***Public stockholding for food security purposes***

Period of implementation: 1993 ongoing

Public finance allocations for public stockholding of agricultural commodities, mostly grains. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

#### ***Important agricultural products stockholding***

Period of implementation: 2010, 2013 and 2014

Public finance allocations for public stockholding of important agricultural commodities and agricultural inputs, such as pig meat, cotton, sugar, tea, wool, fertilizers and pesticides. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

### ***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:  $(\Sigma TPC \text{ for MPS commodities}) / (\Sigma VP \text{ for MPS commodities}) \times VP \text{ for total group}$ ]; 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].

*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 4.17.

**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:  $(\Sigma OTC \text{ for MPS commodities}) / (\Sigma VP \text{ for MPS commodities}) \times VP \text{ for total group}$ ]; 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 4.17.

**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 to 4.17:

**Market Milk** (in Table 4.8)

Between 8 July 2000 and 22 February 2009, the Government imposed an 11 cents per litre levy on the retail sale of drinking milk, known as the Dairy Adjustment Levy (DAL). The levy was established to fund an adjustment package for the dairy industry as it moved through deregulation. This levy no longer exists and is not included in calculations after 2008-09. Source: ABC (Agricultural Bank of China), Statistical Yearbook of China's Rural Finance and Banking.

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

**Food price subsidies for consumers**

Period of implementation: 1993-2009

Public finance allocations to offset the price increases of staple food products for urban consumers. Paid directly as part of wages and salaries. This programme has been discontinued as of 2010. Allocations in the Chinese statistical yearbooks under "Subsidies on price increases in grain, cotton and edible oil" are in fact used for public stockholding of agricultural commodities and as such have been allocated to category L above. Source: Ministry of Finance (MOF), People's Republic of China, Outlay Documents of the Ministry of Finance.

**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 for wheat, maize, rice and soybeans (4.1, 4.2, 4.3, and 4.4)). Source: Based on interviews and consultations with Chinese experts.

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

**V.3 Consumer NPC:** For all agricultural commodities the consumer NPC is estimated as a weighted average of the consumer NPC calculated for the individual MPS commodities and shown in Table 2. For each commodity consumer NPC = domestic price paid by consumers (at the farm gate)/ border price (also at the farm gate).

**V.4 Consumer NAC**  $[(1 / (100 - (V.2)) \times 100]$

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

**R. Transfers from consumers**  $[(N) + (O)]$

**S. Transfers from taxpayers**  $[(III.1) - (N) + (IV) + (P)]$

**T. Budget revenues**  $[(O)]$

**TABLE 2. CHINA: BREAKDOWN OF PSE BY COMMODITY SPECIFICITY AND OTHER TRANSFERS**

All data sets in Table 2 come from Tables 1 and 3.1 to 3.18 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 3.1-3.17].

**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 3.17).

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

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

**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<sub>GROUP</sub> + C<sub>GROUP</sub> + D<sub>GROUP</sub>].

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

**Transfers to specific groups of commodities:** the GCT indicator is calculated for China for the following groups of commodities: all crops; grains; all livestock; wheat, maize and soybeans; wheat, rice, maize, soybeans, rapeseed and cotton.

**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<sub>ALL</sub> + B<sub>ALL</sub> + D<sub>ALL</sub>].

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

**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]

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

**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. CHINA: PRODUCER SINGLE COMMODITY TRANSFERS (BY COMMODITY)

Tables 3.1 to 3.18, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: wheat, maize, rice, soybeans, rapeseed, groundnuts, sugar, milk, beef and veal, pig meat, poultry meat, sheep meat, eggs, apples, fruit and vegetables imported, fruit and vegetables exported, cotton and “other commodities”. All data sets in the calculation SCT by commodity come from Tables 1 and 4.1 – 4.18 where definitions are included.

#### *Definitions:*

**I. Level of production:** Data from respective commodity Tables 4.1 – 4.18 (Market Price Support tables)

**II. Value of production (at farm gate):** Data for respective commodity Tables 4.1 – 4.17 (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<sub>COM</sub> + B.2<sub>COM</sub> + B.3<sub>COM</sub>]

*B1. Based on variable input use*

Payments based on variable input use (B.1<sub>COM</sub>) provided to respective single commodity [Data from Table 1].

*B2. Based on Fixed capital formation*

Payments based on fixed capital formation (B.2<sub>COM</sub>) provided to respective single commodity [Data from Table 1].

*B3. Based on on-farm services*

Payments based on on-farm services (B.3<sub>COM</sub>) 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<sub>COM</sub>) provided to respective single commodity [Data from Table 1].



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

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

**IV. Percentage producer SCT : %SCT = 100\*(III) / ((II) + (A.2) + (B<sub>COM</sub>) + (C<sub>COM</sub>) + (D<sub>COM</sub>))**

## **TABLE 4. CHINA: MARKET PRICE SUPPORT AND CONSUMER SINGLE COMMODITY TRANSFERS**

Tables 4.1 to 4.18, contain calculation of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following commodities: wheat, maize, rice, soybeans, rapeseed, groundnuts, sugar, milk, beef and veal, pig meat, poultry meat, sheep meat, eggs, apples, fruit and vegetables imported, fruit and vegetables exported, cotton 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 of wheat.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC); Aglink database, OECD-FAO Agricultural Outlook.

##### ***II. Producer prices (at farm gate)***

The farm gate price is the nationally representative weighted average sale price received by farmers. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for wheat (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

##### ***IV. Trade status***

As full data on stocks from national sources are not available for the period covered, it was not possible to determine the trade status based on production and consumption data. Trade status is thus determined based on imports and exports data from the Customs General Administration of China - for the periods 1993-2005 and 2009-21: Net imported (NI); for the period 2006-08: Net exported (NE).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

C.i.f. import unit values, sum of durum wheat (HS 1001.10) and wheat except durum wheat (HS 1001.90) from 1993 to 2021 except for the years 2006-07-08 where F.o.b. export unit values are used [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 11% until 2009, 8% in 2010 and 10.2% since 2011. Transportation costs (Border – Wholesale) as % of border price: 10% until 2009, 7% in 2010 and 7.2% since 2011 [2]. Quality adjustment: for 1995-2016 made by multiplying C.i.f. import unit values by a coefficient of 0.85 to reflect lower quality of wheat produced domestically compared to that imported; no quality adjustment since 2017-18, as the research and development of high quality varieties of wheat in China led to a diminishing quality difference between domestically produced and imported wheat [2].

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year based on national supply and demand balance sheets, provided by Chinese experts. As full data on stocks from national sources are not available for the period covered, the level of consumption could not be determined based on the formula using total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year).

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

## **2. Maize**

### ***I. Level of production***

Total domestic production of maize.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC); Aglink database, OECD-FAO Agricultural Outlook.

## ***II. Producer prices (at farm gate)***

For 1993-2006: Weighted average farm gate price in the province of Jilin, a major area of commercial maize production in China. Since 2007: The farm gate price is the the nationally representative weighted average sale price received by farmers. The series accounts for the North-east region of China (the most important producing region in China, at about 50% of the value of production, which includes the provinces of Jilin, Heilongjiang, Liaoning and the Autonomous Region of Inner Mongolia). The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for maize (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

## ***IV. Trade status***

As full data on stocks from national sources are not available for the period covered, it was not possible to determine the trade status based on production and consumption data. Trade status is thus determined based on imports and exports data from the Customs General Administration of China - for the period 1993-2009: Net exporter (NE); for the period 2010-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

F.o.b. export unit values of maize, except seed maize (HS 100590) from 1993 to 2009. C.i.f. import unit values since 2010 [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 15% until 2009 and 10% since 2010. Transportation costs (Border – Wholesale) as % of border price: 9% until 2009 and 7% since 2010 [2]; No quality adjustment.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year based on national supply and demand balance sheets, provided by Chinese experts. As data on stocks from national sources are not available for the period covered, the level of consumption could not be determined based on the formula using total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year).

Source: National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **3. Rice**

### ***I. Level of production***

Total production of rice, in milled weight, derived by multiplying production of paddy rice by a conversion rate of 0.68.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate prices of milled rice, obtained by dividing the weighted average paddy rice farm gate price by 0.68. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for rice (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

As full data on stocks from national sources are not available for the period covered, it was not possible to determine the trade status based on production and consumption data. Trade status is thus determined based on imports and exports data from the Customs General Administration of China - for the period 1993-2010: Net exporter (NE); for the period 2011-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

#### ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

From 1993 to 2010 [1]: Weighted average reference price of Thai export price (Indica-type rice/white rice, 100% second grade, F.o.b. Bangkok [2]) and US export price (Japonica-type rice 2/ F.A.S. basis (Free Alongside Vessel) [3]). In line with changes in the composition of rice production in China, it has been assumed that the share of Indica-equivalent price was falling from 80% in 1993 to 70% in 2002 and the share of Japonica-equivalent price growing from 20% to 30% over the same period. For the period between 2003 and 2010 the shares fluctuated from 70-73% and from 27-30%, respectively. Since 2011: As from 2011 China has been a net importer of rice, C.i.f import unit values of rice (HS 1006) on the Chinese border have been applied as a reference price.

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 12% until 2009 and 8% in 2010 and 7.2% since 2011. Transportation costs (Border – Wholesale) as % of border price: 6% until 2009, 5% in 2010 and 5.2% since 2011 [4]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Jackson Son & Co. (London) Ltd; [3] USDA; [4] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year of milled rice based on national supply and demand balance sheets, multiplying use of paddy rice by 0.68, provided by Chinese experts. As full data on stocks from national sources are not available for the period covered, the level of consumption could not be determined based on the formula using total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year).

Source: National Bureau of Statistics of China (NBSC).

#### ***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: National Bureau of Statistics of China (NBSC).

## **4. Soybeans**

### ***I. Level of production***

Total production of soybeans in terms of shelled dry beans.

Source: China National Grain and Oil Information Center; Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

Weighted average farm gate price in the province of Heilongjiang, a major area of commercial soybeans production in China. From 1993 to 2011, the majority of soybean produced in Heilongjiang was commercialised and used mainly for further processing/crush use, which in terms of quality made it comparable with imported soybeans. Since 2012, more than 70% of the production of non-GMO soybean in China has been largely for food use, with the rest destined to crush use. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for soybeans (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-2021: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

### ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

C.i.f. import unit values of soybean, whether or not broken (HS 1201.00) [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 10% until 2009, 5% in 2010 and 7.6% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 3.4% since 2011 [2]; Quality adjustments: for the period 1993-2011, no quality adjustments - from 1993 to 2011, the majority of soybean produced in Heilongjiang was commercialised and used mainly for further processing, which in terms of quality made it comparable with imported soybeans; for the period 2012-21: since 2012, more than 70% of the production of non-GMO soybean in China has been largely for food use, with the rest destined to crush use. Based on discussions with Chinese experts, a quality adjustment is made by multiplying C.i.f. import unit values by a coefficient of 1.2 to reflect higher quality of non-GMO produced domestically and destined to food use compared to that imported destined for animal feed [2].

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)] based on national supply and demand balance sheets, provided by Chinese experts.

Source: China National Grain and Oil Information Center; National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **5. Rapeseed**

### ***I. Level of production***

Total domestic production of rapeseed and mustard.

Source: China National Grain and Oil Information Center; China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

For 1993-2020, the farm gate price is the nationally representative weighted average sale price received by farmers (with the exception of 2007-08 for which national data is not available and data for Hubei province is used). The price for 2021 is a preliminary estimate discussed with Chinese experts using the agriculture production price index of 2021.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-2021: Net importer (NI).



Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

#### ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

C.i.f. import unit values of rape or colza seed, whether or not broken (HS 1205.00) [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 9% until 2009, 5% in 2010 and 5.9% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 3.4% since 2011 [2]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year provided by Chinese experts [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)] based on national supply and demand balance sheets.

Source: China National Grain and Oil Information Center; National Bureau of Statistics of China (NBSC).

#### ***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: National Bureau of Statistics of China (NBSC).

### **6. Groundnuts**

#### ***I. Level of production***

Total production of groundnuts, in shelled weight, derived by multiplying production of dry groundnuts by a conversion rate of 0.7.

Source: National data, National Bureau of Statistics of China (NBSC).

## ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of shelled groundnuts, obtained by dividing the weighted average sale price of groundnuts in shell by 0.7. The price for 2021 is a preliminary estimate discussed with Chinese experts using the agriculture production price index of 2021.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press.

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

Level of production (I) times Producer prices (II).

## ***IV. Trade status***

For the period 1993-2018: Net exporter (NE). For the period 2019-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

For the period 1993-18, when groundnuts are net exported, the domestic price is on par with the border reference price and no domestic nor trade-related policies have been identified for this exportable commodity; therefore, the MPD is considered to be zero over the period 1993-2018. Since 2019, groundnuts are net imported and border measures apply to this commodity (MFN tariff), thus the MPD is given by the positive difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

F.o.b. export unit values of shelled groundnuts (HS 1202.20) between 1993-2018. C.i.f. import unit values of shelled groundnuts (HS 1202.20) between 2019-21 [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 9% until 2010 and 10% since 2011. Transportation costs (Border – Wholesale) as % of border price: 7% until 2010 and 5% since 2011 [2]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database; ITC TradeMap database; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)] of shelled groundnuts, derived by multiplying production of dry groundnuts by 0.7.

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

**7. Sugar**

***I. Level of production***

Total production of sugar from cane, in raw sugar equivalent, derived by multiplying production of cane by a conversion rate of 0.12.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of sugar cane in raw sugar equivalent obtained by dividing the weighted average cane farm gate price by 0.12. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for sugar cane (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

***IV. Trade status***

For the period 1993-2021: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

C.i.f. import unit values of raw sugar, cane (HS 1701.11) [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 40% from 1993 to 2009, 20% in 2010 and 19% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 2.5% since 2011 [2]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)] in terms of raw sugar from cane.

Source: National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **8. Milk**

### ***I. Level of production***

Total domestic production of milk.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

The farm gate price is the nationally representative weighted average sale price received by farmers for cow milk. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for milk (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1995-2021: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

The border price of milk is a calculated implicit value [1]. 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 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 ( $C$ ):

$$P_r = P_b - C$$

Margins: Average dairy processing margin [processing margin of butter & Skimmed Milk Powder (SMP) from one tonne of raw milk] in major dairy exporters: Australia, European Union, United States and New Zealand [2].

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] OECD PSE/CSE/GSSE database.

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

Total domestic use of milk during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

## **9. BEEF AND VEAL**

### ***I. Level of production***

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

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of all categories of bovine animals for slaughter, live weight, converted into carcass equivalent. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for bovine meat (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-2008: Net exporter (NE); for the period 2009-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

### ***V. Market price differential at the farm gate***

For the period 1993-2008, no domestic nor trade price-related policies have been identified for this exportable commodity, thus the MPD was presumed zero. Since 2009: As of 2009, China became a net importer of beef and veal. As imports are very different from those produced in the country, the unit value of imports was not considered reliable and other relevant border prices could not be identified. As tariffs represent the main policy applied, for the period 2009-21, the MPD is estimated using China's simple average import MFN tariff on beef and veal, both fresh and frozen (HS codes 0201 and 0202).

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

Until 2008, F.o.b. export unit values, bovine meat: cuts boneless, fresh or chilled and frozen (HS codes 0201.30 and 0202.30). As from 2009, China has become net importer of beef and veal and China's simple average import MFN tariff on beef and veal, both fresh and frozen (HS codes 0201 and 0202), has been used as an estimation of the MPD [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 25% until 2010 and 22.1% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 2.6% since 2011 [2]. However, since 2009, the MFN import tariff has been applied as a proxy for price gap (see above for the definition of the reference price), thus no margins are employed; No quality adjustments.

Sources: [1] WITS TRAINS tariffs database; China Customs Statistical Yearbook, Customs General Administration of China (CGAC); [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **10. Pig meat**

### ***I. Level of production***

Total production of pig meat, in carcass weight equivalent, derived by multiplying production in live weight by 0.75.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of all pigs for slaughter, live weight, converted into carcass equivalent. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for pig meat (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-2007: Net exporter (NE); for the period 2008-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

For the period 1993-2007, no domestic nor trade price-related policies have been identified for this exportable commodity, thus the MPD was presumed zero. Since 2008: As of 2008, China became a net importer of pig meat. As imports are very different from those produced in the country, the unit value of imports was not considered reliable and other relevant border prices could not be identified. As tariffs represent the main policy applied for the period 2008-21, the MPD is estimated using China's simple average import MFN tariff on pig meat, both fresh and frozen (HS 0203).

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

Until 2007, F.o.b. export unit values, swine carcass & half carcass fresh, chilled or frozen (HS codes 020311 and 020321). As from 2008, China has become net importer of pig meat and China's simple average import MFN tariff on pig meat, both fresh and frozen (HS 0203), has been used as an estimation of the Market Price Differential [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 25% until 2009, 20% in 2010 and 19.1% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 2.6% since 2011 [2]. However, since 2008 import tariff has been applied as a proxy for price gap (see above for the definition of the reference price), thus no margins are employed; No quality adjustments.

Sources: [1] WITS TRAINS tariffs database; China Customs Statistical Yearbook, Customs General Administration of China (CGAC); [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

# **11. Poultry meat**

## ***I. Level of production***

Total production of poultry, in carcass weight equivalent.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).



## ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate prices of live chicken, converted into carcass equivalent. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for poultry meat (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

## ***IV. Trade status***

For the period 1993-2001: Net exporter (NE); for the period 2002-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

For the period 1995-2001, no domestic nor trade price-related policies have been identified for this exportable commodity, thus the MPD was presumed zero. Since 2002: As of 2002, China became a net importer of poultry. As imports are very different from those produced in the country, the unit value of imports was not considered reliable and other relevant border prices could not be identified. As tariffs represent the main policy applied for the period 2002-21, the MPD is estimated using China's simple average import MFN tariff on poultry meat and edible offal (HS 0207).

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

Until 2001, F.o.b. export unit values meat of edible offal of the poultry, not cut in pieces, fresh, chilled or frozen (HS codes 0207.11 and 0207.12). As from 2002, China has become net importer of poultry and China's simple average import MFN tariff rate on meat and edible offal (HS 0207) has been used as an estimation of the Market Price Differential [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 25% until 2009, 15% in 2010 and 18.8% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 3.3% since 2011 [2]. However, since 2002 import tariff has been applied as a proxy for price gap (see above for the definition of the reference price), thus no margins are employed; No quality adjustments.

Sources: [1] WITS TRAINS tariffs database; China Customs Statistical Yearbook, Customs General Administration of China (CGAC); [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **12. Sheep meat**

### ***I. Level of production***

Total production of sheep meat, in carcass weight equivalent, derived by multiplying production in live weight by 0.55.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of all sheep meat for slaughter, live weight, converted into carcass equivalent. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for sheep and goat meat (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-21: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

### ***V. Market price differential at the farm gate***

China is a net importer of sheep meat over the period 1993-2021. As imports are very different from those produced in the country, the unit value of imports was not considered reliable and other relevant border prices could not be identified. As tariffs represent the main policy applied, the MPD is estimated using China's simple average import MFN tariff on sheep meat, both fresh or frozen (HS 0204) for the period 1993-2021.

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

As during the whole period China has been net importer of sheep meat, China's import MFN tariff on sheep meat, both fresh or frozen (HS 0204), has been used as an estimation of the MPD [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 25% until 2009, 16% in 2010 and 22.1% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 2.8% since 2011 [2]. However, import tariff has been applied as a proxy for price gap during the whole period (see above for the definition of the reference price), thus no margins are employed; No quality adjustments.

Sources: [1] WITS TRAINS tariffs database; China Customs Statistical Yearbook, Customs General Administration of China (CGAC); [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

## **13. Eggs**

### ***I. Level of production***

Total production of eggs in the shell, including chicken, duck and goose eggs, converted into tonnes using the coefficient 1 egg = 55 grams.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

### ***II. Producer prices (at farm gate)***

The farm gate price is the weighted average sale price received by farmers. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for eggs (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

### ***IV. Trade status***

For the period 1993-21: Net exported (NE).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

### ***V. Market price differential at the farm gate***

As no domestic nor trade price-related policies have been identified for the period 1993-2021, the MPD is considered to be zero over this period. However, as there is a negative impact of other price support policies that result in higher feed prices, the Market Price Support for eggs is overall negative.

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

F.o.b. export unit values of eggs in the shell [1].

Margins: Converted into tonnes using the coefficient 1 egg = 55 grams. Marketing margin (Farm gate - Wholesale) as % of farm gate price: 16% until 2009 and 12% since 2010. Transportation costs (Border – Wholesale) as % of border price: 4% for the whole period [2]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

### ***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: National Bureau of Statistics of China (NBSC).

## **14. Apples**

### ***I. Level of production***

Total domestic production of apples.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

## ***II. Producer prices (at farm gate)***

Nationally representative weighted average farm gate price of all types of apples.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press (2021 data is estimated using the agriculture production price index for 2021 provided by Chinese experts).

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

Level of production (I) times Producer prices (II).

## ***IV. Trade status***

For the period 1993-21: Net exporter (NE).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

As no domestic nor trade price-related policies have been identified for the period 1993-2021, the MPD is considered to be zero over this period.

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

F.o.b. export unit values of apples, fresh (HS 0808.10) [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 55% until 2010 and 45% since 2011. Transportation costs (Border - Wholesale) as % of border price: 10% for the whole period [2]; No quality adjustments applied.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).

## **15. Fruit and vegetables\_Imp**

### ***I. Level of production***

The level of production is not available, the value of production for the group of “imported fruit and vegetables” has been estimated (see III).

Source: Not applicable.

### ***II. Producer prices (at farm gate)***

Producer prices for imported fruit and vegetables are not available, the value of production for the group of “imported fruit and vegetables” is estimated (III).

Source: Not applicable.

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

The value of production for the group of “imported fruit and vegetables” has been estimated as neither prices nor quantities produced were available. Data until 2008 represents estimates based on UN Comtrade trade data and FAOSTAT for value of production. Estimates from national sources are available from 2009 onwards. The estimation of the share of imported fruit and vegetables in the value of production was done in three steps: (1) First, the share of fruit and vegetables in the total value of agricultural production (crops and livestock) was identified based on the National Bureau of Statistics of China Rural Statistical Yearbook and discussions with Chinese experts (this represents around 34% in 2019-21, excluding apples which represent about 2%) [1]; (2) Second, the repartition of the fruit and vegetables produced in China that are imported and exported was identified. Using data based on UN Comtrade until 2008 and national estimates based on the Ministry of Agriculture and Rural Affairs (MARA) from 2009 onwards, the imported ones were identified on the basis of the annual net trade position for individual fruit and vegetables for which trade data exist (these include the following: grapes; mangoes, mangosteens guavas; plums and sloes; bananas; walnuts with shell; tropical fruit, fresh n.e.s.; lemons and limes; oranges; peas, dry; pineapples; cassava; dates; pistachios; cherries; coconuts; almonds with shell; hazelnuts with shell; chick peas; cashew nuts with shell; figs) [2]. Then, the value of production of each imported fruit or vegetable was based on FAOSTAT database until 2008 and national estimates using the Ministry of Agriculture and Rural Affairs (MARA) data from 2009 onwards in order to estimate the share of the total value of production of imported fruit and vegetables in the total fruit and vegetables produced (around 14% in 2019-21) [3]; (3) Last, this share was related to the share of total value of fruit and vegetables produced in China as estimated in (1) based on national sources, in order to obtain the share of the group of imported fruit and vegetables in the total value of production [estimated to represent around 4.8% (i.e. 14% of 34%) of the total value of agricultural production in 2019-21]. Both changes in the balance of trade for fruit and vegetables and changes in their relative importance in the total value of production have been reflected to the best extent possible in MPS calculations for the imported and exported groups for the whole period 1993-2021.

Source: [1] China Rural Statistical Yearbook, National Bureau of Statistics of China (NBSC) and discussions with Chinese experts; [2] UN Comtrade database, United Nations for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009

onwards; [3] Agricultural production data, FAOSTAT for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009 onwards.

#### ***IV. Trade status***

The group of “imported fruit and vegetables” has been identified on the basis of the annual net trade position for individual fruit and vegetables for which trade data at the level of 6 digits exist in UN Comtrade until 2009 and from 2009 onwards estimates are available from the Ministry of Agriculture and Rural Affairs data as well as based on discussions with Chinese experts. This group includes fruit and vegetables produced in China that are net imported (NI). Both changes in the balance of trade for fruit and vegetables and changes in their relative importance in the total value of production have been reflected in MPS calculations for the imported and exported groups for the whole period 1993-2021.

Source: UN Comtrade database, United Nations for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009 onwards.

#### ***V. Market price differential at the farm gate***

As for imported fruit and vegetables tariffs have been identified as the only policy instrument protecting the domestic market, the simple average Multi-favoured Nation (MFN) tariff for this group has been applied for the estimation of the price gap for the whole group. Specific MFN tariffs for the individual imported fruit and vegetables were extracted from the WITS TRAINS database for the whole period 1993-2021.

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

Not applicable – the MFN import tariff has been applied as a proxy for price gap during the whole period.

Margins: not applicable – the MFN import tariff has been applied as a proxy for price gap during the whole period. No quality adjustments made.

Sources: not applicable.

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

Level of consumption not available, the value of consumption for the group of “imported fruit and vegetables” has been estimated for the whole period 1993-2021 (see IX).

Source: not applicable.

#### ***VIII. Consumption prices (at farm gate)***

Consumption prices not available, the value of consumption for the group of “imported fruit and vegetables” has been estimated for the whole period 1993-2021 (see IX).

Source: not applicable.

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

Based on discussions with Chinese experts, this has been estimated at 105% of the value of production for the whole period 1993-2021.

Source: Interviews with Chinese experts.

## **16. Fruit and vegetables\_EXP**

### ***I. Level of production***

The level of production is not available, the value of production for the group of “exported fruit and vegetables” has been estimated for the whole period 1993-2021 (see III).

Source: not applicable.

### ***II. Producer prices (at farm gate)***

Producer prices for exported fruit and vegetables are not available, the value of production for the group of “exported fruit and vegetables” is estimated for the whole period (III).

Source: not applicable.

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

The value of production for the group of “exported fruit and vegetables” has been estimated as neither prices nor quantities produced were available. Data until 2008 is using estimates based on UN Comtrade trade data and FAOSTAT for value of production. Estimates from national sources are available from 2009 onwards. The estimation of the share of imported fruit and vegetables in the value of production was done in three steps: (1) First, the share of fruit and vegetables in the total value of agricultural production (crops and livestock) was identified based on the National Bureau of Statistics of China Rural Statistical Yearbook and discussions with Chinese experts (this represents around 34% in 2019-21, excluding apples which represent about 2%) [1]; (2) Second, the repartition of the fruit and vegetables produced in China that are imported and exported was identified. Using data based on UN Comtrade until 2008 and national estimates based on the Ministry of Agriculture and Rural Affairs (MARA) from 2009 onwards, the exported ones were identified on the basis of the annual net trade position for individual fruit and vegetables for which trade data exist [2]. Then, the value of production of each exported fruit or vegetable was searched in the FAOSTAT database until 2008 and from 2009 onwards national estimates based on the Ministry of Agriculture and Rural Affairs (MARA) in order to estimate the share of the total value of production of exported fruit and vegetables in the total fruit and vegetables produced (around 86% in 2019-21) [3]; (3) Last, this share was related to share of the total value of fruit and vegetables produced in China as estimated in (1) based on national sources, in order to obtain the share of the group of exported fruit and vegetables in the total value of production [estimated to represent around 29% (i.e. 86% of 34%) of the total value of agricultural production in 2019-21 (excluding apples)]. Both changes in the balance of trade for fruit and vegetables and changes in their relative importance in the total value of production have been reflected to the best extent possible in MPS calculations for the imported and exported groups for the whole period 1993-2021.

Source: [1] China Rural Statistical Yearbook, National Bureau of Statistics of China (NBSC) and discussions with Chinese experts; [2] UN Comtrade database, United Nations for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009 onwards; [3] Agricultural production data, FAOSTAT for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009 onwards.

### ***IV. Trade status***

The group of “exported fruit and vegetables” has been identified on the basis of the annual net trade position for individual fruit and vegetables for which trade data at the level of 6 digits exist in UN Comtrade



until 2009 and estimates are available from the Ministry of Agriculture and Rural Affairs data as well as discussions with Chinese experts from 2009 onwards. This group includes fruit and vegetables produced in China that are net exported (NE). Both changes in the balance of trade for fruit and vegetables and changes in their relative importance in the total value of production have been reflected in MPS calculations for these the imported and exported groups for the whole period 1993-2021.

Source: UN Comtrade database, United Nations for data until 2008; Ministry of Agriculture and Rural Affairs national estimates and discussions with Chinese experts for data from 2009 onwards.

#### ***V. Market price differential at the farm gate***

As for exported fruit and vegetables no particular price support or tax policies have been identified, the price gap for this group has been set at zero for the whole period 1993-2021.

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

Not applicable, the price gap has been set at zero for the whole period 1993-2021.

Margins: not applicable, import tariff has been applied as a proxy for price gap during the whole period. No quality adjustments made.

Sources: not applicable.

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

Level of consumption not available, the value of consumption for the group of “exported fruit and vegetables” has been estimated for the whole period 1993-2021 (see IX).

Source: not applicable.

#### ***VIII. Consumption prices (at farm gate)***

Consumption prices not available, the value of consumption for the group of “exported fruit and vegetables” has been estimated for the whole period 1993-2021 (see IX).

Source: not applicable.

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

Based on discussions with Chinese experts, this has been estimated at 95% of the value of production for the whole period 1993-2021.

Source: Interviews with Chinese experts.

### **17. Cotton**

#### ***I. Level of production***

Total production of cotton lint.

Source: China Statistical Yearbook; National data, National Bureau of Statistics of China (NBSC).

## ***II. Producer prices (at farm gate)***

Weighted average farm gate price of cotton lint in the province of Xinjiang, the most important province in terms of cotton production in China. The 2021 preliminary estimate is the price in 2020 multiplied by the 2021 average Producer Price Index for cotton (average based on quarterly price indices) from the National Bureau of Statistics of China.

Source: National Development and Reform Commission (NDRC), A Collection of References on Cost Benefit of National Agro-Products, China Price Press; Producer Price Indices for Farm Products from National data, National Bureau of Statistics of China.

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

Level of production (I) times Producer prices (II).

## ***IV. Trade status***

For the period 1993-2021: Net importer (NI).

Source: China Customs Statistical Yearbook, Customs General Administration of China (CGAC).

## ***V. Market price differential at the farm gate***

Due to domestic and border price-related policies in place, the MPD is calculated based on the price gap for the period 1993-2021: difference between the Producer price (at farm gate) and the Reference price (at farm gate).

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

C.i.f. import unit values, cotton, not carded or combed (HS 5201.00) [1].

Margins: Marketing margin (Farm gate - Wholesale) as % of farm gate price: 28% until 2009, 15% in 2010 and 18.2% since 2011. Transportation costs (Border – Wholesale) as % of border price: 4% until 2010 and 2.5% since 2011 [2]; No quality adjustments.

Sources: [1] China Customs Statistical Yearbook, Customs General Administration of China (CGAC); UN Comtrade database, United Nations; [2] Interviews with business representatives, traders and commodity experts in China.

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

Total domestic use during the calendar year [total production plus imports minus exports minus change in stocks (where change in stocks = stocks in the current year minus stocks in the previous year)].

Source: National Bureau of Statistics of China (NBSC).

## ***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: National Bureau of Statistics of China (NBSC).